Hidden Waters Parkway North Corridor Feasibility Study: Interstate 10 to State Route 74

Final-Work Plan

Prepared For:

Prepared By:

eps group, Inc.
Engineers, Planners & Surveyors

April 2011

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Abbreviations

Arizona Department of Water Resources	ADWR
Arizona Public Service	APS
Arizona State Land Department	ASLD
Bureau of Land Management	BLM
Central Arizona Project	CAP
Environmental Overview	EO
Flood Control District of Maricopa County	FCDMC
Geographic Information System	GIS
Maricopa Association of Governments	MAG
Maricopa County Department of Transportation	MCDOT
Master Planned Community	MPC
Salt River Project	SRP
State Route	SR
Technical Advisory Committee	TAC
Western Area Power Authority	WAPA

1.0 Introduction

1.1 Background

The Interstate-10/Hassayampa Valley Roadway Framework Study (Hassayampa Framework Study) is a transportation planning document completed by the Maricopa Association of Governments (MAG) in 2007 that identified a comprehensive roadway network to meet future traffic demands in northwest Maricopa County. The roadway network recommended by the Hassayampa Framework Study is comprised of freeways, parkways and major arterial roads. The Hidden Waters Parkway is identified as a necessary, higher-capacity roadway to serve future developments west of the White Tank Mountains. The Hidden Waters Parkway North Corridor Feasibility Study was commissioned by the Maricopa County Department of Transportation (MCDOT) in response to this identified need.

1.2 Problem Statement

The proposed Hidden Valley Parkway corridor passes adjacent to or through several entitled Master Plan Communities (MPC), which include Hassayampa Ranch, Belmont and Douglas Ranch. At buildout, it is estimated that these communities will contain over 150,000 dwelling units. The need for a high-capacity parkway within the Hidden Waters Corridor is based upon projected development as identified in the Hassayampa Valley Framework Study and is linked directly to the development of the previously mentioned MPC. It is important to identify a recommended alignment for the Hidden Waters Parkway during the planning stages of the proposed MPC to ensure that adequate right-of-way can be preserved for the future parkway corridor.

The purpose of the Hidden Waters Parkway North Study is to document conditions along the parkway corridor, identify potential fatal flaws and develop an alignment alternative that meets the future traffic needs identified in the Hassayampa Framework Study. The recommended alternative should ensure the safety/future level of service of the parkway and establish a roadway footprint that may be used as a guide for local agencies and development for the corridor. Recommendations to implement roadway improvements will also be prepared as a part of this study.

2.0 Study Area Definition/Project Understanding

The project study area includes the northern section of the Hidden Waters Parkway, as shown on the Hassayampa Framework Study, from Interstate 10 (I-10) north to the future alignment of State Route 74 (SR74). The study area is approximately 28 miles long and two miles wide (approximately one mile each side of the alignment as shown in the Hassayampa Framework Study) except in the area from Northern Avenue to Bell Road were the study area expands to two miles west of the alignment and from the south end of Douglas Ranch to Patton Road were the study area expands to two miles east of the alignment for a total of three miles wide in these two areas (refer to Figure 2-1 for graphic depiction of study area).

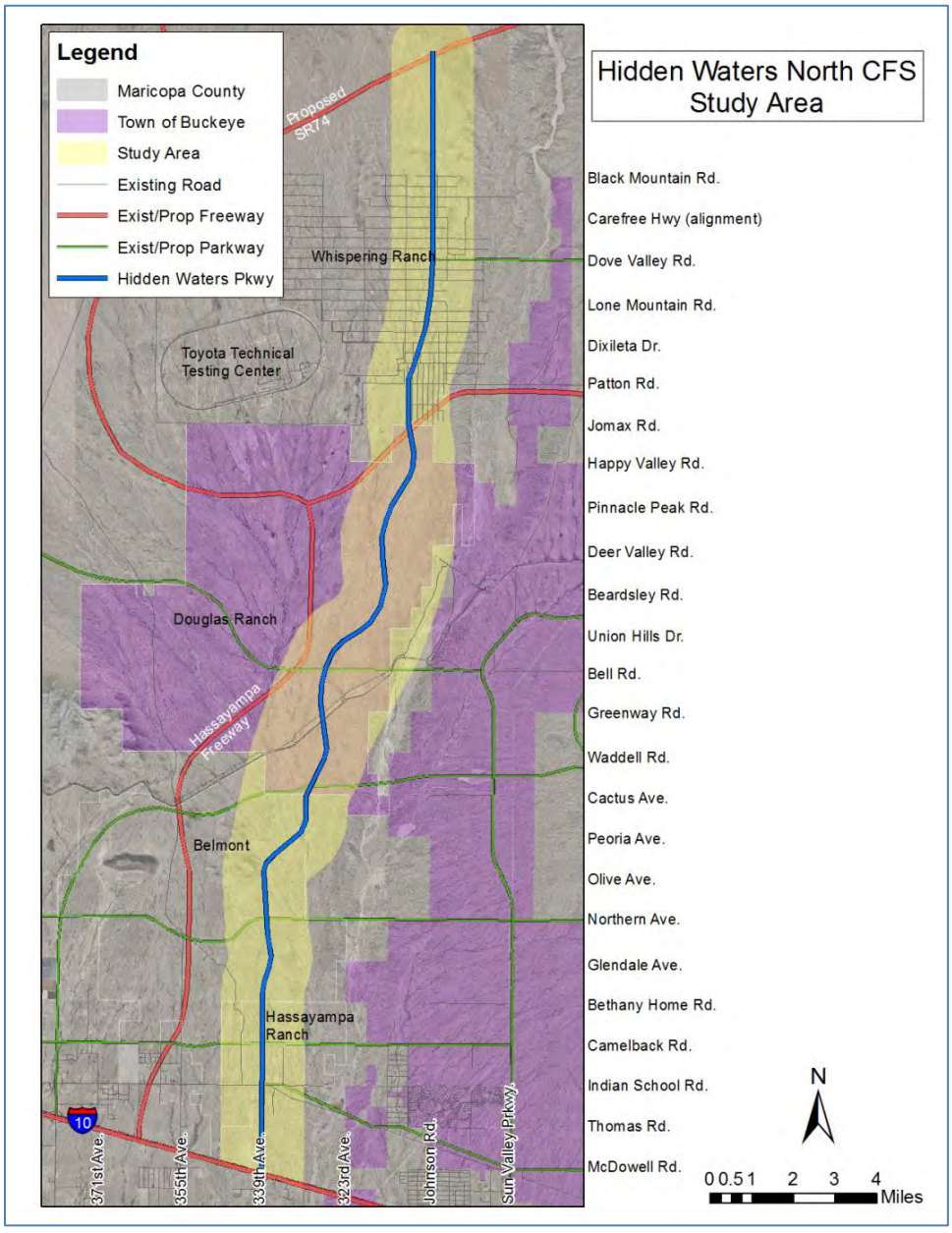

Figure 2-1 Hidden Waters Parkway North Study Area

In order to develop feasible parkway alignments, the existing conditions of the study corridor will be documented and future conditions forecasted to make well founded recommendations that address corridor needs. This background information will include a description of the existing roadway and right-of-way conditions. Available data, including GIS files from Maricopa County, MAG, Bureau of Land Management (BLM), and others will be assembled and documented. Roadway improvement projects programmed for design and/or construction will be identified.

Land use planning will be considered when generating feasible alignments for the Hidden Waters Parkway. Existing land ownership and zoning will be documented, and proposed developments (with their anticipated timelines) identified. This information will be gathered through a review of existing mapping and development plans. Aerial photography and a field review will be used to validate the existing land use research. A comprehensive planning framework for the study corridor will be established by reviewing the general plan documents from the affected municipalities and jurisdictions.

Arizona Blue Stake will be contacted to identify potential conflicts between existing/proposed utilities and future corridor improvements during the planning stage of the Hidden Waters Parkway Study. This information will be used to evaluate corridor alternatives and to determine which alignments are feasible.

A separate traffic analysis will not be completed with this corridor feasibility study. Instead, the results of the Hassayampa Framework Study will serve as the basis for the recommended roadway network.

An environmental overview will describe the existing environment and identify potential areas of concern. This overview will document cultural resources by performing a search of existing field survey records. Potential hazardous material sites will be identified via a records search and field investigation. The environmental overview will also address impacts to threatened species/critical habitats, water/air quality, socioeconomic characteristics and noise impacts.

A drainage overview will summarize the existing drainage studies that have been performed within the area. This overview will identify the key off-site concentration points with their respective flow magnitudes in order to estimate the types of cross-drainage structures that may be required for the proposed parkway alignments. Appropriate personnel from the local municipalities/jurisdictions will be consulted to identify past drainage problem areas.

3.0 Key Issues

The intent of this study is to identify an alignment that is acceptable to MCDOT, major landowners/ developers, the Town of Buckeye, Arizona State Land Department (ASLD), Bureau of Land Management (BLM), and major utility providers thus establishing a roadway footprint that can guide the planning efforts in this high growth-potential area. In order to achieve this objective, it is important to have an understanding of the key issues and opportunities that exist within the study corridor. The key issues that have been identified are illustrated in Figure 3-1 and are described in the following sections.

3.1 Existing/Proposed Development

As the primary driver of this corridor project, planned development will strongly influence the project goal of establishing a viable alignment for the Hidden Waters Parkway. There are several MPC within the Hidden Waters Parkway North study corridor; each has a different idea of what is appropriate regarding land use and transportation facility plans. For example Figure 3-1 highlights locations where the circulation elements from Hassayampa Ranch, Douglas Ranch, and Belmont differ from what was proposed in the Hassayampa Framework Study roadway network. It will be important to consider the approved circulation documents of the MPC when developing potential parkway alignments.

The Whispering Ranch development is an existing community that was platted in 1965 (See Figure 3-1) and is comprised mainly of large residential parcels (5 acres) throughout undeveloped subdivisions (i.e. no water, sewer, or roadway improvements were constructed). This development falls within unincorporated areas of Maricopa County. This development is sparsely populated with the residents that prefer a rural, isolated lifestyle. It will be important to limit the impacts to existing residents of the Whispering Ranch community when developing potential parkway alignments.

In addition to the MPC, ASLD has developed land plans and/or has zoned most of its holdings in the project corridor. Although not a developer in name, ASLD is certainly like a developer in its ideology of trying to maximize the land value. It will be important to involve ASLD in the alignment development process to ensure that their interests are preserved.

The BLM owns property adjacent to the corridor between the Northern and Cactus Avenue alignments and in the northern two miles of the study corridor. Proposed Parkway alignments should be sensitive to BLM's objectives which are often driven by environmental and resources oriented goals.

Another key landowner/stakeholder is the Toyota Motor Corporation. They operate a vehicle testing center in the north part of the study corridor. Confidentiality is important to the Toyota Technical Testing Center operations. Toyota representatives have requested that their privacy requirements be considered when developing potential parkway alternatives by avoiding alignments that create an unobstructed view of their internal testing facilities. Toyota considers its proving grounds to be a 100-year operating facility.

