

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 20-006

**DESIGNATION OF A PORTION OF 183A PHASE II ROADWAY AS
THE "RAY A. WILKERSON FREEWAY"**

WHEREAS, the CTRMA was created by Travis and Williamson counties in 2002 with a mission to implement innovative, multi-modal transportation solutions that enhance the quality of life and economic opportunity for all Central Texans; and

WHEREAS, the CTRMA is overseen by a seven-member Board of Directors who volunteer their expertise and experience to fulfill the organization's mission, with the Travis County and Williamson Counties Commissioners Courts each appointing three board members and the Governor appointing the Chairman; and

WHEREAS, Ray Wilkerson was appointed by the Governor as the Chairman of the Board in 2009 and over the ensuing decade Mr. Wilkerson has dedicated countless hours and exercised exceptional leadership in taking the CTRMA from its early stages of a regional mobility authority to a multi-billion-dollar entity serving the needs and improving the lives of Central Texans by providing new capacity and economic development; and

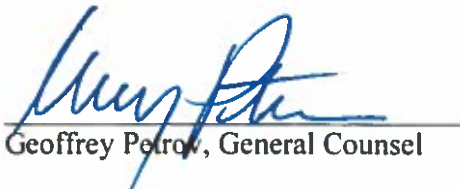
WHEREAS, the CTRMA Board has had numerous successful accomplishments under the leadership of the Board during Wilkerson's tenure, including the opening of 183A Phase II in Williamson County, the Manor Expressway (290 East), 45SW, the innovative MoPac Express Lanes, and the commencement of the \$750 million 183 South Project; and

NOW, THEREFORE, BE IT RESOLVED, in recognition of Mr. Wilkerson's dedication to the Mobility Authority and essential contributions to improving mobility in Central Texas, the Board hereby officially designates a portion of the 183A Phase II roadway as the "Ray A. Wilkerson Freeway"; and

BE IT FURTHER RESOLVED that the Board would like to express its sincere thanks to Mr. Wilkerson for his ongoing dedication to public service which has greatly benefitted all the citizens of Central Texas.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 26th day of February 2020.

Submitted and reviewed by:



Geoffrey Petrov, General Counsel

Approved:



Robert W. Jenkins, Jr.
Chairman, Board of Directors

**MEETING OF THE AUDIT COMMITTEE
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 20-007

**AUTHORIZE THE ENGAGEMENT OF A FIRM TO PROVIDE
INDEPENDENT AUDITING SERVICES**

WHEREAS, the Central Texas Regional Mobility Authority (Mobility Authority) is required to have an annual financial and compliance audit of its books and records in accordance with 43 *Texas Administrative Code* §26.61; and

WHEREAS, on February 4, 2020, the Executive Director issued a Request for Qualifications (RFQ) soliciting statements of qualifications and interest from firms interested in providing independent auditing services to the Mobility Authority; and

WHEREAS, on February 14, 2020, the Mobility Authority received timely responses to the RFQ from three qualified firms; and

WHEREAS, an evaluation committee comprised of the Deputy Executive Director, Chief Financial Officer and Controller evaluated the submissions from each of the three firms in accordance with Mobility Authority procurement policies; and

WHEREAS, based on a review and analysis of the responses to the RFQ, the Chief financial Officer recommends that the Board select RSM US, L.L.P. to provide independent auditing services to the Mobility Authority for a period of up to five (5) years; and

WHEREAS the Chief Financial Officer further recommend that the Audit Committee approve a letter of engagement with RSM US LLP to provide an independent audit of the finances of the Mobility Authority for the fiscal year ending on June 30, 2020, which is attached hereto as Exhibit A.

NOW THEREFORE, BE IT RESOLVED that the Audit Committee hereby approves the selection of RSM US, L.L.P. to provide independent auditing services to the Mobility Authority for a period of up to five (5) years; and

BE IT FURTHER RESOLVED that the Audit Committee approves the letter of engagement with RSM US LLP which is attached hereto as Exhibit A and authorizes the Chief Financial Officer to execute the letter of engagement on behalf of the Mobility Authority.

Adopted by the Audit Committee of the Board of Directors of the Central Texas Regional Mobility Authority on the 26th day of February 2020.

Submitted and reviewed by:



Geoffrey Petrov, General Counsel

Approved:



Robert W. Jenkins, Jr.
Chairman, Board of Directors

Exhibit A



RSM US LLP

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February 18, 2020

William Chapman, CFO
Central Texas Regional Mobility Authority
3300 North IH-35, Suite 300
Austin, Texas 78704

Dear Mr. Chapman:

The Objective and Scope of the Audit of the Financial Statements

You have requested that we audit Central Texas Regional Mobility Authority's (the Authority) business-type activities as of and for the year ending June 30, 2020, which collectively comprise the basic financial statements. Management is responsible for the preparation of the required supplementary information (RSI) and supplementary information presented in relation to the financial statements as a whole in accordance with accounting principles generally accepted in the United States of America. We are pleased to confirm our acceptance and our understanding of this audit engagement by means of this letter.

Our audit will be conducted with the objective of our expressing an opinion on the financial statements.

We will also perform the audit of Central Texas Regional Mobility Authority as of June 30, 2020 so as to satisfy the audit requirements imposed by the Single Audit Act and Subpart F of Title 2 U.S. Code of Federal Regulations (CFR) Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance), as well as the State of Texas Audit Circular and the Uniform Grant Management Standards.

The Responsibilities of the Auditor

We will conduct our audit in accordance with auditing standards generally accepted in the United States of America (GAAS); *Government Auditing Standards* issued by the Comptroller General of the United States (GAS); the provisions of the Single Audit Act; Subpart F of Title 2 U.S. CFR Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*; and the U.S. Office of Management and Budget's (OMB) Compliance Supplement and the State of Texas Uniform Grant Management Standards (Texas UGMS). Those standards, regulations, supplements or guides require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement. An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

Because of the inherent limitations of an audit, together with the inherent limitations of internal control, an unavoidable risk that some material misstatements may not be detected exists, even though the audit is properly planned and performed in accordance with GAAS. Also, an audit is not designed to detect errors or fraud that are immaterial to the financial statements. The determination of abuse is subjective; therefore, GAS does not expect us to provide reasonable assurance of detecting abuse.

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In making our risk assessments, we consider internal control relevant to the Authority's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. However, we will communicate to you in writing concerning any significant deficiencies or material weaknesses in internal control relevant to the audit of the financial statements that we have identified during the audit.

We will also communicate to the Audit Committee of the Board of Directors (a) any fraud involving senior management and fraud (whether caused by senior management or other employees) that causes a material misstatement of the financial statements that becomes known to us during the audit, and (b) any instances of noncompliance with laws and regulations that we become aware of during the audit (unless they are clearly inconsequential).

The funds that you have told us are maintained by the Authority and that are to be included as part of our audit are the same as those reported in the prior year's financial statements. Any changes subsequent to the date of this letter should be communicated to us in a timely manner.

The federal and state financial assistance programs and awards that you have told us that the Authority participates in and that are to be included as part of the single audit are comparable to those reported in the prior year's financial statements. Any changes subsequent to the date of this letter should be communicated to us in a timely manner.

We are responsible for the compliance audit of major programs under the Uniform Guidance and the Texas UGMS, including the determination of major programs, the consideration of internal control over compliance, and reporting responsibilities.

Our report(s) on internal control will include any significant deficiencies and material weaknesses in controls of which we become aware as a result of obtaining an understanding of internal control and performing tests of internal control consistent with requirements of the standards and regulations identified above. Our reports on compliance matters will address material errors, fraud, abuse, violations of compliance obligations, and other responsibilities imposed by state and federal statutes and regulations or assumed by contracts; and any state or federal grant, entitlement or loan program questioned costs of which we become aware, consistent with requirements of the standards, guides and regulations identified above.

The Responsibilities of Management and Identification of the Applicable Financial Reporting Framework

Our audit will be conducted on the basis that management and, when appropriate, those charged with governance acknowledge and understand that they have responsibility:

1. For the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America;
2. To evaluate subsequent events through the date the financial statements are issued or available to be issued, and to disclose the date through which subsequent events were evaluated in the financial statements. Management also agrees that it will not conclude on subsequent events earlier than the date of the management representation letter referred to below;
3. For the design, implementation and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error;

4. For establishing and maintaining effective internal control over financial reporting, and for informing us of all significant deficiencies and material weaknesses in the design or operation of such controls of which it has knowledge;
5. For report distribution; and
6. To provide us with:
 - a. Access to all information of which management is aware that is relevant to the preparation and fair presentation of the financial statements such as records, documentation and other matters;
 - b. Additional information that we may request from management for the purpose of the audit; and
 - c. Unrestricted access to persons within the entity from whom we determine it necessary to obtain audit evidence;

As part of our audit process, we will request from management and, when appropriate, those charged with governance written confirmation concerning representations made to us in connection with the audit, including among other items:

1. That management has fulfilled its responsibilities as set out in the terms of this letter; and
2. That it believes the effects of any uncorrected misstatements aggregated by us during the current engagement and pertaining to the latest period presented are immaterial, both individually and in the aggregate, to the financial statements taken as a whole.

Management is responsible for identifying and ensuring that the Authority complies with the laws and regulations applicable to its activities, and for informing us about all known material violations of such laws or regulations. In addition, management is responsible for the design and implementation of programs and controls to prevent and detect fraud or abuse, and for informing us about all known or suspected fraud or abuse affecting the entity involving management, employees who have significant roles in internal control, and others where the fraud or abuse could have a material effect on the financial statements or compliance. Management is also responsible for informing us of its knowledge of any allegations of fraud or abuse, or suspected fraud or abuse, affecting the entity received in communications from employees, former employees, analysts, regulators or others.

Management is responsible for the preparation of the RSI and the other supplementary information presented in relation to the financial statements as a whole in accordance with accounting principles generally accepted in the United States of America. Management agrees to include the auditor's report on the supplementary information in any document that contains the supplementary information and indicates that the auditor has reported on such supplementary information. Management also agrees to present the supplementary information with the audited financial statements or, if the supplementary information will not be presented with audited financial statements, to make the audited financial statements readily available to the intended users of the supplementary information no later than the date of issuance of the supplementary information and the auditor's report thereon.

Because the audit will be performed in accordance with the Texas UGMS, Single Audit Act and the Uniform Guidance, management is responsible for (a) identifying all federal and state awards received and expended; (b) preparing the schedule of expenditures of federal and state awards (including notes and noncash assistance received) in accordance with the Uniform Guidance and Texas UGMS requirements; (c) internal control over compliance; (d) compliance with federal and state statutes, regulations, and the terms and conditions of federal and state awards; (e) making us aware of significant vendor relationships where the vendor is responsible for program compliance; (f) following up and taking

corrective action on audit findings, including the preparation of a summary schedule of prior audit findings and a corrective action plan; and (g) submitting the reporting package and data collection form.

The Audit Committee of the Board of Directors is responsible for informing us of its views about the risks of fraud or abuse within the entity, and its knowledge of any fraud or abuse or suspected fraud or abuse affecting the entity.

Our association with an official statement is a matter for which separate arrangements will be necessary. The Authority agrees to provide us with printer's proofs or masters of such offering documents for our review and approval before printing, and with a copy of the final reproduced material for our approval before it is distributed. In the event our auditor/client relationship has been terminated when the Authority seeks such consent, we will be under no obligation to grant such consent or approval.

You have informed us that you may issue public debt in the future and that you may include our report on your financial statements in the offering statement. You have further informed us that you do not intend for us to be associated with the proposed offering.

We agree that our association with any proposed offering is not necessary, providing the Authority agrees to clearly indicate that we are not associated with the contents of any such official statement or memorandum. The Authority agrees that the following disclosure will be prominently displayed in any such official statement or memorandum:

RSM US LLP, our independent auditor, has not been engaged to perform, and has not performed, since the date of its report included herein, any procedures on the financial statements addressed in that report. RSM US LLP also has not performed any procedures relating to this official statement.

Records and Assistance

If circumstances arise relating to the condition of the Authority's records, the availability of appropriate audit evidence or indications of a significant risk of material misstatement of the financial statements because of error, fraudulent financial reporting or misappropriation of assets which, in our professional judgment, prevent us from completing the audit or forming an opinion, we retain the unilateral right to take any course of action permitted by professional standards, including declining to express an opinion or issue a report, or withdrawing from the engagement.

During the course of our engagement, we may accumulate records containing data that should be reflected in the Authority's books and records. The Authority will determine that all such data, if necessary, will be so reflected. Accordingly, the Authority will not expect us to maintain copies of such records in our possession.

The assistance to be supplied by the Authority's personnel will be described in a client participation list, which outlines the specific schedules and analyses that should be completed by the Authority's personnel, including the dates when the information should be available to us. The participation list will be discussed with and agreed to by Mary Temple, Controller. The timely and accurate completion of this work is an essential condition to our completion of the audit and issuance of our audit report.

In connection with our audit, you have requested us to perform certain non-audit services necessary for the preparation of the financial statements, including support in drafting of the financial statements, footnotes, RSI and supplementary information. The GAS independence standards require that the auditor maintain independence so that opinions, findings, conclusions, judgments and recommendations will be impartial and viewed as impartial by reasonable and informed third parties. Before we agree to provide a non-audit service to the Authority, we determine whether providing such a service would create a significant threat to our independence for GAS audit purposes, either by itself or in aggregate with other non-audit services provided. A critical component of our determination is consideration of management's

ability to effectively oversee the non-audit services to be performed. The Authority has agreed that Mary Temple, Controller, possesses suitable skill, knowledge or experience and that the individual understands the she will be responsible for the Authority's technical review of the financial statements, footnotes, RSI and supplementary information and will coordinate any other requests for non-audit services to be performed. Accordingly, management of the Authority agrees to the following:

1. The Authority has designated Mary Temple, Controller, as a senior member of management who possesses suitable skill, knowledge and experience to oversee the services;
2. Mary Temple, Controller, will assume all management responsibilities for subject matter and scope of the audit services and support in drafting the financial statements, footnotes and RSI;
3. The Authority will evaluate the adequacy and results of the services performed; and
4. The Authority accepts responsibility for the results and ultimate use of the services.

GAS further requires that we establish an understanding with the Authority's management and those charged with governance of the objectives of the non-audit services, the services to be performed, the entity's acceptance of its responsibilities, the auditor's responsibilities and any limitations of the non-audit services. We believe this letter documents that understanding.

Other Relevant Information

RSM US LLP may mention the Authority's name and provide a general description of the engagement in RSM US LLP's client lists and marketing materials.

From time to time and depending upon the circumstances, we may use third-party service providers to assist us in providing professional services to you. In such circumstances, it may be necessary for us to disclose confidential client information to them. We enter into confidentiality agreements with all third-party service providers and we are satisfied that they have appropriate procedures in place to prevent the unauthorized release of your confidential information to others.

In accordance with GAS, a copy of our most recent peer review report is enclosed for your information.

Fees, Costs and Access to Workpapers

Our fees for the services described above are based upon the value of the services performed and the time required by the individuals assigned to the engagement plus directly billed expenses, including report processing, travel, meals, and fees for services from other professionals, as well as a charge of 3% of fees for all other expenses, including indirect administrative expenses such as technology, research and library databases, communications, photocopying, postage and clerical assistance. Our fee estimate of \$98,500 is inclusive of the administrative fee described above, as well as in town travel and parking and assumes there will be one major federal program subject to audit under the Uniform Guidance.

Based on preliminary discussion with management, a state single audit may be required in accordance with Texas UGMS. If a state single audit is required, or an additional major federal program is required, the cost for each major program (federal and/or state) will be \$9,975.

Further, based on our preliminary discussions with management, the implementation of the new accounting and reporting standard, GASB Statement No. 84, will not be applicable to the Authority. However, if management later determines that GASB Statement No. 84 will apply, there will be an additional billing of approximately \$5,000.

The fee estimate described above and completion of our work are based upon the following criteria:

1. Anticipated cooperation from the Authority personnel;
2. Timely responses to our inquiries;
3. Timely completion and delivery of client assistance requests and preparation of supplementary schedules and financial statement support;
4. Timely communication of all significant accounting and financial reporting matters;
5. The assumption that unexpected circumstances will not be encountered during the engagement;
6. Segment reporting requirements will be required for fiscal year 2020; and

If any of the aforementioned criteria are not met, then fees may increase. Interim billings will be submitted as work progresses.

In addition to the audit fees described above, the Authority may request additional procedures over third party providers used by the Authority. If requested, the fees for this work will be billed on an hourly basis as the work progresses using these billing rates per hour: Partner \$325, Senior Manager \$275, IT Consulting Manager \$275, Manager \$225, Staff \$170.

In the event you terminate this engagement, you will pay RSM US LLP for all services rendered (including deliverables and products delivered), expenses incurred and commitments made by RSM US LLP through the effective date of termination.

