

## North Texas Tollway Authority Semi-Annual Progress Report December 2010

Dallas North Tollway Extension Phase 3 Progress Report No. 11

Lewisville Lake Toll Bridge Progress Report No. 9

Sam Rayburn Tollway Progress Report No. 7

PGBT Eastern Extension Progress Report No. 5





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## Dallas North Tollway Extension Phase 3 Semi-Annual Progress Report No.11 December 2010









#### NORTH TEXAS TOLLWAY AUTHORITY 2005 CONSTRUCTION FUND DALLAS NORTH TOLLWAY EXTENSION PHASE 3

#### DECEMBER 2010 PROGRESS REPORT SUMMARY

As described in the requirements as set forth in Section 411 of the Amended and Restated Trust Agreement dated April 1, 2008, the Consulting Engineers are to prepare a progress report at least once every six months during the design and construction of a project financed by public bonds. The Dallas North Tollway (DNT) Extension Phase 3 Project ("the Project") was financed by public bonds and as such is the subject of this report. The report is to include the date the Project will be open to traffic, the date on which the construction of the Project will be completed, the cost of the Project excluding any bond discount and interest during construction, and the amount of funds required each six months during the remaining estimated period of construction.

The DNT Phase 3 Project is an extension of the existing Dallas North Tollway, extending the corridor approximately 9.2 miles further north in Collin County from just south of Gaylord Parkway at the Sam Rayburn Tollway (SRT) in the City of Frisco to United States Highway 380 (US 380), a primary eastwest route in North Texas. The project is broken into four segments for purposes of managing and expediting the design and construction, known as XI-S, XI-N, XII-S, and XII-N.

The open-to-traffic date was September 28, 2007. As of December 2010, bids were received on all roadway, toll gantry, and landscape construction contracts, and all roadway sections and toll gantries are complete. Landscape installation was completed in the third quarter of 2009, triggering the start of a two-year landscaping maintenance warranty period to be performed by the landscaping contractor and to be completed in the third quarter of 2011.

The original estimated cost for all sections of the Project (XI-S, XI-N, XII-S, and XII-N) was \$264,000,000. This amount excluded the feasibility analysis provided by the financial advisor, traffic and revenue engineer, and bond counsel prior to the sale of bonds to fund construction. Additionally, interest during construction and finance costs associated with loan closing were

also excluded. Since the original estimate, it has been determined by NTTA that the cost of the

feasibility analysis paid by the Feasibility Study Fund (FSF), presently in the amount of

\$2,113,346, should be included in the Project Total.

In the inter-local agreement with Collin County and the City of Frisco executed December 2001,

NTTA agreed to pay \$8.6M to reimburse the city and the county for a portion of their cost to

construct the northbound service road from SRT to US 380 and southbound service road from

SRT to Main Street. Furthermore, the parties agreed to consider sharing of costs to construct the

southbound service road from Main Street to US 380, for which NTTA has since paid the entire

cost of the addition.

The current total estimated cost for the Project is \$264,503,683, as shown in Table 3 on page 8 of

the report. Table 3 shows actual expenditures through December 2010 for the Project.

Expenditures to date are estimated to be at approximately 96 percent of the total estimated

project cost. This percentage is calculated using the latest cost estimates and the incurred cost to

date. Note: Throughout the report, the cutoff date for financial information is December 31,

2010, while information found in the narrative portions may include details as current as the

release date, March 11, 2011.

The remaining estimated funds required for the project are presented in semi-annual increments, in

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Table 4, on page 9 of the report.

Respectfully submitted,

**HNTB CORPORATION** 

Stephanie L. Halliday, P.E.

Stephanie L. Halliday

**GEC Project Director** 

DNT Phase 3 Extension Progress Report #11 –December 2010 **HNTB Corporation** 

#### NORTH TEXAS TOLLWAY AUTHORITY 2005 CONSTRUCTION FUND DALLAS NORTH TOLLWAY EXTENSION PHASE 3

#### **DECEMBER 2010 PROGRESS REPORT**

The Extension Phase 3 ("the Project") is the third major extension of the Dallas North Tollway (DNT). It is a six-lane, controlled-access toll facility constructed between northbound and southbound service roads designated as the Dallas Parkway in the City of Frisco, Texas. The northbound and southbound service roads provide between two and three traffic lanes in each direction.

#### **GENERAL**

The project limits begin just north of the Sam Rayburn Tollway (SRT), (formerly known as the 121 Tollway) approximately 1,300 feet south of Gaylord Parkway. The Project extends through the City of Frisco in Collin County approximately 9.2 miles north. The main lanes terminate 2,900 feet south of United States Highway 380 (US 380) in anticipation of the future construction of an interchange of the Project with US 380. Six traffic lanes were constructed from the end of the existing DNT between existing and newly-constructed parallel service roads. Twenty-eight limited-access ramp connections were constructed. Ten ramp toll plazas and the main lane toll plaza located north of Main Street operate as all electronic toll collection (All-ETC) facilities. All bridge structures, main lane pavement and ramps are part of the Project. A three-level interchange was previously constructed at the SRT. Construction of the fourth and fifth levels of a fully-directional interchange began in the first quarter of 2010 at the existing three-level intersection of the Project and the SRT as part of the SRT corridor. Shown on the following page, in Figure 1, is a visual description of the general limits of the Project.

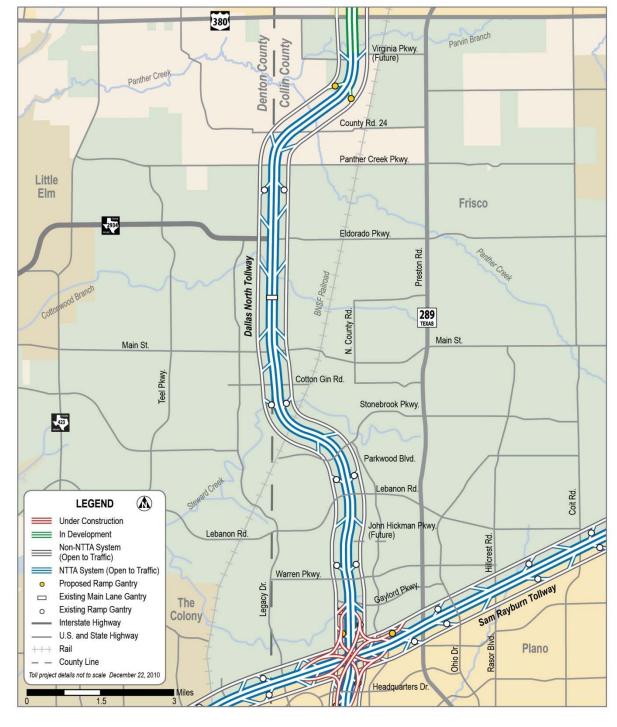


Figure 1: DNT Extension Phase 3 Limits

<sup>\*</sup>DNT/SRT interchange construction is part of the SRT corridor.

#### **DESIGN AND CONSTRUCTION STATUS BY SECTION**

#### DNT Extension Phase 3, Section XI-S (1.8 miles)

From South of Gaylord Parkway to North of John Hickman Road

- ◆ Design consultant: DNT-457, Chiang Patel & Yerby, Inc.
- ◆ Right of way: Complete
- ◆ Construction contractor: DNT-463, Archer Western Contractors, LTD
- Open-to-traffic date: September 28, 2007
- ◆ Construction status: Complete

The main lane construction of Section XI-S begins approximately 1,300 feet south of Gaylord Parkway and extends north approximately 1.8 miles, ending about 1,875 feet south of Lebanon Road. The northbound and southbound service roads are already constructed for the full length of Section XI-S.

#### DNT Extension Phase 3, Section XI-N (2.0 miles)

From North of John Hickman Road to South of Cotton Gin Road

- ◆ Design consultant: DNT-459, Parsons Brinckerhoff Quade and Douglas
- ◆ Right of way: Complete
- ◆ Construction contractor: DNT-464, Zachry Construction Corporation
- ◆ Open-to -traffic date: September 28, 2007
- ◆ Construction status: Complete

The main lane construction of Section XI-N begins approximately 1,875 feet south of Lebanon Road and extends north approximately two miles, ending 3,900 feet south of Main Street. The northbound and southbound service roads are already constructed for the full length of Section XI-N. Sections XI-N and XII-S were combined and bid as one construction project.

#### DNT Extension Phase 3, Section XII-S (2.6 miles)

From South of Cotton Gin Road to North of FM 2934 (Eldorado Parkway)

- ◆ Design consultant: DNT-460, Halff Associates, Inc.
- Right of way: Complete
- ◆ Construction contractor: DNT-464, Zachry Construction Corporation
- ◆ Open-to-traffic date: September 28, 2007

◆ Construction status: Complete

The main lane construction for Section XII-S begins approximately 3,900 feet south of Main

Street and extends north 2.6 miles, terminating at a point 1,850 feet north of Eldorado Parkway.

The northbound service road for the full length of Section XII-S and the southbound service road

south of Main Street were previously constructed by others. The southbound service road north

of Main Street was constructed with this Project.

DNT Extension Phase 3, Section XII-N (2.6 miles)

From North of FM 2934 (Eldorado Parkway) to South of US 380

◆ Design consultant: DNT-461, Carter & Burgess, Inc.

• Right of way: Complete

◆ Construction contractor: DNT-466, Mario Sinacola & Sons Excavating, Inc.

◆ Open-to-traffic date: September 28, 2007

◆ Construction status: Complete

The main lane construction for Section XII-N begins approximately 1,850 feet north of Eldorado

Parkway and extends north 2.6 miles, terminating 2,900 feet south of US 380. The northbound

service road was previously constructed by others for the full length of Section XII-N. The

southbound service road was constructed with this Project. The pair of tolled ramps south of

Virginia Parkway remain closed until traffic volume warrants their opening.

DNT Main Lane Toll Plaza # 4

North of Main Street

◆ Design consultant: DNT-477, Murphy/Jahn

• Right of way: Complete

◆ Construction contractors:

o Toll Plaza #4 – 02045-DNT-04-CN-EN, AUI Contractors, LP

o Toll Booths – 02001-DNT-00-CN-EN, Rebcon, Inc.

◆ Open-to-traffic date: September 28, 2007

◆ Construction status: Complete

In addition to the design firms identified above, Table 1 below lists the contracts that have been

awarded for engineering services related to the Project. On the following page, Table 2

summarizes the design and construction status of the Project.

