



**REGIONAL TRANSPORTATION COMMISSION**

*Metropolitan Planning • Public Transportation & Operations • Engineering & Construction*

Metropolitan Planning Organization of Washoe County, Nevada

January 18, 2019

**AGENDA ITEM 3.13**

**TO:** Regional Transportation Commission

**FROM:** Scott Gibson, P.E.  
Engineer II



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Lee G. Gibson, AICP  
Executive Director

**SUBJECT: Amendment 2 to the Professional Services Agreement with Wood Rodgers, Inc. for the California Avenue and Keystone Avenue Interchange Enhancements Project**

**RECOMMENDATION**

Approve Amendment No. 2 to the PSA (Professional Services Agreement) with Wood Rodgers, Inc. for the California Avenue and Keystone Avenue Interchange Enhancements project for EDC (Engineering During Construction) services to provide for construction inspection, material testing, and contingency in the amount of \$199,980; authorize the RTC Executive Director to execute the agreement. This will bring the total PSA amount to \$333,425.

**SUMMARY**

Wood Rogers, Inc. has completed the design, plan preparation, and specifications for the project. The project is scheduled to go out for bid in January with an anticipated construction start in early March. Because of their familiarity with the project providing design documents Wood Rogers is recommended to provide EDC as an optional task under item 2.3 of the PSA. This amendment (Attachment A) provides the funding and details the scope of services to be provided for those services.

The scope, budget, and schedule associated with this amendment are estimated to carry the project through the completion of the project. Optional engineering during construction services were expected and planned to be negotiated and added to the PSA as the scope of the project became clearer through evaluation and selection of a design alternative.

**FISCAL IMPACT**

Funds for this project are budgeted in the Fiscal Year (FY) 2019 Program of Projects (POP).

**PREVIOUS ACTIONS BY BOARD**

- December 15, 2017      Approved a Professional Services Agreement (PSA) with Wood Rodgers, Inc. for the California Avenue and Keystone Avenue Interchange Enhancements project for design services in the amount of \$123,445.
- October 17, 2014      Approved the Keystone Corridor Study which included concepts for California Intersection Safety & Multimodal Improvements. An early action alternative to reconfigure the intersection primarily within existing right-of-way to accommodate sidewalks and bike lanes on the eastbound side of California Avenue was envisioned. The existing eastbound free flow auto travel lane would be changed to a standard signalized intersection. An ADA compliant ramp would be constructed to replace the existing stairs on the north side of California Avenue.

**ADVISORY COMMITTEE(S) RECOMMENDATION**

There are no advisory committee recommendations pertaining to this agenda item.

Attachment

AMENDMENT NO. 2  
AGREEMENT  
BETWEEN  
REGIONAL TRANSPORTATION COMMISSION OF WASHOE COUNTY  
AND  
WOOD RODGERS, INC.

The Regional Transportation Commission of Washoe County (“RTC”) and Wood Rodgers, Inc. (“CONSULTANT”) entered into an agreement on March 5, 2018 (the “Agreement”), as previously amended by Amendment # 1 dated and effective as of December 1, 2018. This Amendment #2 is dated and effective as of January 21, 2018.

RECITALS

WHEREAS, the parties entered into the Agreement for CONSULTANT to provide certain engineering and design services in connection with the Keystone / California Intersection project, including optional construction management services; and

WHEREAS, RTC and CONSULTANT have negotiated a detailed scope of services and costs for those construction management services and have agreed to amend the Agreement; and

WHEREAS, all capitalized terms used herein and not otherwise defined shall have the meanings assigned thereto in the Agreement.

NOW, THEREFORE, in consideration of the mutual promises of the parties and other good and valuable consideration, the parties do agree as follows:

1. Section 1.3. shall be replaced in its entirety with the following:

Term of this Agreement shall be from the date first written above until December 31, 2019, unless terminated at earlier date, or extended to a later date, pursuant to the provisions herein.