When an engagement has been suspended at the request of management or those charged with governance and work on that engagement has not recommenced within 120 days of the request to suspend our work, RSM US LLP may, at its sole discretion, terminate this arrangement letter without further obligation to the Authority. Resumption of audit work following termination may be subject to our client acceptance procedures and, if resumed, will necessitate additional procedures not contemplated in this arrangement letter. Accordingly, the scope, timing and fee arrangement discussed in this arrangement letter will no longer apply. In order for RSM US LLP to recommence work, a new arrangement letter would need to be mutually agreed upon and executed.

Our professional standards require that we perform certain additional procedures, on current and previous years' engagements, whenever a partner or professional employee leaves the firm and is subsequently employed by or associated with a client in a key position. Accordingly, the Authority agrees it will compensate RSM US LLP for any additional costs incurred as a result of the Authority's employment of a partner or professional employee of RSM US LLP.

The audit documentation for this engagement is the property of RSM US LLP and constitutes confidential information.

Review of audit documentation by a successor auditor or as part of due diligence will be agreed to, accounted for and billed separately.

In the event we are requested or authorized by the Authority or are required by government regulation, subpoena or other legal process to produce our documents or our personnel as witnesses with respect to our engagement for the Authority, the Authority will, so long as we are not a party to the proceeding in which the information is sought, reimburse us for our professional time and expenses, as well as the fees and expenses of our counsel, incurred in responding to such requests.

The documentation for this engagement is the property of RSM US LLP. However, you acknowledge and grant your assent that representatives of the cognizant or oversight agency or their designee, other government audit staffs, and the U.S. Government Accountability Office shall have access to the audit documentation upon their request and that we shall maintain the audit documentation for a period of at least three years after the date of the report, or for a longer period if we are requested to do so by the cognizant or oversight agency. Access to requested documentation will be provided under the supervision of RSM US LLP audit personnel and at a location designated by our firm.

Indemnification and Claim Resolution

Because RSM US LLP will rely on the Authority and its management and Audit Committee of the Board of Directors to discharge the foregoing responsibilities, the Authority holds harmless and releases RSM US LLP and its partners and employees from all claims, liabilities, losses and costs arising in circumstances where there has been a knowing misrepresentation by a member of the Authority's management that has caused, in any respect, RSM US LLP's breach of contract or negligence.

The Authority and RSM US LLP agree that no claim arising out of services rendered pursuant to this arrangement letter shall be filed more than the earlier of two years after the date of the audit report issued by RSM US LLP or the date of this arrangement letter if no report has been issued. In no event shall either party be liable to the other for claims of punitive, consequential, special, or indirect damages. RSM US LLP's liability for all claims, damages and costs of the Authority arising from this engagement is limited to the amount of fees paid by the Authority to RSM US LLP for the services rendered under this arrangement letter.

These provisions shall survive the termination of this arrangement for services.

Information Security—Miscellaneous Terms

RSM US LLP is committed to the safe and confidential treatment of the Authority's proprietary information. RSM US LLP is required to maintain the confidential treatment of client information in accordance with relevant industry professional standards which govern the provision of services described herein. The Authority agrees that it will not provide RSM US LLP with any unencrypted electronic confidential or proprietary information, and the parties agree to utilize commercially reasonable measures to maintain the confidentiality of the Authority's information, including the use of collaborate sites to ensure the safe transfer of data between the parties.

RSM US LLP may terminate this relationship immediately in its sole discretion if RSM US LLP determines that continued performance would result in a violation of law, regulatory requirements, applicable professional standards or RSM US LLP's client acceptance or retention standards, or if the Authority is placed on a verified sanctioned entity list or if any director or executive of, or other person closely associated with, the Authority or its affiliates is placed on a verified sanctioned person list, in each case, including but not limited to lists promulgated by the Office of Foreign Assets Control of the U.S. Department of the Treasury, the U.S. State Department, the United Nations Security Council, the European Union or any other relevant sanctioning authority.

If any term or provision of this arrangement letter is determined to be invalid or unenforceable, such term or provision will be deemed stricken and all other terms and provisions will remain in full force and effect.

Reporting

We will issue a written report upon completion of our audit of the Authority's financial statements. Our report will be addressed to the Board of Directors of the Authority. We cannot provide assurance that an unmodified opinion will be expressed. Circumstances may arise in which it is necessary for us to modify our opinion, add an emphasis-of-matter or other-matter paragraph(s), or withdraw from the engagement.

In addition to our report on the Authority's financial statements, we will also issue the following types of reports:

1. A report on the fairness of the presentation of the Authority's schedule of expenditures of federal and state awards for the year ending June 30, 2020;
2. Reports on internal control related to the financial statements and major programs. These reports will describe the scope of testing of internal control and the results of our tests of internal control;
3. Reports on compliance with laws, regulations, and the provisions of contracts or grant agreements. We will report on any noncompliance that could have a material effect on the financial statements and any noncompliance that could have a material effect, as defined by Texas UGMS and Subpart F of Title 2 U.S. CFR Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards*, on each major program;
4. An accompanying schedule of findings and questioned costs.

This letter constitutes the complete and exclusive statement of agreement between RSM US LLP and the Authority, superseding all proposals, oral or written, and all other communications with respect to the terms of the engagement between the parties.

Electronic Signatures and Counterparts

Each party hereto agrees that any electronic signature of a party to this agreement or any electronic signature to a document contemplated hereby (including any representation letter) is intended to authenticate such writing and shall be as valid, and have the same force and effect, as a manual signature. Any such electronically signed document shall be deemed (i) to be "written" or "in writing," (ii) to have been signed and (iii) to constitute a record established and maintained in the ordinary course of business and an original written record when printed from electronic files. Each party hereto also agrees that electronic delivery of a signature to any such document (via email or otherwise) shall be as effective as manual delivery of a manual signature. For purposes hereof, "electronic signature" includes, but is not limited to, (i) a scanned copy (as a "pdf" (portable document format) or other replicating image) of a manual ink signature, (ii) an electronic copy of a traditional signature affixed to a document, (iii) a signature incorporated into a document utilizing touchscreen capabilities or (iv) a digital signature. This agreement may be executed in one or more counterparts, each of which shall be considered an original instrument, but all of which shall be considered one and the same agreement. Paper copies or "printouts," of such documents if introduced as evidence in any judicial, arbitral, mediation or administrative proceeding, will be admissible as between the parties to the same extent and under the same conditions as other original business records created and maintained in documentary form. Neither party shall contest the admissibility of true and accurate copies of electronically signed documents on the basis of the best evidence rule or as not satisfying the business records exception to the hearsay rule.

Please sign and return a copy of this letter to indicate your acknowledgment of, and agreement with, the arrangements for our audit of the financial statements, including our respective responsibilities.

RSM US LLP



Joel Perez, Partner

Enclosure: Report on the Firm's System of Quality Control

William Chapman, CFO
Central Texas Regional Mobility Authority
February 18, 2020
Page 9

Confirmed on behalf of Central Texas Regional Mobility Authority:

William Chapman, CFO

Date

Report on the Firm's System of Quality Control

To the Partners of RSM US LLP and the National Peer Review Committee

We have reviewed the system of quality control for the accounting and auditing practice of RSM US LLP (the firm) applicable to engagements not subject to PCAOB permanent inspection in effect for the year ended April 30, 2019. Our peer review was conducted in accordance with the Standards for Performing and Reporting on Peer Reviews established by the Peer Review Board of the American Institute of Certified Public Accountants (Standards).

A summary of the nature, objectives, scope, limitations of, and the procedures performed in a System Review as described in the Standards may be found at www.aicpa.org/prsummary. The summary also includes an explanation of how engagements identified as not performed or reported in conformity with applicable professional standards, if any, are evaluated by a peer reviewer to determine a peer review rating.

Firm's Responsibility

The firm is responsible for designing a system of quality control and complying with it to provide the firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. The firm is also responsible for evaluating actions to promptly remediate engagements deemed as not performed or reported in conformity with professional standards, when appropriate, and for remediating weaknesses in its system of quality control, if any.

Peer Reviewer's Responsibility

Our responsibility is to express an opinion on the design of the system of quality control and the firm's compliance therewith based on our review.

Required Selections and Considerations

Engagements selected for review included engagements performed under *Government Auditing Standards*, including compliance audits under the Single Audit Act; audits of employee benefit plans, audits performed under FDICIA, audits of broker-dealers and examinations of service organizations [SOC 1 and SOC 2 engagements].

As a part of our peer review, we considered reviews by regulatory entities as communicated by the firm, if applicable, in determining the nature and extent of our procedures.

Opinion

In our opinion, the system of quality control for the accounting and auditing practice of RSM US LLP applicable to engagements not subject to PCAOB permanent inspection in effect for the year ended April 30, 2019, has been suitably designed and complied with to provide the firm with reasonable assurance of performing and reporting in conformity with applicable professional standards in all material respects. Firms can receive a rating of *pass*, *pass with deficiency(ies)* or *fail*. RSM US LLP has received a peer review rating of *pass*.

BKD, LLP



December 5, 2019



RSM US LLP

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San Antonio, TX 78259

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www.rsmus.com

February 18, 2020

Members of the Audit Committee of the Board of Directors
Central Texas Regional Mobility Authority
3300 North IH-35, Suite 300
Austin, Texas 78704

Dear Members of the Audit Committee of the Board of Directors:

This letter is intended to communicate certain matters related to the planned scope and timing of our audit of Central Texas Regional Mobility Authority's (the Authority) financial statements and compliance as of and for the year ending June 30, 2020.

Communication

Effective two-way communication between our firm and the Audit Committee of the Board of Directors is important to understanding matters related to the audit and developing a constructive working relationship.

Your insights may assist us in understanding the Authority and its environment, identifying appropriate sources of audit evidence and providing information about specific transactions or events. We will discuss with you your oversight of the effectiveness of internal control and any areas where you request additional procedures to be undertaken. We expect that you will timely communicate to us any matters you consider relevant to the audit. Such matters might include strategic decisions that may significantly affect the nature, timing and extent of audit procedures, your suspicion or detection of fraud or abuse, or any concerns you may have about the integrity or competence of senior management.

We will timely communicate to you any fraud involving senior management and other known or likely fraud, noncompliance with provisions of laws, regulations, contracts or grant agreements or abuse that are likely to have a material effect on the financial statements. We will also communicate illegal acts, instances of noncompliance, fraud or abuse that come to our attention (unless they are clearly inconsequential), and disagreements with management and other serious difficulties encountered in performing the audit. We also will communicate to you and to management any significant deficiencies or material weaknesses in internal control that become known to us during the course of the audit. Other matters arising from the audit that are, in our professional judgment, significant and relevant to you in your oversight of the financial reporting process will be communicated to you in writing after the audit.

Independence

Our independence policies and procedures are designed to provide reasonable assurance that our firm and its personnel comply with applicable professional independence standards. Our policies address financial interests, business and family relationships, and non-audit services that may be thought to bear on independence. For example, without our permission no partner or professional employee of RSM US LLP is permitted to have any direct financial interest or a material indirect financial interest in a client or any affiliate of a client. Also, if an immediate family member or close relative of a partner or professional

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employee is employed by a client in a key position, the incident must be reported and resolved in accordance with firm policy. In addition, our policies restrict certain non-audit services that may be provided by RSM US LLP and require audit clients to accept certain responsibilities in connection with the provision of permitted non-attest services.

The Audit Planning Process

Our audit approach places a strong emphasis on obtaining an understanding of how your entity functions. This enables us to identify key audit components and tailor our procedures to the unique aspects of your operations. The development of a specific audit plan will begin by meeting with you and with management to obtain an understanding of business objectives, strategies, risks and performance.

As part of obtaining an understanding of your organization and its environment, we will obtain an understanding of internal control. We will use this understanding to identify risks of material misstatement and noncompliance, which will provide us with a basis for designing and implementing responses to the assessed risks of material misstatement and noncompliance. We will also obtain an understanding of the users of the financial statements in order to establish an overall materiality level for audit purposes. We will conduct formal discussions among engagement team members to consider how and where your financial statements might be susceptible to material misstatement due to fraud or error or to instances of noncompliance, including abuse.

The Concept of Materiality in Planning and Executing the Audit

We apply the concept of materiality in both planning and performing the audit, evaluating the effect of identified misstatements or noncompliance on the audit and the effect of uncorrected misstatements, if any, on the financial statements, forming the opinion in our report on the financial statements, and determining or reporting in accordance with *Government Auditing Standards* and other compliance reporting requirements. Our determination of materiality is a matter of professional judgment and is affected by our perception of the financial and compliance informational needs of users of the financial statements. We establish performance materiality at an amount less than materiality for the financial statements as a whole to allow for the risk of misstatements that may not be detected by the audit. We use performance materiality for purposes of assessing the risks of material misstatement and determining the nature, timing and extent of further audit procedures. Our assessment of materiality throughout the audit will be based on both quantitative and qualitative considerations. Because of the interaction of quantitative and qualitative considerations, misstatements of a relatively small amount could have a material effect on the current financial statements as well as financial statements of future periods. We will accumulate misstatements identified during the audit, other than those that are clearly trivial. At the end of the audit, we will inform you of all individual uncorrected misstatements aggregated by us in connection with our evaluation of our audit test results.

Significant Risks of Material Misstatement

Our audit of the financial statements includes the performance of risk assessment procedures in order to identify risks of material misstatement, whether due to fraud or error. As part of these risk assessment procedures, we determine whether any risks identified are a significant risk. A significant risk is an identified and assessed risk of material misstatement that, in our professional judgment, requires special audit consideration. As part of our risk assessment procedures, we identified management override of controls and revenue recognition related to toll revenues as significant risks. Additional significant risks may be identified as we perform additional audit procedures.

Our Approach to Internal Control and Compliance Relevant to the Audit

Our audit of the financial statements, including compliance, will include obtaining an understanding of internal control sufficient to plan the audit and determine the nature, timing and extent of audit procedures to be performed. An audit is not designed to provide assurance on internal control or identify significant deficiencies or material weaknesses. Our review and understanding of the entity's internal control is not undertaken for the purpose of expressing an opinion on the effectiveness of internal control.

We will issue reports on internal control related to the financial statements and major programs. These reports describe the scope of testing of internal control and the results of our tests of internal control. Our reports on internal control will include any significant deficiencies and material weaknesses in the system of which we become aware as a result of obtaining an understanding of internal control and performing tests of internal control consistent with the requirements of *Government Auditing Standards* issued by the Comptroller General of the United States, the Single Audit Act, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* at 2 CFR 200 (Uniform Guidance) and the State of Texas Uniform Grant Management Standards.

We will issue reports on compliance with laws, statutes, regulations, and the terms and conditions of federal/state awards. We will report on any noncompliance that could have a material effect on the financial statements and any noncompliance that could have a direct and material effect on each major program. Our reports on compliance will address material errors, fraud, abuse, violations of compliance requirements, and other responsibilities imposed by state and federal statutes and regulations and assumed contracts; and any state or federal grant, entitlement or loan program questioned costs of which we become aware, consistent with the requirements of the standards identified above.

Timing of the Audit

We have scheduled preliminary audit work for the month of May 2020 and are scheduled to commence year-end fieldwork during the month of August 2020. Management's adherence to its closing schedule and timely completion of information used by us in performance of the audit is essential to timely completion of the audit.

Closing

We will be pleased to respond to any questions you have about the foregoing. We appreciate the opportunity to continue to be of service to the Authority.

This communication is intended solely for the information and use of the Audit Committee of the Board of Directors and is not intended to be, and should not be, used by anyone other than this specified party.

RSM US LLP

RSM US LLP

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 20-008

ADOPTING THE MOBILITY AUTHORITY ANNUAL REPORT FOR 2019

WHEREAS, pursuant to Texas Transportation Code Section 370.261 and Mobility Authority Policy Code Section 101.013(b), the Central Texas Regional Mobility Authority (CTRMA) is required to prepare an Annual Report on its activities during the preceding year and describing all turnpike revenue bond issuances anticipated for the coming year, the financial condition of the authority, all project schedules, and the status of the Mobility Authority's performance under the most recent Strategic Plan; and

WHEREAS, each Annual Report must be submitted to the Board for review, approval and adoption; and

WHEREAS, the Mobility Authority is required to file the 2019 CTRMA Annual Report with the Commissioners Courts of Travis County and Williamson County not later than March 31, 2020; and

WHEREAS, the Executive Director provided a draft of the proposed 2019 CTRMA Annual Report for the Board's review and consideration at the Mobility Authority's February 27, 2019 Board Meeting, a copy of which is attached hereto as Exhibit A; and

WHEREAS, the Executive Director recommends that the Board approve and adopt the proposed 2019 CTRMA Annual Report attached hereto as Exhibit A.

NOW, THEREFORE, BE IT RESOLVED, that the Board hereby approves and adopts the 2019 CTRMA Annual Report attached hereto as Exhibit A and directs the Executive Director to file the 2019 CTRMA Annual Report with the Commissioners Courts of Travis County and Williamson County not later than March 31, 2020.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 26th day of February 2020.

