

Travis County Commissioners Court Agenda Request

Meeting Date: May 22, 2012

Prepared By/Phone Number: Jason G. Walker/44562; Marvin Brice,

CPPB, Assistant Purchasing Agent

Elected/Appointed Official/Dept. Head: Cyd Grimes

Commissioners Court Sponsor: Judge Biscoe

Agenda Language: Approve Modification No. 2 to Contract No. 09AE0251JW, Jacobs, for the Howard Lane Phase II Design Project.

- ➤ Purchasing Recommendation and Comments: Purchasing concurs with department and recommends approval of requested action. This procurement action meets the compliance requirements as outlined by the statutes.
- ➤ The Howard Lane Phase II design project is for the extension from Camerion Road/Harris Branch Road to SH-130 as a four-lane divided roadway with bicycle lane and sidewalk on each side. Also included in the design are subsurface storm drainage systems, two bridges, and associated utility relocations. This project is jointly funded by Travis County, the City of Austin (COA), and Texas Department of Transportation.
- ➤ This modification number two (2) is for Additional Basic Services for a section of Cameron Road/Harris Branch Road that is within the COA's jurisdictional limits (current terminus of the four lane section of Cameron Road/Harris Branch Road to Gregg Lane) left out of the original design project scope. Through the addition of this section of Cameron Road/Harris Branch Road, to the section of Cameron Road/Harris Branch Road originally included in the design project scope, the COA's jurisdictional limit of Cameron Road/Harris Branch Road will then be complete with regards to the physical area currently under development by the COA. The remaining section of Cameron Road (from Gregg Lane to SH-130) is within Travis County's jurisdictional limit, where no interlocal agreement for the construction of a road within the COA will be

AGENDA REQUEST DEADLINE: All agenda requests and supporting materials must be submitted as a pdf to Cheryl Aker in the County Judge's office, Cheryl.Aker@co.travis.tx.us by Tuesdays at 5:00 p.m. for the next week's meeting.

required, shortening the design, permitting, and construction of Travis County's jurisdictional section of Cameron Road, saving Travis County money.

- Also included with this modification number two (2) are needed Howard Lane design modifications due to the relocation of an existing gas line, as well as the revision of the pavement design to one expected to perform better and longer given the soil types discovered through extensive soil explorations. This modification will increase the contract amount by \$338,063.49 (of which \$321,707.82 has been contributed by the COA and the remaining \$16,355.67 is Travis County's share) from \$864,687.64 to \$1,202,751.13, and the aggregate modification amount results in a 43.1% increase of the original contract amount.
- ➤ Modification 1 increased the contract amount by \$24,051.25 for additional subsurface utility exploration services (SUE) required to locate existing gas lines for relocation. The COA funded completely this modification amount.
- ➤ Contract Expenditures: Within the last 12 months \$78,154.44 has been spent against this contract/requirement.

> Contract-Related Information:

Award Amount: \$840,636.39

Contract Type: A/E

Contract Period: Through completion

Contract Modification Information:

Modification Amount: \$338,063.49

Modification Type: A/E

Modification Period: Through completion

Solicitation-Related Information: N/A

Solicitations Sent: Responses Received:

HUB Information: % HUB Subcontractor:

	Special Contract Considerations: N/A
	 Award has been protested; interested parties have been notified. Award is not to the lowest bidder; interested parties have been notified. Comments:
>	Funding Information:

TRANSPORTATION AND NATURAL RESOURCES DEPARTMENT

STEVEN M. MANILLA, P.E., COUNTY EXECUTIVE

411 W. 13th St. Eleventh Floor P.O. Box 1748 Austin, Texas 78767 (512) 854-9383 FAX (512) 854-4697

April 26, 2012

MEMORANDUM

TO:

Cyd V. Grimes, C.P.M., Purchasing Agent

Marvin Brice, C.P.P.B., Assistant Purchasing Agent

FROM:

Stove Manilla, PE, County Executive

SUBJECT:

Howard Lane II

Modification # 2- PSA Contract No. Q09AE0251-JW

Professional Services Agreement with Jacobs Engineering Group Inc.

Request

Please accept this memo as a request to modify the professional services contract agreement with Jacobs Engineering for design services related to the Howard Lane II extension project (from Cameron Road to SH 130, including a section of Cameron Road). This modification, funded jointly by Travis County and the City of Austin, will increase the contract by \$338,063.49 from \$864,687.64 to \$1,202,751.13. Due to the urgency associated with this modification, a May 15th Commissioners' Court agenda date will be appreciated.

Additional information is provided below for your use. Please contact Chiddi N'Jie at 854-7585 if you need additional information.

Summary and Staff Recommendations:

The Howard Lane II roadway extension project is a Travis County 2005 bond program project that extends from Cameron Road (Harris Branch Road) to SH 130 in Precinct 1. It is jointly funded by the County, City of Austin (City), and Texas Department of Transportation (TxDOT). The proposed design is a four-lane divided roadway (MAD4) with bicycle lane and sidewalk on each side of the street. The design will also include subsurface storm drainage system, two bridges, and associated utility relocations. Attachment "A" is a Project Location Map.

Capital Area Metropolitan Planning Organization (CAMPO) has classified Howard Lane Extension Phase II as an arterial (MAD4) in the CAMPO Mobility 2035 transportation plan.

The Cameron Road/Harris Branch Road improvements, after this modification, will be from the current terminus of the four lane section of Harris Branch Road to the end of the City jurisdictional limits at Gregg Lane. This contract modification is to account for a section of Cameron Road that is within the City's jurisdictional limits (and funded completely by the City) but was left out of the original scope, and also to pay for some needed Howard Lane design modifications made necessary by the need to relocate an existing gas line and to revise the pavement design to one that is expected to perform better and longer on the soil types discovered in the project area after an extensive soil exploration.



Issues and Opportunities

The addition of this section of Cameron Road/Harris Branch Road to the section of Cameron Road/Harris Branch Road already in the project scope will complete the areas on Cameron Road within the City being developed. The rest of Cameron Road from Gregg Lane to SH 130 is within the County's jurisdictional limits, and therefore, an interlocal agreement for constructing a road within the City, or a City roadway construction permit will not be required, only a Travis County permit will be required. This will not only shorten the design, permit, and construction schedule, but it will also save the County some money.

