



CENTRAL TEXAS REGIONAL  
**MOBILITY AUTHORITY**

## February 26, 2020 AGENDA ITEM #12

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Discuss and consider approving Work Authorization No. 15 with Atkins North America, Inc. for general consulting engineering services for development of the Manor Expressway (290E) Phase IV Project

Strategic Plan Relevance:	Regional Mobility
Department:	Engineering
Contact:	Justin Word, P.E., Director of Engineering
Associated Costs:	\$996,917
Funding Source:	General Funds
Action Requested:	Consider and act on draft resolution

**Background** - The 290 corridor is critical to regional mobility. The Mobility Authority invested in this corridor by planning, designing, constructing, and now operating three separate phases of improvements. The 290 Toll project upgraded the existing US 290 to a new expressway facility, which tripled the roadway's capacity. It included three tolled main lanes and three non-tolled general-purpose lanes in each direction along US 290 from US 183 interchange to the eastern limits east of SH 130.

**Phase I.** The first phase developed and constructed by the Mobility Authority consisted of four tolled direct connectors and associated pavement at the US 183 interchange to provide direct access to and from the 290 Toll main lanes. Federal stimulus funding was allocated to help complete this phase. Phase I was open to traffic in late 2012.

**Phase II.** The second phase was a 6.2-mile toll road consisting of three tolled main lanes and three non-tolled general-purpose lanes in each direction from the US 183 interchange to the eastern limits east of SH 130. It opened to traffic in May 2014.

**Phase III.** The Mobility Authority, in coordination with TxDOT, developed plans to construct three direct connectors at the SH 130 interchange. These bridges will give drivers a free-flowing direct connection and free up capacity on the frontage road intersection underneath the toll facilities. Construction is underway, with the flyover

from southbound SH 130 to westbound 290 Toll already open to traffic. The remaining flyovers are slated for completion in 2020.

**Project Description** - Considering the recent local support received, growth, and expected continuing commercial and residential development along the corridor, extension of the 290E Manor Expressway eastward is a good candidate for further study. The study would evaluate the demand and potential benefit to the region, preliminary constraints, and financial feasibility.

Under this proposed work authorization, Atkins North America, Inc. would undertake a feasibility study to investigate the potential extension of 290E Manor Expressway further eastward to SH 95 in Elgin. The feasibility study would investigate the cost to widen US 290 and extend 290E toll lanes, develop corridor concepts including assessment of preliminary environmental, utility, and right-of-way constraints, stakeholder coordination, preparation of a project development schedule, and analysis of financial feasibility and funding opportunities. The Central Texas Regional Mobility Authority currently operates the 290E Manor Expressway toll lanes beginning at US 183 and extending eastward to terminate just east of the SH 130 interchange, merging into existing US 290.

**Previous Actions** - On December 2017 the Board authorized execution of a General Engineering Consulting Services contract with Atkins North America, Inc. On October 16, 2019, the City of Manor passed a resolution in support of a potential extension of the 290E Manor Expressway eastward and asked its regional transportation partners to progress the Project. Similarly, the City of Elgin passed a resolution on November 5, 2019 supporting an extension of the 290E Manor Expressway eastward to Elgin. A 290-corridor study is included in the CAMPO 2040 plan with TxDOT as the project sponsor. TxDOT and CAMPO staff have been briefed and concur that it is appropriate for the Mobility Authority to move forward with a feasibility study for the extension of the 290E facility at this time, with any potential changes to the Project Sponsor occurring subsequent to the outcome of the study.

**Action requested/Staff Recommendation** - Staff recommends approval of a work authorization to perform a feasibility study to extend the 290E Manor Expressway in an amount not to exceed \$996,917.

**Financing** - General Fund

Backup Provided: Exhibit A -Project map  
Exhibit B - Draft Resolution  
Exhibit C - Draft Agreement

**GENERAL MEETING OF THE BOARD OF DIRECTORS  
OF THE  
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

**RESOLUTION NO. 20-0XX**

**APPROVING WORK AUTHORIZATION NO. 15 WITH ATKINS NORTH AMERICA,  
INC. FOR GENERAL ENGINEERING CONSULTANT SERVICES FOR THE  
DEVELOPMENT OF THE MANOR EXPRESSWAY (290E) PHASE IV PROJECT**

WHEREAS, by Resolution No. 17-067, dated December 13, 2017, the Board of Directors approved a Master Agreement with Atkins North America, Inc. for general engineering consultant services; and

WHEREAS, the cities of Manor and Elgin have passed resolutions in support of extending the 290E Manor Expressway to SH 95 in Elgin; and

