

EXHIBIT A

SCOPE OF WORK

HARDY DRIVE
BROADWAY ROAD TO UNIVERSITY DRIVE



Introduction/Project Description

This document describes the scope of services that AMEC Environment and Infrastructure, Inc. (hereafter called the "CONSULTANT") will provide to City of Tempe: (hereafter called the "CITY"). The CONSULTANT will perform the duties and functions required by the CITY to provide a complete, sealed set of original construction plans and specifications (construction documents) for the street improvements along Hardy Drive. The project site is located along Hardy Drive, from Broadway Road to University Drive, a distance of approximately one mile, in Tempe, Arizona. The project consists of pedestrian and bicycle facility improvements along this collector street within a primarily single family residential area. Project improvements may include striping changes to widen bike lanes and narrow travel and center turn lane; sidewalk widening; raised medians; ADA curb ramp and driveway upgrades; and landscape and bus stop upgrades. The improvements will be made in select areas to contain the cost within the project budget. The project will use both Federal and City funds.

The plans, specifications, special provisions, technical provisions, bid item numbers and opinion of probable cost are to be developed to CITY Standards. ADOT will be reviewing the entire design package (Design Concept Report (DCR), Environmental Determination Report, Utility and Right-of-Way Clearances, Plans, Specifications, Opinion of Probable Costs at selected stages, and Bidding Schedule). Furthermore, the CITY will advertise the project for bid, open bids and award and administer the construction contract.

Scope of Services

This section provides a summary of the CONSULTANT's scope of services and assumptions in developing the fee proposal.

1. Project Meetings

1.1 Project Kick-off Meeting

The CONSULTANT will coordinate, attend, and conduct a project kick-off meeting with CITY staff and ADOT Personnel. At the kick-off meeting, the CONSULTANT will provide a detailed design schedule and a list of the team members who will be involved in the project along with their phone numbers and e-mail addresses.

The CONSULTANT anticipates three (3) people attending the kick-off meeting.

1.2 Progress Meetings

Progress meetings will be held as needed and including progress review submittal and may include pre-bid meeting up to the Final Plan submittal. It is estimated that eight (8) meetings will be required. One (1) project walkthrough will be conducted as part of normally scheduled meetings. It is anticipated the walkthrough will occur after the kickoff meeting. The CONSULTANT anticipates two (2) people attending each of the progress meetings.

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The CONSULTANT will prepare and distribute meeting notes for each Progress Meeting within 5 work days after each meeting, including Action Items to be reviewed and updated at each Progress Meeting.

Deliverables:

- Project kick-off meeting notes
- Project walkthrough meeting notes
- Progress meeting notes (8 meetings)

2. Public Information & Meetings

2.1 Public Information Meetings

The CONSULTANT will prepare for and participate in three (3) Public Information Meetings. The meetings are anticipated to occur at the following project milestones:

1. After the Project Kickoff Meeting, but prior to 30% Plans
2. After the 60% Plan Submittal
3. Prior to the beginning of Construction

The CONSULTANT will be responsible for making presentations at these meetings, including preparing 11" x 17" handouts that feature the planned improvements and any impacts to existing adjacent properties, and the proposed typical roadway section. The CONSULTANT will also prepare attendance sheet, comment compilation/distribution sheet.

The CONSULTANT will coordinate with the CITY to determine dates, location, and logistics of the public meeting. Strategy sessions will be accomplished during the regularly scheduled progress meetings to determine logistics, necessary graphics, key issues to address, and roles of the participants.

The CONSULTANT anticipates one (1) person attending each of the three public meetings.

2.2 City Council Briefings/Presentations

The CONSULTANT will prepare for, attend, and present project related information to City Council Members at one (1) regularly scheduled City Council Meeting or work session.

The CONSULTANT assumes one (1) person attending the one meeting.

