



8140 Walnut Hill Lane, Suite 1000
Dallas, TX 75231
tel: 214 346-2800
fax: 214 987-2017

October 26, 2016

Board of Directors
Fort Bend County Toll Road Authority
c/o Mr. Richard W. Stolleis, P.E.
301 Jackson St.
Richmond, TX 77469

**Re: Fort Bend Parkway Toll Road Proposed Extension (Segments B-2 and C-1) from
Sienna Parkway to FM 2759 (Sketch Level) T&R Study 2016**

Dear Mr. Stolleis:

CDM Smith is pleased to submit this letter report on the proposed Fort Bend Parkway (FBP) extension sketch level traffic and toll revenue (T&R) study. The proposed FBP extension begins at the current terminus of the FBP at Sienna Parkway and extends to Sienna Ranch Road (Segment B-2). It would also extend further west from Sienna Ranch Road across the Brazos River to a connection with FM 2759 (Segment C-1). This sketch level T&R study focused on developing 30-year T&R forecasts for the proposed FBP extension.

This study utilized the available regional travel demand models from the recent FBCTRA Systemwide Comprehensive (Level 3) T&R study, completed in October 2015, and reflects the recent regional transportation plans and socioeconomic datasets developed for the Houston region. The analysis from this study provides an estimate of the revenue potential from the proposed FBP extension and the revenue impact on the existing facility, but is not suitable to support project financing.

BACKGROUND INFORMATION

PROJECT DESCRIPTION

Figure 1 shows the location of the existing FBP Toll Road and the proposed FBP extension.

The FBP Toll Road connects Sienna Parkway on its south end to US 90A or South Main Street at its north end. FBCTRA operates the 6.2-mile section of toll road in Fort Bend County from Sienna Parkway to Sam Houston Tollway/Beltway 8. HCTRA operates the section of the toll road in Harris County from Beltway 8 to US 90A.

The proposed FBP extension is assumed to begin at the current terminus of the FBP at Sienna Parkway extending to Sienna Ranch Road (Segment B-2), and also extending further west from Sienna Ranch Road across the Brazos River to a connection with FM 2759 (Segment C-1). The proposed FBP extension covers a distance of approximately 3.2 miles.

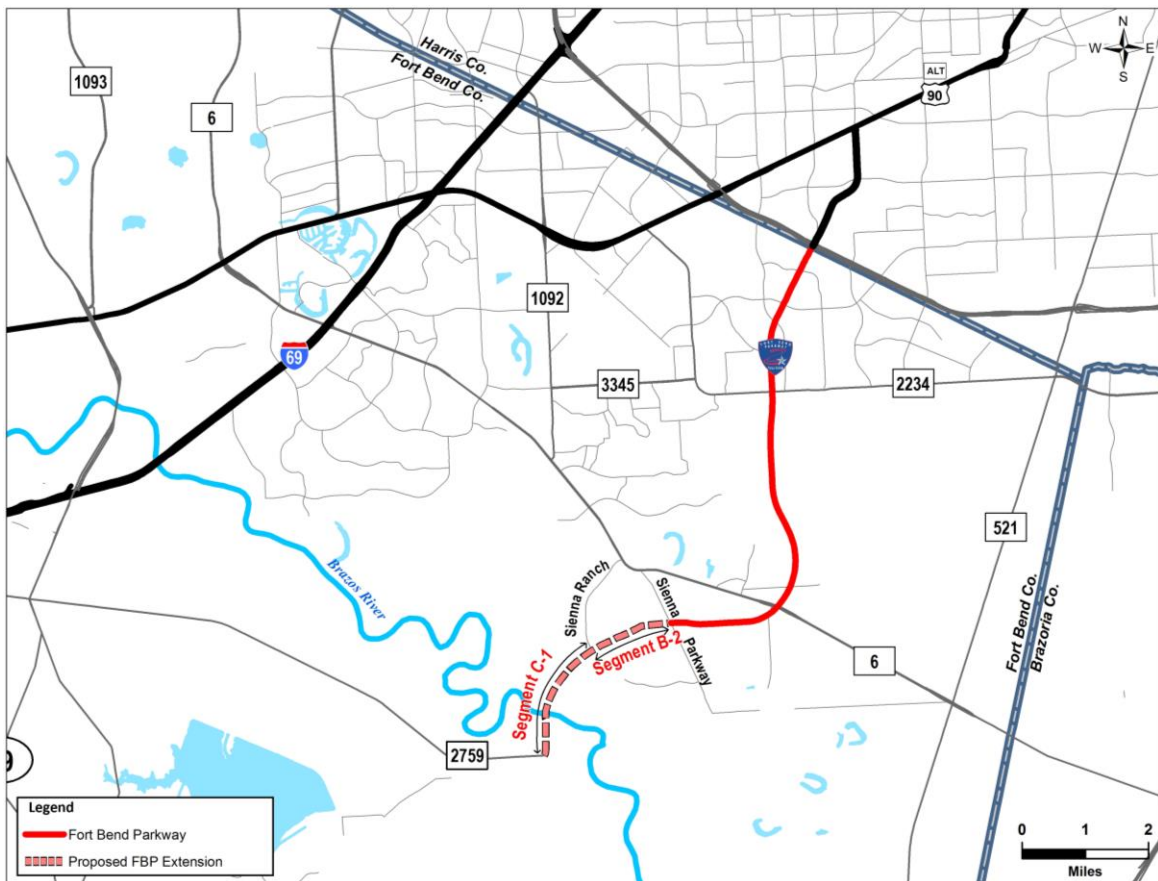


FIGURE 1: PROJECT LOCATION

PROJECT CONFIGURATION

Existing Fort Bend Parkway Toll Road

The FBP is a north-south four lane facility, with interchanges at SH 6, Lake Olympia Parkway, FM 2234/McHard Road, Fondren Road, Sam Houston Tollway/Beltway 8 and US 90A. There are four mainlane toll gantries on the Fort Bend Parkway Toll Road: near Sienna Parkway, Lake Olympia Parkway, McHard Road and Fondren Road. Two axle vehicles are charged \$0.40 at the Sienna Parkway, Lake Olympia and McHard Toll Gantries. At the Fondren Toll Gantry, two axle vehicles are charged \$0.60.



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Proposed Fort Bend Parkway Extension

CDM Smith reviewed all pertinent roadway schematics and plans showing the interchange locations, proposed access points and intersections along the proposed extension provided by FBCTRA and Mike Stone Associates.

