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# Harris County Auditor's Office



## MEMORANDUM

To: Lina Hidalgo, County Judge  
Rodney Ellis, Commissioner Precinct 1  
Adrian Garcia, Commissioner Precinct 2  
Tom Ramsey, Commissioner Precinct 3

Lesley Briones, Commissioner Precinct 4  
Roberto Trevino, Executive Director, HCTRA  
Diana Ramirez, County Administrator

From: Mike Post, Harris County Auditor *MP*  
Glenn Holloway, Chief Assistant County Auditor – Internal Audit Division *GH*

CC: Angelica Luna, County Judge's Office  
Brandon Dudley, Precinct 1  
Mike Lykes, Precinct 2  
Lynn Blue, Precinct 3

Alice Lee, Precinct 4  
Trevor Nolley, Precinct 4  
Christian Menefee, County Attorney

RE: Electronic Transaction Consultants – Call Center Staffing Billing Rates

Date: March 7, 2025

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## INQUIRY

Per a request from a Commissioner's Office, the Internal Audit Division conducted a fact-finding project focused on gathering objective information regarding the billing rates Electronic Transaction Consultants (ETC) charged the Harris County Toll Road Authority (HCTRA) for call center staffing. The scope of the engagement addressed the following objectives:

- Collected and compared current billing rates charged by ETC and their respective subcontractors.
- Identified the wage rates paid to workers by subcontractors and calculated the markup percentages.
- Reviewed contracts and identified any gaps in compliance.

Additionally, we documented and analyzed historical billing rates for call center operators under county contracts and provided industry norms for comparison.

The scope of this engagement was for the period of August 1, 2022, to December 31, 2024.

## RESULTS

### OBJECTIVE 1: Collect and compare current billing rates charged by ETC and their respective subcontractors.

A sample was selected of 25 staffing positions invoiced by ETC during the scope period. The sample included positions from each fiscal year. The source of the information is ETC's billing invoices.

**Table 1 – Sampled ETC Billing Rates by Position**

Fiscal Year	Service Month	Customer Service Representative	Lead	Manager	Operations Training Coordinator	Business System Analyst	Information System Specialist
FY22	June 2022	\$38	No Billing	No Billing	\$103	\$110	\$82
FY23	October 2022	\$23.12 to \$35.44	No Billing	No Billing	\$103	\$110	\$82
FY24	October 2023	\$23.12 to \$29.28	No Billing	No Billing	\$103	No Billing	No Billing
FY24	July 2024	\$23.12 to \$29.28	No Billing	No Billing	\$103	No Billing	No Billing
FY25	October 2024	\$26.20 to \$30.82	\$36.98	\$49.31	No Billing	No Billing	No Billing

*(Additional detail is provided in Table 2 on the next page.)*

### OBJECTIVE 2: Identify the wage rates paid to workers by subcontractors and calculate the markup percentages.

Table 2 presents a comparative analysis of billing and compensation rates, including associated markup percentages, as follows:

1. A comparison of hourly rates billed to HCTRA by ETC against those billed to ETC by subcontractors, along with the corresponding markup percentages.
2. A comparison of hourly rates paid to employees by ETC or subcontractors, including the respective markup percentages, culminating in the calculation of the total markup applied.
3. The impact of Amendment 4, approved by the Commissioners Court in August 2022, which limits markup to a maximum of 15% above the contractor's cost as stipulated in the BEATS contract. (Refer to Appendix B for contract details.)
4. The data is sourced from ETC's billing invoices, with subcontractor billing rates provided by ETC and employee pay rates obtained from HCTRA.

