

# *TOLL 49 SEGMENT 4 PROGRESS REPORT*



*JUNE 2017  
PROGRESS REPORT NO. 12*

**RS&H**





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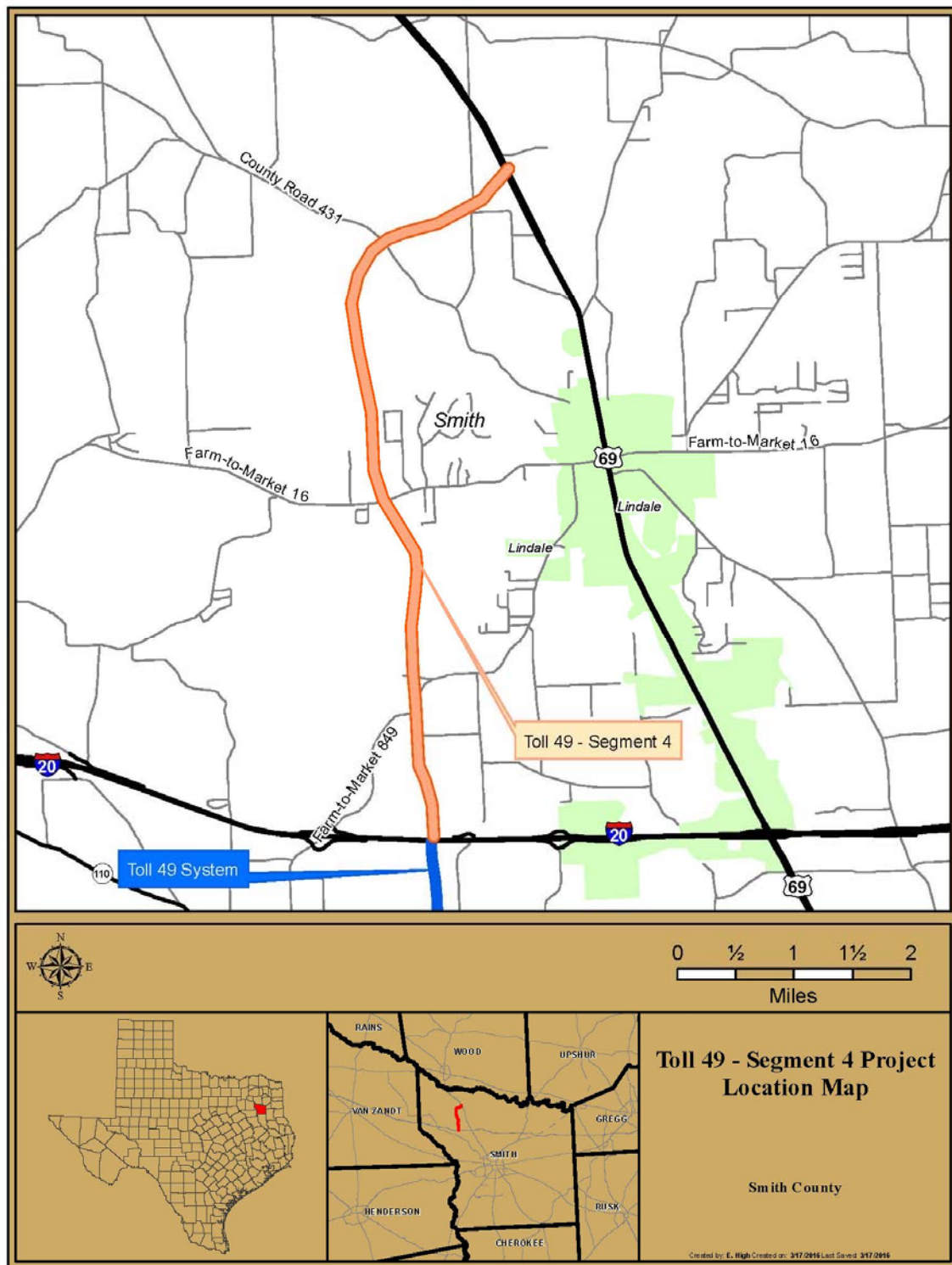
## 1.1 INTRODUCTION

This report documents and describes the development and construction of the Toll 49 Segment 4 Project during the period from May 1, 2017 through June 1, 2017. This Project is being developed and constructed by the North East Texas Regional Mobility Authority ("the Authority"). The Segment 4 Project is funded by Series 2016A Senior Lien bonds, and funds committed by the Federal Highway Administration (FHWA) and the Texas Department of Transportation (TxDOT).

## 1.2 PROJECT DESCRIPTION

The Segment 4 Project extends along new alignment from US 69 in the City of Lindale south to IH 20, north of the City of Tyler in Smith County, Texas. The Segment 4 Project connects with Toll 49 Segment 3B, extending Toll 49 by a length of approximately 6.6 miles. The Segment 4 Project consists of an interim two-lane access controlled tollway with grade separations at major cross streets, and toll collection facilities. The interim two-lane facility may be expanded to its ultimate four-lane configuration as traffic demand warrants and funding sources are identified in the future. The Segment 4 Project includes the construction of an at grade intersection at US 69, a diamond interchange including access ramps at FM 16, access ramps south of SH 110, and a three level interchange at IH 20. Continuous access/frontage roads will not be constructed as part of the Segment 4 Project.

FIGURE 1: Project Location Map



## 1.3 DEVELOPMENT ACTIVITIES

### 1.3.1 Right-of-Way

To date, the Authority has either acquired, or acquired access rights to, all forty-two project parcels. There is one remaining parcel for which a Possession and Use Agreement (PUA) has been executed and is anticipated to close at a later date.

**TABLE 1: RIGHT-OF-WAY PARCEL STATUS**

Parcel	Acreage	Estimated Acquisition	
		Date	Status
202	3.93	NTP	Closed
203	1.44	Acquired	Closed
204	0.73	NTP + 75 Days	Closed
205	0.52	NTP	PUA executed Parcel is accessible to Contractor
206	2.42	NTP	Closed
207	0.40	NTP	Closed
208	7.03	NTP + 75 Days	Closed
209	12.47	15-Jul-16	The Authority has taken possession Parcel is accessible to Contractor
210	0.84	15-Jul-16	Closed
213	39.13	NTP	The Authority has taken possession Parcel is accessible to Contractor
214	9.95	NTP	Closed
215	36.64	NTP	The Authority has taken possession Parcel is accessible to Contractor
216	28.31	NTP	The Authority has taken possession Parcel is accessible to Contractor
217	8.39	NTP	Closed
218	5.61	NTP	Closed
219	21.01	NTP	Closed
220	1.35	NTP	Closed
221	5.69	NTP + 30 Days	Closed
222	2.46	NTP + 30 Days	Closed
223	0.13	NTP + 30 Days	Closed
224	0.17	NTP + 30 Days	Closed
225	0.04	NTP + 30 Days	Closed
226	11.63	NTP + 30 Days	Closed
227	3.18	NTP + 60 Days	Closed
229	22.23	NTP + 60 Days	Closed
230	3.22	NTP + 60 Days	Closed
231	4.25	NTP + 60 Days	Closed



Parcel	Acreage	Estimated Acquisition	
		Date	Status
232	14.47	NTP + 60 Days	Closed
233	1.52	NTP + 60 Days	Closed
235	0.85	NTP + 60 Days	Closed
236	9.71	NTP + 60 Days	Closed
237	0.41	NTP + 60 Days	Closed
238	22.66	NTP + 60 Days	The Authority has taken possession Parcel is accessible to Contractor
239	1.04	NTP + 60 Days	The Authority has taken possession Parcel is accessible to Contractor
240	13.39	NTP + 60 Days	The Authority has taken possession Parcel is accessible to Contractor
241	0.36	NTP + 60 Days	Closed
242	11.04	NTP + 60 Days	Closed
243	9.16	NTP + 60 Days	Closed
244	19.14	NTP	Closed
245	5.81	NTP	Closed
246	0.10	NTP + 30 Days	Closed
247	0.07	NTP + 60 Days	The Authority has taken possession Parcel is accessible to Contractor

### 1.3.2 Utilities

The Authority has initiated the adjustment of all of the privately-owned utilities impacted by the Segment 4 Project. Relocation design and construction is being performed by the utility owners with 100% reimbursement from the Authority. The Authority has executed relocation agreements with ten of the eleven privately owned utilities impacted by the Segment 4 Project and has issued NTP for the relocation of nine of these facilities. The Authority anticipates executing a relocation agreement with the remaining utility by the end of June.