Budgetary and Fiscal Impact

This modification, funded jointly by the County and the City, as shown in the summary table below, will increase the contract amount by \$338,063.49 from \$864,687.64 to \$1,202,751.13.

Modification Entity Funding Summary Table						
Section of Roadway	County's additional fees	City's additional fees	Grand Total			
Howard Ln II	\$16,355.67	\$117,781.33	\$134,137.00			
Cameron Rd/Harris Branch Rd	0	\$203,926.49	\$203,926.49			
Totals	\$16,355.67	\$321,707.82	\$338,063.49			

The financial tracking information for this \$\$338,063.49 Jacobs Engineering PSA contract modification request is provided below (a WP breakdown is attached with the cost proposal):

Requisition Number	557707			
	Account I	Numl	ber	
County Funds	Commodity / Sub-Commodity	Amount		
479-4931-621-8164	968/054	\$	13,084.54	
513-4931-808-8164	968/054	\$	3,271.13	
To	tal County Funds	\$	16,355.67	
City of Austin Funds				
475-4993-750-6099	968/048	\$	321,707.82	
	\$	321,707.82		
Total Modification			338,063.49	

Required Authorizations:

TNR Financial: Cynthia McDonald

Purchasing: Cyd Grimes

PBO: Jessica Rio

Attachments:

1. Exhibit "A"------Project Location Map

2. Exhibit "B"-----PSA Modification Request

CC: Purchasing: Marvin Brice, Jason Walker

TNR Financial Services: Cynthia McDonald, Donna Williams-Jones, Tawana Gardner

TNR CIP: Steve Sun, Chiddi N'Jie

Central Files: 97B01-15 -1CA\Howard Ln II\ Design

Attachment "A"
Project Location Map

AERIAL LAYOUT FOR ADDITIONAL ROADWAY IMPROVEMENTS ALONG CAMERON ROAD - LENGTH = 2,130 FEET











MODIFIC	ATION OF CONTR	ACT NUMBER: <u>09AE</u>	0251JW, Howard	PAGE 1 OF 14 PAGES
		<u>Lane</u>	Extension, Phase II	
SUED BY:	PURCHASING OFFICE 700 LAVACA, SUITE 800 AUSTIN, TX 78701	PURCHASING AGENT ASST TEL. NO: (512) 854-9700 FAX NO: (512) 854-9185	: Jason G. Walker	DATE PREPARED: May 3, 2012
Su	cobs 05 Bee Caves Road, ite 300 istin, TX 78746	MODIFICATION NO.:	2	EXECUTED DATE OF ORIGINAL CONTRACT: December 22, 2009
		09 - through project completion	CURRENT CONTRACT TER	RM DATES: 12/22/11 - through project complet
SCHOOL SERVICE STREET, SANS	OUNTY INTERNAL USE ON Amount: \$840,636,39	LY: Current Modified Amount \$1	202.751.03.	
odified, remainded. Reference at it included at it included at stated fee additional \$0.1. The additional states are additional states at the additional states are at the additional states	in unchanged and in full force Modification No. 1, all refet I a scrivenor's error of an a for the performance of ba I, all references to the then I, all Work Product 3 and 4	e and effect. Exercise to the stated fee of \$8: dditional \$0.10. With this M usic services is \$822,943.39. modified stated fee of \$840,1 Services, as outlined in Con	22,943.49 for the performate odification No. 2, that such As a result of this corrected to the sultant's Supplemental Agrangemental Agrangemen	he document referenced above as heretofore nee of basic services was incorrect in a scrivenor's error is corrected so that ection for the scrivenor's error of an hat of \$840,106.39. The elements, attached hereto and made a decements, contract Basic Services
	sted as follows: EXHIBIT 1, SECTION 1 - (COMPENSATION FOR BAS	IC SERVICES:	
increas b. Paragra increas c. Paragra increas d. The BA Reference odified from 28,529.25, ar Reference nount of \$86 1,202,751.13 The Contra coutlined in the Contra coutlined	e of \$334,115.49. ph 1.1.1, (i) Design Phase of \$318,935.09. ph 1.1.1, (i) Design Phase of \$15,180.40. SIC SERVICES TOTAL is EXHIBIT 1, SECTION 4. \$24,581.25 to \$28,529.25. increase of \$3,948.00. EXHIBIT 1, SECTION 5. \$4,687.64 (\$840,106.39 Ba (\$1,174,221.88 Basic Servicet Scope of Services is more Consultant's Supplemental and execute (sign) your portion	se, Work Product #3 - 90% se, Work Product #4 - 106 changed from \$840,106.39 to 4 - REIMBURSABLE EXPI . Also, the REIMBURSABL TOTAL AGREEMENT SUI sic Services and NTE amoun ices, and NTE amount of \$28 diffied to include the performa Agreements (Attachments A a	6 Design is modified from the Design is modified from \$1,174,221.88, an increase ENSES, 4.1, the Non-Laborate TOTAL NOT TO EXCEPT. M. The TOTAL AGREEM of \$24,581.25 Reimburss,529.25 Reimbursable Expense by Engineer of the additional B).	or reimbursable expenses amount is CEED is changed from \$24,581.25 to MENT SUM is changed from an NTE able Expenses) to an NTE amount of enses) an increase of \$338,063.49. itional Work Product 3 and 4 Servcies
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CYD V. GRI	MES, C.P.M., TRAVIS COUNT	Y PURCHASING AGENT		

DRAFT

BY:
SAMUEL T. BISCOE, TRAVIS COUNTY JUDGE

ATTACHMENT A

SERVICES TO BE PROVIDED BY THE ENGINEER FOR HOWARD LANE – PHASE II (SUPPLEMENTAL AGREEMENT FOR HOWARD LANE EXTENSION)

PROJECT: Howard Lane – Phase II

LIMITS: From Harris Branch Parkway to SH 130

COUNTY: Travis County
PROJECT LENGTH: 2.08 miles

The following supplemental is to provide additional project management services related to project delays and coordination efforts as described in the following sections. In addition, the supplemental allows for drainage design modifications necessary due to a redesign of the pavement section and adjustments to the previous drainage design due to property owner negotiations.