TABLE 1 -	- ADDITIONAL ENGINEERING S	SERVICES
Contract Number	Firm	Service
DNT-357 02005-NTT-00-PS-AD	HNTB Corporation	General Engineering Consultant
DNT 537	Fugro Consultants, L.P	Construction Materials Testing
DNT 286 – SA No. 37 02056-NTT-00-PS-EN-WA01	Kellogg Brown & Root, Inc.	Construction Management
02058-NTT-00-PS-EN-WA06	PBS&J, Inc.	Landscape Construction Management
02058-NTT-00-PS-EN-WA07	PBS&J, Inc.	Surveying to Monitor Retaining Wall
02406-DNT-04-PS-PM	Kleinfelder	MSE Wall Forensic Services
02510-NTT-00-PS-PM	Kleinfelder	MSE Wall Forensic Testing
02516-NTT-00-PS-PM	Kleinfelder	MSE Wall Independent Design Check
02547-NTT-00-PS-PM	Terracon Consultants, Inc.	MSE Wall Independent Design Check
02564-NTT-00-PS-PM	Ryan Berg Engineering & Design, Inc.	MSE Wall Blue Ribbon Panel

# TABLE 2 - DESIGN AND CONSTRUCTION STATUS REPORT, SECTIONS XI-S to XII-N DALLAS NORTH TOLLWAY EXTENSION PHASE 3 NORTH TEXAS TOLLWAY AUTHORITY

			Design						Col	Construction			
Section	Limits	Design Contract (DNT)	Consultant	Design Notice to Proceed	Current Status of PS&E	Letting Dates	Construction Contract (DNT)	Contractor	Begin Construction	End	Duration (Months)	Current Status of Construction	Open to Traffic
S-IX	S. of Gaylord to N. John Hickman Rd.	457	Chiang Patel & Yerby, Inc	06/09/2003	Complete	01/27/2005	463	Archer Western Contractors. LTD	03/10/2005	6/3/2008	39	Complete	09/28/07
N-IX	N. of John Hickman Rd to S. of Cotton Gin Road	459	Parsons Brinckerhoff Quade & Douglas	06/09/2003	Complete	11/23/2004	464	Zachry Construction Corporation	01/14/2005	8/25/2008	41	Complete	09/28/07
S-IIX	S. of Cotton Gin Road to N. of FM 2934 (Eldorado Pkwy)	460	Halff Associates, Inc.	06/09/2003	Complete	11/23/200	464	Zachry Construction Corporation	01/14/2005	8/25/2008	41	Complete	09/28/07
N-IIX	N. of FM 2934 (Eldorado Pkwy) to S. of U.S. 380	461	Carter & Burgess, Inc.	06/09/2003	Complete	06/30/200 5	466	Mario Sinacola & Sons Excavating	08/08/2005	7/08/2008	34	Complete	09/28/07
Toll Plazas	MLP 4 and Ramp Gantries	477	Murphy/Jahn	06/25/2004	Complete	12/22/2005	02045-DNT- 04-CN-EN	AUI Contractors, LP	03/22/2006	1/23/2009	27	Complete	09/28/07
Toll Booth Procurement	MLP 4 and Ramp Gantries	477	Murphy/Jahn	01/24/2006	Complete	05/25/2006	02001-DNT- 00-CN-EN	Rebcon, Inc.	Арргох. 06/30/2006	12/10/2007	17	Complete	09/28/07
Landscape	Dallas North Tollway, I.H. 35 to U.S. 380	357, WA 21	HNTB Corporation	03/23/2003	Complete	02/28/2008	02091-DNT- 00-CN-MA	Valleycrest Landscape Development	03/20/2008	09/18/2009*	17*	Complete*	N/A

<sup>\*</sup> Two-year landscape maintenance warranty period began upon completion of landscape construction.

#### **ESTIMATE OF PROJECT FUNDS**

The original estimate of project funds required for construction of the Extension Phase 3 was \$264 million, as shown by Table 3 below in the Engineering Report Estimate column. This amount excluded the feasibility analysis provided by the financial advisor, traffic and revenue engineer, and bond counsel prior to the sale of bonds to fund construction. Additionally, interest during construction and finance costs associated with loan closing were also excluded. Since the original estimate, it has been determined by NTTA that the cost of the feasibility analysis paid by the Feasibility Study Fund (FSF), presently in the amount of \$2,113,935, should be included in the Project Total. Additionally, in the inter-local agreement with Collin County and the City of Frisco executed December 2001, NTTA agreed to pay \$8.6M to reimburse the city and the county for a portion of their cost to construct the northbound service road from SRT to US 380 and southbound service road from SRT to Main Street. Furthermore, the parties agreed to consider sharing of costs to construct the southbound service road from Main Street to US 380, for which NTTA has since paid the entire cost of the addition. Thus, the current estimated cost of the Extension Phase 3 is \$264,503,683, as shown below. Table 3 also shows incurred expenditures as of December 2010 for the Project.

	TABLE 3 - COST SUMMARY									
No.	Description		Ingineering Report mate, December 2004		stimated Cost, December 2010		ial Expenditures, ecember 2010			
1	Section XI-S	\$	29,997,320	\$	30,883,722	\$	30,883,722			
2	Sections XI-N and XII-S	\$	83,973,000	\$	94,770,831	\$	94,770,831			
3	Section XII-N	\$	51,926,140	\$	52,417,466	\$	52,417,466			
4	Toll Plaza Structures	\$	22,500,000	\$	27,254,325	\$	27,254,325			
5	Equipment <sup>4</sup>	\$	4,282,400	\$	6,000,135	\$	6,000,135			
6	Construction Management	\$	11,695,000	\$	13,575,590	\$	13,678,608			
7	Miscellaneous Construction 1,4	\$	16,975,070	\$	10,069,083	\$	9,605,498			
Subtotal (1-7) Construction		\$	221,348,930	\$	234,971,152	\$	234,610,586			
8	PS&E <sup>2</sup>	\$	11,642,620	\$	15,618,695	\$	15,618,695			
9	PS&E Administrative	\$	3,898,300	\$	5,313,837	\$	5,189,990			
10	Reimbursement 3	\$	8,600,000	\$	8,600,000	\$	-			
Subtotal (8-10) Engineering		\$	24,140,920	\$	29,532,532	\$	20,808,685			
11	Project Contingencies	\$	18,510,150	\$	-	\$	-			
Project	Total (1-11)	\$	264,000,000	\$	264,503,683	\$	255,419,271			

#### NOTES:

Cost estimates for the Project were prepared based on the status of contracts awarded to date. The current cost estimate represents the best good-faith judgment from a design professional familiar with the highway construction industry. Neither the NTTA nor its consulting engineers have control over the labor, materials or equipment costs; the contractors' methods of determining bid prices; or competitive bidding, market or negotiating conditions. The estimate of construction costs given in progress reports will be monitored as work progresses on the Project.

<sup>&</sup>lt;sup>1</sup> The estimated Miscellaneous Construction cost includes the costs of construction materials testing, utility relocations, proposed right-of-way and easements, landscape, and ITS equipment installation.

<sup>&</sup>lt;sup>2</sup> This line includes the cost of feasibility planning and analysis provided by the financial advisor, traffic and revenue engineers, and bond counsel which was not originally included in the Project cost in the Engineer's Estimate. The amounts above do not include bond discounts, interest during and after construction, and financing costs associated with the loan closing process.

<sup>&</sup>lt;sup>3</sup> The amount shown above for reimbursement of a portion of the northbound service road from the Sam Rayburn Tollway to US 380 and for the southbound service road from the Sam Rayburn Tollway to Main Street may be offset by the NTTA's funding and construction of the southbound service road from FM Main Street to US 380.

<sup>&</sup>lt;sup>4</sup> The Engineering Report estimate column included ITS equipment and installation within the Miscellaneous Construction category. As of the December 2010 report, the Estimated Cost and Actual Expenditure columns now report this cost in the Equipment line above.

The semi-annual estimated amount of funds required for the remaining estimated period of construction to meet the cost of the DNT Extension Phase 3, including funds allocated for project contingencies is shown below in Table 4.

	TABLE 4 - DRAW SCHEDULE									
Period Ending	Original Semi-Annual Estimate, Dec 2005	Original Cumulative Estimate, Dec 2005	Semi-Annual Actual, December 2010	Cumulative Actual, December 2010	Semi-Annual Estimate, December 2010 <sup>1</sup>	Cumulative Estimate, December 2010				
6/30/2005	\$32,032,379	\$32,032,379	\$31,532,539	\$31,532,539						
12/31/2005	\$37,832,726	\$69,865,105	\$37,901,298	\$69,433,837						
6/30/2006	\$75,334,895	\$145,200,000	\$39,188,675	\$108,622,512						
12/31/2006	\$73,920,000	\$219,120,000	\$37,436,238	\$146,058,749						
6/30/2007	\$34,320,000	\$253,440,000	\$40,074,080	\$186,132,829						
12/31/2007	\$10,560,000	\$264,000,000	\$35,645,420	\$221,778,249						
6/30/2008			\$8,275,434	\$230,053,683						
12/31/2008			\$13,881,788	\$243,935,471						
6/30/2009			\$3,580,679	\$247,516,150						
12/31/2009			\$5,195,619	\$252,711,769						
6/30/2010			\$2,439,408 2	\$255,151,177						
12/31/2010			\$268,095	\$255,419,271						
6/30/2011					\$271,207	\$255,690,478				
12/31/2011					\$213,205	\$255,903,683				
6/30/2012					\$8,600,000 3	\$264,503,683				

#### NOTES:

<sup>&</sup>lt;sup>1</sup> Projected costs above include a mandatory two-year landscape maintenance period ending in the third quarter of 2011.

<sup>&</sup>lt;sup>2</sup> NTTA has determined that costs incurred during feasibility analysis provided by the financial advisor, traffic and revenue engineers, and bond counsel originally paid by the Feasibility Study Fund should be included in the Project's Construction Total.

<sup>&</sup>lt;sup>3</sup> Service Road reimbursement [\$8,600,000] is not an anticipated payment that will be required by Collin County in light of NTTA's contribution to the project. If the payment were to be paid it is anticipated that it would be made during the first half of 2012 as shown above.

#### **SCHEDULE**

All roadway construction contracts are complete. As a result, risk factors associated with project delays were lessened and the Project opened to traffic on September 28, 2007.

During the course of roadway construction, it was determined that landscaping services would be contracted after completion of roadway construction. Project landscaping construction was completed in the third quarter of 2009 and a two-year contractually specified maintenance period began. All of the roadway construction contracts were paid out in the fourth quarter of 2009.

#### **DESIGN CONSIDERATIONS**

In an effort to extend pavement life and potentially reduce long term maintenance costs, NTTA staff implemented a modification to the pavement and sub-grade design through construction change orders. The modification consists of increased pavement thickness throughout the Project coupled with a revised sub-grade stabilization technique at certain locations in Section XII.

The NTTA also coordinated with the Texas Department of Transportation (TxDOT) to provide the ultimate frontage road configuration on the southern portion of the DNT at US 380 intersection. This modification is intended to improve traffic flow for motorists entering and exiting the DNT at its northern terminus at US 380. The Project's contingency funds paid for this design change with no impact to the open-to-traffic date or the estimated Project cost.

After substantial completion had been achieved on the Project, an investigation was conducted to evaluate excessive mechanically stabilized earth (MSE) retaining wall panel movement that had occurred at three of the four corners of the DNT main lane intersection with County Road (CR) 24, on contract DNT-466. Results of this initial investigation indicated that the design generated by the MSE wall precast panel provider utilized MSE wall soil strength parameters obtained from TxDOT's standard MSE drawing, as opposed to utilizing site-specific soil strength parameters for foundation/retained soil zones. Subsequent random spot checks on adjacent DNT contracts identified similar findings, resulting in the finding that common practice in the industry

included this same approach. NTTA immediately implemented improved design and construction procedures for all other design-phase or construction-phase projects with MSE walls. NTTA further compiled an independent, three-party Blue Ribbon Panel of MSE wall nationwide experts, tasked with assessing the forensic engineering performed to date, as well as results of a DNT Phase 3 geotechnical investigation. The Blue Ribbon Panel recommended that NTTA implement a long-term monitoring program to detect potential future problematic wall panel movements that may be significant enough to lead to future maintenance problems and also to enable development of remedial action requirements, if the need for such action develops in the future. To date, the NTTA has not yet begun the long-term monitoring program. These walls are visually inspected within the GEC annual inspection program.