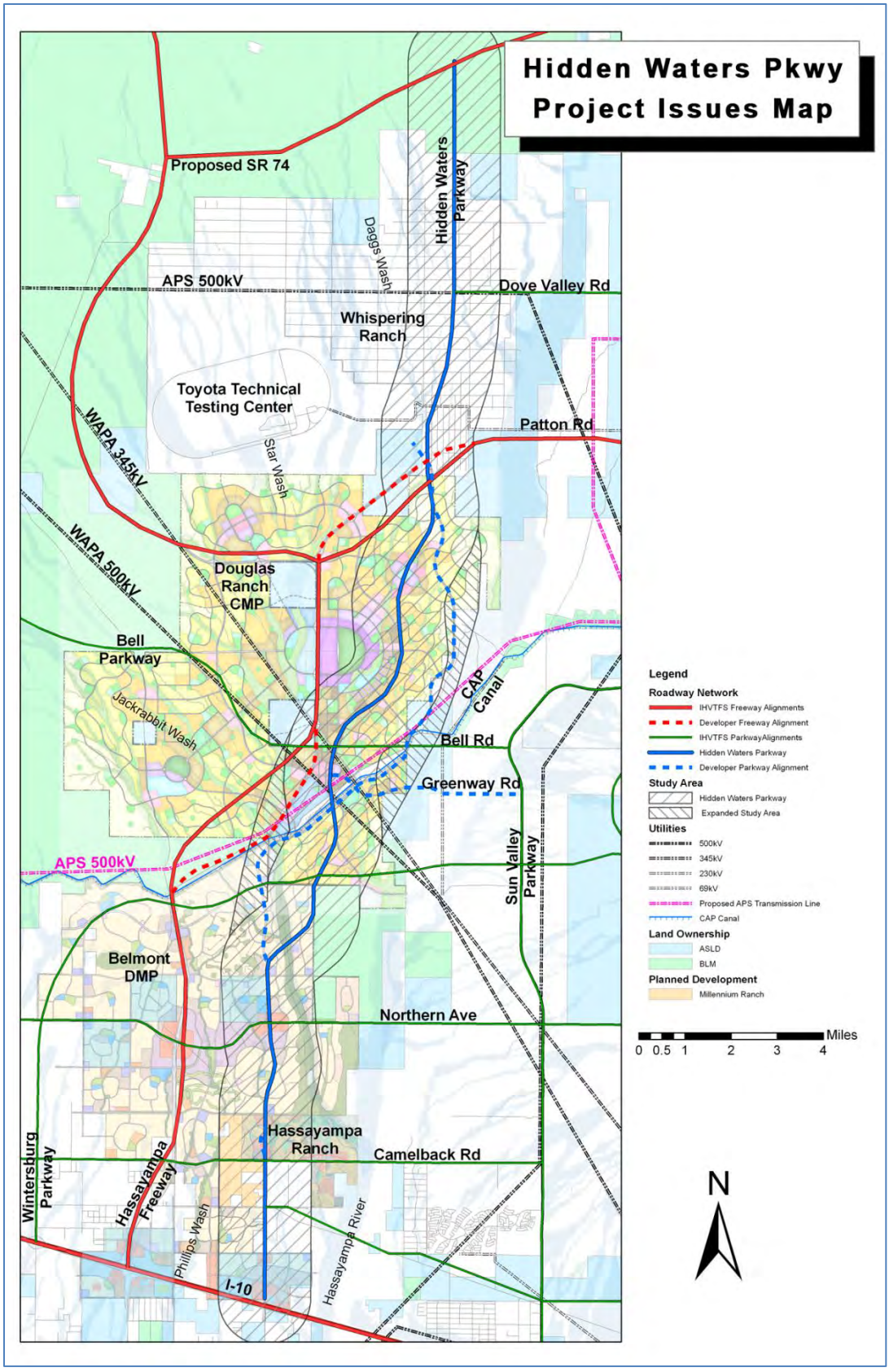

Figure 3-1 Hidden Waters Parkway North Project Issues Map

3.2 Drainage

The Hidden Waters Corridor crosses numerous well defined tributary washes that generally run from north to south. As such, there are many opportunities to reduce structure costs and minimize floodplain impacts by developing landform-sensitive alignments that minimize the number and length of potential drainage crossings.

Numerous ephemeral washes and several major drainages, including Jackrabbit Wash, Daggs Wash and Star Wash are likely to be considered Waters of the United States. Efficient corridor alignments could also reduce the amount of permitting that is required, by limiting the number of jurisdictional Waters of the US that are crossed.

3.3 Utilities

There are a number of large utility corridors that have the potential to affect alignment alternatives. Those of major significance include a WAPA 345 kV power transmission line, the WAPA 500 kV transmission line, the APS 500 kV power transmission line and the proposed APS high voltage transmission line (all as shown on Figure 3-1). The existing CAP Canal is another significant utility corridor that will affect the parkway alignment. The greatest utility constraint likely occurs at the location where the WAPA 345 kV transmission line and the WAPA 500 kV transmission line are converging (approximately 1/2 mile separation) at the crossing of the CAP canal. Review of aerial photographs indicate that transmission towers are likely in direct conflict with the proposed 200' wide parkway corridor proposed as part of the Belmont DMP.

3.4 Environmental

A preliminary review of the study area indicates that there is potentially suitable habitat present for state-listed species such as the western burrowing owl and the lesser long nosed bat. The northern portion of the study corridor also passes through BLM-designated Category 2 and Category 3 desert tortoise habitats. It will be important to identify potential locations for wildlife crossings associated with long-term wildlife movement corridors and to coordinate with the Arizona Game and Fish Department (AGFD) to obtain their input during the development of strategies for addressing habitat connectivity.

Cultural resource research will be compiled from several sources including MCDOT, the State Historic Preservation Office, the National Register Information Systems database, and AZSITE, the state's electronic inventory of cultural resources. Although cultural field reviews will not be included in the scope of this feasibility study, previous research would indicate a great potential for discovering a high density of prehistoric sites. The data compiled from the Environmental Overview (EO) will be used to map and avoid any known environmental "fatal flaws" within the corridor.

A review of the Arizona Department of Water Resources (ADWR) Well Registry identified over 50 ground water wells in the project corridor. Alternative corridors should be developed to avoid or limit impact to these water resources.

4.0 Study Goals and Objectives

The primary objectives of the Hidden Waters Parkway North Study as defined by the project scope are to: (1) clearly define and assess the project study area for strategic issues identification; (2) develop and evaluate candidate alignments within the corridor study area; (3) recommend a preferred alignment; and (4) subsequently define the characteristics of the preferred alignment in greater detail. This study is the first step in the development process and is meant to aid the governing bodies in protecting a continuous corridor in this area.

In addition to these objectives, several other goals/objectives were discussed by project stakeholders during the Project Scoping Workshop (see Appendix A for the Project Scoping Workshop Report). Some of the additional topics that were discussed include:

- Ensure that connectivity is established throughout the corridor.
- Refer to the Hassayampa Framework Study to identify key east-west roadway connections.
- Maintain consistency with ongoing and existing corridor studies.
- Consider the proposed parkway interchange locations of the ongoing Northern Parkway, McDowell Parkway, and I-11 corridor studies.
- Consider the approved master plan circulation elements of proposed developments. Verify that the proposed master plan parkway alignments meet the intent of the MAG framework study.
- Review existing documentation/databases to identify any potential environmental fatal flaws. Consider important wildlife linkage zones when developing parkway alignment alternatives.
- Consider accessibility to, and avoid creating undevelopable remnant parcels on ASLD land.
- Consider alternatives that minimize roadway development costs.
- Limit negative impacts to the Whispering Ranch community. Consider the potential impacts of parcel splits when developing alternatives.
- Be sensitive to the Toyota Technical Testing Center's request for privacy when developing potential parkway alternatives.
- Document the existing corridor characteristics to identify opportunities and constraints that may affect roadway alignments. Identify and address any planning level issues prior to the initiation of project programming and engineering design.
- Develop a recommend implementation plan.

5.0 Study Process and Approach

The Hidden Waters Parkway North Study will be divided into two phases (see figure 5-1). Phase I is the planning portion of the study. During this phase, technical memoranda will be prepared that address parkway corridor features including environmental and drainage overviews.

During the second phase of the study, candidate parkway alternatives will be developed based upon the findings of Phase I. These alternatives will be objectively evaluated to select a recommended alignment for further refinement. Preliminary design drawings will be generated to better evaluate the right-of-way and to identify probable drainage facilities. Phase II will also include a recommended implementation plan for the proposed parkway improvements

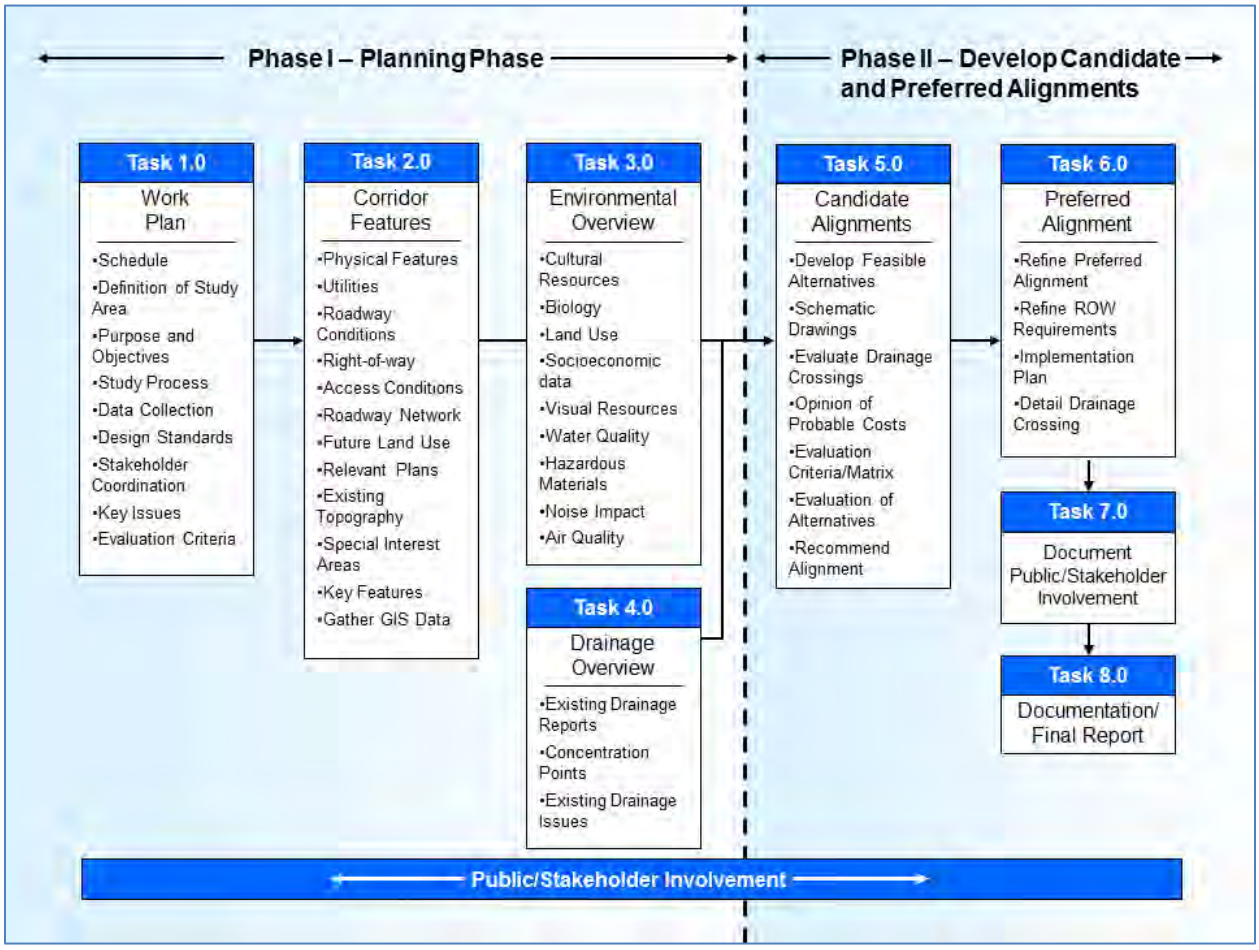

Figure 5-1 Study process

5.1 Data Collection Plan

This study will utilize existing documentation and relevant studies to identify potential opportunities and constraints within the study area. GIS data, including recent aerial imagery, has been requested from the Flood Control District of Maricopa County (FCDMC) and MAG. The Hassayampa Valley Roadway Framework Study, AZ parkway design guidelines, and other applicable studies will be obtained from MAG and MCDOT. Copies of the Town of Buckeye General Plan and Draft Transportation Master Plan will be obtained from the Town of Buckeye. Existing utility providers within the study area will be identified by contacting AZ Blue-Stake. Developer Stakeholders (El Dorado Holdings, LKY Development, Harvard Investments, etc.) will be contacted directly for copies of their most recent development master plan circulation elements. will be consulted for relevant, adjacent corridor feasibility studies. Maricopa Planning and Development and the Town of Buckeye will be contacted for the most recent land entitlements.