2. Section 5.1. shall be replaced in its entirety with the following:

CONSULTANT’s fee for the work described in Section 2.1, “Scope of Services,” will be based upon actual time and effort for the completion of each separate task at the hourly rates and rates for testing in Exhibit B, but in no case shall the CONSULTANT be compensated in excess of the following not-to-exceed amounts:

Total Design Services (Tasks 1 to 7)	\$133,445.00
Total Construction Services (Task 8 to 10)	\$199,980.00
Total Not-to-Exceed Amount	\$333,425.00

3. Exhibit A – Scope of Services is replaced in its entirety with the version of Exhibit A attached hereto.
4. Exhibit B – Schedule of Services is replaced in its entirety with the version of Exhibit B attached hereto.
5. All other provisions of the Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have made and executed this amendment.

APPROVED AS TO LEGALITY AND FORM:

\_\_\_\_\_  
RTC Director of Legal Services

REGIONAL TRANSPORTATION COMMISSION  
OF WASHOE COUNTY

By \_\_\_\_\_  
Lee G. Gibson, AICP, Executive Director

WOOD RODGERS, INC.

By \_\_\_\_\_  
Mark Casey, Vice President

**Exhibit A**

**SCOPE OF SERVICES**

**1. PROJECT MANAGEMENT**

Prepare monthly progress reports, invoices, and billing.

Coordination with RTC project manager and staff will be ongoing throughout project. Project management and coordination meetings or conference calls will be held with the RTC and other parties as appropriate semiweekly throughout the project.

Other interested parties will include the City of Reno. Deliverables

– Invoicing and progress reports.

**2. PUBLIC AND AGENCY INVOLVEMENT**

Public Information Meeting

Public Information Meeting will be held once during preliminary design and once again before construction with the property owners adjacent to the project work zone to discuss project limits, scope, tentative schedule, traffic controls, driveway access, public notification requirements, and concerns of adjacent properties before the plans and specifications are finalized.

Consultant will provide flyers (in English and Spanish) to RTC for distribution. Consultant will provide addressed post cards for the meeting (anticipated to include properties within 500-feet of the project area) to RTC to mail (RTC will pay postage separately). Consultant will perform email of post card notifications as necessary. Additionally, public meetings will be promoted on project website and social media.

The CONSULTANT will provide materials to RTC staff for presentation to the RTC Board and Reno and Sparks City Councils as required.

Deliverables – Meeting materials, power point presentations, website maintenance which will include project status information and photos.

**3. INVESTIGATION OF EXISTING CONDITIONS**

The CONSULTANT will obtain traffic data to update and verify the volumes identified in the Corridor Study. Utilities within the project area will be located and assessed for possible conflict with the proposed project. Topographic mapping and Boundary will be determined to meet design needs.

### **3.1 Geotechnical Investigation**

CONSULTANT will prepare a traffic control plan and an encroachment permit application will be submitted to the City of Reno for approval.

Field exploration will consist of excavating 1 test pit with a rubber tired backhoe to maximum depth of 10 feet below the existing ground surface. The test pit will be backfilled immediately after exploration. Backfill will be loosely placed and the area regraded to the extent possible with the equipment on hand.

CONSULTANT's final soil testing program will be developed around the soils encountered during investigation. Anticipated laboratory testing includes: soil moisture (ASTM D2216), gradation (ASTM D6913), plasticity (ASTM D4318), and soluble sulfates (SM4500 S04E).

CONSULTANT will perform asphalt concrete thickness cores in California Avenue and Keystone Avenue to verify pavement thickness. Pavement thicknesses will be reported within the geotechnical report. No additional testing of pavement or material below pavement is anticipated.

Upon completion of field, laboratory and office studies, a geotechnical investigation report will be completed and submitted for review. Note that Pavement design is not included at this time. This roadway is scheduled for a maintenance treatment of 2" mill and overlay.

Deliverables – Geotechnical Investigation Report.

### **3.2 Pavement Distress Survey**

CONSULTANT will perform a pavement distress survey to determine areas that need patching/sealing prior to an asphalt mill and overlay. Areas needing patching and/or sealing will be mapped and placed on the project plans.

Deliverables – Pavement distress areas identified in CAD format

### **3.3. Subsurface Utilities**

CONSULTANT will investigate and locate subsurface utilities within the roadway R/W, and areas reasonably effected, in accordance with the American Society of Civil Engineers Standard guideline for the Collection and Depiction of Existing Subsurface Utility Data, Quality Level C. Additionally, CONSULTANT will coordinate with Utility Owners to remove lids of surface features and document depth of utility device, or invert of pipe, within such surface features.