Due to coordination and construction timeframes, the relocations for some utilities are not anticipated to be complete within the contract's estimated completion dates. It is not anticipated that these relocations will impact the Project critical path.

**TABLE 2: UTILITY RELOCATION STATUS**

Utility Company	Estimated Relocation Completion Date	Status
AT&T (SBC)	NTP+120	Relocation is complete
CenterPoint Energy	NTP+120	Relocation is complete
City of Lindale	N/A	Webber to relocate as part of construction
Crystal Systems Water	N/A	Webber to relocate as part of construction
East Texas Electric Cooperative	1-Jan-17	Utility agreement executed 1-21-2016 Relocation NTP issued 6-24-2016
Enbridge	No conflict	No conflict identified, no relocation
Gulf South	NTP+90	Full utility agreement executed 12-11-2016 NTP anticipated June 2017
Lindale Rural WSC	N/A	Webber to relocate as part of construction
MHM Pipeline	Relocation will begin 2 weeks after clearing	Relocation is complete
Oncor Electric Delivery (Distribution)	NTP + 90 to 120 Days	Utility agreement executed 5-4-2016 Relocation NTP issued 6-24-2016 Relocation is ongoing
Oncor Electric Delivery (Transmission)	1-Nov-16	Utility agreement executed 3-24-2016 Relocation NTP issued 6-24-2016
Peoples Telephone Cooperative	NTP + 0 to 60 Days	Relocation is complete
SuddenLink	NTP + 150 Days	Relocation is complete
Wood County Electric	NTP + 110 Days	Relocation is complete
Zayo	NTP + 150 Days	Utility agreement anticipated in June

### 1.3.3 Archeological Survey

During archeological survey undertaken in support of a utility relocation on the project, archeologists encountered a single previously unrecorded archeological site within the project right of way. Following discovery of this site, the Authority enlisted the services of Hicks & Company to perform data recovery and mitigation at the site. Throughout the course of the archeological investigation, the Contractor has been allowed only limited access to the right-of-way near the archeological site. This limited access impeded earthwork activities, resulting in the demobilization of the earthwork contractor for a period of time during the months of December and January. The Contractor previously gained expanded access to the right-of-way. In an effort to further expand access, the Contractor completed the clearing of a construction haul road near the archeological site, allowing the transport of materials and construction equipment along the Project ROW. The Contractor's most recent schedule reflects a delay of approximately four months to the completion of the project, and the Contractor has submitted a time impact analysis related to delays associated with the archeological studies. The NET RMA is reviewing the time impact documentation to identify potential measures to accelerate the completion of the project.

## 1.4 PROGRESS PHOTOS

### 1.4.1 Earthwork

Clearing and grubbing activities are complete at all areas necessary within the project limits with the exception of the archeological site, to which the Contractor has limited access. Embankment activities are ongoing from Stevenson Branch north up to CR 431 and major excavation activities are ongoing from CR 431 up to CR 4118 and at the future FM 16 ramp locations.



Excavation between CR 431 and CR 4118



Excavation for future FM 16 ramps

### 1.4.2 Drainage Structures

The Contractor has completed construction of drainage structures major cross culverts No. 5, 7-12 and 14-15 and has begun construction of No. 16 and No. 17. Construction of other various minor culverts, stormdrain, and concrete riprap across the project is ongoing.



Backfilling at complete portions of Culvert No. 16 south of CR 849



Culvert No. 17 construction at Long Brake Tributary crossing



### 1.4.3 Bridge & Wall Structures

The Contractor continues bridge work including installation of drilled shafts, columns, caps, beams, metal decking, abutments and concrete bridge deck at numerous bridge locations across the project. In addition, construction of all Mechanically Stabilized Earth (MSE) walls is complete and the construction of the final cast-in-place (CIP) wall is ongoing.



Davis Branch Tributary bridge deck panel installation



IH 20 main lane overpass beam placement  
(north of IH 20)



Cap construction at IH 20 main lane overpass



Footing forms for Retaining Wall No. 4 just south of IH 20

#### 1.4.4 Erosion Control

The Contractor continues to place environmental controls such as silt fence, soil retention blankets, and rock filter dams as needed throughout the project to prevent erosion. Seeding continues around the future realigned FM 849 pavement.



Erosion control blankets along IH 20 northern side slopes



Topsoil and seeding north of FM 849

#### 1.4.5 Subbase & Pavement

The Contractor continued subbase and pavement activities during the month of May, completing the cement treatment of the subgrade and placement of flexible base and the prime coat for the eastern portion of the future FM 849 pavement. The contractor also began these activities on the western side.



Cement treatment of subgrade on eastern portion of FM 849 future pavement



Prime coat placement on eastern portion of FM 849 future pavement



## 1.5 PROGRESS NARRATIVE

Clearing and grubbing activities are complete excluding the area affected by the archeological study. Excavation work is ongoing from CR 4118 down to CR 431 and near FM 16. Embankment activities are ongoing from Stevenson Branch to CR 431. Treated backfill is being placed at various locations including Culvert No. 17 and the abutments of the CR 431, Long Brake Tributary, and IH 20 main lane bridges. Topsoil, compost, and seeding continues in areas around FM 849. The Contractor continues placement of erosion control items including silt fence, rock filter dams, erosion control blankets, and temporary seed as needed to prevent erosion.

Drilled shaft work and construction of bridge columns is ongoing at FM 16 and complete at all other bridge locations on the project. Footing placement is complete. Cap construction is ongoing at the CR 431, FM 16, and the north side of the IH 20 Main Lane bridge and complete at all other bridge locations on the Project. The Contractor also completed the placement of bridge beams for the Davis Branch Tributary bridge and began on the north side of the IH 20 main lane bridge in May. Placement of bridge deck panels at Davis Branch, Davis Branch Tributary, and on the southern side of the IH 20 main lane bridge is also complete. In addition, the Contractor placed the concrete bridge deck at the Davis Branch Tributary bridge during the month of May.

All MSE wall construction is complete on the project. Work on cast-in-place (CIP) retaining walls is complete with the exception of Retaining Wall No. 4, for which work has resumed with the execution of Change Order No. 4. Installation of major cross Culverts No. 5, 7-12 and 14-15 is complete. The Contractor continues work on major cross culverts south of FM 849 including Culvert No. 16 and started work on Culvert No. 17.

The Contractor resumed subbase activities in the month of May, completing the placement of subgrade, prime coat, and flexible base materials on the eastern side of the FM 849 bridge. No further placement of hot mix asphalt, traffic signal, gantry, or lighting work was completed in the month of May.

Table 3 below reflects construction progress based on the Contractor's schedule of values and approved construction draws.