5.2 Future Technical Memorandums

This work plan will be followed by six additional technical memorandums.

- Technical Memorandum No. 1 – Existing and Future Corridor Features
- Technical Memorandum No. 2 – Environmental Overview
- Technical Memorandum No. 3 – Conceptual Drainage Report
- Technical Memorandum No. 4 – Candidate Alternatives and Evaluation
- Technical Memorandum No. 5 – Preferred Alignment
- Technical Memorandum No. 6 – Public and Stakeholder Participation

These memoranda will address the topics illustrated in Figure 5-1 as the study progresses. At the end of this corridor feasibility study, the findings of each technical memo will be summarized in a final report.

5.3 Quality Control

All of the described technical memorandum as well as the final feasibility study will be subject to EPS's written quality control plan (see Appendix C).

5.4 Project Schedule

Figure 5-2 presents a project schedule for the Hidden Waters Parkway North Corridor Feasibility Study. The study is scheduled to be completed January 31, 2012, approximately one year from the notice to proceed.

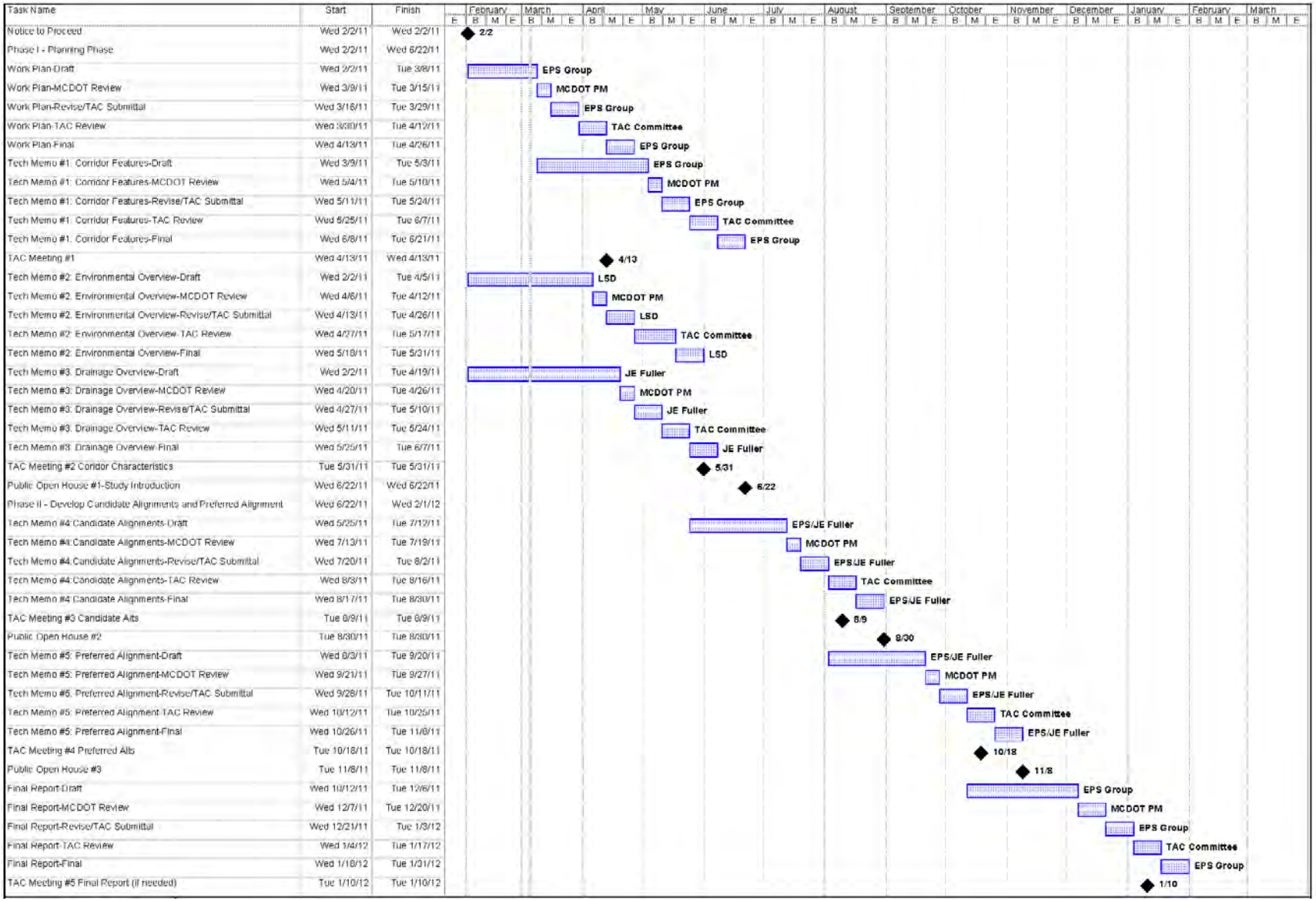

Figure 5-2 Project Schedule

6.0 Relevant Studies and Guidelines

Several relevant transportation studies and design guideline documents will be referenced throughout the course of the corridor feasibility study. Some of the studies include the following:

- Interstate 10-Hassayampa Valley Roadway Framework Study, MAG, September 2007
    - This study was completed to develop a recommended roadway network that will provide access throughout northwest Maricopa County and preserve the interstate functionality of I-10.
    - This study identified the need for the Hidden Waters Parkway between I-10 and SR 74.
- Town of Buckeye General Plan, Town of Buckeye, January 2008.
    - The Town's General Plan document is intended to serve as a blueprint for development within their community.
    - The Town's General Plan makes recommendations for appropriate land uses within Town limits.
- Town of Buckeye Preliminary Transportation Master Plan, Town of Buckeye, December 2009.
    - (Progress on this document is ongoing.) This document supports the Town's General Plan by defining the needed roadway network within the Town of Buckeye.
- Hassayampa Framework Study for the Wickenburg Area, MAG, ongoing.
    - This is an ongoing transportation framework study for the region north of the Interstate 10-Hassayampa Valley Roadway Framework Study.
- Interstate 8 and 10: Hidden Valley Transportation Framework Study, MAG, October 2009
    - This study was completed to develop a recommended roadway network that will provide access throughout southwest Maricopa County and preserve the interstate functionality of I-10. The study area extends from the Gila Mountains to Casa Grande, generally between I10 and I8.

There are also several design guidelines that will be referenced throughout the course of the study.

- Design Guideline Recommendations for the Arizona Parkway, MCDOT, August 2008
    - This document identifies various elements necessary to design an Arizona Parkway such as; cross-section features, design speed, vehicles, access management and other geometric design standards.

- Arizona Parkway Intersection/Interchange Operational Analysis and Design Concepts Study, MCDOT, August 2009.
    - This study analyzed different parkway intersection geometrics and makes recommendations for the appropriate type of intersections throughout the entire Hassayampa Valley Roadway Framework study area.
- Freeway to Parkway Interchange Template, ADOT, October 2010.
- MCDOT Roadway Design Manual, Revised April 2004, MCDOT, April 2004.
    - This document details the standardized roadway design guidelines that are to be used within Maricopa County.

7.0 Public and Stakeholder Involvement

Building consensus between MCDOT, local agencies, jurisdictions, key stakeholders and the public is vital to the success of the Hidden Waters Parkway North Study. A Technical Advisory Committee (TAC) will be established to solicit feedback from partnering agencies and key stakeholders at multiple stages of the corridor study. Potential members of the technical advisory committee are as follows: Maricopa County (Transportation and Planning, Traffic, Design, Planning and Development), Flood Control District of Maricopa County, Town of Buckeye, MAG, Arizona Department of Transportation (ADOT), ASLD, Arizona Game and Fish, BLM, Toyota Technical Testing Center, utility providers (SRP, APS, WAPA), Developers (El Dorado Holdings, LKY Holdings, Harvard Investments) and select private land owners. It is the responsibility of MCDOT to finalize the committee members (See Appendix B for TAC contact information). The TAC will meet up to five times over the course of the study to review progress and provide direction. Three of the TAC meetings will be held prior to the public open houses.

Up to ten study-coordination meetings will be held with the affected agencies and jurisdictions, principal land developers, private property owners, and utility companies as needed to understand concerns and establish consensus.

Input from the public will be solicited on three separate occasions. The first of these meetings will be a Public Scoping Meeting. It will be held during the planning phase to allow TAC members to inform the public of the intent of the study and gather feedback. The second open house will be used to present the alternative alignment options and the evaluation criteria to the public. At the third public meeting, TAC members will present the recommended alignment to the public.

8.0 Criteria for Evaluation of Alternatives

The alignment alternatives will be objectively reviewed based upon defined evaluation criteria. These criteria may include but are not limited to:

- Affected Parcels
- Consistency with approved Development/MPC Plans
- Additional Right of Way Required (sf/acre)
- Estimated Right of Way Cost
- Buildings Affected
- Constructability Issues
- Engineering Complexity
- Environmental Issues
- Potential Utility Conflicts
- Public Acceptability
- Functionality

As the study progresses, these criteria will be further refined as additional information becomes available. Each alignment will be qualitatively scored based upon the evaluation criteria, and the results will be reviewed by the TAC to determine which alignment/alignments should be carried forward to preliminary design.

8.1 Performance Measures

In addition to the alternative evaluation criteria identified in the previous section, the corridor study will be assessed by the following performance measures:

- Has the purpose for the project been adequately been met?
- Have all of the stakeholders' concerns/issues been addressed/mitigated?
- Are the identified key issues satisfied by the study recommendations?

Appendix A

- Hidden Waters Parkway: Interstate 10 to SR74 Project # TT005 Corridor Feasibility Study Scoping Report

Hidden Waters Parkway: Interstate 10 to SR74 Project # TT005 Corridor Feasibility Study Final Report

Presented by:

RH & Associates, Inc.
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Project Partners

Arizona Game & Fish Department

Arizona State Land Department

Belmont - LKY Development Company, Inc.

El Dorado Holdings – Douglas Ranch

EPS Group

Logan Simpson Design

Maricopa Association of Governments

Maricopa Department of Transportation

Snell & Wilmer – Toyota Technical Testing Center

Town of Buckeye

Toyota Technical Center

WVSV

F I N A L R E P O R T
MEETING DATE: November 1st, 2010
Project #: 1025107.96

Facilitator: Renee Hoekstra

Attendees

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Hidden Waters Parkway:
Interstate 10 to State Route 74
Corridor Feasibility Study Scoping Session
Agenda
November 1, 2010
8:00 a.m. – 12:00 p.m.