Based on field investigation, CONSULTANT will provide RTC a list of utility

companies whose utilities are likely to be within the project limits or reasonably affected by the project. RTC will issue the initial notification to the utility agencies on the list and CONSULTANT will coordinate with the utility agencies for upcoming work, facility relocation and new installation, and to insure utilities likely affected by the project are drawn on the plan and profile, evaluate potential conflicts through field investigation, investigate conflict resolution strategies.

Deliverables will include: Depiction of subsurface utilities on plan sheets developed under Section 2.1.B, Preliminary Design. An inventory of subsurface utility surface features by Owner, type, location, and depth of feature or pipe invert.

**3.4 Utility Potholing** (This task will only be used at the direction of the RTC project manager)

CONSULTANT will hire a potholing contractor to investigate and locate specific subsurface utilities within the roadway R/W, and areas reasonably effected by the project that are deemed to have potential conflicts with construction. This is estimated at a single day of potholing for the project limits. Deliverables will include: Depiction of subsurface utilities on plan sheets developed under Section 4, Preliminary Design.

**3.5 Topographic Survey**

CONSULTANT will perform an aerial planimetric survey for the project corridor supplemented with conventional topographic survey within the reconstruction area. One (1) Foot Contour intervals will be provided at a scale of 1"= 20' with a width at least 20 feet behind the curbs along the length of the project to provide for consideration of improvements and grade continuity behind the curb.

All key existing features of the project site will be located and shown on the plan. These features shall include but not be limited to, buildings, road cross sections, hardscape features, and all utility features and structures.

Deliverables – Topographic survey in CAD format

**3.6 Right of Way Mapping**

CONSULTANT will obtain record R/W based upon Washoe County GIS information. The record Right of way information will be shown on the project plans. No further resolution of the roadway right of way is included within this task.

Deliverables – Record Right of Way in CAD format

**3.7 Right of Way Engineering Services**

It is estimated approximately four (4) parcels will require permanent and/or temporary

easements and/or potentially partial fee takes to construct the planned improvements. CONSULTANT will perform boundary surveying including preparation of full Metes and Bounds descriptions of 4 individual parcels. This will include Property record research, drafting of property boundaries from record descriptions, calculation of search coordinates for field boundary survey, field boundary survey on each affected parcel, post processing and reduction of field data, boundary resolution based upon field findings, preparation of legal descriptions and Exhibit maps of individual affected parcels. A grant, bargain, sale deed or easement document will be prepared for each subject parcel and will be sent to the RTC for review. All comments will be addressed prior to recordation.

Right of Way Appraisal, Property Owner Negotiations, Escrow Coordination and Title Clearance is not included within this task.

Deliverables – Property Boundary for 4 parcels along with exhibit maps and legal descriptions for easements on each parcel

#### **4. Preliminary Design**

##### **4.1 Preliminary Roadway Design (50% Design)**

CONSULTANT will prepare and submit for review up to 3 conceptual alternatives for the proposed intersection. Considerations will build upon elements within the previous corridor study and review alternates for lane widths, bicycle lanes, sidewalks, pedestrian ramps, bus and other large traffic turning movements and physical constraints of the project area. Each alternate will provide accessible walkways on California Avenue from Booth Street to Newlands Circle.

CONSULTANT will identify the R/W needed, (if any) and prepare conceptual construction cost estimates for each alternative.

CONSULTANT will prepare for and attend one in-person meeting with RTC and City of Reno staff to discuss the potential and preliminary design layout of the reconfigured intersection.

Plans and Specifications. Based upon the selected alternative, CONSULTANT will prepare preliminary Roadway and Signal Plans, an outline of Technical Specifications, and a preliminary cost estimate suitable for RTC and Local Government review. Construction plans shall cover an area sufficient for contractor's later use as a base for traffic control plans, e.g., coverage should include traffic control taper areas across intersections. Curb, gutter, and sidewalk that are deficient according to both RTC and local entity standards shall be identified.