The following services do not replace any services listed in the original contract, but supplement them.

PROJECT MANAGEMENT

- 1. Perform additional management time for the coordination of a pavement redesign requested by the City of Austin.
- 2. Perform project management tasks associated with the time delay. The original duration of this project was anticipated to be fifteen (15) months. The revised anticipated schedule is 36 months, an increase of 21 months. The extended project schedule will have periods of limited activity, assume an additional 15 months of project activity.
 - A. Meet on a scheduled basis with the County to review project progress. It is anticipated that the Engineer and the County will meet a minimum of 20 times. The Engineer will provide meeting summaries within three (3) working days of the meeting to all attendees.
 - B. Conduct internal meetings with the consultant design team on a weekly basis or as needed for the duration of the project.
 - C. Provide Contract Administration
 - D. Provide Project Management
 - E. Conduct coordination meetings with TxDOT
 - F. Conduct coordination meetings with City of Austin
 - G. Conduct coordination meetings with Property owners
 - H. Update project design schedule
 - I. Prepare monthly invoice
 - J. Prepare monthly progress report including monthly updates to design schedule

RIGHT OF WAY AND UTILITIES

1. Assist with coordination of the relocation of Atmos Energy. Coordinate, attend and document utility coordination meetings. The Engineer is to be in attendance to present

- plan information and answer questions about the project. Coordinate w/ Atmos Energy staff and engineers.
- 2. Provide additional management time for the coordination of a SUE study.

ROADWAY DESIGN CONTROLS

- 1. Revise typical sections to accommodate the new pavement section.
- 2. Revise design cross-sections for the new pavement section.
- 3. Determine roadway quantities including cut and fill. Prepare quantity summary sheets.

DRAINAGE DESIGN

- 1. Redesign culvert and storm drain design due to change in pavement depth as required by the City of Austin.
- 2. Adjust storm drainage system to avoid Atmos Gas crossing with the required clearance.
- 3. Redesign and move water quality ponds as required by the COA (1 pond City) and Trafalgar (2 ponds County).
- 4. Design culvert east of Gilleland Creek for post development flow stated in letter from Doucet & Associates, Inc. dated November 10, 2010 for Schryver Property. Provide culvert calculation sheet.
- 5. Prepare culvert layout sheet.
- 6. Redesign storm sewer affected by cross culvert for Schryver property.
- 7. Prepare details for headwall or inlet/outlet structures. Includes BCS sheet if needed. Use standard details from the COA, TxDOT or Austin District standards list were appropriate.
- 8. Provide any additional temporary erosion control measures for culvert outlet.
- 9. Modify permanent erosion control plans of culvert outfall if needed.
- 10. Determine quantities, specifications, and cost associated with the cross culvert.
- 11. Incorporate sequence of work for construction of culvert to the construction sequence.

ATTACHMENT B

SERVICES TO BE PROVIDED BY THE ENGINEER FOR

HOWARD LANE – PHASE II (SUPPLEMENTAL AGREEMENT FOR CAMERON ROAD IMPROVEMENTS)

PROJECT: Cameron Road

LIMITS: From Howard Lane to Gregg Lane

COUNTY: Travis County
PROJECT LENGTH: 0.61 miles

The following supplemental is to provide additional engineering services to extend the limits of Cameron Road in the Howard Lane – Phase II project. The Engineer will provide the following engineering services required for the preparation of plans, specifications, and estimates (PS&E), including any necessary reports (drainage, geotechnical, and/or environmental) to validate the PS&E preparation for the construction of the remaining Cameron Road within City of Austin limits. The project addition is located between Howard Lane and Gregg Lane, and is within the City of Austin city limits. The project includes the preparation of design schematic, meeting with affected property owners, roadway design, hydrology and hydraulics, signing and pavement markings and preparation of environmental document in compliance with the City of Austin Environmental criteria. The project entails the design elements to complete Harris Branch Parkway/Cameron Road from Howard Lane to approximately 900 feet north of Gregg Lane. The extension will be a MAD 4 section and the northern 700-900 feet will be a transition to the existing 2 lane Cameron Road.

The construction plan set for this project will contain the required drawings and details pertaining to roadway and sidewalk design, storm water drainage system analysis and design (may include water quality and detention) and other documents required by Travis County for permitting. The project includes preparing construction documents; completing land surveys, geotechnical investigations and reports with analysis needed for pavement design, box culverts, and alignment and intersection plans and analysis; developing roadway signage and pavement marking plans, and traffic control plans; designing and/or coordinating utility relocations (including submission to AULCC); updating the environmental assessments and mitigation plans; preparing and executing project management, risk reduction and QA/QC plans; determining requirements for right-of-way and easements, preparing schematic and final right-of-way strip map and easement parcel exhibits, and providing technical support for acquisitions; and acquiring all appropriate regulatory permits and clearances. Compliance with National Environmental Policy Act and the National Historic Preservation Act is not required for this project. The above-described plan set will be prepared in English units, and will be suitable for additive alternate bidding and award of a contract through Travis County.

Services related to the design and plan production for this project will be performed in accordance with the latest available City of Austin design manuals. The roadway will be designed based on Major Arterial Divided (4 lanes) with bike lanes and sidewalks. The design speed will be 45 MPH.

The Engineer will establish a roadway geometry model and perform earthwork and paving quantity calculations using GEOPAK. The CADD and GEOPAK criteria files, which comprise the

geometry model, will be provided to Travis County at the completion of the project. This project will be developed using Microstation V8 and GEOPAK 2004.

Hydraulic designs and calculations for storm drains and bridge hydraulics will be performed with PC-based hydraulic models such as WinStorm, GEOPAK Drainage, HY-8, HEC-RAS, HEC-HMS, or other hydraulic models approved in advance by Travis County. The Engineer may use XP-SWMM to model and analyze possible in-line detention. Manual calculation checks of culvert hydraulics will be performed on all structures. The project is not located within the limits of the Edwards Aquifer Recharge Zone.