Two distinct project scenarios were analyzed:

1. Segment B-2 of the extension from Sienna Parkway to Sienna Ranch Road is assumed to be tolled. Additionally, Segment C-1, from Sienna Ranch Road to FM 2759, including the river crossing, is assumed to be constructed as a tolled facility.
2. Segment B-2 of the extension from Sienna Parkway to Sienna Ranch Road is assumed to be tolled, while Segment C-1 from Sienna Ranch Road to FM 2759, including the Brazos river crossing, is assumed to be non-tolled.

Figure 2 illustrates the location of the existing toll gantries and the 2016 toll rates along existing FBP for Scenario 1. In addition to the toll gantries along the existing FBP, Figure 2 illustrates the location of the two mainlane toll gantries along the proposed FBP extension and the associated toll rates at each location.

Figure 3 illustrates the location of the existing and proposed toll gantries and the associated 2016 toll rates for FBP and the proposed FBP extension for Scenario 2.

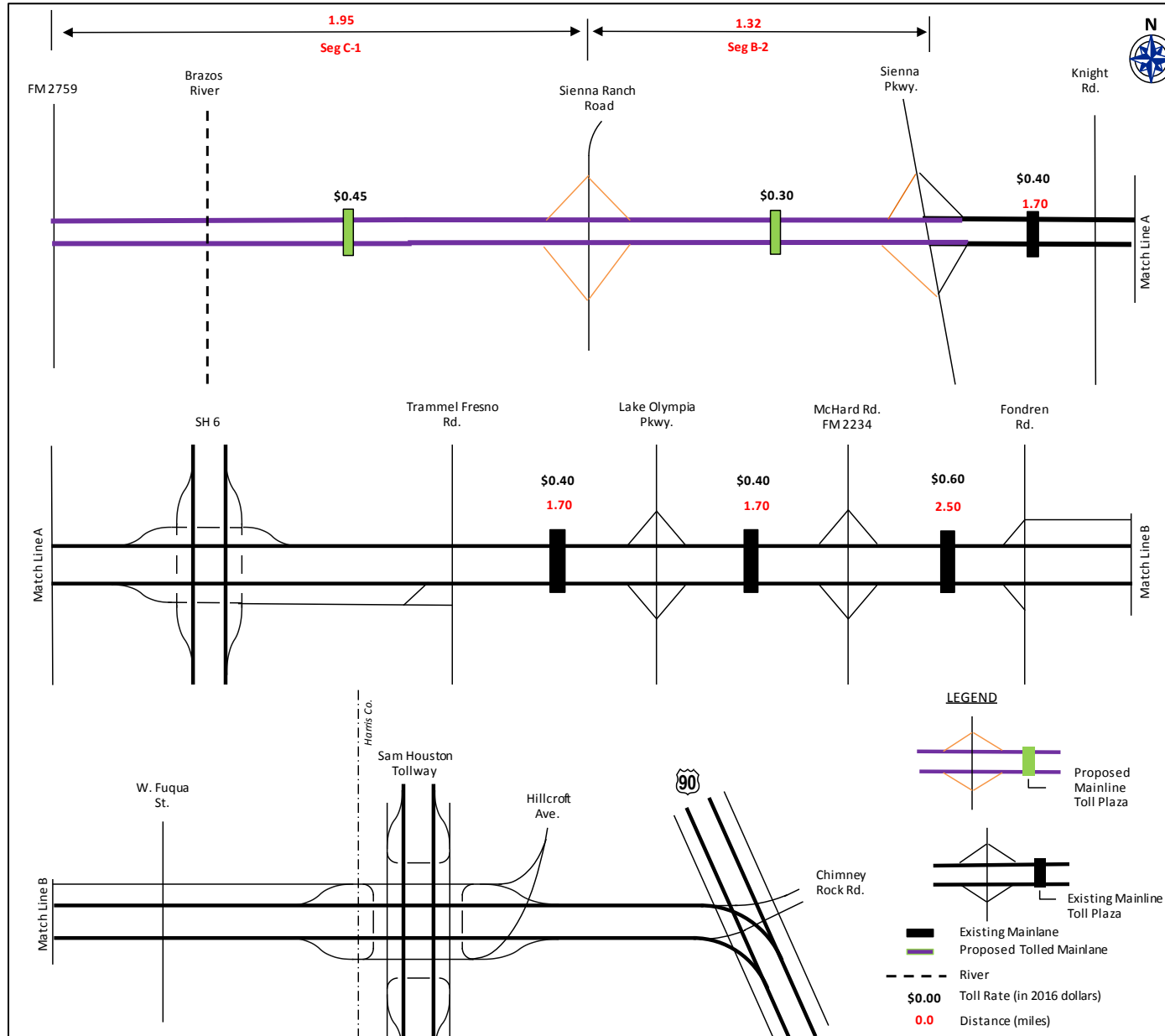


FIGURE 2: SCENARIO 1 TOLL CONFIGURATION

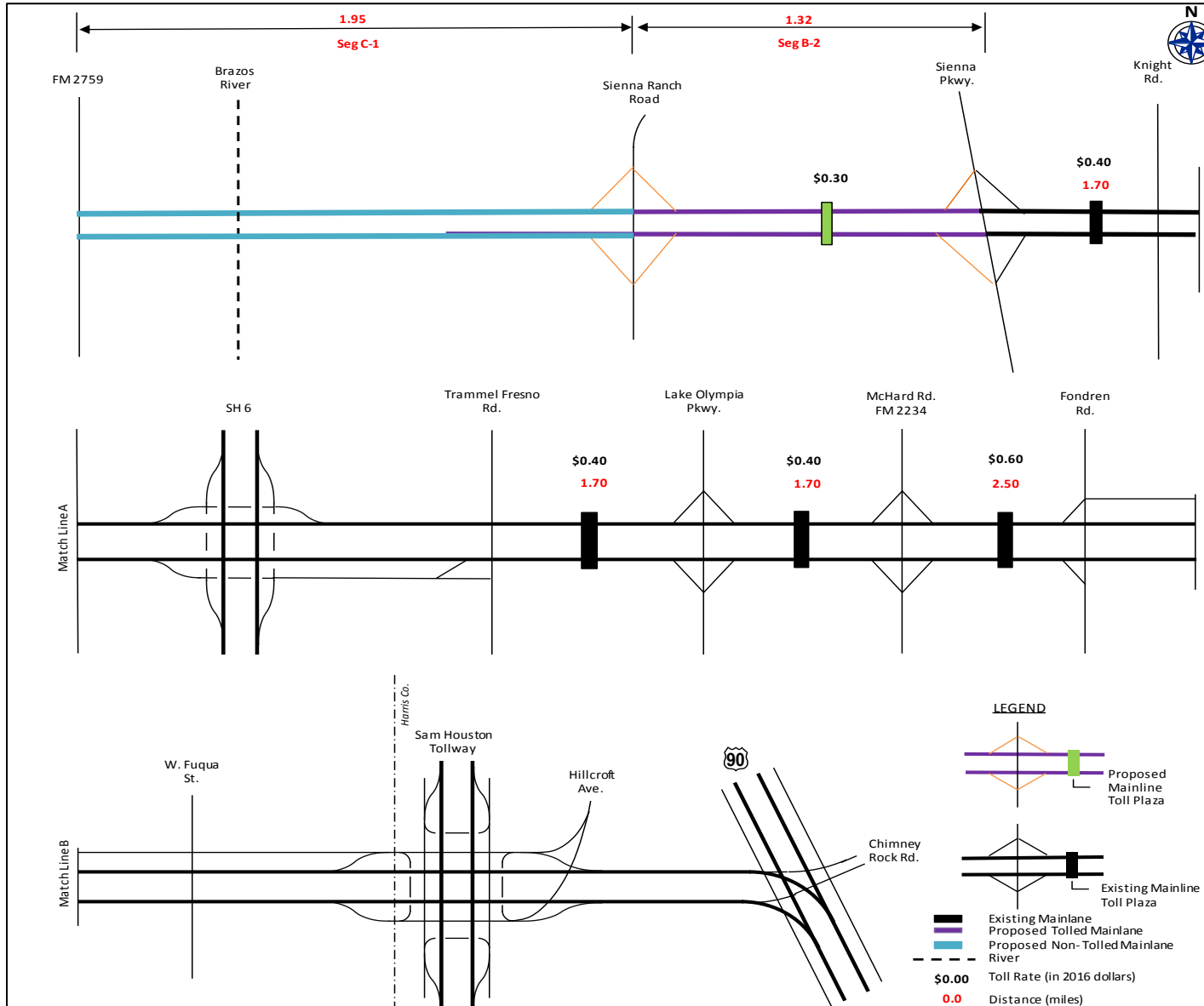


FIGURE 3: SCENARIO 2 TOLL CONFIGURATION

DATA COLLECTION