## Lewisville Lake Toll Bridge Semi-Annual Progress Report No. 9 December 2010









## NORTH TEXAS TOLLWAY AUTHORITY CONSTRUCTION FUND LEWISVILLE LAKE TOLL BRIDGE

#### DECEMBER 2010 PROGRESS REPORT SUMMARY

As described in the requirements as set forth in the Amended and Restated Trust Agreement dated April 1, 2008, Section 411, the Consulting Engineers are to prepare a progress report at least once every six months during the design and construction of projects financed by public bonds. The Lewisville Lake Toll Bridge (the "Project") was considered a project that would be funded by public bonds at some point in the future. As such, the Consulting Engineer deemed it appropriate to report on the Project per the requirements of the Trust Agreement.

The NTTA utilized its Commercial Paper program to finance the initial portions of the Project. NTTA subsequently transferred over the remaining construction funds from the 1995 Construction Fund (bonds that were originally sold to finance construction of the President George Bush Turnpike project) to the Lewisville Lake Toll Bridge (LLTB) to fund a portion of the Project. The NTTA later refunded the Commercial Paper with Series 2009 bonds.

The Project was substantially complete on July 30, 2009, and opened to traffic on August 1, 2009. Prior to that, design was completed and bids were received in August 2006. The construction contract was awarded, and the Project was incorporated into the North Texas Tollway Authority (NTTA) System by the Board of Directors on September 27, 2006. The Notice to Proceed was issued to the contractor on November 10, 2006.

The current total estimated cost for the Project is \$122,200,000, as shown in Table 3 on page 5 of the report, including construction contingencies, but excluding bond discounts, interest during and after construction and other financing costs. The estimated cost was developed based on the status of contracts awarded to date and is the best information available as of December 2010.

During construction, to mitigate the effect of a 100-day delay caused by excessive flooding in 2007, the Board of Directors approved an incentive of \$12,700 per day for each delay recovered to be paid to the contractor. For the three days of delay recovered, the contractor was paid approximately \$38,100 from the project contingency, which did not increase the original cost estimate for the project. Note: Throughout the report, the cutoff date for financial information is December 31, 2010, while information found in the narrative portions may include details as current as the release date, March 11, 2011.

The remaining estimated semi-annual funding required for the Project, including funds allocated for project contingencies, is shown in Table 4, on page 6 of the report.

Respectfully submitted, HNTB CORPORATION

Stephanie L. Halliday, P.E. GEC Project Director

Stephanie L. Halliday

## NORTH TEXAS TOLLWAY AUTHORITY LEWISVILLE LAKE TOLL BRIDGE

#### **DECEMBER 2010 PROGRESS REPORT**

The Lewisville Lake Toll Bridge project is part of what is known as the Lewisville Lake Corridor Project. It is approximately 13.8 miles in length and connects Interstate Highway 35 East (IH 35E) at Swisher Road in Denton County with the Dallas North Tollway at Farm-to-Market Road 2934 (FM 2934), also known as Eldorado Parkway, in Collin County. To facilitate convenient design and construction, the project is comprised of eight individual sections of varying lengths and types of facility (see Figure 1, page 2).

#### **GENERAL**

The subject of this report is Section 2, the toll bridge, which is the North Texas Tollway Authority's responsibility to the corridor (see Figure 1, page 2). This toll bridge project consists of a short approach roadway on each shore of Lewisville Lake, a lake bridge crossing the main body of water, a toll gantry on the western side of the lake bridge, and a flowage easement bridge on the west side of the toll gantry. The total length of Section 2 is approximately 10,775 feet (2.04 miles) including the bridges and approach roadway.

#### **DESIGN AND CONSTRUCTION STATUS**

The Project is separated into one construction and two main design contracts. One of the design contracts comprises the roadway and bridge portions of the Project; the second comprises the toll gantry. Even though the project has multiple design contracts, a single contractor constructed the roadway, bridges and toll gantry. Landscape and irrigation construction commenced on August 16, 2010 and was completed on November 15, 2010. Currently, the landscape contractor is performing landscape maintenance and warranty obligations and will continue to perform this activity until November 15, 2011 per contract requirements.

#### Roadway and Bridge Contract

Design of the roadway and bridge is complete, and construction bids were received on August 31, 2006. A Notice to Proceed was issued to the Contractor, Jensen Construction Company, on November 10, 2006, and the Project opened to traffic on August 1, 2009.

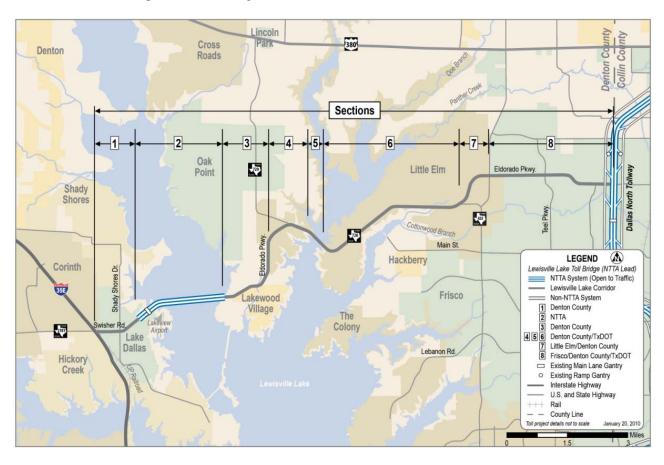


Figure 1: NTTA System Extension, Lewisville Lake Corridor

Heavy spring and early summer rains raised the lake level significantly in the first half of 2007. Due to restrictions set by the USACE construction license, construction was halted on June 16, 2007, when the lake level rose to an elevation of 525 feet above sea level. Construction resumed on September 24, 2007, after 100 days of work suspension. The delay caused the estimated contract completion date to move from April 24, 2009, to August 2, 2009. On November 20, 2007, the NTTA Board of Directors approved the issuance of an incentive to the contractor to recover the delay. This incentive allowed the contractor to earn \$12,700 for each day that the work was completed before August 2, 2009, up to a maximum aggregate incentive payment of

\$1,270,000, equal to 100 days of incentive payments. The contractor substantially completed construction of Section 2 on July 30, three days before the revised substantial completion date. Therefore, the contractor received \$38,100 as part of the agreement.

#### Toll Gantry Change Order

Design of the toll gantry was completed in February 2008, and negotiations with the contractor to construct the toll gantry were completed in June 2008. On June 18, 2008, the NTTA Board of Directors approved a change order with the contractor to construct the gantry. The gantry construction did not impact the original contract period or the project total.

Table 1 below lists the contracts that have been awarded for engineering services related to the Project. Table 2A summarizes the design/engineering and Table 2B identifies the contractor and construction status of the Lewisville Lake Toll Bridge Project.

TABLE 1 – ADDITIONAL ENGINEERING SERVICES								
Contract Number	Service							
DNT-357 02005-NTT-00-PS-AD	HNTB Corporation	General Engineering Consultant						
02058-NTT-00-PS-EN	PBS&J, Inc.	Construction Management & Construction Materials Testing						

TABLE 2A - DESIGN & ENGINEERING								
Limits / Description	Design	Consultant	Current Status of PS&E					
Roadway and Bridge	DNT-503	Turner Collie & Braden, Inc.	Complete					
Toll Gantry	02069-LLB-00-PS-EN	Halff Associates, Inc.	Complete					
Landscape	02005-NTT-00-PS-MA-WA17	HNTB Corporation	Complete					
MSE Wall Independent Design Check	02547-NTT-00-PS-PM	Terracon Consultants, Inc.	Complete					
MSE Walls & Bridge Foundation Assessments	02589-NTT-00-PS-PM	PBS&J, Inc.	Complete					

	TABLE 2B – CONSTRUCTION									
Limits / Description	Contract	Contractor	Begin Construction	End Construction	Current Status of Construction	Open to Traffic				
Lewisville Lake Toll Bridge <sup>1</sup>	02030-LLB- 00-CN-EN	Jensen Construction	Nov-2006	2Q-2011	100%	Aug-2009				
Landscaping/ Irrigation	02792-LLB- 00-CN-MA	Superscapes Landscaping, Inc.	8/16/10	11/15/10 <sup>2</sup>	Complete <sup>2</sup>	N/A				

<sup>&</sup>lt;sup>1</sup> Including change order for toll gantry.

Currently the Lewisville Lake Toll Bridge Contract is in the warranty phase which expires on February 28, 2012 and the Landscaping/Irrigation Contract is in the Maintenance and Warranty Phase which expires on November 15, 2011.

<sup>&</sup>lt;sup>2</sup> One-year landscape maintenance warranty period began upon completion of the landscape construction.

#### **ESTIMATE OF PROJECT FUNDS**

The estimate of project funds required for the Lewisville Lake Toll Bridge Project is \$122,200,000, as shown in Table 3, which includes planning, engineering, construction and other agency costs. The estimate uses actual bid prices from the roadway and bridge contract including the change order for the toll gantry. Cost estimates for the toll-collection equipment and landscaping are based on actual costs. Table 3 also shows the actual expenditures as of December 2010 for the project.

	TABLE 3: COST SUMMARY										
No.	Description	Re	Engineering Report Estimate, March 2006		timated Cost, ecember 2010		al Expenditures, ecember 2010				
1	Section 2 <sup>1</sup>	\$	92,900,000	\$	97,706,579	\$	97,264,611				
2	Toll Plaza <sup>2</sup>		6,100,000	\$	-	\$	-				
3	Equipment <sup>3</sup>	\$	500,000	\$	594,234	\$	594,234				
4	Construction Management		5,900,000	\$	6,273,082	\$	6,219,937				
Subtotal (1-4) Construction		\$	105,400,000	\$	104,573,895	\$	104,078,783				
5	PS&E (Plans, Specifications, & Estimates)	\$	3,600,000	\$	4,300,417	\$	3,528,771				
6	6 Other Agency Costs		2,100,000	\$	4,996,555	\$	4,996,555				
Subtotal (5-6) Engineering		\$	5,700,000	\$	9,296,972	\$	8,525,326				
7	Project Contingencies	\$	11,100,000	\$	8,329,133	\$	-				
Project	Total (1-7) <sup>4</sup>	\$	122,200,000	\$	122,200,000	\$	112,604,109				

#### NOTES:

The estimate of costs for the Project is based on the status of contracts and change orders issued to date and is the best information available at the present time. The development of the current cost estimate represents the best good-faith judgment of a design professional familiar with the highway construction industry. It is recognized that neither the NTTA nor the consulting engineers have control over the cost of labor, materials or equipment; the contractors' methods

<sup>&</sup>lt;sup>1</sup> Incentives authorized by the NTTA Board on November 20, 2007, to recover schedule delays due to flooding in 2007 and various change orders are included in this line item. Section 2 includes the cost of landscaping and a road safety sand stockpile.

<sup>&</sup>lt;sup>2</sup> The construction cost for the toll plaza was added to the Section 2 construction cost as a change order.

<sup>&</sup>lt;sup>3</sup> Equipment line includes the costs for ITS and ETC equipment purchased for the toll gantry.