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Deliverables:

- Public meeting notes (3 meetings)
- City council briefings/presentations (1 meeting)

CITY will be responsible for the following:

- Securing a location and time for each public meeting
- Prepare and distribute mailers/flyers to those residents within and adjacent to the project corridor
- Assist with preparation of newspaper notice of meeting

3. Survey & Base Mapping

The CONSULTANT will obtain TGIS/TMARS mapping from the CITY. The limits of the mapping will be along Hardy Drive between Broadway Road and University Drive. It is assumed that the TGIS/MARS mapping provides centerline and right-of-way delineation for Hardy Drive and intersecting streets tied to City of Tempe datum within the project limits.

3.1 Aerial Mapping

The CONSULTANT will perform initial mapping consisting of aerial photography and photogrammetric services consisting of the production of 1:480, 1 foot topographical information, planimetric detail and color orthophoto covering the approximate five thousand four-hundred and fifty (5,450) foot corridor centered on Hardy Drive and extending from approximately one-hundred (100) feet south of Broadway Road to one-hundred (100) feet north of University Drive. The corridor width is approximately ninety (90) feet in width.

3.2 Field Survey & Mapping

The CONSULTANT will also perform supplemental ground survey for project areas where curb ramps and driveway upgrades are proposed where detailed elevation data is needed for design. These locations will be determined during the design phase. The CONSULTANT will collect visible centerline intersection monuments within the project limits. An allowance of 36 crew hours has been included in the fee proposal for ground survey work.

The CONSULTANT will prepare base map in Microstation format showing all data obtained. Final deliverables will include electronic CADD files.

Deliverables:

- Aerial Mapping
- Base mapping with supplemental ground survey

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CITY will be responsible for the following:

- Provide TGIS/TMARS mapping in electronic format

4. Streetscape Planning

The CONSULTANT will inventory the existing conditions for the area through a site walkthrough and photography. The inventory will be related to urban design and landscape architecture issues, including existing plant material, site furnishings, light fixtures, building facade and site wall interface, driveways and alleyway entrances, pedestrian, bicycle, and transit facilities, surface utility features, and other street amenities. The inventory will also look at opportunities for mid-block crossings, traffic calming, bus facilities, and other streetscape elements that will improve multimodal transportation along the street. The CONSULTANT will document inventory and opportunities on a set of project boards. The material and precedent board(s) will be based on similar projects done throughout the Phoenix Metropolitan Area as well as the existing conditions and opportunities that will illustrate best practices for traffic calming, pedestrian and bicycle enhancements, hardscape and landscape material, and street furnishings to guide decisions about streetscape finishes.

The CONSULTANT will prepare one (1) initial conceptual design based on the CITY's input as part of the review of the inventory and opportunities and the material boards. The concept design will be refined and finalized based on input received from the CITY's and other Stakeholder's review of the initial conceptual design.

The CONSULTANT will prepare conceptual designs on presentation boards that will include renderings in both plan and section view. The boards will include sidewalk improvements, traffic calming, bicycle lane designation, bus stops, planting design, ADA improvements, and streetscape furniture recommendations that will create an overall streetscape character.

The CONSULTANT will prepare an opinion of probable cost for the improvements as outlined in the final conceptual design.

The CONSULTANT will attend a design meeting with the CITY, separate from the meetings held under Task 1, to present the concepts and select a preferred concept.

Deliverables:

- Inventory and opportunities boards(s)
- Material and precedent board(s)
- Initial concept design (plan and section)
- Final concept design (plan and section)
- Rendered plan view and sections of the final preferred concept
- Preliminary Opinion of Probable Cost for the final preferred concept

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5. Scoping Document

The CONSULTANT will prepare an initial and final Design Concept Report (DCR) per ADOT guidelines for roadway improvements involving federal funds. Up to two design concepts will be evaluated sequentially with an initial and final concept for the proposed improvements along Hardy Drive. The report will address existing conditions, traffic analysis, and major design features of the recommended alternative and an opinion of probable cost.