WHEREAS, considering the support of the local communities and continuing commercial and residential development along the 290 East Corridor, the Executive Director has determined it would be appropriate to undertake a feasibility study to investigate the potential extension of 290E Manor Expressway further eastward to SH 95 in Elgin; and

WHEREAS, the Executive Director and Atkins have negotiated proposed Work Authorization No. 15 for general engineering consultant services associated with a feasibility study analyzing a potential eastward extension of the 290E Manor Expressway (Phase IV) in an amount not to exceed \$996,917; and

WHEREAS, the Executive Director recommends the Board approve the work authorization in the form or substantially the form as is attached hereto as Exhibit A.

NOW THEREFORE, BE IT RESOLVED that the Board approves an amount not to exceed \$996,917 for the services described in the work authorization; and

BE IT FURTHER RESOLVED that the Executive Director is authorized to finalize and execute the work authorization on behalf of the Mobility Authority in the form or substantially the same form as Exhibit A.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 26<sup>th</sup> day of February 2020.

Submitted and reviewed by:

Approved:

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Geoffrey Petrov, General Counsel

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Robert W. Jenkins, Jr.  
Chairman, Board of Directors

**Exhibit A**

**CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

**WORK AUTHORIZATION NO. 15**

**ATKINS**

**ATTACHMENT A – SCOPE OF SERVICES**

**SERVICES TO BE PROVIDED BY THE GENERAL ENGINEERING CONSULTANT (GEC)**

The Engineer shall provide planning and engineering services associated with the development of a feasibility study and implementation plan for proposed improvements to US 290E from SH 130 to SH 95 under the issuance of an initial Notice to Proceed (NTP1). Services may include additional tasks, as requested, through issuance of a second NTP to further develop feasibility concepts to a more advanced partial schematic-level design to refine viable project scope and costs. Improvements are generally described as a reconstruction and widening of the existing 4-lane divided US 290E to 6 general purpose lanes and the addition of 6 tolled lanes within the center median. Specific limits for this initial work effort will include analysis of US 290E from:

- SH 130 to FM 973
- FM 973 to SH 95

The Engineer shall coordinate with others, as needed, to compile concepts and options to advance for further study. Scope of services will include the preliminary development of the necessary corridor concepts, public involvement coordination activities with local stakeholders, the State, City of Austin, City of Manor, City of Elgin, Travis and Bastrop Counties, and other special interest groups; and coordination with other concurrent efforts within the project limits. Fee schedule for these tasks is provided in Attachment B.

Services provided, and study analyses shall be prepared in English units and comply with applicable written State and Federal Highway Administration (FHWA) procedures and manuals in place at the time of the execution of this Work Authorization. The Engineer shall utilize data previously collected by others to the extent possible to continue to develop the Project.

**General assumptions regarding this scope of services include:**

1. Improvements reviewed shall include the reconstruction and widening of the existing 4-lane divided US 290E to 6 general purpose lanes and the addition of 6 tolled lanes within the center median.
2. Improvements evaluated will include intersection, interchange, ramping and frontage road improvements as required to accommodate the capacity improvements.
3. NTP1 task levels of engineering investigation are anticipated to be an approximate 10% design effort, sufficient to confirm feasibility of concepts general Right of Way (ROW) requirements and determine parametric estimate of probable cost from SH 130 to SH 95.
4. NTP2, if issued, may include engineering investigations to advance and refine the initial feasibility study of NTP1 toward a 30% schematic level design to develop a more refined, quantity-based estimate of probable cost.
5. Multi-modal considerations will be limited to accommodations of existing published plans that impact the study limits, and accommodation of bus, bicycle and pedestrian modes within the corridor when necessitated by proposed improvements.
6. This study will coordinate with concurrent efforts by TxDOT on FM 973, including intersection improvements with US 290 in Manor, but will proceed independently of this project.
7. No formal public meeting or outreach is planned.
8. No supplemental survey, ROW mapping, or Level A/B/C Sub-surface Utility Engineering (SUE) efforts are anticipated with NTP1.

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9. No geotechnical investigation is included in the NTP1 scope. All pavement sections, bridge, retaining wall or other foundation assumptions will be based on as-built information or as directed by the Authority.
10. Water Quality design is not part of the scope of this project. The limits of the project are not within TCEQ's EAPP jurisdiction.

**NTP1**

Upon issuance of NTP1, the Engineer shall provide the following services to perform an initial feasibility study of the project.