<sup>&</sup>lt;sup>4</sup> The amount shown above does not include bond discounts, interest during and after construction, and other financing costs associated with the loan closing process.

of determining bid prices; or the competitive bidding, market or negotiating conditions. Therefore, neither the NTTA nor its consulting engineers warrant that the construction costs will not increase and thereby exceed the estimate of construction costs given in progress reports. These costs will be monitored as work progresses on the Project.

The semi-annual estimated amount of funds required for the remaining construction costs of the Project, including funds allocated for project contingencies, is shown in Table 4.

	TABLE 4 - DRAW SCHEDULE								
Period Ending	Original Semi-Annual Estimate, Dec 2006	Original Cumulative Estimate, Dec 2006	Semi-Annual Actual, December 2010	Cumulative Actual, December 2010	Semi-Annual Estimate, December 2010 <sup>1</sup>	Cumulative Estimate, December 2010			
12/31/2006	\$2,841,920	\$2,841,920	\$2,788,043	\$2,788,043					
6/30/2007	\$28,314,850	\$31,156,771	\$13,586,152	\$16,374,195					
12/31/2007	\$32,746,912	\$63,903,683	\$17,088,688	\$33,462,883					
6/30/2008	\$22,751,837	\$86,655,520	\$22,564,326	\$56,027,209					
12/31/2008	\$21,085,311	\$107,740,831	\$26,039,551	\$82,066,760					
6/30/2009	\$9,548,177	\$117,289,009	\$15,989,796	\$98,056,556					
12/31/2009			\$8,406,326	\$106,462,882					
6/30/2010			\$5,993,338	\$112,456,220					
12/31/2010			\$147,889	\$112,604,109					
6/30/2011					\$329,345	\$112,933,453			
12/31/2011					\$365,910	\$113,299,363			
6/30/2012					\$571,505	\$113,870,868			
12/31/2012					\$8,329,133	\$122,200,000			

<sup>&</sup>lt;sup>1</sup> Estimates above include contingency that may or may not be expended.

CORRIDOR SCHEDULE

The contractor substantially completed the work on Section 2 of the project on July 30, 2009,

and the bridge opened to traffic on August 1, 2009.

Landscape and irrigation construction commenced on August 16, 2010 and completed on

November 15, 2010, beginning the one-year landscape maintenance warranty period which is

expected to be completed November 15, 2011.

Status of the remaining sections on the Corridor is as follows:

**Section 1:** Opened to traffic in July 2007.

**Section 2:** Opened to traffic on August 1, 2009.

**Section 3:** Opened to traffic in October 2008.

Sections 4, 5 and 6: A Finding of No Significant Impact (FONSI) was issued in January 2007

to complete the environmental evaluation process. Texas Department of Transportation opened

bids for this five-mile section on July 8, 2010. Construction began in late 2010 and is now

expected to open to traffic in 2014, later than previously anticipated.

**Section 7:** Opened to traffic in April 2004.

**Section 8:** Opened to traffic on November 15, 2009.



## Sam Rayburn Tollway Semi-Annual Progress Report No. 7 December 2010









## NORTH TEXAS TOLLWAY AUTHORITY CONSTRUCTION FUND SAM RAYBURN TOLLWAY

#### DECEMBER 2010 PROGRESS REPORT SUMMARY

As described in the requirements as set forth in the Amended and Restated Trust Agreement dated April 1, 2008, Section 411, the Consulting Engineers are to prepare a progress report at least once every six months during the design and construction of a project financed by public bonds. The Sam Rayburn Tollway (SRT) Project ("the Project") was financed by public bonds and as such is the subject of this report. The report is to include the date the Project will be open to traffic, the date on which the construction of the Project will be completed, the cost of the Project excluding any bond discount and interest during construction, and the amount of funds required each six months during the remaining estimated period of construction.

The Sam Rayburn Tollway Project extends northeasterly from Business State Highway 121 (SH 121) in Denton County to United States Highway 75 (US 75) in Collin County and serves as a primary northeast-southwest artery in the corridor between Interstate Highway 35 East (IH 35E) and US 75. The project is broken into five segments for purposes of managing and expediting the design and construction.

As of December 2010, the Project is in various stages of construction by segment. Segment One (1), from Denton Tap Road/Denton Creek to Farm-to-Market Road 2281 (FM 2281)/Old Denton Road, constructed by the Texas Department of Transportation (TxDOT), was opened to traffic in July 2006. The NTTA was responsible for constructing sound walls, additional signing, pavement markings, landscaping and installing all-electronic toll collection (All-ETC) equipment and an Intelligent Transportation System (ITS). All improvements required for service commencement by the NTTA were completed and the contract has been closed by the NTTA.

The TxDOT construction of main lanes and ramps for Segment Two (2), from FM 2281/Old Denton Road to Hillcrest Road, was substantially completed in September 2008. The NTTA was responsible for constructing additional signing, pavement markings, landscaping and installing All-

ETC and ITS systems. All improvements required for service commencement by the NTTA were completed and the contract has been closed by the NTTA.

Design for Segment Three (3), from Hillcrest Road to Hardin Boulevard, including improvements at Exchange Parkway requested by Collin County and local cities, has been completed by the NTTA. The existing frontage roads and interchange at Custer Road were previously constructed and opened to traffic by TxDOT. The NTTA is responsible for constructing main lane pavement and bridge structures, signing, pavement markings, landscaping and installing All-ETC and ITS system equipment. All improvements required for service commencement by the NTTA were substantially completed by September 2009 and opened to traffic three months ahead of schedule. Only punch list items remain for project close out.

Design for Segment Four (4), from Hardin Boulevard to one-half mile east of US 75 at Medical Center Drive, has been completed by the NTTA. The NTTA is responsible for constructing a fourlevel interchange with direct-connect ramps between the SRT and US 75, including all main lane pavement, bridge structures, signing, pavement markings, landscaping and installation of All-ETC and ITS system equipment. Construction Notice to Proceed was issued October 23, 2008, with a substantial completion date of December 1, 2010. The direct connecting ramps providing access from southbound US 75 to southwest-bound SRT and from northeast-bound SRT to northbound US 75 (the highest-volume connectors), along with main lane improvements to SRT and US 75 required for full access via those connectors, opened to traffic in late December 2010. The first major direct connecting ramp, from northeast-bound SRT to northbound US 75, opened on October 17, 2010. The second connector, from southbound US 75 to southwest-bound SRT, opened on November 14, 2010. The third connector, from northeast-bound SRT to southbound US 75, opened on December 18, 2010. The fourth connector, from northbound US 75 to southwestbound SRT, opened five days later, on December 23, 2010. In addition, on December 1, 2010, the NTTA opened four new SRT cashless toll ramps – the northeast-bound SRT entrance ramps at Lake Forest Drive and Hardin Boulevard, and the southwest-bound SRT exit ramps at Hardin and Lake Forest. On the same day the NTTA also opened one SRT main lane in both directions through the corridor from west of Medical Center Drive. These ramp and main lane openings allowed the NTTA to adjust toll rates on a portion of Segment 4 from the interim toll rates to reflect the ultimate tolling distance as of December 1, 2010. The estimated completion date for the

two remaining direct connectors and main lane improvements is early spring 2011, which is prior

to the service commencement deadline of May 1, 2011.

Design of Segment Five (5), a five-level interchange at the intersection of the Dallas North

Tollway (DNT) and the SRT, has been completed by the NTTA. The existing three-level

interchange will remain, and the NTTA is responsible for adding the fourth and fifth level of

direct-connect ramps, as well as new ramp access to the Legacy Business Park area, signing,

pavement markings, landscaping and installation of All-ETC and ITS system equipment.

Construction Notice to Proceed was issued February 4, 2010, and the contractor is currently on

schedule for the open-to-traffic date anticipated in January 2012.

The current total estimated cost for the Project (Segments 1-5), for the six main lane sections

and frontage roads, exclusive of interest and financing, is \$638,810,700, as shown in Table 3,

page 10. This excludes an unadjusted \$59,309,300 amount towards the expansion of the main

lanes from six to eight lanes on Segments 1 through 4, to be scheduled at a later date as

recommended by the NTTA's traffic and revenue engineers. The estimated cost was developed

based on the status of contracts awarded to date and is the best information available as of

December 2010. The estimated Project cost reflects our professional judgment of the

construction industry. Neither the NTTA nor its consulting engineers warrant that the

construction costs will not increase and thereby exceed the estimate of construction costs given

in progress reports.

The remaining estimated funds required for the project are presented in semi-annual increments

in Table 4, on page 11 of the report. Note: Throughout the report, the cutoff date for financial

information is December 31, 2010, while information found in the narrative portions may

include details as current as the release date, March 11, 2011.

Respectfully submitted,

HNTB CORPORATION

Stephanie L. Halliday, P.E.

Stephanie L. Halliday

**GEC Project Director** 

## NORTH TEXAS TOLLWAY AUTHORITY CONSTRUCTION FUND SAM RAYBURN TOLLWAY PROJECT

#### **DECEMBER 2010 PROGRESS REPORT**

This report describes the location, engineering design features and construction cost estimates of the Sam Rayburn Tollway Project (the "Project") from Business State Highway 121 (SH 121) in Denton County to United States Highway 75 (US 75) in Collin County, a distance of approximately 26 miles.

#### **GENERAL**

The Project serves as a primary northeast-southwest traffic artery between Interstate Highway 35 East (IH 35E) and US 75. The corridor area served by the SRT continues to experience growth in commercial, retail and residential development. The Project is also a primary arterial serving the Dallas/Fort Worth (DFW) International Airport and is broken into five segments for purposes of managing and expediting the design and construction (refer to the Project map on page 2).

The entire Sam Rayburn Tollway Project is expected to include three main lane toll gantries and 40 ramp toll gantries, plus four ramp gantries along the Dallas North Tollway (DNT). The DNT ramp gantries are part of the overall interchange improvements on their respective corridor and will operate as all-electronic toll collection (All-ETC) to maximize traffic flow. Each All-ETC main lane and ramp gantries will be equipped with both TollTag and TxTag collection capability to accommodate compatibility with other toll agencies across the state of Texas. All toll collection lanes are dedicated, non-stop express lanes to expedite the flow of traffic through the gantries and provide for ease of maintenance. Refer to Figure 1 on the following page for All-ETC locations.