The DCR will address all aspects of the project including roadway, drainage, landscape/streetscape, right-of-way, utility clearance, and environmental clearance elements. The DCR will also provide visual and/or rendered materials to accomplish final CITY and ADOT approval.

The DCR will generally adhere to the following outline:

Chapter 1 – Executive Summary

Chapter 2 – Introduction

- Background, project need, and project objective

Chapter 3 - Project Description

- Existing conditions (right-of-way, traffic signals, drainage, utilities)

Chapter 4 - Traffic Data

- Traffic data from the Regional Transportation Plan will be used and incorporated into the scoping document

Chapter 5 - Design concept alternatives

- Traffic calming, pedestrian, bicycle, transit, landscaping, and mid block crossing improvements

Chapter 6 Major Design Features of the Recommended Alternative

- Traffic calming, pedestrian, bicycle, transit, landscaping, and mid block crossing improvements

Chapter 7 Environmental Issues

Chapter 8 Opinion of Probable Cost

Appendix A – 15% Plans

- Proposed plan sheets and cross-sections for the recommended alternative

The initial DCR will be submitted to all stakeholders for comments. The comments received will be addressed in the final DCR.

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Deliverables:

- Initial Scoping Document
- Final Scoping Document

6. Environmental Studies & Clearances

The CONSULTANT will assist the CITY with the environmental clearance processes for this project. The environmental clearance for this project will be prepared in accordance with the ADOT EPG Categorical Exclusion (CE) checklist document and compliant with FHWA and ADOT standards and the National Environmental Policy Act (NEPA).

6.1 Field Reconnaissance for Project Clearance

This task includes a field reconnaissance of the project area. The field reconnaissance will focus on gathering information regarding biological and cultural resources, land use, and potential contamination within the project area. The field reconnaissance will be documented through photographs and field notes. This task will be combined with the field reconnaissance needed for other technical clearances described below. Geotechnical Environmental Clearance will not be required for this project and is not included in this scope of work.

6.2 Public/Agency Scoping

This task includes the preparation of agency and public scoping letters in accordance with ADOT EPG scoping guidance for categorical exclusions.

The CONSULTANT will prepare and submit preliminary draft letters and a preliminary draft recipients list for the City's review. Following receipt of the CITY's comments, the CONSULTANT will revise the draft letters and recipients list as applicable and submit the letters and recipients list to ADOT EPG for review. Following receipt of ADOT comments, the CONSULTANT will prepare and send the agency and public scoping letters by certified mail (maximum of 20 recipients). It is not anticipated that the scoping letters will undergo no more than one round of review and revision.

Documentation of the public involvement for the proposed project will be included within the CE Checklist. Copies of the agency scoping letters will be included as an appendix to the CE Checklist. The CITY will respond to comments received, and the CONSULTANT will not be required to respond to comments nor to prepare a comment response log. It is not anticipated that the project will require the CONSULTANT to prepare a public notice, or attend a public meeting.

6.3 Biological Resources

The purpose of this task is to prepare the appropriate biological document for the project's CE, which for this scope of work is assumed to be an Urban Biological Evaluation (BE) Checklist. The Urban BE Checklist will address potential affects the project may have on threatened and endangered species and to their critical habitat in

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the vicinity of the CITY of Tempe and within Maricopa County. The project will qualify for an Urban BE Checklist due to the urban setting of the project site and the unlikely potential for endangered species to be impacted as a result of the proposed project. The CONSULTANT will conduct a search for previously observed species using the Arizona Game and Fish Department's (AGFD's) Online Environmental Review Tool. The preparation and submittal of the Urban BE will comply with ADOT EPG requirements. The CONSULTANT will submit a letter to the AGFD and the U.S. Fish and Wildlife Service (USFWS) requesting their review of the project.