**1.0 Project Management and Administration**

The Engineer shall manage all project activities and work. The Engineer shall provide continuous project coordination and administration; preparation of progress reports, invoices and billings; meetings and coordination activities; preparation of meeting minutes; and other project management activities specified by the CTRMA. The Engineer shall meet the deliverable expectations established by the work authorization. Tasks include:

**1.1. Project Management**

The Engineer will manage the daily activities of the program and will serve as the primary contact between the Authority, design consultants, third party consultants, utility companies, public agencies, and the general public. The Engineer shall manage all project activities and work identified under each task to assure they are in accordance with Federal and State statutes, regulations, and guidelines and are on schedule within project scope and budget. Activities shall include:

**1.2. Coordinate, Procure, and Administer Work Authorizations**

Prepare contracts as required between the GEC and the Authority and GEC and subconsultants. Monitor and supervise GEC subconsultant activities, review all work products prepared by subconsultant for accuracy and consistency, review and approve subconsultant reports and invoices.

**1.3. Record Keeping and File Management**

Maintain records and files related to the Project throughout the duration of the Services. Transfer project files to the Authority upon completion of the work or as directed by the CTRMA.

**1.4 Project Schedule Development and Updates**

The Engineer shall maintain a project schedule for the duration of the project to focus on key milestones and critical path. It shall depict the order and interdependence of various tasks, subtasks, milestones, and deliverables. Progress will be reviewed by the Authority during coordination meetings and should reviews indicate a substantial change in progress, the schedule will be updated by the Engineer as necessary. Any issues that need resolution or action items will be identified in the progress report.

**1.5 Progress Report Preparation and Submittal**

Prepare and issue monthly progress reports specifying any deliverables that were completed during that month, physical and financial percent complete for that work, the precise nature of work that was done that did not result in a deliverable, whether the work is on schedule for timely delivery or not, any issues that may delay the work in the future, any actions by the Authority or other remedial actions that are required, and for the following month, the anticipated work that will be performed and the deliverables that will be submitted.

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#### ATTACHMENT A – SCOPE OF SERVICES

### 1.6 Coordination Meetings

The Engineer shall conduct coordination meetings to review project status, including; development of meeting agenda with input from the Authority, documentation of meeting attendees and preparation and distribution of meeting minutes.

## 2.0 Existing Data

### 2.1 Data Collection

- The Engineer will collect pertinent existing information to assist the development of the feasibility study. The Engineer will collect existing data, reports, existing as-built plans, drainage and irrigation, structures and other pertinent information as available, including, but not limited to:
  - Utility Plans -Request available plans and documents of existing utilities (public & private)
  - Right-of-Way Data -Utilize ROW data of record from TxDOT strip maps, Travis Central Appraisal District, Bastrop Central Appraisal District, and other information of record. This data will not be proofed, verified or confirmed via survey or field reconnaissance
  - Prior TxDOT feasibility studies
  - Existing facility operations - configurations, traffic volumes, vehicle occupancy, transit usage, alternative mode use, and travel times
  - Updated Transportation Plans from the State, CAMPO, and local governments, including committed improvements and travel forecasts
  - Pertinent data on existing and planned major utilities and railroad facilities
  - Past studies, databases, materials, and mapping
  - Previously proposed environmental document showing extension to FM 973
  - Pricing and costs associated with Project construction items, corridor ROW, and building displacements
  - TxDOT FM 973 improvement plans and any US 290E proposed corridor information
  - Existing sidewalk, trail, or shared-use path plans

## 3.0 Environmental Services

### 3.1 Environmental Constraints Mapping

- The Engineer shall provide environmental services necessary to produce a high-level fatal flaw analysis of the study area. Constraints to be identified include but are not limited to:
  - Cemeteries
  - Parks, Preserves, Trails & Greenbelts, Schools, Hospitals, Daycares, Clinics, and Assisted Living/Rehabilitation Centers
  - Soils
  - Farmlands (based upon prime farmland zones defined by the Natural Resources Conservation Service)
  - Oil/gas wells
  - Hazardous material sites
  - Historic Properties and Historic Districts
  - Archeological sites (documented in separate maps and marked as confidential)
  - Low, Medium, and High Probability for Archeological Resources
  - Data from the Texas Parks and Wildlife Department's Natural Diversity Database
  - USFWS's Critical Habitat Mapper



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#### ATTACHMENT A – SCOPE OF SERVICES