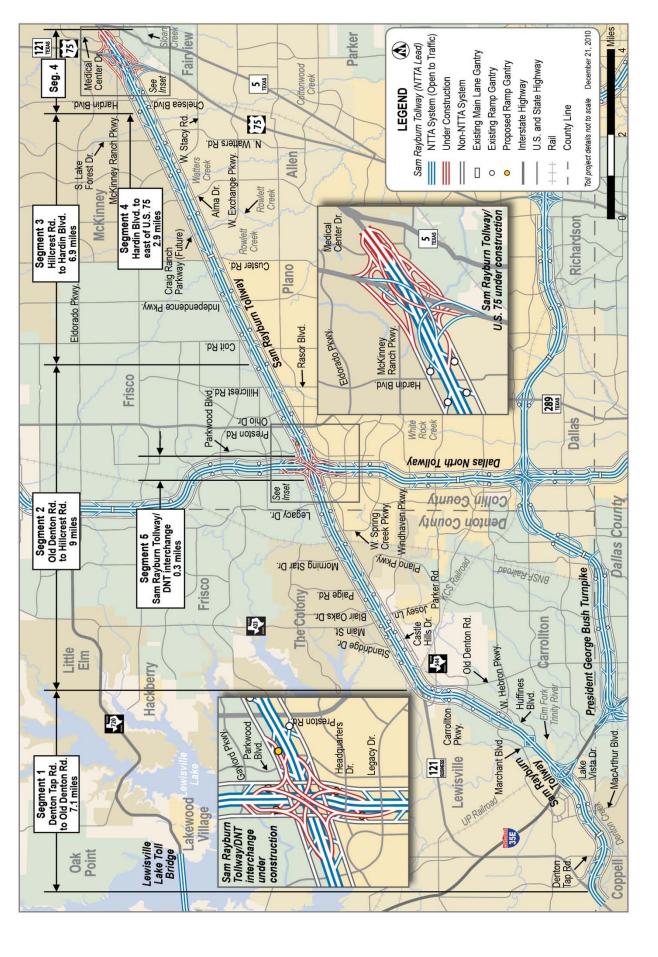


Figure 1: Sam Rayburn Tollway Corridor Location and Segments

Progress Report #7 – June 2010 Sam Rayburn Toll Project



#### **DESIGN AND CONSTRUCTION STATUS**

#### Sam Rayburn Tollway, Segment 1 (7.05 miles)

From Denton Tap Road/Denton Creek to FM 2281 (Old Denton Road)

- ◆ Design consultant: Huitt Zollars, Inc.
- ◆ Right of way: Acquired by TxDOT
- ◆ NTTA improvements construction contractor: Austin Bridge & Road, LP
- Open-to-traffic date: July 2006 by TxDOT; NTTA service commencement occurred September 1, 2008.
- Construction status: NTTA improvements are complete and contract has been closed out by NTTA.

In 2006, TxDOT completed the construction of Segment 1 from Denton Tap Road/Denton Creek to Farm-to-Market Road 2281 (FM 2281 / Old Denton Road). Segment 1 includes three main lanes in each direction, including northbound and southbound frontage roads. It was opened to traffic by TxDOT as an All-ETC facility. Segment 1 improvements by NTTA include construction of sound walls, main lane gantry, ramp gantries, additional signing, landscaping, pavement markings, tolling and ITS.

#### Sam Rayburn Tollway, Segment 2 (9.02 miles)

From FM 2281 (Old Denton Road) to east of Hillcrest Road Overpass

- ◆ Design consultant: Huitt Zollars, Inc.
- ◆ Right of way: Acquired by TxDOT
- ◆ NTTA improvements construction contractor: Austin Bridge & Road, LP
- Open-to-traffic date: NTTA service commencement occurred September 1, 2008.
- Construction status: NTTA improvements are complete and contract has been closed out by NTTA.

The main lane construction of Segment 2, by TxDOT, was substantially complete by September 2008. Segment 2 begins at the ramps just west of FM 2281 (Old Denton Road) to just east of Hillcrest Road. NTTA improvements include construction of a main lane gantry, ramp gantries, additional signing, landscaping, pavement markings, tolling and ITS.

#### Sam Rayburn Tollway, Segments 3S, 3N and Exchange Parkway (7.15 miles)

The main lane construction of Segment 3, by NTTA, begins just east of the Hillcrest Road overpass and extends northeasterly approximately 6.88 miles, terminating at the west side of the Hardin Boulevard/Watters Road overpass. Segment 3 involves design and construction of the six main lanes, main lane and ramp gantries, landscaping, signing, pavement markings, tolling and ITS. Segment 3 is divided into two sections for ease of design and construction, 3S and 3N. Segment 3N is then further sub-divided for additional modifications at Exchange Parkway.

#### Sam Rayburn Tollway, Segment 3S (3.37 miles)

From east of Hillcrest Road overpass to east of Custer Road overpass

- Design consultant: Parsons Brinkerhoff of the Americas (PB Americas)
- ◆ Right of way: Acquired by TxDOT
- ◆ Construction contractor: Texas Sterling Construction, Inc.
- ◆ Open-to-traffic date: September 1, 2009
- ◆ Construction status: Main lanes are substantially complete and nearing contract closeout by NTTA.

Segment 3S includes one main lane gantry and four ramp gantries.

#### Segment 3N (3.14 miles)

From east of Rowlett Creek to west of Hardin Boulevard overpass

- ◆ Design consultant: Bridgefarmer & Associates, Inc.
- ◆ Right of way: Acquired by TxDOT
- Construction contractor: Balfour Beatty Infrastructure, Inc.
- ◆ Open-to-traffic date: September 29, 2009
- Construction status: Main lanes are complete and contract has been closed out by NTTA.

Segment 3N includes six ramp gantries.

#### Exchange Parkway Improvements (0.64 miles)

From east of Custer Road overpass to east of Rowlett Creek

- ◆ Design consultant: Bridgefarmer & Associates, Inc.
- ◆ Right of way: Acquired by TxDOT
- ◆ Construction contractor: Texas Sterling Construction, Inc.
- Open-to-traffic date: September 29, 2009
- ◆ Construction status: Main lanes are substantially complete and nearing contract closeout by NTTA.

The grade separated interchange with Exchange Parkway, located between Custer Road and Rowlett Creek, has been added to the Project through partnership with Collin County and the cities of Allen and McKinney to improve local access. The Exchange Parkway improvements are being constructed under a separate contract within this overall Project, and the Segment 3N project length has been reduced. As an unanticipated cost to the project, a sand stockpile was designed and constructed at the intersection of the Project and Exchange Parkway to enable NTTA to more quickly mitigate hazardous driving conditions during winter weather.

#### Sam Rayburn Tollway, Segment 4 (2.66 miles)

From west of Hardin Boulevard to Medical Center Drive east of US 75

- ◆ Design consultant: Jacobs Engineering Group, Inc.
- ◆ Right of way: NTTA has completed acquisition services, and TxDOT is to reimburse acquisition costs for four parcels at US 75/SRT.
- ◆ Construction contractor: Webber, LLC
- ◆ Open-to-traffic date: in stages, all open prior to service commencement deadline of May 2011.
- Construction status: The first major direct connecting ramp, from northeast-bound SRT to northbound US 75, opened on October 17, 2010. The second connector, from southbound US 75 to southwest-bound SRT, opened on November 14, 2010. The third connector, from northeast-bound SRT to southbound US 75, opened on December 18, 2010. The fourth connector, from northbound US 75 to southwest-bound SRT, opened five days later, on December 23, 2010. In addition, on December 1, 2010, the NTTA opened four new SRT cashless toll ramps the northeast-bound SRT entrance ramps at Lake Forest Drive and Hardin Boulevard, and the southwest-bound SRT exit ramps at Hardin and Lake Forest. On the same day the NTTA also opened one SRT main lane in both directions through the corridor from west of Medical Center Drive. These ramp and main lane openings allowed the NTTA to adjust toll rates on a portion of Segment 4 from the interim toll rates to reflect the ultimate tolling distance as of December 1, 2010. The estimated completion date for the two remaining direct connectors and main lane improvements is early spring 2011, which is prior to the service commencement deadline of May 1, 2011.

## Sam Rayburn Tollway, Segment 5 (0.33 miles)

Direct Connecting Ramps from the DNT to the Sam Rayburn Tollway

- ◆ Design consultant: Rodriguez Transportation Group
- ◆ Right of way: NTTA is performing services, and TxDOT to reimburse acquisition costs for three parcels at the SRT/DNT
- ◆ Construction contractor: Williams Brothers Construction Co., Inc.
- ◆ Open-to-traffic date: by January 2012
- Construction status: Notice to Proceed issued February 4, 2010

Segment 5 involves the design and construction of improvements to the existing three-level interchange at the DNT and will provide a fourth and fifth level of direct-connecting ramps between the DNT and the Project and new ramp access to the Legacy Business Park area. All of the SRT and DNT main lanes and frontage roads in Segment 5 have been constructed and are open to traffic under previous construction contracts. The environmental assessment document for this segment has been approved. As an unanticipated cost to the project, a sand stockpile was designed and constructed at the intersection of the Project and DNT to enable NTTA to more quickly mitigate hazardous driving conditions during winter weather.

In addition to the design firms identified in the previous section, Table 1 below lists the contracts that have been awarded for engineering services related to the Project. On the following page, Table 2 summarizes the design and construction status of the Project.

TABLE 1 – I	Additional Engineering Ser	VICES
02005-NTT-00-PS-AD WA15 PM	HNTB Corporation	General Engineering Consultant
02254-SH121-00-PS-EN	HDR Engineering, Inc.	Corridor Management
02255-SH121-00-PS-EN	Halff Associates, Inc.	Design Management
02005-NTT-00-PS-AD WA12 MA	HNTB Corporation	Landscape Design Services
02516-NTT-00-PS-PM	Kleinfelder	MSE Wall Independent Design Check
02056-NTT-00-PS-EN WA 48	Kellogg Brown & Root, Inc.	Construction Manager
02389-SH121-00-PS-PM	Terracon Consultants, Inc.	Segment 4 Quality Control Materials Testing
02390-SH121-00-PS-PM	Rone Engineers, Inc.	Seg 1, 2, 3 & 5 Materials Testing
02547-NTT-00-PS-PM	Terracon Consultants, Inc.	MSE Wall Independent Design Check
02589-NTT-00-PS-PM WA 01	PBS&J, Inc.	Wall Engineer Support Services

# TABLE 2 - DESIGN AND CONSTRUCTION STATUS REPORT, SEGMENTS 1 - 5 SAM RAYBURN TOLLWAY PROJECT

	Segment 1	Segment 2	Segment 3S	Segment 3N	Exchange Pkwy Improvements *	Segment 4	Segment 5
Limits	Denton Tap Road/Denton Creek to FM 2281	FM 2281/Old Denton Road to east of Hillcrest Road	East of Hillcrest Road overpass to east of Custer Road overpass	East of Custer Rd to west of Hardin Blvd overpass	East of Custer Road overpass to east of Rowlett Creek	West of Watters Road to Medical Center Drive east of U.S. 75	Connecting Ramps from DNT to Sam Rayburn Tollway
Design Consultant	Huitt Zollars	Huitt Zollars	Parsons Brinkerhoff (PB Americas)	Bridgefarmer & Associates	Bridgefarmer & Associates	Jacobs Engineering Group, Inc.	Rodriguez Transportation Group
Design Notice to Proceed	May 21, 2007	May 21, 2007	May 21, 2007	May 21, 2007	September 16, 2008	October 12, 2007	April 16, 2008
Current Status of PS&E	Completed	Completed	Completed	Completed	Completed	Completed	Completed
Letting Dates	Nov 2007 through Feb 2008 Multiple Contracts	Nov 2007 through Feb 2008 Multiple Contracts	February 13, 2008	February 13, 2008	October 23, 2008	August 28, 2008	November 19, 2009

02559-SH121-05-CN- PM	PM Williams Brothers Construction Co.	February 4, 2010	22	Jnder Construction – 50% Complete	er Construction – 80% Complete January 2012
02559-SH	William	Februal		Under Co 50% C	Under Co 50% C
02448-SH121-04-CN- EN	EN Webber, LLC	October 23, 2008	25	Under construction – implementing recovery schedule– 93% Complete	Under construction – implementing recovery schedule– 93% Complete In stages**
02578-SH121-03-CN- PM	PM Texas Sterling Construction Co.	December 1, 2008	13	Substantially Complete – 99%	Substantially Complete – 99% September 2009
02242-SH121-03-CN- EN	EN Balfour Beatty Infrastructure	March 10, 2008	22	Complete – 100%	Complete – 100% September 2009
02240-SH121-03-CN- EN	EN Texas Sterling Construction Co.	March 25, 2008	22	Substantially Complete - 99%	Substantially Complete – 99% September 2009
Multiple: 02320, 02325, 02334, 02238-SH121- 00-CN-EN	Auslin Bridge & Road, L.P. Powers Engineering Brookfield Fabricating Corp.	November 30, 2007	9	Complete – 100%	Complete – 100% August 2008
Multiple: 02320, 02325, 02334, 02238-SH121-00-CN-EN	Austin Bridge & Road, L.P. Powers Engineering Brookfield Fabricating Corp.	November 30, 2007	9	Complete – 100%	Complete – 100% July 2006
Construction Contract	Contractor	Begin Construction Date	Duration (Months)	Current Status of Construction	Current Status of Construction Open-to-Traffic Date

**HNTB** Corporation

<sup>\*</sup>Additional grade separated interchange at Exchange Parkway is a cooperative project with Collin County and the cities of Allen and McKinney to improve local access.

