



# SH 249 System Quarterly Construction Progress Report

June 1, 2020 through August 31, 2020

Prepared by:





26 October 2020

Mr. Benjamin H. Asher TxDOT Director, Project Finance, Debt and Strategic Contracts Division 125 East 11<sup>th</sup> Street Austin, TX 78701

RE: SH 249 System

Quarterly Construction Progress Report for Fiscal Quarter Ended August 31, 2020

Dear Mr. Asher,

As the General Engineering Consultant to the SH 249 System and in accordance with Section 407 of the Master Trust Agreement dated February 1, 2019 between the Texas Transportation Commission and U.S. Bank National Association, as Trustee (the "Master Trust Agreement"); BGE, Inc. submits the Quarterly Construction Progress Report for the SH 249 System. This report covers quarterly construction progress from June 1<sup>st</sup>, 2020 to August 31<sup>st</sup>, 2020.

As described in the requirements set forth in Section 407 of the Master Trust Agreement, the General Engineering Consultant shall prepare a progress report at least quarterly during the acquisition and construction of System Segments with Obligations, by the last day of the second month after each fiscal quarter, commencing with the first full fiscal quarter after delivery of the initial Obligations or Obligations financing such System Segment. The quarters used for reporting is based on the Department's fiscal year.

The Department adheres to the requirements outlined in the Master Trust Agreement which governs the acquisition or construction of such SH 249 System financed with Obligations. As specified in the Master Trust Agreement, this report includes current estimates of: (i) the date on which such System Segment will be opened for Traffic which is found in the Current Project Schedule section of the report (page 7), (ii) the Estimated Date of Completion and an estimated date of Substantial Completion of such System Segment, also discussed in the Current Project Schedule section (page 7), (iii) the cost of such System Segment, but excluding any Obligation

State Highway 249 System

Quarterly Construction Progress Report

discount, and the interest during construction and for one year after completion of construction found in the System Cost Status section of the report (page 16), (iv) the amount of funds required each six months during the remaining estimated period of construction to meet the above described cost of such System Segment exclusive of funds provided for construction contingencies, and accompanied by a progress schedule for such construction, and further including, as to construction, comparisons between the actual times elapsed and the actual costs, and the original estimates of such times and costs found in the System Cost Status section of the report (page 16), and (v) a general description of the construction progress and estimated completion date of Segment 2 found in Construction Status section (page 11).

Sincerely,

DocuSigned by:

Chris Kuykendall

-6B1226E59CA346F...

Chris Kuykendall, PE

Vice President

BGE, Inc



List of Figures	iv
List of Tables	iv
List of Pictures	iv
Acronyms and Abbreviations	v
Executive Summary	1
Date of this Report and Subsequent Events	3
Purpose of the Report	4
Current Project Schedule	7
Current Project Progress	9
Design Status	9
Right-of-Way Status	10
Utility Status	10
Construction Status	11
Construction of the Tolling System	12
Construction Quality Status	13
Maintenance	14
Public Information Status	14
Executed Change Orders	15
Pending Change Orders	16
System Cost Status	16
GEC Findings	18



## List of Figures

Figure 1: Project Location Map	5
Figure 2: SH 249 Corridor Segments 1 – 5	6
List of Tables	
Table 1: Project Milestones	9
Table 2: Utility Status	11
Table 3: Executed and Pending Change Orders	15
Table 4: Segment 1 Actuals	16
Table 5: Segment 1 Forecasts	17
Table 6: Segment 1 DBA Construction Draws	18
List of Pictures	
Picture #1: Section 1A Northbound SH249 at Mainlane Gantry	19
Picture #2: Section 1B Material Stockpile Area north of FM 1488	19
Picture #3: Section 1B Embankment Work	20
Picture #4: Section 1B Ramp Gantries	20
Picture #5: Section 1B Pavement Installation	21
Picture #6: Section 1B Pavement Reinforcement Installation	21
Picture #7: Section 1B Bridge 1B15 and 1B16 Installation	22
Picture #8: Section 1B Embankment Work and Bond Breaker Installation	22
Picture #9: Section 1B Mainlane Gantries	23
Picture #10: Section 1B Bridge 1B17 and 1B18 Installation	23



BGE Brown & Gay Engineers, Inc.