*(Table 2 on the next page.)*

**Table 2 – Sampled ETC Billing Rates, Subcontractor Billing Rates, Paid to Employee Rates**

Fiscal Year	Service Month	Sample Number	Job Titles	Hourly Rate Paid to Employee by ETC or Sub-Contractor	Rates Billed to ETC by Sub-Contractor	Rates Billed to HCTRA by ETC	Markup Percentage Rate Between Sub-Contractor and ETC	Markup Percentage Rate Between ETC and HCTRA	Total Markup Percentage Rate
FY22	June 2022	Employee 1	Customer Service Rep (CSR)	\$19.00	\$25.46	\$38.00	34%	49%	100%
		Employee 2	Business Systems Analyst	\$57.92	Not Applicable <sup>1</sup>	\$110.00	Not Applicable <sup>1</sup>	Not Applicable <sup>1</sup>	90%
		Employee 3	Training Operation Coordinator	\$31.25	Not Applicable <sup>1</sup>	\$103.00	Not Applicable <sup>1</sup>	Not Applicable <sup>1</sup>	230%
		Employee 4	CSR	\$17.00	\$22.78	\$38.00	34%	67%	124%
		Employee 5	Operations Trainer	\$35.00	\$54.00	\$103.00	54%	91%	194%
		Employee 6	CSR - Video Enforcement Clerk	\$19.00	\$25.46	\$38.00	34%	49%	100%
FY23	October 2022	Employee 7	CSR	\$16.00	\$21.44	\$24.66	34%	15%	54%
		Employee 8	CSR	\$17.00	\$22.78	\$26.20	34%	15%	54%
		Employee 9	I.T. Specialist	\$42.00	\$54.00	\$82.00	29%	52%	95%
		Employee 10	CSR	\$19.00	\$25.46	\$29.28	34%	15%	54%
		Employee 11	CSR - Video Enforcement Clerk	\$19.00	\$25.46	\$29.28	34%	15%	54%
FY24	October 2023	Employee 12	CSR	\$17.00	\$22.78	\$26.20	34%	15%	54%
		Employee 13	CSR	\$17.00	\$22.78	\$23.12	34%	1%	36%
		Employee 14	CSR	\$19.00	\$25.46	\$29.28	34%	15%	54%
		Employee 15	CSR	\$16.00	\$21.44	\$24.66	34%	15%	54%
FY24	July 2024	Employee 16	CSR	\$17.00	\$22.78	\$24.66	34%	8%	45%
		Employee 17	CSR	\$19.00	\$25.46	\$29.28	34%	15%	54%
		Employee 18	CSR	\$17.00	\$22.78	\$26.20	34%	15%	54%
		Employee 19	CSR	\$19.00	\$25.46	\$29.28	34%	15%	54%
		Employee 20	CSR	\$19.00	\$25.46	\$26.20	34%	3%	38%
		Employee 21	CSR	\$19.00	\$25.46	\$26.20	34%	3%	38%
FY25	October 2024	Employee 22	CSR	\$19.00	\$25.46	\$29.28	34%	15%	54%
		Employee 23	CSR	\$19.00	\$25.46	\$26.20	34%	3%	38%
		Employee 24	CSR Lead	\$24.00	\$32.16	\$36.98	34%	15%	54%
		Employee 25	CSR Manager	\$32.00	\$42.88	\$49.31	34%	15%	54%

<sup>1</sup> These were employees of ETC, so “Hourly Rate Paid” is the rate ETC paid the employee.

**OBJECTIVE 3: Review contracts and identify any gaps in compliance.**

Of the 25 employees sampled, one discrepancy was noted. One employee in October 2022, had an hourly rate that was incorrectly billed to HCTRA by ETC. Specifically, the contract<sup>2</sup> stipulates that ETC may charge up to 15% above subcontractor’s billing rate. The subcontractor’s billing rate for an IT Specialist was \$54, which would allow for a maximum permissible billing rate of \$62.10. The invoice reflects a billed rate of \$82 per hour. The incorrect billing for this employee occurred between September and October 2022 which was subsequently after the execution of Amendment 4 in August 2022.

**OBJECTIVE 4: Document and analyze historical billing rates for call center operators under county contracts and provide industry norms for comparison.**

Table 4 below provides a comparison of historical billing rates for call center operators under county contracts. The Harris County Agency Wide Staffing Contract was competitively bid with several local staffing firms participating, so it may be considered industry norm.