\*\*Four direct connecting ramps, including those providing access from southbound US 75 to southwest-bound SRT and from northeast-bound SRT to northbound US 75 (the highest-volume connectors), along with all main lane improvements to SRT and US 75 required for full access via those connectors, opened to traffic in 2010. The remaining two direct connectors and main lane improvements are expected to open in early spring 2011, prior to the service commencement deadline of May 1, 2011.

## **ESTIMATE OF PROJECT FUNDS**

The current estimated cost of the Project (Segments 1-5), for the six-lane section, is \$638,810,700. This excludes an unadjusted amount of \$59,309,300 previously estimated towards capacity improvements on Segments 1 through 4, to be scheduled at a later date as recommended by the NTTA's traffic and revenue engineers. The required 350- to 400-foot-wide Project right of way was acquired by TxDOT, Collin County, Dallas County, Denton County and the cities of Plano, Frisco, Allen and McKinney. The estimated cost does not include funds for ROW acquired at the interchange at the SRT/US 75 and the yet-to-be Sam Rayburn Tollway/DNT interchange, where a total of seven parcels (17.98 acres) are required prior to construction, to be acquired by TxDOT at its cost. Under a separate agreement, TxDOT and the NTTA later agreed that NTTA would acquire the ROW on TxDOT's behalf, and TxDOT would later reimburse NTTA. Additionally, the Segment 4 and 5 landscaping and woodland mitigation contracts remain to be bid.

Several factors, including unforeseen escalation of prices and wages, labor or material shortages and changes in economic conditions can significantly affect (escalate or reduce) construction costs. Appropriate contingencies are added to the cost of the Project to cover the unforeseen escalations and are not intended to cover scope additions. The estimated Project cost reflects our professional judgment of the construction industry; it is our belief that the Project can be constructed within the original scope and limits described for the estimated cost given herein. Neither the NTTA nor its consulting engineers warrant that the construction costs will not increase and thereby exceed the estimate of construction costs given in progress reports due to the nature of the construction industry.

	TABLE 3	: CO	ST SUMMARY	<b>,</b>			
No.	Description		ineering Report Estimate, ovember 2007		timated Cost, cember 2010	i Evnand	
1	Segments 1, 2	\$	14,163,718	\$	18,868,250	\$	18,868,250
2	Segments 3N <sup>1</sup>	\$	72,575,945	\$	64,011,520	\$	64,011,520
3	Segments 3S <sup>2</sup>	\$	57,851,840	\$	53,311,045	\$	51,175,439
4	Exchange Parkway Improvements <sup>1</sup>	\$	-	\$	16,002,060	\$	14,797,761
5	Segment 4	\$	155,085,553	\$	214,433,855	\$	176,460,732
6	Segment 5	\$	92,843,188	\$	80,261,020	\$	30,218,932
7	Toll Gantries, Equipment <sup>3</sup>	\$	17,626,759	\$	13,330,633	\$	11,951,673
8	Construction Management	\$	33,138,619	\$	36,531,424	\$	27,128,353
9	Miscellaneous Construction 4,5	\$	21,172,724	\$	59,997,596	\$	46,010,607
-	Reimbursement <sup>6</sup>	\$	-	\$	(15,845,308)	\$	(15,134,564)
Sı	ubtotal (1-9) Construction	\$	464,458,346	\$	540,902,095	\$	425,488,703
10	PS&E (Plans, Specifications & Estimates) 1,7	\$	37,213,460	\$	53,450,943	\$	52,346,898
11	PS&E (Administrative)	\$	11,437,618	\$	30,124,743	\$	21,759,025
12	Other Agency Costs	\$	150,000	\$	250,000	\$	207,682
Sı	ubtotal (10-12) Engineering	\$	48,801,078	\$	72,416,226	\$	74,313,605
13	Project Contingencies	\$	125,551,276	\$	14,082,919	\$	-
Pr	oject Total (1-13) <sup>8</sup>	\$	638,810,700	\$	638,810,700	\$	499,802,309

### NOTES:

- <sup>1</sup> An Inter-Local Agreement (ILA) with the cities of McKinney and Allen and Collin County was approved to fund a change to the Exchange Parkway intersection to improve access to the Sam Rayburn Tollway. A deductive Change Order was executed in the amount of \$5.6M to remove the prior Exchange Parkway scope from the Segment 3N contract requirements. A separate contract was created to address the new requirements for the Exchange Parkway improvements.
- <sup>2</sup> Approximately \$1.58 M has been incurred during construction to complete some structures required for the future fourth lane widening effort.
- <sup>3</sup> The NTTA toll gantry standard implemented in Sections 3-5 of this corridor was approved by resolution in November 2007 by the Board of Directors.
- <sup>4</sup> The estimated miscellaneous construction cost includes material testing, utility relocations, proposed right-of-way and easements, landscape and ITS equipment installation. This line includes right-of-way purchases in the amount of \$11.3M which are to be reimbursed to the Project by TxDOT. This line also includes the construction costs of two sand stockpiles for roadway safety that were not budgeted for in the original project estimate.
- <sup>5</sup> Miscellaneous Construction includes \$1,897,038 added to the project budget by the Board of Directors to purchase a 8.71 acre site in the city of Frisco for a future full service maintenance facility that will service the northern limits of the NTTA System. At present, the actual amount incurred for acquisition and legal costs is \$2,390,784.
- <sup>6</sup> This line refers to reimbursements from Collin County and the cities of Allen and McKinney for Exchange Parkway improvements, reimbursement from TxDOT for ROW acquisition, Segment 2 sound wall coating improvements agreed to with the City of Coppell and Segment 4 third-party damage reimbursements.
- <sup>7</sup> Transfer of Segments 1 and 2 from TxDOT to the NTTA required a Tollway Asset Condition Inspection be performed, which was not included among the anticipated expenses for the corridor. This line also includes design costs for two sand stockpiles which were not budgeted for in the original project estimate.
- <sup>8</sup> Future capacity improvements for Segments 1-5 are not included in the above estimate except for costs incurred for work identified in Note 2 above.

Cost estimates for the Project were prepared based on the status of contracts awarded to date. The current cost estimate represents the best good-faith judgment from a design professional familiar with the highway construction industry. Neither the NTTA nor its consulting engineers have control over the labor, materials or equipment costs; the contractors' methods of determining bid prices; or competitive bidding, market or negotiating conditions. The estimate of the Project's construction cost given in progress reports will be monitored as work progresses.

The semi-annual estimated amount of funds required for the estimated period of construction to meet the cost of the Project, including funds allocated for project contingencies, is shown below in Table 4.

		TABL	.E 4 - DRAW SO	CHEDULE		
Period Ending <sup>1</sup>	Original Semi-Annual Estimate, Dec 2007	Original Cumulative Estimate, Dec 2007	Semi-Annual Actual, December 2010	Cumulative Actual, December 2010	Semi-Annual Estimate, December 2010 1,2	Cumulative Estimate, December 2010
12/31/2007	\$12,804,925	\$12,804,925	\$12,804,925	\$12,804,925		
6/30/2008	\$66,689,438	\$79,494,363	\$41,070,815	\$53,875,740		
12/31/2008	\$84,918,350	\$164,412,713	\$102,075,318	\$155,951,059		
6/30/2009	\$103,636,169	\$268,048,882	\$128,276,304	\$284,227,363		
12/31/2009	\$106,341,227	\$374,390,109	\$74,454,634	\$358,681,997		
6/30/2010	\$125,468,501	\$499,858,610	\$55,111,412	\$413,793,409		
12/31/2010	\$56,476,173	\$556,334,783	\$86,008,900	\$499,802,309		
6/30/2011	\$31,527,887	\$587,862,670			\$44,790,982	\$544,593,290
12/31/2011	\$25,383,916	\$613,246,586			\$58,526,720	\$602,120,010
6/30/2012	\$11,432,366	\$624,678,952			\$28,541,417	\$631,661,427
12/31/2012	\$8,041,313	\$632,720,265			\$3,857,916	\$635,519,343
6/30/2013	\$6,090,435	\$638,810,700			\$978,492	\$636,497,835
12/31/2013					\$856,696	\$637,354,530
6/30/2014					\$530,341	\$637,884,871
12/31/2014					\$530,341	\$638,415,212
6/30/2015					\$395,488	\$638,810,700

### <u> 10016:</u>

<sup>&</sup>lt;sup>1</sup> The last two years of projected costs above reflect mandatory landscape maintenance periods of 18 months (Segments 1, 2 & 3) and 24 months (Segments 4 & 5).

<sup>&</sup>lt;sup>2</sup> The above estimate includes contingency that may or may not be expended.

## **SCHEDULE**

The major milestone dates for the Project are as follows:

Segment 1 & 2: This part of the Project opened to traffic in July 2006 by TxDOT, and NTTA service commencement occurred September 2008. NTTA improvements are complete and contracts have been closed out by the NTTA.

Segment 3S: Main lanes are substantially complete and opened to traffic on September 1, 2009.

Segment 3N: Main lanes are complete and open to traffic. The contract has been closed out by the NTTA.

Segment 3M, Exchange Parkway Improvements: Main lanes and sand stockpile facility are substantially complete and main lanes opened to traffic on September 29, 2009.

Segment 4: The direct connecting ramps providing access from southbound US 75 to southwest-bound SRT and from northeast-bound SRT to northbound US 75 (the highest-volume connectors), along with main lane improvements to SRT and US 75 required for full access via those connectors, opened to traffic in late December 2010. Details are as follows:

- ◆ The first major direct connecting ramp, from northeast-bound SRT to northbound US 75, opened on October 17, 2010.
- ◆ The second connector, from southbound US 75 to southwest-bound SRT, opened on November 14, 2010.
- ◆ The third connector, from northeast-bound SRT to southbound US 75, opened on December 18, 2010.
- ◆ The fourth connector, from northbound US 75 to southwest-bound SRT, opened on December 23, 2010.
- ◆ In addition, on December 1, 2010, the NTTA opened four new SRT cashless toll ramps the northeast-bound SRT entrance ramps at Lake Forest Drive and Hardin Boulevard, and the southwest-bound SRT exit ramps at Hardin and Lake Forest. On the same day the NTTA also opened one SRT main lane in both directions through the corridor from west

of Medical Center Drive. These ramp and main lane openings allowed the NTTA to adjust toll rates on a portion of Segment 4 from the interim toll rates to reflect the ultimate tolling distance as of December 1, 2010.