CMA Capital Maintenance Agreement

CO Change Order
DB Design-Build

DBA Design-Build Agreement

DBE Disadvantaged Business Enterprises

EJ Engineering Judgement

FA Final Acceptance

FHWA Federal Highway Administration

FM Farm to Market Road

FPAU Financial Plan Annual Update

FY Fiscal Year

GEC General Engineering Consultant
HCTRA Harris County Toll Road Authority

IQF Independent Quality Firm

MCTRA Montgomery Toll Road Authority

NCR Non-Compliance Report

NTP Notice to Proceed

O&M Operations and Maintenance
OV Owner's Verification Firm
PBS Project Baseline Schedule

PUAA Project Utility Adjustment Agreement

QA Quality Assurance
QC Quality Control
ROW Right-of-Way

SC Substantial Completion

SH State Highway
SI System Integrator
T&R Toll & Revenue

TOD (TxDOT) Toll Operations Division

TxDOT Texas Department of Transportation

UAAA Utility Adjustment Agreement Amendment

UPRR Union Pacific Railroad

USACE United States Corps of Engineers

US United States Highway

WOTUS Waters of the United States

## **EXECUTIVE SUMMARY**

The SH 249 Project (the "Project") is a 25.5-mile new-location roadway in Montgomery and Grimes Counties, located northwest of Houston, and currently being developed and constructed by or on behalf of the Texas Department of Transportation ("TxDOT"). The Project begins at the current terminus of State Highway (SH) 249 frontage roads at Farm to Market (FM) 1774 in Pinehurst, Texas (Montgomery County) and extends to SH 105 near Navasota, Texas (Grimes County). The Project consists: of (a) 14.8 miles of four new toll lanes from FM 1774 in Pinehurst to FM 1774 in Todd Mission, Texas ("Segment 1" or the "System"); and (b) an additional 10.7 miles of two non-tolled lanes from FM 1774 in Todd Mission to SH 105 near Navasota ("Segment 2") which is not part of the System established pursuant to the Master Trust Agreement between the Texas Transportation Commission (the "Commission") and U.S. Bank National Association, as Trustee (the "Master Trust Agreement"). The System is further divided into two Sections comprising of: Section 1A from FM 1774 in Pinehurst to FM 1488, a distance of 6.4 miles; and Section 1B from FM 1488 to FM 1774 in Todd Mission, a distance of 8.4 miles.

The Project provides greater mobility for residents and travelers in northwest Houston to the portions of the Tomball Tollway built by Montgomery County Toll Road Authority (MCTRA) and Harris County Toll Road Authority (HCTRA). When all portions of the freeway are connected, users will have improved access to other major freeways in northwest Houston including the Grand Parkway (SH 99) and the Sam Houston Tollway (Beltway 8) corridors.

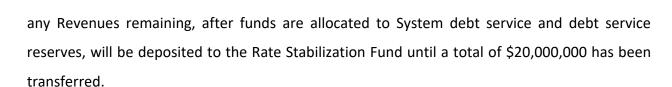
The Project is being designed and constructed utilizing a lump sum Design-Build Agreement (the "DBA") executed on October 3, 2017 with the selected best value proposer, WBCCI, LLC (the "DB Contractor"), after a competitive selection process. The design-build (DB) delivery method under the DBA adheres to TxDOT and Federal Highway Administration (FHWA) requirements and provides more cost and schedule certainty over traditional design-bid-build delivery projects.

Section 1A opened to traffic ahead of schedule on August 8, 2020 and will begin toll collection ahead of schedule in Fall 2020. Section 1B is anticipated to open to traffic on schedule no later

than March 15, 2021. Segment 2 is scheduled to be open to traffic on schedule on or before June 5, 2023. The original Segment 2 October 8, 2022 substantial completion date was extended due to added work related to additional requirements needed to comply with a United States Corps of Engineers (USACE) Section 404 permit. This work included: adding grade separations at CR 304, FM 1748, and CR 306; adding one passing lane in each direction between Pinebrook and CR 304 with 4-ft wide shoulders including bridge crossings in lieu of culverts at Station 2130+00 and 2137+00 to avoid impacts to WOTUS; and increasing the mainlane shoulder widths along SH 249 from 8-ft to 10-ft. See "Current Project Schedule."

The current estimated total construction costs to develop the Project is \$843.8M (Segment 1 - \$518.6M; Segment 2 - \$325.2M) as of August 31, 2020. This estimated cost includes: the negotiated DBA price for design, construction, and all other services required to deliver the Project per the DBA; utility relocation; Right-of-Way (ROW) costs to acquire necessary property to design, construct, and maintain the Project; tolling equipment and system integration; environmental mitigation; TxDOT administration costs; and reasonable Project contingency. Funding for the Project is a combination of Federal, State of Texas, and local government funds (Montgomery County) as well as proceeds of Obligations issued pursuant to the Master Trust Agreement for Segment 1 only (the tolled portion of the Project). Segments 1 (tolled) and 2 (nontolled) are funded separately even though both segments are being constructed under the same DBA.