CDM Smith embarked on a comprehensive traffic count program in the vicinity of the proposed FBP extension to assist with the base year calibration of the Houston-Galveston Area Council (H-GAC) travel demand model in the study area. This included a traffic count program along a series of screenlines. The locations of the traffic count screenlines are shown in Figure 4. To collect the traffic counts, CDM Smith engaged the services of GRAM Traffic. All the counts on the toll roads and on screenlines were conducted for a continuous 48-hour period on interior weekdays only (Tuesday, Wednesday and Thursday). The data from the traffic count program were then used to calibrate the travel demand model. A complete listing of all the count locations is shown in Table 1.

The counts were collected along these screenlines with additional counts taken on other facilities west of the Brazos River including FM 2759 and FM 762 (depicted by green dots in Figure 4).

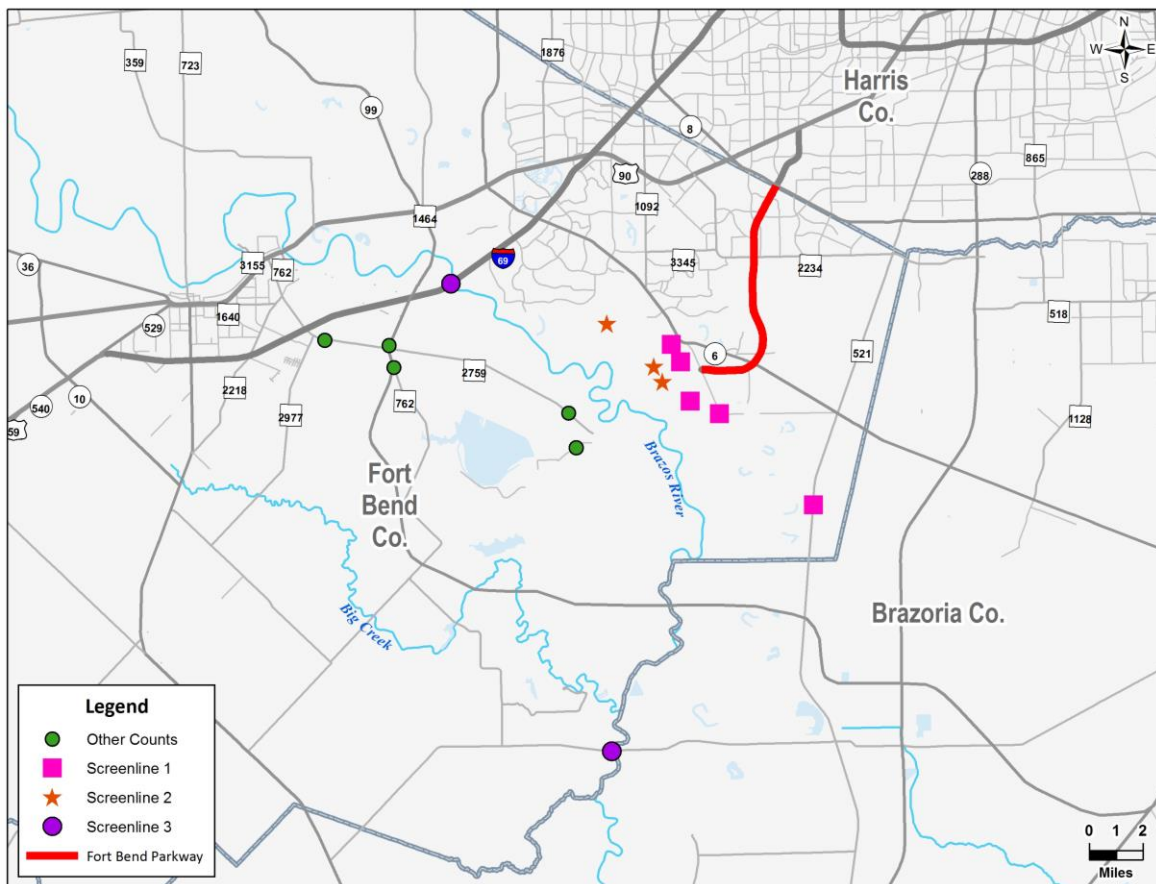


FIGURE 4: TRAFFIC COUNT LOCATIONS



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In addition to the traffic counts, average weekday transaction data were obtained from FBCTRA for all of the existing mainlane toll gantries along FBP.