The estimated completion date for the remaining direct connectors and main lane improvements is early spring 2011, which is prior to the service commencement deadline of May 1, 2011.

Segment 5: Notice to Proceed was issued February 4, 2010, and expected open-to-traffic date is in January 2012.



## PGBT Eastern Extension Semi-Annual Progress Report No. 5 December 2010









## NORTH TEXAS TOLLWAY AUTHORITY CONSTRUCTION FUND PRESIDENT GEORGE BUSH TURNPIKE EASTERN EXTENSION

## DECEMBER 2010 PROGRESS REPORT SUMMARY

As described in the requirements as set forth in the Amended and Restated Trust Agreement dated April 1, 2008, Section 411, the Consulting Engineers are to prepare a progress report at least once every six months during the design and construction of a project financed by public bonds. The President George Bush Turnpike ("PGBT") Eastern Extension Project ("the Project") is being financed by public bonds and as such is the subject of this report. The report is to include the date the Project will be open to traffic, the date on which the construction of the Project will be completed, the cost of the Project excluding any bond discount and interest during construction, and the amount of funds required each six months during the remaining estimated period of construction.

The President George Bush Turnpike Eastern Extension Project extends the existing President George Bush Turnpike approximately 9.9 additional miles to the east and south. Beginning from the current terminus at State Highway 78 (SH 78) and running through the cities of Garland, Sachse, Rowlett and Dallas to Interstate Highway 30 (IH 30) in Dallas County, the Project creates a direct link from the existing terminus of PGBT to IH 30 and serves as a primary relief route to IH 635. The Project is divided into five sections (Sections 28, 29, 30, 31 and 32) for purposes of managing and expediting the design and construction.

Construction contracts for Section 28 and 29 were procured and the Notice to Proceed (NTP) was issued in January 2009. The NTP on Section 30 was issued August 2008, and construction began October 2008. An NTP for Section 31 was issued in March 2009. Construction on Section 32 by TxDOT began December 2008. All Sections of the Project are scheduled to open in late 2011.

The original estimated cost for all sections (28 through 32) of the Project, exclusive of interest and financing, but including a contingency allocation, was \$1,037,150,116. In the fall of 2010, the GEC re-evaluated the Project Cost based upon bids received as well as construction and construction change orders to date. The current Project total is now estimated at \$958 million. Table 3 on page 9 shows all expenditures through December 2010 for the Project. Note: Throughout the report, the cutoff date for financial information is December 31, 2011, while information found in the narrative portions may include details as current as the release date, March 11, 2011.

The remaining estimated funds required for the project are presented in semi-annual increments, including funds allocated for project contingencies, in Table 4, on page 10 of the report.

Respectfully submitted, HNTB CORPORATION

Stephanie L. Halliday, P.E. GEC Project Director

Stephanie L. Halliday

## NORTH TEXAS TOLLWAY AUTHORITY CONSTRUCTION FUND PRESIDENT GEORGE BUSH TURNPIKE EASTERN EXTENSION

## **DECEMBER 2010 PROGRESS REPORT**

This report describes the location, engineering design features and construction cost estimates of the President George Bush Turnpike (PGBT) Eastern Extension (PGBT EE) Project (the "Project") entirely in Dallas County, beginning from the current terminus of PGBT at State Highway 78 (SH 78) in Garland, extending east through the city of Sachse, turning south through the cities of Rowlett and Dallas, and terminating at Interstate Highway 30 (IH 30) in Garland, a distance of approximately 9.9 miles.

## **GENERAL**

In late 2005, the NTTA completed construction of the frontage roads from SH 78 to Firewheel Parkway in Garland and opened them to traffic in advance of the opening of Firewheel Mall adjacent to the northwest portion of the Project. The six-lane project (expandable to eight) is divided into five sections for the purposes of managing and expediting design and construction (refer to the Project map on page 2). Sections 28-31 were designed and are being constructed by NTTA, while Section 32 was designed and is being constructed by TxDOT. A total of 12 ramp connections to or from the Project will have an overhead gantry to allow for placement of all electronic toll collection (All-ETC) equipment. One main lane All-ETC gantry, located northwest of future Merritt Road in Section 29, will provide for six toll collection lanes (three each direction with provision for expansion to eight total lanes). All lanes are dedicated, non-stop express lanes to expedite the flow of traffic through the gantries, improve traffic safety and air quality and provide for ease of maintenance (refer to Figure 1 on page 2).

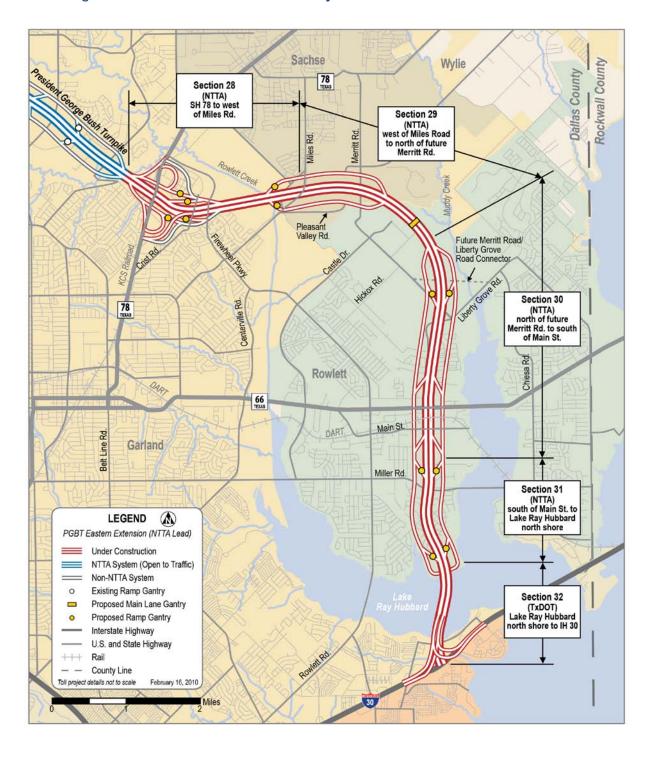


Figure 1: PGBT Eastern Extension Project Corridor Location and Sections

**DESIGN AND CONSTRUCTION STATUS** 

PGBT EE Section 28 (2.33 miles)

From west of SH 78 to west of Miles Road

♦ Design consultant: Jacobs Engineering Group, Inc.

♦ Right of way: Acquisition complete

◆ Prime contractor: Webber LLC

♦ Open-to-traffic date: Late 2011

♦ Construction status: Under construction – 67% Complete

Construction of Section 28 consists of main lane and ramp pavement, bridge and drainage structures (including a one-mile bridge over Rowlett Creek), retaining and sound walls, illumination, signing, pavement markings, traffic signals, landscaping and intelligent transportation systems (ITS) infrastructure. Gantries for All-ETC will be provided at six ramp locations to allow access to and from the frontage roads at Crist Road, Firewheel Parkway and

Miles Road. Ramps will also be provided to and from SH 78.

PGBT EE Section 29 (2.26 miles)

From west of Miles Road to north of future Merritt Road

♦ Design consultant: Halff Associates, Inc.

♦ Right of way: Acquisition complete

♦ Prime contractor: Texas Sterling Construction Co.

♦ Open-to-traffic date: Late 2011

♦ Construction status: Under construction – 52% Complete

Construction of Section 29 includes pavement for three main lanes in each direction, two-lane frontage roads between Miles and Merritt Roads, ramps to and from Merritt Road, bridge and drainage structures, retaining walls, illumination, signing, pavement markings, traffic signals, landscaping and ITS infrastructure. A main lane All-ETC toll gantry will be located near the east end of the section.

PGBT EE Section 30 (2.75 miles)

From north of future Merritt Road to south of Main Street

♦ Design consultant: Parsons Brinckerhoff of the Americas (PB Americas)

• Right of way: Acquisition partially complete (46 of 49 parcels available)

♦ Prime contractor: Zachry Construction Corporation

♦ Open-to-traffic date: Late 2011

♦ Construction status: Under construction – 67% Complete

The most complex of the NTTA Project sections, the majority of Section 30 is depressed below the existing grade and has conflicts with various major utilities. This section is constrained on both sides from recent commercial development and includes an underpass with an existing railroad which is anticipated to be a future Dallas Area Rapid Transit (DART) rail line. Construction of this section consists of three main lanes each direction, two to three lanes of frontage roads and ramp pavement, bridge and drainage structures, retaining and sound walls, illumination, signing, pavement marking, traffic signals, landscaping, and ITS infrastructure. Section 30 includes two ramp gantries at future Merritt Road.

PGBT EE Section 31 (1.52 miles)

From south of Main Street to north shore of Lake Ray Hubbard

♦ Design consultant: PBS&J, Inc.

• Right of way: Acquisition partially complete (20 of 21 parcels available)

♦ Prime contractor: Williams Brothers Construction Co., Inc.

♦ Open-to-traffic date: Late 2011

♦ Construction Status – 61% Complete

Section 31, the southernmost NTTA section of the Project, consists of three main lanes in each direction, two to three lanes of frontage roads and ramp pavement, bridge and drainage structures, retaining and sound walls, illumination, signing, pavement marking, traffic signals, landscaping, and ITS infrastructure. Gantries for All-ETC will be provided at four ramp locations to allow access to and from the frontage roads at SH 66, Main Street and Miller Road.

## PGBT EE Section 32 (1.04 miles)

From the north shore of Lake Ray Hubbard to IH 30

- ◆ Design consultant: HDR Engineering, Inc., for TxDOT
- Right of way: Acquisition partially complete (45 of 46 parcels available)
- ◆ Prime contractor: Austin Bridge & Road, LP, for TxDOT
- ♦ Open-to-traffic date: Late 2011
- ♦ Construction status: Under construction since December 2008—TxDOT managing the construction.

Section 32, the southernmost section, was designed by and will be constructed and managed by TxDOT. The majority of Section 32 is a one-mile bridge over Lake Ray Hubbard and a multi-level interchange with direct-connecting ramps to and from existing IH 30. Construction of this section includes main lane (PGBT and IH 30), frontage road (IH 30) and ramp pavement; bridge and drainage structures (including a drainage containment system on the lake bridge per the inter-local agreement with the City of Dallas); retaining walls; illumination; signing; pavement markings; landscaping; and ITS infrastructure.

In addition to the design firms identified in the previous section, Table 1 lists the contracts that have been awarded for engineering services related to the Project. On the following page, Table 2 summarizes the design and construction status of the Project.