Maintenance responsibilities will be shared between TxDOT and the DB Contractor pursuant to a Capital Maintenance Agreement (CMA). The CMA Notice to Proceed (NTP) to the DB Contractor was issued on August 22, 2019 and the initial five-year CMA period for the Project began on August 8, 2020 with the Substantial Completion and opening of Section 1A to traffic. The costs for operations and maintenance (O&M) of the Project, including roadway and toll collection system elements, are not included in the total Project development cost estimate. The Texas Transportation Commission has covenanted in Section 513 of the Master Trust Agreement to pay the O&M Expenses to the extent Revenues (as defined in the Master Trust Agreement) are not sufficient for such purpose from lawfully available funds. Additionally, Section 507 provides that



#### **Date of this Report and Subsequent Events**

On March 13, 2020, the President of the United States declared the COVID-19 pandemic a national emergency and the Texas Governor declared COVID-19 an imminent threat of disaster for all counties in Texas. The situation continues to evolve; for additional information on these events in Texas, reference is made to the website of the Governor at https://gov.texas.gov/ and the quarterly Bond Appendix and supplements thereto as prepared by the Texas Comptroller of Public Accounts which are on file with the Municipal Securities Rulemaking Board's Electronic Municipal Market Access System (EMMA). The Texas Transportation Commission and the Department continue to monitor the spread of COVID-19 and are working with local, state, and federal agencies to address the potential impact of COVID-19.

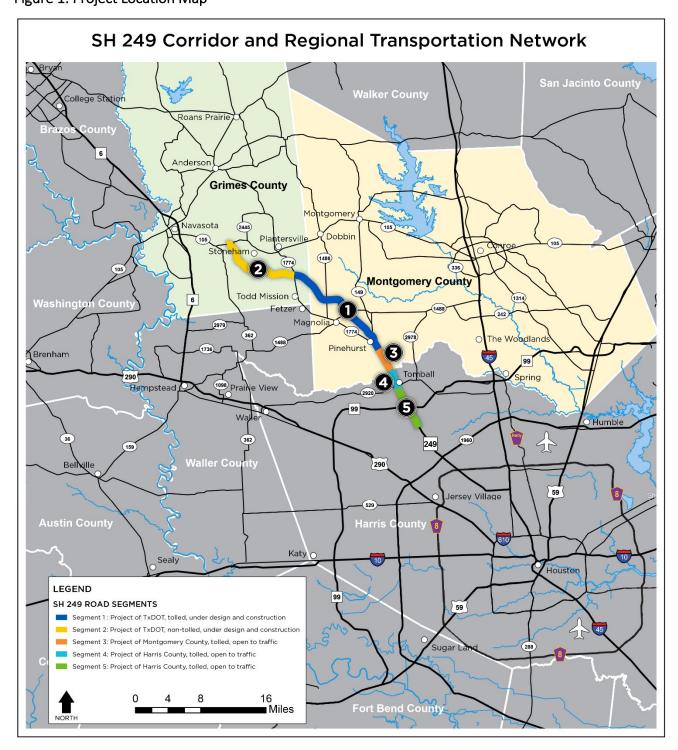
The information contained in this report is provided as of the respective dates and for the periods specified herein, and the filing of this report does not, under any circumstances, imply that there has been no change in the affairs of the Project, the System, or TxDOT since the specified date or dates as of which such information is provided. The scope and magnitude of the impact the COVID-19 pandemic and the measures instituted to control the pandemic may have on the Project, the System, and TxDOT cannot be fully determined at this time. The pandemic has adversely affected travel, commerce and financial markets globally and is expected to adversely affect economic output worldwide and in Texas, including within the counties traversed by the Project. While the COVID-19 pandemic has, as of the date of this report, had no impact to the current completion schedule, cost, or progress of the Project, no assurance can be provided as to any future impact the pandemic may have on the Project, the System, or TxDOT. Accordingly, the historical information set forth in this report may not be indicative of future results or performance due to these and other factors.

## **Purpose of the Report**

Per Section 407 of the Master Trust Agreement, the General Engineering Consultant (GEC) shall prepare a progress report by the last day of the second month after each fiscal quarter during the acquisition and construction of any portion of a System Segment which is financed in whole or in part with Obligations, commencing with the first full fiscal quarter after the delivery of the initial Obligations or Obligations financing an additional System Segment as defined in the Master Trust Agreement.

As the GEC to TxDOT for the System, and in accordance with the requirements set forth in Section 407 of the Master Trust Agreement, Brown and Gay Engineers, Inc. (BGE) prepared this Quarterly Construction Progress Report that describes the Project, schedule, construction progress, estimates of construction, and operations and maintenance costs of the proposed System (Segment 1). This report presents BGE's opinion on the reasonableness of the schedule and cost estimates for the Project (see "GEC Findings" herein.)