Welcome & Introductions – Denise Lacey

Review Scoping Process – Renee Hoekstra

Project Understanding

- Define Corridor Improvement Study
- Study Area
- Project Overview (purpose & need)
- Project Goals/Expectations/Objectives
- Identify Project issues/constraints
- Discuss Planning Budget & Expectations

Introduce Technical Advisory Committee (TAC) Members

Identify TAC Role

Phase I – Corridor Study Area Planning Evaluation Overview – Denise Lacey

Phase II – Candidate Alternatives and Preferred Alignment Overview – Denise Lacey

Break *(Excuse Stakeholders)*

Work Plan Development

Tech Memo 1 – Existing and Future Corridor Features Analysis

Tech Memo 2 – Environmental Overview

Tech Memo 3 – Drainage Overview

Tech Memo 4 – Development and Evaluation of Candidate Alternatives

Technical Memorandum #5 - Preferred Alignment

- Drawings
- Design Guidelines
- Implementation Plan
- Planning Level Cost Estimates

Agenda (cont'd)

Meetings
- TAC Meetings
- Study Meetings
- Public Open Houses

Stakeholder & Public Participation

Project Management Tasks
- Quality Control
- Reporting
- Scheduling
- Report Standards
- Deliverables

Additional Work, as Directed

Finalize Level of Effort

Next Steps
- Final Scope
- Schedule Fee Negotiations Meeting
- Notice to Proceed Schedule

Project Goals

Project Purpose:
Preserve the right-of-way and connectivity, while providing a guiding document for future development.

Project Need:
Follow-up on recommendations from Hassayampa Study of moving traffic into the future.

Study Goals & Expectations:
The project team members discussed the various aspects of the project and agreed on the following goals that support the success of this planning effort.

- **Consider the approved alignments - -** Douglas Ranch & Belmont
  - Maintain existing approved alignments
  - Verify the existing information to ensure they meet the intent of the MAG study
- **Identification of future studies**
- **Consider the impact to Toyota relative to confidentiality issues at the Proving Grounds**
  - Avoid view points that allow sight into the Proving Grounds
  - Toyota views this as a 100-year facility, i.e. land use
- **Alignment with Belmont Development at Peoria**
- **Establish connectivity through the corridor**
- **Alignment considerations with ADOT tie ins**
  - Parkway to Freeway connections
- **Review and identify environmental fatal flaws**
- **Use the Hassayampa framework study related to east west connections**
- **Consider access points on state lands**
  - Avoid leaving land undevelopable
- **Wildlife Connectivity/Linkage**
- **Minimize Roadway Development Costs**
- **Maintain/Limit Negative Impact to Whispering Ranch**
  - Be cognizant of parcel splits and impacts
- **Collaboration with Other On-going Studies (MAG, MCDOT, FCDMC, ADOT)**
  - Interchange at Northern
  - McDowell
  - I-11 Corridor (kicks off January 2011)
- **Consistency with Existing Corridor Studies**

Expectations, Roles and Responsibilities

- Five meetings over 12 months
- Invite stakeholders to attend TAC meetings for informational purposes only
- Technical memo 1will be sent out to all stakeholders
  - Need to have responses from all stakeholders on this Memo
  - This needs to included comments on the land-use and utilities
- Other reviews of the Technical Memos is up to each stakeholder to decide whether or not they have the technical expertise to provide comments
  - Buckeye responds to all Technical Memos
- FTP site will be used for all Technical Memos
  - EPS to send out notifications
  - All comments go back to EPS with a copy to Denise Lacey
- Renew assessors maps for developers east of Douglas Ranch to include as a stakeholder

TAC Members

This is an initial list of TAC and contacts should be determined for those stakeholders where none is identified.

Type	First Name	Last Name	Title	Company	E-mail	Phone
Technical Review Members						
Government	Denise	Lacey	Senior Planner	MCDOT	deniselacey@mail.maricopa.gov	602-506-6172
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Government	Hugh	Davidson	Environmental Planner	MCDOT	hughdavidson@mail.maricopa.gov	602-506-8082
Government	Tom	Sonnemanm	Structures	MCDOT	TomSonnemann@mail.maricopa.gov	602-506-8625
Government	Wayne	Butch	Utilities	MCDOT	WayneButch@mail.maricopa.gov	602-506-8603
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Government	Al	Kattan	Project Management	MCDOT	AlKattan@mail.maricopa.gov	602-506-4618
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Government	Valerie	Swick	Project Manager	Flood Control District	vas@mail.maricopa.gov	602-506-2929
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Technical Advisory Members						
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Developer	Chris	Cacheris		Havard Investments/ Hassay	Chriscacheris@havardinvestments.com	480-348-1118
						480-951-1281
Developer	Bill	Ring	Project Manager	LKY Holdings/Bellmont	ringeraz@yahoo.com	602-402-1716
Developer	Noel	Griemsmann	Senior Urban Planner	Snell & Wilmer/Toyota Tech	ngriemsmann@swlaw.com	602-382-6824
Developer/Government	Manny	Patel		ASLD	mpatel@land.az.gov	602-364-1595
Developer/Government	Ed	Dietrich	Senior Project Manager	ASLD	edietrich@land.az.gov	602-542-2653
Developer/Government	Gordon	Taylor	Planning and Engineering	ASLD	Gtaylor@land.az.gov	
Developer/Government	Mark	Edelman	Project Manager	ASLD	medelman@land.az.gov	602-542-6331
Developer/Government	Richard	Mayes	Project Manager	W Holdings	richardm@wholdings.com	480-831-2000
Government	Charla	Glendening	Project Manager	ADOT	cglendening@azdot.gov	602-712-7376
Government	Dana	Warnecke	Habitat Specialist	Arizona Game & Fish	dwarnecke@azgfd.gov	480-324-3547
Government	Troy	Smith	Habitat Program Manager	Arizona Game & Fish	trsmith@azgfd.gov	928-341-4068
Government	Jo Ann	Goodlow	Realty Specialist	BLM	joann_goodlow@blm.gov	623-580-5548
Government	Aaron	Ashcroft	Civil Engineer	Central Arizona Project	aashcroft@cap-az.com	623-869-2257
Government	Sharon	Gordon	Area 3 Engineer	FHWA	sharon.gordon@dot.gov	602-382-8972
Government	Jackie	Meck	Mayor	Town of Buckeye	jmeck@buckeyeaz.gov	623-349-6950
Government	Ray	Strauss	District 4 Councilmember	Town of Buckeye	rstrauss@buckeyeaz.gov	623-349-6949
Government	Stephen	Cleveland	Town Manager	Town of Buckeye	scleveland@buckeyeaz.gov	623-349-6099
Utilities	Bob	Bott		Arizona Public Service	robert.bott@aps.com	602-371-6255
Utilities	Phil	Hobday	APS Transmission	Arizona Public Service	phillip.hobday@aps.com	602-371-7047
Utilities	Bob	Garza	APS Distribution	Arizona Public Service	baldemar.garza@aps.com	602-371-7989
Utilities	Elijah	Lubandi	SRP Transmission	Salt River Project	elijah.lubandi@srpnet.com	602-236-3794/60
Utilities	John	Wood	SRP Distribution	Salt River Project	john.wood@srpnet.com	602-236-0452
Utilities	Steve	Lopez	SRP Transmission	Salt River Project	steven.lopez@srpnet.com	602-236-3786
Utilities	Paula	Atkins	SRP Transmission Maintenan	Salt River Project	paula.atkins@srpnet.com	602-818-0166 (ce
Utilities	Jessica	Herndon		Western Arizona Power Auth	Herndon@wapa.gov	602-605-2580
Utilities	Jo	Penunuri		Western Arizona Power Auth	penunuri@wapa.gov	602-605-2564

Issues/Information

These issues need to be considered for future action or provide information to the planning team on things to be considered.

1. TRAFFIC ANALYSIS REPORT FROM DOUGLAS RANCH AND BELMONT	
2. I-11 ADOT EIS IN JANUARY 2011	
3. WICKENBURG FRAMEWORK STUDY – FINAL APPROVAL 11/2010	
4. RESPONSIVE TO DRAINAGE IN THE AREA	
5. EXISTING AND PROPOSED UTILITY CORRIDORS	
6. CAP CANALS AND ACCESS	
7. APPROVED JURISDICTIONAL DELINEATIONS FROM BELMONT	
8. LACK OF ENVIRONMENTAL DOCUMENTATION/STUDIES IN THE AREA	
	• Phase I from Belmont is available
9. BLM/MARICOPA COUNTY REGIONAL PARK VULTURE MINE STUDY	
	• Study may have environmental information
10. GRAZING LESEES ON STATE LANDS	
	• Impacts to fencing requirements
11. APPROVED MASTER PLANS FOR EXISTING DEVELOPMENTS	
	• Identify and consider

Scope of Work

The scope of work elements for the design consultant was discussed and additional items or comments are included in the following document. It is the responsibility of the consultant to use these comments to determine their final scope and fees to be submitted to MCDOT.

MARICOPA COUNTY DEPARTMENT OF TRANSPORTATION

SCOPE OF WORK

CORRIDOR FEASIBILITY STUDY

Project Number TT005

Contract No.

Hidden Waters Parkway North: Interstate 10 to State Route 74

Contents

Study Overview

The Maricopa Association of Governments (MAG) prepared the Interstate 10/Hassayampa Valley Roadway Framework Study (Hassayampa Framework Study) that identified a comprehensive roadway network to meet traffic demands for the build out of the area west of the White Tank Mountains. This long range regional transportation study identifies the need for a roadway network consisting of freeways, parkways, and major arterial roads. The expectation in the Hassayampa Framework Study is that the parkways will be able to offer significantly greater travel capacity than that provided by the typical major urban arterial road seen in other parts of the region. Hidden Waters Parkway is one of the corridors recommended in the Hassayampa Framework Study as necessitating a higher capacity parkway cross-section.

Hidden Waters Parkway is a north south roadway recommended in the Hassayampa Framework Study. It is designated as a high-capacity facility utilizing the Michigan in-direct left turn intersection design concept and a 200-foot right-of-way cross section as set forth in the Arizona Parkway Design Guidelines. The purpose and need for this corridor was confirmed during the MAG study process. Thus, the primary focus of this study is right-of-way preservation by identifying opportunities and constraints (fatal flaws) within the two mile wide study area (one mile on each side of the base alignment set forth in the Hassayampa Framework Study).

The project scope of work for the study includes the tasks necessary to prepare a corridor feasibility report for Hidden Waters Parkway North (Interstate 10 to State Route 74) that will provide Maricopa County Department of Transportation (MCDOT), the Town of Buckeye (Buckeye), area property owners, developers, and other stakeholders with a planning tool, for future growth and development, that preserves the 200-foot right-of-way required for the Arizona Parkway design. This will require significant coordination with various governing bodies, other public agencies, development interests, and the general public. This study is the first step in the development process and is meant to assist the governing bodies in protecting a continuous corridor that will develop as growth moves to the west.

Study Area

The project study area includes the northern section of the Hidden Waters Parkway, as shown on the Hassayampa Framework Study, from Interstate 10 north to the future alignment of State Route 74. The study area is approximately 28 miles long and is two miles wide (one mile each side of the alignment as shown on the Hassayampa Framework Study) except in the area from Northern Avenue to Bell Road were the study area expands to two miles west of the alignment and from the south end of Douglas Ranch to Patton Road were the study area expands to two miles east of the alignment for a total of three miles wide in these two areas (refer to exhibit for graphic depiction of study area).

Study Purpose

The primary objectives of the Corridor Feasibility Study are to: (1) clearly define and assess the project study area for strategic issues identification; (2) develop and evaluate candidate alignments within the corridor study area; (3) recommend a preferred alignment; and (4) subsequently define the characteristics of the preferred alignment in greater detail. This study is

the first step in the development process and is meant to aid the governing bodies in protecting a continuous corridor in this area.

Study Management

The study will be managed by MCDOT, Transportation Planning Division. The **Consultant** will perform the technical analyses as described in this scope of work. All work herein shall be completed within 365 calendar days after notice to proceed has been issued.

Coordination with Technical Advisory Committee

A Technical Advisory Committee (TAC) will be established to guide all aspects of the study. TAC members will be selected by their respective agencies and will apply planning and engineering expertise to the study. The TAC will meet with the MCDOT Project Manager and **Consultant**, as noted in the description of the following tasks, to participate in the scoping of the study, review study documents, and provide relevant input. TAC members will also serve as an important resource for data collection and in identifying additional stakeholders within their organizations or jurisdictions. A preliminary list of stakeholders and potential TAC members is included in Section 4.1.