Submitted and reviewed by:



Geoffrey Petrov, General Counsel

Approved:



Robert W. Jenkins, Jr.
Chairman, Board of Directors

Exhibit A



CENTRAL TEXAS REGIONAL
MOBILITY AUTHORITY

Annual Report &
Financial Statements

2019

KEEPING YOU CONNECTED

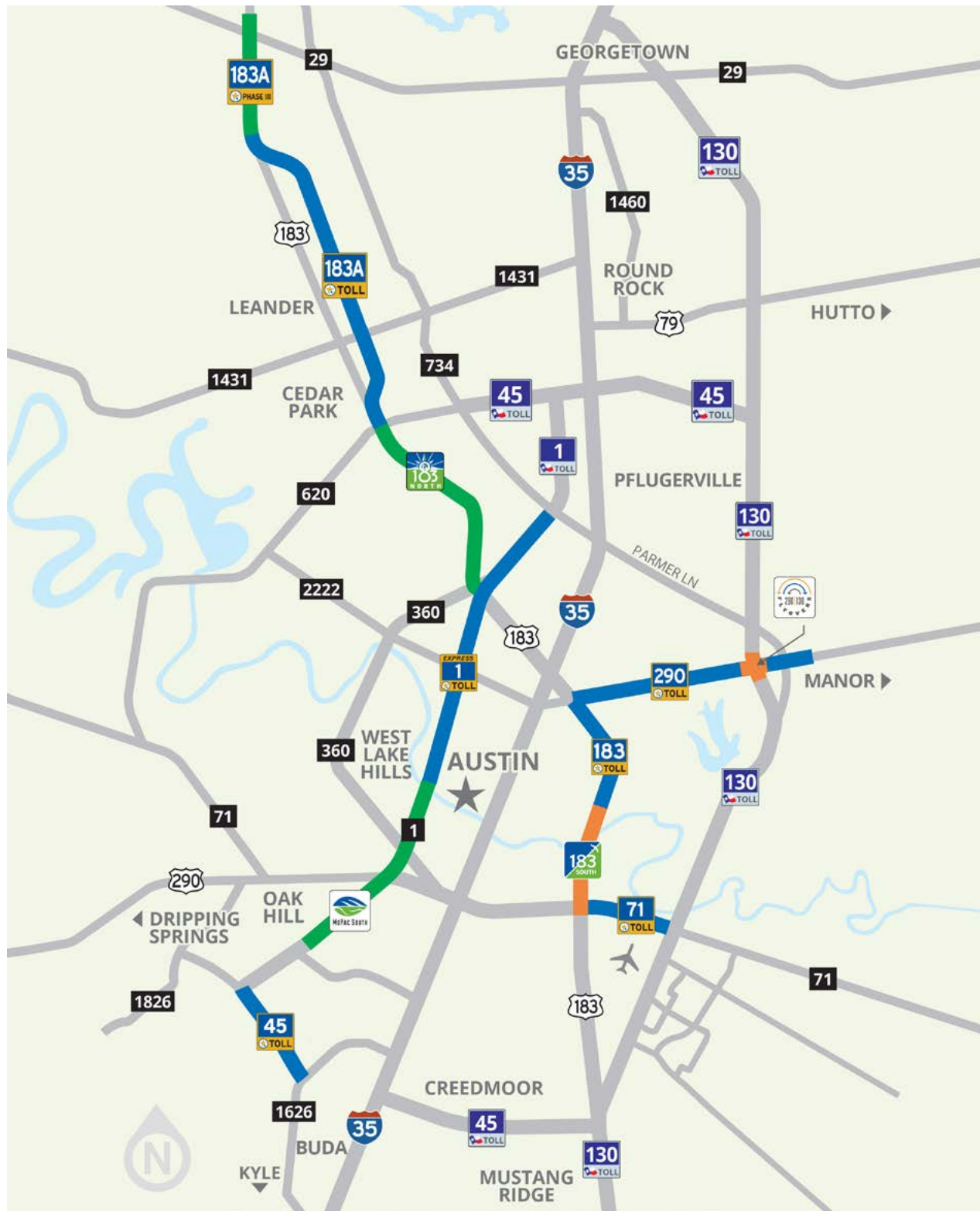
To all the places you live, work, and play



REGIONAL *map*

LEGEND

- OPEN TO TRAFFIC
- CONSTRUCTION
- IN DEVELOPMENT



our **MISSION**

Implement innovative and sustainable transportation options to enhance quality of life and economic vitality in Central Texas.





table of
CONTENTS

8

A Letter From Our
Executive Director

10

A Letter From
Our Chairman

12

The Mobility
Authority Story

14

Financial Highlights

16

Meet the Staff

20

Our Board
of Directors

22

2019 Project
Highlights

30

Projects in
Development

34

Open Roads
Performance

40

Innovative Initiatives

42

2019 Financial
Statements



AUSTIN

by the numbers



**METRO
POPULATION
2,000,059**

The Cost of Congestion:

According to the Texas A&M Transportation Institute's Urban Mobility Report, the story is simple: **TRAFFIC IS BAD, AND GETTING WORSE.**

- In 2017, Austin commuters experienced 68,187,000 hours of travel delays. That's 66 hours of delays per commuter.
- In 2017, Austin forfeited \$1,248,000,000 from lost productivity and wasted fuel due to traffic congestion. That's \$1,269 per commuter.
 - The average for all large urban areas* across the United States was 61,500,000 hours of travels days, or 54 hours/ \$950 per commuter.

*A population of between 1 and 3 million constitutes a large urban area



**MEDIAN
HOME PRICE***
\$407,400



MEDIAN AGE
34.2



**MEDIAN
MONTHLY RENT**
\$1,155



**AVERAGE
ANNUAL SALARY**
\$51,840



**UNEMPLOYMENT
RATE**
2.9%



**AVERAGE
COMMUTE TIME**
26.8 MIN

*Austin Board of Realtors, 2019

In 2019, U.S. News analyzed 125 metro areas in the United States and rates Austin:



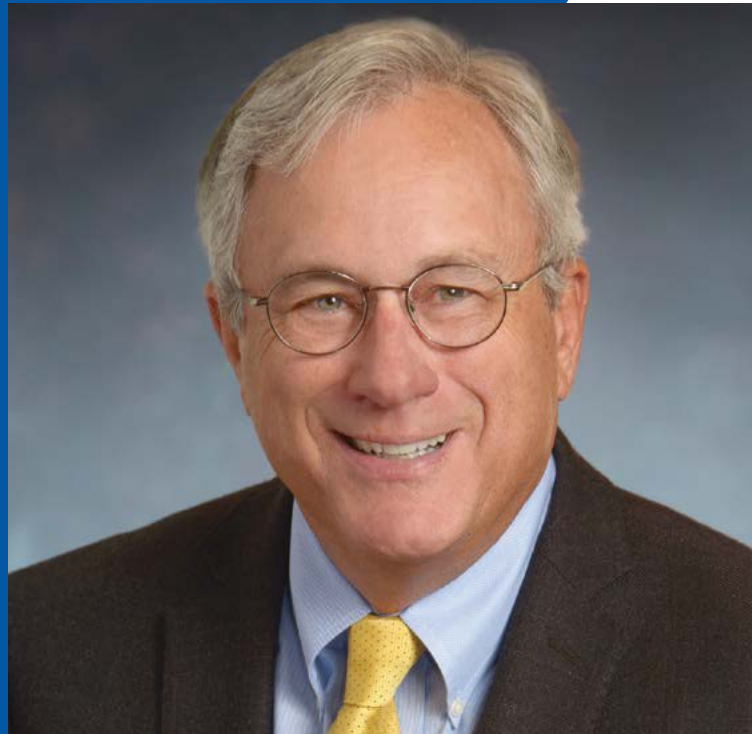
**#1 BEST PLACES
TO LIVE**



**#4 BEST PLACES
TO RETIRE**

Source: U.S. News & World Report, 2019





a letter from our
**EXECUTIVE
DIRECTOR**

“It’s all about moving people in the fastest, most efficient, and smartest ways possible.”

Central Texas is Evolving. **SO ARE WE.**

Whether you’ve just moved to Austin or have been here awhile, you’ll discover that our mobility solutions connect you to the people and places that matter most.

For eight consecutive years, the five-county Austin metro area has been named the fastest growing region in the country. This is great news for the local economy, with unemployment rates well below the national average and a healthy market for job seekers. But another trend that comes with that rapid growth is housing affordability challenges, which have made living near the urban core out of reach for so many. According to the *Austin American-Statesman*, much of Austin’s population boom is occurring in surrounding communities. More families are putting down roots in the growing suburban areas of Travis, Williamson, and Hays counties, placing an even greater strain on our already overburdened roadway network. With commute times historically above the national average, the region is starting to see the benefits of the added capacity infrastructure improvements the Mobility Authority is delivering.

So yes, Central Texas is evolving. But the good news is that so are we. As a leading provider of mobility solutions, the Mobility Authority is embracing that growth with open arms. We’re pioneering new and innovative solutions to keep our region moving and to ensure that building a life here is within reach for those who seek it.

This year we established a brand-new connection with the opening of the 45SW Toll road in southwest Travis and northern Hays counties. The new roadway is already surpassing projected transactions, showing just how strong the demand really is for a faster commute. Paving the way for further relief, we opened Phase I of the 183 Toll road in east Austin, which is on track for full project completion in 2020.

What’s more, we’re leveraging our partnership with Capital Metro to make public transportation a more viable option than ever before, and investing in Movability, a transportation management association that connects commuters with mobility options through area employers. **It’s all about moving people in the fastest, most efficient, and smartest ways possible.** By implementing proven technologies like express lanes, park & rides, and other transportation demand management strategies, we’re moving the needle on commuter behavior in a meaningful way while offering reliable transportation options that keep Central Texans connected to all the places they live, work, and play.

Sincerely,

Mike Heiligenstein
Executive Director





a letter from our **CHAIRMAN**

We at the Mobility Authority are many faces with a shared vision.”

Mobility REIMAGINED.

It is with honor that I have accepted the role of chairman to lead the Mobility Authority in delivering a greater mobility future for our community. While my tenure as chairman is recent, my roots in Central Texas date back several decades. Many know me as owner and president of ABC Home & Commercial Services, an Austin-based company I have owned and managed since 1983. Serving the people of Central Texas has become ingrained in the culture of my business and my life. I look forward to applying that customer-centric perspective to help solve some of our region’s most pressing mobility challenges.

Being entrusted to lead this agency is a responsibility I don’t take lightly. I’ve experienced firsthand the travel time benefits of the Mobility Authority’s efforts beginning with its earliest projects like the 183A and 290 Toll roads. Enabling faster, more efficient movement of people and goods helped me reach my customers faster and fueled my growing business. Since then, the Mobility Authority has grown from a small startup into the multi-billion dollar entity that it is today. The time is right to maintain our focus on optimizing the regional transportation network that keeps us all connected.

We at the Mobility Authority are many faces with a shared vision. We live here and work here. We drive to work, school, child care, and more, and travel the same roads you do to get there. Our team of dedicated employees loves the Central Texas region as much as you do and is committed to preserving and improving everything that makes it great. We are engineers, planners, problem solvers, technology specialists, analysts, communicators, and asset managers. But that’s not all we are; we wear many hats when it comes to being Central Texans. We are neighbors, artists, teachers, parents, mechanics, business owners, volunteers, soccer coaches, and so much more.

We invite you—our neighbors—to explore who we are and what we do. Meet the many faces behind the mobility solutions that are transforming the Central Texas region to a well-connected network of critical roadways. Get to know us, and reimagine mobility with us.

Sincerely,

Bobby Jenkins
Chairman

Bobby Jenkins was

Appointed by Governor Greg Abbott

to serve as chairman of the Mobility Authority’s Board of Directors. He took the oath of office September 11, 2019 for a term set to expire February 1, 2021.

The Austin Chamber of Commerce honored Bobby Jenkins as 2017

“Austinite of the Year”

for his decades of service to strengthen our community and practice philanthropy.



the MOBILITY AUTHORITY story

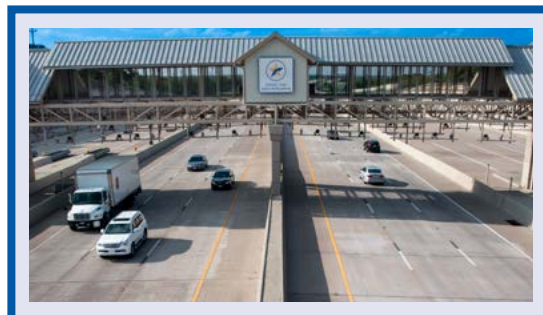
We build more than toll roads. Our projects include preserved and improved non-tolled general-purpose lanes and multimodal bicycle and pedestrian facilities to enhance mobility for all travelers.

Mobility Authority Inception



2002

183A Toll Phase I Opens



2007

2019

45SW Toll Opens

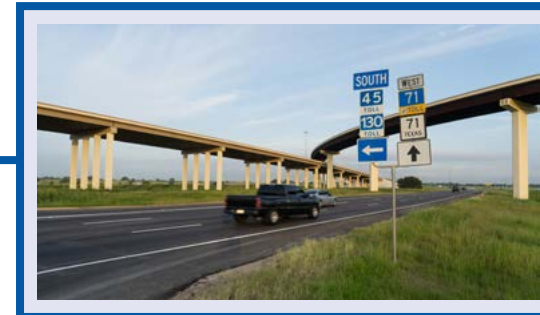


183 Toll Phase I Opens

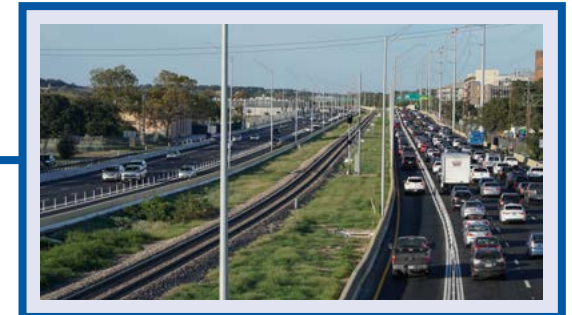


2017

71 Toll Lane Opens



MoPac Express Lane Opens



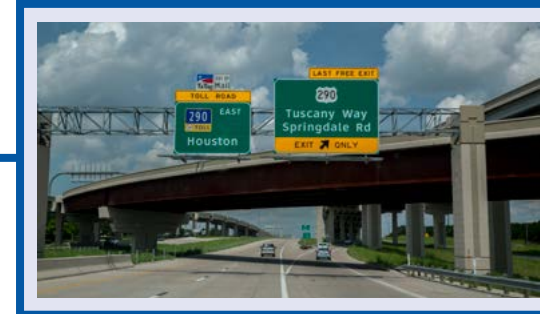
2014

290 Toll Phase II Opens



2012

290 Toll Phase I Opens



183A Toll Phase II Opens



a regional INVESTMENT

The Mobility Authority has evolved as envisioned by the legislature when it was created nearly two decades ago. Since the agency's inception in 2002, the agency has transformed a regional investment of \$559 million into **\$2.1 billion in added capacity infrastructure improvements, with 231 lane miles open to traffic and another 155 lane miles under construction.**



Turning Dollars into Solutions

Public dollars for transportation improvements are in short supply, yet our mobility needs are greater than ever. The state and federal governments have not raised their respective portions of the gas tax since 1991 and 1993. Rather than waiting decades, or longer, for public funding to become available, we use a flexible financing approach that allows us to build the added capacity we need today. The revenue we generate is reinvested right here in Central Texas to continue expanding our regional network.

In 2014 and 2015, the Texas voters approved Propositions 1 and 7, respectively, allocating additional funding to transportation infrastructure. The combined funds that have been allocated to the Central Texas Region total \$1.3 billion over the next ten years.

To put that in perspective, the proposed improvements to I-35 are estimated at close to \$10 billion alone. We need more tools in our transportation funding toolbox to cover our region's critical needs.



Moving forward,
we anticipate

LEVERAGING AN ADDITIONAL INVESTMENT BY THE REGION

to develop over \$3.4 billion in infrastructure improvements.