Figure 1: Project Location Map



SH 249 Corridor 2445 Navasota Dobbin Plantersville 105 Stoneham (1486) (1774) 336 105 THE SYSTEM 149 Todd Mission Count THE PROJECT (362) 1488 Pinehurst LEGEND SH 249 ROAD SEGMENTS Segment 1 : Project of TxDOT, tolled, under design and construction Tombal Segment 2: Project of TxDOT, non-tolled, under design and construction Segment 3: Project of Montgomery County, tolled, open to traffic Segment 4: Project of Harris County, tolled, open to traffic 99 Segment 5: Project of Harris County, tolled, open to traffic 16 ■ Miles 1960 249

Figure 2: SH 249 Corridor Segments 1 – 5

## **Current Project Schedule**

Segment 1 and Segment 2 are following different design and construction schedules which allows Segment 1 to open to traffic before Segment 2. Segment 1, the tolled segment of the Project, is referred to as the System pursuant to the Master Trust Agreement.

While developing the Toll & Revenue (T&R) study, TxDOT's consultants accounted for the staggered opening dates. TxDOT is moving forward with two separate opening dates for the different segments.

To monitor the Project schedule, BGE reviews the DB Contractor's monthly construction Project Baseline Schedule (PBS) to verify that the schedule accurately reflects work completed during the previous pay period. During this review, BGE's staff compares the schedule to contractual requirements, prior months and other factors such as weather. BGE then reviews the reported construction progress to field observations and inspection reports to verify that the progress reported by the DB Contractor is accurate.

Based on the PBS dated August 2020, the DB Contractor is on track to meet the Project Milestones shown in Table 1 and as noted, likely to complete work on schedule.

TxDOT issued to the DB Contractor a written Certificate of Substantial Completion (SC) for Section 1A (from FM 1774 in Pinehurst to FM 1488) ahead of schedule on August 8, 2020. Later that day, Section 1A opened to traffic and will begin toll collection ahead of schedule in Fall 2020. TxDOT anticipates Section 1B of the System opening to traffic by March 15, 2021 which is the scheduled SC date for the System. TxDOT will determine that SC is met when the roadway is generally complete and safe for the traveling public. The DB Contractor may finish minor cleanup/punch list work for items such as painting, landscaping or other aesthetic finishes between SC and Final Acceptance (FA).

The DB Contractor is required to complete the System by March 15, 2021 in order for TxDOT to open the remainder of the System (Section 1B) to traffic. If the DB Contractor fails to complete SC by this date, it is obligated to pay daily liquidated damages to TxDOT to cover any loss of revenue which TxDOT can use to satisfy its obligations under the Master Trust Agreement. The

March 15, 2021 SC deadline date can only change by either revision to the current contract scope via Change Order or by the occurrence of a Force Majeure event as outlined in DBA Section 13.8.

The scheduled Section 1A FA is December 6, 2020 and the System FA is July 13, 2021 which represents the date that all construction and close-out activities must be finished.

The schedule for the construction of Segment 2 was constrained by final approval of an environmental Section 404 Permit from the USACE (the 404 Permit). TxDOT received the 404 Permit from the USACE and issued the NTP2 for Segment 2 on August 5, 2019. The 404 Permit was expected in April 2019 but was delayed when the USACE requested additional investigation of a potentially historic site on an effected parcel outside of the Project's ROW limits. NTP 2 authorized the DB Contractor to move forward with all construction activities on Segment 2.

As of August 31, 2020, the SC for Segment 2 is scheduled to occur on or before June 5, 2023, the same date that TxDOT plans to open Segment 2 to traffic. The GEC anticipates the DB Contractor will achieve Segment 2 FA on or before October 3, 2023.

Based on our review of the current PBS, BGE concludes that the DB Contractor and TxDOT can safely meet the milestones shown in Table 1 of this Report.



**Table 1: Project Milestones** 

Q4, FY 2020
October 3, 2017
October 4, 2017
October 25, 2017
March 15, 2018
June 7, 2018
October 15, 2018
August 5, 2019
August 8, 2020
December 6, 2020
March 15, 2021
July 13, 2021
June 5, 2023 <sup>2</sup>
October 3, 2023 <sup>2</sup>

<sup>&</sup>lt;sup>1</sup> Notice to Proceed (NTP) is TxDOT's formal correspondence to the DB Contractor to proceed with a major work item.

#### **Current Project Progress**

For the Project, the design and construction activities are divided between Segment 1 (the System) and Segment 2. The Obligations were issued to finance the System; however, the opening of Segment 2 will impact the traffic volume on the System, therefore this section includes the status of both Segments.