The CONSULTANT will submit the Draft Urban BE Checklist for CITY and ADOT review. Following receipt of comments, the CONSULTANT will prepare and submit a Final Urban BE Checklist. No more than one round of review and revision of the Urban BE Checklist by ADOT EPG inc included in this scope of work. Surveys for protected species or invasive plant species are not included in this scope of work.

6.4 Cultural Resources/Section 4(f) Resources

The purpose of this task is to document that cultural resources are considered in accordance with applicable federal and state laws and regulations. The project is considered a federal undertaking; therefore, FHWA must comply with Section 106 of the National Historic Preservation Act, which requires ADOT/FHWA to determine whether the proposed project would adversely affect any properties eligible for listing on the National Register of Historic Places (NRHP), and if so, consider measures to avoid, reduce, or mitigate those impacts. This determination must be made in consultation with the State Historic Preservation Office (SHPO) and other interested parties as stipulated by 36 CFR 800. The Historic Preservation Team (HPT) of ADOT serves as FHWA staff for conducting Section 106 consultations. Pursuant to Section 4(f) of the National Transpiration Act, FHWA also must work to avoid use of any historic sites of national, state, and local significance as well as public parks, recreations areas, and wildlife/waterfowl refuges unless there is no feasible and prudent alternative.

A preliminary review of the project area conducted in preparation of this scope of work did not identify any buildings within or immediately adjacent to the project limits that appear to be 50 years old or older. A preliminary review of AZSITE indicates that the project area has not been surveyed for cultural resources. Due to the developed nature of the project area, a cultural resources field survey would not be productive or provide any information of value, and is not included in this scope of work. The proposed project would have no adverse affect to historic properties.

The CONSULTANT will prepare and submit a Draft Consultation Initiation Form (CIF) for CITY and ADOT HPT review. Once ADOT has reviewed the CIF, the CONSULTANT will prepare the Final CIF and a Draft SHPO consultation letter. SHPO consultation will be required and a HPT in-house clearance memo would not be appropriate for this project. Therefore, the CONSULTANT will prepare and submit a Draft/Final SHPO consultation letter to ADOT. No more than one round of review and revision will be required from ADOT EPG for the CIF and SHPO consultation letter. Due to the scope and nature of the project, no tribal consultation will be required.

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No properties or parcels within the project area are considered a Section 4(f) resource; therefore, the proposed project will not result in the use of a Section 4(f) resource and the associated analysis in the CE will not be required. No Land and Water Conservation Fund Act Section 6(f) properties will be impacted by the project.

6.5 Preliminary Initial Site Assessment

The CONSULTANT will prepare a Preliminary Initial Site Assessment (PISA), in accordance with ADOT guidance, to identify contamination and hazardous material concerns within the project area. The PISA will include a site visit, an online records check for hazardous materials within the project area, a review of past land uses, and a summary of current site conditions. A review of hard copy files at the Arizona Department of Environmental Quality is not included in this scope of work. Following completion of the PISA, the CONSULTANT will make a recommendation regarding the need for a Phase I Environmental Site Assessment (ESA). A Phase I ESA is not included in this scope of work. The CONSULTANT will prepare a Draft PISA Report for the proposed project. The CONSULTANT will submit the Draft PISA Report for City and ADOT review. The Draft PISA will undergo no more than one round of review and revision from ADOT EPG. Following receipt of ADOT comments, the CONSULTANT will prepare and submit a Final PISA Report.

6.6 Pavement Marking Report

The CONSULTANT will submit a list of locations where paint striping materials will be needed due to proposed obliteration. Based on the locations, the CITY will provide documentation of existing paint striping materials to the CONSULTANT.

Based on the documentation provided by the CITY, the CONSULTANT will prepare a Draft Pavement Marking Report for the proposed project. The CONSULTANT will submit the Draft Pavement Marking Report for CITY and ADOT review. The Draft Pavement Marking Report will undergo no more than one round of review and revision from ADOT EPG. Following receipt of ADOT comments, the CONSULTANT will prepare and submit a Final Pavement Marking Report.