The required work products include <u>Work Product 3</u>, which include 30% complete design documents and 90% complete design documents; and, <u>Work Product 4</u>, the 100% bid-ready set of construction documents. Each Work Product will be submitted for review and written notice-to-proceed must be issued by the County before proceeding to the next Work Product. Under Work Produce 3, the 30% complete design documents for Cameron Road will be approved by the County before proceeding with the 90% documents. The review process will consist of submitting six (6) sets of 11"x17" plans. Each submittal shall include a cover letter from the consultant stating who from their design team performed a Quality Assurance/Quality Control check with a signed certification by that person. Allow two weeks for TNR to review and provide written comments and/or approval for each submittal.

PROJECT MANAGEMENT

- 1. Perform project management tasks associated with the addition of a section of Cameron Road into the original contract scope. The additional section will require:
 - A. Attend a project kick-off meeting with the County.
 - B. Conduct internal meetings with the consultant design team on a weekly basis or as needed for the duration of the project.
 - C. Provide Contract Administration
 - D. Provide Project Management
 - E. Attend and Direct 30% Cameron Road design review meeting.

ROUTE AND DESIGN STUDIES

- 1. Gather and review all available information pertaining to the project.
- 2. Develop and assemble preliminary construction cost estimates at 30% milestone submittal. The Engineer will prepare a preliminary cost estimate for the project.
- 3. Perform field investigations to gather information for the further development of the construction plans.
- 4. Prepare preliminary geometric design.
- 5. Prepare horizontal alignment data
- 6. Prepare vertical alignment data
- 7. Develop super-elevation data for cross sections.
- 8. Develop preliminary GEOPAK cross sections.
- 9. Verify ROW requirements established on preliminary schematic are still valid.
- 10. Prepare schematic design showing all necessary features. This schematic will be presented to Travis County and the City of Austin for approval.
- 11. Perform soil core holes for pavement design every 500 feet to a depth of 10 feet each.
- 12. Perform Pavement design in accordance with City of Austin Transportation Criteria for review and approval by the City of Austin and Travis County.
- 13. Perform geotechnical testing for Pavement Design.
- 14. Prepare Geotechnical Engineering Report.

ENVIRONMENTAL STUDIES AND PUBLIC INVOLVEMENT

- 1. Critical Environmental Features (CEFs)
 - A. Water CEF Wetland The Engineer staff will conduct a field investigation in new pond areas and the proposed Cameron Road improvements project area to determine the presence or absence of U.S. Army Corps of Engineers (USACE) jurisdictional wetlands and other water-related CEFs in the project area. Delineation of these features will take place as necessary, and wetland determination data sheets will be prepared. If jurisdictional wetlands are identified, documentation according to USACE protocol under Section 404 of the Clean Water Act will be prepared. Geographic Information Systems (GIS) mapping will reflect data points and limits of the jurisdictional wetlands/water-related CEFs with respect to other environmental features in the project area. A 150-foot buffer around the CEFs will be portrayed on project area mapping. If necessary, the information collected for this task could also be incorporated into a coordination letter to the USACE.
 - B. COA defined Erosion Sites Types 1, 2, 3 As this is not expected to be an issue, no specific analysis or deliverables for these issues have been included in this scope of work.
 - C. COA defined Woodlands It is assumed that there will be no woodland impacts in new pond areas and the proposed Cameron Road improvements project area; therefore, no specific analysis or deliverables for these issues have been included in this scope of work.
- 2. Creeks and Waterways
 - A. Creeks and Waterways The Howard Lane project crosses the main channel and a potential tributary to Gilleland Creek. It is assumed that the original crossing area and bridge design has not changed; however, the proposed Cameron Road improvements cross a tributary to a large stock tank to the east and this area will be evaluated. Project area creek settings will be documented to include name, watershed name, and waterway classification.
 - B. COA Critical Water Quality Zone The Critical Water Quality Zone will be mapped as relevant to the expanded project area.
 - C. Floodplains The 100-year floodplain will be mapped in the expanded project area.
 - D. Utility Line Crossings/Parallel runs along the Waterway Utility line crossings and parallel sections may require evaluation. The Engineer will obtain the necessary engineering information and prepare text documentation, photographs, and mapping that could be used to support a Nationwide Permit (NWP).
 - E. TCEQ Issues The proposed project is not located over the Edwards Aquifer transition, contributing, or recharge zones. The Engineer will describe the relevant TCEQ issues for compliance and provide coordination assistance.
- 3. Individual Section 404 Permit Coordination (if required)
 - A. It is assumed that the original crossing area and bridge design has not changed; however, the proposed Cameron Road improvements cross a tributary to a large stock tank to the east and this area will be evaluated. This scope of work assumes that an Individual Section 404 Permit will not be necessary and clearance can be pursued under Nationwide Permit # 14 without Pre-Construction Notification (PCN). This subtask does not include coordination with the USACE and preparation of appropriate documents required under the nationwide permit.
- 4. Threatened and Endangered Species

- A. Endangered Species Issues A field investigation was conducted to determine whether or not any habitat appropriate for listed species is located in the project area. Results of this analysis will be updated as necessary in the EA.
- 5. Archeological/Cultural Resources
 - A. Archeological/Cultural Resources This includes coordination letter preparation and coordination with the Texas Historical Commission (THC) to update Texas Antiquities Code (TAC) compliance for the revised/expanded project footprint areas. This scope includes collecting recorded data including THC data for inclusion in the updated THC coordination letter. The original scope of work involved intensive field survey for full TAC compliance and the roadway project, in its original context, received a THC clearance letter. Given that the proposed pond areas were likely a part of the original survey and the proposed Cameron Road improvements are in a disturbed setting, this scope of work assumes that the original survey work will suffice and no further intensive field survey will be necessary.
- 6. Government Records Review for Hazardous Materials & Closed Landfills
 - A. An ASTM database search for hazardous materials was conducted and analyzed for this project. In addition, appropriate databases documenting closed MSW landfills (e.g., CAPCOG Closed Landfill Inventory) were analyzed for the project corridor. There were no hazardous or closed landfill related constraints found. This information will be reviewed again to confirm that this is still the case, given the slightly expanded project areas. This scope of work assumes that a new ASTM database search will not be necessary and that the original data can be reviewed for this update purpose.
- 7. Parkland
 - A. It is assumed that this project corridor is entirely upon private property and does not traverse City, County, State or Federal parkland property; however, a very small amount of time will be allocated to confirm this assumption.
- 8. Tree Survey:
 - A. A tree survey within the limits of the roadway will be performed. The tree survey will be conducted in accordance with Section 3 of the City of Austin Environmental Criteria Manual by the project land surveyor. Mapping of significant trees will be included in the EA.