The progress of the Project is discussed in greater detail in the following "Status" sections.

#### **Design Status**

The design for the System began when TxDOT issued NTP1 on October 4, 2017, authorizing the DB Contractor to begin the design of all elements of the System. As of August 31, 2020; the status of the System design is 99% complete. The remaining 1% is withheld for any revisions based on unknown field conditions that require design changes prior to TxDOT accepting the final, as-built plan set. Whereas the System design is complete, BGE anticipates that the DB Contractor will

<sup>&</sup>lt;sup>2</sup> TxDOT provided the DB Contractor an additional 150 days for Segment 2 construction via a Change Order

open the remainder of the System (Section 1B) to traffic by the contractual SC deadline of March 15, 2021, with Section 1A opened to traffic ahead of schedule on August 8, 2020.

The design for Segment 2 began on June 7, 2018. As of August 31, 2020, the design for Segment 2 is approximately 99% complete. The remaining 1% is withheld for any revisions based on unknown field conditions that require design changes prior to TxDOT accepting the final, as-built plan set. The Segment 2 open to traffic date shifted to June 5, 2023 with the issuance of CO #20 for additional roadway widening and bridge overpasses. The additional CO #20 work is accounted for in the current design. TxDOT provided the DB Contractor an additional 150 days for Segment 2 design and construction via a Directive Letter dated September 18, 2019 with the superseding CO #20 executed on June 25, 2020.

## **Right-of-Way Status**

As of August 31, 2020, all parcels required for Segment 1 and 2 are in TxDOT possession. There are some Segment 2 parcels remaining in the acquisition process; however, the ROW is accessible and cleared for construction. ROW acquisition will not have an impact on the System or the remaining schedule.

#### **Utility Status**

The DB Contractor continues to work with TxDOT and various utility owners in the System and Segment 2 of the Project to finalize the utility agreements so that utility owners may be reimbursed for the respective portions of their work. These agreements are executed to allow TxDOT to review the utility adjustment plans, cost estimates, and land rights for the eventual execution of the utility work. From June 1, 2020 thru August 31, 2020 (Q4 FY 2020), no additional utilities were identified within the System project limits.

As of August 31, 2020, the utility status for the System is shown in Table 2:



**Table 2: Utility Status** 

Segment 1 Utility Status					
PUAA	Q4 FY 2020				
Anticipated	21				
Executed	21				
% Executed	100%				
UAAA					
Anticipated	4				
Executed	4				
% Executed	100%				

#### **Construction Status**

The DB Contractor began construction activities in the System on March 15, 2018 and opened Section 1A to traffic on August 8, 2020. The DB Contractor started with ROW clearing followed by rough grading and embankment, placement of drainage structures, building bridge structures, and placement of concrete pavement. Currently, the DB Contractor has completed 90% of all construction work activities for the System and is finalizing punch list work items to reach the Section 1A final acceptance deadline. Moving forward to complete Section 1B, the DB Contractor will finalize the placement of embankment, bridge deck, bridge rail, metal beam guard fence, Intelligent Transportation System (ITS), lighting, cable barrier, and the placement of concrete and asphalt pavement.

The DB Contractor began construction activities in Segment 2 on October 15, 2018 on parcels that were both in TxDOT possession and not impacted by the 404 Permit. TxDOT issued NTP 2 on August 5, 2019 allowing the DB Contractor full authority to move forward with all construction activities within Segment 2. The DB Contractor has completed 41% of the Segment 2 construction activities. The DB Contractor is focused on placing embankment, bridge foundations, substructures, bridge decking, and concrete paving activities in Segment 2.

## **Construction of the Tolling System**

TxDOT's Toll Operations Division (TOD) contracted TransCore, LP, as the System Integrator (SI), to install and test the System tolling equipment. During Q4 of FY 2019 TOD's design consultant, Atkins North America, Inc., completed the design efforts for the tolling system and transmitted the tolling system design to the DB Contractor and TransCore. Per the DBA, the DB Contractor is responsible for the toll zone civil site work including earthwork, paving, power, and communications. TransCore is responsible for the toll gantry construction and supporting infrastructure, and the installation and testing of the tolling equipment.

TxDOT conducted a toll kick-off coordination meeting on April 30, 2019 to ensure that TxDOT, the SI, and the DB Contractor understand the timelines and turnover requirements. TxDOT determined that follow up meetings would occur so that all parties can discuss the current status and scheduling of the SI's construction activities.

As of August 31, 2020, the SI has completed installation of all tolling equipment in Section 1A of the System. The last remaining SI work item in Section 1A will be to run equipment and commission testing for the System after the back-office toll collection software, currently in development, becomes available in Fall 2020. The testing is expected to take several hours and when complete will allow active tolling to begin.