- National Wetland Inventory Data
- Floodplains
- National Hydrography Dataset
- Land uses identified through aerial photo interpretation
- Zoning
- Municipal Limits and Extraterritorial Jurisdictions
- Existing and planned development identified by city planning departments
- The above information shall be mapped in Geographic Information System (GIS) and utilized for the evaluation of alternatives.
- For Task 1 – Conceptual Plan Development, the Engineer will not conduct a field reconnaissance to confirm data obtained from desktop search of resources. This effort will not include delineations of waters of the U.S., absence or presence surveys, identification of sensitive noise receptors, pedestrian cultural resources surveys, geologic assessments, or a Phase I Environmental Assessment.
- Deliverables:
  - Internal-Use Preliminary Constraints Map (to be used for alternatives analysis and delivered as an ARCGIS or \*.kmz file)
  - Draft Constraints Maps (.pdf) to the CTRMA (delivered as a series of 11X17 figures as well as one large oversized constraints map)
  - Final Constraints Map (.pdf) to the CTRMA (delivered as a series of 11X17 figures as well as one large oversized constraints map)

#### 4.0 Route and Design Studies

##### 4.1 Task 1 – Conceptual Plan Development

###### 4.1.1 Typical Sections

The Engineer shall develop applicable typical sections of existing and proposed roadways at a proportional scale for incorporation into conceptual exhibits. Typical sections shall include width of travel lanes, shoulders, outer separations, border widths, curb offsets, and ROW.

###### 4.1.2 Segment 1 - SH 130 to FM 973

Engineer shall prepare two planning-level geometric alternative design concept exhibits including horizontal and vertical conceptual designs to sufficient detail to determine an anticipated roadway plan layout, ROW needs, access requirements, and approximate projected earthworks for the purposes of developing a capital cost/construction estimate. Preliminary design considerations will include the following: design criteria (operation/safety), traffic operations review, ROW requirements, environmental impacts, maintenance of traffic and constructability, project costs and life cycle costs. Local access needs will be evaluated for those to be maintained based on previous schematic and prior stakeholder input, if available.

###### 4.1.3 Segment 2 - FM 973 to SH 95

Engineer shall prepare a planning-level geometric design concept exhibit including horizontal and vertical conceptual designs to sufficient detail to determine an anticipated roadway plan layout, ROW needs, access requirements, and approximate projected earthworks for the purposes of developing a capital cost/construction estimate. Preliminary design considerations will include the following: design criteria (operation/safety), traffic

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operations review, ROW requirements, environmental impacts, maintenance of traffic and constructability, project costs and life cycle costs. Local access needs will be evaluated for those to be maintained based on previous schematic and prior stakeholder input, if available.

#### 4.1.4 Conceptual Hydrology and Hydraulic Studies/Drainage Design

- On FEMA regulated crossings, where best available hydrologic and hydraulic models are available, existing frequency data within the models will be used that best represent the Atlas 14 design frequency precipitation depths. For example, the current 500-year event may be used as a proxy for the Atlas 14 100-year event.
- Non-FEMA regulated crossings are assumed to be adequately sized in their existing condition and proposed crossings will maintain the existing configuration and sizing. Meetings (four meetings are assumed: TxDOT, Travis County, Austin, Manor) with local floodplain administrators and maintenance staff will be conducted to interview and anecdotally evaluate this assumption.
- Segment 1 –
  - There are no Non-FEMA regulated Crossings identified within Segment 1.
  - There are 5 FEMA regulated crossings within Segment 1 (1 Zone A and 4 Zone AE).
  - Hydrologic and hydraulic analysis/mitigation/detention are not included in this segment scope.
  - The Engineer shall provide cross drainage structures sizes for CTRMA to perform the preliminary cost estimate.
  - Zone A proposed crossing structures will be assumed based on 1.5 times the width of the 500-year event Flood Hazard Area.
  - Zone AE proposed crossing structures will be assumed based on 1.25 times the width of the 500-year event Flood Hazard Area
- Segment 2 –
  - There are 5 Non-FEMA regulated Crossings identified within Segment 2.
  - There are 7 FEMA regulated crossings within Segment 1 (5 Zone A and 2 Zone AE).
  - Hydrologic and hydraulic analysis/mitigation/detention are not included in this segment scope.
  - The Engineer shall provide cross drainage structures sizes for CTRMA to perform the preliminary cost estimate.
  - Zone A proposed crossing structures will be assumed based on 1.5 times the width of the 500-year event Flood Hazard Area.
  - Zone AE proposed crossing structures will be assumed based on 1.25 times the width of the 500-year event Flood Hazard Area

#### 4.1.5 Utility Engineering

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- The Engineer will compile and collect existing utility record information (Level D SUE) to identify significant conflicts within the limits of the proposed Project. The limits of the utility conflict analysis will study potential 200' of ROW acquisitions to the north or south of existing 240' ROW corridor.
- The Engineer will prepare estimates of probable costs to relocate any major utilities in conflict with the proposed project and will prepare anticipated time required within the project development schedule to coordinate and relocate the identified utility conflicts.