Study Approach and Proposed Tasks

The **Consultant** will provide the planning and environmental services necessary for the preparation of a corridor feasibility study for Hidden Waters Parkway. This study will be conducted in two phases:

1. Phase I – Corridor Study Area Planning and Evaluation

This phase includes researching and gathering all existing and future study area features, assessing and evaluating the surrounding corridor conditions for issues identification, and preparing constraints and base maps that will allow the **Consultant** to make well-founded recommendations for possible corridor alignments within the study area. As part of this planning process the **Consultant** will work closely with staff and development interests in the affected jurisdictions, both individually and collectively, to form a broad consensus of the existing and future conditions. Based on the constraints and corridor conditions identified, conceptual alignments will be developed. The **Consultant** will develop an alignment comparison matrix that identifies the benefits and shortcomings of each alternative. The conceptual alignments will be developed only to the extent necessary to conduct a meaningful comparative fatal flaws analysis. As part of this process, the conceptual alignments will be evaluated for technical feasibility and public acceptability. Once the conceptual alignments have been screened (fatal flaw screening), the **Consultant** will recommend up to three alignments to be carried forward for further development and analysis in Phase II. The **Consultant** and MCDOT will conduct Public Open Houses at a convenient location(s) in the study area to present the candidate alignment analysis and obtain public input on the candidate alignments.

1.1. Development of Work Plan

Product: Work Plan

The **Consultant** will develop a 15-20 page Work Plan that will include:

- Schedule,
- Study area boundary,
- Study purpose and objectives,
- Study process and approach used to meet objectives,
- Data collection plan,
- Design standards and guidelines, (per; MCDOT standards regarding access principles, Arizona Parkway Guidelines, geometry, etc.)
- Stakeholder database,
- Key issues and challenges,
- Detailed study tasks,
- Criteria for the evaluation of alternatives,
- Scoping report summary, (as an attachment from RHA)
- Written quality assurance/quality control plan – including:
  - Checklists of items to be reviewed prior to each County submittal (including sub-consultant prepared materials),
  - Monthly quality progress reports,
  - Procedures for conducting QA/QC activities,
  - Person(s) responsible for QA/QC activities,
  - Sub consultant coordination and communication plan.

1.2. Existing and Future Corridor Features Analysis

Product: Technical Memorandum #1 – Existing and Future Corridor Features (including aerial maps illustrating the base conditions/constraints)

The **Consultant** will collect, analyze, map, and document (including dates) existing data relevant to the corridor feasibility study area. Both corridor characteristics and roadway conditions will need to be assessed. The **Consultant** shall also obtain, and utilize as appropriate, existing information/documentation from recent/relevant studies such as: I-10/Hassayampa Valley Roadway Framework Study, Town of Buckeye General Plans, Area Drainage Master Plans (ADMPs), Developer Master Plan Circulation Elements, available master plan circulation documents, and other recent reports/analysis to supplement this collection effort. All information and analysis will be documented in the *Existing and Future Corridor Features Technical Memorandum #1*.

At a minimum, the following features will be included in this section:

1.2.1. ***Physical Features*** (natural and human made) of Study Area such as:

- Drainage features (floodplains, washes, rivers and alluvial fans) and structures (channels, dikes, bridges, dams),
- Irrigation canals,

- Topography from existing sources,
- Facilities (airfields, power plants, waste water plants etc.),
- Existing and planned utilities (above/below ground) – including:
  - Identification and mapping of major existing and planned utilities (including private wells) and utility owners within the corridor
  - Identification and documentation of potential conflicts between utilities and future corridor improvements,
- Recreation trails, parks/areas, greenup areas, and clear zones.

1.2.2. ***Existing Corridor Roadway Conditions*** – Using existing available data, the **Consultant** will document the existing roadways including alignment, ADT, roadway width, lanes, surface type, existing pavement condition ratings, year constructed, horizontal/vertical alignment, intersection configurations, traffic control, and right-of-way.

1.2.3. **Existing Approved Access Conditions and Policies/Guidelines** that address:

- Land access – driveways,
- Median openings and intersections/interchanges.

1.2.4. ***Existing and Future Roadway Network Information*** within the study area, including at a minimum:

- Future functional classification to be used is an Arizona Parkway,
- MCDOT will provide Parkway configurations,
- Road improvements programmed as under design or under construction,
- Transportation networks, circulation elements, and site plans from DMPs/CMP's, General Plans, MCDOT plans/studies, and other regional/area studies as available,
- If applicable, traffic reports and impact studies conducted by land developers should be reviewed,
- Travel demand 2030 and build-out projections from the I-10/Hassayampa Valley Roadway Framework Study (use for implementation plan or phasing plan only). The **Consultant** will request modeling results from MCDOT and MCDOT will work closely with MAG through the formal request process to acquire modeling results from their regional travel demand model and provide this information to the **Consultant**. No additional traffic modeling or analysis is required.

1.2.5. ***Land Use, Jurisdictional Control, Ownership, and Management*** including at a minimum:

- Property boundaries from County Assessor's maps, the Town of Buckeye, and other jurisdictional agencies,
- Existing land use and ownership including:

- Identifying, analyzing, and mapping the information on current land ownership and land uses per the County Assessor's data within the corridor feasibility study area,
- Description of the existing land uses identifying the approximate percentage of land within the project area that is in agricultural, commercial, industrial, residential, and similar uses,

- Large commercial or industrial enterprises and public facilities shall be identified by name and current use,
- Existing zoning classifications and descriptions,
- Town of Buckeye and Maricopa County General Plans,
- Proposed future land uses per adopted County or local government plans,
- Potential and actual rezoning requests currently being processed by the County or other local governmental agencies,
- Significant traffic generators or attractors,
- Jurisdictional maps,
- Zoning maps,
- Comprehensive list of approved Community Master Plans and identification of:
  - Name of the development,
  - Name of developer and contact person,
  - Date of approval,
  - Date of any amendments,
  - Number of existing and entitled dwelling units,
  - Acreage and entitled square footage for commercial and industrial development,
  - Approved land use and circulation maps.

1.2.6. ***Relevant Plans, Reports, Guidelines, Studies and Standards –*** These existing documents may be available from Developers, the Town of Buckeye, MAG, Arizona Game & Fish, Maricopa County, etc.

1.2.7. ***Existing Topography/Mapping*** to be used shall be from the Flood Control District of Maricopa County (10-foot contours shall be used when available). Additional mapping may be obtained from the Maricopa County Assessor.

1.2.8. ***Identification of Special Interest Areas*** – These may include areas where additional right-of-way may be required for drainage improvements, large cuts/fill, major utilities, crossing the CAP canal, Whispering Ranch, freeway crossings, or areas where reduced right-of-way may be necessary. The extent of the evaluation will focus on preliminary identification of the special interest areas and not additional detailed evaluation.

1.3. Environmental Overview

Product: Technical Memorandum #2 – Environmental Overview

The purpose of the Environmental Overview (EO) is to describe the existing environment within the project area and to identify any documented potential problem areas (fatal flaws) that may be attributed to transportation improvements or potential issues that impact candidate alternative alignment development or selection. This analysis will address all of the major environmental disciplines and a review of all appropriate resources. Data obtained and evaluated under this task will be used in both Phases of this study and the dates of all reports used shall be documented. Some of this information will be gathered early in the project to assist Technical Memorandum #1 as needed.

The **Consultant** will perform the following tasks and provide the appropriate documentation in the EO:

1.3.1. Cultural Resources

- Records review from the Arizona State Museum, State Historic Preservation Office (SHPO), AZSITE, Bureau of Land Management (BLM) general land office (GLO) maps and other databases or resources for known historic and archaeological resources present in the study area – a bibliography of resources will be developed, including dates of documents,
- No consultation or Class I Inventory Report will be prepared,
- A windshield field review will occur.

1.3.2. Biology

- Conduct a records review and consultation with appropriate federal and state agencies of the project area to determine the potential for encountering threatened, endangered, or proposed endangered species and designated critical habitats for federal, United States Fish and Wildlife Service (USFWS) and BLM, and state, Arizona Game and Fish Department (AZGFD), listed species and to gain information about the physical environment, including plant communities, native plant occurrences, topography, sensitive species habitat, and wildlife crossing corridors/linkage zones,
- A windshield field review will occur.

1.3.3. Land Use/Socioeconomic/Visual Quality

- Collect data and research the land use, socioeconomic, and visual quality for the project area, including population, employment, prime or unique agricultural farm land, and other socioeconomic characteristics,
- Review potential Section 4(f) of the U.S. Department of Transportation Act 1966, BLM, and Section 6(f) of the Land and Water Conservation Fund Act resources identified in existing databases.

1.3.4. Water Quality

- Coordinate with Arizona Department of Water Resources to identify known well sites within the study area,

- Research and identify any water quality issues for the project, including identification of potential jurisdictional waters (JDs) and permit needs,
- A jurisdictional delineation will not be completed, However, completed existing jurisdictional delineations shall be identified,
- Make reasonable effort to obtain documents available from previously approved JDs and Section 404/401 permitting through developer actions,

1.3.5. Hazardous Materials

- Obtain a regulatory database report to determine the potential for hazardous materials that may adversely affect the project area,
- A windshield field review will occur.

1.3.6. Noise Impacts

- Preliminary qualitative evaluation of potential noise impacts/potential receptors,
- No measurement or modeling will be conducted.

1.3.7. Air Quality

- Preliminary evaluation for compliance with national standards, including Mobile Source Air Toxins (MSATS) and impacts to regional non-attainment areas,
- No measurement or modeling will be conducted.

1.3.8. Documentation

- Develop an environmental constraints map,
- Format the EO as a separate document for easy future reference,
- The EO will be notated to clearly state that it reports and summarizes existing documents and dates, to the extent they are available, and that new studies were not conducted.

1.4. Drainage Overview

Product: Technical Memorandum #3 – Conceptual Drainage Report

The **Consultant** will prepare a Drainage Overview Report for the corridor feasibility study area using existing available studies and data, from Flood Control District of Maricopa County (FCDMC), Arizona State Land Department (ASLD), Town of Buckeye, MCDOT, Arizona Department of Water Resources (ADWR), Central Arizona Project (CAP) and developers, as well as limited field review, and existing mapping and hydrology/hydraulics. Data obtained and evaluations conducted under this task will be used in both Phases of this study. The **Consultant** will:

- Obtain and Review Existing Reports including:
    - FCDMC Area Drainage Master Studies (ADMS) and Area Drainage Master Plans (ADMP) that address drainage conditions along the corridor,

- CAP drainage studies that address drainage conditions along within or adjacent to the corridor. Arizona Department of Transportation (ADOT) drainage studies that address drainage conditions adjacent to the corridor (I-10),
- Research, identify, and summarize other relevant information from Federal Emergency Management Agency (FEMA), FCDMC, and municipalities,
- ADWR groundwater level mapping (most current mapping), including known fissures,
- Regional context flood and geomorphic hazard maps based on existing floodplain reports and geologic mapping within and adjacent to the corridor.

- Determine the existing off-site concentration points and flow magnitudes for the 100-year storm event using existing data and studies (the determination will be based on simple area/graphic interpolations).
- Where necessary, use regional regression equations to calculate the drainage flows affecting the study (hydrologic modeling is not included in this scope of work).
- Contact appropriate personnel from MCDOT, FCDMC, Town of Buckeye, ADWR and Arizona Geological Survey to identify and summarize past drainage problems, subsidence and fissure areas.

