

TOLL 49 SEGMENT 4 QUARTERLY REPORT



*2ND QUARTER 2018
QUARTERLY REPORT NO. 6*

RS&H





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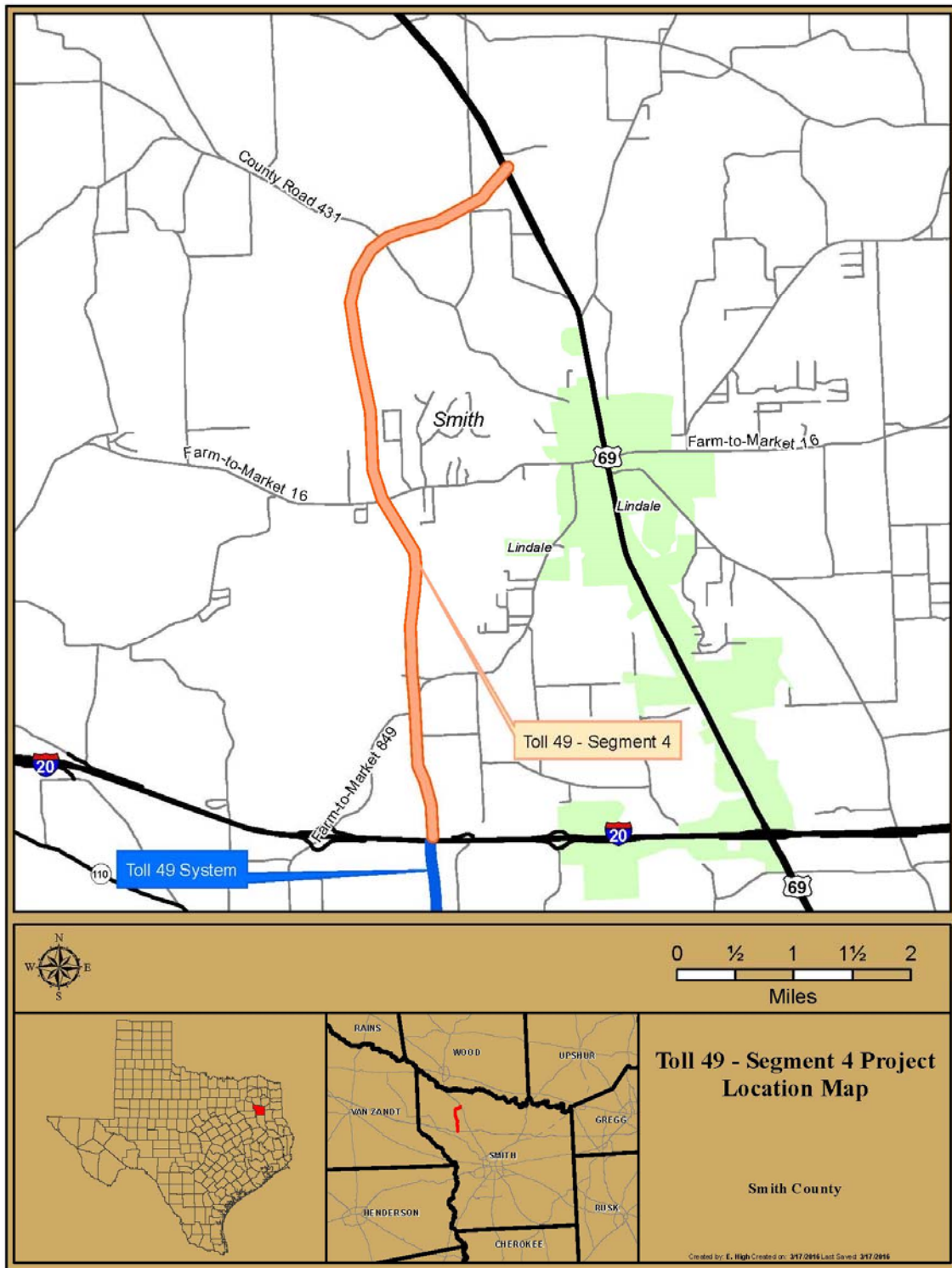
1.1 INTRODUCTION

This report documents and describes development and construction activities on the Toll 49 Segment 4 Project that occurred primarily during the 2nd quarter of fiscal year 2018 and covers a period extending from January 1, 2018 to April 1, 2018. 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 Acquisition

To date, the Authority has either acquired, or secured access rights to, all forty-two project parcels. Condemnation proceedings are ongoing to complete acquisition of the final parcel.