**TABLE 3: CONSTRUCTION PROGRESS**

Construction Activity	Percent Complete
Mobilization	90.00%
Traffic Control	52.93%
Earthwork	67.60%
Drainage	35.42%
Sub-base and Base Course	5.76%
Pavement	4.25%
Structures	54.52%
Pavement Markings and Signals	16.06%
Environmental	33.89%
Extra Work Items	34.72%
Change Orders	42.79%

## 1.6 FINANCIAL SUMMARY

Table 4 shows the overall financial status for the Toll 49 Segment 4 project through June 9, 2017. The original budget established for the Project and the expenditures to date are provided. An estimated cost remaining and an estimate at completion are also provided.

**TABLE 4: FINANCIAL STATUS SUMMARY**

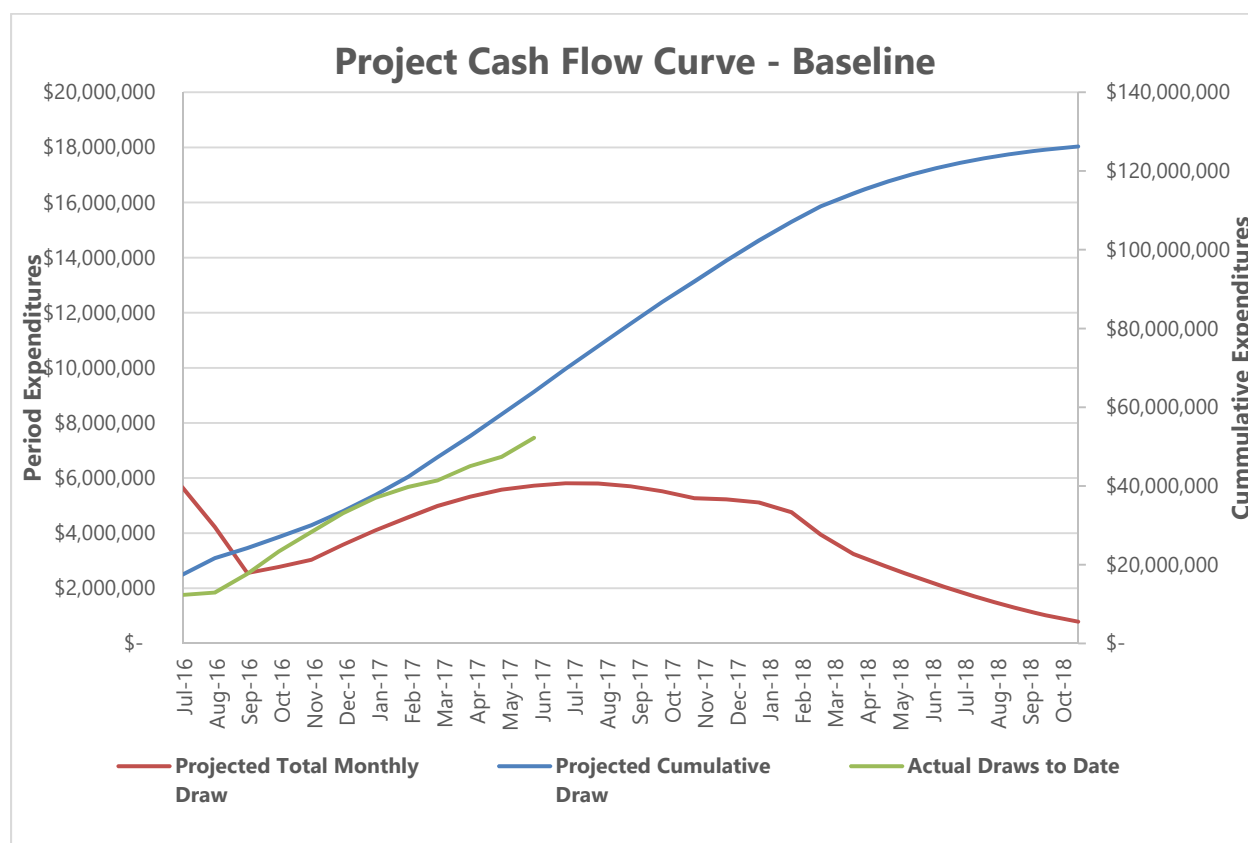
Project Description	Original Cost Estimate (\$)	Expenditures to Date (\$)	Estimated Remaining Cost (\$)	Estimate at Completion (\$)
Toll 49 Segment 4	\$126,220,000	\$52,228,098.98	\$73,991,901.02	\$126,220,000

*Note: These costs include Traffic & Revenue studies costs, ROW survey and mapping costs, Final Engineering costs, Utility Relocation costs, Oversight costs, Construction (including GEC costs), and contingencies.*

### 1.6.1 Project Cash Flow Curve – Baseline

Figure 2 summarizes the actual project costs to date through during this reporting period in comparison to the projected project costs.

**FIGURE 2: PROJECT CASH FLOW CURVE - BASELINE**



## 1.7 CONSTRUCTION FINANCIAL STATUS

The following summary provides the financial status of the Project.

Original Contractor Amount:	\$68,760,000.00
<i>Authorized Changes (Change Order and/or Amendments):</i>	
Change Order No. 1 <sup>1</sup>	\$0.00
Change Order No. 2	\$26,247.38
Change Order No. 3	\$17,257.93
Change Order No. 4	\$156,926.00
Change Order No. 5	\$100,000.00
Change Order No. 6	\$34,276.66
Change Order No. 7	\$3,721.82
Change Order No. 8	\$4,231.40
	<hr/>
<b>Current Authorized Contract Amount:</b>	<b>\$69,102,661.19</b>
<b>Previous total of Contractor Payments:</b>	<b>\$29,729,059.20</b>
Amount Paid this Reporting Period:	<hr/> \$2,194,635.62
<b>Total Amount Paid To-Date:</b>	<b>\$31,923,694.82</b>
Retainage withheld:	<hr/> \$0.00
<b>Approved Amount for work completed (through Draw No. 10):</b>	<b>\$31,923,694.82</b>
<b>Amount remaining for work to be completed:</b>	<b>\$37,178,966.37</b>
<b>Total Percent of Budget Expended though June 9, 2017:</b>	<b>46.20%</b>

Footnotes:

1. Change Order number 1 did not result in a change in price

### 1.7.1 Summary of Change Orders This Reporting Period

Change Orders No. 6, 7, and 8 were executed during this reporting period, increasing the contract amount by \$34,276.66, \$3,721.82, and \$4,231.40, respectively. Change Order No. 6 increased the depth of a retaining wall south of IH 20 to prevent undermining of the foundation in the event of heavy stream flow. Change Order No. 7 adjusted the end of Culvert No. 15 to add adequate distance between it and an adjacent gas line. Change Order No. 8 covered the cost of previously undiscovered water meters at the City of Lindale water line. Relocation of these lines was necessary to continue service to current City of Lindale customers.