#### 4.1.6 ROW Engineering

- The Engineer will perform an analysis of land-use and possible developments along and throughout the project corridor for the purposes of establishing ROW acquisition costs and schedule requirements.
- The Engineer will prepare estimates of probable costs and anticipated time to acquire proposed ROW the project development schedule and the likely duration of potential condemnation proceedings.

#### 4.1.7 Conceptual Cost Estimates and Quantities

- Total Construction/Capital Cost Estimates - For the two Segments, the Engineer will develop independent preliminary opinion of probable construction costs, including anticipated Utility and ROW costs. Costs will be based on statewide and/or Austin District average unit prices, from the TxDOT website. Preliminary cost estimates will include an appropriate contingency considering the level of conceptual design concepts to be developed.
- Operations and Maintenance Estimates – The Engineer will develop independent operations and maintenance estimates for each Segment, utilizing lane mileage and area quantities developed from Conceptual Plans. Routine maintenance and lifecycle/renewal costs will be estimated for the duration of a projected financing term and will estimate the costs to operate and maintain the width of the proposed ROW corridor, including tolling equipment and operations costs.

### 5.0 Financial Feasibility & Funding

#### 5.1 Toll Configuration

- The Engineer will develop a tolling point stick diagram identifying locations of tolling mainlane and/or ramp gantries. The tolling point stick diagram will consider the impacts of segment phasing, and any needed revisions to the tolling gantry layouts upon later phases of development.
- The Engineer will analyze the existing and proposed toll configurations of the US 290E/SH 130 interchange to determine any necessary revisions as a result of expanding the US 290E project to the East.
- The Engineer will coordinate with Toll and Revenue consultants as necessary to provide information to assist the development of sketch-level T&R study.

#### 5.2 Funding Analysis

- The Engineer will study potential funding sources for the project and provide any viable funding alternatives to the CTRMA for consideration and possible further investigation.

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#### ATTACHMENT A – SCOPE OF SERVICES

#### 6.0 Traffic Operations

##### 6.1 Traffic Operations Review

- Compile and evaluate crash rates and potential cause of incidents to support improvements.
- Identify current corridor congestion, safety, and operational concerns and items for improvement.

#### 7.0 Feasibility Study and Project Development Schedule

##### 7.1 Feasibility Study White Paper

- The Engineer shall prepare a Feasibility Study White Paper after initial review of previous work performed by others (City of Austin, the State), completion of environmental constraints mapping of information of record, and an initial screening of concepts, and shall provide a general corridor evaluation and include discussion of concepts under evaluation for the corridor, preliminary funding and financial feasibility summary, constructability and operational requirements, and a schedule for further action.

##### 7.2 Project Development Schedule

Task 1 - The Engineer shall prepare a preliminary project development gantt chart in Microsoft Project identifying the major milestones and associated durations required to develop the project ultimately open to traffic. The gantt chart shall contemplate the possibility of phased development and identify any potential risk items identified in the environmental constraints mapping, ROW, and utility investigations which may potentially result in adverse impacts to the project development schedule.

#### NTP2

The Authority may issue an NTP2, authorizing the Engineer to perform additional services to support the development and preparation of the feasibility study, or further advance results of the initial feasibility study. NTP2 will be issued at the discretion of the Authority, and will include a detailed scope and fee negotiated for the services determined to be required, not to exceed the amount identified in Attachment B. Services anticipated to be provided upon issuance of an NTP2 may include:

- Additional data collection which may include field survey, SUE investigations, environmental constraint field investigations, geotechnical borings, etc.
- Advancement of feasibility study concepts toward 30% schematic level.
- Preliminary drainage analyses sufficient to prove feasibility of conceptual drainage elements for major stream crossings, bridge class culverts, and identified areas of known hydraulic concern (drainage feasibility study).
- Preparation of a Hydraulics Feasibility Study report to adequately document drainage assumptions, parameters, procedures, results, impacts, risks, risk mitigation, and recommendations.
- Drainage mitigation and/or detention alternative studies.
- Constructability reviews of Segment concepts developed, considering the constructability of the concept based on known construction techniques and their relative cost and construction impacts to the surrounding area due to the various techniques.