ABOUT HALF OF THAT INVESTMENT INCLUDES NON-TOLLED IMPROVEMENTS,

such as new general-purpose lanes, bike and pedestrian enhancements, and aesthetic upgrades.



many faces ONE VISION

Our team of dedicated employees loves the Central Texas region as much as you do and we are committed to preserving and improving everything that makes it great. We wear many hats when it comes to being Central Texans. Here is what some of us have to say about living and working in Central Texas:



“ By working at the Mobility Authority, I am able to see first-hand how my contributions impact my family and our quality of life. Not many people get to say that. I am truly blessed. ”

TRACIE BROWN,
Director of Operations



“ I use the Mopac Express Lane to get home as fast as I can to these munchkins. ”

GREG MACK,
Assistant Director of IT and Toll Systems



“ As a native Austinite there is no other place I'd rather live, work, and play. ”

DEE ANNE HEATH,
Director of Communications and Government Relations

“ My main motivation at the Mobility Authority is to help others like me who want to get home to our families and experience the important events in our kids' lives. ”

OSCAR SOLIS,
Senior Project Manager



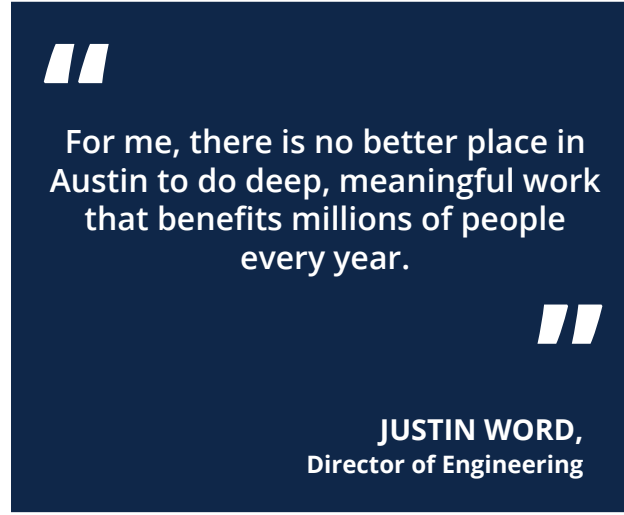
“ Getting the chance to work on the biggest projects in the region making some of the biggest differences in people's lives is awesome. Getting to see it all built is even better. ”

MIKE SEXTON,
Assistant Director of Engineering



“
When we open a new road, I'm filled with pride about the transportation options we're giving residents and visitors.
”

MARY TEMPLE,
Controller



“
For me, there is no better place in Austin to do deep, meaningful work that benefits millions of people every year.
”

JUSTIN WORD,
Director of Engineering



“
It's easy to be passionate about your work when it directly impacts the quality of life for our region. I am proud to play a role in keeping our region moving.
”

LISA POHLMAYER,
Senior Project Manager — Asset Management



“
My father, brother, and I have all made careers in improving the regional transportation landscape of Central Texas. I love being reminded of our careers every day when I drive the roads in the region.
”

LLOYD CHANCE,
Senior Project Manager — Construction



“
My family is my top priority. I take pride in being able to provide options that don't just help me and mine, but others as well.
”

FABIOLA NEWMAN,
Traffic & Incident Management Center Manager



“
It's rewarding to have experienced the evolution of this agency, from a small start-up to the multi-billion-dollar entity that it is today.
”

BILL CHAPMAN,
Chief Financial Officer



our board OF DIRECTORS

We are governed by a seven-member board of directors responsible for setting policies, identifying priority projects, and ensuring the agency is operated in an efficient, effective, and transparent manner. Our volunteer members are appointed by our founding counties and serve two-year terms.

A SPECIAL THANK YOU...

to our outgoing chairman, Ray A. Wilkerson, for 10 years of dedicated service to Central Texas. We appreciate the many benefits his time and expertise made possible for the region.



Bobby Jenkins

Chairman
Gubernatorial Appointee — 2019



Nikelle S. Meade

Vice-Chair
Travis County Appointee — 2012



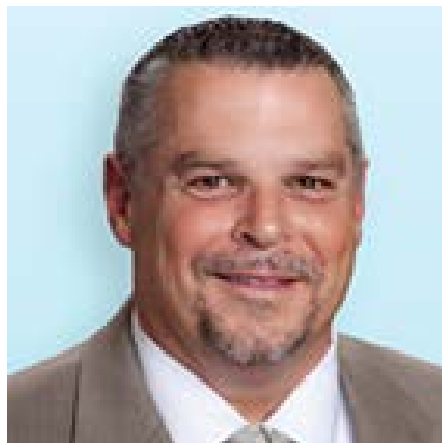
David B. Armbrust

Board Member
Travis County Appointee — 2012



John Langmore

Board Member
Travis County Appointee — 2018



David Singleton

Board Treasurer
Williamson County Appointee — 2003



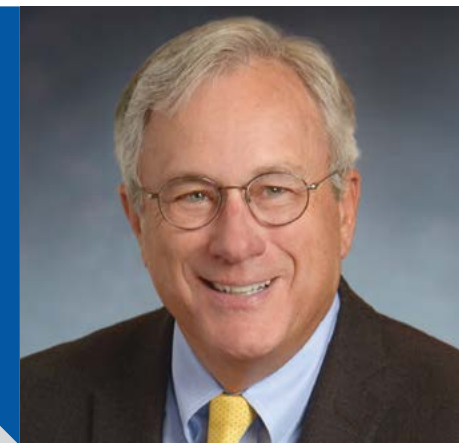
Mark Ayotte

Board Secretary
Williamson County Appointee — 2017



Mike Doss

Board Member
Williamson County Appointee — 2019



Mike Heiligenstein

Executive Director
Since 2003





building
**NEW
CONNECTIONS**



Community Celebrates Opening of 45SW Toll Road

In May 2019, we joined the community and elected officials in celebrating the long-awaited opening of the 45SW Toll road. The new, 3.6-mile roadway links the southern end of MoPac eastward to FM 1626 in Hays County, offering drivers an alternative to congested neighborhood streets. In the first 60 days of operations, the roadway surpassed projections, confirming just how great demand really is for this new connection. Drivers are already experiencing the benefits of time saved and less congested neighborhood streets, particularly through the Shady Hollow neighborhood.

Environmental Preservation

The 45SW Toll was designed and constructed with Best Management Practices to protect the environmentally-sensitive Edwards Aquifer Recharge Zone.

- Provides 98% removal of the increase in Total Suspended Solids (TSS) over the recharge zone rather than the required 80%.
- 90% of the project was built above ground level to avoid excavation and protect karst features, and more than half the right-of-way was preserved as natural vegetation.
- The Mobility Authority invested nearly \$19 million in environmental conservation efforts.
- More than 100 trees were preserved by replacing fill slopes with retaining walls.

Mobility Authority Pioneers Wrong-Way Driving Technology in Central Texas

In an effort to combat incidents resulting from wrong-way driving, the Mobility Authority outfitted 45SW with a wrong-way intelligent warning system that detects wrong-way motorists, activates roadside signage to alert drivers and notifies law enforcement of the wrong-way movement—before an incident occurs. Since installation of the intelligent warning system in June 2019, 13 wrong-way events have been detected and corrected, avoiding potential crashes.

Drivers who use 45SW Toll save up to



in travel time.

Drivers continuing to use local neighborhood routes save up to



compared to pre-construction travel times.



Traffic volumes on neighborhood streets **have been reduced by 30%.**



Average weekday transactions are **30% higher than projected.**





45SW is a lifesaver! We live in Circle C and our son plays soccer at Marbridge off of 1626. Last Spring, when we had to drive Slaughter to Brodie to 1626, it would take us easily 30-40 minutes to get to soccer practice on a weeknight.

NOW THAT 45SW IS OPEN — IT TAKES US 7 MINUTES...YES — SEVEN. THANK YOU!!!!

~Carrie Stein, Circle C Resident.



To say I am thrilled to have this road finally complete is an understatement.

I BELIEVE THIS HIGHWAY WILL NOT ONLY BE THE MOST ENVIRONMENTALLY SENSITIVE IN TEXAS, BUT ALSO THE SAFEST."

~State Representative Vikki Goodwin

Augmented Reality

The Mobility Authority's mobile application provides users of the 45SW Trail an interactive augmented reality animation experience. The narrated educational experience, available in English and Spanish, teaches users about the region's history, its native plants and animals, the Edwards Aquifer, and more.

"Trail Explorer by CTRMA," is available on iTunes and the Google Play store as of December 2019.



HILL COUNTRY CLASSROOM

For multimodal connectivity, a 4.5-mile shared use path runs adjacent to the 45SW Toll road with trailheads at MoPac and Bliss Spillar Road. A shaded section of the trail known as the "Hill Country Classroom" features interpretive educational signage for cyclists and pedestrians taking respite from the Texas heat.





Now Open: 183 Toll Road, Phase I

Construction of the 183 South Project reached a major milestone in August 2019. Phase I, or the North End of the project, opened to traffic and tolling, offering drivers the option to use the new 183 Toll road and bypass the traffic signals between US 290 and Techni Center Drive. When the full project opens in late 2020, drivers will have a non-stop, signal-free option all the way to the Austin-Bergstrom International Airport.

Delivering on the promise of greater mobility for all, the project is also enhancing non-tolled capacity along the corridor. The total number of traffic signals on the non-tolled lanes will be reduced from five to two, and the \$25 million investment in bicycle and pedestrian facilities will improve quality of life for those who bike or walk.

A New Sense of Place

Neighborhood-specific trees, enhanced landscaping, trailheads, and other aesthetic elements will give the US 183 corridor a new sense of place. The Mobility Authority is proud of the robust community outreach effort that helped inform the planned aesthetics. We know that people support what they help create. That's why we engaged the community during the development process to ensure the corridor ultimately reflects the community's cultural values and aesthetic preferences.



Over the past four decades, Callahan's General Store has weathered the transformations, transitions, and generational turnovers in Austin because of our prime location.

AS WE EAGERLY AWAIT THE COMPLETION OF THE 183 SOUTH PROJECT, I APPLAUD THE MOBILITY AUTHORITY'S DESIGN, WHICH WILL OFFER OUR CUSTOMERS IMPROVED ACCESS FROM THE NORTH AND SOUTH."

~Charley Wilson, Callahan's General Store

A FREE RIDE FOR ELECTRONIC TAG HOLDERS

To give drivers a chance to try the new road and adjust to the new traffic pattern, those with an electronic tag got to drive toll-free on both the 45SW and 183 Toll roads for the first month of operations.



Austin-Bergstrom International Airport

Travel time savings

for ABIA-bound commuters could be as much as

33 minutes

when the project is complete.



For the first month of tolling (September 2019), average weekday transactions of the toll road were

**34,957—
220% above projections.**





Flyover Bridges for Signal-free Travel

Construction is progressing rapidly on three flyover bridges to link the SH 130 and 290 Toll Roads in eastern Travis County. With construction anticipated to be complete in 2021, drivers from outlying suburban areas to the north and south will soon enjoy a faster commute into the heart of Austin. Together with our partners at TxDOT, we're delivering this project on an accelerated timeline. In fact, the south-to-west direct connector opened in early January 2020, roughly eight months ahead of schedule. Rapid project delivery, as well as project financing through a Transportation Infrastructure and Innovation Act (TIFIA) loan, equates to a reduced overall project cost. Interest savings over the life of the loan will ultimately equate to \$80-\$100 million.



OPENED JANUARY 2020

Flyover bridge from southbound SH 130 to westbound 290 Toll





the ROADS AHEAD

The Mobility Authority has a number of projects in development to bring mobility improvements to Travis and Williamson counties.



183A Phase III

Unprecedented population growth in Williamson County—most notably in Cedar Park, Leander and Liberty Hill— has led to increased traffic volumes and unsustainable congestion along US 183. Thanks to the 183A Phase III Project, enjoying the benefits of suburban living no longer means sacrificing connectivity with the rest of the Central Texas region. Constructing this third phase of 183A will help relieve congestion, improve safety, and enhance mobility for commuters in Williamson County.

In August 2019, the project received a Finding of No Significant Impact, clearing the way for final design. The project is anticipated to break ground in late 2020, extending the 183A Toll Road 6.6-miles northward to north of SH 29 in Liberty Hill. An adjacent shared use path will facilitate bicycle and pedestrian travel, in line with the Mobility Authority's commitment to providing more reliable travel, for any way you travel.



183 North Mobility Project

An express route into downtown is on the horizon for North Austin commuters. In partnership with TxDOT, the Mobility Authority is forging ahead with plans to construct two variably-priced express lanes in each direction along a 9-mile stretch of US 183 between MoPac and SH 45 North. This new reliable travel option will significantly reduce travel times to an estimated 9 minute trip. With a direct connector ramp to the existing MoPac Express Lane, the project will provide drivers from far north Austin an uninterrupted route into Austin's downtown core.

Drivers who prefer not to pay a toll will benefit from the operational improvements and added pavement that will bring the total number of non-tolled lanes to four where only three exist today. Those who travel by foot or by bike can look forward to additional enhancements such as new shared-use path segments, sidewalks, and cross-street connections which will help facilitate travel to nearby schools.



Congestion on this stretch of roadway caused **1,617,906 hours of delay** costing the region more than \$30 million annually.

"This corridor is the 74th most congested roadway in the State of Texas."

~The Texas A&M Transportation Institute 2018





MoPac South Environmental Study

Attracting up to 160,000 cars and trucks a day, the MoPac corridor south of Cesar Chavez Street is a vital artery linking commuters to major highways like US 290 and Loop 360, as well as downtown Austin. Over time, expanding population and regional development have made it one of the most congested roadways in Texas, negatively impacting mobility and quality of life.

If we do nothing to address congestion, drivers could spend an additional 35 minutes traveling the corridor by 2035.

In August 2019, the Mobility Authority received the green light from TxDOT to resume efforts on the MoPac South Environmental Study. Launched in 2013, the study is being implemented to analyze the congested MoPac corridor and determine the best approach to managing congestion in a manner that promotes environmental stewardship and sustainability.

Additional community engagement opportunities will take place throughout 2020, and a Recommended Preferred Alternative will be shared for review and comment at an open house. Construction could begin as early as 2023.

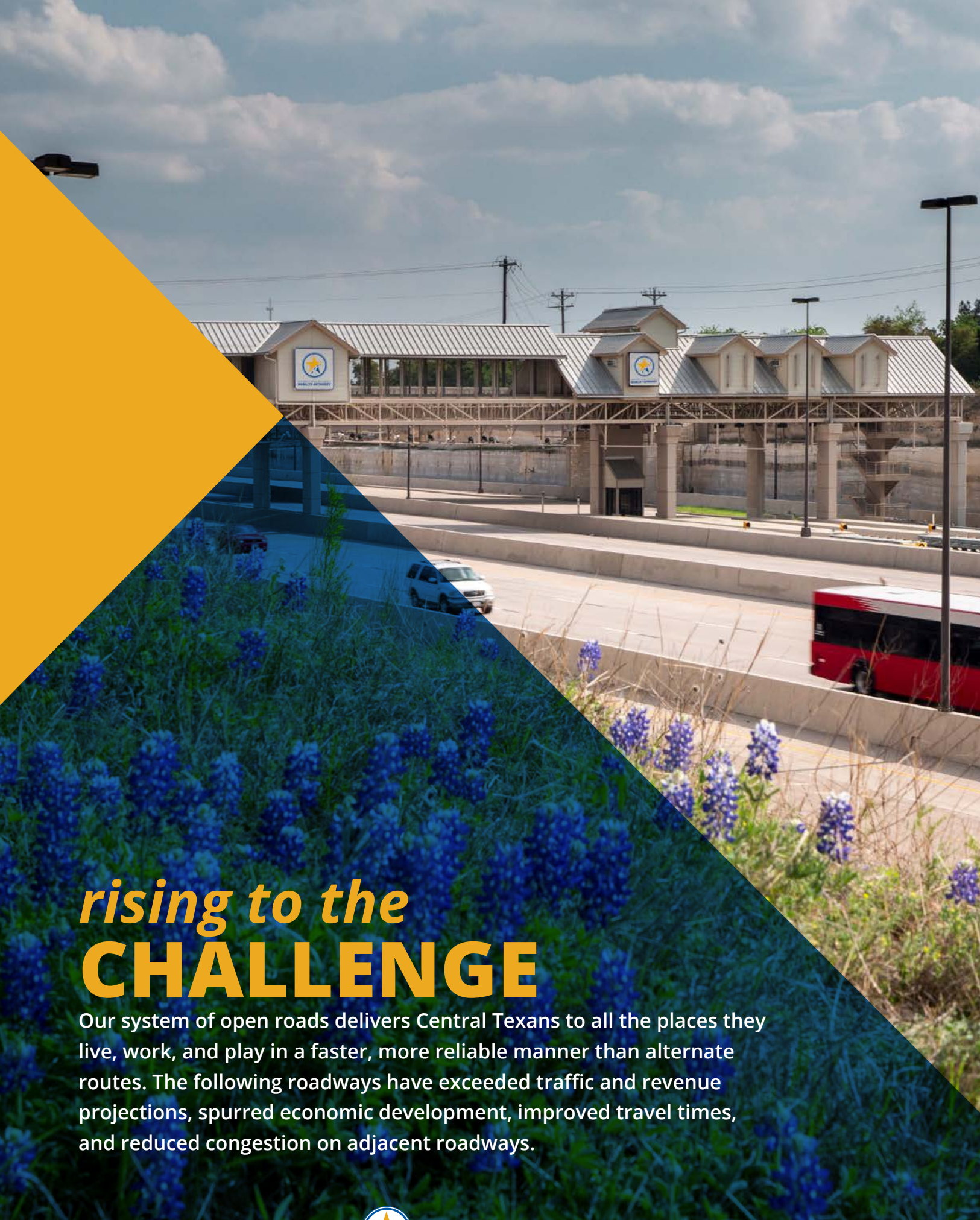
Barton Skyway Ramp Relief

Overwhelming demand for the southbound MoPac corridor near Barton Skyway has caused unpredictable travel times. Following the opening of the MoPac Express Lane, opportunities for additional operational improvements on southbound MoPac near Barton Skyway were identified. The Mobility Authority is exploring improvements to help alleviate the consistent bottleneck from traffic merging onto southbound MoPac at the Barton Skyway and Bee Caves Road entrance ramps.