## 1.8 DBE STATUS

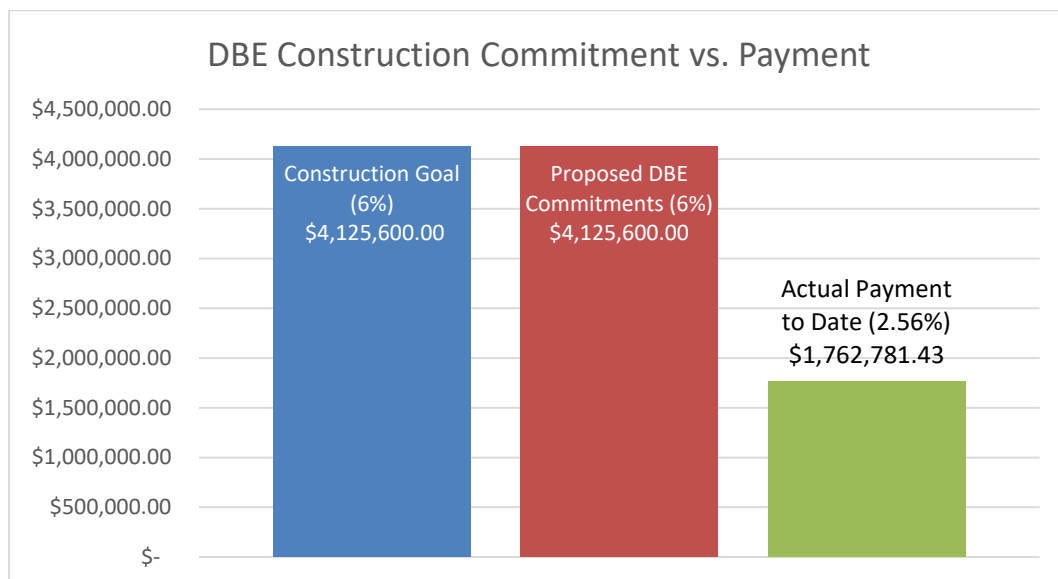
The Contractor is required to meet the Disadvantage Business Enterprise (DBE) goal of 6% for the Segment 4 Project. The Contractor has proposed costs associated with DBE development work in the amount of \$4,125,600.00 which equals 6.00% of the original contract value. This represents approved subcontracts with the following firms: Rambo Contracting INC (culverts, inlets, headwalls, and wing walls), Texas Environmental Management (stormwater pollution prevent plans and erosion control), MCL Contracting



(rebar tying), Buyers Barricade (advanced warning signs), and South Texas Painting (painting) along with anticipated subcontracts with Odum Services LP (metal beam guard fence and guard rail) and A Brothers Milling (milling).

To date, the Contractor has made payments in the amount of \$1,762,781.43 to DBE subcontractors, 2.56% of the original contract amount or 42.7% of their commitment amount.

**FIGURE 3: DBE STATUS**



## 1.9 COMPREHENSIVE ENVIRONMENTAL PROTECTION PROGRAM

In accordance with the terms of the Environmental Record of Decision (ROD) and contract requirements, the Contractor was required to develop and implement a Comprehensive Environmental Protection Program (CEPP) applicable throughout the duration of construction to establish the approach, requirements and procedures to be employed to protect the environment. The Contractor's CEPP includes the following component parts:

- » Areas of Special Environmental Interest - Describes steps taken to prevent impacts to at risk, rare species and their habitat as well as historical resources including:
  - Educating employees to recognize these impacts
  - Identifying the areas where construction related activities are not to take place based on the relevant migratory bird timing windows
  - Keeping water work to a minimum and cleaning any equipment which must enter the water both prior and after to mitigate the spread of Zebra Mussels
  - If endangered/rare species or historical/archaeological/paleontological resources are encountered, ceasing working in the area and notifying the engineer or applicable agency for direction on any mitigation action required

- » Environmental Protection Measures include the following:
  - Erosion and sediment control measures
  - Preparation for seasonal shutdown
  - Protection of wildlife and wildlife habitat
  - Proper practices for clearing vegetation
  - Appropriate handling and storage of soil
  - Protection of wetlands, watercourses (streams), and riparian areas
  - Air quality management
  - Proper handling and storage of petroleum, oil, lubricant, and other chemicals
  - Management of waste
  - Constructing, operating, and reclaiming borrow excavations
  - Operating concrete batch plants
  - Well impacts and requirements
  - Recycling program
- » Monitoring and Inspection efforts consist of:
  - Self-Regulatory inspection program
  - Construction Monitoring
  - Post construction monitoring
- » Energy Conservation measures including the following:
  - Reusing and recycling of construction materials
  - Maximizing the use of local materials to reduce hauling
  - Carpooling of workers to and from the jobsite
  - Regular maintenance of equipment to ensure proper working order
  - Reducing energy consumption by turning off equipment and vehicles when not in use
  - Minimizing stops and delays by efficient routing of trucks to and from the jobsite and utilizing off-peak travel times to maximize fuel efficiency
  - Minimizing the need for artificial light by scheduling construction during daytime hours to the extent practicable
  - Maintenance of traffic control plan that minimizes lengthy detours or delays for motorists.
- » The Environmental Protection Training Plan educates non-administrative employees to:
  - Recognize the overall importance of environmental issues
  - Recognize environmental impacts as they relate to construction
  - Know what actions to take to minimize impacts
- » The Communication Plan provides contact information for the Environmental Manager, Superintendent, Project Engineer and Project Manager

Per the CEPP, the contractor has conducted the following activities:

- » Submitted for and posted TCEQ Notice of Intent (NOI) for stormwater discharges. The NOI and large construction site notices are posted on the Contractor's Equal Employment Opportunity board in front of the field office to address accessibility concerns.

- » Implemented proper vegetation clearing practices including installing sediment and erosion control measures prior to beginning the clearing and grubbing work.
- » Minimized disturbance to aquatic resources during clearing and grubbing by installing silt fence between the construction site and watercourse to prevent sedimentation and equipment from encroaching on protected areas and installing temporary crossings to allow construction equipment to cross various tributary streams.
- » Performed weekly inspections to ensure the measures are operating correctly.
- » Implemented the Environmental Protection Training Plan by providing staff access to the TxDOT Environmental Management System training website.
- » Avoided impacts to streams during construction until mitigation was secured.