6.7 Draft Categorical Exclusion and Environmental Clearance Memo

Based on FHWA and ADOT guidance, a CE Checklist will be required for final environmental clearance. The CONSULTANT will prepare a CE Checklist and Clearance Memo for the project site in accordance with ADOT local government guidance and templates. The CE Checklist will present a project description for the proposed improvements along with a purpose and need statement for the proposed project. The CE Checklist will also include an evaluation of environmental impacts based on the technical studies described in the previous tasks and qualitative evaluations of impacts to noise, air quality, socioeconomic, environmental justice, and water quality specific to the project site. No water quality reports (e.g., Section 404 jurisdictional delineation) will be required for this project. The CONSULTANT will also present proposed mitigation measures in the CE Checklist and Clearance Memo.

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Following the approval of the submitted technical reports identified in the preceding tasks, the CONSULTANT will submit the Draft CE Checklist and Clearance Memo for CITY and ADOT review.

6.8 Final Categorical Exclusion and Environmental Clearance Memo

The CONSULTANT will review and incorporate the CITY and ADOT EPG comments into the Final CE Checklist. The CONSULTANT will prepare and submit a Final CE Checklist and Clearance Memo. If necessary, the CONSULTANT will prepare preliminary draft, draft, draft final and final versions for the CE Checklist and Clearance Memo. This task may include a comment resolution meeting with an ADOT Environmental Planner.

Deliverables:

- Draft agency scoping letters and project map
- Draft agency recipient list
- Final agency scoping letters and project map
- Final agency recipient list
- Draft public scoping letters and project map
- Draft public scoping list
- Final public scoping letters and project map
- Final public scoping list
- Draft Urban BE Checklist
- Final Urban BE Checklist
- Draft CIF
- Final CIF
- Draft SHPO consultation letter
- Final SHPO consultation letter
- Draft PISA
- Final PISA
- Draft Pavement Marking Report
- Final Pavement Marking Report
- Preliminary Draft CE Checklist
- Draft CE Checklist
- Draft Final CE Checklist
- Final CE Checklist
- Preliminary Draft Clearance Memo
- Draft Clearance Memo
- Draft Final Clearance Memo
- Final Clearance Memo

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7. Utility Coordination

7.1 Utility Coordination

The CONSULTANT will be responsible for coordinating with utility companies (i.e. water, sewer, cable TV, electric, gas, and telephone) in the area to assemble current information regarding the locations and sizes of existing utilities along the limits of the project corridor. This information will be depicted on the plans. This information will be used to mitigate impacts with the utilities or to facilitate their relocation. The CONSULTANT will also be required to coordinate with the utility companies to discuss their plans to upgrade, replace or enhance their facilities prior to or as a part of the construction project. The CONSULTANT will be responsible for providing each of the utility companies a set of complete plans at completion of the 30%, 60%, 90%, and 100% levels and will be required to secure written responses from each of the involved utilities at each of levels.

7.2 Utility Coordination Meetings

The CONSULTANT will facilitate utility coordination meetings at each submittal (30%, 60%, 90%, and 100%) for a total of four (4) meetings, and provide a strip map showing proposed improvements and utility conflicts if they occur. The CONSULTANT anticipates these meetings will be held either prior to or immediately after regularly scheduled progress meetings.

7.3 Utility Clearance

The CONSULTANT will prepare the utility clearance letter and submit to ADOT for approval and Utility Clearance. The CONSULTANT will also include utility information in the Special Provisions.

Deliverables:

- Utility submittals at 30%, 60%, 90% and 100%
- Utility meeting notes (4 meetings)
- Utility clearance and no conflict letters

8. Right-of-Way Engineering

The CONSULTANT anticipates that no new additional right-of-way will be required. However, Temporary Construction Easements may be required and the CITY will prepare exhibits and legal descriptions. The CITY will also prepare the Right of Way Clearance Letter and submit to ADOT for Clearance.