The improvements are compatible with the proposed MoPac South Express Lane(s), and include adding pavement for auxiliary and merge lanes to improve operations, traffic flow, and throughput.

If approved, construction could begin as soon as early 2021.





rising to the CHALLENGE

Our system of open roads delivers Central Texans to all the places they live, work, and play in a faster, more reliable manner than alternate routes. The following roadways have exceeded traffic and revenue projections, spurred economic development, improved travel times, and reduced congestion on adjacent roadways.



183A Toll



In 2018, travel times on 183A Toll were reduced by 53 percent compared with US 183. This equates to a time savings of approximately 11 minutes.



Traffic volumes have increased steadily by approximately 16 percent per year since 2016, consistently outpacing projections.



Emergency first responders, police, fire, and EMS have toll-free access to the tolled mainlanes of 183A, reducing response times by approximately 13 minutes since prior to construction.



The annual crash rate for the mainlanes of 183A between 2016 and 2018 has remained approximately 72 percent below the Texas statewide average for urban interstate highways.





290 Toll Road

- In 2018, travel times on 290 Toll were reduced by 48 percent compared with the non-tolled lanes of US 290. This equates to a time savings of approximately six minutes.
- Traffic volumes have increased steadily by approximately 5 percent per year since 2016, consistently outpacing projections by as much as 19 percent in 2018.
- Emergency first responders, police, fire, and EMS have toll-free access to the tolled mainlanes of 290 Toll, reducing response times by approximately six minutes since prior to construction.
- The annual crash rate for the mainlanes of 290 Toll between 2016 and 2018 has remained approximately 95 percent below the Texas statewide average for urban interstate highways.



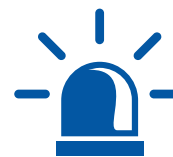
71 Toll Lane



In 2018, travel times on the 71 Toll Lane were reduced by 17 percent compared with the non-tolled general-purpose lanes.



Traffic volumes have increased steadily by approximately 15 percent per year since 2016.



Emergency first responders, police, fire, and EMS have toll-free access to the 71 Toll Lane, reducing response times by approximately 27 percent, or about 1 minute, since prior to construction.



The annual crash rate for the mainlanes of SH 71 between April 2017 and December 2018 has remained approximately 95 percent below the Texas statewide average for urban interstate highways.



MoPac Express Lane



Express Lane shows an average of one million transactions per month since January 2019



In 2018, travel times on MoPac were reduced by 37 percent compared with the general-purpose lanes. This equates to a time savings of approximately 8 minutes.



Traffic volumes have increased steadily by approximately three percent per year since 2016.



Emergency first responders, police, fire, and EMS have toll-free access to MoPac Express Lane reducing response times by approximately 14 minutes since prior to construction.



The annual crash rate for the mainlanes of MoPac between October 2017 and December 2018 has remained approximately 94 percent below the Texas statewide average for urban interstate highways.



MOVING PEOPLE in the smartest ways

Our mobility solutions look beyond the pavement to deliver relief in a sustainable manner, while prioritizing customer and community service.

Transportation Demand Management is Key to Greater Mobility

Addressing traffic congestion is about more than added capacity. In order to achieve long-term relief, we must also look at incentivizing changes in commuting habits by managing demand.

- Our partnership with local transit provider Capital Metro allows toll-free access to all our facilities, which has begun to move the needle on commuter behavior. We're also working together on a Park & Ride initiative which will bring more commuter lots to the suburbs and make carpooling and transit use a more viable option for a greater percentage of commuters.
- Commute Solutions is our regional Transportation Demand Management partner that promotes greater efficiency and more optimal use of existing roadways. By discouraging less efficient travel behavior like single-occupant vehicle use, peak-hour travel, and travel on high-congestion roadways, the program encourages more efficient behavior such as use of public transit, carpools, vanpools, walking, biking, teleworking, alternative work schedules, and more.



Pilot Program Waives Tolls for Qualified Veterans

November 2019 marked the one-year anniversary since the Mobility Authority's Qualified Veteran Discount Program took effect. We are proud to offer this program which waives tolls on 183A Toll, 290 Toll, the 71 Toll Lane, 45SW Toll, and 183 Toll for qualified veterans registered for the program. As of December 2019, 5,558 veterans have registered for the program.

Disabled veterans, Purple Heart recipients, and Legion of Valor or Medal of Honor recipients interested in registering should visit www.MobilityAuthority.com/veterans.

The Express Lane has converted

an average of 12,266 passenger miles per week

from single occupancy vehicle commuting to transit.

Since the MoPac Express Lane became fully operational in 2017,

CapMetro Express Bus ridership increased by 161% on certain routes.

More than \$110,000 in tolls have been waived for CapMetro

on MoPac between October 2018 and August 2019, constituting 31% of all waived tolls in the Express Lane.



2019 FINANCIAL STATEMENTS

The Mobility Authority's financial statements are prepared in accordance with accounting principles generally accepted in the United States (GAAP) as applied to government units on an accrual basis. To view the audited Financial Statements and Management Discussion and Analysis, please visit www.MobilityAuthority.com/financials.

Statements of Net Position June 30, 2019 and 2018

	2019	2018
CURRENT ASSETS:		
Unrestricted:		
Cash and cash equivalents	\$ 44,232,326	\$ 49,687,164
Investments	88,707,812	35,008,355
Due from other governments	12,345,989	4,336,907
Accrued interest receivable	782,617	192,484
Prepaid expenses and other assets	200,167	46,518
Total unrestricted	146,268,911	89,271,428
Restricted:		
Cash and cash equivalents	69,051,895	92,822,518
Total restricted	69,051,895	92,822,518
Total current assets	215,320,806	182,093,946
NONCURRENT ASSETS:		
Restricted assets:		
Cash and cash equivalents	128,276,321	26,661,063
Investments	214,341,876	177,722,684
Total restricted assets	342,618,197	204,383,747
Pension asset	177,226	826,397
Total capital assets, net	1,810,304,756	1,673,629,024
Total assets	2,368,420,985	2,060,933,114
Total deferred outflows of resources	107,391,830	108,056,556
Total assets and deferred outflows of resources	\$ 2,475,812,815	\$ 2,168,989,670

Statements of Net Position (continued) June 30, 2019 and 2018

	2019	2018
CURRENT LIABILITIES:		
Payable from current assets:		
Accounts payable	\$ 4,368,846	\$ 1,079,771
Due to other governments	3,843,193	4,073,939
Accrued expenses	1,048,980	584,371
Total payable from current assets	9,261,019	5,738,081
Payable from restricted current assets:		
Construction accounts payable	22,328,944	45,136,616
CAMPO RIF payable	4,000,000	2,000,000
Accrued interest payable	27,687,951	25,942,463
Bonds, notes payable and other obligations, current portion	14,460,000	7,425,000
Unearned revenue	575,000	12,318,439
Total payable from restricted current assets	69,051,895	92,822,518
Total current liabilities	78,312,914	98,560,599
NONCURRENT LIABILITIES:		
Bonds, notes payable and other obligations, net of current portion	1,733,443,031	1,433,999,854
Total noncurrent liabilities	1,733,443,031	1,433,999,854
Total liabilities	1,811,755,945	1,532,560,453
Total deferred inflows of resources	235,911	278,184
Total liabilities and deferred inflows of resources	1,811,991,856	1,532,838,637
NET POSITION:		
Net Investment in capital assets	439,875,334	447,015,053
Restricted for debt service	118,363,136	106,764,024
Unrestricted	105,582,489	82,371,956
Total net position	663,820,959	636,151,033
Total liabilities and net position	\$ 2,475,812,815	\$ 2,168,989,670

Statements of Revenue, Expenses and Changes in Net Position Years Ended June 30, 2019 and 2018

	2019	2018
OPERATING REVENUES:		
Tolls	\$ 108,314,272	\$ 91,491,730
Grant proceeds and other operating	40,514	681,812
Total operating revenues	108,354,786	92,173,542



Statements of Revenue, Expenses and Changes in Net Position (continued)

Years Ended June 30, 2019 and 2018

	2019	2018
OPERATING EXPENSES:		
Administrative expenses	9,581,813	7,671,173
Operations and maintenance	18,942,686	19,196,015
Other operating expenses	6,099,937	3,689,114
Depreciation and amortization	29,933,665	28,045,493
Total operating expenses	64,558,101	58,601,795
Operating income	43,796,685	33,571,747
NONOPERATING REVENUES (expenses):		
Interest income	5,273,584	2,541,537
Gain on sale of assets	4,348	—
Financing expense	(2,529,291)	(226,753)
Interest expense, net of interest capitalized	(35,551,238)	(34,908,809)
Total nonoperating revenues (expenses), net	(32,802,597)	(32,594,025)
Change in net position before capital grants and contributions	10,994,088	977,722
TxDOT capital grants and contributions, net	16,675,838	17,326
Change in net position	27,669,926	995,048
Total net position at beginning of year	636,151,033	635,155,985
Total net position at end of year	\$ 663,820,959	\$ 636,151,033

Statements of Cash Flows

Years Ended June 30, 2019 and 2018

	2019	2018
Cash flows from operating activities:		
Receipts from toll fees	\$ 101,641,302	\$ 91,130,996
Receipts from grants and other income	40,514	681,812
Payments to vendors	(26,158,836)	(22,051,246)
Payments to employees	(5,160,799)	(4,789,619)
Net cash flows provided by operating activities	70,362,181	64,971,943
Cash flows from capital and related financing activities:		
Proceeds from notes payable and other obligations	312,568,386	90,521,885
Payments on revenue bonds issuance	(2,254,919)	—
Payments on interest	(52,427,010)	(54,324,611)
Payments on bonds	(9,028,847)	(9,403,471)
Purchase of capital assets	(1,022,477)	(302,647)
Payments for construction in progress	(174,467,655)	(240,014,400)
Proceeds from capital grants	9,114,794	28,679,062
Net cash flows provided by (used) in capital and related financing activities	82,482,272	(184,844,182)

Statements of Cash Flows (continued)

Years Ended June 30, 2019 and 2018

	2019	2018
Cash flows from investing activities:		
Interest income, gross of capitalized interest	9,913,994	5,083,086
Purchase of investments	(379,881,060)	(178,465,748)
Proceeds from sale or maturity of investments	289,512,410	261,164,872
Net cash flows provided by (used in) investing activities	(80,454,656)	87,782,210
Net increase (decrease) in cash and cash equivalents	72,389,797	(32,090,029)
Cash and cash equivalents at beginning of year	169,170,745	201,260,774
Cash and cash equivalents at end of year	\$ 241,560,542	\$ 169,170,745
Reconciliation of change in net position to net cash provided by operating activities:		
Operating income	\$ 43,796,685	\$ 33,571,747
Adjustments to reconcile change in net position to net cash provided by operating activities:		
Depreciation and amortization	29,933,665	28,045,493
Changes in assets and liabilities:		
Increase in due from other governments	(8,009,082)	(391,555)
(Increase) decrease in prepaid expenses and other assets	(153,649)	(8,519)
Increase (decrease) in accounts payable	3,289,075	(727,881)
Increase in accrued expenses	233,863	4,541,014
Increase in pension asset	649,171	(471,258)
Increase in deferred outflow of resources	664,726	421,167
Increase (decrease) in deferred inflow of resources	(42,273)	(8,265)
Total adjustments	26,565,496	31,400,196
Net cash flows provided by operating activities	\$ 70,362,181	\$ 64,971,943
Reconciliation of cash and cash equivalents:		
Unrestricted cash and cash equivalents	\$ 44,232,326	\$ 49,687,164
Restricted cash and cash equivalents:		
Current	69,051,895	92,822,518
Noncurrent	128,276,321	26,661,063
Total	\$ 241,560,542	\$ 169,170,745





about the
Central Texas
**REGIONAL
MOBILITY
AUTHORITY**

The Central Texas Regional Mobility Authority is a local, independent government agency created in 2002 to improve the regional transportation system in Travis and Williamson counties. The Mobility Authority implements innovative and sustainable transportation options to enhance quality of life and economic vitality in Central Texas. The Mobility Authority operates 183A Toll, 290 Toll, the 71 Toll Lane, the MoPac Express Lane, 45SW Toll, and 183 Toll (Phase I). The agency is finishing construction of the 8-mile 183 South Project and the 290/130 Flyovers Project.

For more information, visit www.mobilityauthority.com.





CENTRAL TEXAS REGIONAL
MOBILITY AUTHORITY

**3300 NORTH IH-35, SUITE 300
AUSTIN, TX 78705**

MOBILITYAUTHORITY.COM

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 20-009

ACCEPT THE FINANCIAL STATEMENTS FOR JANUARY 2020

WHEREAS, the Central Texas Regional Mobility Authority (Mobility Authority) is empowered to procure such goods and services as it deems necessary to assist with its operations and to study and develop potential transportation projects, and is responsible to insure accurate financial records are maintained using sound and acceptable financial practices; and

WHEREAS, close scrutiny of the Mobility Authority's expenditures for goods and services, including those related to project development, as well as close scrutiny of the Mobility Authority's financial condition and records is the responsibility of the Board and its designees through procedures the Board may implement from time to time; and

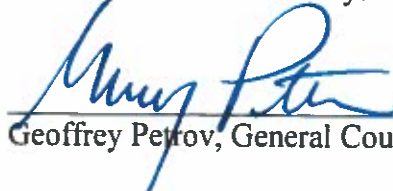
WHEREAS, the Board has adopted policies and procedures intended to provide strong fiscal oversight and which authorize the Executive Director, working with the Mobility Authority's Chief Financial Officer, to review invoices, approve disbursements, and prepare and maintain accurate financial records and reports;

WHEREAS, the Executive Director, working with the Chief Financial Officer, has reviewed and authorized the disbursements necessary for the month of January 2020, and has caused financial statements to be prepared and attached to this resolution as Exhibit A; and

NOW THEREFORE, BE IT RESOLVED, that the Board of Directors accepts the financial statements for January 2020, attached hereto as Exhibit A.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 26th day of February 2020.

