

# Toll 49 Segment 3B **QUARTERLY PROGRESS REPORT**

No. 5 | July 2012

## **GENERAL**

The construction of Toll 49, Segment 3B continued to make good progress in the second quarter of 2012. Since the last quarterly report in April of 2012, the CDA Design/Build Developer, CH2M Hill, has completed the design portion of the project and are making great strides in earthwork, drainage and bridge construction. In early June, CR 1145 Bridge has been completed and is open to traffic. FM 724 Bridge and CR 46 are nearly complete. Roadway construction elements have moved into the detailed finish grading in major portions of the project, with construction crews continuing to focus on excavation, embankment, permanent drainage, traffic control and erosion control elements. Flex base and pavement placement has begun at major intersections and along portions of the mainlines. Structural construction includes major and minor drainage structures and drilled shafts, columns, abutments, bent caps and bridge deck for bridges at multiple locations.



Figure 1 Precast Bridge Girders arriving at SH 110.

In regards to design, the design team has completed all roadway designs and anticipates the final design submission consisting of the Toll Gantry Civil features and the submission of the final Issued For Construction (IFC) package by the end of April 2012. The final hydraulic report was produced by CH2M Hill and submitted at the end of the quarter for review and comment. The design, submittal, and review process continues and has been smooth for the entire project.

The Federal Highway Administration (FHWA) has completed its review and approval of the Final Interstate Access Justification Report (IAJR) for the IH-20 interchange. The detailed Maintenance of Traffic (MOT) Plan for construction work within the IH-20 corridor is under final review by TxDOT.

Construction activities conducted by CH2M Hill from April 1, 2012 to June 30, 2012 included:

- ➤ Utility relocations have been substantially completed throughout the project with the exception of the JW Gathering gas transmission lines.
- Foundations structures and conduit installation for the project lighting and signalization was started during this period and is in progress.
- Excavation and fill operations for the construction of the mainline embankments with a total of approximately 612,766 cubic yards of embankment material moved during the reporting period at the following locations:
  - CR1145 to CR1150
  - The new CR1150 and CR1151 re-alignments
  - SH 64 interchange ramps
  - CR1150 to the Black Fork Creek Bridge south abutment
  - Prairie Creek to CR 46
  - CR 46 to SH110
  - SH110 to IH-20
  - IH-20 interchange, north and south
- ➤ Construction of final slope and ditch profile and the replacement of native topsoil for slopes were at various locations throughout the alignment between CR1145 and CR412.
- ➤ Placement of approximately 67,824 tons of Type A Flexible Base was placed during this period for flexible pavement sections on the mainline and ramps between SH31 and SH64, at the CR1150 and CR1151 re-alignments, and mainline between SH110 and the Caney Creek Bridge. Approximately 5581 tons of HMAC paving for permanent roadway sections the mainline north of SH31, the SH31 southbound off ramp, the SH64 Ramps, and the CR1145 approaches.
- ➤ Completed construction of a temporary causeway/haul road to facilitate the construction of the Prairie Creek Bridge.
- ➤ Continued placement of reinforcing steel and structural concrete for bridge and major drainage elements. Approximately 2,083 cubic yards of structural concrete

was placed during this period. Major bridge work and associated items constructed this period included:

- FM 724 Bridge barrier rails were completed. The FM 724 Bridge is currently in use for construction traffic to facilitate embankment construction.
- The CR1150 Bridge has been brought to substantial completion with the exception of barrier rails.
- Drilled shaft foundations have been completed for the Black Fork Creek Bridge.
   Columns, bent caps, and the south abutment for this structure are currently under construction.
- The drilled shaft foundations have been completed for the Prairie Creek Bridge.
   Columns, and bent caps for this structure are currently under construction
- The CR46 Bridge has been brought to substantial completion and is currently open to construction traffic to facilitate materials delivery and placement.
- Caney Creek Bridge structure has been brought to substantial completion with the exception of barrier rails.
- Foundation and substructure elements have been completed for the SH110 Bridge and the precast girders for this structure have been received and erected. Precast concrete deck panels have been delivered for the SH110 Bridge and are awaiting installation.
- The Continuously Reinforced Concrete Pavement (CRCP) section at the SH 64 southbound off-ramp and the CRCP for the SH 31 southbound off-ramp has been completed.
- ➤ Installation and backfill of various precast drainage structures were completed during this period as follows:
  - CD-17A, CD-17B, CD-21, CD-22 CD-27, CD-53, CD-A, CD-D, CD-E, CD-F, CD-H, CD-K, and CD-M.
- ➤ Burning of stockpiled brush was continued throughout this reporting period. Permanent seeding was started at complete slopes between SH31 and Caney Creek. Permanent erosion control elements were installed between SH31 and CR1145.
- > CR1145, including the new bridge structure, has been reopened to public traffic.
- > CR1148 has been reopened to public traffic.