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- Enhancement of the feasibility study independent preliminary opinion of probable construction costs, utilizing advanced feasibility concept designs, additionally collected data, and/or refined quantity takeoffs.
- Enhancement of the feasibility study operations and maintenance cost estimates, utilizing advanced feasibility concept designs, additionally collected data, refined quantity takeoffs, and/or alternate maintenance scopes.
- Public involvement support activities including facilitation of Stakeholder meetings, as necessary to support the study, or to advance or supplement the identification and mapping of environmental constraints.
- Development of a more detailed project development schedule using P6 Primavera to refine and advance the NTP1 feasibility study schedule.
- Other Engineering, Environmental, Public Involvement, or data investigations as necessary to support and advance the preliminary findings of the NTP1 feasibility study.

TASK NO	DESCRIPTION	Employee
1.0	<b>Project Management and Administration</b>	
	<b>ATKINS</b>	
		Gurley, Brian
		Gerry, Wenzie
2.0	<b>Existing Data</b>	
	<b>ATKINS</b>	
		Gurley, Brian
		Burford, Taylor
3.0	<b>Environmental Services</b>	
	<b>ATKINS</b>	
3.1		Hill, Ryan
3.1		Zuzak, Lara
3.1		Amponsah, Alex
3.1		Rosenthal, Janna
3.1		Kemney, John
3.1		Barton, Jonathan
3.1		Rohrer, Deven
3.1		Friedel, Myron
3.1		Acuna, Laura
3.1		McClanahan, Krista
3.1		Russell, Kelley
3.1		Shortes, Russ
3.1		Bodah, Sara
3.2		Kenneally, Katie
	<b>SUBCONSULTANTS</b>	
3.2	Blonde Ambition	Blonde Ambition
3.2	Rifeline	Rifeline
4.0	<b>Route and Design Studies</b>	
	<b>ATKINS</b>	
4.1.1		Rackley, Jerel
4.1.1		Senior Engineer I
4.1.1		Engineer I
4.1.2/4.1.3		Rackley, Jerel
4.1.2/4.1.3		Senior Engineer I
4.1.2/4.1.3		Engineer I
4.1.7		Gurley, Brian
4.1.7		Burford, Taylor
4.1.7		Stracener, Michelle
4.1.7		Johnson, Matt
4.1.7		Gambrel, Matthew
4.1.6		Sedlacheck, James
	<b>SUBCONSULTANTS</b>	
4.1.4	K Friese	Hebbe, Craig
4.1.4	K Friese	KFA - Senior Engineer
4.1.4	K Friese	KFA - CADD Technician
4.1.4	K Friese	KFA - Administrative Assistance
4.1.5	Anderson Infrastructure	Anderson, Gordon
5.0	<b>Financial Feasibility and Funding</b>	
	<b>ATKINS</b>	
		Gurley, Brian
		Needham, Bubba
		Burford, Taylor
		Johnson, Matt
6.0	<b>Traffic Operations</b>	
	<b>ATKINS</b>	

	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Hours Total
1.0	44	29	29	21	21	21	21	186
								-
	24	24	24	16	16	16	16	136
	20	5	5	5	5	5	5	50
2.0	56	56	0	0	0	0	32	144
								-
	8	8						16
	16	16						32
3.0	116	124	126	88	76	56	56	642
								-
	16	16	20	20	20	16	16	124
	8	8	8	8	8	8	8	56
	16	12	12	8	8	4	2	62
	4	4	2	2	2	2	2	18
	16	16	16	16	16	8	8	96
	8	8	8	4	4	4	4	40
	6	6	6	6	6	6	2	38
	16	16	16	16	8	4	2	78
	4	16	4				4	28
	10	10	10	4	2	2	2	40
	12	12	12	4	2	2	2	46
			6				2	8
			6				2	8
	0	0	0	0	0	0	0	-
	0	0	0	0	0	0	0	-
	0	0	0	0	0	0	0	-
4.0	58	469	508	368	248	120	40	1,811
								-
		40	60	40	20			160
		80	80	40	40			240
		60	60	60	40			220
		60	80	40	20			200
		100	100	40	40			280
		80	80	60	40			260
						20	20	40
	8					20	20	48
						40		40
						8		8
	8	8	8	8	8	8	8	48
				40	40	24		104
								-
	16	16						32
	16	16						32
	8	8						16
	2	1						3
			40	40				80
5.0	0	32	0	0	0	64	0	96
								-
		8				16		24
						16		16
		16				16		32
		8				16		24
6.0	0	20	20	0	0	0	0	40
								-
								-