## *APPENDIX A: AERIAL PHOTOGRAPHS (JUNE 2017)*



**FIGURE 4: PROJECT AREA SOUTH OF IH 20**

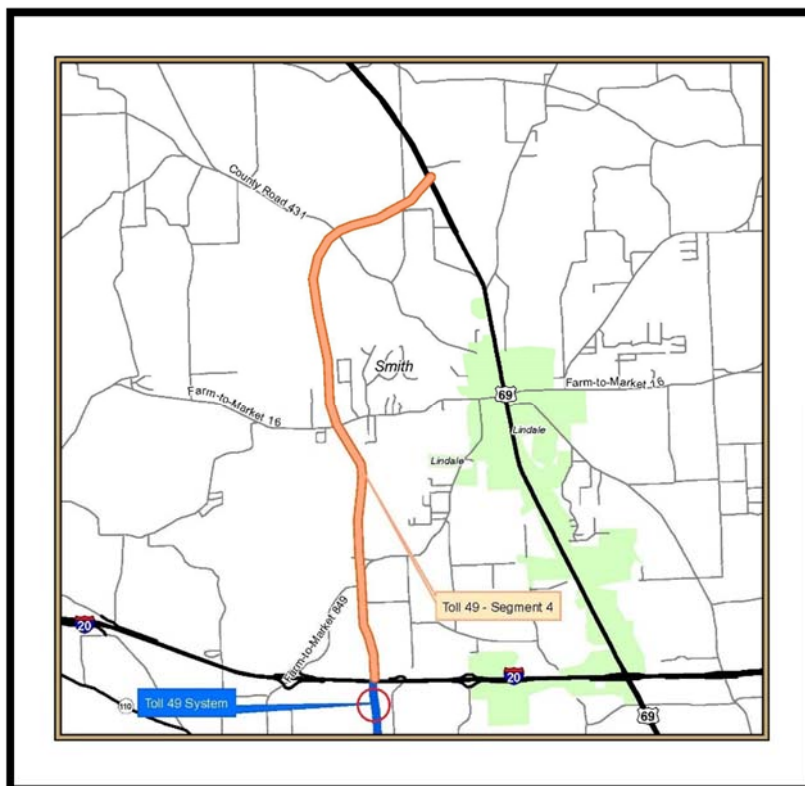
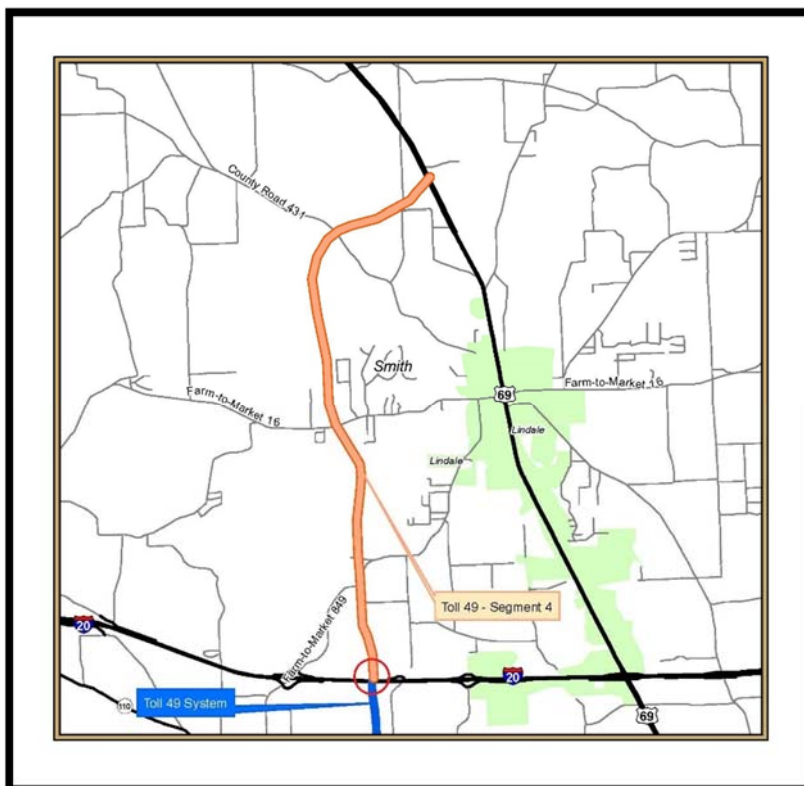






FIGURE 5: PROJECT AREA AT IH 20







**FIGURE 6: PROJECT AREA BETWEEN IH 20 AND FM 849**

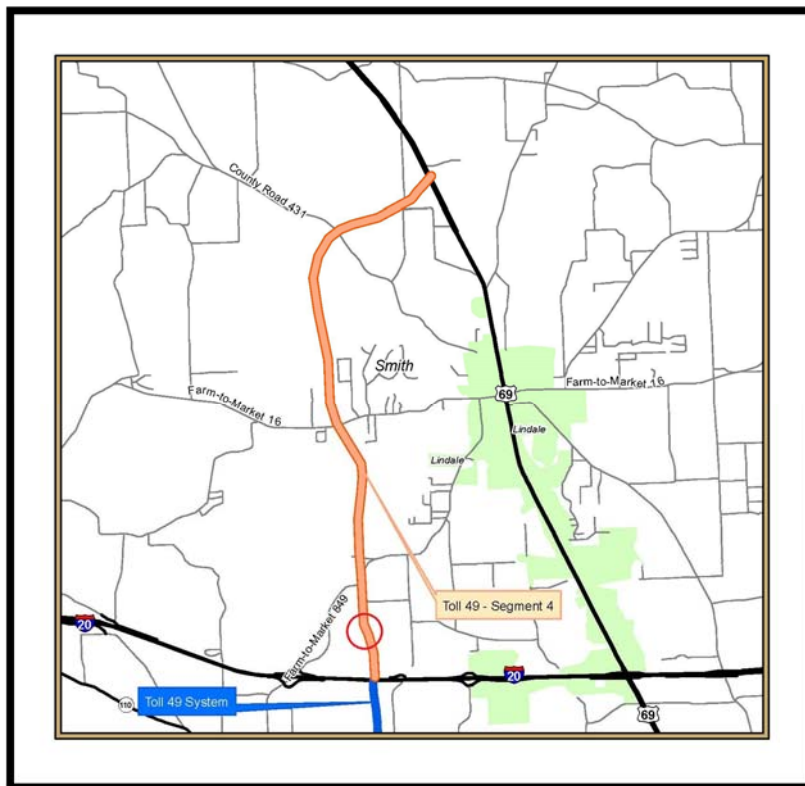
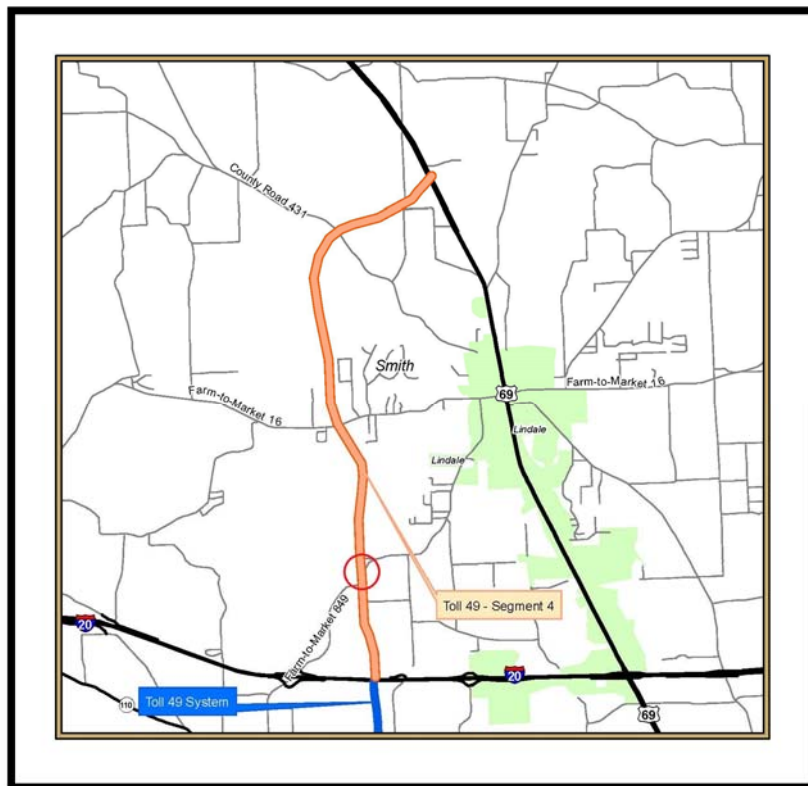






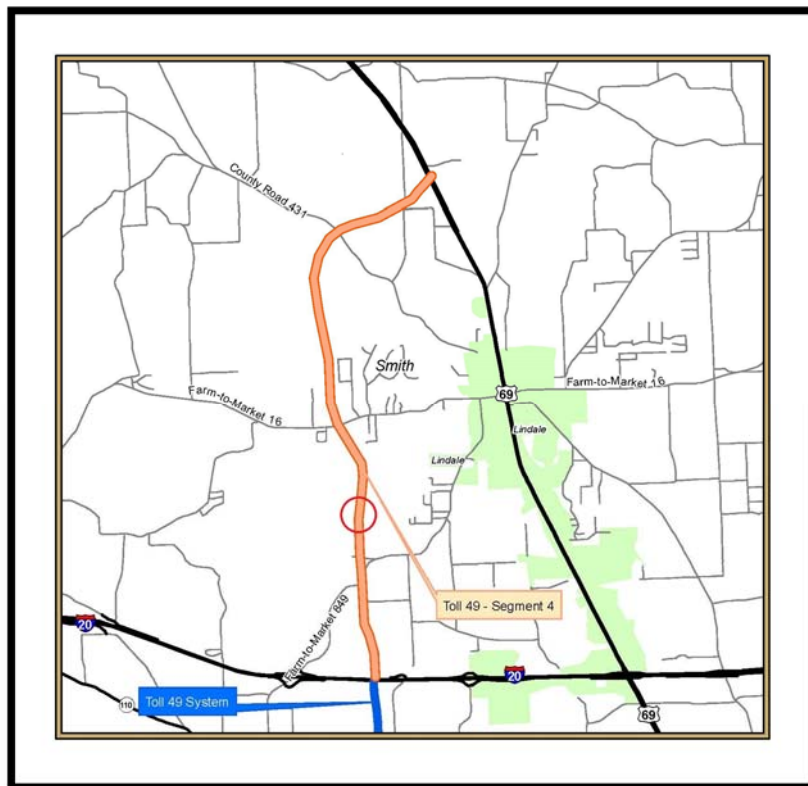
FIGURE 7: PROJECT AREA AT EXISTING FM 849