Deliverables – Preliminary (50%) Plans submitted to RTC and City of Reno



#### **4.2 Drainage Analysis**

CONSULTANT will prepare a drainage analysis to determine the impacts associated with the changes to the locations of the curb and gutter associated with the new sidewalk construction and re-alignment of the Keystone and California Avenue intersection. Drainage will be reviewed and recommendations made to improve any drainage deficiencies.

Deliverables – Drainage Report

### **5. Final Design**

#### **5.1 Prepare Final Plans and Specifications**

Prepare Final Construction Plans, Contract Documents and Technical Specifications suitable for construction bid advertisement for the approved alignment in accordance with RTC standards and requirements. RTC will provide the boilerplate on disk in MS Word format. The RTC, Local Entity and Quality Control review comments will be incorporated into the final Plans and Specifications.

The final construction plans will be on 22" x 34" size sheets and will show all elements of the project construction, including plan/profile view, R/W lines, cross-sections and construction/slope limits. The final plan set is anticipated to include approximately 42 sheets and will include approximately the following sheets:

- Cover Sheet
- Notes, Legend and Abbreviations Sheet
- Horizontal Control
- Demolitions Plans (at 1"=20' scale)
- Plan/Profile Sheets (at 1"=20' scale)
- Grading/Drainage
- Signing and Striping Plan Sheets (at 1"=20')
- Traffic Signals and Lighting Sheets
- Detail Sheets (scales as noted).

Depths of existing sanitary sewer and storm drain utilities will be checked and noted on the plans if there is any reason to expect conflict due to vertical clearances. All located, existing underground utilities will be shown on the Plan Sheets accompanied with the following "Note: Subsurface utilities are depicted by their Quality Levels in accordance American Society of Civil Engineers Standard Guidelines for the Collection and Depiction of Existing Subsurface Utility Data (CI/ASCE 38-02). All utility information shown hereon is depicted to Quality Level "C", unless otherwise noted."

The Contract Documents and Technical Specifications will reference the latest edition of Standard Specifications for Public Works Construction (Orange Book) for

standard construction items. Technical provisions will be prepared for approved deviations from the Orange Book and unique construction items not adequately covered in the Orange Book. The final plans and specifications will be signed and sealed by a Nevada Registered Professional Civil Engineer in responsible charge of preparation. Plans and specifications will be submitted to the RTC, City of Reno, RTAA, NDOT, utility agencies and other affected parties for review at the 50%, 90% and 100% stages of completion per the following:

- 50% & 90% Plans – One 11”x17” set to RTC, six 11”x17” sets to City of Reno, and one 11”x17” set each to utility agencies.
- 90% Specifications – One set each to RTC and City of Reno
- 100% Plans – One 11”x17” each to RTC and City of Reno
- 100% Specifications – One set each to RTC and City of Reno

An independent checker will check, initial and date each plan sheet. A quality control review of the plans, contract documents and technical specifications will be performed which will focus on technical aspects of the plans and specifications and will ensure that all items of work are adequately covered.

Deliverables – Final Plans and Specifications delivered to the RTC, City of Reno and Utilities.

## **5.2 Final Engineer’s Opinion of Probable Construction Costs and Time**

Provide a final Engineer’s opinion of probable construction costs for the project based on the final design and any alternatives or options. The cost opinion will be in the same format as the bid proposal form included in the contract documents. A quality control review of the cost opinion will be performed by the CONSULTANT. The CONSULTANT will also estimate the number of working or calendar days, as appropriate, for the construction of the projects.

Deliverables – Opinion of Probably cost and time of construction.

## **6. Bidding Services**

Plan Set and Specification Distribution: CONSULTANT will provide RTC with final plans and specifications, including addenda, in Portable Document Format (PDF), for use in the Ebid system.

Pre-bid Meeting: CONSULTANT will be available during the bidding process to answer technical questions and will hold the pre-bid meeting. All questions and responses will be documented and provided to RTC. CONSULTANT will prepare and provide PDF addenda, if required. All questions regarding legal aspects of the contract documents will be referred directly to RTC. CONSULTANT will prepare and provide a PDF summary of the pre-bid meeting, as directed by the RTC.

**Bid Opening:** CONSULTANT will attend the bid opening and review the bids received for irregularities and provide a recommendation for award. CONSULTANT will tabulate bid results into a MS Excel spreadsheet and check multiplication and addition of bid items.