Submitted and reviewed by:



Geoffrey Petrov, General Counsel

Approved:



Robert W. Jenkins, Jr.
Chairman, Board of Directors

Exhibit A

Central Texas Regional Mobility Authority
Income Statement
For the Period Ending January 31, 2020

	Budget Amount FY 2020	Actual Year to Date	Percent of Budget	Actual Prior Year to Date
REVENUE				
Operating Revenue				
Toll Revenue - Tags	97,816,954	54,845,771	56.07%	46,504,156
Video Tolls	24,963,459	14,113,693	56.54%	10,587,303
Fee Revenue	7,589,784	6,254,327	82.40%	3,401,300
Total Operating Revenue	130,370,198	75,213,791	57.69%	60,492,759
Other Revenue				
Interest Income	4,000,000	4,369,493	109.24%	2,809,073
Grant Revenue	5,541,945	401,724	7.25%	868,585
Misc Revenue	2,000	4,111	205.57%	37,200
Gain/Loss on Sale of Asset	-	11,117	-	-
Total Other Revenue	9,543,945	4,786,446	50.15%	3,714,858
TOTAL REVENUE	\$139,914,143	\$80,000,237	57.18%	64,207,616
EXPENSES				
Salaries and Benefits				
Salary Expense-Regular	4,469,989	2,440,672	54.60%	2,252,243
Salary Reserve	80,000	-	-	-
TCDRS	632,057	331,410	52.43%	261,783
FICA	204,345	90,160	44.12%	73,189
FICA MED	67,769	35,408	52.25%	28,942
Health Insurance Expense	510,761	240,134	47.01%	213,698
Life Insurance Expense	8,034	5,645	70.26%	5,178
Auto Allowance Expense	10,200	5,525	54.17%	5,525
Other Benefits	122,131	77,237	63.24%	83,166
Unemployment Taxes	2,823	250	8.85%	4,091
Total Salaries and Benefits	6,108,109	3,226,440	52.82%	2,927,816

Central Texas Regional Mobility Authority
Income Statement
For the Period Ending January 31, 2020

	Budget Amount FY 2020	Actual Year to Date	Percent of Budget	Actual Prior Year to Date
Administrative				
Administrative and Office Expenses				
Accounting	10,000	5,102	51.02%	4,925
Auditing	125,000	97,736	78.19%	74,571
Human Resources	40,000	21,402	53.50%	3,711
IT Services	307,700	48,165	15.65%	62,245
Internet	450	215	47.81%	3,236
Software Licenses	123,100	18,211	14.79%	32,156
Cell Phones	23,891	11,348	47.50%	8,945
Local Telephone Service	120,000	52,256	43.55%	5,116
Overnight Delivery Services	550	47	8.52%	61
Local Delivery Services	725	25	3.39%	62
Copy Machine	14,735	8,904	60.43%	8,593
Repair & Maintenance-General	14,200	4,064	28.62%	2,361
Community Meeting/ Events	12,000	-	-	-
Meeting Expense	14,750	10,274	69.65%	6,353
Public Notices	100	(9)	-9.00%	-
Toll Tag Expense	4,150	1,300	31.33%	1,504
Parking / Local Ride Share	2,800	1,043	37.25%	650
Mileage Reimbursement	8,300	1,767	21.29%	2,077
Insurance Expense	256,200	162,625	63.48%	111,870
Rent Expense	720,000	305,093	42.37%	311,042
Building Parking	27,000	11,163	41.34%	-
Legal Services	500,000	228,335	45.67%	141,596
Total Administrative and Office Expenses	2,325,651	989,066	42.53%	781,074
Office Supplies				
Books & Publications	5,000	-	-	3,112
Office Supplies	17,000	4,517	26.57%	7,868
Misc Office Equipment	10,250	3,015	29.42%	4,317
Computer Supplies	169,400	15,250	9.00%	25,744
Copy Supplies	3,000	1,043	34.77%	1,036
Other Reports-Printing	8,000	-	-	-
Office Supplies-Printed	5,250	1,623	30.91%	2,526
Misc Materials & Supplies	750	-	-	-
Postage Expense	850	249	29.28%	161
Total Office Supplies	219,500	25,697	11.71%	44,765

Central Texas Regional Mobility Authority
Income Statement
For the Period Ending January 31, 2020

	Budget Amount FY 2020	Actual Year to Date	Percent of Budget	Actual Prior Year to Date
Communications and Public Relations				
Graphic Design Services	60,000	-	-	29,424
Website Maintenance	105,000	8,081	7.70%	24,504
Research Services	770,000	46,368	6.02%	(56,385)
Communications and Marketing	300,500	149,040	49.60%	167,996
Advertising Expense	755,000	225,233	29.83%	158,294
Direct Mail	10,000	-	-	-
Video Production	150,000	22,393	14.93%	8,820
Photography	10,000	379	3.79%	4,895
Radio	50,000	3,480	6.96%	930
Other Public Relations	140,000	3,918	2.80%	21,475
Promotional Items	20,000	6,907	34.54%	700
Annual Report printing	6,500	-	-	3,712
Direct Mail Printing	30,000	-	-	-
Other Communication Expenses	56,204	12,687	22.57%	1,714
Total Communications and Public Relations	2,463,204	478,485	19.43%	366,081
Employee Development				
Subscriptions	4,725	677	14.33%	542
Agency Memberships	65,000	40,598	62.46%	37,796
Continuing Education	11,000	1,159	10.54%	385
Professional Development	31,500	8,985	28.52%	7,111
Other Licenses	800	316	39.50%	243
Seminars and Conferences	45,855	10,473	22.84%	12,199
Travel	130,810	67,308	51.45%	51,463
Total Employee Development	289,690	129,516	44.71%	109,739
Financing and Banking Fees				
Trustee Fees	52,000	33,600	64.62%	26,075
Bank Fee Expense	6,500	1,110	17.08%	2,334
Continuing Disclosure	15,000	134	0.89%	-
Arbitrage Rebate Calculation	10,000	9,250	92.50%	8,395
Rating Agency Expense	30,000	64,000	213.33%	16,000
Total Financing and Banking Fees	113,500	108,094	95.24%	52,804
Total Administrative	5,411,545	1,730,859	31.98%	1,354,462

Central Texas Regional Mobility Authority
Income Statement
For the Period Ending January 31, 2020

	Budget Amount FY 2020	Actual Year to Date	Percent of Budget	Actual Prior Year to Date
Operations and Maintenance				
Operations and Maintenance Consulting				
GEC-Trust Indenture Support	294,000	199,003	67.69%	18,434
GEC-Financial Planning Support	285,000	30,795	10.81%	36,581
GEC-Toll Ops Support	1,498,223	150,223	10.03%	59,490
GEC-Roadway Ops Support	1,404,000	144,666	10.30%	212,631
GEC-Technology Support	1,028,000	447,777	43.56%	412,932
GEC-Public Information Support	325,000	87,274	26.85%	7,871
GEC-General Support	2,221,000	733,830	33.04%	458,149
General System Consultant	1,318,627	347,295	26.34%	223,199
Traffic Modeling	150,000	-	-	41,030
Traffic and Revenue Consultant	300,000	187,112	62.37%	44,537
Total Operations and Maintenance Consulting	8,823,850	2,327,974	26.38%	1,514,854
Roadway Operations and Maintenance				
Roadway Maintenance	4,400,000	1,678,806	38.15%	1,507,161
Signal & Illumination Maint	-	11,050	-	-
Maintenance Supplies-Roadway	237,000	16,735	7.06%	18,976
Tools & Equipment Expense	1,500	568	37.90%	199
Gasoline	21,600	7,774	35.99%	8,906
Repair & Maintenance-Vehicles	4,000	3,321	83.04%	2,849
Electricity - Roadways	250,000	102,003	40.80%	83,715
Total Roadway Operations and Maintenance	4,914,100	1,820,258	37.04%	1,621,806
Toll Processing and Collection Expense				
Image Processing	3,392,460	960,250	28.31%	715,093
Tag Collection Fees	7,283,817	3,318,621	45.56%	3,797,234
Court Enforcement Costs	50,001	-	-	7,875
DMV Lookup Fees	999	343	34.37%	497
Total Processing and Collection Expense	10,727,277	4,279,215	39.89%	4,520,698

Central Texas Regional Mobility Authority
Income Statement
For the Period Ending January 31, 2020

	Budget Amount FY 2020	Actual Year to Date	Percent of Budget	Actual Prior Year to Date
Toll Operations Expense				
Generator Fuel	2,500	1,778	71.14%	641
Fire and Burglar Alarm	599	247	41.19%	247
Refuse	1,500	992	66.11%	718
Telecommunications	-	-	-	32,871
Water - Irrigation	10,000	2,971	29.71%	2,361
Electricity	2,500	256	10.24%	933
ETC spare parts expense	25,000	-	-	5,573
Repair & Maintenance Toll Equip	150,000	-	-	-
Law Enforcement	274,998	2,155	0.78%	181,204
ETC Maintenance Contract	4,524,237	854,036	18.88%	1,049,670
ETC Toll Management Center System Operation	402,587	-	-	-
ETC Development	2,361,999	401,164	16.98%	49,533
ETC Testing	252,999	-	-	52,536
Total Toll Operations Expense	8,008,919	1,263,599	15.78%	1,376,287
Total Operations and Maintenance	32,474,146	9,691,046	29.84%	9,033,645
Other Expenses				
Special Projects and Contingencies				
HERO	150,000	61,595	41.06%	-
Special Projects	400,001	27,137	6.78%	38,551
71 Express Net Revenue Payment	4,500,000	2,721,544	60.48%	2,290,102
Technology Task Force	525,000	99,321	18.92%	82,319
Other Contractual Svcs	150,000	56,500	37.67%	121,048
Contingency	400,000	-	-	-
Total Special Projects and Contingencies	6,125,001	2,966,098	48.43%	2,532,019

Central Texas Regional Mobility Authority
Income Statement
For the Period Ending January 31, 2020

	Budget Amount FY 2020	Actual Year to Date	Percent of Budget	Actual Prior Year to Date
Non Cash Expenses				
Amortization Expense	771,625	543,651	70.46%	257,158
Amort Expense - Refund Savings	1,050,000	612,481	58.33%	607,894
Dep Exp- Furniture & Fixtures	2,620	1,525	58.19%	1,525
Dep Expense - Equipment	16,000	43,857	274.10%	9,333
Dep Expense - Autos & Trucks	40,500	17,350	42.84%	15,538
Dep Expense-Buildng & Toll Fac	176,800	103,103	58.32%	92,793
Dep Expense-Highways & Bridges	38,568,000	18,787,488	48.71%	14,410,365
Dep Expense-Toll Equipment	3,670,250	2,065,167	56.27%	1,458,750
Dep Expense - Signs	326,200	422,233	129.44%	191,965
Dep Expense-Land Improvements	884,935	589,956	66.67%	516,212
Depreciation Expense-Computers	9,600	52,818	550.19%	6,218
Total Non Cash Expenses	45,516,530	23,239,628	51.06%	17,567,749
Total Other Expenses	51,641,531	26,205,725	50.75%	20,099,768
Non Operating Expenses				
Bond issuance expense	250,000	898,786	359.51%	2,387,191
Loan Fee Expense	75,000	27,000	36.00%	13,500
Interest Expense	43,741,254	22,524,303	51.49%	19,514,073
Community Initiatives	325,000	68,286	21.01%	39,692
Total Non Operating Expenses	44,391,254	23,518,375	52.98%	21,954,457
TOTAL EXPENSES	\$140,026,585	\$64,372,444	45.97%	\$55,370,147
Net Income	(\$112,442)	\$15,627,792		8,837,469

Central Texas Regional Mobility Authority
Balance Sheet
as of January 31, 2020

	as of 01/31/2020		as of 01/31/2019	
ASSETS				
Current Assets				
Cash				
Regions Operating Account	\$ 241,113		\$ 1,293,960	
Cash in TexStar	239,188		231,623	
Regions Payroll Account	82,200		258,451	
Restricted Cash				
Goldman Sachs FSGF 465	175,089,625		334,161,961	
Restricted Cash - TexSTAR	294,193,194		149,542,806	
Overpayments account	476,574		310,307	
Total Cash and Cash Equivalents		<u>470,321,894</u>		<u>485,799,107</u>
Accounts Receivable				
Accounts Receivable	2,770,089		1,141,083	
Due From Other Agencies	64,301		24,180	
Due From TTA	728,887		855,667	
Due From NTTA	794,144		708,343	
Due From HCTRA	1,054,097		1,888,740	
Due From TxDOT	1,677,880		1,758,070	
Interest Receivable	396,263		513,221	
Total Receivables		<u>7,485,662</u>		<u>6,889,305</u>
Short Term Investments				
Treasuries	9,855,135		19,956,627	
Agencies	30,127,862		79,730,708	
Total Short Term Investments		<u>39,982,997</u>		<u>99,687,335</u>
Total Current Assets		<u>517,790,553</u>		<u>592,375,747</u>
Total Construction in Progress		559,566,071		696,186,912
Fixed Assets (Net of Depreciation and Amortization)				
Computers	529,508		23,916	
Computer Software	3,779,282		762,956	
Furniture and Fixtures	8,494		11,108	
Equipment	5,665		10,039	
Autos and Trucks	49,804		43,979	
Buildings and Toll Facilities	4,844,159		5,020,907	
Highways and Bridges	1,182,630,660		883,376,001	
Toll Equipment	24,428,534		17,243,738	
Signs	13,416,762		10,444,504	
Land Improvements	8,337,859		9,222,793	
Right of way	88,149,606		88,149,606	
Leasehold Improvements	156,223		120,640	
Total Fixed Assets		<u>1,326,336,558</u>		<u>1,014,430,187</u>
Other Assets				
Intangible Assets-Net	101,767,548		102,862,583	
2005 Bond Insurance Costs	3,949,903		4,163,411	
Prepaid Insurance	386,145		276,485	
Prepaid Expenses	-		275	
Deferred Outflows (pension related)	866,997		290,396	
Pension Asset	177,226		826,397	
Total Other Assets		<u>107,147,818</u>		<u>108,419,547</u>
Total Assets		<u><u>\$ 2,510,841,000</u></u>		<u><u>\$ 2,411,412,393</u></u>

Central Texas Regional Mobility Authority
Balance Sheet
as of January 31, 2020

	as of 01/31/2020	as of 01/31/2019
LIABILITIES		
Current Liabilities		
Accounts Payable	\$ 113,712	\$ 479,508
Construction Payable- Travis County Projects	24,142,902	1,583,265
Overpayments	479,730	313,297
Interest Payable	4,322,670	12,086,185
TCDRS Payable	101,303	63,309
Due to other Agencies	15,017	4,054,108
Due to TTA	529,828	1,956,362
Due to NTTA	53,944	315,412
Due to HCTRA	77,464	132,140
Due to Other Entities	835,122	690,395
71E TxDOT Obligation - ST	4,444,684	3,860,267
Total Current Liabilities	35,116,377	25,534,247
Long Term Liabilities		
Compensated Absences	543,329	541,425
Deferred Inflows (pension related)	206,675	278,184
Long Term Payables	750,004	819,609
Bonds Payable		
Senior Lien Revenue Bonds:		
Senior Lien Revenue Bonds 2010	73,161,706	75,144,488
Senior Lien Revenue Bonds 2011	17,009,021	15,988,629
Senior Refunding Bonds 2013	133,195,000	136,405,000
Senior Lien Revenue Bonds 2015	298,790,000	298,790,000
Senior Lien Put Bnd 2015	68,785,000	68,785,000
Senior Lien Refunding Revenue Bonds 2016	356,785,000	358,030,000
Senior Lien Revenue Bonds 2018	44,345,000	44,345,000
Senior Lien Revenue Bonds 2020A	50,265,000	-
Sn Lien Rev Bnd Prem/Disc 2013	5,222,017	7,024,257
Sn Lien Revenue Bnd Prem 2015	18,982,591	20,079,387
Sn Lien Put Bnd Prem 2015	931,202	2,639,230
Senior lien premium 2016 revenue bonds	44,861,164	49,177,489
Sn Lien Revenue Bond Premium 2018	3,794,009	4,060,582
Senior Lien Revenue Bond Premium 2020A	11,681,948	-
Total Senior Lien Revenue Bonds	1,127,808,658	1,080,469,064
Sub Lien Revenue Bonds:		
Sub Lien Refunding Bonds 2013	95,945,000	98,295,000
Sub Lien Refunding Bonds 2016	73,490,000	73,905,000
Subordinated Lien BANs 2018	46,020,000	46,020,000
Sub Refunding 2013 Prem/Disc	1,131,236	1,575,642
Sub Refunding 2016 Prem/Disc	7,802,776	8,652,831
Sub Lien BANs 2018 Premium	1,014,172	1,543,305
Total Sub Lien Revenue Bonds	225,403,183	229,991,778
Other Obligations		
TIFIA Note 2015	293,285,378	227,233,126
TIFIA Note 2019	51,164	-
SIB Loan 2015	33,807,797	32,495,047
State Highway Fund Loan 2015	33,807,827	32,495,077
State 45SW Loan	-	55,000,000
71E TxDOT Obligation - LT	60,728,211	62,332,058
Regions 2017 MoPAC Note	24,990,900	17,000,000
Total Other Obligations	446,671,278	426,555,308
Total Long Term Liabilities	1,800,633,123	1,737,835,759
Total Liabilities	1,835,749,500	1,763,370,006

Central Texas Regional Mobility Authority
Balance Sheet
as of January 31, 2020

	as of 01/31/2020	as of 01/31/2019
	NET ASSETS	
Contributed Capital	121,202,391	121,202,391
Net Assets Beginning	541,309,641	520,050,851
Current Year Operations	12,579,467	6,789,144
Total Net Assets	<u><u>675,091,500</u></u>	<u><u>648,042,386</u></u>
Total Liabilities and Net Assets	<u><u>\$ 2,510,841,000</u></u>	<u><u>\$ 2,411,412,393</u></u>

Central Texas Regional Mobility Authority
Statement of Cash Flow - Unaudited
as of January 31, 2020

Cash flows from operating activities:

Receipts from toll revenues	\$	75,983,616
Receipts from interest income		2,341,759
Payments to vendors		(26,212,940)
Payments to employees		(3,229,322)
Net cash flows provided by (used in) operating activities		48,883,112

Cash flows from capital and related financing activities:

Proceeds from notes payable		55,161,388
Interest payments		(54,517,167)
Acquisitions of construction in progress		(108,586,654)
Net cash flows provided by (used in) capital and related financing activities		(107,942,433)

Cash flows from investing activities:

Purchase of investments		(231,692,015)
Proceeds from sale or maturity of investments		200,484,841
Net cash flows provided by (used in) investing activities		(31,207,174)
Net increase (decrease) in cash and cash equivalents		(90,266,495)
Cash and cash equivalents at beginning of period		241,560,543
Cash and cash equivalents at end of period	\$	151,294,048