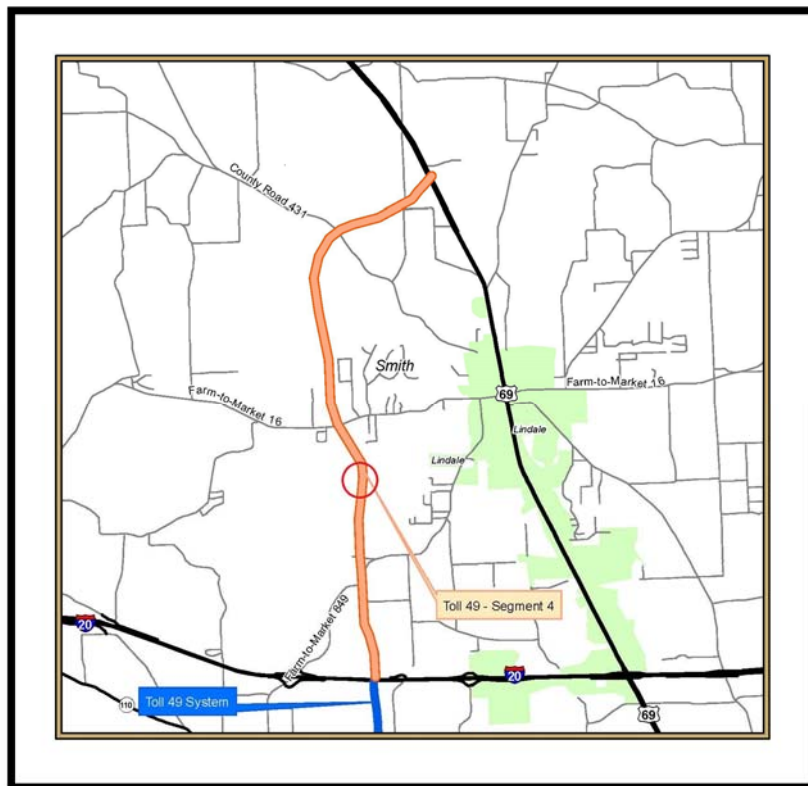
**FIGURE 8: PROJECT AREA NORTH OF FM 849**