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	Closed
206	2.42	NTP	Closed
207	0.40	NTP	Closed
208	7.03	NTP + 75 Days	Closed
209	12.47	15-Jul-16	Closed
210	0.84	15-Jul-16	Closed
213	39.13	NTP	Closed
214	9.95	NTP	Closed
215	36.64	NTP	Closed
The Authority has taken possession			
Parcel is accessible to Contractor			
Condemnation proceedings ongoing			
216	28.31	NTP	Closed
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
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

Parcel	Acreage	Estimated Acquisition	
		Date	Status
237	0.41	NTP + 60 Days	Closed
238	22.66	NTP + 60 Days	Closed
239	1.04	NTP + 60 Days	Closed
240	13.39	NTP + 60 Days	Closed
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	Closed

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 will be performed by the utility owners with 100% reimbursement from the Authority. The Authority has executed relocation agreements with all eleven privately owned utilities impacted by the Segment 4 Project and has issued NTP for the relocation of these facilities. Due to coordination and construction timeframes, the relocations for some utilities were not completed within the contract's estimated completion dates. These relocations did not 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	Relocation is complete
Crystal Systems Water	N/A	Relocation is complete
East Texas Electric Cooperative	1-Jan-17	Relocation is complete
Enbridge	No conflict	No conflict identified, no relocation
Gulf South	NTP+90	Relocation is complete
Lindale Rural WSC	N/A	Relocation is complete
MHM Pipeline	Relocation will begin 2 weeks after clearing	Relocation is complete
Oncor Electric Delivery (Distribution)	NTP + 90 to 120 Days	Relocation is complete
Oncor Electric Delivery (Transmission)	1-Nov-16	Relocation is complete

Utility Company	Estimated Relocation Completion Date	Status
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	Relocation is complete

1.3.3 Archeological Survey

During archeological survey undertaken in support of a utility relocation on the project in July of 2016, archeologists encountered a previously unrecorded archeological site within the project right of way. The archeological site was located on the northern end of the project and spanned the entire width of the ROW. Throughout the course of the archeological investigation, the Contractor was allowed only limited access to the right-of-way near the archeological site, earthwork activities were impeded, and resulted in the demobilization of the earthwork contractor during late 2016 and early 2017.

Access was restored to a northern portion of the site totaling approximately 39 acres in April 2017. With TxDOT and Texas Historical Commission approval in April, the Contractor cleared a 30' construction haul road along the eastern edge of the ROW through the remaining six acre southern portion, further expanding access and allowing the transport of materials and construction equipment along the Project ROW.

In October 2017, the NET RMA board approved two Change Orders, No. 12 and 13, associated with a time impact analysis extending the project schedule by six months and increasing the construction contract amount by approximately \$1.6 million for time related overhead expenses and earthwork demobilization and remobilization costs. Final clearance of the site was received on December 1, 2017 and the Contractor has been granted full access to resume construction activities at this location.

In January 2018, the NET RMA Board approved an additional Change Order with the Contractor to settle claims associated with construction delays caused by the archeological survey. Change Order No. 14 increased the not-to-exceed amount of the construction contract by \$2.7 million, with \$1.4 million representing a lump sum settlement payment to be paid to the Contractor if the February 6, 2019 Substantial Completion date is met. Should Substantial Completion occur after February 6, 2019, this \$1.4 million lump sum amount will be decreased by \$15,000 per calendar day. The remaining \$1.3 million represents a not-to-exceed amount intended to cover costs associated with the increased erosion control activities required to maintain the project during the extended construction schedule. The erosion control costs in Change Order No. 14 do not account for costs associated with removal of sediment from outside the project ROW or additional seeding needed to establish ground cover.