Deliverables – Attendance at Pre-Bid meeting and Bid Opening, bid review.

**7. Design Contingency**

This is a design contingency for miscellaneous increases within the scope of this contract. CONSULTANT shall provide a letter detailing the need, scope, and not- to exceed budget for any proposed work. Work under this task shall proceed only with the RTC Project Manager's written approval.

**8. Construction Services**

Construction Management of the Keystone and California intersection reconstruction. Anticipated improvements include the re-alignment of the Keystone and California intersection, lane reconfigurations, pavement section reconstruction, sidewalk, curb and gutter, new PROWAG compliant pedestrian sidewalks and ramps and other incidentals necessary for the final design of this facility. A total of 45 working days are anticipated for construction.

The RTC and CONSULTANT shall review Optional Construction Services following the completion of final design to determine their appropriateness to the project.

**8.1 Contract Administration**

Provide contract administration services as follows:

- Attend the preconstruction conference
- Perform construction coordination
- Review and provide recommendations on contractor's traffic control plans
- Review and stamp contractor's submittal for conformance to the contract documents, including plantmix bituminous pavement and Portland Cement concrete mix designs
- Review and provide recommendations on test results
- Review and provide recommendations on contractor's construction schedule and work progress
- Review construction for acceptance and/or mitigation
- Provide verification and approval of contractor's monthly pay request
- Supervise the inspection, surveying and material testing activities

- Provide recommendations to the RTC for any necessary construction changes due to field conditions
- Assist in change order review and approval

### **8.2 Construction Surveying**

Provide construction staking as follows:

- One set of preliminary grading stakes at 50' stations denoting offsets and cut or fill to finish grade. This set of stakes will also delineate clearing and grubbing limits.
- One set of red tops at 50 feet centers for subgrade preparation.
- One set of final curb and gutter stakes at 50 foot stations and 25 foot stations at returns.
- One set of offset stakes for storm drains, head walls, traffic signals, and utility pull boxes and vaults.
- Roadway monuments, referenced in four directions.

### **8.3 Inspection**

Provide Inspector. Provide one full time inspector during all construction activities. 10-hour work days and a 45-working day contract period are anticipated. This inspector will:

- Attend the preconstruction conference
- Monitor the work performed by the Contractor and verify that the work is in accordance with the plans and specifications
- Assist in problem resolution with the RTC, contractor personnel, utility agencies, the public and others
- Prepare daily inspection reports, submitted weekly to RTC and CC'd to the appropriate government jurisdiction(s).
- Provide quantity reports and assist in contractor's monthly progress payments
- Provide verification of the distribution of public relation notices required to be delivered by the contractor
- Assist in preparation of the Punch List
- Maintain a field blueline set of drawings to incorporate contractor record drawing mark-ups

Provide additional inspector during mainline paving days to monitor plantmix bituminous pavement placement and in-place density tests. 8 hours of field inspection and sampling and Nuclear Gauge time are anticipated for each of 10 paving days.

**8.4 Materials Testing**

Provide Material Testing for compliance with the specifications per the latest edition of the Standard Specifications for Public Works Construction (Orange Book) testing requirements. Materials to be tested will include plantmix bituminous pavement, aggregate base, native subgrade material, structural fill material and Portland Cement Concrete. Test reports, accompanied with CONSULTANT's recommendation regarding acceptance/mitigation of materials, shall be submitted promptly to the RTC and CC'd to appropriate governmental jurisdiction(s).

**8.5 Provide Asphalt Cement Testing**

Sampling and testing of asphalt cement binder material shall be in accordance with Section 1.01A ASPHALT CEMENT of the RTC's Special Technical Specifications. For each paving day, the CONSULTANT's designated representative shall coordinate with and receive asphalt cement binder samples from the designated plant representative. The CONSULTANT's designated representative shall be present during all sampling operations. Each sample will be properly labeled and signed off by both representatives. A sample shall be taken during the production of each "lot" (500 ton) of plantmix bituminous pavement using container no larger than a quart in size. CONSULTANT to submit all asphalt cement binder samples to the Nevada Department of Transportation (NDOT), Material Laboratory, for testing. All samples should accompany with a NDOT form titled "Transmittal for Asphalt Samples" to be provided by the RTC.