	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	FORECAST TOTAL
1.0	7,108	5,936	5,936	4,088	4,088	4,088	4,088	\$ 35,330.15
								-
	7,108	5,936	5,936	4,088	4,088	4,088	4,088	\$ 35,330.15
	5,545	5,545	5,545	3,697	3,697	3,697	3,697	\$ 31,421.38
	1,564	391	391	391	391	391	391	\$ 3,908.77
2.0	4,125	4,125	0	0	0	0	0	\$ 8,249.80
								-
	4,125	4,125	0	0	0	0	0	\$ 8,249.80
	1,848	1,848	0	0	0	0	0	\$ 3,696.63
	2,277	2,277	0	0	0	0	0	\$ 4,553.16
3.0	14,844	15,780	15,957	12,169	11,031	8,556	8,424	\$ 86,760.64
								-
	14,844	15,780	15,957	12,169	11,031	8,556	8,424	\$ 86,760.64
	3,571	3,571	4,464	4,464	4,464	3,571	3,571	\$ 27,675.17
	1,586	1,586	1,586	1,586	1,586	1,586	1,586	\$ 11,098.81
	1,919	1,440	1,440	960	960	480	240	\$ 7,437.45
	474	474	237	237	237	237	237	\$ 2,130.78
	1,487	1,487	1,487	1,487	1,487	744	744	\$ 8,922.55
	830	830	830	415	415	415	415	\$ 4,149.04
	746	746	746	746	746	746	249	\$ 4,722.11
	1,435	1,435	1,435	1,435	718	359	179	\$ 6,995.88
	472	1,888	472	0	0	0	472	\$ 3,303.88
	980	980	980	392	196	196	196	\$ 3,920.49
	1,345	1,345	1,345	448	224	224	224	\$ 5,155.54
	0	0	505	0	0	0	168	\$ 672.99
	0	0	432	0	0	0	144	\$ 575.94
	0	0	0	0	0	0	0	\$ -
	0	0	0	0	0	0	0	\$ -
	0	0	0	0	0	0	0	\$ -
4.0	8,758	68,009	78,719	54,041	32,317	22,607	7,467	\$ 271,916.65
								-
	1,778	61,097	69,410	44,732	32,317	22,607	7,467	\$ 239,407.95
	0	8,313	12,470	8,313	4,157	0	0	\$ 33,253.29
	0	11,252	11,252	5,626	5,626	0	0	\$ 33,754.92
	0	6,153	6,153	6,153	4,102	0	0	\$ 22,561.88
	0	12,470	16,627	8,313	4,157	0	0	\$ 41,566.61
	0	14,065	14,065	5,626	5,626	0	0	\$ 39,380.74
	0	8,204	8,204	6,153	4,102	0	0	\$ 26,664.04
	0	0	0	0	0	4,621	4,621	\$ 9,241.58
	1,138	0	0	0	0	2,846	2,846	\$ 6,829.75
	0	0	0	0	0	10,995	0	\$ 10,994.96
	0	0	0	0	0	1,161	0	\$ 1,160.79
	640	640	640	640	640	640	0	\$ 3,839.62
	0	0	0	3,908	3,908	2,345	0	\$ 10,159.76
	6,980	6,912	9,309	9,309	0	0	0	\$ 32,508.70
	3,196	3,196	0	0	0	0	0	\$ 6,391.38
	2,949	2,949	0	0	0	0	0	\$ 5,897.44
	699	699	0	0	0	0	0	\$ 1,398.87
	136	68	0	0	0	0	0	\$ 203.50
	0	0	9,309	9,309	0	0	0	\$ 18,617.52
5.0	0	5,286	0	0	0	12,748	0	\$ 18,033.33
								-
	0	5,286	0	0	0	12,748	0	\$ 18,033.33
	0	1,848	0	0	0	3,697	0	\$ 5,544.95
	0	0	0	0	0	4,453	0	\$ 4,452.84
	0	2,277	0	0	0	2,277	0	\$ 4,553.16
	0	1,161	0	0	0	2,322	0	\$ 3,482.38
6.0	0	3,223	3,223	0	0	0	0	\$ 6,446.49
								-
	0	3,223	3,223	0	0	0	0	\$ 6,446.49

TASK NO	DESCRIPTION	Employee
		Gurley, Brian
		Johnson, Matt
		Burford, Taylor
7.0	Feasibility Study and Project Development Schedule	
	<b>ATKINS</b>	
		Blake, Greg
		Gurley, Brian
		Burford, Taylor
		Johnson, Matt
	<b>SUBCONSULTANTS</b>	
	LPC	Stuart, Jason
99.EXP	Expenses	
	<b>ATKINS</b>	
	Expenses	
	<b>SUBCONSULTANTS</b>	
90.02.X	Expenses	