1.4 PROGRESS PHOTOS

1.4.1 Earthwork

With the exception of minor earthwork activities such as grading for ditches and at pavement edges, only three major embankment and excavation areas are outstanding on the project. A short section of embankment work remains in the former archaeological area, and the Contractor has progressed embankment work south of IH 20 for the northbound exit ramp to IH 20. Finally, the last major excavation will be performed at FM 849 once the realignment of the cross street is complete. The pavement tie-ins for the realignment at this location are partially complete.



Embankment at FM 849 tie ins



Excavation of earth near FM 16



Embankment at the former archaeological site
south of CR 431



Embankment at the former archaeological site
south of CR 431

1.4.2 Drainage Structures

With the construction of the final drop inlets and pipe in January, the Contractor completed all culvert and storm sewer construction on the project. Ongoing drainage work includes construction of concrete rip rap for ditches, rock rip rap at outfalls, and general ditch grading.



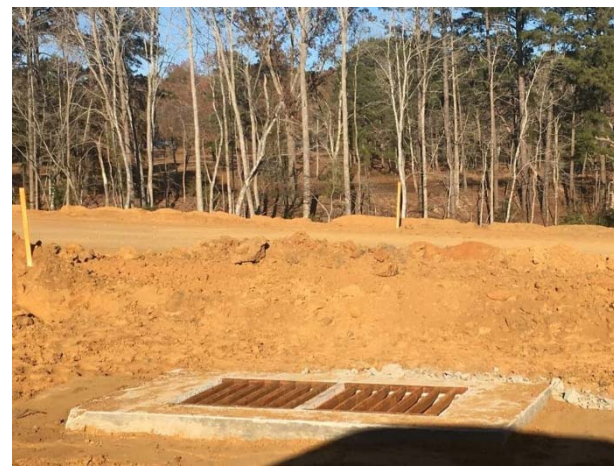
Concrete rip rap for drainage near Culvert No. 16, south of FM 849



Drop inlet construction just south of FM 16



Concrete rip rap for drainage south of Stevenson Branch



Completed area inlet just south of FM 16

1.4.3 Bridge & Wall Structures

The contractor completed construction of the final concrete bridge deck, the IH 20 main lane overpass, in January and completed the construction of the remaining concrete traffic rail for all project bridges. With the completion of these tasks, all major bridge substructure and superstructure construction is now complete. Outstanding bridge work on the project includes the completion of minor concrete rip rap sections at bridge abutments, grinding and grooving of bridge decks, and patching and sealing the completed structures.



IH 20 main lane overpass bridge deck construction



Construction of the concrete bridge rail of the IH 20 main lane overpass



Completed construction of IH 20 main lane overpass



Concrete rip rap construction at the northbound ramp bridge abutment at IH 20



Superstructure patching and sealing at the northbound ramp bridge at IH 20



Installation of guardrail and construction of mow strips approaching the FM 849 bridge

1.4.4 Erosion Control

The Contractor continued environmental control activities such as maintaining silt fence, soil retention blankets, and rock filter dams as needed throughout the project to prevent erosion. Topsoil, compost, seeding, and mulch hay activities were performed at various locations. The Contractor continued efforts to repair and replace erosion controls damaged during weather events and began installing permanent seeding on backslopes. As of the end of March, permanent seeding has been installed along the IH 20 corridor and in areas around CR 431 and Stevenson Branch.



Rock rip rap and silt fence at Culvert No. 16,
south of FM 849



Rock rip rap and silt fence at Culvert No. 16,
south of FM 849



Topsoil and seeding south of IH 20



Topsoil and seeding south of existing FM 849

1.4.5 Subbase & Pavement

Cement treatment of subgrade and the placement of flexible base progressed between the former archaeological site and CR 431. Four inches of asphalt pavement was placed from existing FM 849 to the halfway point between FM 16 and CR 431. In addition, the first two inch layer of asphalt was placed on three of the four FM 16 ramps.



Cement treatment of the pavement subgrade
south of FM 16



Cement treatment of the pavement subgrade
north of FM 16



Flexible base installation north of FM 16



Flexible base installation between the CR
431 and Stevenson Branch bridges



Primed flexible base for the main lanes north
of FM 16 at the ramp tie-ins



Asphalt paving south of IH 20



Asphalt paving south of Davis Branch Bridge



Striping of CR 4118 just before being opened to traffic

1.4.6 Gantries and Lighting

During the reporting period, all drilled shaft for gantry structures were completed and the luminaire poles for the FM 16 ramps were installed.