9. Plans, Specifications and Opinion or Probable Costs

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The CONSULTANT will prepare detailed design for the project, and produce the construction drawings, technical special provisions, and opinion of probable construction costs for the contract documents. The Plans, Specifications and Opinion of Probable Costs will be prepared in accordance with ADOT requirements for federally funded projects.

For all submittals, the CONSULTANT will provide the following to the CITY: one (1) copy 11"x 17" half-size scalable, one (1) copy full size, and one (1) copy combined .pdf plan sets. ADOT and utilities will also receive copies of 11" x 17" half-size scalable plan sets. The 100% plans will be on 24"x 36" 3 mil mylar with enlarged border. Two (2) mylar copies of 100% plans will be provided. The CONSULTANT will also provide the CITY two (2) copies of each of the following for each submittal: Special Provisions (each submittal after 60%) and Opinion of Probable Costs. At 60%, 90%, and 100% submittals, CITY/ADOT redlines and comments from the previous submittal will be returned with the current submittal.

The following matrix includes the number of sheets and the type of sheets anticipated:

P = Preliminary, F = Final, S = Sealed

Sheet	30% P&E	60% P&E	90% PS&E	100% PS&E
Cover Sheet (1 sheet)	P	P	F	S
General Notes, Index, Control Sheets (2 sheets)	P	P	F	S
Street Typical Sections and Pavement Section Details (2 sheets)	P	P	F	S
Roadway (sidewalk, curb ramps, driveways, striping, signing) Improvement Plan Sheets (22" x 34" @ 20 scale, 11 sheets, mylar 24" x 36")	P	P	F	S
Landscape/Streetscape Sheets (22" x 34" @ 20 scale, 8 sheets, mylar 24" x 36")	P	P	F	S
Irrigation Sheets (22" x 34" @ 20 scale, 8 sheets, mylar 24" x 36")	P	P	F	S
Landscape Detail Sheets (4 sheets)		P	P	S
Specifications		Table of Contents	P	S
Opinion of Probable Costs	P	P	F	S

The design does not include any major street changes to width or grade and does not include drainage or traffic signal improvements. Therefore, no profile sheets are anticipated.

9.1 30% Plans and Opinion of Probable Costs

The CONSULTANT will develop design criteria for the Hardy Drive project based on the approved concept. The criteria will be used as a basis for standards to be used during the development of the design of Hardy Drive.

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The CONSULTANT will evaluate existing driveways for conformance with ADA requirements within the project limits. Based on the evaluation and project construction budget, the CONSULTANT and the CITY will determine which driveways to upgrade. The driveway upgrades will provide driveways in conformance with ADA. The CONSULTANT will identify the Temporary Construction Easement (TCE) area for driveway upgrades that extend outside of the CITY right-of-way. Depressed curb driveways will be designed to CITY of Tempe Standard Detail T-320 Driveway Entrances and curb return style driveways to CITY of Tempe Standard Detail T-319 Return Type Driveways.

The CONSULTANT will evaluate the existing ADA curb ramps within the project limits and design new curb ramps or retrofit existing as deemed necessary to meet ADA guidelines and fit within the project construction budget. The CONSULTANT will identify the Temporary Construction Easement (TCE) area needed for ramp upgrades that extend outside of the CITY right-of-way. The ramp upgrades will conform to ADA and CITY of Tempe Standard Detail T-328 Directional Sidewalk Ramps Detail.