TABLE 1: AVERAGE WEEKDAY TRAFFIC COUNTS

Screenline	Location	Weekday Traffic Count
1	Sienna Ranch Rd - N	16,086
	Sienna Springs Dr - E	8,153
	Sienna Ranch Rd - S	7,565
	Sienna Parkway	32,944
	FM 521	9,383
2	Sienna Springs Dr - W	10,576
	Sienna Ranch Rd - Mid	12,788
	S University Blvd	20,126
3	FM 1462 Bridge	4,785
	I-69 Mainlanes	143,958
	I-69 Frontage Roads	22,544
Other Counts	FM 2759	1,286
	Smithers Lake	698
	FM 762	17,004
	Crabb River Rd	23,985

SOCIOECONOMIC DATA

Figures 5 and 6 illustrates the population change between 2020 and 2030, and between 2030 and 2040 in the immediate vicinity of the proposed FBP extension. Between 2020 and 2040, most of the zones have relatively modest growth. Many of the areas close to the Brazos River and south of FM 2759 are not suitable for development because they are in the flood plain and near oil wells.

Figures 7 and 8 depict the employment change between 2020 and 2030, and between 2030 and 2040 in the study area. West of the Brazos River, most of the zones show limited employment growth for the forecast period.

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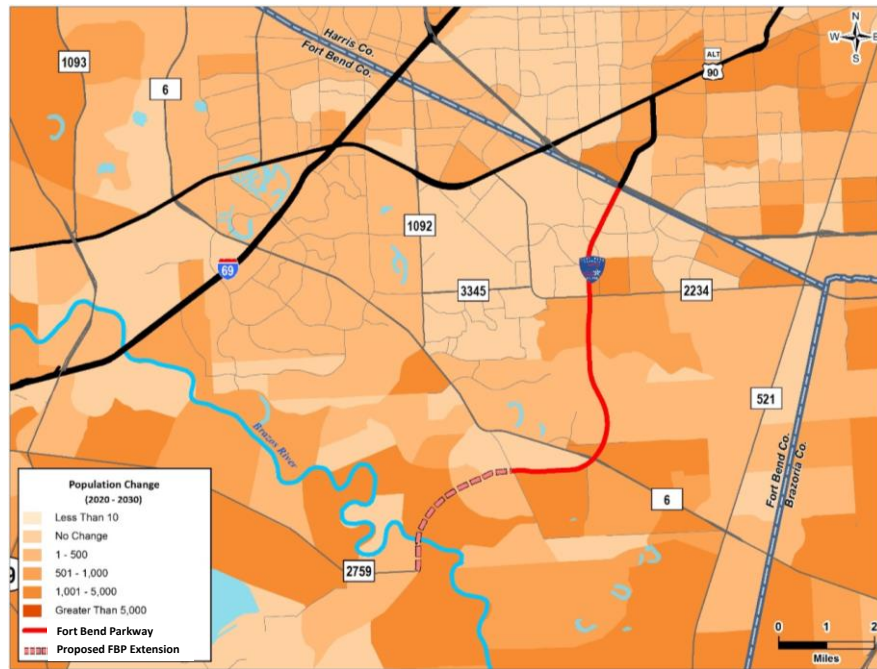


FIGURE 5: POPULATION CHANGE - 2020 TO 2030

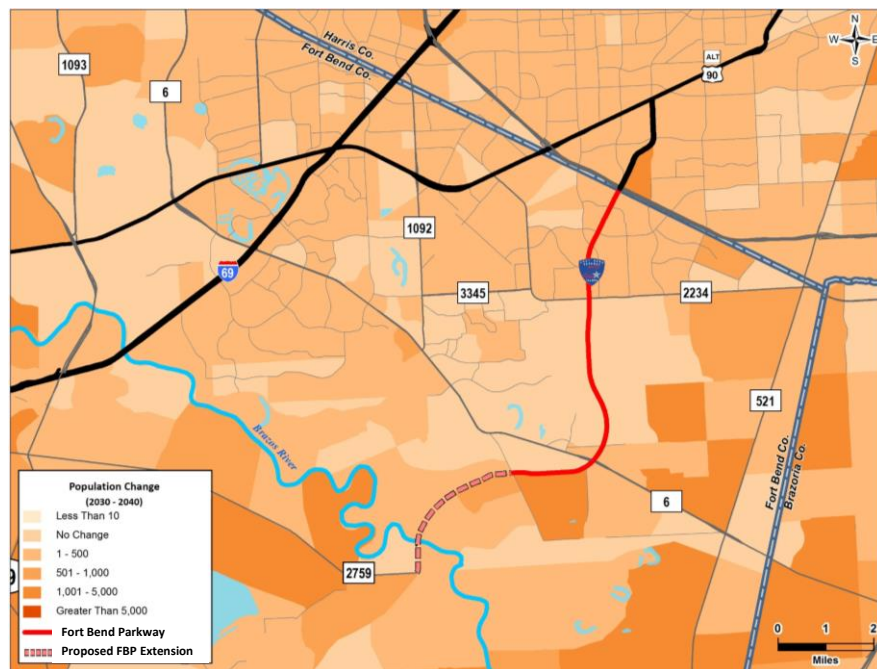


FIGURE 6: POPULATION CHANGE - 2030 TO 2040

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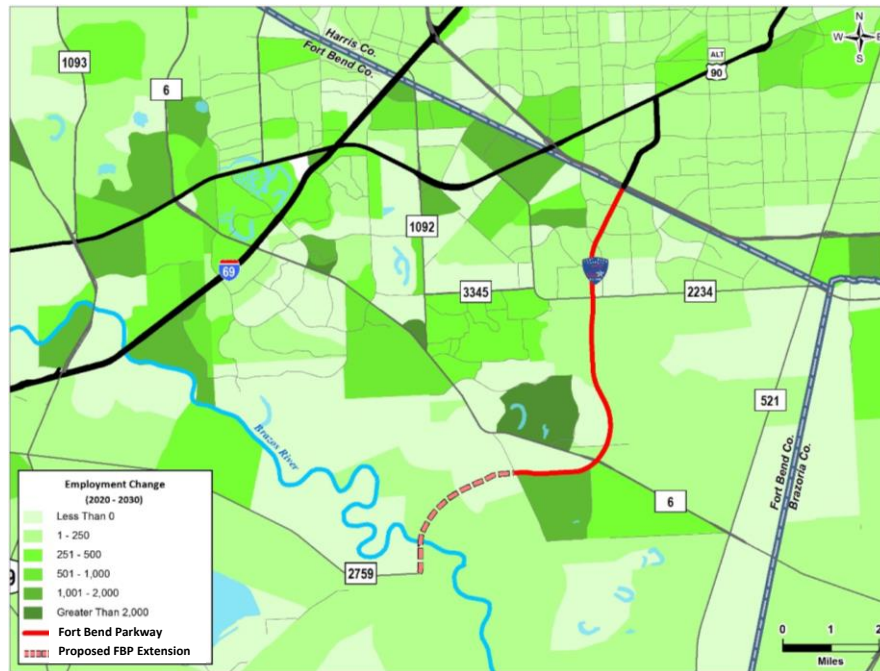