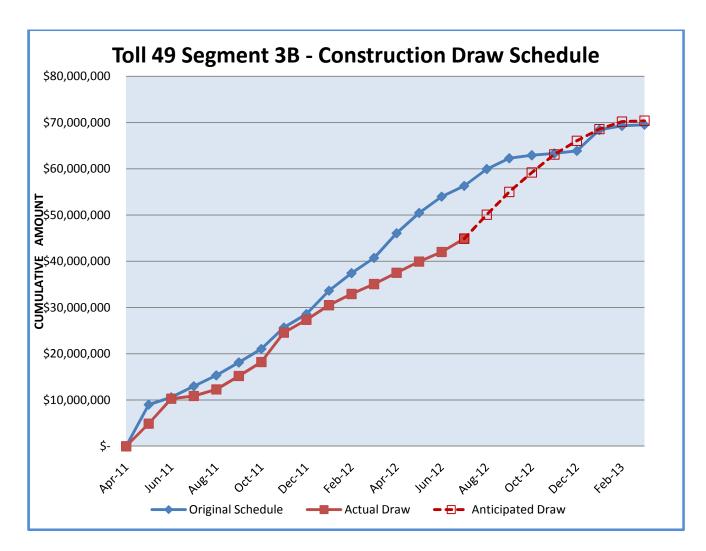
>	The SH110 detour was opened to traffic during this period to facilitate the construction of the new SH110 Bridge structure and the completion of embankment excavations at this location.
>	Pictures of recent construction activities are provided in Attachment A.

## **PROJECT SCHEDULE & FINANCIAL STATUS**

#### **Construction Progress**

In regard to percent complete status, based on current information provided with CH2M Hill's Draw Request #15 for efforts through May 2012, the construction project is 63.94% complete based on actual revenue/expenditures to date as derived from the cost loaded schedule. This figure is derived by simply dividing <u>actual</u> cumulative expenditures to date by the total contract value. This compares to an anticipated completion of 81.84% based on the baseline schedule originally approved for the project. This figure is derived by dividing <u>anticipated</u> cumulative expenditures to date (also based on cost-loaded schedules) by the total contract value.

The graph below tracks and compares the anticipated cumulative expenditures against the actual cumulative expenditures related to the construction of the project, as reported by CH2M Hill in Draw Request #15.



As of May 25, 2012, CH2M Hill has completed 63.94% of the work while using 63.64% of the time to Substantial Completion. The monthly update indicates that, based on the CPM Schedule, the project will be completed on schedule. It is noted that several archeological surveys conducted for the project have caused adjustments to construction activities in those areas. In addition, a local utility (JW Gathering) filed a restraining order on NET RMA on June 25<sup>th</sup>, 2012 to halt construction on their utility ROW. To-date the critical path for construction has not been affected; however, there is potential for impacts to the construction schedule due to these events in the future.

#### **Financial Status**

CH2M Hill submitted their Draw Request # 15 on June 04, 2012 which included expenditures through May 25, 2012. This request was under review at the time of this report. Once review has been completed, the final documents will be forwarded to the Trustee, Amegy Bank, for processing and issuance of payment.

The following summary provides the financial status of the project. A detailed status chart is presented on the following page. It is noted that the detailed status chart lists three items over budget (indicated by a negative number in the "remaining amount" column). One over budget item is contingencies. This item includes approximately \$1.8M in payments for environmental mitigation elements that should be, in accordance with the CDA documents, the responsibility of the construction contractor. The other items over budget include SWP3 monitoring and conduct of archeological surveys. However, ROW purchases are virtually complete, with approximately \$2.2M in available funds left in the ROW budget. It is anticipated that these available funds will be moved to the contingencies fund to pay for the over-budget items listed above.