TABLE 1 – A	DDITIONAL ENGINEERING	SERVICES
02005-NTT-00-PS-AD	HNTB Corporation	General Engineering Consultant
FSF-73, 02023-NTT-00-PS-MA	Jacobs Engineering Group, Inc.	Schematics, Section 30 MSE Wall Design
02005-NTT-00-PS-AD WA 11 MA	HNTB Corporation	Landscape Design Services
02056-NTT-00-PS-EN WA 06	Kellogg Brown & Root, Inc.	Section 28-A Construction Management Services
02418-NTT-00-PS-PM WA 01	HDR Engineering, Inc.	Section 28 Construction Management Services
02424-NTT-00-PS-PM WA 01	Tollway Transportation Team	Section 29 Construction Management Services
02058-NTT-00-PS-EN WA 08 EE	PBS&J, Inc.	Section 30 and Corridor Construction Management Services
02424-NTT-00-PS-PM WA 02	Tollway Transportation Team	Section 31 Construction Management Services
02394-PGB-00-PS-PM	Mactec Engineering & Consulting, Inc.	Section 30 Quality Control Materials Testing
02395-PGB-00-PS-PM	Southwestern Testing Laboratories, LLC	Sections 28-31 Quality Assurance Materials Testing
02402-PGB-00-PS-PM	Michael Baker Jr., Inc.	Environmental Compliance Team
02557-NTT-00-PS-PM WA 01	Kleinfelder	Retaining Wall System Engineering Services
02547-NTT-00-PS-PM TO 02	Terracon Consultants, Inc.	MSE Wall Independent Design Check
02589-NTT-00-PS-PM WA 03	PBS&J, Inc.	Additional Shop Drawing Review & Coordination for MSE Wall Evaluations
02644-NTT-00-PS-PM WA 01	Raba-Kistner Infrastructure, Inc.	Quality Assessment Program

PRESIDENT GEORGE BUSH TURNPIKE EASTERN EXTENSION TABLE 2 – DESIGN AND CONSTRUCTION STATUS REPORT, SECTIONS 28 - 32

	Section 28	Section 29	Section 30	Section 31	Section 32
Limits	West of SH 78 to west of Miles Road	West of Miles Road to north of future Merritt Road Connector	North of future Merritt Road to south of Main Street	South of Main Street to north shore of Lake Ray Hubbard	North shore of Lake Ray Hubbard to IH 30
Design Consultant	Jacobs Engineering Group, Inc.	Halff Associates, Inc.	Parsons Brinckerhoff (PB Americas)	PBS&J, Inc.	HDR Engineering, Inc., for TxDOT
Design Notice to Proceed	August 15, 2005	August 15, 2005	August 15, 2005	August 15, 2005	Information Not Available
Current Status of PS&E	Complete	Complete	Complete	Complete	Complete
Letting Dates	August 14, 2008	September 25, 2008	April 17, 2008	November 06, 2008	August 07, 2008

1	1		1		
TxDOT Contract	Austin Bridge & Road, LP, for TxDOT	December 2008	Spring 2012	Under construction- TxDOT managing	Late 2011
02013-PGB-06-CN-EN	Williams Brothers Construction Co., Inc.	March 2009	Spring 2012	Under construction – 61% Complete	Late 2011
02011-PGB-06-CN-EN	Zachry Construction Corporation	August 2008	Spring 2012	Under construction – 67% Complete	Late 2011
02009-PGB-06-CN-EN	Texas Sterling Construction Co.	January 2009	Spring 2012	Under construction – 52% Complete	Late 2011
02007-PGB-06-CN-EN	Webber LLC	January 2009	Spring 2012	Under construction – 67% Complete	Late 2011
Construction Contract	Contractor	Construction Notice to Proceed	End Construction Date	Current Status of Construction	Open-to-Traffic Date

PGBT Eastern Extension Progress Report #5- December 2010

## **ESTIMATE OF PROJECT FUNDS**

The original estimated cost of the Project (Sections 28-32) was \$1,037,150,116. In the fall of 2010, the GEC re-evaluated the Project Cost based upon bids received as well as construction and construction change orders to date. The current Project total is now estimated at \$958 million. TxDOT has committed to fund the design and construction of Section 32 (approximately \$254M). TxDOT also provided a Toll Equity Grant (approximately \$160 M) to be used for right-of-way acquisition and utility relocations. If the entire Toll Equity Grant is not required for right of way, utility relocation and similar costs, TxDOT and the NTTA have agreed to work cooperatively to identify other Project costs to which it can be applied so that the entire amount of that grant should be applied to the Project. In turn, the NTTA has agreed to revenue-sharing with TxDOT on the Project.

Several factors, including unforeseen escalation of prices and wages, labor or material shortages and changes in economic conditions can significantly affect (escalate or reduce) construction costs. Appropriate contingencies are added to the cost of the Project to mitigate the impact of unforeseen escalations. The estimated Project cost reflects the most current bids, approved change orders and our professional judgment of the construction industry; it is our belief that the Project can be constructed within the limits described for the estimated cost given herein. However, due to the nature of the construction industry, we cannot and will not guarantee that the actual Project cost will not vary from the estimated cost.

	TABLE 3	3: C	OST SUMMAR	Υ		
No.	Description	Re	Proposed Engineering eport Estimate, August 2008		timated Cost, ecember 2010	Actual xpenditures, cember 2010
1	Section 28	\$	124,785,106	\$	116,242,378	\$ 86,728,904
2	Section 29	\$	86,658,563	\$	59,199,666	\$ 35,075,522
3	Section 30	\$	160,936,511	\$	127,802,303	\$ 93,736,333
4	Section 31	\$	65,980,548	\$	57,864,539	\$ 37,584,757
5	Toll and ITS Equipment 1	\$	9,817,500	\$	6,724,262	\$ 136,706
6	Construction Management	\$	31,371,535	\$	25,812,617	\$ 10,599,019
7	Miscellaneous Construction <sup>2</sup>	\$	8,235,919	\$	22,351,316	\$ 6,092,901
Sub	total (1-7) Construction	\$	487,785,682	\$	415,997,081	\$ 269,954,142
8	PS&E (Plans, Specs, Estimates) & Admin.	\$	30,367,525	\$	58,864,590	\$ 45,557,053
9	ROW Acquisition and Utility Relocations	\$	166,844,730	\$	167,404,177	\$ 115,954,827
10	Other Agency Costs	\$	11,095,916	\$	2,404,583	\$ 2,404,583
Subtotal (8-10) Engineering and Agency Costs		\$	208,308,171	\$	266,673,349	\$ 163,916,463
11	Project Contingency	\$	92,643,362	\$	61,799,570	\$ -
Cos	ts (1-11) <sup>3</sup>	\$	788,737,215	\$	704,470,000	\$ 433,870,605
12	Section 32 <sup>4</sup>	\$	251,014,339	\$	253,530,000	
Proj	ect Total (1-12) <sup>5</sup>	\$	1,039,751,554	\$	958,000,000	

## NOTES:

The current cost estimate represents the best good-faith judgment from design professionals familiar with the highway construction industry. Neither the NTTA nor its consulting engineers have control over the labor, materials or equipment costs, the contractors' methods of determining bid prices, competitive bidding, market or

<sup>&</sup>lt;sup>1</sup> The cost of toll gantry and ITS infrastructure construction is included within the construction cost of each section.

<sup>&</sup>lt;sup>2</sup> Miscellaneous construction cost includes landscaping, materials testing and other special features.

<sup>&</sup>lt;sup>3</sup> A Toll Equity Grant in the amount of \$160 M has been supplied by TxDOT to accommodate any of the five sections' ROW acquisitions, utility relocations, or any other costs for the Project agreed to mutually between NTTA and TxDOT.

<sup>&</sup>lt;sup>4</sup> Under the Two-Party Agreement, TxDOT is responsible for the design, construction, and construction management of Section 32.

<sup>&</sup>lt;sup>5</sup> The amount shown above does not include bond discounts, interest during and after construction, and other costs associated with bond closing costs.

negotiating conditions. The estimate of construction costs given in progress reports will be monitored as work progresses on the Project.

The semi-annual estimated amount of funds required for the estimated period of construction to meet the cost of the PGBT Eastern Extension Project, including funds allocated for project contingencies, is shown on the following page in Table 4.

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		TABLE 4 - DI	RAW SCHEDUI	_E (Sections 28-	-31)	
Period Ending	Original Semi-Annual Estimate, Dec 2008	Original Cumulative Estimate, Dec 2008	Semi-Annual Actual, December 2010	Cumulative Actual, December 2010	Semi-Annual Estimate, December 2010 <sup>2</sup>	Cumulative Estimate, December 2010
6/30/20051	\$4,582,276	\$4,582,276	\$4,582,276	\$4,582,276		
12/31/2005 <sup>1</sup>	\$9,708,328	\$14,290,603	\$9,708,328	\$14,290,603		
6/30/20061	\$2,043,202	\$16,333,806	\$2,043,202	\$16,333,806		
12/31/2006 <sup>1</sup>	\$164,407	\$16,498,212	\$164,407	\$16,498,212		
6/30/20071	\$298,728	\$16,796,941	\$298,728	\$16,796,941		
12/31/20071	\$39,736	\$16,836,677	\$39,736	\$16,836,677		
6/30/20081	\$0	\$16,836,677	\$0	\$16,836,677		
12/31/2008	\$124,031,352	\$140,868,029	\$124,031,352	\$140,868,029		
6/30/2009	\$120,169,173	\$261,037,203	\$106,566,929	\$247,434,959		
12/31/2009	\$77,128,238	\$338,165,441	\$56,003,487	\$303,438,446		
6/30/2010	\$127,802,395	\$465,967,836	\$65,227,194	\$368,665,639		
12/31/2010	\$56,109,695	\$522,077,531	\$65,204,966	\$433,870,604		
6/30/2011	\$51,948,261	\$574,025,791			\$63,462,403	\$497,333,007
12/31/2011	\$47,803,671	\$621,829,462			\$48,254,021	\$545,587,028
6/30/2012	\$166,907,753	\$788,737,215			\$36,540,402	\$582,127,430
12/31/2012					\$44,809,907	\$626,937,336
6/30/2013					\$870.000	\$627,807,336
12/31/2013					\$870,000	\$628,677,336
6/30/2014					\$75,792,663	\$704,470,000

## Notes:

<sup>&</sup>lt;sup>1</sup> In 2005, the NTTA completed the construction of the frontage roads from SH 78 to Firewheel Parkway and opened them to traffic before the opening of Firewheel Mall on the north side of the Project, as indicated above between 6/30/2005 - 6/30/2008.

<sup>&</sup>lt;sup>2</sup> The last 1 year and six months of projected costs above reflect the costs of a mandatory 12-18 month landscape maintenance period.

<sup>&</sup>lt;sup>3</sup> This estimate includes contingency that may or may not be expended.

## **SCHEDULE**

The major milestone dates for the Project are as follows:

Section 28: Preparation of construction plans and specifications is complete. A construction Notice to Proceed (NTP) was issued in January 2009. Expected open-to-traffic date is late 2011.

Section 29: Preparation of construction plans and specifications is complete. A construction NTP was issued in January 2009. Expected open-to-traffic date is late 2011.

Section 30: Preparation of construction plans and specifications is complete. Construction NTP was issued in August 2008. Expected open-to-traffic date is late 2011.

Section 31: Preparation of construction plans and specifications is complete. An NTP for construction was issued in March 2009. Expected open-to-traffic date is late 2011.

Section 32: TxDOT completed construction plans and specifications and began construction in December 2008. Per the Two-Party Agreement between the NTTA and TxDOT, TxDOT has committed to complete the construction of this section in late 2011.