**Table 3 – Historical Billing Rates and Industry Norms**

Fiscal Year	Position Title	HCTRA Employee Rates <sup>3</sup>	ETC <sup>4</sup>	Harris County Agency Wide Staffing Contract	TX Tag
FY22	Customer Service Representative(CSR)	\$17.00 - \$20.00	\$38.00	\$17.85 - \$35.00	\$24.81 - \$27.15
	Lead	\$23.00	No Billing	\$19.05 - \$49.00	Not Applicable
	Manager	\$50.42	No Billing	No Billing	Not Available
FY23	CSR	\$18.20 - \$21.20	\$23.12 - \$35.44	\$17.85 - \$35.00	\$27.54
	Lead	\$23.60	No Billing	\$19.05 - \$49.00	Not Applicable
	Manager	\$50.42	No Billing	No Billing	\$52.95
FY24	CSR	\$18.20 - \$21.20	\$23.12 - \$29.28	\$23.47 - \$28.10	\$28.77
	Lead	\$23.60	No Billing	\$27.88 - \$40.00	Not Applicable
	Manager	\$50.42	No Billing	\$30.75 - \$52.07	\$56.16
FY25	CSR	\$18.20 - \$21.20	\$26.20 - \$30.82	\$23.47 - \$28.10	\$29.94
	Lead	\$23.60	\$36.98	\$27.88 - \$40.00	Not Applicable
	Manager	\$50.42	\$49.31	\$30.75 - \$52.07	\$58.35

<sup>2</sup> Applicable contract: Back Office Enhancement and Augmentation Toll Collection System (BEATS) Amendment #4 (Refer to Appendix B for further details)

<sup>3</sup> This information is based on the rates for HCTRA internal employees.

<sup>4</sup> This information was retrieved from ETC Billing rates.

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## BACKGROUND

The vendor, Electronic Transaction Consultants (ETC), was initially contracted for the implementation of the Back Office System and later for the Back Office Enhancement & Augmentation Toll Collection System (BEATS). On August 24, 2021, the Commissioners Court approved the third amendment to the BEATS contract with ETC, to build, staff, and manage a separate overflow customer center on demand. Last, the BEATS contract contains a favored nation clause which gives a party (HCTRA) to the contract the legal right to terms and benefits under the contract that are as good as or more favorable than the terms and benefits received by anyone else who enters a similar contract with the other party.

Please refer to Appendix A for a summary of contracts awarded and amendments related to the Implementation of the Back Office System, Back Office Enhancement, and Maintenance. Additionally, refer to Appendix B for a summary of contracts awarded and amendments related to BEATS.