Construction of drilled shafts for main lane gantry north of FM 16



Installation of luminaire poles for the exit ramp south of FM 16

1.5 PROGRESS NARRATIVE

The Contractor continued maintaining erosion control items including silt fence, rock filter dams, erosion control blankets, and temporary seed as needed to prevent erosion. Focused efforts early in the reporting period were required to repair and replace erosion controls items due to rain late in 2017. During the reporting period, the Contractor also began installing permanent seeding on backslopes. Permanent seeding was installed along the IH 20 corridor, in areas north and south of IH 20, and in areas near CR 431 and Stevenson Branch.

Clearing and grubbing activities are complete, and three major earthwork tasks remain. Embankment at the former archeological area and embankment south of IH 20 for the northbound exit ramp to IH 20 is ongoing. Once traffic is switched to the realigned FM 849 pavement, the final major excavation can begin at existing FM 849. At this location, the Contractor has completed the earthwork, flexible base, and prime coat for the pavement tie-ins at the realigned FM 849 and will switch the traffic once the asphalt has been placed.

With the completion of the IH 20 main lane overpass bridge deck and the construction of the remaining concrete bridge rail during the reporting period, all bridge substructure and superstructure construction is now complete. The only remaining bridge items are grinding and grooving the deck surfaces and minor patching and sealing of the concrete structures as needed. Rip rap construction for bridge abutments is essentially complete at all bridge abutments with minor concrete work required at a few locations.

The construction of the final drop inlets and concrete pipe was completed during the reporting period, marking the completion of all project culverts and storm sewer. Rock rip rap was installed at Culvert No. 15 north of CR 431 and Culvert No. 16 south of FM 849. Concrete flume construction during the reporting period included work at Culvert No. 16, Culvert No. 17, and near Stevenson Branch. Grading for drainage ditches is ongoing throughout the project limits.

Subgrade cement treatment is complete at all locations except for areas with outstanding earthwork, including the northbound exit ramp south of IH 20, a short section of main lanes at existing FM 849, and at the former archaeological site. Flexible base has been placed almost everywhere the subgrade has been treated. Outstanding flexible base areas include a 1.5 mile section between the former archeological area and CR 4118 along with the three locations still lacking cement treatment as summarized above. Major asphalt activities progressed during the reporting period, including the placement of two inches of asphalt for three of the four ramps at FM 16 and the first four inches of asphalt for the main lanes from existing FM 849 to the halfway point between FM 16 and CR 431, covering approximately three and a half miles, over half the length of the project.

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	85.73%
Earthwork	98.73%
Drainage	71.12%
Sub-base and Base Course	73.96%
Pavement	25.06%
Structures	99.86%
Pavement Markings and Signals	29.84%
Environmental	73.06%
Extra Work Items	58.63%
Change Orders	33.17%

1.6 FINANCIAL SUMMARY

Table 4 shows the overall financial status for the Toll 49 Segment 4 project through March 31, 2018. 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