Original CH2M Hill Contract Amount:	\$	70,068,399
Current Authorized Contract Amount:	\$	70,668,803
Total of CH2M Hill Payments:		
Previously paid through February, 2012	\$	37,516,508
Payment for March, 2012	\$	2,425,336
Payment for April, 2012	\$	2,076,794
Payment for May, 2012	\$	2,884,336
Total Amount Paid To-Date:		44,902,973
Approved Amount for work completed (through CH Draw #15):	\$	44,902,973
Amount remaining for work to be completed:	\$	25,765,830

#### **Summary of Change Orders This Reporting Period**

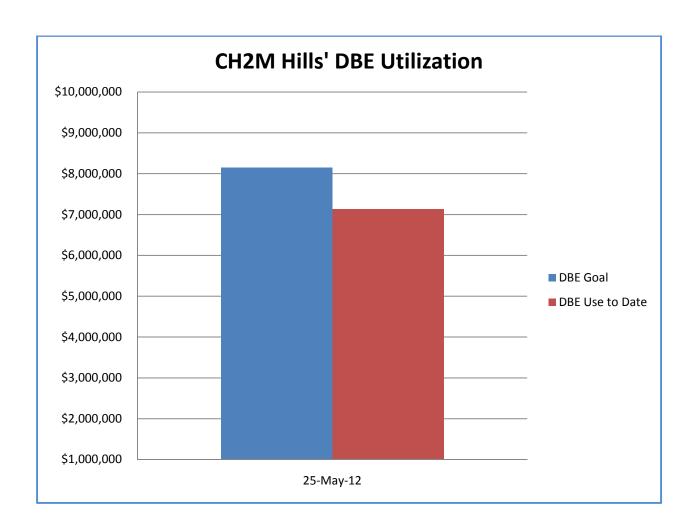
There were no additional Change Orders approved by the NET RMA Board of Directors during this report period. Change Orders approved to-date include: CO#1 in the amount of \$100,000 for ROW fencing; CO#2 in the amount of 49,462.88 for geotechnical drilling at Prairie Creek; CO#3 in the amount of \$12,737.87 for brush removal at SH 31; CO#4, at a credit of (\$23,597.00), for not having to construct the SH 31 pavement widening; and CO#5 in the amount of \$461,800 for CH2M Hill escalation expenses due to delay in the issuance of the Notice to Proceed for the project.

## DETAIL OF TOLL 49 SEG 3B PROJECT COSTS

NORTH EAST TEXAS REGIONAL MOBILITY AUTHORITY				
NET RMA Proposed Project Costs		NET RMA DRAW #17		
Item	BUDGET	SPENT TO-DATE	% SPENT	REMAINING
Comprehensive Development Agreement				
Development Management and Design				
Development Management	\$5,000,000	\$3,176,794	63.54%	\$1,823,206
Development Design	\$6,000,000	\$5,969,024	99.48%	\$30,976
Community Outreach	\$40,000	\$28,000	70.00%	\$12,000
Utility Coordination, Management, & Agreements	\$225,000	\$225,000	100.00%	\$0
Subtotal Development Management and Design	\$11,265,000	\$9,398,818	83.43%	\$1,866,182
Construction				
Mobilization	\$7,006,400	\$7,006,400	100.00%	\$0
Earthwork	\$11,250,000	\$9,553,752	84.92%	\$1,696,248
Utilities	\$1,500,000	\$1,476,000	98.40%	\$24,000
Pavement, Subbase and Base Course	\$13,870,600	\$2,101,050	15.15%	\$11,769,550
Structures	\$13,321,000	\$6,548,215	49.16%	\$6,772,785
Drainage	\$4,750,000	\$4,750,000	100.00%	\$0
Lighting, Signing, Striping, and Signals	\$1,200,000	\$113,976	9.50%	\$1,086,024
Toll Facilities	\$300,000	\$0	0.00%	\$300,000
Environmental Monitoring and Mitigation	\$450,000	\$240,453	53.43%	\$209,547
Quality Management and Testing	\$900,000	\$629,021	69.89%	\$270,979
Traffic Control	\$750,000	\$457,288		
Maintenance	\$100,000	\$62,780	62.78%	\$37,220
Incidental Construction (Barriers, Sidewalks, Landscaping, etc)	\$1,900,000	\$618,837	32.57%	\$1,281,163
Subtotal Construction	\$57,298,000	\$33,557,773	58.57%	\$23,740,227
Bonds, Warranties and Insurance Premiums				
Bonds	\$844,724	\$844,724	100.00%	\$0
Warranties	\$59,421	\$0		\$59,421
Insurance Premiums	\$601,254	\$601,254	100.00%	\$0
Subtotal Bonds, Warranties and Insurance Premiums	\$1,505,399	\$1,445,978	96.05%	\$59,421
Construction Change Orders				
CO#1 - Type C Fence Installation along ROW	\$100,000		0.00%	
CO#2 - Prairie Creek Drilling w Swamp Buggy	\$49,463	\$49,463	100.00%	
CO#3 - Brush Removal at SH31 ROW	\$12,738	\$12,738	100.00%	
CO#4 - SH 31 Widening Overlay	(\$23,597)	(\$23,597)	100.00%	
CO#5 - Contractor Price Escalation	\$461,800	\$461,800	100.00%	
Subtotal Construction Change Orders	\$600,404	\$500,404	83.34%	\$100,000
Total Development Price	\$70,668,803	\$44,902,973	63.54%	\$25,765,830
NET RMA Costs				
Construction Contingencies	\$1,399,596		134.96%	-\$489,278
Environmental Studies (ETHG)	\$1,500,000	\$8,968	0.60%	\$1,491,032
Right-of-Way	\$4,947,857	\$2,724,446	55.06%	\$2,223,411
Design Oversight & QA	\$1,650,000		89.77%	\$168,752
Construction Oversight & QA	\$3,850,000		48.87%	\$1,968,472
Toll Integration	\$1,802,189	\$160,930	8.93%	\$1,641,259
Materials Testing Lab	\$574,610		51.57%	\$278,303
TxDOT Offsite/Plant Inspection	\$110,200	\$15,687	14.24%	\$94,513
Environmental Mitigation (Permit Monitoring, Permit Addendums, SW3P)	\$35,000			-\$3,883
Environmental Archeology & Dig Testing	\$180,000		446.67%	-\$624,013
Other Project Expenses (stipend, public outreach, etc.)	\$471,000	\$218,707	46.43%	<b>\$252,29</b> 3
	\$1,408,345	\$1,203,981	85.49%	\$204,364
NET RMA Admin Costs				
NET RMA Admin Costs Finance Costs	\$635,000	\$635,000	100.00%	ŞC
		\$635,000 <b>\$11,358,571</b>	100.00% <b>61.19%</b>	\$0 <b>\$7,205,22</b> 6