PREPARATION OF UPDATED COA ENVIRONMENTAL ASSESSMENT (EA)

The original EA, prepared in accordance with City of Austin Environmental Criteria Manual, will be updated. Major parts of the EA needing update are identified as noted below. All of these sections will need to be revised as necessary to add the Cameron Road improvements element and revise drainage and pond references.

- 1. Project Description and Need
- 2. Descriptions of Alternatives
 - A. Descriptions of project alternatives will be prepared including No Action and Proposed Action alternative(s). The descriptions will be based on engineering information.
- 3. Description of the Affected Environment
 - A. Components of the affected environment to include topography, geology, soils, water resources, biological resources, and cultural resources will be described.
- 4. Impact Assessment

A. Effects of the project alternatives on the existing natural and cultural resources will be evaluated. This will include effects of the alternatives on components of the environment and a comparison of impacts between the alternatives.

ADDITIONAL AGENCY COORDINATION

No additional agency coordination, other than with the COA and/or Travis County is anticipated, given the project setting and issues. A small amount of time for COA and Travis County coordination is included in the fee estimate.

- 1. Schedule, coordinate and conduct meetings with each of the Affected Property Owners, assumed to be a maximum of four (4) meetings.
- 2. Prepare meeting minutes of each one of the meetings with affected property owners. The summary will include the purpose of the meeting, agenda topics, meeting highlights, and follow-up action needed, if relevant.

PERMITS

No additional permits are anticipated. Perform coordination with AULCC.

RIGHT OF WAY AND UTILITIES

- 1. Identify areas where temporary construction/driveway easements or agreements may be required.
- 2. Prepare exhibits for driveway penetration agreements and supply them to the County.
- 3. Identify areas where additional right of way, drainage easements, or right of entry may be required. Notify the County in writing of the need and justification for such action.
- 4. Identify potential utility conflicts utilizing One Call System and direct contact with utility providers.
- 5. Prepare drawings early in the design phase (30%) to be used as exhibits in utility agreements. Prepare exhibits using English units, showing existing utilities including those in conflict with construction. Prepare plans to avoid or minimize utility adjustments, where feasible
- 6. Provide existing utility layout sheets to be included in the PS&E.

FIELD SURVEYING

- 1. Attend project kick-off meeting.
- 2. Identify owners and prepare/distribute letters for obtaining right of entry to affected private properties.
- 3. Establish additional horizontal and vertical control common to previous survey performed by MWM DesignGroup. Establish benchmarks not more that 1000' apart and provide sufficient horizontal control points within or near survey limits for use as construction baseline.
- 4. Field search and locate monumentation on existing ROW's and boundary lines within limits of survey and/or affected by proposed ROW/easement acquisition.
- 5. Obtain and review title reports for each tract adjacent to project corridor. This item shall be limited to 5 title reports. Additional reports may be obtained as additional services if authorized by the Client.

- 6. Obtain and review deeds/plats pertaining to survey area and adjacent properties identified from Travis Central Appraisal District records and perform calculations and analysis to re-establish existing ROW/boundary lines.
- 7. Prepare preliminary mapping showing existing ROW's and boundary lines, owner name, book and page information, subdivision name, lot and block number, TCAD parcel number and existing easements within or adjoining project corridor and incorporate into previous preliminary mapping provided by MWM DesignGroup.
- 8. Field stake PC's, PT's, PI's, and approximately every 100' along curves and approximately every 500' (or sufficient for visual line) along tangents of proposed alignment.
- 9. Locate by actual on-the-ground survey visible and accessible on-grade and above-grade features, including but not limited to pavements, pavement marking, curbs, driveways, sidewalks, ADA ramps, signs, fences, retaining walls, mailboxes, utility meters, utility valves, fire hydrants, power poles, light poles, guys, overhead utility lines, manholes, clean-outs, pull boxes, wing walls, inlets, culverts, headwalls, and other surface utility appurtenances.
- 10. Provide size, location, subspecies and tree tag for trees 6" or greater in diameter within limits of survey or overhanging into limits of survey.
- 11. Provide contours at one foot interval along limits of roadway survey. Elevations will be taken on an approximate 50'x 50' grid, at abrupt changes in grade and along drainage courses. Elevations of survey points will be on a separate level, but will not be part of the final plotted drawing.
- 12. Provide horizontal and vertical data for approximately 5 boreholes along project corridor.
- 13. Incorporate data outlined above into previous mapping/drawings provide by MWM DesignGroup.
- 14. Provide one additional sheet to incorporate additional project area into final ROW mapping.
- 15. Prepare metes and bounds description for 9 proposed parcels/parts (easement/ROW). Additional easements/ROW parcels/parts may be provided as an additional service if authorized by the Client. Each part of parcels having more than one part will be counted as one parcel.
- 16. Prepare parcel sketch for 9 easement/ROW parcels/parts.
- 17. Provide closure and area calculations for proposed easement/ROW parcels.
- 18. Provide field staking as described in metes and bounds description.

Excluded Services

Services that are not provided under this Agreement specifically include, but are not limited to: topographic surveys for off-site drainage or water quality/detention ponds; field verification of tree subspecies by arborist; research and mapping of underground utilities; obtaining invert elevation of manholes, elevation of pipes entering or exiting manholes and other surveys in support of SUE services provided by others; surveys in support of environmental surveys provided by others; construction phase surveying and other services or expenses which may become necessary for the completion of this project but which are not reasonably anticipatable at this time. Such services may be performed as Additional Services to this Agreement if authorized by the Client.