**8.6 Density Testing**

Provide On-site Nuclear Gauge Testing & Sampling during the placement of aggregate base and fill materials, on-site thin-lift Nuclear Gauge testing & sampling for plantmix bituminous pavement placement, and on-site PCC testing & sampling. 120 hours of field testing are anticipated, and laboratory tests will include moisture density curves, Atterberg limits, and sieve analysis. Test frequency shall comply with the latest edition of the Orange Book.

**8.7 Plantmix Bituminous Pavement Testing**

Provide plantmix bituminous pavement tests per each "lot" (500 tons) placed. Laboratory test shall include extraction, aggregate gradation, specific gravity, flow & stability and Marshall unit weight. Reports will also include voids in total mix and voids filled.

**8.8 Provide Plantmix Bituminous Pavement coring and Lab Testing**

Lab test shall include core unit weight. Test reports will include percent compaction.

**9. Record Information**

Record Drawings. Provide record drawings for the completed project. One set of blue-line and two sets of electronic drawings, in TIFF format (22" x 34" at 300 dpi), on diskette will be provided to RTC for its files and distribution to the Local Entity.

The final record drawings must be identified, dated, and signed as the record drawings and must also contain the engineer's stamp and signature. The Consultant may either:

1. Provide the final revisions on the original engineer-stamped/signed reproducible drawings, which will then also be identified as the record drawings, or
2. Provide new engineer-stamped/signed reproducible drawings identified as the record drawings.

The Record Drawings shall include a copy of the original title sheet (including the appropriate signatures by RTC, local government, signed and stamped by the CONSULTANT) and identified as record drawings.

**10. Construction Contingency**

This is a contingency for miscellaneous increases within the scope of this contract. CONSULTANT shall provide a letter detailing the need, scope, and not-to-exceed budget for any proposed work. Work under this task shall proceed only with the RTC Project Manager's written approval.