Reconciliation of change in net assets to net cash provided by operating activities:

Operating income		\$ 31,465,250
Adjustments to reconcile change in net assets to net cash provided by operating activities:		
Depreciation and amortization		23,170,798
Changes in assets and liabilities:		
(Increase) decrease in prepaid expenses and other assets		(185,977)
(Decrease) increase in accounts payable		(3,676,944)
Increase (decrease) in accrued expenses		(1,890,015)
Total adjustments		17,417,862
Net cash flows provided by (used in) operating activities	\$	48,883,112

Reconciliation of cash and cash equivalents:

Unrestricted cash and cash equivalents		\$ 799,888
Restricted cash and cash equivalents		150,494,160
Total	\$	151,294,048

INVESTMENTS by FUND

		Balance		
			January 31, 2020	
Renewal & Replacement Fund				TexSTAR 294,432,381.82
	TexSTAR	401,869.54		Goldman Sachs 150,861,421.93
	Goldman Sachs	15,052.31		Agencies & Treasury Notes 39,982,996.67
	Agencies/ Treasuries		416,921.85	
Grant Fund				\$ 485,276,800.42
	TexSTAR	4,438,654.63		
	Goldman Sachs	5,603,835.68		
	Agencies/ Treasuries	-	10,042,490.31	
Senior Debt Service Reserve Fund				
	TexSTAR	66,344,579.79		
	Goldman Sachs	17,589,258.88		
	Agencies/ Treasuries	-	83,933,838.67	
2010 Senior Lien DSF				
	Goldman Sachs	60,059.01	60,059.01	
2011 Debt Service Acct				
	Goldman Sachs	786,060.24	786,060.24	
2013 Sr Debt Service Acct				
	Goldman Sachs	888,448.14	888,448.14	
2013 Sub Debt Service Account				
	Goldman Sachs	1,452,817.02	1,452,817.02	
2015 Sr Capitalized Interest				
	Goldman Sachs	-	17,739,584.31	
	TexSTAR	17,739,584.31		
2015B Debt Service Account				
	Goldman Sachs	361,329.09	361,329.09	
2016 Sr Lien Rev Refunding Debt Service Account				
	Goldman Sachs	3,404,294.24	3,404,294.24	
2016 Sub Lien Rev Refunding Debt Service Account				
	Goldman Sachs	319,477.14	319,477.14	
2016 Sub Lien Rev Refunding DSR				
	Goldman Sachs	6,964,622.94		
	Agencies/ Treasuries	-	6,964,622.94	
Operating Fund				
	TexSTAR	239,187.85		
	TexSTAR-Trustee	1,569,203.74		
	Goldman Sachs	456,021.63	2,264,413.22	
Revenue Fund				
	Goldman Sachs	5,718,136.83	5,718,136.83	
General Fund				
	TexSTAR	35,999,457.61		
	Goldman Sachs	11,211,323.42	87,193,777.70	
	Agencies/ Treasuries	39,982,996.67		
2013 Sub Debt Service Reserve Fund				
	TexSTAR	5,264,745.79		
	Goldman Sachs	3,634,569.73	8,899,315.52	
71E Revenue Fund				
	Goldman Sachs	13,939,776.36	13,939,776.36	
MoPac Revenue Fund				
	Goldman Sachs	83,078.66	83,078.66	
MoPac General Fund				
	Goldman Sachs	12,893,087.47	12,893,087.47	
MoPac Operating Fund				
	Goldman Sachs	1,653,487.87	1,653,487.87	
MoPac Loan Repayment Fund				
	Goldman Sachs	-	0.00	
2015B Project Account				
	Goldman Sachs	15,910,290.90		
	Agencies/ Treasuries	-		
	TexSTAR	26,255,561.31	42,165,852.21	
2015 TIFIA Project Account				
	Goldman Sachs	37,721,020.87		
	TexSTAR	88,109,418.96		
	Agencies/ Treasuries	-	125,830,439.83	
2011 Sr Financial Assistance Fund				
	Goldman Sachs	0.00	12,239,182.15	
	TexSTAR	12,239,182.15		
2018 Sr Lien Project Cap I				
	Goldman Sachs	5,717,447.64	5,717,447.64	
2018 Sr Lien Project Account				
	Goldman Sachs	18,513.08		
	TexSTAR	35,830,936.14	35,849,449.22	
2018 Sub Debt Service Account				
	Goldman Sachs	192,528.36	192,528.36	
2019 TIFIA Sub Lien Project Account				
	Goldman Sachs	50,764.98	50,764.98	
45SW Toll Revenue Fund				
	Goldman Sachs	0.00	0.00	
45SW General Fund				
	Goldman Sachs	0.00	0.00	
45SW Operating Fund				
	Goldman Sachs	0.00	0.00	
45SW Project Fund				
	Goldman Sachs	0.00	0.00	
2020 SH 45SW Project Account				
	Goldman Sachs	4,216,119.44	4,216,119.44	
			<u>\$ 481,060,680.98</u>	

CTRMA INVESTMENT REPORT

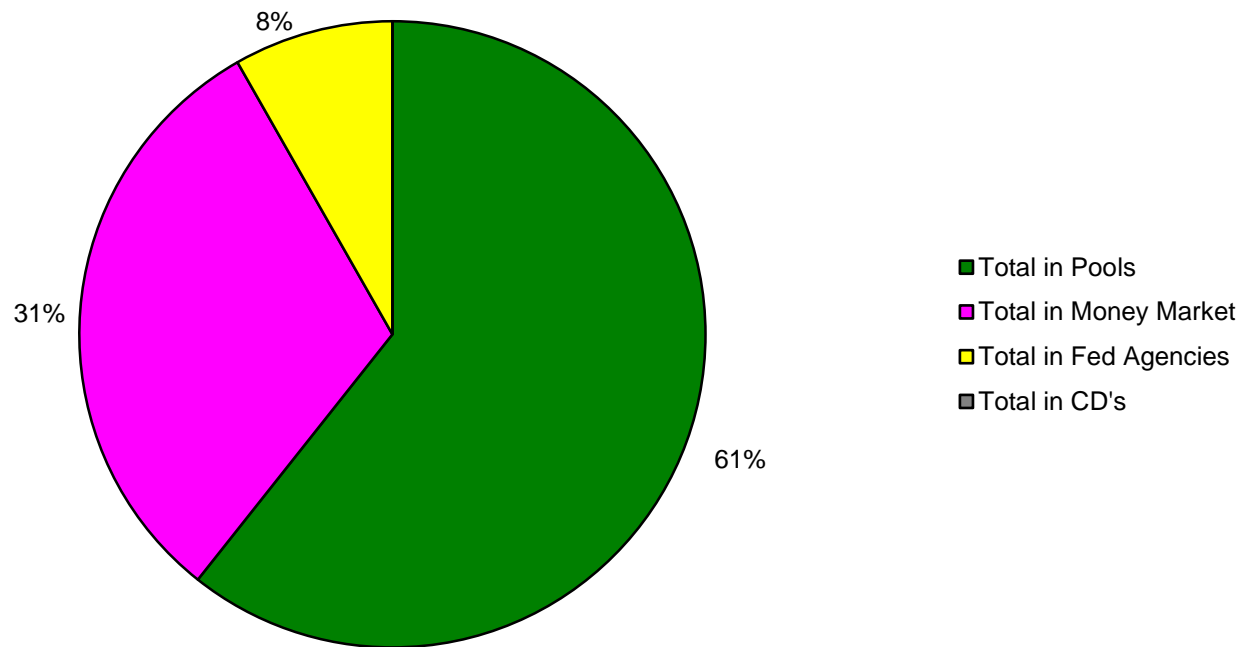
	Month Ending 1/31/2020					Rate January	
	Balance 1/1/2020	Additions	Discount Amortization	Accrued Interest	Withdrawals		Balance 1/31/2020
Amount in Trustee TexStar							
2011 Sr Lien Financial Assist Fund	13,668,015.48			16,166.66	1,444,999.99	12,239,182.15	1.5514%
2013 Sub Lien Debt Service Reserve General Fund	5,257,818.20 35,952,088.03			6,927.59 47,369.58		5,264,745.79 35,999,457.61	1.5514% 1.5514%
Trustee Operating Fund	567,648.85	2,000,000.00		1,554.89	1,000,000.00	1,569,203.74	1.5514%
Renewal and Replacement Grant Fund	401,340.76 4,432,814.07			528.78 5,840.56		401,869.54 4,438,654.63	1.5514% 1.5514%
Senior Lien Debt Service Reserve Fund	66,257,280.30			87,299.49		66,344,579.79	1.5514%
2015A Sr Ln Project Cap Interest	25,185,672.17			23,662.14	7,469,750.00	17,739,584.31	1.5514%
2015B Sr Ln Project	26,221,012.48			34,548.83		26,255,561.31	1.5514%
2015C TIFIA Project	87,993,481.18			115,937.78		88,109,418.96	1.5514%
2018 Sr Lien Project Account	38,979,715.42			51,220.72	3,200,000.00	35,830,936.14	1.5514%
	304,916,886.94	2,000,000.00		391,057.02	13,114,749.99	294,193,193.97	
Amount in TexStar Operating Fund	238,703.35	1,000,000.00		484.50	1,000,000.00	239,187.85	1.5514%
Goldman Sachs							
Operating Fund	31,241.08	2,427,082.19		138.37	2,002,440.01	456,021.63	1.5243%
2020 SH 45SW Project Account	0.00	4,216,119.44		0.00		4,216,119.44	1.5243%
45SW Project Fund	7,584,636.66			10,069.62	7,594,706.28	0.00	1.5243%
45SW Toll Revenue Fund	301,075.98	68,840.36		254.77	370,171.11	0.00	1.5243%
45SW General Fund	1,025,602.33	243,343.96		1,183.51	1,270,129.80	0.00	1.5243%
45SW Operating Fund	322,184.63	100,000.00		373.42	422,558.05	0.00	1.5243%
2015B Project Account	15,873,162.86			37,128.04		15,910,290.90	1.5243%
2015C TIFIA Project Account	50,643,199.91			2,593.11	12,924,772.15	37,721,020.87	1.5243%
2011 Sr Financial Assistance Fund	0.01	1,444,999.99		0.00	1,445,000.00	0.00	1.5243%
2010 Senior DSF	7,498,681.93			9,527.08	7,448,150.00	60,059.01	1.5243%
2011 Senior Lien Debt Service Acct	785,020.03			1,040.21		786,060.24	1.5243%
2013 Senior Lien Debt Service Acct	6,636,027.97	864,285.37		8,259.80	6,620,125.00	888,448.14	1.5243%
2013 Sub Debt Service Reserve Fund	3,629,760.02			4,809.71		3,634,569.73	1.5243%
2013 Subordinate Debt Service Acct	4,803,824.72	1,450,386.60		5,980.70	4,807,375.00	1,452,817.02	1.5243%
2015B Debt Service Acct	1,723,716.99	355,136.30		2,100.80	1,719,625.00	361,329.09	1.5243%
2016 Sr Lien Rev Refunding Debt Service Account	10,007,885.48	3,351,419.90		12,507.61	9,967,518.75	3,404,294.24	1.5243%
2016 Sub Lien Rev Refunding Debt Service Account	2,091,066.81	312,220.82		2,570.76	2,086,381.25	319,477.14	1.5243%
2016 Sub Lien Rev Refunding DSR	6,955,406.50			9,216.44		6,964,622.94	1.5243%
2018 Sr Lien Project Cap I	6,817,039.94			9,032.70	1,108,625.00	5,717,447.64	1.5243%
2018 Sr Lien Project Account	109,106.94	3,200,000.00		1,383.20	3,291,977.06	18,513.08	1.5243%
2018 Sub Debt Service Account	928,577.37	183,219.33		1,131.66	920,400.00	192,528.36	1.5243%
2019 TIFIA Sub Lien Project Account	50,697.80			67.18		50,764.98	1.5243%
Grant Fund	5,596,420.00			7,415.68		5,603,835.68	1.5243%
Renewal and Replacement	15,032.39			19.92		15,052.31	1.5243%
Revenue Fund	3,804,482.93	12,036,228.85		6,315.36	10,128,890.31	5,718,136.83	1.5243%
General Fund	10,541,522.21	2,211,283.93		12,784.99	1,554,267.71	11,211,323.42	1.5243%
Senior Lien Debt Service Reserve Fund	17,553,123.74			36,135.14		17,589,258.88	1.5243%
71E Revenue Fund	13,166,611.28	837,337.18		16,572.84	80,744.94	13,939,776.36	1.5243%
MoPac Revenue Fund	1,341,564.83	1,626,569.43		315.22	2,885,370.82	83,078.66	1.5243%
MoPac General Fund	10,604,038.50	2,685,370.82		14,015.65	410,337.50	12,893,087.47	1.5243%
MoPac Operating Fund	1,664,690.82	275,000.00		2,060.35	288,263.30	1,653,487.87	1.5243%
MoPac Loan Repayment Fund	0.00	70,132.93		14.43	70,147.36	0.00	1.5243%
	192,105,402.66	37,958,977.40	0.00	215,018.27	79,417,976.40	150,861,421.93	
Amount in Fed Agencies and Treasuries							
Amortized Principal	39,965,993.34		17,003.33			39,982,996.67	
	39,965,993.34		17,003.33	0.00	0.00	39,982,996.67	
Certificates of Deposit							
Total in Pools	305,155,590.29	3,000,000.00		391,541.52	14,114,749.99	294,432,381.82	
Total in GS FSGF	192,105,402.66	37,958,977.40		215,018.27	79,417,976.40	150,861,421.93	
Total in Fed Agencies and Treasuries	39,965,993.34		17,003.33		0.00	39,982,996.67	
Total Invested	537,226,986.29	40,958,977.40	17,003.33	606,559.79	93,532,726.39	485,276,800.42	

All Investments in the portfolio are in compliance with the CTRMA's Investment policy and the relevant provisions of the Public Funds Investment Act Chapter 2256.023

William Chapman, CFO
Mary Temple, Controller

1/31/2020

Allocation of Funds



Amount of Investments As of

January 31, 2020

Agency	CUSIP #	COST	Book Value	Market Value	Yield to Maturity	Purchased	Matures	FUND
Farmer Mac	31422BDL1	20,000,000.00	20,000,000.00	20,137,748.00	2.5995%	3/11/2019	9/25/2020	General Fund
Fannie Mae	3135G0T29	19,795,960.00	19,982,996.67	19,998,227.60	2.5600%	3/5/2019	2/28/2020	General Fund
		<u>39,795,960.00</u>	<u>39,982,996.67</u>	<u>40,135,975.60</u>				

Agency	CUSIP #	COST	Cummulative Amortization	1/31/2020			Interest Income		
				Book Value	Maturity Value		Accrued Interest	Amortization	Interest Earned
Farmer Mac	31422BDL1	20,000,000.00	-	20,000,000.00	20,000,000.00		43,333.33	-	43,333.33
Fannie Mae	3135G0T29	19,795,960.00	187,036.67	19,982,996.67	20,000,000.00		25,000.00	17,003.33	42,003.33
		<u>39,795,960.00</u>	<u>187,036.67</u>	<u>39,982,996.67</u>	<u>40,000,000.00</u>		<u>68,333.33</u>	<u>17,003.33</u>	<u>85,336.66</u>

ESCROW FUNDS

Travis County Escrow Fund - Elroy Road

	Balance		Accrued		Balance
	1/1/2020	Additions	Interest	Withdrawals	1/31/2020
Goldman Sachs	23,774,350.87		31,507.22	49,076.47	23,756,781.62

Travis County Escrow Fund - Ross Road

	Balance		Accrued		Balance
	1/1/2020	Additions	Interest	Withdrawals	1/31/2020
Goldman Sachs	521,164.18		693.56	50,436.46	471,421.28



183 South Design-Build Project
Contingency Status
 January 31, 2020



Original Construction Contract Value: \$581,545,700

Total Project Contingency	\$47,860,000
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Obligations	CO#1 City of Austin ILA Adjustment	(\$2,779,934)	
	CO#2 Addition of Coping to Soil Nail Walls	\$742,385	
	CO#4 Greenroads Implementation	\$362,280	
	CO#6 51st Street Parking Trailhead	\$477,583	
	CO#9 Patton Interchange Revisions	\$3,488,230	
	CO#17 Boggy Creek Turnaround	\$2,365,876	
	Others Less than \$300,000 (6)	\$1,263,577	
	CO#10 City of Austin Utility (\$1,010,000 - no cost to RMA)	\$0	
	Executed Change Orders		\$5,919,997
	Change Orders Under Negotiation		\$5,980,000
Potential Contractual Obligations		\$19,160,000	

(-) Total Obligations	\$31,059,997
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Remaining Project Contingency	\$16,800,003
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MOPAC Misc. Construction
Financial Status
 January 31, 2020



Original Construction Contract Value: \$ 4,583,280

Change Orders		
	Total of Others Less than \$300,000	\$ 623,238
Executed Change Orders		\$ 623,238
Revised Construction Contract Value		\$ 5,206,518
Change Orders under Negotiation		\$ -
Potential Construction Contract Value		\$ 5,208,834
Amount paid McCarthy through December 2019 draw (as of 12/31/2019)		\$ (5,011,124)
Potential Amount Payable to McCarthy		\$ 197,710



290E Ph. III
Contingency Status
 January 31, 2020



Original Construction Contract Value: \$71,236,424

Total Mobility Authority Contingency	\$10,633,758
Total TxDOT Project Contingency	\$15,292,524

Obligations	Others Less than \$300,000 (1)	\$143,530
	Executed Change Orders	\$143,530
	Change Orders Under Negotiation	\$274,000
	Potential Contractual Obligations	\$1,860,000

(-) Total Obligations	\$2,277,530
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Remaining Mobility Authority Contingency	\$8,411,988
Remaining TxDOT Contingency	\$15,236,961



Monthly Newsletter - January 2020

Performance

As of January 31, 2020

Current Invested Balance	\$9,728,196,391.64
Weighted Average Maturity (1)	32 Days
Weighted Average Maturity (2)	89 Days
Net Asset Value	1.000027
Total Number of Participants	920
Management Fee on Invested Balance	0.06%*
Interest Distributed	\$12,434,921.82
Management Fee Collected	\$461,801.46
% of Portfolio Invested Beyond 1 Year	8.69%
Standard & Poor's Current Rating	AAAm

Rates reflect historical information and are not an indication of future performance.