ROADWAY DESIGN CONTROLS

1. Provide roadway design in accordance with the current edition of the *City of Austin Transportation Manual*. The Engineer will develop roadway geometry and provide plan and profile sheets showing all applicable items from the following list:

- A. Calculated roadway centerlines for new mainlanes and driveways. Show horizontal control points.
- B. Pavement edges for all improvements including mainlanes, cross-streets, and driveways.
- C. Lane and pavement width dimensions
- D. Locations, lengths, and widths of proposed structures
- E. Traffic flow direction on all roadways. Show lane lines and/or arrows indicating the number of lanes.
- F. Control of access line, existing and proposed right of way lines, and all easements
- G. Begin and end super-elevation transitions and cross-slope changes
- H. Limits of rock rip-rap, block sod, and seeding
- I. Locations of existing structures
- J. Benchmark information
- K. Calculated profile grade for proposed mainlanes
- L. Vertical and horizontal curve data
- M. Existing and proposed profiles along the centerline of the mainlanes
- N. Water surface elevations at major stream crossings for 10-, 25-, 50-, and 100-year storms
- O. Locations of known existing and proposed utilities
- P. Subgrade elevations at profile grade lines and ditch flow lines, labeled with offsets and elevations
- Q. Locations of proposed and existing storm sewer lines and culverts
- 2. Develop the following sheets:
 - A. Title Sheet
 - B. Index of Sheets
 - C. Project Layout
 - D. Proposed Typical Sections
 - E. Existing Typical Sections
 - F. Plan and Profile Sheets for mainlanes and all cross streets
 - G. Horizontal Alignment Data Sheet
 - H. Roadway and Intersection Detail Sheets
 - I. Miscellaneous Detail Sheets
- 3. Develop design cross-sections for all proposed and existing roadways. Submit design cross-sections in electronic format and on 11"x 17" paper sheets or roll drawings. Provide the following details for each section, as applicable:
 - A. Widths of all travel lanes, shoulders, outer separations, borders, curb offsets, and rights of way.
 - B. Control lines including profile grade line and centerline
 - C. Existing natural ground line, finished grade line, and ditch flow lines. Label all control lines with offsets and elevations.
 - D. Limits of sodding/seeding, rock riprap, embankments, and excavations
 - E. Locations and identification of longitudinal joints, concrete traffic barriers, sidewalks, and common existing or proposed structures such as retaining walls
 - F. Extents and geometry for all side slopes
- 4. Provide intersection layouts detailing the geometry and drainage design of each cross street. Include curb returns, transition length, stationing, offsets and drainage details, and any transitions to existing roadways.
- 5. Determine roadway quantities including cut and fill. Prepare quantity summary sheets.

DRAINAGE DESIGN

- 1. Pre Design
 - A. Develop drainage design criteria per City of Austin and include into the DSR.
 - B. Perform field investigations to gather information for the further development of the construction plans.
- 2. Develop culvert and storm drain design and details for approximately 3000 LF of proposed roadway as applicable and in accordance with the most current edition of the City of Austins's *Drainage Criteria Manual*. They will be designed for a 25-year storm and checked for the 100-year storm potential impacts to adjacent properties. Examine COA and TxDOT's drainage criteria requirements for overtopping depth of Major Arterial Divided roadways. Design work includes all applicable items from the following list:
 - A. Develop project specific hydrologic models, an existing model for the pre-Cameron Road widening conditions and a proposed model for the post-Cameron Road widening conditions to determine 2-, 10-, 25- and 100-year peak flow rates to use in the detention design. Utilize the HEC-HMS model from city's study and its approved methods as a starting point to establish the existing condition project-specific peak flow rates.
 - B. Prepare a summary letter report which will include tables showing results and calculations, models, exhibits (sub-areas and HEC-RAS cross sections maps) and methodology discussion.
 - C. Use above proposed model to create a proposed model with detention.
 - D. Prepare Existing and Proposed Drainage area maps
 - E. Prepare plan/profile sheets for storm drain systems and layouts for outfall ditches and channels.
 - F. Prepare culvert layout for replacement structure (1 cross culvert).
 - G. Prepare details for items such as manholes, inlets, junction boxes, headwalls, and other end treatments. Use standard details from the COA, TxDOT or Austin District standards list where appropriate.
 - H. Prepare drainage details for outlet protection, outlet structures, and utility accommodation structures.
 - I. Identify potential conflicts, including utility conflicts and conflicts with proposed construction phasing plans.
 - J. Identify existing ground elevation profiles at right of way lines on storm sewer plan and profile sheets
 - K. Submit drainage features to allow development of GEOPAK cross sections.
 - L. Determine if additional drainage easements are required.
 - M. Preparation of Hydraulic Data Sheets for storm sewer design and culvert
- 3. Develop and design stormwater detention. Design work includes all applicable items:
 - A. Preliminary discussions with County regarding Regional Stormwater Management Participation
 - A. Prepare stormwater detention layouts and calculations.
 - B. Prepare drainage details for detention facilities
- 4. Develop storm water quality BMP.
 - A. Prepare stormwater quality pond layouts and calculations.
 - B. Prepare drainage details for storm water quality pond facilities
 - C. Calculate the required water quality pond volume.
 - D. Calculate the reduced runoff CN resulting from providing decentralized water quality volumes placed along the roadway which should result in a reduced requirement for detention.
 - E. Prepare water quality facility layout.
 - F. Prepare water quality facility detail for the filter and outlet structures.