FIGURE 7: EMPLOYMENT CHANGE - 2020 TO 2030

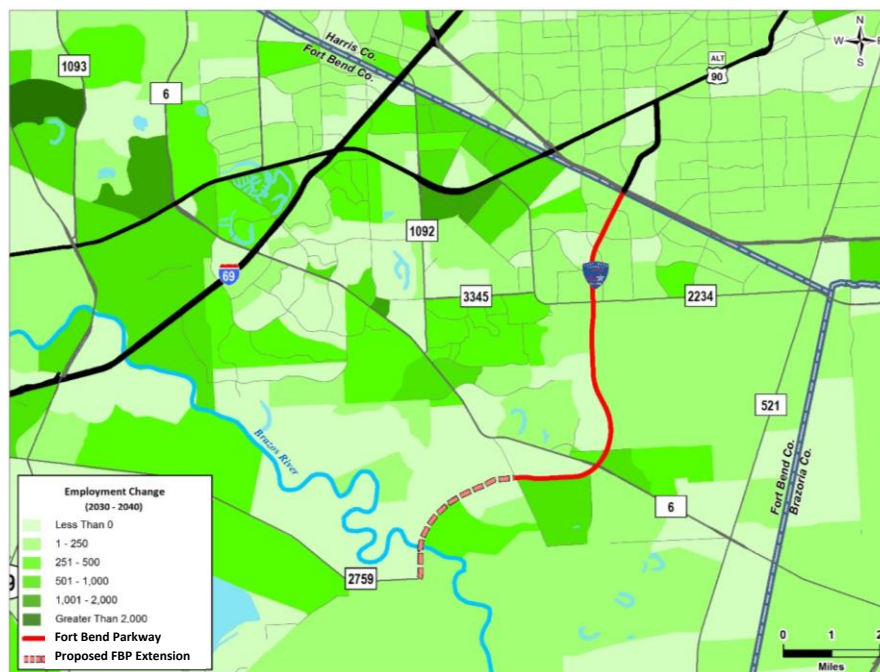


FIGURE 8: EMPLOYMENT CHANGE - 2030 TO 2040

MODEL REFINEMENT AND CALIBRATION

For this sketch-level T&R study, CDM Smith utilized the travel demand model networks and trip tables obtained from the H-GAC as part of the recent 2015 FBCTRA Comprehensive Systemwide T&R Study. For the purposes of the study, the H-GAC model was converted to CDM Smith's standard toll diversion modeling framework.

Using the collected traffic and transaction data, the base year models were refined to better reflect existing conditions in the FBP extension study area. This includes the adjustment of speeds, number of lanes and other network attributes to ensure that the base year roadway network represents existing conditions accurately. The resulting base year model is well-calibrated and matches the collected traffic counts and actual transactions on the existing portions of FBP accurately.

In addition to base year calibration, the future year networks were updated to reflect the background projects from the Regional Transportation Plan (RTP) 2040 as well as other major thoroughfare improvement projects planned in the immediate vicinity of the FBP extension.

TRAFFIC AND TOLL REVENUE ESTIMATES

The T&R generated by a toll facility is dependent on a variety of factors including travel time savings, drivers' values of time and future socioeconomic development near the corridor. These factors are used in a travel demand model to estimate future traffic.

This section presents the results of the model developed and the detailed T&R analysis, including the baseline T&R estimates for the two facilities. This section also includes the assumptions upon which the T&R estimates are based. The base year models were refined to match existing conditions (traffic data and speeds) in the immediate vicinity of FBP and the proposed extension.

The resulting refinements to base year model networks were applied to the future year models, and the future year model outputs were used to generate the T&R forecasts. Additionally, some post-model adjustments were applied to account for differences between model output and observed count and transaction data for the existing FBP gantries.

TRAFFIC AND TOLL REVENUE ASSUMPTIONS

The T&R estimates for FBCTRA System facilities are predicated on the several assumptions, which are consistent with observed trends and are considered reasonable for the purposes of this study. These assumptions were approved and confirmed by FBCTRA on May 12, 2016.

- Opening dates:
 - FBP extension opening year is assumed to be 2020
- Revenue leakage is assumed at 12 percent. The leakage percentage reflects veteran's discounts, non-revenue vehicles, at-lane violations, and any other uncollectible revenue. Revenue estimates have not been adjusted to reflect any estimates of leakage due to additional revenue recovery through violation enforcement, non-tag toll administrative fees, fines and other administrative fees that might be recovered over time.



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- Tolls charged to users are rounded to the nearest nickel
- Tolls for vehicles with more than two axles are calculated based on “N-1” weighting rule, where “N” is the number of axles. For example, the toll paid by a five-axle vehicle would be four times the toll paid by a two-axle vehicle.
- Revenue days are assumed as 290 days
- Truck traffic is 3 percent for all years for the new gantries
- Traffic growth between 2040 and 2045 was assumed to be 2.0 percent per year, between 2045 and 2050 assumed at 1.5 percent per year per the Assumptions
- Ramp up is 65 percent in 2020, 85 percent in 2021, 95 percent in 2022, and 100 percent in 2023 and all subsequent years
- Tolls were based on a total project length of approximately 3.2 miles (for scenario 1) and 1.32 miles (for scenario 2)
- Toll rates are assumed to be inflated by 2.0 percent each year starting from year 2015
- Transportation network assumptions are based on H-GAC 2040 Regional Transportation Plan
- The socioeconomic data and trip tables used for this study were consistent with the 2015 FBCTRA Systemwide Comprehensive T&R study
- No additional induced traffic demand was assumed related to the Fort Bend Parkway Extension as part of the analysis presented in this report

AVERAGE WEEKDAY TRANSACTIONS

An equilibrium diversion technique was used to carry out traffic assignment runs for the four periods: AM peak, PM peak, mid-day and over-night. Traffic volumes were estimated by using the revised demographic trip tables, which were adjusted based on the base year model validation process.