Last Updated: 12/06/2016

Exhibit B  
Schedule of Services

Task #	Task	Item No.	Task Description	Project Manager/Principal Engineer		Assistant Engineer		Engineer I		Drafting		Survey Crew		Technician		Chemist		Other Detail		Subcontractors		Taxes					
				Hourly Rate	# of Hours	Cost	Hourly Rate	# of Hours	Cost	Hourly Rate	# of Hours	Cost	Hourly Rate	# of Hours	Cost	Hourly Rate	# of Hours	Cost	Hourly Rate	# of Hours	Cost	# of Hours	Cost	# of Hours	Cost		
1	Project Management	1	Project Management	\$ 270.00	15	\$ 4,050.00	\$ 165.00		\$ 175.00		\$ 110.00		\$ 90.00		\$ 70.00		\$ 450.00						213	\$ 3,719.00			
2	Public and Agency Involvement	2	Public Information Meetings/Website Maintenance	\$ 210.00	4	\$ 840.00	\$ 155.00	4	\$ 620.00	\$ 115.00	5	\$ 575.00	\$ 120.00	12	\$ 1,440.00	\$ 100.00	8	\$ 800.00	\$ 1,000.00					48	\$ 10,000.00		
3	Existing Conditions	3.1	Geotechnical Investigation	\$ 700.00	1	\$ 700.00	\$ 195.00	9	\$ 1,755.00	\$ 115.00	7	\$ 805.00	\$ 110.00	7	\$ 770.00	\$ 180.00	4	\$ 720.00	\$ 1,100.00					19	\$ 2,100.00		
		3.2	Inventory Desktop Survey	\$ 700.00	1	\$ 700.00	\$ 185.00	6	\$ 1,110.00	\$ 115.00	6	\$ 690.00	\$ 110.00	6	\$ 660.00	\$ 110.00	5	\$ 550.00							5	\$ 550.00	
		3.3	Subsurface Utilities	\$ 290.00	5	\$ 1,450.00	\$ 165.00	2	\$ 330.00	\$ 115.00	4	\$ 460.00	\$ 110.00	24	\$ 2,640.00	\$ 100.00	1	\$ 100.00									
		3.4	Topographic Survey	\$ 210.00	1	\$ 210.00	\$ 185.00	8	\$ 1,480.00	\$ 115.00	4	\$ 460.00	\$ 110.00	5	\$ 550.00	\$ 125.00	24	\$ 3,000.00	\$ 95.00	3	\$ 285.00					3	\$ 285.00
		3.5	Right of Way Mapping	\$ 210.00	1	\$ 210.00	\$ 185.00	7	\$ 1,295.00	\$ 115.00	4	\$ 460.00	\$ 110.00	3	\$ 330.00	\$ 110.00	5	\$ 550.00									5
4	Preliminary Design	4.1	Highway Design (20%)	\$ 210.00	8	\$ 840.00	\$ 165.00	42	\$ 6,930.00	\$ 115.00	42	\$ 4,830.00	\$ 110.00	48	\$ 5,280.00	\$ 180.00	5	\$ 900.00									
5	Final Design	5.1	Final Plans and Specifications	\$ 210.00	4	\$ 840.00	\$ 165.00	48	\$ 7,920.00	\$ 115.00	48	\$ 5,520.00	\$ 110.00	54	\$ 5,940.00	\$ 185.00	8	\$ 1,480.00									
6	Bidding Services	6.1	High Bid and Specification Distribution	\$ 210.00	1	\$ 210.00	\$ 165.00	2	\$ 330.00	\$ 115.00	2	\$ 230.00	\$ 110.00	2	\$ 220.00	\$ 180.00	1	\$ 180.00									
7	Design Contingency																										
8	Construction Services	8.1	Provide Contract Administration	\$ 210.00	30	\$ 6,300.00	\$ 165.00	260	\$ 42,900.00	\$ 115.00	17	\$ 1,955.00	\$ 110.00	18	\$ 1,980.00	\$ 180.00	10	\$ 1,800.00									
		8.2	Provide Construction Supervision	\$ 210.00	18	\$ 3,780.00	\$ 165.00	40	\$ 6,600.00	\$ 115.00	13	\$ 1,485.00	\$ 110.00	110	\$ 12,100.00	\$ 180.00	5	\$ 900.00									
		8.3	Provide Inspection	\$ 210.00	1	\$ 210.00	\$ 165.00	1	\$ 165.00	\$ 115.00	1	\$ 115.00	\$ 110.00	1	\$ 110.00	\$ 180.00	1	\$ 180.00									
		8.4	Materials Testing	\$ 210.00	1	\$ 210.00	\$ 165.00	1	\$ 165.00	\$ 115.00	1	\$ 115.00	\$ 110.00	1	\$ 110.00	\$ 180.00	1	\$ 180.00									
		8.5	Provide A/C Plant inspection and Testing	\$ 210.00	1	\$ 210.00	\$ 165.00	1	\$ 165.00	\$ 115.00	1	\$ 115.00	\$ 110.00	1	\$ 110.00	\$ 180.00	1	\$ 180.00									
		8.6	On Site Hotmix Plant Testing	\$ 210.00	1	\$ 210.00	\$ 165.00	1	\$ 165.00	\$ 115.00	1	\$ 115.00	\$ 110.00	1	\$ 110.00	\$ 180.00	1	\$ 180.00									
		8.7	Subsurface Pavement Testing	\$ 210.00	1	\$ 210.00	\$ 165.00	1	\$ 165.00	\$ 115.00	1	\$ 115.00	\$ 110.00	1	\$ 110.00	\$ 180.00	1	\$ 180.00									
		8.8	Subsurface Pavement Coring and Lab Testing	\$ 210.00	1	\$ 210.00	\$ 165.00	1	\$ 165.00	\$ 115.00	1	\$ 115.00	\$ 110.00	1	\$ 110.00	\$ 180.00	1	\$ 180.00									
9	Record Inclusion		Provide Record Drawings	\$ 210.00	1	\$ 210.00	\$ 165.00	2	\$ 330.00	\$ 115.00	1	\$ 115.00	\$ 110.00	1	\$ 110.00	\$ 180.00	1	\$ 180.00									
10	Contingency																										
<b>Grand Totals</b>					80	\$ 14,850.00		389	\$ 45,000.00		267	\$ 31,000.00		354	\$ 39,200.00	2	\$ 360.00					51	\$ 10,000.00				