**FIGURE 9: PROJECT AREA DAVIS BRANCH TRIBUTARY**





**FIGURE 10: PROJECT AREA BETWEEN DAVIS BRANCH AND FM 16**

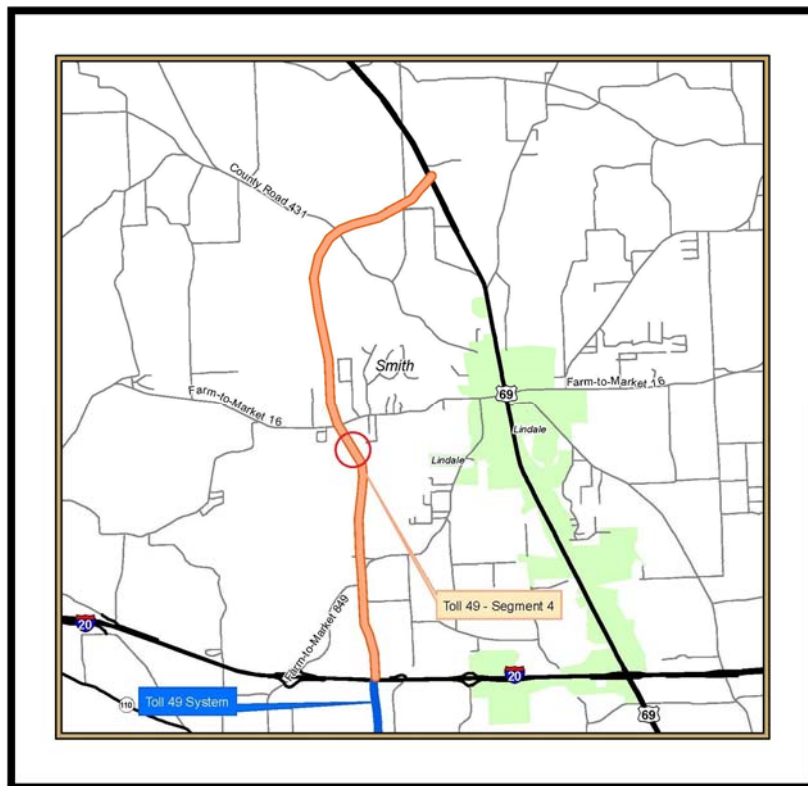






FIGURE 11: PROJECT AREA AT FM 16

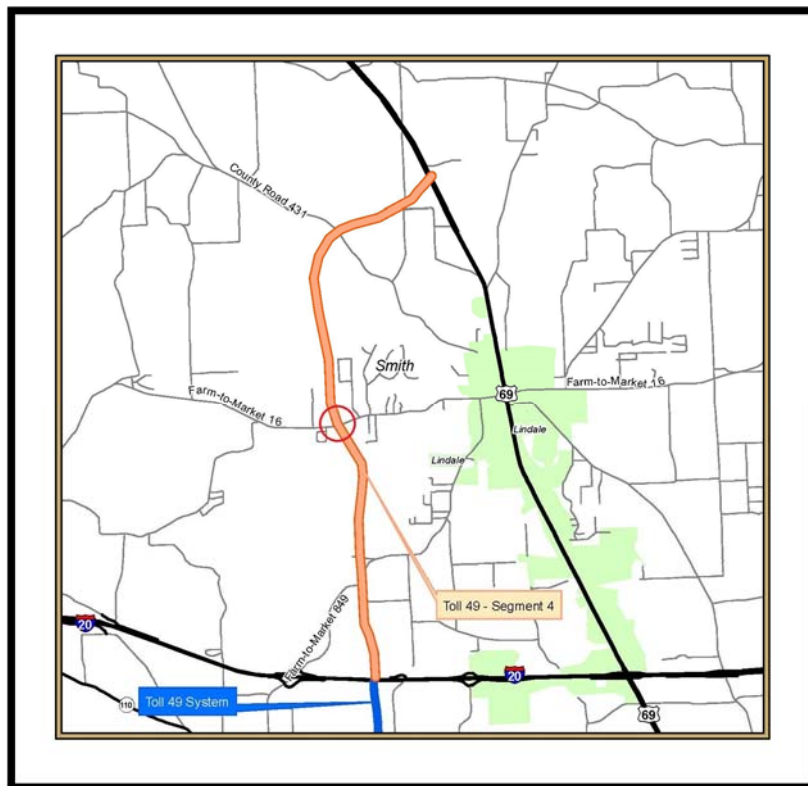
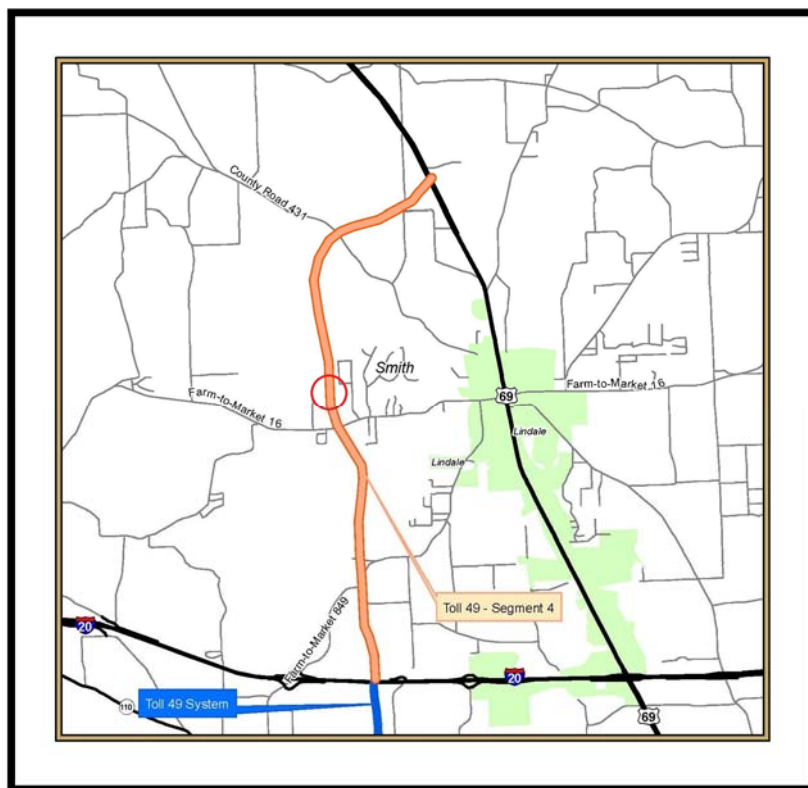