2. Phase II – Develop Candidate Alignments and Preferred Alignment

In this phase, based on the issues and constraints identified in Phase I, the **Consultant** will develop candidate alignments. Layout of these alignments will be based on a minimum corridor right-of-way width of 200-feet. Right-of-way requirements associated with parkway-to-parkway and parkway-to-freeway interchanges will also be indentified based on the latest design guidelines developed by MCDOT and ADOT. Using information acquired in the previous tasks, the **Consultant** will develop and evaluate in more detail the candidate alignments for the Hidden Waters Parkway Corridor. The **Consultant** will identify a framework of evaluation criteria that will be presented to the Technical Advisory Committee) TAC for review. Using the framework, the **Consultant** will prepare an alternatives evaluation matrix. Based upon the evaluation, the **Consultant** will recommend a preferred alignment to be carried forward for further refinement. The **Consultant** and MCDOT will jointly conduct Public Open Houses at a convenient location(s) in the study area to present the candidate alignments study and preferred alignment recommendations.

2.1. Development and Evaluation of Candidate Alignments

Product: Technical Memorandum #4 –Candidate Alignments and Evaluation

Based on evaluation of the candidate alignments (fatal flaw in Phase I), the **Consultant** will carry out a more detailed analysis of the no-build alternative and up to three candidate alignments. This analysis will address engineering feasibility, environmental compatibility, economic viability, compliance with Title VI of the Civil

Rights Act of 1964, community concerns, and order of magnitude cost estimates. The development and evaluation of alignments will include the following:

2.1.1. Schematic Drawings - For each of the alignments, the Consultant will provide schematic drawings of the plan view (1" = 1,000' scale) of the alignment superimposed on aerial photography and printed on 11" x 17" paper. The drawings will include proposed right-of-way centerlines and envelopes.

2.1.2. **Flow Concentration Points:** For the three candidate alignments, identify, qualitatively consider, and document the proposed flow concentration points by providing a graphic map showing the locations of the concentration points **and existing calculated flow rates**.(?)

2.1.3. Preliminary Cost Estimates - Planning-level order-of-magnitude cost estimates will be developed for each of the alternatives based only on the full build-out of 8 lanes. The County will provide typical cost items and unit costs.

2.1.4. Evaluation of Final Candidate Alignments - The **Consultant** will document the evaluation of up to three candidate alignments in Technical Memorandum #4. One of the three alternatives will be as shown in the Hassayampa Valley Framework Study. The analysis will include a matrix documenting the various evaluation factors used in determining the preferred alignment, including information obtained through public outreach.

2.2. Detailed Preferred Alignment

Product: Technical Memorandum #5 –Preferred Alignment
Appendix A – Preferred Alignment Drawings

The **Consultant** will document, in detail, all information that has been gathered and evaluated in association with the preferred alignment in Technical Memorandum #4. Additional design features considered during the development and refinement (impact mitigation/alignment optimization) of the preferred alignment will be documented and depicted on the preferred alignment drawings. At a minimum, the drawings will include:

- Standard cross section,
- Plan view with corridor study centerline, right of way lines and drainage features shown on an aerial base map (1" = 200' scale unless otherwise directed) and printed on 11" x 17" paper,
- Potential areas requiring additional right-of-way (profile changes, parkway to parkway, parkway to freeway, roadway embankments, new drainage crossings, and realigned washes),
- Implementation Plan: The **Consultant** will recommend phasing and staging of appropriate corridor improvements based upon 2030 modeling according to a reasonable and constructible sequence. The implementation plan will also include recommendations for interim improvements. A revised cost estimate for the preferred alternative will need to be prepared for use in the implementation plan.

3. Project Meetings

3.1. Technical Advisory Committee (TAC) Meetings

The **Consultant** (typically the Consultant Project Manager plus two members of the consulting team, sub-consultants will attend only upon MCDOT approval) will participate in up to five (5) meetings with the TAC. These meetings will address:

- Project Initiation,
- Results of the data collection, assessment and evaluation of the corridor conditions to be used for issues identification and Conceptual Alignment Brainstorming,
- Alignment evaluation framework criteria and performance measures,
- Evaluation and analysis of candidate alignments (minimum two weeks prior to Public Open House #2),
- Recommendation of the preferred alignment (minimum two weeks prior to the Public Open House #3),
- The **Consultant** will:
  - Prepare and maintain the TAC database,
  - Prepare meeting invitations, agendas, sign-in sheets, handout materials, PowerPoint presentations (if applicable), and graphics/displays,
  - Meet with the MCDOT Project Manager, via phone call, two weeks before each TAC meeting (these will also serve as project progress meetings),
  - Conduct and attend (up to 4 consultant team members) the TAC meetings,
  - Prepare meeting summaries including documentation of decisions reached and task assignments,
- MCDOT will organize the committee, schedule meetings, participate in meetings, and communicate with the TAC as deemed appropriate by the MCDOT Project Manager.

3.2. Study Coordination Meetings

The **Consultant** will be responsible for up to ten (10) meetings with agencies, principal land developers, private property owners, and utility companies. These meetings will be conducted on an individual and/or group basis, as appropriate and as identified in Subsection 4.1 and will typically include the MCDOT Project Manager and two **Consultant** representatives.

4. Stakeholder Participation and Public Involvement

Product: Technical Memorandum #6 – Public and Stakeholder Participation

4.1. Stakeholders

The MCDOT Project Manager and the **Consultant** will meet with appropriate stakeholders to identify concerns, discuss relevant issues, gather input, and build

consensus. Meetings with these stakeholders will be conducted on an individual and/or group basis, as appropriate. A preliminary list of stakeholders and potential TAC members may include, but will not necessarily be limited to, representatives of the following organizations:

- Arizona Department of Transportation (ADOT)
- Arizona State Land Department (ASLD)
- Arizona Game and Fish Department
- Bureau of Land Management (BLM)
- Federal Highway Administration (FHWA)
- Flood Control District of Maricopa County (FCDMC)
- Maricopa Association of Governments (MAG)
- Maricopa County Department of Transportation (MCDOT)
  - Traffic
  - Right of way
  - Development Services
  - Utilities
  - Engineering
  - Public Information
  - Environmental
  - Cultural Resources
- Maricopa County Environmental Services
- Maricopa County Planning and Development
- Maricopa County Parks and Recreation
- Maricopa County Supervisor – District 4
- Town of Buckeye
- School District Representatives
- Maricopa County Farm Bureau
- Fire District Representatives
- Western Area Power Administration
- Major Utility Providers
  - Arizona Public Service (APS)
  - El Paso Natural Gas
  - Transwestern
  - Salt River Project (SRP)
  - Central Arizona Project (CAP)
- Land Developments
  - Belmont DMP (Belmont Partnership)

    - Douglas Ranch
    - Toyota Proving Grounds
- Private property owners and residents
- Area Businesses
- Community Groups
- Media
    - West Valley View
    - Buckeye Valley News

4.2. Public Involvement Program

As part of the comprehensive overall MCDOT RightRoads Program for public outreach the MCDOT Community Relations Branch has primary responsibility for all MCDOT public outreach efforts. However, **Consultant** involvement is crucial in the development and implementation of a comprehensive project specific outreach program for this study.

Program components will include strategies and specific approaches intended to involve and inform the public throughout the study process. It is anticipated that an iterative Public Involvement Process will be implemented in order to address community needs and objectives. Interactive public involvement meetings along with other public involvement methods may be used to gather public input and help facilitate public communication and education efforts throughout the project.

A tentative schedule of study phase public meetings and an assignment of responsibilities for both MCDOT and consulting staff shall also be prepared. The **Consultant** will contribute to this effort by participating with MCDOT staff in a preparation meeting prior to the each of the Public Open House meetings.

In general, MCDOT Community Relations staff will be responsible for:

- Producing materials such as display boards, advertisements, handouts, and questionnaires for public meetings, based on technical and/or graphical information provided by the **Consultant,**
- Scheduling and conducting public meetings and Public Open Houses,
- Contracting for meeting locations,
- Developing and mailing meeting notices,
- Placing newspaper ads,
- Preparing press releases,
- MCDOT Community Relations staff will prepare a detailed “Summary of Public Involvement” report that includes public and stakeholder comments collected at all public meetings, stakeholder meetings, and special purpose meetings and MCDOT responses. The Consultant will use this information to prepare Technical Memorandum #6 – Public and Stakeholder Participation.

In general the **Consultant** will be responsible for:

- Participation in the Public Open Houses (up to three **Consultant** team staff members) and
    - Participation in a pre-submittal briefing with the MCDOT Community Relations staff 21 calendar days before each Public Open House to discuss the necessary information that the Consultant will need to provide to MCDOT,
    - Providing all requested data to the MCDOT Community Relations staff 14 calendar days prior to the Public Open House, unless otherwise directed by the MCDOT Project Manager,
    - Participation in one review meeting to check the presentation materials a minimum of 5 calendar days before each Public Open House, if required by the MCDOT Project Manager.
- Providing technical information to the MCDOT Community Relations staff for use in display boards, roll plots, advertisements, handouts, questionnaires, and presentations,
- Preparing project renderings and detailed drawings to visually assist stakeholders to make informed decisions,
- Participating in and answering technical questions at all Public Open Houses,
- Identifying and maintaining a list of current contact information for stakeholders (public agencies, developers, etc.),
- Providing public meeting summaries to the MCDOT Community Relations staff for inclusion in the final public participation report prepared by the MCDOT Community Relations Branch,
- Providing meeting minutes for all pre-public meeting briefings,
- Summarizing the public involvement effort for inclusion in the Final Report as Technical Memorandum *#6 – Public and Stakeholder Participation.*

4.2.1 Public Open House #1 – Introduction and Data Collection

Note –MCDOT Community Relations Staff has primary responsibility for this task

Public Open House #1 will be held to inform the public of the objectives of the study, introduce the Arizona Parkway concept, and provide area residents and other impacted stakeholders with an opportunity to inform project team members about the study area, issues and local transportation needs. This meeting will also provide project team members an opportunity to discuss and elicit feedback about the study purpose, goals and objectives.

The following initial study data will be presented:

- Study Location,
- Study Schedule,
- Study Background (Context),

- Study Purpose/Need,
- Study Goals/Objectives,
- Preliminary Study Issues and Challenge,
- Study Stakeholders ,
- Study Process/Approach.

4.2.2 Public Open House #2 – Evaluation of Candidate Alignments

Note –MCDOT Community Relations Staff has primary responsibility for this task

Open House #2 will be held to inform the public of progress made in the study, provide all base and constraints mapping, review the Arizona Parkway concept, review alignment evaluation criteria, present the candidate alignments, answer questions, and gather input that will assist in the further development and evaluation of the alignments and the selection of the preferred alignment.

The following updated study data shall be reviewed or presented:

- Study Location,
- Study Schedule,
- Study Background (Context),
- Study Purpose/Need,
- Study Goals/Objectives,
- Preliminary Study Issues and Challenges,
- Study Stakeholders,
- Study Process/Approach,
- Environmental Overview,
- Existing Condition Information,
- Drainage Overview,
- Candidate Alignments.

4.2.3 Public Open House #3 – Preferred Alignment

Note –MCDOT Community Relations Staff has primary responsibility for this task

Public Open House to inform the public of progress made in the study, present results of the candidate alignment evaluation process, the preferred alignment, answer questions, and gather input for use in the development of the final report.

5. Project Management, Reports, and Documentation

5.1. Project Management

Product – Progress Reports, Project Schedule, and Monthly Invoices

The **Consultant** will be responsible for providing project administration and management services in accordance with the general requirements for this project. The

Consultant will set up and maintain a project File Transfer Protocol (.ftp) site for project file transfers between the study team members.

Monthly Reports/Invoices – The **Consultant** will provide monthly progress reports, submit monthly invoices with Earned Value graphs, and provide oversight to ensure all deliverables are in compliance with this Scope of Work.