Travel demand model runs were conducted for years 2020 and 2040. All other years were interpolated or extrapolated between or beyond the modeled years to obtain the yearly T&R estimates. The traffic assignment results at each of the analysis years were reviewed for reasonableness and post-model adjustments were made as necessary. This included adjustments to reflect model results after post-model calibration adjustments.

Table 2 shows the estimated average weekday transactions in 2020 (before ramp-up) and 2040 for the various gantries on the existing Fort Bend Parkway and the proposed Fort Bend Parkway Extension for the No Build scenario (assuming only existing gantries and no Fort Bend Parkway Extension) and Scenarios 1 and 2.

TABLE 2: ESTIMATED WEEKDAY TRANSACTIONS ON PROPOSED FORT BEND PARKWAY EXTENSION (2020 AND 2040)

Location	Average Weekday Tolled Traffic					
	No Build		Scenario 1 ⁽¹⁾		Scenario 2 ⁽²⁾	
	2020	2040	2020	2040	2020	2040
Fondren Lane Mainlane plaza	32,900	58,500	36,800	66,500	36,800	66,500
McHard Road Mainlane plaza	33,900	65,500	38,000	74,200	38,000	74,200
Lake Olympia Parkway Mainlane plaza	24,700	48,400	28,800	58,500	28,800	58,500
Mainlane plaza east of Sienna Parkway	7,300	14,200	11,600	24,800	11,600	24,800
Fort Bend Extension between Sienna Parkway and Sienna Ranch Road	-	-	4,800	13,500	5,500	15,800
Fort Bend Extension between Sienna Ranch Road and FM 2759	-	-	5,800	21,800	-	-
⁽¹⁾ Assumes a tolled extension of Fort Bend Parkway from Sienna Parkway to FM 2759						
⁽²⁾ Assumes a tolled extension of Fort Bend Parkway from Sienna Parkway to Sienna Ranch, and a toll-free extension from Sienna Ranch to FM 2759.						

As Table 2 indicates, the travel model runs for Scenarios 1 and 2 shows that the travel patterns and the routing of motorists shift between the two scenarios and affect the way people access the FBP Extension. In addition to the gantries on the proposed FBP extension, Table 2 also depicts the estimated traffic volumes at the existing FBP gantries for the No Build (assuming the FBP extension is not built) and Scenarios 1 and 2 in 2020 and 2040.

In Scenario 1, with the entire extension from FM 2759 to Sienna Parkway being tolled, some traffic gets diverted to the I-69 corridor. There is also increase of average weekday tolled traffic at the toll gantries on existing FBP. The additional traffic in 2020 compared to the No Build scenario represented an increase in average weekday traffic ranging from about 3,900 vehicles at the Fondren Lane mainlane gantry (representing a 12 percent increase compared to the No Build) to about 4,100 vehicles at the Lake Olympia Parkway gantry (a 17 percent increase compared to the No Build).

For Scenario 2, the initial model results suggested that motorists would use the section between FM 2759 and the Sienna Ranch Road interchange with a portion of the traffic diverting to Sienna Ranch to avoid the tolled section between Sienna Ranch Road and Sienna Parkway. Since it is unlikely that Sienna Ranch will actually serve as a major diversion route for this traffic, a post-modeling adjustment was made to reflect that a higher percentage of traffic would continue on to the tolled section north of Sienna Ranch Road. Similar to Scenario 1, the traffic on existing FBP gantries increased in 2020 and 2040 for Scenario 2 compared to the No Build traffic at these locations.



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ANNUAL TRAFFIC AND TOLL REVENUE ESTIMATES

Based on the traffic forecast at each toll plaza location, annual forecasts for the FBP corridor including the existing FBP Toll Road and the proposed extension were prepared from 2020 through 2050 for scenarios 1 and 2. For each scenario, forecasts for each of the facilities are based on modeled traffic estimates at each toll collection location, through the year 2040. These modeled estimates were refined using post-model adjustments, reflecting validation factors used to match observed 2016 traffic data at each toll gantry location. Estimates beyond year 2040 are based on nominal assumptions regarding future traffic growth as shown previously in the Assumptions section of this letter report, with assumed toll rate increases as noted.

The annual T&R estimates reflect a “ramp-up” period because the traffic will not be at full potential because of unfamiliarity by travelers. This ramp-up period is assumed to last for three years from the opening date. The ramp-up factor for FBP Extension is assumed to be 65% in 2020, 85% in 2021, 95% in 2022 and 100% in 2023 and beyond.

As shown in Table 3, for both Scenario 1 and Scenario 2, the estimated annual revenue on existing FBP is expected to increase from \$14 million in 2020 to \$28.2 million by 2030 and to \$46.3 million by 2040. The annual revenue for the FBP extension for Scenario 1 is expected to increase from less than \$1 million in 2020 to \$3.5 million by 2030, reaching \$7.8 million by 2040.

For scenario 2, the estimated annual revenue for the FBP extension is expected to increase from less than \$0.4 million in 2020 to \$1.3 million by 2030, reaching \$2.7 million by 2040.

During the forecast period from 2020 to 2050, the growth in transactions is driven by the growth in the demographics along the existing FBP and proposed extension corridors. Revenue growth includes traffic growth and toll rate increases based on the current toll rate policy.

Total annual revenue growth rates for Scenario 1 and 2 for the entire FBP (including extension) are estimated to be 6.6 percent and 6.3 percent respectively.



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**TABLE 3: ANNUAL TRANSACTIONS AND REVENUE ESTIMATES FOR EXISTING FORT BEND PARKWAY AND THE PROPOSED FORT BEND PARKWAY EXTENSION
(IN THOUSANDS)**