- G. Develop the structural design and details required for sedimentation and filtration ponds (if needed) proposed for the project. The plan sheets to be developed for each pond will include the following:
 - Sedimentation/Filtration Retaining Wall Layout sheets consisting of a plan view of the proposed pond that identifies retaining walls, provides retaining wall areas, provides a table of elevations and includes pond/wall dimensions.
 - ii. Sedimentation/Filtration Retaining Wall Reinforcing Details consisting of a retaining wall typical section, retaining wall design heights, retaining wall properties, reinforcing details and a reinforcing steel schedule.
- H. Preparation of drainage details for storm water quality features to possibly include pretreatment inlets, wet vaults, infiltration trenches and rainwater harvesting.
- I. Prepare Miscellaneous details for special inlets and drainage structures. Consideration will be given to the use of stormwater pretreatment inlets that would exist just upstream of the traditional storm inlets.
- J. Revise horizontal drainage alignment of water quality features. Assume the horizontal roadway alignment will not change after the 30% Cameron Road submittal comments are addressed.
- K. Revise vertical drainage alignment of water quality features. Assume the vertical roadway alignment will not change after the 30% Cameron Road submittal comments are addressed.
- 5. Develop the following plans:
 - A. Storm water pollution prevention plans (SW3P) for each phase of construction. Develop SW3P to minimize potential impact to receiving waterways and in conformation with the traffic control plans. Develop SW3P in conformance with the traffic control plans and TCEQ regulations in order to minimize potential impact to receiving waterways. Include text describing the plan, quantities, type, phase, and locations of erosion control devices and any required permanent erosion control measures. Include methods to allow for Phased construction in keeping with new COA requirements.
 - B. Temporary erosion control plans. Develop plans incorporating temporary storm water management devices including flexible sediment logs, silt fence, rock filter dams, sediment traps, flocculants, and stabilized construction exits. Include notes indicating the Contractor is responsible for final phasing the devices during construction along with the final construction sequencing based on the general sequence guidance provided in the plan set.
 - C. Permanent erosion control plans. Develop plans showing proposed revegetation, including seeding and sodding. Include all riprap (concrete and stone).
 - D. Erosion Control Details. Develop details for related items not covered by existing County, City or TxDOT standard details.
- 6. Prepare quantity summaries and cost estimates for all drainage and water quality items.
- 7. Prepare construction specifications for stormwater facilities. Assume that the City of Austin specs and numbering system will be used.
- 8. Sequence of work narrative describing all phases of the drainage work. It is important protect the permanent water quality treatment features from clogging and performance reduction due to impacts of construction sediments.

Assumption: No FEMA coordination will be required as there will be no fill within the floodplain.

SIGNING, PAVEMENT MARKINGS AND SIGNALIZATION

The Engineer will provide signing and pavement markings for the following sections of the project: Cameron Road/Harris Branch Parkway from Howard Lane to approximately 900 feet north of Gregg Lane.

- 1. Coordinate with the county for overall temporary, interim, and final signing strategies and for placement of signs outside contract limits.
- 2. Prepare drawings, specifications, and details for non-standard signs. Sign detail sheets should include the following items, as applicable:
 - A. Illustrations of non-standard proposed signs
 - B. Dimensions, lettering, , borders, and corner radii for small signs
 - C. Summary of small signs
- 3. Provide the following information on sign/pavement marking layouts:
 - A. Roadway layout
 - B. Centerline with station numbering
 - C. Right of way limits
 - D. Culverts and other structures that may present a traffic hazard
 - E. Existing signs to remain, to be removed, or to be relocated
 - F. Proposed small signs. Illustrate and number of all proposed signs
 - G. Proposed markings including pavement markings, object markings, and delineation. Illustrate and quantify all proposed markings
 - H. Proposed delineators and object markers
 - 1. Quantities of pavement markings, delineators, and object markers
 - J. Direction of traffic flow on all roadways
 - K. Locations of any changes in the number of lanes
- 4. Detail permanent and temporary pavement markings and channelization devices on plan sheets.
- 5. Select sign and supports from the most recent TxDOT standards.
- 6. Select pavement markings from the most recent TxDOT or City of Austin standards.
- 7. Provide quantities for signing and pavement markings
- 8. Provide sign/pavement marking summary sheet.

MISCELLANEOUS

- 1. Perform site evaluation to verify existing conditions for roadway widths and lane configurations as they might impact traffic control considerations and overall phasing (Harris Branch portion).
- 2. Develop possible phasing considerations based on the scope of construction (Harris Branch portion).
- 3. Coordinate traffic control requirements with City of Austin and Owner (Harris Branch portion).
- 4. Prepare traffic control and phasing plans. Provide City of Austin (COA) and Travis County required details and notes (Harris Branch portion).
- 5. Provide tree protection (TP) plan and City of Austin (COA) General Permit required details and notes (Harris Branch portion).
- 6. Provide temporary SWPPP per current COA and Travis County ECM requirements. The SWPPP document will refer to the E/S control and tree protection plans.
- 7. Address COA review comments regarding traffic control, E/S and TP sheets.
- 8. Attend up to 3 meetings (2 hours each) with City of Austin ROW Management and Travis County to coordinate and discuss traffic control layouts.
- 9. Prepare a quantities summary sheet.
- 10. Develop miscellaneous roadway details as applicable.

- 11. Develop driveway details and summaries as required. Identify and provide designs for any driveways that must be reconstructed to meet ADA requirements.
- 12. Implement a quality assurance/quality control program and provide evidence of the internal review process in the form of a set of red-line mark-ups submitted at the 30%, 90% and 100% milestones. Provide certification indicating who reviewed the plans.
- 13. Deliver all electronic files upon project letting and within 30 days of written request.

Excluded Services

Services that are not provided under this Agreement specifically include retaining walls; illumination conduit layouts; and other services or expenses which may become necessary for the completion of this project but which are not reasonably anticipatable at this time. Such services may be performed as Additional Services to this Agreement if authorized by the Client.

DELIVERABLES ITEMS REQUIRED FROM THE ENGINEER

All deliverables will be provided in accordance with the original contract terms. The Engineer will make a 30% (Schematic Design) review submittal for this supplemental extension along Cameron Road. Upon approval of the schematic design, the Engineer will proceed to the 90% PS&E submittal.