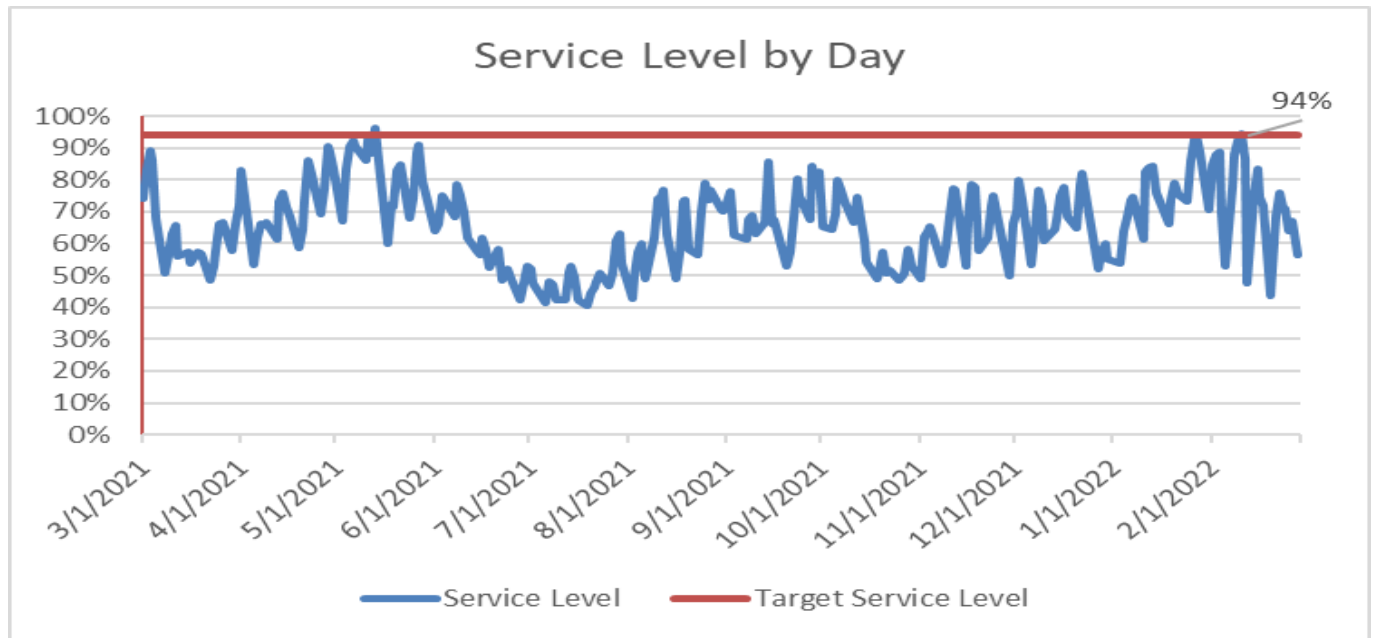
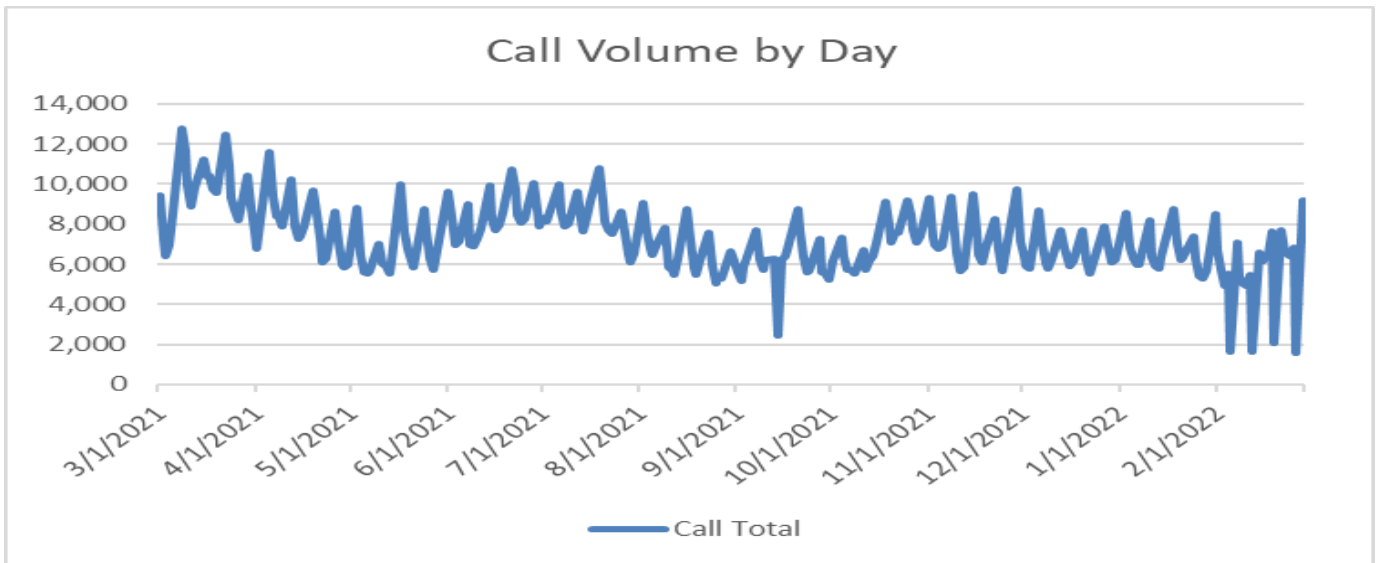
### **Information below is based on HCTRA supplied data:**

HCTRA receives approximately 30,000 calls on a given business day, with expectations of this increasing to 35,000 by June 2025 across 7 geographically dispersed call centers in Harris County (see table below).

Location	# of Customer Service Representatives Assigned
Call Center 1 - Fournace	24
Call Center 2 - Federal	37
Call Center 3 - DAK	106
Call Center 4 - NRG	85
Call Center 5 - JFK	45
Call Center 6 - Baker	31
Call Center 7 - Training	70
<b>Total</b>	<b>398</b>

The HCTRA service level standard is approximately 94%, and this key performance metric is closely monitored throughout the year. In call centers, service level refers to the percentage of calls answered within a defined time frame, serving as a critical indicator of operational efficiency and customer service performance. It is commonly expressed as X% of calls answered within Y seconds (e.g., 80% of calls answered within 30 seconds). Service level is used to assess the efficiency and responsiveness of a call center and is influenced by factors such as staffing levels, call volume, and agent productivity. A lower service level may indicate long wait times and customer dissatisfaction, while a higher service level suggests better responsiveness and service quality.