The CONSULTANT will coordinate with ADOT and obtain the ADOT title block for federally funded projects. The CONSULTANT will prepare plans to include the general and site plan notes, paving notes, key map, vicinity map, index sheets, signature block etc. per CITY 2010 Public Works Engineering Criteria. These sheets will utilize standard notes and blocks from the CITY. The CONSULTANT will prepare plans sheets as defined above. The CONSULTANT will prepare plans at a scale of 1"=20' horizontal or as noted in the table above. The plan sheets will be created based on the CITY provided TGIS/TMARS mapping along with aerial survey and supplemental field survey performed by the CONSULTANT. The sheets will include the appropriate construction callouts, including but not limited to limits of new sidewalk, curb and gutter replacement, curb ramp and driveway upgrades, and raised medians. The plans will include sufficient detail to locate the improvements based on the roadway station callouts and horizontal geometry data. In addition, centerline control will be labeled to sufficiently layout the roadway centerline stationing in the field. Profiles spot elevations will be provided to vertically locate the improvements in the field. The plan will include the right-of-way clearly marked and adjacent properties identified by parcel number and property owner. The plan sheets will clearly identify the utilities requiring adjustment or relocation. Construction quantities will be tabulated in CITY bid schedule format.

The CONSULTANT will prepare the Opinion of Probable Cost using the items of work identified on the plans at the 30% submittal. Unit prices will be determined from recent unit bid prices on bid tabulations for locally comparable construction projects. The CONSULTANT will prepare a Comment Resolution form to be submitted with each submittal.

9.2 60% Plans, Specifications Outline, and Opinion of Probable Costs

The CONSULTANT will incorporate changes, corrections, and additions as a result of the preliminary (30%) plan review. Project-specific details will be included with this submittal. The details will be included as determined necessary to convey the work required by the contractor. Details may include driveway upgrades, curb ramp upgrades,

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raised medians, and other construction details. The resulting set of plans will be submitted to the CITY and affected utility companies as a preliminary design that will be reviewed by the CITY, ADOT, and utility companies for any comments.

An outline of technical specifications (table of contents) will be prepared for all construction elements not adequately described by the referenced standard specifications.

Upon completion of CITY review of the 60% plans, a meeting will be held between the CITY and the CONSULTANT to discuss any revisions or additional work indicated for the 90% documents,

9.3 90% Plans, Specifications, and Opinion of Probable Costs

The CONSULTANT will incorporate changes, corrections, and additions as a result of the preliminary (60%) plan review. Project-specific details will be included with this submittal. The details will be included as determined necessary to convey the work required by the contractor. Details may include driveway upgrades, curb ramp upgrades, raised medians, and other construction details. The resulting set of plans will be submitted to the CITY and affected utility companies as a pre-final design that will be reviewed by the CITY, ADOT, and utility companies for any final comments. This set of plans will contain design information necessary for construction.

Technical specifications will be prepared for all construction elements not adequately described by the referenced standard specifications.

Upon completion of CITY review of the 90% plans, a meeting will be held between the CITY and the CONSULTANT to discuss any revisions or additional work indicated for the 100% final bid documents prior to commencing preparation of final bid documents,

9.4 100% Plans, Specifications, and Opinion of Probable Costs

The final plans will be prepared incorporating CITY and ADOT comments made during review of the 90% submittal. The CONSULTANT will assemble complete contract documents including contract, general specifications, and special provisions – ready for reproduction. An electronic copy of CITY standard contract and general specifications will be provided by the CITY.

A hard copy and digital copy of the specifications (MS Word), bid schedule (MS Excel), and opinion of probable construction cost (MS Excel) will be submitted.

Deliverables:

- 30% Plans and Estimate
- 60% Plans, Specifications Outline and Estimate
- 90% Plans, Specifications and Estimate
- 100% Plans, Specifications and Estimate

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10. Project Management

10.1 Project Management

The CONSULTANT will provide management and maintenance of the design schedule, records, correspondence, quality control activities, and communication with CITY staff.

The CONSULTANT will prepare monthly invoices and progress reports and perform regular budget and schedule monitoring.

The CONSULTANT will coordinate with CITY representatives and other project stakeholders including responding to e-mails and phone calls.

The CONSULTANT will develop and maintain a work plan for the project.

The CONSULTANT will prepare and maintain a quality control plan and will perform quality control following the quality control plan developed for this project.