Project Schedule – The **Consultant** shall prepare, submit, and maintain an updated project work schedule in Gantt Chart (bar chart) form. The schedule shall identify key meeting, delivery, and review times. Each review time shall be shown as 21 days unless otherwise advised by the MCDOT Project Manager. The **Consultant** shall update the project schedule as necessary for it to accurately represent project progress and to realistically forecast scheduled submittals.

5.2. Corridor Study Schedule

The study schedule will be developed, and finalized upon notice to proceed, by the MCDOT Project Manager in consultation with the Consultant. Consultant shall provide updates to schedule as changes occur**.**

5.3. Documentation

Study Products – See below

5.3.1 Technical Memoranda

All reports and memoranda will include standard report covers developed by the **Consultant** and will be consistent for all documents. Draft technical memoranda will be provided in pdf format for review on the project ftp site. A Word Document, digital version, will be provided to the MCDOT Project Manager. The **Consultant** shall prepare and submit the following Draft and Final Technical Memoranda and meeting documentation:

- Work Plan
- Technical Memorandum #1 Existing and Future Corridor Features,
- Technical Memorandum #2 Environmental Overview,
- Technical Memorandum #3 Conceptual Drainage Report,
- Technical Memorandum #4 Candidate Alignments and Evaluation,
- Technical Memorandum #5 Preferred Alignment,
- Technical Memorandum #6 – Public and Stakeholder Participation,
- Summary of field reviews/meetings.

The **Consultant** will submit Tech Memos in the following manner:

- Draft Technical Memoranda: Upload to the ftp site
- Final Technical Memoranda: Two copies, spiral bound, sealed

5.3.2 Draft Final and Final Report Format

The Consultant will prepare the corridor Draft and Final Reports in general conformance with the following outline:

- Title Page,
- Table of Contents,
- List of Figures,
- List of Tables,
- Executive Summary
  - Study purpose,
  - Brief description of alignment alternatives, including the preferred alignment evaluation matrix,
  - Brief description of the preferred alignment, planning level estimated costs, phasing strategy, and general access management guidelines if applicable,
  - Map(s) depicting the candidate alignment alternatives and the preferred alignment,
  - Considerations for Future Development,
- Existing and future corridor features, including:
  - Corridor Characteristics (natural/man-made),
  - Roadway Features,
  - Transportation Network/Travel Demand,
  - Utilities /Constraints mapping,
  - Land Use, Ownership and Management,
  - Environmental summary,
  - Drainage summary,
  - Special Analysis Areas,
  - Relevant Plans/Reports and Guidelines,
- Development and Evaluation of Candidate Alignments
  - Candidate Alignments and Evaluation Matrix,
  - Alignment Schematic Drawings,
  - Conclusions and Recommendations.
- Preferred Alignment
  - Standard cross-section,
  - Design Features,
  - General Access management guidelines if applicable,

- Planning-level cost estimates,
- Phasing Strategy/Implementation Plan,
- Preferred Alignment Drawings,
- Right of way needs,
- Public Involvement Overview (provided by MCDOT).

Appendices

The following will be included as appendices of the final report:

- Technical Memorandum #1 Existing and Future Corridor Features
- Technical Memorandum #2 Environmental Overview
- Technical Memorandum #3 Conceptual Drainage Report
- Technical Memorandum #4 Candidate Alignments and Evaluation
- Technical Memorandum #5 Preferred Alignment
- Technical Memorandum #6 – Public and Stakeholder Participation
- Summary of field reviews/meetings

The Consultant will submit the Final Report in the following manner:

- Draft Final Report: Upload to ftp site
- Final Report and Appendices: Five copies, spiral bound, and 15 CD-ROMs with final report and appendices..

Note: The entire report - including text, photos, drawings, tables, maps, appendices and hand calculations -- shall be provided to MCDOT as one Acrobat Reader (.PDF) formatted file on a compact disk or DVD, suitable for publishing on the MCDOT website. The **Consultant** will prepare and consolidate project-related data obtained or collected during the course of the project in GIS layers, the Preferred Alternative shape file shall be labeled “Preferred Alternative”.. Additionally, plans will be prepared in MicroStation (V8) format and be re-submitted separately from the entire report on a second compact disk or DVD. Digital photographs shall be provided to MCDOT in electronic format. Electronic files shall be submitted on compact disk, DVD, or 100 MB zip disks.

5.4 Special Analysis Areas (Up to three areas)

Candidate Alternatives may require options for detailing special analysis areas such as future parkway/parkway and parkway/freeway connections, drainage crossings, alluvial fan crossings, or environmentally sensitive areas. These options will identify issues, alternatives, potential benefits, and any potential fatal flaws. The specific scope and effort required for each special analysis are will be determined in consultation with the MCDOT Project Manager.

Project Budget:
$500,000

Project Schedule:
12 months

Study Area:

Douglas Ranch may not fit Hassayampa Framework Study purpose and need
- There is a close proximity to the freeway
- Belmont wouldn't cooperate
- Had to match jurisdictional lines

Evaluation Criteria to include:
- Functionality - MAG to define this criteria item

Site Visit with the team to include the environmental subconsultant to walk the site

MCDOT – to provide parcel data, etc., parks for northern portion
FCDMC – Aerial mapping available
EPS – Research and get information from Section/Township, Developments, Buckeye, utilities (Blue Stake), i.e. Millennium Ranch. All available studies which impact this study, include the McDowell Study

Schedule

Final Scope – 11/18/2010:
- Scope of work
- Fee schedule

Notice to Proceed – 2/2/2011

Appendix B

- TAC Contact information

Type	First Name	Last Name	Title	Company	E-mail	Phone	Address	City	State	Zip
Technical Review Members										
Government	Valerie	Swick	Project Manager	Flood Control District	vas@mail.maricopa.gov	602-506-2929	2801 W. Durango St.	Phoenix	AZ	85009
Government	Tim	Strow	Planner	MAG	tstrow@mag.maricopa.gov	602-254-6300	302 N. 1st. Avenue	Phoenix	AZ	85003
Government	Wayne	Butch	Utilities	MCDOT	WayneButch@mail.maricopa.gov	602-506-8603	2901 W. Durango St.	Phoenix	AZ	85009
Government	Roberta	Crowe	PIO	MCDOT	robertacrowe@mail.maricopa.gov	602-506-8003	2901 W. Durango St.	Phoenix	AZ	85009
Government	Hugh	Davidson	Environmental Planner	MCDOT	hughdavidson@mail.maricopa.gov	602-506-8082	2901 W. Durango St.	Phoenix	AZ	85009
Government	Al	Kattan	Project Management	MCDOT	AlKattan@mail.maricopa.gov	602-506-4618	2901 W. Durango St.	Phoenix	AZ	85009
Government	Denise	Lacey	Senior Planner	MCDOT	deniselacey@mail.maricopa.gov	602-506-6172	2901 W. Durango St.	Phoenix	AZ	85009
Government	Joe	Pinto	Environmental Planner	MCDOT	joepinto@mail.maricopa.gov	602-506-8068	2901 W. Durango St.	Phoenix	AZ	85009
Government	Tom	Sonnemanm	Structures	MCDOT	TomSonnemann@mail.maricopa.gov	602-506-8625	2901 W. Durango St.	Phoenix	AZ	85009
Government	Nicolaas	Swart	Traffic	MCDOT	nicolaasswart@mail.maricopa.gov	602-506-0599	2901 W. Durango St.	Phoenix	AZ	85009
Government	Brian	Kulina	Associate Planner	Town of Buckeye	bkulina@buckeyeaz.gov	623-349-6210	530 E. Monroe	Buckeye	AZ	85326
Government	Woody	Scouten	Engineer	Town of Buckeye	woody@scoutten.com	4661x222	SUITE 310	Goodyear	AZ	85395
Technical Advisory Members										
Government	Charla	Glendening	Project Manager	ADOT	cglendening@azdot.gov	602-712-7376	206 S. 17th Ave.	Phoenix	AZ	85007
	Tab	Bommarito		Arizona Game & Fish	TBommarito@azgfd.gov					
Government	Dana	Warnecke	Habitat Specialist	Arizona Game & Fish	dwarnecke@azgfd.gov	480-324-3547	7200 E. University Dr.	Mesa	AZ	85207
Developer/Government	Ed	Dietrich	Senior Project Manager	ASLD	edietrich@land.az.gov	602-542-2653	1616 W. Adams	Phoenix	AZ	85007
Developer/Government	Mark	Edelman	Project Manager	ASLD	medelman@land.az.gov	602-542-6331	1616 W. Adams	Phoenix	AZ	85007
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Developer	Susan	Demmitt	Representative	Belmont	sdemmitt@beusgilbert.com	480-429-3064	4800 N. Scottsdale Rd, Ste 6000	Scottsdale	AZ	85251
Government	Jo Ann	Goodlow	Realty Specialist	BLM	joann_goodlow@blm.gov	623-580-5548	21605 N. 7th Ave.	Phoenix	AZ	85027
Government	Aaron	Ashcroft	Civil Engineer	Central Arizona Project	aashcroft@cap-az.com	623-869-2257	23636 N. 7th St.	Phoenix	AZ	85080
Developer	Linda	Chenney	Vice President	El Dorado Holdings/ Douglas	lcheney@eldoradoholdings.net	602-955-2424	426 N. 44th Street, Suite 100	Phoenix	AZ	85008
Developer	Michael	Cronin	Director of Entitlements	El Dorado Holdings/ Douglas	mcronin@eldoradoholdings.net	602-955-2424	426 N. 44th Street, Suite 100	Phoenix	AZ	85008
Developer	Jeff	Klem	Project Manager	Elliot Homes	j.klem@ellliotthomesaz.com	480-831-9200	1400 E. Southern Ave.	Tempe	AZ	85282
	Tom	Deitering		FHWA	tom.deitering@dot.gov	602-382-8971				
Developer	Chris	Cacheris		Havard Investments/ Hassay	Chriscacheris@harvardinvestments.com	480-348-1118	17700 N Pacesetter Way	Scottsdale	AZ	85255
Developer	Kimberley	Korp		Havard Investments/ Hassay	kimkorp@harvardinvestments.com	480-348-1118	17700 N Pacesetter Way	Scottsdale	AZ	85255
Resident	Joe	Liberty		Liberty Southwest Realty/Wh	JoeLiberty@cox.net	602-505-7675	4147 W Runion Dr.	Glendale	AZ	85308
Developer	Bill	Ring	Project Manager	LKY Holdings/Bellmont	ringeraz@yahoo.com	480-951-	5040 E. Shea Blvd.	Scottsdale	AZ	85254
Developer	Robyn	Calihan		LKY Holdings/Belmont	rcalihan@lkydev.com	480-951-1281	5040 E. Shea Blvd. #254	Scottsdale	Az	85254
Agricultural Community	Jeanette	Fish	Executive Director	Maricopa Co. Farm Bureau	mcfb@qwestoffice.net	601-437-1330	4001 E. Broadway Rd.	Phoenix	AZ	85040
Developer	Noel	Griemsmann	Senior Urban Planner	Snell & Wilmer/Toyota Techr	ngriemsmann@swlaw.com	602-382-6824	One Arizona Center	Phoenix	AZ	85004
Government	Stephen	Cleveland	Town Manager	Town of Buckeye	scleveland@buckeyeaz.gov	623-349-6099	530 E. Monroe	Buckeye	AZ	85326
Government	Jackie	Meck	Mayor	Town of Buckeye	jmeck@buckeyeaz.gov	623-349-6950	530 E. Monroe	Buckeye	AZ	85326
Government	Ray	Strauss	District 4 Councilmember	Town of Buckeye	rstrauss@buckeyeaz.gov	623-349-6949	530 E. Monroe	Buckeye	AZ	85326
Developer/Government	Richard	Mayes	Project Manager	W Holdings	richardm@wholdings.com	480-831-2000	1121 W. Warner Rd., Ste 109	Tempe	AZ	85284
Developer/Government	Manny	Patel	Engineering		mpatel@land.az.gov	602-364-1596				
Utility Provider										
Utility Provider	Larry	Krueger	Line Siting	APS	Lawrence.Krueger@aps.com					
Utility Provider	Jim	Looney	Land Services	APS	James.Looney@aps.com					
Utility Provider	Craig	Stegmeier	Overhead System Design	APS	Craig.Stegmeier@aps.com					
Utility Provider	Bobby	Garza		APS Distribution	baldemar.garza@aps.com	602-371-7989				
Utility Provider	John	Wood		SRP - Distribution	john.wood@srpnet.com	602-236-0452				
Utility Provider	Steve	Lopez		SRP - Transmission	steven.lopez@srpnet.com	602-236-3786				
Utility Provider	Elijah	Lubandi		SRP - Transmission	elijah.lubandi@srpnet.com	602-236-3794				
Utility Provider	Paula	Atkins		SRP - Transmission Maintena	paula.atkins@srpnet.com	602-236-4885				
Utility Provider	Jessica	Herndon		WAPA	Herndon@wapa.gov	602-605-2580				
Utility Provider	Jo	Penunuri		WAPA	penunuri@wapa.gov	602-605-2564				