## **DBE STATUS**

CH2M Hill is required and committed to meet the Disadvantaged Business Enterprise (DBE) goal of for the project. As of May 25, 2012, CH2M Hill has submitted costs associated with DBE construction work in the amount of \$7,130,295.69, which equals approximately 87.57% of the total planned DBE expenditures. These DBE expenditures have been made while using 64% of the contract time; therefore CH2M Hill's DBE expenditures appear to be well on schedule.



### **PUBLIC INVOLVEMENT**

As progress continues on the Segment 3B project, ongoing public outreach and response activities continue to take place through various methods. The following lists public outreach activities that occurred during the reporting period:

#### ✓ Website:

The NET RMA site (<u>www.netram.org</u>) finished a complete reconstruction and became fully operational on May 9. The Facebook and Twitter feeds are both functioning correctly within both sites to help assist the public in staying informed with the construction progress.

#### ✓ Press Releases:

Press releases were sent out on:

- April 18th regarding SH 110 newly constructed detours opens to traffic,
- May 4th regarding construction set to begin soon at I-20 and Toll 49,
- May 23rd regarding the temporary closure of CR 411,
- May 30th informed the public of the permanent closure of CR 1151

All project public notices have been posted on the Toll 49 website (<u>www.toll49.org</u>) in an effort to help keep the public informed on traffic disruption and construction activities.

#### ✓ Media Stories:

There were no media stories reported or covered during this quarter.

#### ✓ Letters:

Letters were sent out to notify potentially affected agencies in the vicinity of Toll 49 Segment 3B informing them of the permanent closure of CR 1151on May 21, 2012. Smith County Judge Joel Baker, Smith County Commissioner JoAnn Hampton, Postmaster of the Lindale United States Postal Service Gary Satterwhite, Smith County Sherriff, TISD and the Postmaster of the Tyler United States Post Office.

#### ✓ Visits:

One-on-one visits with adjacent property owners and stakeholders were made as needed.

## **UPCOMING CONSTRUCTION ACTIVITIES**

The following construction activities are anticipated during the next quarterly report period:

- Continued excavation, embankment, and commencement of the IH-20 overpass structure at the I-20 corridor.
- Continued excavation and embankment work.
- Placement of flexible base and HMAC paving for mainline segments and county road realignments throughout the project.
- Completing construction of large culverts and associated drainage structures.
- Continued construction for bridges underway.
- Completion of the SH110, Prairie Creek, and Black Fork Creek Bridges.
- Continuation of the installation of lighting, signalization, and toll gantry elements.

# ATTACHMENT A

Toll 49 Segment 3B Construction Activity Pictures (all photos taken July 02, 2012)



1 Construction Traffic on the SH 724 Bridge.



2 Looking North from CR 1145 Bridge.



3 Looking South from CR 1145 Bridge.



4 CR 1150 Bridge and new County Roads.



5 CR 46 looking North.



6 Embankment and ramp construction at I-20.



7 Looking south from I-20.



8 Girders in place on the SH 110 Bridge.



9 Looking North past Black Fork Creek.



10 Trench Burning Operations.