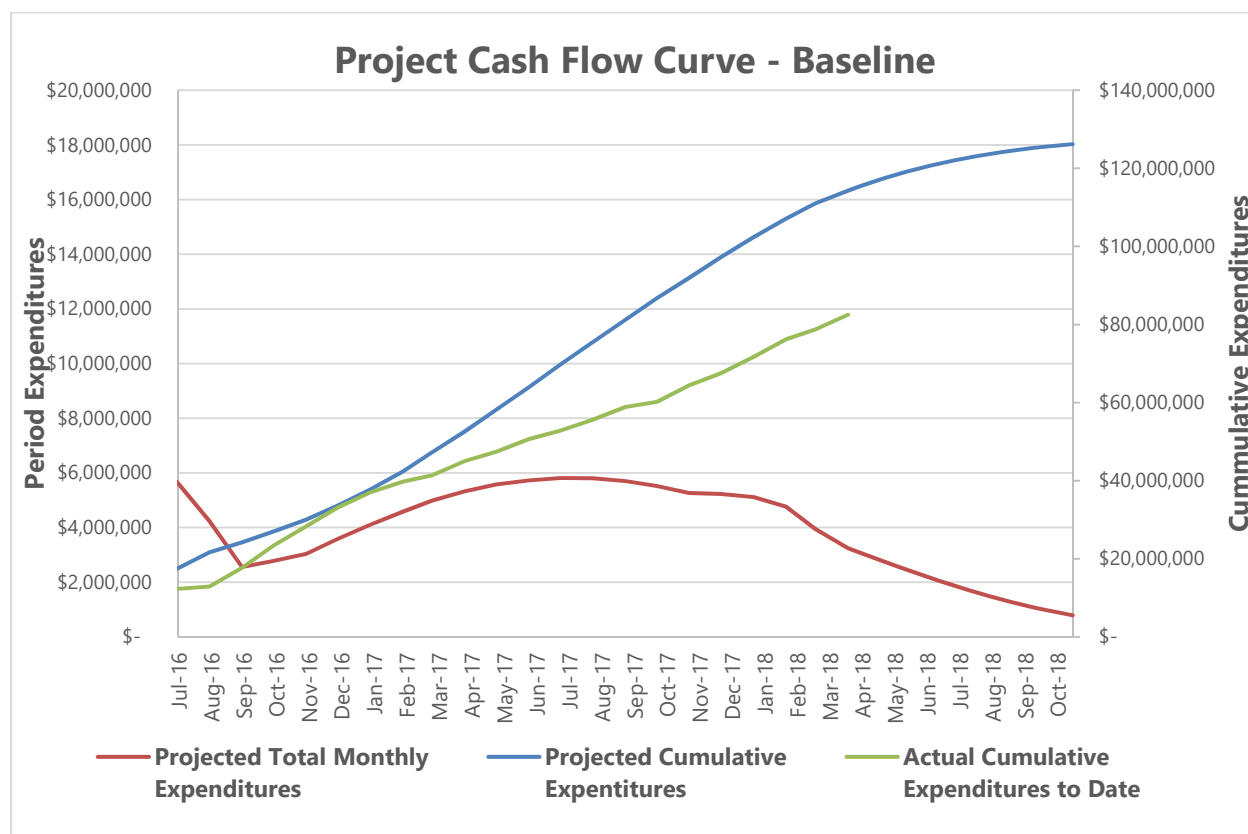
Project Description	Original Cost Estimate (\$)	Expenditures to Date (\$)	Estimated Remaining Cost (\$)	Estimate at Completion (\$)
Toll 49 Segment 4	\$126,220,000	\$82,519,635.76	\$43,700,364.24	\$126,220,000

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 approximately \$13.5 million in remaining contingencies.

1.6.1 Project Cash Flow Curve – Baseline

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

FIGURE 2: PROJECT CASH FLOW CURVE - BASELINE



Note: "Projected Cumulative Expenditures" includes both projected project expenditures and project contingencies.

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 ¹	\$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
Change Order No. 9	\$304,851.40
Change Order No. 10	\$200,000.00
Change Order No. 11 ²	\$4,389,160.65
Change Order No. 12 ³	\$1,078,075.83
Change Order No. 13	\$493,609.77
Change Order No. 14	\$2,660,075.00
Change Order No. 15	\$24,838.18
Change Order No. 16	\$28,495.58
Change Order No. 17	\$50,000.00
Change Order No. 18	\$11,860.97
Change Order No. 19	\$100,000.00
Change Order No. 20	\$67,382.19
Current Authorized Contract Amount:	\$78,511,010.76
Previous total of Contractor Payments:	\$49,321,929.71
Amount Paid this Reporting Period:	\$8,997,881.68
Total Amount Paid To-Date:	\$58,319,811.39
Retainage withheld:	\$0.00
Approved Amount for work completed (through Draw No. 20):	\$58,319,811.39
Amount remaining for work to be completed:	\$20,191,199.37
Total Percent of Budget Expended through March 31, 2018:	74.28%

Footnotes:

1. Change Order number 1 did not result in a change in price
2. Change Order No. 11 included a 56 day time extension
3. Change Order No. 12 included a 179 day time extension

1.7.1 Summary of Change Orders This Reporting Period

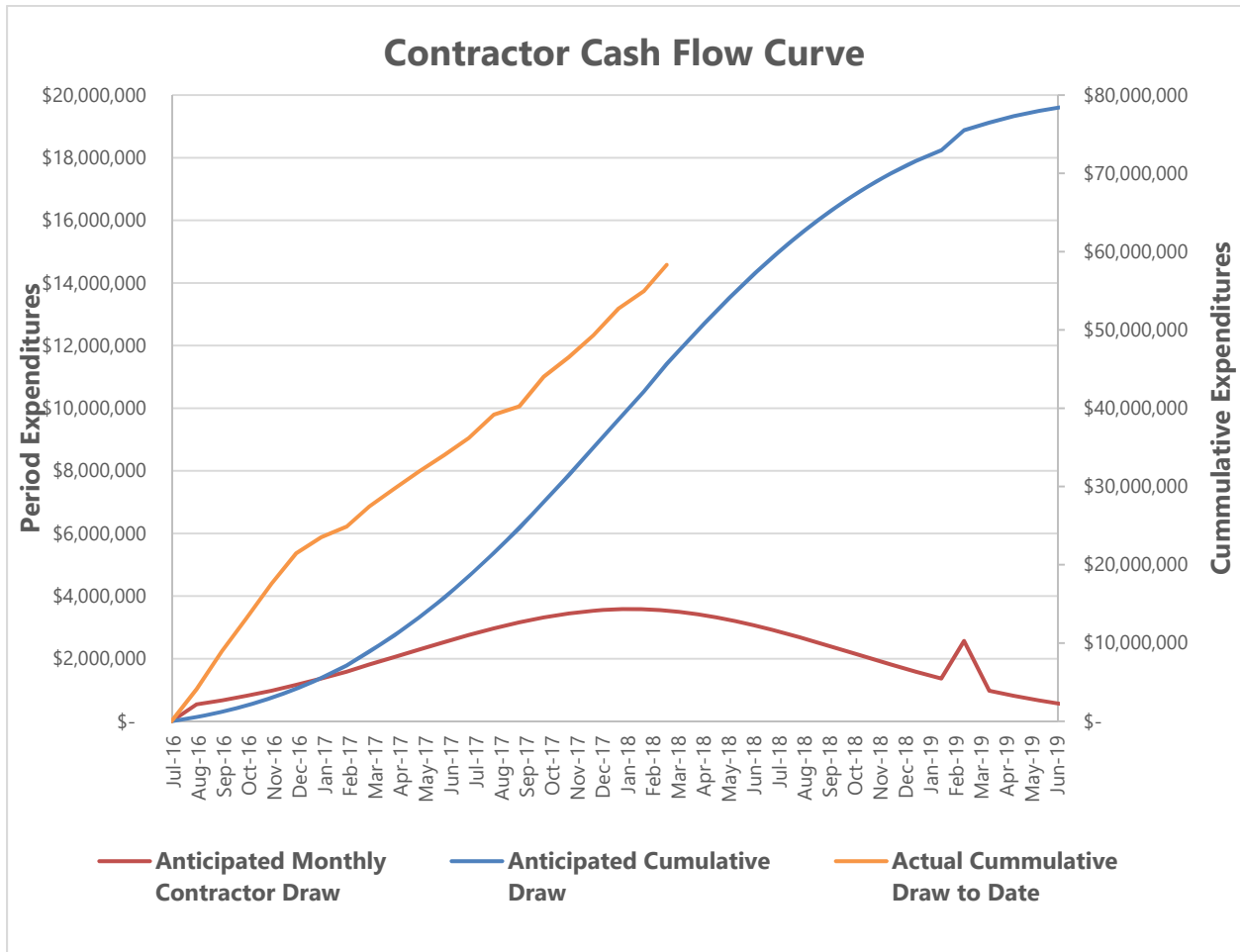
In January 2018, the NET RMA executed Change Order No. 14 in the amount of \$2,660,075.00 to settle claims associated with delays caused by the archeological survey as described in Section 1.3.3. The Contractor will be entitled to \$1,400,000.00 lump sum settlement should upon meeting the February 6, 2019 Substantial Completion date. Should Substantial Completion occur after February 6, 2019, this lump sum amount will be decreased by \$15,000.00 per calendar day. The additional \$1,260,075.00 represents a not-to-exceed amount intended to cover costs associated with the increased erosion control activities required to maintain the project during the extended construction schedule.