Year	Existing Fort Bend Parkway – No Build Extension		Existing Fort Bend Parkway – Scenario 1		Fort Bend Parkway Extension – Scenario 1		Existing Fort Bend Parkway – Scenario 2		Fort Bend Parkway Extension – Scenario 2	
	Transactions	Revenue	Transactions	Revenue	Transactions	Revenue	Transactions	Revenue	Transactions	Revenue
2020	28,680	\$12,472	32,191	\$13,999	1,988	\$997	32,191	\$13,999	1,043	\$422
2021	29,976	\$13,409	34,434	\$15,402	2,761	\$1,414	34,434	\$15,402	1,438	\$592
2022	31,330	\$14,415	36,423	\$16,758	3,278	\$1,714	36,423	\$16,758	1,694	\$710
2023	32,745	\$15,497	38,317	\$18,134	3,666	\$1,957	38,317	\$18,134	1,879	\$803
2024	34,225	\$16,659	40,088	\$19,513	3,894	\$2,122	40,088	\$19,513	1,980	\$862
2025	35,443	\$17,711	41,599	\$20,787	4,137	\$2,302	41,599	\$20,787	2,087	\$925
2026	36,828	\$18,790	43,296	\$22,090	4,395	\$2,497	43,296	\$22,090	2,199	\$993
2027	38,266	\$19,933	45,064	\$23,474	4,669	\$2,708	45,064	\$23,474	2,318	\$1,066
2028	39,760	\$21,146	46,905	\$24,946	4,960	\$2,938	46,905	\$24,946	2,442	\$1,145
2029	41,313	\$22,432	48,822	\$26,509	5,269	\$3,186	48,822	\$26,509	2,574	\$1,229
2030	42,926	\$23,796	50,818	\$28,171	5,597	\$3,456	50,818	\$28,171	2,713	\$1,319
2031	44,056	\$24,992	52,329	\$29,685	5,946	\$3,749	52,329	\$29,685	2,859	\$1,416
2032	45,216	\$26,249	53,889	\$31,284	6,316	\$4,066	53,889	\$31,284	3,013	\$1,520
2033	46,406	\$27,568	55,500	\$32,970	6,710	\$4,410	55,500	\$32,970	3,175	\$1,632
2034	47,627	\$28,953	57,164	\$34,751	7,128	\$4,784	57,164	\$34,751	3,346	\$1,752
2035	48,165	\$30,008	58,139	\$36,222	7,572	\$5,189	58,139	\$36,222	3,526	\$1,881
2036	49,292	\$31,382	59,748	\$38,039	8,044	\$5,628	59,748	\$38,039	3,716	\$2,019
2037	50,446	\$32,819	61,410	\$39,951	8,545	\$6,104	61,410	\$39,951	3,916	\$2,167
2038	51,627	\$34,320	63,124	\$41,964	9,077	\$6,621	63,124	\$41,964	4,127	\$2,327
2039	52,835	\$35,891	64,894	\$44,083	9,643	\$7,182	64,894	\$44,083	4,349	\$2,498
2040	54,072	\$37,533	66,721	\$46,313	10,244	\$7,790	66,721	\$46,313	4,584	\$2,681
2041	55,153	\$39,049	68,056	\$48,184	10,449	\$8,101	68,056	\$48,184	4,675	\$2,789
2042	56,256	\$40,627	69,416	\$50,131	10,658	\$8,425	69,416	\$50,131	4,769	\$2,900
2043	57,381	\$42,268	70,804	\$52,156	10,871	\$8,762	70,804	\$52,156	4,864	\$3,016
2044	58,529	\$43,975	72,221	\$54,263	11,088	\$9,113	72,221	\$54,263	4,962	\$3,137
2045	59,407	\$45,528	73,361	\$56,222	11,310	\$9,477	73,361	\$56,222	5,061	\$3,262
2046	60,298	\$47,135	74,461	\$58,206	11,480	\$9,809	74,461	\$58,206	5,137	\$3,377
2047	61,203	\$48,799	75,579	\$60,261	11,652	\$10,153	75,579	\$60,261	5,214	\$3,495
2048	62,120	\$50,521	76,711	\$62,388	11,827	\$10,508	76,711	\$62,388	5,292	\$3,617
2049	63,053	\$52,304	77,863	\$64,590	12,004	\$10,876	77,863	\$64,590	5,371	\$3,744
2050	63,682	\$53,884	78,702	\$66,593	12,184	\$11,256	78,702	\$66,593	5,452	\$3,875



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ADDITIONAL ANALYSES

In addition to the T&R estimation, CDM Smith also performed additional analysis to estimate:

1. Average weekday traffic volumes on FM 2759 and FM 762
2. Opening year for the proposed FBP extension
3. Number of lanes needed on the FBP extension
4. Net present value of revenue over the forecast period

Average Weekday Traffic Volumes on FM 2759 and FM 762

Table 4 illustrates the forecasted weekday traffic volumes in 2040 on FM 2759 and FM 762 assuming these that the Brazos River crossing is built as shown in Scenario 1.

TABLE 4: ESTIMATED WEEKDAY TRAFFIC ON FM 2759 AND FM 762 BY 2040

Roadway Name	2040 Estimated Weekday Traffic
FM 2759 east of Carroll Street	13,500
FM 762 north of Smithers Lake	31,300

It should be noted that while FM 2759 and FM 762 provide connectivity from the proposed FBP extension to I-69 and Grand Parkway in the west, both roadways are lower functional class Farm-to-Market roads with traffic signals. So these roadways will not function as major high-capacity through-routes between Sienna Plantation and the I-69/Grand Parkway interchange.

Opening Year for the proposed FBP extension

For purposes of this study, CDM Smith assumed an opening date of 2020 for the FBP extension. An additional planning-level capacity analysis was performed in order to estimate the year when the extension would get close to capacity (from a traffic demand perspective).

For purposes of this capacity analysis, the anticipated peak hour traffic demand was evaluated to determine when it would reach approximately 80 percent of the hourly capacity of the facility in the peak direction. A peak hour capacity of 2000 vehicles per hour per lane was assumed. Additionally, from the actual T&R data it was determined that the peak hour carried approximately 15 percent of the average weekday traffic.

Applying both these factors to the average weekday river crossing traffic of 5,800 average weekday vehicles (in Scenario 1) for 2020, the peak hour traffic demand in the peak direction was estimated to be approximately 700 vehicles per lane. Similarly, in 2040, the average weekday traffic (Scenario 1) of 21,800 vehicles translates to peak hour traffic demand in the peak direction was estimated to be 2,600 vehicles per lane. Interpolating between the peak hour peak direction traffic volumes in 2020, it is estimated that the traffic demand reaches 1600 vehicles (or 80 percent of the hourly capacity) between 2025 and 2030.

Number of Lanes needed on the Fort Bend Parkway Extension



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Based on the average weekday traffic volumes expected on the FBP extension, a two-lane facility from Sienna Parkway to FM 2759 would be sufficient to accommodate the anticipated traffic demand throughout the forecast period. It should be noted that this analysis was based on a planning-level assessment of the forecasted average weekday traffic. No detailed Highway Capacity Manual (HCM) or Level of Service (LOS) analysis suitable for traffic engineering purposes was conducted as part of this study.