Appendix C

- EPS Quality Assurance Plan

HIDDEN WATERS PARKWAY CFS: QUALITY CONTROL PLAN

INTRODUCTION

EPS Group has prepared this quality assurance/quality control (QC) plan for the Hidden Waters Parkway Corridor Feasibility Study (CFS) to ensure that MCDOT's needs are efficiently met. We believe that quality is the responsibility of every individual working on a project and that it is achieved by careful planning and execution of a QC plan tailored specifically to the project.

The deliverables of the Hidden Waters Parkway CFS will be a series of technical memoranda that characterize the study corridor and document the alternative generation/selection process. The following procedures will be used to ensure that the highest quality documents are produced resulting in more streamlined review periods and increased client satisfaction.

RESPONSIBILITY AND AUTHORITY

The Project Principal has the responsibility to assure that the necessary personnel are available to work on the project. The Project Manager and the Project Engineer will be responsible for all of the design work and coordination that is performed on the project.

Every person working on any element of the project is responsible for the quality of their own work, to ensure that it is accurate, complete and meets the requirements of the project.

MONTHLY PROGRESS REPORTS

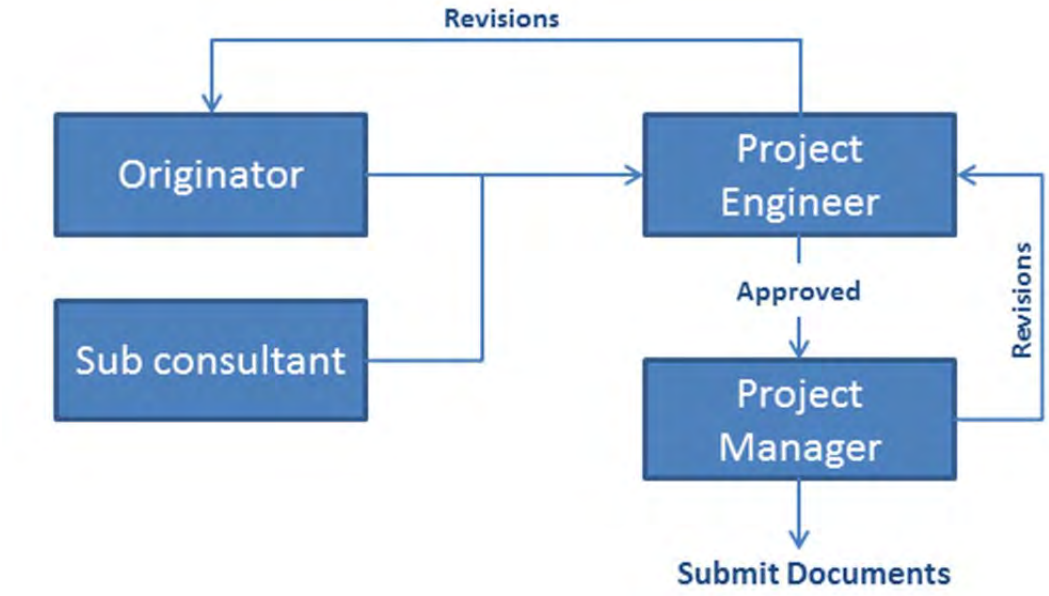
A progress report will be included with each monthly invoice submitted to MCDOT's Project Manager

PRODUCTION REVIEW PROCEDURES

As items or tasks are completed, the person completing the task should then go back and review the work by answering the following questions:

- ✓ Has all of the content specified in the scope of work been adequately addressed in the document? (Checklist will be generated specific to the project scope.)
- ✓ Is the information presented accurate and correct?
- ✓ Is it information consistent with the data presented in other reports?
- ✓ Is the document readable and does it follow a logical path to the conclusion?
- ✓ Are all of the graphics and tables readable and appropriately labeled?
- ✓ Does the report cover have the appropriate title, project number, client data, etc?
- ✓ Has the table of contents been reviewed for the correct section titles, figures, tables, appendices and page numbers?
- ✓ Have all spelling, grammar, and formatting errors been addressed.
- ✓ Is the task complete?

Once the originator is satisfied that all of the self-check questions have been addressed, the document will be forwarded to the Project Engineer. The Project Engineer will review the document by answering the same questions listed above, mark any needed changes in red, and return the document back to the originator for revision. Only when the originator and Project Engineer are satisfied that all necessary revisions have been made, will the Plan Documents will be forwarded to the Project Manager for review. The Plan Documents will be submitted to the Client only after approval by the Project Manager. This Quality Control Process is illustrated in the following flow chart.



EPS QUALITY CONTROL FLOW CHART

SUB-CONSULTANT COORDINATION AND COMMUNICATION

EPS will contact its sub-consultants on a weekly basis to ensure that progress is being made according to the project schedule. Sub-consultant reports will be subjected to the same QC review process described above before they are submitted to MCDOT.

TECHNICAL REVIEW

Where production reviews are for the verification of the accuracy and completeness of documents, a technical review is for the assessment of the overall design concept of the project. A technical review will be conducted by EPS, MCDOT and the Technical Advisory Committee. As a minimum, the technical review process should:

- Determine the adequacy of the process used to achieve the desired project goals
- Determine if all opportunities and constraints have been appropriately identified
- Determine if all viable alternatives have been considered
- Determine the practicality of the design concept
- Determine if legal and physical restraints were considered
- Determine if the design theory, concepts, and project layout are logical
- Determine if technical specifications are sufficiently comprehensive
- Determine the constructability of the selected design

DOCUMENT CONTROL

All documents shall be filed in accordance with the standard departmental filing system (modified to each project's scope). The engineer shall write the specific filing section on the document to be filed.

All communications, whether written or verbal, that concern the Scope of Work, contract conditions, regulatory agency information, etc., should be documented. Documentation should include written

verification of verbal conversation, parties to the communication, when it was received, who conveyed it and who received it. Specifically, communication should be handled in the following ways:

- All communication should be written and filed, including telephone logs.
- All written information entering or leaving the office should be copied to the Project Manager or Deputy Project Manager.
- Standard distribution lists should be developed for all communication.
- All calculations and design assumptions shall be documented and filed.
- One complete copy of each submittal should be filed, including plans, specifications, reports, estimates and calculations.
- Copies of all Client review comments shall be scanned and stored in the project electronic file.

REVIEW CHECKLISTS

Project documents shall be reviewed per the applicable checklists by the originator and the Project Engineer. Checklists used shall be Client specific and applicable to the project type. Project Managers may review the documents per the checklists but shall primarily determine compatibility with the project scope, compatibility to agreed design concepts, identify potential design conflicts, and assess constructability.

Specific checklists for the Hidden Waters CFS documents per the scope of work are as follows:

Work Plan

- ☐ Schedule,
- ☐ Study area boundary,
- ☐ Study purpose and objectives,
- ☐ Study process and approach used to meet objectives,
- ☐ Data collection plan,
- ☐ Design standards and guidelines,
- ☐ Stakeholder database,
- ☐ Key issues and challenges,
- ☐ Detailed study tasks,
- ☐ Criteria for the evaluation of alternatives,
- ☐ Scoping report summary,
- ☐ Written quality assurance/quality control plan

Technical Memorandum #1 – Existing and Future Corridor Features

- ☐ Physical Features
- ☐ Existing Corridor Roadway Conditions
- ☐ Existing Approved Access Conditions and Policies/Guidelines
- ☐ Existing and Future Roadway Network Information
- ☐ Land Use, Jurisdictional Control, Ownership, and Management
- ☐ Relevant Plans, Reports, Guidelines, Studies and Standards
- ☐ Existing Topography/Mapping
- ☐ Identification of Special Interest Areas

Technical Memorandum #2 – Environmental Overview

- ☐ Cultural Resources
- ☐ Biology
- ☐ Land Use/Socioeconomic/Visual Quality
- ☐ Water Quality

- ☐ Hazardous Materials
- ☐ Noise Impacts
- ☐ Air Quality
- ☐ Documentation

Technical Memorandum #3 – Conceptual Drainage Report

- ☐ Obtain and Review Existing Reports,
- ☐ Determine the existing off-site concentration points and flow magnitudes affecting the baseline alignment.
- ☐ Contact appropriate agency personnel to identify and summarize past drainage problems, subsidence and fissure areas.

Technical Memorandum #4 –Candidate Alignments and Evaluation

- ☐ Schematic Drawings
- ☐ Flow Concentration Points
- ☐ Preliminary Cost Estimates
- ☐ Evaluation of Final Candidate Alignments

Technical Memorandum #5 –Preferred Alignment

- ☐ Standard cross section,
- ☐ Plan view with corridor study centerline, right of way lines and drainage features shown on an aerial base map (1" = 200' scale unless otherwise directed) and printed on 11" x 17" paper,
- ☐ Potential areas requiring additional right-of-way,
- ☐ Implementation Plan,
- ☐ Compute 50- and 100-year discharges at drainage crossing locations for the preferred corridor alignment.

Draft Final Report

- ☐ Title Page,
- ☐ Table of Contents,
- ☐ List of Figures,
- ☐ List of Tables,
- ☐ Executive Summary
- ☐ Existing and future corridor features, including:
    - o Corridor Characteristics (natural/man-made),
    - o Roadway Features,
    - o Transportation Network/Travel Demand,
    - o Utilities /Constraints mapping,
    - o Land Use, Ownership and Management,
    - o Environmental summary,
    - o Drainage summary,
    - o Special Analysis Areas,
    - o Relevant Plans/Reports and Guidelines,
- ☐ Development and Evaluation of Candidate Alignments
    - o Candidate Alignments and Evaluation Matrix,
    - o Alignment Schematic Drawings,
    - o Conclusions and Recommendations.

- Preferred Alignment
    - Standard cross-section,
    - Design Features,
    - General Access management guidelines if applicable,
    - Planning-level cost estimates,
    - Phasing Strategy/Implementation Plan,
    - Preferred Alignment Drawings,
    - Right of way needs,
    - Public Involvement Overview (provided by MCDOT).
- Appendices – The following will be included as appendices of the final report:
    - Technical Memorandum #1 Existing and Future Corridor Features
    - Technical Memorandum #2 Environmental Overview
    - Technical Memorandum #3 Conceptual Drainage Report
    - Technical Memorandum #4 Candidate Alignments and Evaluation
    - Technical Memorandum #5 Preferred Alignment
    - Technical Memorandum #6 – Public and Stakeholder Participation
    - Summary of field reviews/meetings