	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Hours Total
		4	4					8
		8	8					16
		8	8					16
	0	0	0	0	0	32	48	80
								-
						4	12	16
						12	24	36
						8	12	20
						8		8
								-
								-
								-
	1	1	1	1	1	1	1	7
								-
								-

	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	FORECAST TOTAL
	0	924	924	0	0	0	0	\$ 1,848.32
	0	1,161	1,161	0	0	0	0	\$ 2,321.59
	0	1,138	1,138	0	0	0	0	\$ 2,276.58
	0	0	0	0	0	6,350	11,088	\$ 17,438.28
	0	0	0	0	0	6,350	11,088	\$ 17,438.28
	0	0	0	0	0	1,279	3,836	\$ 5,114.34
	0	0	0	0	0	2,772	5,545	\$ 8,317.42
	0	0	0	0	0	1,138	1,707	\$ 2,845.73
	0	0	0	0	0	1,161	0	\$ 1,160.79
	0	0	0	0	0	0	0	\$ -
	0	0	0	0	0	0	0	\$ -
	500	500	500	500	500	500	500	\$ 3,500.00
	500	500	500	500	500	500	500	\$ 3,500.00
	500	500	500	500	500	500	500	\$ 3,500.00
	0	0	0	0	0	0	0	\$ -
								\$ -

**Total Fee** **\$ 447,675**

TASK NO	DESCRIPTION	Employee
1.0	NTP2	
	ATKINS	
		Gurley, Brian
		Gerry, Wenzie
		Burford, Taylor
		Rackley, Jerel
		Senior Engineer I
		Engineer I
	SUBCONSULTANTS	
		K Friese
		KFA - Senior Engineer
		KFA - Project Engineer 1
		KFA - Project Engineer 2
		KFA - CADD Technician
		KFA - Administrative Assistance
99.EXP	Expenses	
	ATKINS	
	Expenses	
	SUBCONSULTANTS	
90.02.X	Expenses	

	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Hours Total
	540	540	540	540	540	540	540	3,780
								-
	16	16	16	16	16	16	16	112
	4	4	4	4	4	4	4	28
	16	16	16	16	16	16	16	112
	80	80	80	80	80	80	80	560
	120	120	120	120	120	120	120	840
	100	100	100	100	100	100	100	700
								-
	24	24	24	24	24	24	24	168
	44	44	44	44	44	44	44	308
	64	64	64	64	64	64	64	448
	64	64	64	64	64	64	64	448
	5	5	5	5	5	5	5	35
	3	3	3	3	3	3	3	21
								-
								-
	1	1	1	1	1	1	1	7
								-
								-

	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	FORECAST TOTAL
	77,963	77,963	77,963	77,963	77,963	77,963	77,963	\$ 545,742.05
								-
	50,045	50,045	50,045	50,045	50,045	50,045	50,045	\$ 350,317.95
	3,697	3,697	3,697	3,697	3,697	3,697	3,697	\$ 25,876.43
	313	313	313	313	313	313	313	\$ 2,188.91
	2,277	2,277	2,277	2,277	2,277	2,277	2,277	\$ 15,936.07
	16,627	16,627	16,627	16,627	16,627	16,627	16,627	\$ 116,386.50
	16,877	16,877	16,877	16,877	16,877	16,877	16,877	\$ 118,142.22
	10,255	10,255	10,255	10,255	10,255	10,255	10,255	\$ 71,787.81
	27,918	27,918	27,918	27,918	27,918	27,918	27,918	\$ 195,424.11
	4,794	4,794	4,794	4,794	4,794	4,794	4,794	\$ 33,554.75
	8,109	8,109	8,109	8,109	8,109	8,109	8,109	\$ 56,762.81
	8,007	8,007	8,007	8,007	8,007	8,007	8,007	\$ 56,051.20
	6,367	6,367	6,367	6,367	6,367	6,367	6,367	\$ 44,570.83
	437	437	437	437	437	437	437	\$ 3,060.02
	203	203	203	203	203	203	203	\$ 1,424.49
	500	500	500	500	500	500	500	\$ 3,500.00
								-
	500	500	500	500	500	500	500	\$ 3,500.00
	500	500	500	500	500	500	500	\$ 3,500.00
	0	0	0	0	0	0	0	\$ -
								\$ -

**Total Fee \$ 549,242**



# 290E Phase IV Project