The SI has installed most of the tolling infrastructure in Section 1B of the System. However, further progress is on hold while the DB Contractor completes toll zone ancillary work and the utility provider installs electrical service to the new locations. When the electrical service is installed, the SI will make final connections and install the toll signs in Section 1B.

## **Construction Quality Status**

TxDOT and the DB Contractor work together with the QA/QC Independent Quality Firm (IQF) and the Owner's Verification Firm (OV) to ensure that all materials pass a strict inspection and testing program. The DB Contractor is responsible for the QA/QC for all material placed within in the Project limits. The IQF firm conducts official inspections and materials sampling and testing, and is responsible for the official acceptance of all materials. To ensure accurate reporting, TxDOT hired a separate, OV testing firm that conducts random inspections and testing of material on behalf of TxDOT. The IQF firm for the DB Contractor is Raba Kistner, a company with significant work experience in Texas. The OV firm hired by TxDOT for the Project is SAM-Construction Services LLC. SAM-CS is a Texas-based company with an experienced inspection and testing staff.

During Q4 FY 2020, IQF conducted 2,435 inspections, and the OV firm conducted 412 inspections. During this period, the IQF team took 1,908 material samples while the OV firm made 514 material samples.

During Q4 FY 2020, five Non-Conformance Reports (NCRs) were issued for inspections or materials that did not pass all the standards for a total of 15 open NCRs. Of the 15 open NCR's, eight were closed during Q4 FY 2020 with the replacement or repair of the material. The seven remaining open NCRs as of August 31, 2020 will be addressed when all information is collected and the final strength is determined.

Finally, during Q4 FY 2020, the Project assented to 22 IQF Engineering Judgements (EJ). An EJ is an approval process for a sample that presents minor irregularities which do not fully meet the material standards. All 22 Project EJs are related to material sieve analysis for aggregate gradation. This is a common occurrence on all transportation projects and does not lead to impacts to the overall final quality.

#### Maintenance

Maintenance responsibilities are shared between TxDOT and the DB Contractor pursuant to an executed Capital Maintenance Agreement (CMA) for an initial five-year period with two optional five-year contract extensions. The initial five-year CMA period for the Project started on August 8, 2020 with the Substantial Completion and opening of Section 1A to traffic. As Section 1B and Segment 2 construction are completed, they will be added to this initial five-year maintenance period. Design-build and CMA activities will continue concurrently until the Substantial Completion of Segment 2, at which point the entire Project will be in the O&M phase.

As part of the CMA, the DB Contractor has developed procedures in their Maintenance Management Plan (MMP) to inspect and repair elements. Maintenance inspections carried out by the DB Contractor during Q4 FY 2020 include one monthly general inspection of Section 1A.

During Q4 FY 2020, there were no noncompliance events under the CMA. Any and all Section 1A deficiencies noted will be transmitted to the DB Contractor for corrective action until Final Acceptance is issued. The monthly inspection conducted in Q4 FY 2020 found no issues with the pavement or structure infrastructure that is not currently identified as a construction punch list item for the DB Contractor. The monthly inspection conducted in Q4 FY 2020 did identify an issue with a drainage outlet that was promptly added to the punch list.

#### **Public Information Status**

The DB Contractor is responsible for the daily public outreach for the Project. In this role, the DB Contractor hired a third-party public relations firm. The public information team conducts routine outreach for all lane closures, changes to existing intersecting roadway alignments, and upon request, to local organizations or governmental groups. During Q4 FY 2020, the public information team held three meetings to discuss the general construction progress. The public information team remains focused on answering calls, questions and emails from citizens and local officials as they come to the Project office.

## **Executed Change Orders**

TxDOT executed one Change Order (CO) for the Project between June 1, 2020 and August 31, 2020. Table 3 below shows the current change orders.

Change Order #20 was executed June 25, 2020 and is a scope modification in Segment 2 to account for mitigating the construction impacts on the Waters of the United States (WOTUS), new grade separations requested by Grimes County officials to improve safety at select intersections, and adding passing lanes in select locations to further improve safety. This CO increased the Segment 2 price by \$43,230,369.60. CO #20 supersedes the Directive Letter dated September 18, 2019 and adds 150 days to Segment 2 SC which extends the anticipated opening to traffic date to June 5, 2023.