In January 2022, Commissioners Court identified concerns regarding a service level of 70% for fiscal year 2022, falling short of the target of 94%. During this period HCTRA faced significant challenges with high attrition, leading to increased cost and inability to fill a considerable number of open positions. The resulting low service levels not only impacted revenue but also contributed to a decline in customer satisfaction. To address this, HCTRA undertook organizational restructuring and reevaluated staffing strategies.

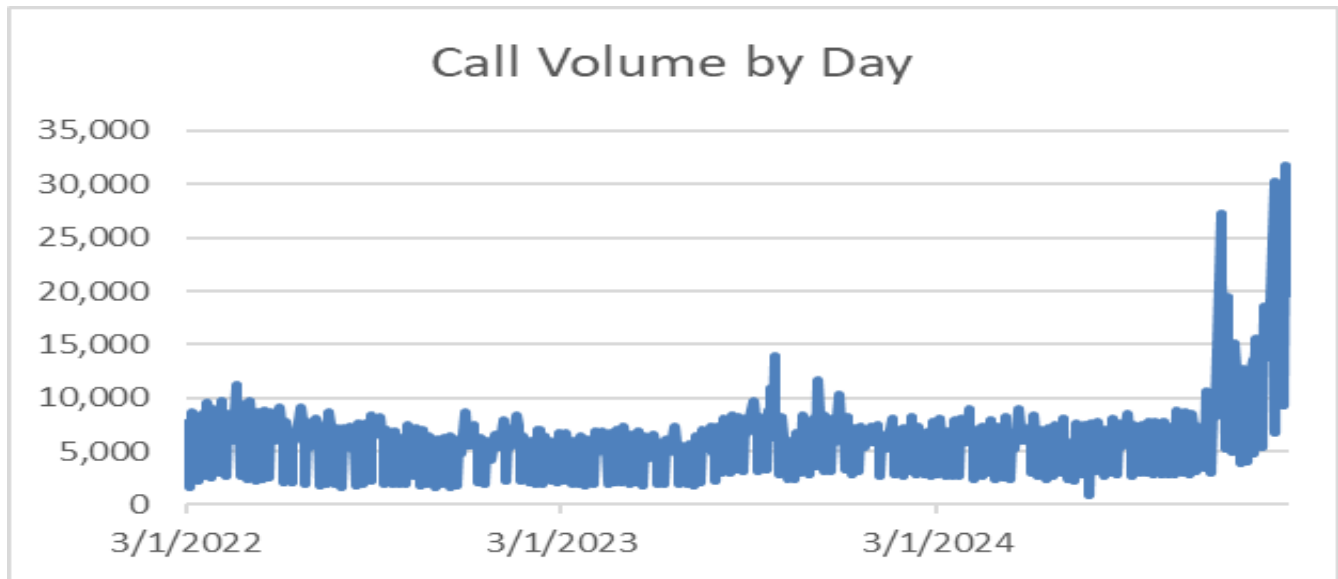


To effectively manage call volumes, combat attrition, and maintain service excellence, HCTRA implemented a three-tier approach:

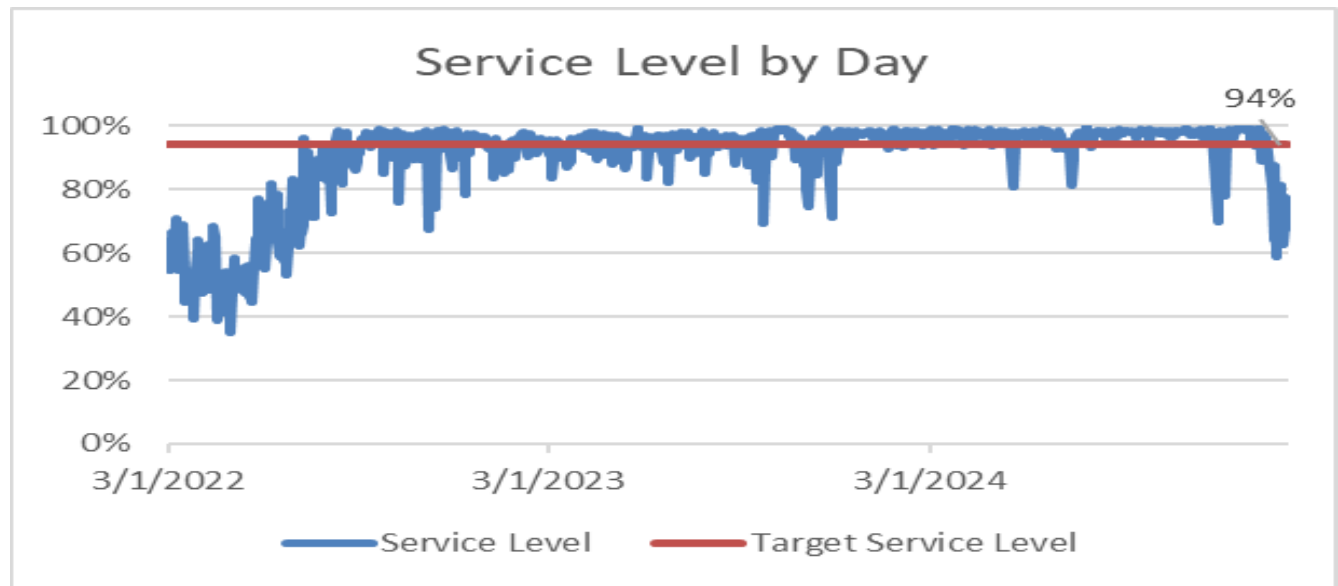
- Tier 1 (T1): County-employed personnel forming the foundation of call center operations.
- Tier 2 (T2): Contingent workforce services for broader talent acquisition and long-term sustainability. High-performing T2 personnel can transition to T1.
- Tier 3 (T3): Overflow call center designed for rapid scale-up or down based on incremental surge requirements and SLA compliance. T3 facilitates temporary staff onboarding, training and hosting.

HCTRA collaborates closely with talent partners to ensure staffing adequacy aligned with Commissioners Court directives. In 2022, HCTRA found that existing county-wide contingent workforce agreements couldn't sustain required staffing levels for service targets. Consequently, the overflow call center was activated, and a new agreement tailored to HCTRA's needs was implemented. An overflow call center is a backup or secondary call

center that handles excess call volume when the primary center reaches capacity. It helps maintain service levels by preventing long wait times and missed calls, ensuring a seamless customer experience.



Based on the recommendation of Texas Department of Transportation (TxDOT) and with approval from Commissioners Court, HCTRA successfully migrated active Texas Tag (TxTag) accounts in good standing into the HCTRA's back-office system on November 23, 2024. Prior to the migration, HCTRA managed 3.4 million active registered accounts. As of January 29, 2025, following the migration, the total number of active registered accounts under HCTRA's management has increased to 4.4 million.



The three-tier framework has enabled HCTRA to adapt resiliently, maintain low attrition rates, and navigate challenges such as COVID-19, weather disruptions, and expanded responsibilities effectively. As of the first quarter of fiscal year 2025, the service level and attrition challenges experienced in 2021 have not reoccurred.

## Appendix A

Summary of contracts awarded, and amendments related to the Implementation of the Back Office System, Back Office Enhancements, and Maintenance (BOS).