During the reporting period, the NET RMA also executed Change Orders No. 15, 16, 17, 18, 19, and 20. Change Order 15 included \$24,838.18 to resolve a conflict with an existing Lindale Rural waterline encountered during construction. Change Order 16 was necessary due to a delay in the relocation of electrical lines in conflict with the proposed IH 20 bridge beams, causing the Contractor's equipment to be moved off-site during the delay. Change Order 16 includes \$28,495.58 to rent the construction equipment and continue work rather than delay the project schedule. Change Order 17 increases the construction contract amount by \$50,000.00 to fortify erosion control with additional rip rap. Change Order 18 includes \$11,860.97 to address various minor drainage items including conflicts with existing pipes and ditches. Change Order 19 includes a not-to-exceed amount of \$100,000.00 to cover compensation for seeding activities and off-site sediment clean-up. Change Order 20 includes \$67,382.19 to compensate the Contractor for the use of on-road trucking. On-road trucking was necessary to complete earthwork after a delayed utility relocation within the Project right-of-way.

1.7.2 Contractor Cash Flow Curve

Figure 3 summarizes the actual Contractor draws to date during this reporting period in comparison to the projected Contractor draws.

FIGURE 3: CONTRACTOR CASH FLOW CURVE



Note: Contractor Cash Flow Curve includes both price and schedule revisions associated with approved Change Orders.

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), 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 \$3,925,799.16 to DBE subcontractors, 5.71% of the original contract amount or 95.16% of their commitment amount.

FIGURE 4: 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.

- » Focused on addressing several erosion control items identified in a March 2017 letter from TCEQ by installing additional rock filter dams, erosion control blankets, mulch, topsoil, and temporary seeding on back and side slopes as construction progressed and performing silt excavation downstream of areas where erosion control measures were previously inadequate.
- » Continued the maintenance and repair of erosion control measures throughout the jobsite to ensure continued TCEQ compliance and is focused on repairing and replacing measures due to the rains experienced in mid-December of 2017.
- » Reduced the amount of runoff at soil stockpile locations by reducing the grade of the stockpile side slopes.
- » 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 (JANUARY 2018 TO APRIL 2018)



January 2018



April 2018

FIGURE 5: PROJECT AREA SOUTH OF IH 20



January 2018



April 2018

FIGURE 6: PROJECT AREA AT IH 20



January 2018



April 2018

FIGURE 7: PROJECT AREA BETWEEN IH 20 AND FM 849



January 2018



April 2018

FIGURE 8: PROJECT AREA AT EXISTING FM 849



January 2018



April 2018

FIGURE 9: PROJECT AREA DAVIS BRANCH TRIBUTARY



January 2018



April 2018

FIGURE 10: PROJECT AREA DAVIS BRANCH



January 2018



April 2018

FIGURE 11: PROJECT AREA BETWEEN DAVIS BRANCH AND FM 16



January 2018



April 2018

FIGURE 12: PROJECT AREA AT FM 16



January 2018



April 2018

FIGURE 13: QUARRIES NORTH OF FM 16



January 2018



April 2018

FIGURE 14: PROJECT AREA NORTH OF THE FM 16 QUARRIES



January 2018



April 2018

FIGURE 15: PROJECT AREA BETWEEN FM 16 AND CR 341



January 2018



April 2018

FIGURE 16: PROJECT AREA SOUTH OF CR 431



January 2018



April 2018

FIGURE 17: PROJECT AREA AT CR 431



January 2018



April 2018

FIGURE 18: PROJECT AREA NORTH OF CR 431



January 2018



April 2018

FIGURE 19: PROJECT AREA AT CR 4118



January 2018



April 2018

FIGURE 20: PROJECT AREA AT US 69