GM200I13 TRAVIS COUNTY	5/10/12
Fiscal Year 2012 Account Balance Inquiry	10:40:23
Account number : 479-4931-621.81-64	
Fund : 479 STATE STD HWY CAP GRANT	Project Req'd
Department : 49 TNR (TRANS & NATRL RESRC)	
Division : 31 RD CAPACITY/BRIDGE REPLMT	
Activity basic: 62 INFRA-ENV SCVS (TRNS&RDS)	
Sub activity : 1 TNR (TRANS & NATRL RESRC)	
Element : 81 CAPITAL OUTLAY	
Object : 64 PURCH SVC-INFRASTRCTR RDS	
Original budget : 0	
Revised budget 5,794,347 10/01/2013	L
Actual expenditures - current .: .00 Actual expenditures - ytd: 6,323.06-	
Actual expenditures - ytd : 6,323.06-	
Unposted expenditures : .00	
Encumbered amount 62,946.28	
Unposted encumbrances : .00	
Pre-encumbrance amount : 13,084.54	
Total expenditures & encumbrances: 69,707.76 1.2%	
Unencumbered balance : 5,724,639.24 98.8	
F5=Encumbrances F7=Project data F8=Misc inquiry	
F10=Detail trans F11=Acct activity list F12=Cancel F24	1=More keys

GM200I13 TRAVIS COUNTY	5/10/12
Fiscal Year 2012 Account Balance Inquiry	10:42:00
Account number : 475-4993-750.60-99	
Fund : 475 CONTRACTUAL CAPITAL PROJ	Project Req'd
Department : 49 TNR (TRANS & NATRL RESRC)	
Division : 93 INTERGOV AGREEMNTS-ROADS	
Activity basic : 75 CHARGES FOR SERVICES	
Sub activity : 0 INFRA-ENV SCVS (TRNS&RDS)	
Element : 60 OTHER PURCHASED SERVICES	
Object : 99 CONTRACTED SERVICES	
Original budget : 0	
Revised budget 3,821,873 04/25/201	2
Actual expenditures - current .: 124,748.71	
Actual expenditures - ytd : 27,348.64-	
Unposted expenditures : .00	
Encumbered amount : 299,459.29	
Unposted encumbrances : .00	
Pre-encumbrance amount : 321,707.82	
Total expenditures & encumbrances: 718,567.18 18.8%	
Unencumbered balance : 3,103,305.82 81.2	
F5=Encumbrances F7=Project data F8=Misc inquiry	
F10=Detail trans F11=Acct activity list F12=Cancel F2	4=More keys

PURCHASE REQUISITION NBR: 0000557707

STATUS: AUDITOR APPROVAL REASON: 53933 PO441144 MOD#2 CONTRACTO9AE0251JW ATTN:WALKE REQUISITION BY: TAWANA GARDNER 854-7679 DATE: 4/23/12

SUGGESTED VENDOR: 75762 JACOBS ENGINEERING GROUP INC SHIP TO LOCATION: AS INDICATED BELOW DELIVER BY DATE: 4/23/12

LINE NBR	DESCRIPTION	QUANTITY	UOM	UNIT COST	EXTEND COST	VENDOR PART NUMBER
1	WORK PRODUCT 3 - 90% DESIGN PHASE COA PORTION COMMODITY: PUBLIC WORKS/CONSTRUCTION SUBCOMMOD: CIP NON-CAPITAL REIMBUSMT INVENTORY BUILDING: AI STOCK NO: 968-048-00090	308383.09	DOL	1.0000	308383.09	
2	WORK PRODUCT 4 - 100% DESIGN PHASE COA PORTION COMMODITY: PUBLIC WORKS/CONSTRUCTION SUBCOMMOD: CIP NON-CAPITAL REIMBUSMT INVENTORY BUILDING: AI STOCK NO: 968-048-00091	13324.73	DOL	1.0000	13324.73	
3	WORK PRODUCT 3 - 90% DESIGN PHASE T.C. PORTION COMMODITY: PUBLIC WORKS/CONSTRUCTION SUBCOMMOD: MAJOR ROAD-NEW CONSTRUCT INVENTORY BUILDING: AI STOCK NO: 968-054-00296	14300.00	DOL	1.0000	14300.00	
4	WORK PRODUCT 4 - 100% DESIGN PHASE T.C. PORTION MODIFICATION 2 WILL ADD A SECTION OF CAMERON ROAD NOT INCLUDED IN THE ORIGINAL SCOPE OF WORK FOR THE HOWARD LANE PHASE II PROJECT. IT ALSO INCLUDES DESIGN MODIFICATIONS DUE TO THE NEED TO RELOCATE AN EXISTING GAS LINE AND TO REVISE THE PAVEMENT DESIGN TO PEFORM BETTER AND LONGER BASED ON THE SOIL TYPES ***********************************	2055.67	DOL	1.0000	2055.67	

REQUISITION TOTAL: 338063.49

	ACCOUNT INFORMATION							
LINE #	ACCOUNT		PROJECT	%	AMOUNT			
1	47549937506099	OTHER PURCHASED SERVICES	X1L017	100.00	308383.09			
2	47549937506099	CONTRACTED SERVICES OTHER PURCHASED SERVICES	HOWARD LANE PH II X1L017	100.00	13324.73			
-	47040016010164	CONTRACTED SERVICES	HOWARD LANE PH II	00.00				
3	47949316218164	CAPITAL OUTLAY PURCH SVC-INFRASTRCTR RDS	M10479 HOWARD LN @SH130	80.00	11440.00			
3	51349318088164	CAPITAL OUTLAY	010479	20.00	2860.00			
4	47949316218164	PURCH SVC-INFRASTRCTR RDS CAPITAL OUTLAY	CERT OBLIG TXDOT HOWD LN M10479	80.00	1644.54			
	E1040010000164	PURCH SVC-INFRASTRCTR RDS	HOWARD LN @SH130	0.0	411 10			
4	51349318088164	CAPITAL OUTLAY PURCH SVC-INFRASTRCTR RDS	010479 CERT OBLIG TXDOT HOWD LN	20.00	411.13			

PURCHASE REQUISITION NBR: 0000557707

STATUS: AUDITOR APPROVAL REASON: 53933 PO441144 MOD#2 CONTRACTO9AEO251JW ATTN:WALKE REQUISITION BY: TAWANA GARDNER 854-7679 DATE: 4/23/12

SHIP TO LOCATION: AS INDICATED BELOW SUGGESTED VENDOR: 75762 JACOBS ENGINEERING GROUP INC DELIVER BY DATE: 4/23/12

EXTEND LINE UNIT

NBR DESCRIPTION QUANTITY UOM COST COST VENDOR PART NUMBER

338063.49

REQUISITION IS IN THE CURRENT FISCAL YEAR.

REQUISITION COMMENTS:

20120423 - RT 5/3/12 RETURN TO UPDATE. KS