Commissioners Court Approval Date	Type	Term	Amount	Description/Services
12/4/2012	Initial Contract	12/04/2012 - 12/03/2015	\$32,261,000	Back Office System Agreement: Enhancements and augmentations beyond standard maintenance.
3/10/2015	1st Amendment	12/04/15 - 07/01/2016	\$129,100	Adds additional funds and extends contract term; Adds new void functionality and documentation.
12/1/2015	2nd Amendment	7/2/2016 - 01/31/2017	\$2,606,779	Adds additional funds and extends contract term; Adds additional functionality including missed a toll, violation waiver, front VES and sessions.
5/24/2016	3rd Amendment	02/01/2017 - 09/30/2017	\$1,999,696	Adds additional funds and extends contract term; Adds new payment processor and new credit card account updater.
8/1/2017	4th Amendment	No changes to Terms	\$6,000,000	Adds additional funds for out of scope functionalities; Adds new functionality to address out-of-scope functionalities, modification, etc.
9/26/2017	5th Amendment	10/1/2017 - 04/30/2018	No Changes to Amount	Extends term to allow for the coordination with the Roadside contractor to obtain Final System Acceptance.
4/10/2018	6th Amendment	5/1/2018 - 8/31/18	\$1,700,496	Adds additional funds and extends contract term; Increases maintenance staff, modifies certain maintenance requirements.
8/28/2018	7th Amendment	No changes to Terms	No Changes to Amount	Provides for Punchlist of items unfinished at Final System Acceptance.
8/31/2018	8th Amendment	Adds five (5) one-year renewal options ending 08/31/2028.	No Changes to Amount	Adds five (5) one-year system maintenance renewal terms to the agreement. Renewals ending 08/31/2028.
11/13/2018	Renewal 1	9/1/2018 - 8/31/2019	\$5,820,000	1 of 4 renewal options; maintenance for toll collection system - back office.
8/13/2019	Renewal 2	9/1/2019 - 8/31/2020	\$5,820,000	2 of 4 renewal options; maintenance for toll collection system - back office.
7/28/2020	Renewal 3	9/1/2020 - 8/31/2021	\$5,820,000	3 of 4 renewal options; maintenance for toll collection system - back office.
10/12/2021	Renewal 4	9/1/2021 - 8/31/2022	\$5,820,000	4 of 5 renewal options; maintenance for toll collection system - back office.
8/23/2022	Renewal 5	9/1/2022 - 8/31/2023	\$5,820,000	5 of 10 renewal options; maintenance for toll collection system - back office.
8/29/2023	Renewal 6	9/1/2023 - 8/31/2024	\$7,152,000	6 of 10 renewal options; maintenance for toll collection system - back office.
8/27/2024	Renewal 7	9/1/2024 - 8/31/2025	\$7,152,000	7 of 10 renewal options; maintenance for toll collection system - back office.
<b>Total Award</b>			<b>\$88,101,071</b>	



## Appendix B

### Summary of contracts awarded, and amendments related to Back Office Enhancement and Augmentation Toll Collection System (BEATS)

Commissioners Court Approval Date	Type	Term	Amount	Description/Services
10/23/2018	Initial Contract; Sole Source Exemption	1 year with 4 one-year renewal options	\$6,000,000	Enhances and augments the proprietary Back Office System beyond standard maintenance.
8/13/2019	Renewal 1	09/01/2019 - 08/31/2020	\$6,000,000	1 of 4 renewal options
2/11/2020	1st Amendment	No Changes	\$6,000,000	Adds additional funds; Continued enhancements and upgrades to the Back Office Toll Collection System.
6/30/2020	2nd Amendment	No Changes	\$2,500,000	Adds additional funds; Continued enhancements and upgrades to the Back Office Toll Collection System.
8/11/2020	Renewal 2	09/01/2020 - 08/31/2021	\$14,500,000	2 of 4 renewal options
8/24/2021	3rd Amendment & Renewal 3	09/01/2021 - 08/31/2022	\$14,500,000	3 of 4 renewal options, adds additional scope for On-Demand Training, Staffing and Support to be utilized on an as needed basis to support HCTRA and supplement training and triage customer issues. <b>ETC will support HCTRA to build, staff, and manage a separate overflow customer service center.</b>
8/2/2022	4th Amendment	No Changes	\$4,500,000	Allocates additional funds and scope for migrating CUSIOP systems to Oracle Cloud Infrastructure (OCI) and adjusts the payment schedule for on-demand training, staffing, and support services as needed. <b>Items requiring 3<sup>rd</sup> party subcontractors shall be billed at a maximum of 15% above contractor's cost.</b>
8/23/2022	Renewal 4	09/01/2022 - 08/31/2023	\$19,000,000	Renewal 4 out 4 - Renews to continue enhancements to the proprietary Back Office System that fall outside scope of normal system maintenance and for on-demand training, staffing and support services.
8/8/2023	5th Amendment	No Changes	No changes	Adds five (5) one-year system maintenance renewal terms to the agreement.
8/29/2023	Renewal 6	09/01/2023 - 08/31/2024	\$19,000,000	6 of 10 renewal options
5/22/2024	6th Amendment	09/01/2023 - 08/31/2024	\$6,000,000	Allocates additional funds and scope; includes a settlement for services from June 1, 2023, to August 31, 2023; revises CPI-U to CPI-W; raises the CPI-W cap to 4%; and increases funding for additional services.
8/27/2024	Renewal 7	09/01/2024 - 08/31/2025	\$19,000,000	7 of 10 renewal options
<b>Total Award</b>			<b>\$117,000,000</b>	