Table 3: Executed and Pending Change Orders

Change Order No.	Project Segment	Description		Date Executed	Time Impact (days)	Cost Impact (\$)
1	1	Audubon Driveways	Executed	Aug. 16, 2018		\$ 724,451.72
2	1	98 Day Extension	Executed	Aug. 16, 2018	98	-
3	1	Floodway Bridges	Executed	Nov. 16, 2018	150	12,772,814.77
4	1	CCTV Pole Spacing	Executed	Sept. 19, 2018	1	(146,415.00)
5	1	Terra Utility Sleeves	Executed	Dec. 24, 2018	1	633,898.09
6	1	Montgomery Co. Future Crossing	Executed	Jan. 30, 2019	1	182,962.50
7	2	WOTUS Design	Executed	Mar. 18, 2019	90	1,212,612.98
8	2	SH 105 ROW Designation	Executed	June 2, 2019	1	146,025.00
9	2	Bridge Aesthetic Revisions	Executed	June 10, 2019	1	(33,409.00)
10	1	Additional Tolling Fiber	Executed	June 19, 2019	-	199,001.07
11	1	Traffic Signals @ FM 149 & FM 1486 (design only)	Executed	June 27, 2019	1	140,070.00
12	1	Acceptance of Non-Conforming Work CSBE	Executed	June 29, 2019	1	(64,039.11)
13	1	Audubon Ramp Relocation & Driveways	Executed	August 9, 2019	1	1,115,296.47
14	1	Traffic Signals @ FM 149 & FM 1486 (construction only)	Executed	August 21 2019	1	701,260.69
N/A	1 & 2	Key Personnel Change Executed Sept. 3, 2019		1	(100,000.00)	
15	2	Segment 2 Price Adjustment	Executed	Dec. 11, 2019	ı	9,063,740.00
16	1	MASH Compliance	Executed	Dec. 16, 2019	1	77,352.19
17	2	SH 105 Turnaround	Executed	Dec. 20, 2019	1	406,681.63
18	1	Intersection Improvements	Executed	Mar. 3, 2020	1	1,355,823.44
19	1	FM 1774 Bridge at Todd Mission Executed		May 7, 2020	1	14,388,024.11
20	2	WOTUS Construction/Grade Separations/Passing Lanes	Executed	June 25, 2020	150	43,230,369.60
Subtotal for Executed Change Orders						\$ 86,006,521.15
		N/A				
		ing Change Orders	0	\$ -		
		338	\$ 86,006,521.15			

## **Pending Change Orders**

Given the current status of the Project, BGE, Inc anticipates potential change orders for only minor work additions with no impacts to the opening of the remainder of the System (Section 1B) to the public by March 15, 2021.

In Segment 1, no change orders are in review. BGE anticipates a closeout change order for Section 1A that aggregates the ITS compatibility, an additional driveway, additional ground box security, additional toll signage, additional Utility Access Driveway/Culverts, and a reconciliation for the landscaping allowance.

In Segment 2, there are no change orders in review and no anticipated change orders.

### **System Cost Status**

Table 4 provides the most accurate cost information that is currently available for the System and reflects the construction and financing costs of Segment 1 for the current period.

Table 4: Segment 1 Actuals

	System Budget			Actuals			Forecast	Estimate at	
Element	Original Budget	Adjustments	Adjusted Total	Spent thru May 2020	Spent this Quarter	Spent thru August 2020	Estimate to Complete	Completion (Actuals and Forecast) <sup>5</sup>	
Segment 1 (\$ millions)									
Design-Construction (DBA) <sup>1</sup>	\$ 359.76	\$ 13.03	\$ 372.79	\$ 321.48	\$ 20.84	\$ 342.32	\$ 30.47	\$ 372.79	
Locally funded CO <sup>2</sup>	2.88	3.45	6.33	-	-	-	6.33	6.33	
Contingency (DBA) <sup>3</sup>	21.36	-	21.36	13.36	-	13.36	8.00	21.36	
Toll Integrator	11.00	2.00	13.00	6.87	-	6.87	6.13	13.00	
ROW	81.00	-	81.00	40.16	-	40.16	40.84	81.00	
Environmental Mitigation	16.00	-	16.00	-	-	-	16.00	16.00	
Contingency (ROW)	8.10	-	8.10	-	-	-	8.10	8.10	
Construction Subtotal (\$ millions)	\$ 500.10	\$ 18.48	\$ 518.58	\$ 381.87	\$ 20.84	\$ 402.71	\$ 115.87	\$ 518.58	
Financing Costs									
Capitalized Interest	\$ 29.99	\$ -	\$ 29.99	\$ 7.26	\$ 3.90	\$ 11.16	\$ 18.83	\$ 29.99	
Cost of Issuance <sup>4</sup>	1.59	(0.01)	1.58	1.58	-	1.58	-	1.58	
Debt Service Reserve Funds	24.93	-	24.93	24.93	-	24.93	-	24.93	
Rate Stabilization Fund	10.00	-	10.00	10.00	-	10.00	-	10.00	
Subtotal Financing Costs	\$ 66.51	\$ (0.01)	\$ 66.50	\$ 43.77	\$ 3.90	\$ 47.67	\$ 18.83	\$ 66.50	
Total System & Financing Costs	\$ 566.61	\$ 18.47	\$ 585.08	\$ 425.64	\$ 24.74	\$ 450.38	\$ 134.70	\$ 585.08	