The additional river crossing will likely relieve some of the congestion on US 59/I-69 by 2040, but it may be less noticeable because I-69 is also impacted by upstream and downstream activity and background growth along that corridor. The congestion relief may have the positive effect of improving travel speeds on I-69 marginally in 2040 by about 4 mph. The net effect on travel speeds on I-69 is negligible because the traffic carried by the FBP extension will likely be replaced by other trips that fill in that capacity as traffic patterns seek equilibrium across the network.

Extension to Grand Parkway

An additional analysis was conducted to determine if an additional FBP extension to Grand Parkway is needed prior to the 2025 timeframe assumed in the regional transportation plan, RTP 2040, based on the anticipated traffic demand. This analysis assumed the Scenario 1 configuration for the section between Sienna Parkway and FM 2759, and a tolled section west of FM 2759 to Grand Parkway (future Segment C-1). The additional traffic on this extension due to extending to Grand Parkway increases the traffic demand on the FBP extension.

The portion of FBP between FM 2759 and Grand Parkway carries about 13,000 vehicles per weekday on average. This scenario increases the average weekday tolled traffic on the Brazos River crossing (between Sienna Ranch Road and FM 2759) by approximately 3500-4000 vehicles.

Net Present value

Table 5 illustrates the net present value (NPV) of the estimated revenue from FBP including the extension for the period from 2020 to 2050 at two discount rates, 5 percent and 15 percent.



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TABLE 5: NET PRESENT VALUE (NPV) OF TOLL REVENUE FOR THE FORT BEND PARKWAY INCLUDING THE PROPOSED EXTENSION BETWEEN 2020 AND 2050 (IN THOUSANDS IN 2020 DOLLARS)

Scenario	5 Percent Discount Rate	15 Percent Discount Rate
No Build FB Parkway Extension	\$427,920	\$145,398
Scenario 1 ⁽¹⁾	\$587,340	\$196,527
Scenario 2 ⁽²⁾	\$541,425	\$183,511

⁽¹⁾ Assumes a tolled extension of Fort Bend Parkway from Sienna Parkway to FM 2759

⁽²⁾ Assumes a tolled extension of Fort Bend Parkway from Sienna Parkway to Sienna Ranch, and a toll-free extension from Sienna Ranch to FM 2759.

As Table 4 indicates, at a 5 percent discount rate, the NPV of the toll revenue for the entire FBP including the proposed extension increases from \$427.9 million in the No Build Extension scenario to \$587.3 million and \$541.4 million respectively for Scenarios 1 and 2.

If a discount rate of 15 percent is assumed, the NPV of the toll revenue for the entire FBP including the extension is estimated to be about \$196.5 million and \$183.5 million for Scenarios 1 and 2 respectively.



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SUMMARY OF STUDY FINDINGS, OBSERVATIONS AND RECOMMENDATIONS

Some of the key findings, observations and recommendations of this study are summarized below:

- As with any T&R study, the T&R estimates presented in this letter are dependent on the underlying socioeconomic assumptions in the travel demand model. While the growth forecasted for the zones near the proposed FBP on the west side of the Brazos River is modest, it should be noted that there is growth in population and employment for zones near the Grand Parkway future Segment C-1. If the amount of growth in the underlying demographic forecasts is lower than what is assumed in the models, lower revenue can be anticipated on the existing FBP and the proposed extension.
- Based on the planning-level analysis, it is recommended that a two-lane FBP extension from Sienna Parkway to FM 2759 would be sufficient to accommodate the anticipated traffic demand throughout the forecast period.
- Several of the arterials including FM 2759 (between FM 762 and West of Thompson Oil Field Road) and FM 762 (between FM 2759 and Smithers Lake Road) near the FBP extension western terminus are assumed to have capacity improvements to facilitate traffic flow between the I-69/Grand Parkway interchange and FBP. As the traffic projections in Table 4 indicate, it is important to note that these capacity improvements are critical to serve the motorists wanting to use the proposed FBP extension.
- If the FBP extension was extended to the Grand Parkway south of I-69, this western portion of the FBP extension between FM 2759 and Grand Parkway will carry about 13,000 vehicles per weekday by 2040, with an additional 3,500-4,000 vehicles being added to the portion of the extension between Sienna Parkway and FM 2759.

Respectfully submitted,

A handwritten signature in black ink that reads "Michael W. Copeland".

Michael W. Copeland
CDM Smith Inc.



October 26, 2016

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DISCLAIMER

CDM Smith used currently-accepted professional practices and procedures in the development of these traffic and revenue estimates. However, as with any forecast, it should be understood that differences between forecasted and actual results may occur, as caused by events and circumstances beyond the control of the forecasters. In formulating the estimates, CDM Smith reasonably relied upon the accuracy and completeness of information provided (both written and oral) by Fort Bend County Toll Road Authority (FBCTRA). CDM Smith also relied upon the reasonable assurances of independent parties and is not aware of any material facts that would make such information misleading.

CDM Smith made qualitative judgments related to several key variables in the development and analysis of the traffic and revenue estimates that must be considered as a whole; therefore, selecting portions of any individual result without consideration of the intent of the whole may create a misleading or incomplete view of the results and the underlying methodologies used to obtain the results. CDM Smith gives no opinion as to the value or merit of partial information extracted from this report.

All estimates and projections reported herein are based on CDM Smith's experience and judgment and on a review of information obtained from multiple agencies, including FBCTRA. These estimates and projections may not be indicative of actual or future values, and are therefore subject to substantial uncertainty. Future developments cannot be predicted with certainty, and may affect the estimates or projections expressed in this report, such that CDM Smith does not specifically guarantee or warrant any estimate or projection contained within this report.

While CDM Smith believes that the projections or other forward-looking statements contained within the report are based on reasonable assumptions as of the date of the report, such forward-looking statements involve risks and uncertainties that may cause actual results to differ materially from the results predicted. Therefore, following the date of this report, CDM Smith will take no responsibility or assume any obligation to advise of changes that may affect its assumptions contained within the report, as they pertain to socioeconomic and demographic forecasts, proposed residential or commercial land use development projects and/or potential improvements to the regional transportation network.

CDM Smith is not, and has not been, a municipal advisor as defined in Federal law (the Dodd Frank Bill) to FBCTRA and does not owe a fiduciary duty pursuant to Section 15B of the Exchange Act to FBCTRA with respect to the information and material contained in this report. CDM Smith is not recommending and has not recommended any action to FBCTRA. FBCTRA should discuss the information and material contained in this report with any and all internal and external advisors that it deems appropriate before acting on this information.