10.2 Schedule

The CONSULTANT will submit an initial schedule within 10 work days after the Notice to Proceed date. The CONSULTANT will review and revise the initial schedule with the CITY Project Manager in order to achieve the ultimate project schedule within 20 work days after the Notice to Proceed. It is assumed that the project schedule will be approximately fourteen (14) months from Notice to Proceed date.

Deliverables:

- Project schedule and updates
- Monthly invoices

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Fee Estimate Form

FEE ESTIMATE														
Project Name:	Hardy Drive - Broadway Rd to University Dr													
Client:	City of Tempe													
Date:	2/24/2012													
Prepared by:	Dick Yano													
Reviewed by:	Doug Peters													
Task No.	Task Description	Task Hours Estimated	Sr. Project Manager	Project Engineer	Designer	CADD Tech	Survey Manager	2-Person Crew	Sr. Env Planner	Env Planner	Env Technicians	Admin/ Clerical	Subconsultant	TASK TOTAL
			\$150 HR	\$135 HR	\$90 HR	\$60 HR	\$140 HR	\$130 HR	\$155 HR	\$100 HR	\$80 HR	\$75 HR		
AMEC LABOR (DIRECT COST):														
1.0	Project Meetings													
1.1	Project Kick-off Meeting	13	4	4					4			1		\$1,995
1.2	Progress Meetings	48	24	8					8			8		\$7,480
2.0	Public Information Meetings													
2.1	Public Information Meetings	18	9			9								\$2,430
2.2	City Council Briefings/Presentations	6	4									2		\$910
3.0	Survey & Base Mapping													
3.1	Aerial Mapping	21				2	3	16					\$3,100	\$5,928
3.2	Field Survey & Mapping	82				40	6	36						\$9,052
4.0	Streetscape Planning	96	16		80								\$13,300	\$23,540
5.0	Scoping Document	98	12	16	40	26						4	\$2,000	\$12,420
6.0	Environmental Studies & Clearances													
6.1	Field Reconnaissance for Project Clearance	4									4			\$320
6.2	Public/Agency Scoping	15				2			1		8	4		\$1,255
6.3	Biological Resources	12				1			2		8	1		\$1,105
6.4	Cultural Resources/Section 4(f) Resources	16				1			2		12	1		\$1,425
6.5	Preliminary Initial Site Assessment	20				1			2		16	1		\$1,745
6.6	Pavement Marking Report	14				2			2	8		2		\$1,420
6.7	Draft Categorical Exclusion & Environmental Clearance Memo	47	1			2			2		40	2		\$4,010
6.8	Final Categorical Exclusion & Environmental Clearance Memo	31	1			2			2		24	2		\$2,730
7.0	Utility Coordination													
7.1	Utility Coordination	28	2	24										\$3,620
7.2	Utility Coordination Meetings	32	16	16										\$5,200
7.3	Utility Clearance	32	4	24								4		\$4,300
8.0	Right-of-Way Engineering		Scope of Work Not Included											
9.0	Plans, Specifications & Opinion of Probable Costs												\$12,700	\$12,700
9.1	30% Plans & Opinion of Probable Costs	122	14	24	48	36								\$13,100
9.2	60% Plans, Specifications Outline & Opinion of Probable Costs	122	14	24	48	36								\$13,100
9.3	90% Plans, Specifications & Opinion of Probable Costs	122	14	24	48	36								\$13,100
9.4	100% Plans, Specifications & Opinion of Probable Costs	42	6	8	16	12								\$4,620
10.0	Project Management													
10.1	Project Management	48	36									12		\$7,740
10.2	Schedule	14	14											\$2,660
Labor Subtotal		1,106	191	172	260	208	9	82	25	8	112	44	\$41,300	\$157,945
TOTAL LUMP SUM COST														\$157,945
<small>Note: Lump sum cost derivation is based on hours and rates shown above. AMEC internal cost to the project will be based on actual rates of individuals working on the project.</small>														