<sup>&</sup>lt;sup>1</sup> Includes CO 1-6, 10-14, 16, 18 & 19 which apply to the System

Locally funded CO increased as local funding became available for CO. As local funding was added, the total State funding decreased. Additionally, TxDOT adjusted the Locally funded CO adjustment down by \$0.1M to account for the change in Key Staff.

 $<sup>^3</sup>$  A portion of the Contingency may be used to cover a portion of the CO costs.

 $<sup>^4</sup>$  Cost of Issuance Expense included transactions funded by Bond Proceeds only.

 $<sup>^{5}</sup>$  The DB Contractor payment is the sum of the DBA & locally funded CO which totals \$379.12M.

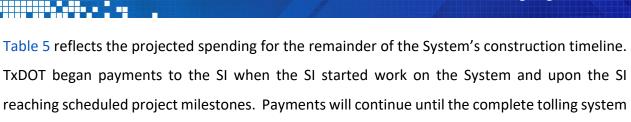


Table 5: Segment 1 Forecasts

for the System is finished and in operation.

Element		FY 2021				Total	
		month	61	month <sup>4</sup>		timate to	
Design Build Agreement Cost <sup>1</sup>		24.53		12.27	\$	36.80	
ROW Costs		27.23		13.61		40.84	
Toll Equipment & Integration <sup>2</sup>		4.09		2.04		6.13	
Environmental Mitigation		10.67		5.33		16.00	
S <b>y</b> stem Contingencies		10.73		5.37		16.10	
Subtotal System Costs	\$	77.25	\$	38.62	\$	115.87	
Financing Costs							
Capitalized Interest <sup>3</sup>	\$	3.90	\$	3.90	\$	18.83	
Cost of Issuance		0.00		0.00		0.00	
Subtotal Financing Costs	\$	3.90	\$	3.90	\$	18.83	
Total System & Financing Costs	\$	81.15	\$	42.52	\$	134.70	
<sup>1</sup> The DBA Costs are the sum of Table 4 DBA and Locally funded CO							
<sup>2</sup> The Tolling System cost for O&M are not shown in this table							
<sup>3</sup> Total Estimate to Complete includes \$11.04M for projections relating to FY 2022 and after.							
<sup>4</sup> The Segment 1 forecast is projected to end Q3 FY 2021							

Table 6 reflects the actual draws through the end of August 31, 2020 and the projected draws through the end of the Project. Please note that as pending or future Change Orders are executed, the total Project cost and the estimated Construction Draw may change to reflect the new scope of work.

Table 6: Segment 1 DBA Construction Draws

Peri (MM-DI		Forecast to Complete (\$ millions)		Actuals (\$ millions)		
Begin	End	Period Cumulative		Period	Cumulative	
NTP1	February 28, 2018			71.08	71.08	
March 1, 2018	August 31, 2018			59.86	130.94	
September 1, 2018	February 28, 2019			52.99	183.94	
March 1, 2019	August 31, 2019			62.16	246.09	
September 1, 2019	February 29, 2020			44.27	290.36	
March 1, 2020	August 31, 2020			51.96	342.32	
September 1, 2020	February 28, 2021	24.53	24.53			
March 1, 2021	July 13, 2021	12.26	36.79			
Total		\$36	5.79	\$342.32		
10	Lai	\$379.12				

## **GEC Findings**

BGE, Inc, reviewed the System's overall design and construction progress and finds that the Project is currently on track to finish within the projected schedule and budget. BGE, Inc. concludes that the DB Contractor should have no issues with the delivery of the Project. It appears that TxDOT should plan to open the remainder of the System (Section 1B) to traffic by March 15, 2021, pending potential construction delays due to adverse weather or other factors.

## **Appendix A: Photographs of Current Construction**

Picture #1: Section 1A Northbound SH249 at Mainlane Gantry



Picture #2: Section 1B Material Stockpile Area north of FM 1488



Picture #3: Section 1B Embankment Work



Picture #4: Section 1B Ramp Gantries







Picture #6: Section 1B Pavement Reinforcement Installation



Picture #7: Section 1B Bridge 1B15 and 1B16 Installation



Picture #8: Section 1B Embankment Work and Bond Breaker Installation





Picture #9: Section 1B Mainlane Gantries



Picture #10: Section 1B Bridge 1B17 and 1B18 Installation