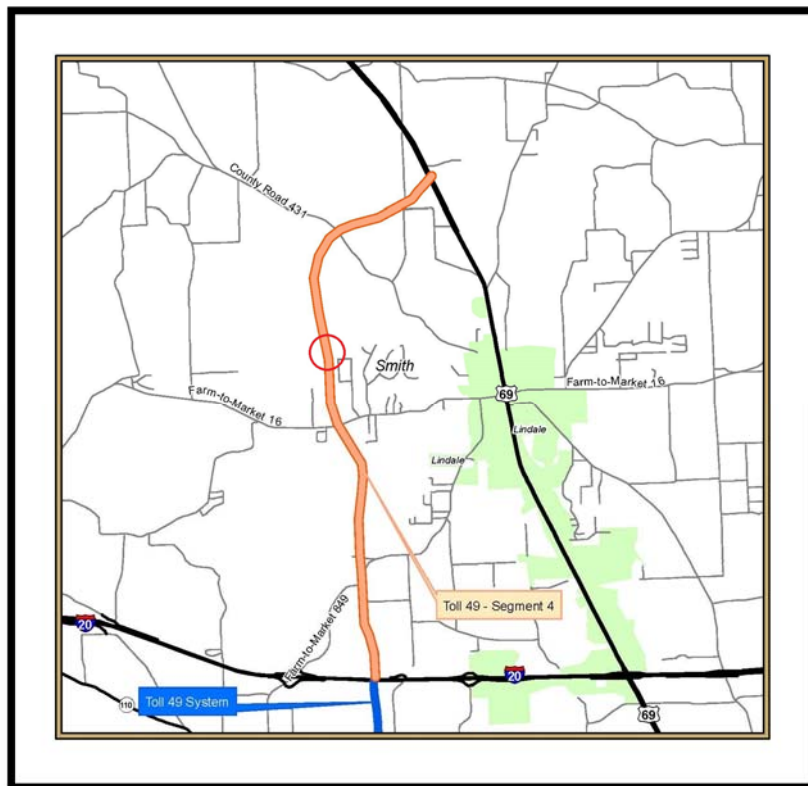
FIGURE 12: QUARRIES NORTH OF FM 16







**FIGURE 13: PROJECT AREA NORTH OF THE FM 16 QUARRIES**







**FIGURE 14: PROJECT AREA BETWEEN FM 16 AND CR 341**

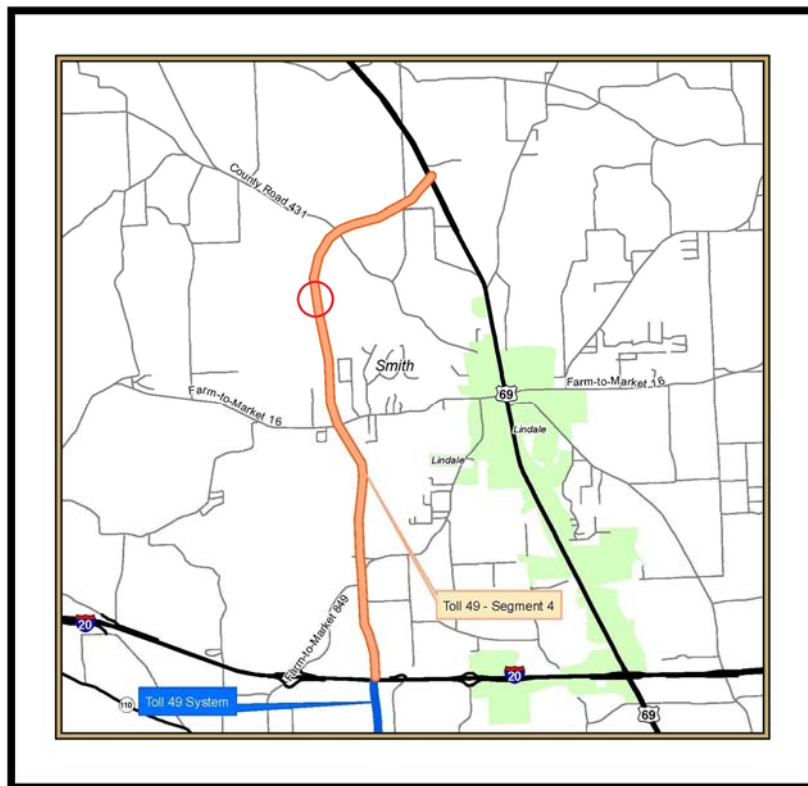






FIGURE 15: PROJECT AREA SOUTH OF CR 431

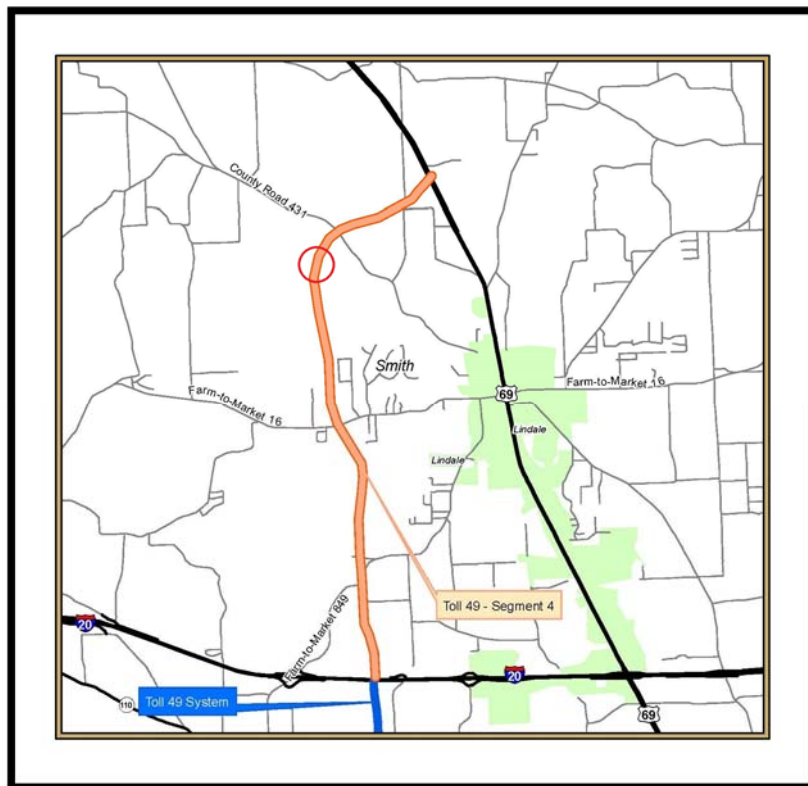






FIGURE 16: PROJECT AREA AT CR 431

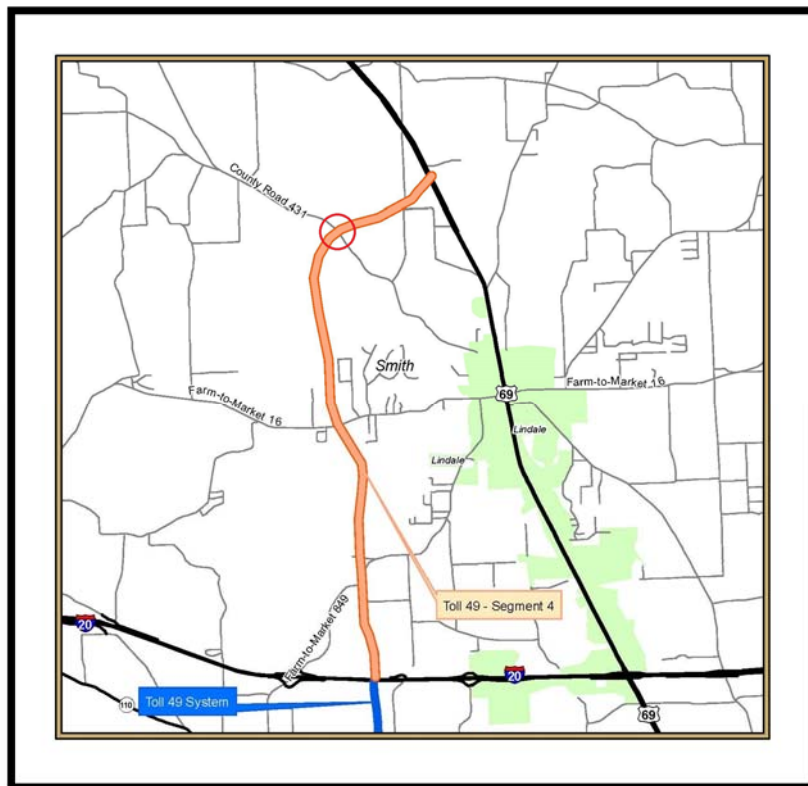




FIGURE 17: PROJECT AREA NORTH OF CR 431

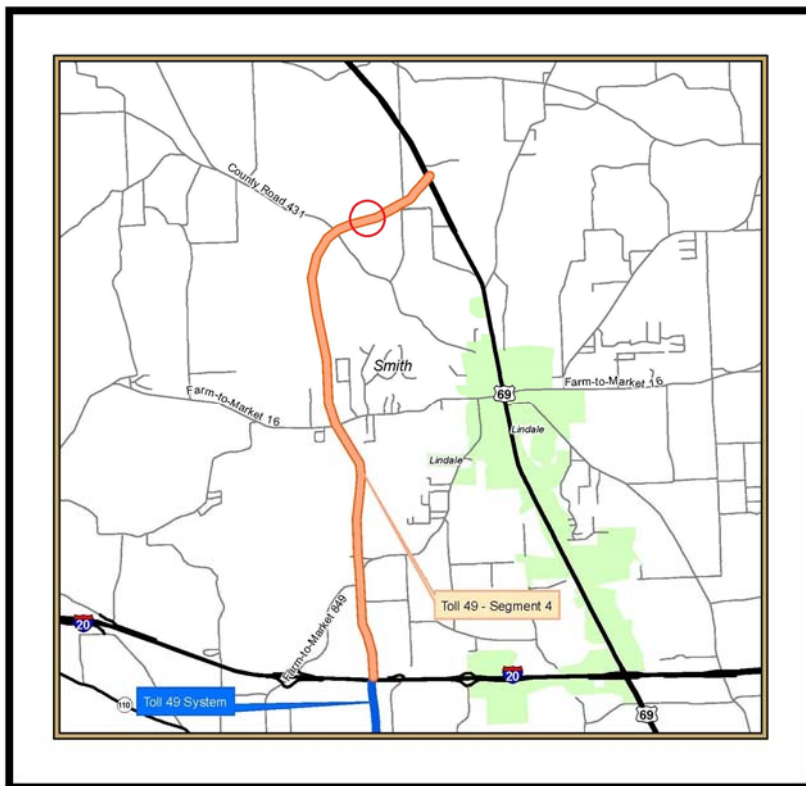






FIGURE 18: PROJECT AREA AT CR 4118

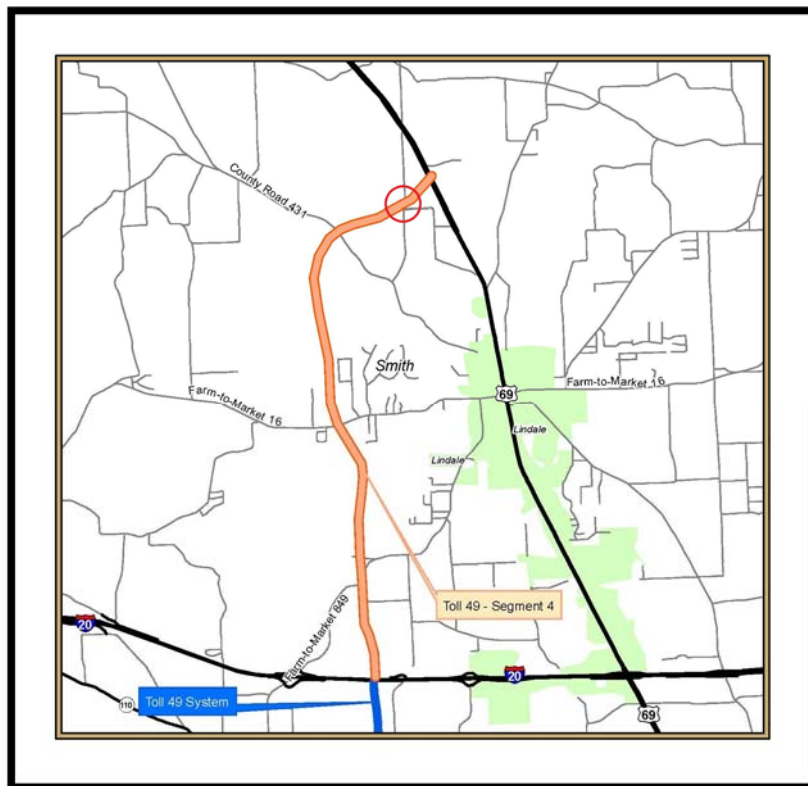




FIGURE 19: PROJECT AREA AT US 69