January Averages

Average Invested Balance	\$9,086,927,273.44
Average Monthly Yield, on a simple basis	1.5514%
Average Weighted Average Maturity (1)*	33 Days
Average Weighted Average Maturity (2)*	96 Days

Definition of Weighted Average Maturity (1) & (2)

- (1) This weighted average maturity calculation uses the SEC Rule 2a-7 definition for stated maturity for any floating rate instrument held in the portfolio to determine the weighted average maturity for the pool. This Rule specifies that a variable rate instrument to be paid in 397 calendar days or less shall be deemed to have a maturity equal to the period remaining until the next readjustment of the interest rate.
- (2) This weighted average maturity calculation uses the final maturity of any floating rate instruments held in the portfolio to calculate the weighted average maturity for the pool.

* The maximum management fee authorized for the TexSTAR Cash Reserve Fund is 12 basis points. This fee may be waived in full or in part in the discretion of the TexSTAR co-administrators at any time as provided for in the TexSTAR Information Statement.

New Participants

We would like to welcome the following entities who joined the TexSTAR program in January:

★Lavon Economic Development Corporation

★Lorena Independent School District

Holiday Reminder

In observance of Presidents' Day, **TexSTAR will be closed Monday, February 17, 2020.** All ACH transactions initiated on Friday, February 14th will settle on Tuesday, February 18th.

Economic Commentary

Central bank easing stances combined with diminishing trade tensions created a positive market backdrop as we entered the New Year. The signing of the Phase 1 trade deal between China and the U.S. on January 15th stoked market optimism and recession risks declined as macro data stabilized and labor fundamentals remained healthy. The U.S. suspended the planned round of tariffs for December 15, 2019 and cut the existing tariff rates on around \$110 billion of Chinese imports from 15% to 7.5%. In exchange, China committed to boost its imports from the U.S. by around \$200 billion over the next two years, allow greater access to its markets for financial services companies, enforce intellectual property protections, and be more transparent in its currency management practices. After this upbeat start to the year, volatility picked up towards the end of the month as concerns over the coronavirus outbreak and fears of contagion weighed on risk assets and helped push Treasury yields lower, re-igniting market concerns about its effect on the global economy. Meanwhile U.S. economic data continued to show signs of improvement; and, as anticipated, the Federal Reserve (Fed) kept the fed funds rate unchanged at 1.50-1.75% and continued to telegraph its intention to remain on hold in 2020.

The U.S. economy grew at an annualized pace of 2.1% in the final quarter of 2019 and broadly remains on solid footing. Manufacturing remains weak, with the December release of the Institute for Supply Management's (ISM) manufacturing survey showing that the sector continues to contract. However, the services side of the economy remains resilient, and the ISM non-manufacturing survey picked up 1.1 points to 55.0 in December. Similarly, the consumer, is still in good shape, with confidence rising significantly in January.

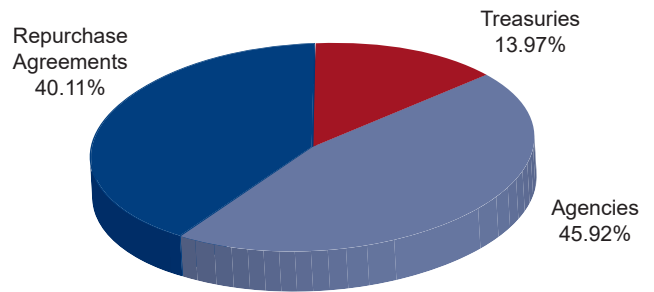
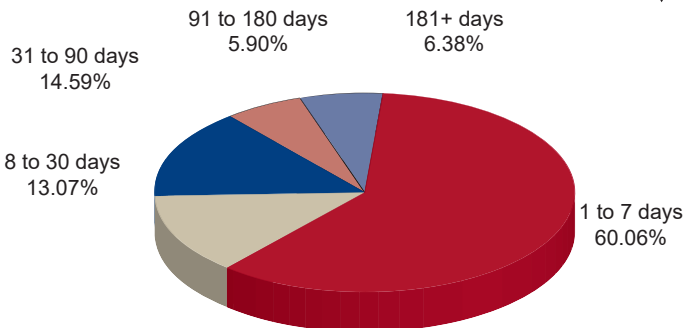
Our base-case economic scenario – modestly reaccelerating global growth and contained recession risk in 2020 – is still in place. While the coronavirus outbreak in China complicates the near-term story, we expect its effects on global growth to be transitory, with a first quarter slump followed by payback if the disease is contained in the next two months. We expect the Fed to keep policy rates on hold as they pause to assess the landscape in 2020. Nevertheless, we believe the desire to ease policy is greater than to tighten policy. Given muted inflation pressure and moderating U.S. economic momentum, in addition to election uncertainty, we see very few meaningful upside catalysts for nominal growth.

This information is an excerpt from an economic report dated January 2020 provided to TexSTAR by JP Morgan Asset Management, Inc., the investment manager of the TexSTAR pool.

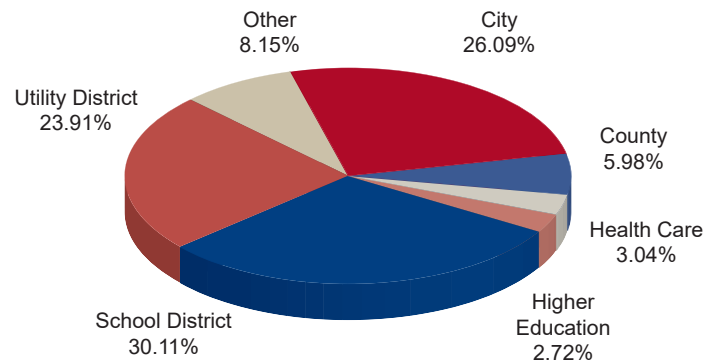
For more information about TexSTAR, please visit our web site at www.texstar.org.

Information at a Glance

Portfolio by Type of Investment As of January 31, 2020



Portfolio by Maturity As of January 31, 2020



Distribution of Participants by Type As of January 31, 2020

Historical Program Information

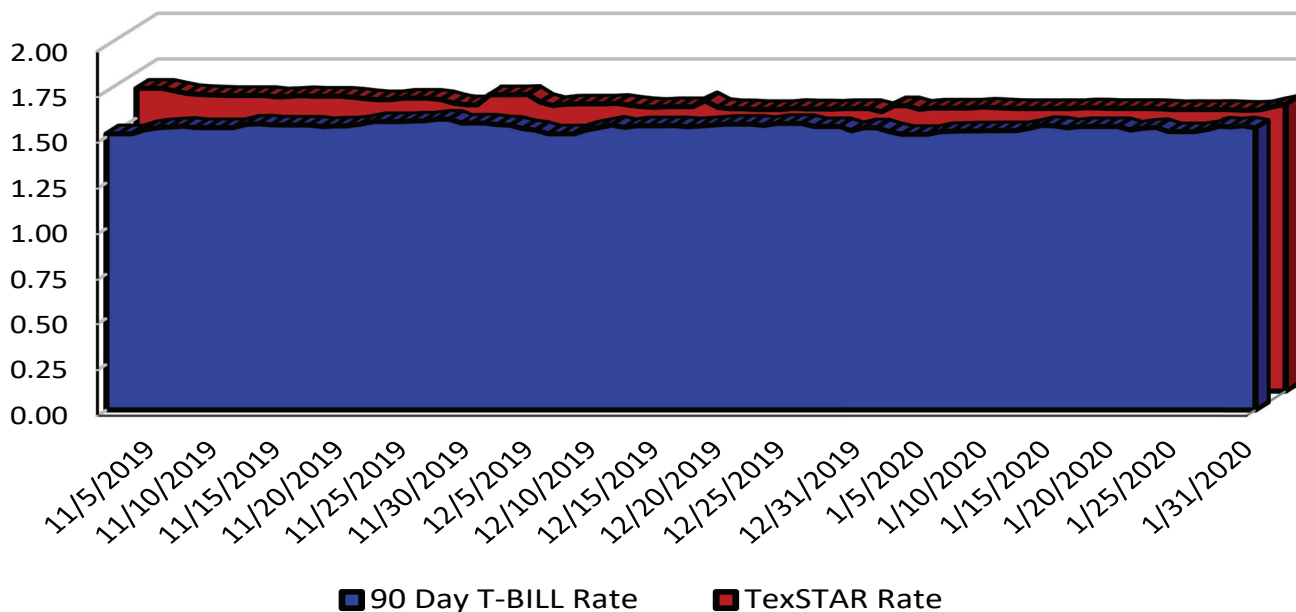
Month	Average Rate	Book Value	Market Value	Net Asset Value	WAM (1)*	WAM (2)*	Number of Participants
Jan 20	1.5514%	\$9,728,196,391.64	\$9,728,681,551.87	1.000027	33	96	920
Dec 19	1.5643%	8,550,355,101.35	8,550,086,726.49	0.999959	36	110	918
Nov 19	1.6177%	8,004,510,359.61	8,003,923,189.55	0.999918	30	109	917
Oct 19	1.8510%	8,148,867,422.02	8,148,521,034.89	0.999957	24	109	915
Sep 19	2.1065%	7,801,760,097.32	7,801,464,171.79	0.999962	22	113	912
Aug 19	2.1258%	8,162,241,291.21	8,162,120,700.72	0.999955	22	104	909
Jul 19	2.3883%	8,182,604,967.44	8,182,476,436.15	0.999984	13	92	908
Jun 19	2.3790%	8,072,061,682.23	8,072,222,027.73	1.000019	19	103	906
May 19	2.4048%	8,251,300,232.20	8,251,929,597.00	1.000042	25	105	902
Apr 19	2.4243%	8,464,290,753.69	8,464,331,283.11	1.000004	26	101	895
Mar 19	2.4112%	8,378,300,782.34	8,378,032,817.90	0.999968	41	106	893
Feb 19	2.4001%	9,198,012,187.60	9,197,689,206.82	0.999964	45	99	891

Portfolio Asset Summary as of January 31, 2020

	Book Value	Market Value
Uninvested Balance	\$ 801.03	\$ 801.03
Accrual of Interest Income	9,916,139.90	9,916,139.90
Interest and Management Fees Payable	(12,477,511.23)	(12,477,511.23)
Payable for Investment Purchased	0.00	0.00
Repurchase Agreement	3,902,092,999.50	3,902,092,999.50
Government Securities	5,828,663,962.44	5,829,149,122.67
Total	\$ 9,728,196,391.64	\$ 9,728,681,551.87

Market value of collateral supporting the Repurchase Agreements is at least 102% of the Book Value. The portfolio is managed by J.P. Morgan Chase & Co. and the assets are safekept in a separate custodial account at the Federal Reserve Bank in the name of TexSTAR. The only source of payment to the Participants are the assets of TexSTAR. There is no secondary source of payment for the pool such as insurance or guarantee. Should you require a copy of the portfolio, please contact TexSTAR Participant Services.

TexSTAR versus 90-Day Treasury Bill



This material is for information purposes only. This information does not represent an offer to buy or sell a security. The above rate information is obtained from sources that are believed to be reliable; however, its accuracy or completeness may be subject to change. The TexSTAR management fee may be waived in full or in part at the discretion of the TexSTAR co-administrators and the TexSTAR rate for the period shown reflects waiver of fees. This table represents historical investment performance/return to the customer, net of fees, and is not an indication of future performance. An investment in the security is not insured or guaranteed by the Federal Deposit Insurance Corporation or any other government agency. Although the issuer seeks to preserve the value of an investment at \$1.00 per share, it is possible to lose money by investing in the security. Information about these and other program details are in the fund's Information Statement which should be read carefully before investing. The yield on the 90-Day Treasury Bill ("T-Bill Yield") is shown for comparative purposes only. When comparing the investment returns of the TexSTAR pool to the T-Bill Yield, you should know that the TexSTAR pool consist of allocations of specific diversified securities as detailed in the respective Information Statements. The T-Bill Yield is taken from Bloomberg Finance L.P. and represents the daily closing yield on the then current 90-day T-Bill. The TexSTAR yield is calculated in accordance with regulations governing the registration of open-end management investment companies under the Investment Company Act of 1940 as promulgated from time to time by the federal Securities and Exchange Commission.

Daily Summary for January 2020

Date	Mny Mkt Fund Equiv. [SEC Std.]	Daily Allocation Factor	TexSTAR Invested Balance	Market Value Per Share	WAM Days (1)*	WAM Days (2)*
1/1/2020	1.5661%	0.000042906	\$8,550,355,101.35	0.999959	38	105
1/2/2020	1.5469%	0.000042382	\$8,649,131,252.82	0.999965	37	104
1/3/2020	1.5533%	0.000042556	\$8,712,379,910.81	0.999986	36	101
1/4/2020	1.5533%	0.000042556	\$8,712,379,910.81	0.999986	36	101
1/5/2020	1.5533%	0.000042556	\$8,712,379,910.81	0.999986	36	101
1/6/2020	1.5535%	0.000042563	\$8,979,194,419.65	0.999999	34	98
1/7/2020	1.5589%	0.000042710	\$8,986,949,410.59	1.000012	34	99
1/8/2020	1.5556%	0.000042619	\$8,975,662,428.66	1.000007	34	99
1/9/2020	1.5519%	0.000042518	\$8,987,106,420.49	1.000007	33	98
1/10/2020	1.5507%	0.000042484	\$9,030,261,526.40	0.999998	34	97
1/11/2020	1.5507%	0.000042484	\$9,030,261,526.40	0.999998	34	97
1/12/2020	1.5507%	0.000042484	\$9,030,261,526.40	0.999998	34	97
1/13/2020	1.5510%	0.000042493	\$8,979,183,245.49	0.999990	34	97
1/14/2020	1.5505%	0.000042479	\$9,105,561,331.33	0.999995	34	96
1/15/2020	1.5552%	0.000042608	\$9,122,715,088.00	0.999989	35	98
1/16/2020	1.5539%	0.000042573	\$9,102,625,828.10	0.999985	35	100
1/17/2020	1.5513%	0.000042501	\$9,102,094,642.00	0.999998	34	97
1/18/2020	1.5513%	0.000042501	\$9,102,094,642.00	0.999998	34	97
1/19/2020	1.5513%	0.000042501	\$9,102,094,642.00	0.999998	34	97
1/20/2020	1.5513%	0.000042501	\$9,102,094,642.00	0.999998	34	97
1/21/2020	1.5488%	0.000042434	\$9,080,424,298.11	0.999995	33	97
1/22/2020	1.5447%	0.000042320	\$9,188,179,336.19	1.000008	33	95
1/23/2020	1.5456%	0.000042344	\$9,186,085,645.85	1.000011	32	95
1/24/2020	1.5452%	0.000042335	\$9,215,943,664.21	1.000017	31	92
1/25/2020	1.5452%	0.000042335	\$9,215,943,664.21	1.000017	31	92
1/26/2020	1.5452%	0.000042335	\$9,215,943,664.21	1.000017	31	92
1/27/2020	1.5422%	0.000042252	\$9,352,825,168.65	1.000012	30	91
1/28/2020	1.5402%	0.000042196	\$9,413,658,361.56	1.000018	29	90
1/29/2020	1.5429%	0.000042272	\$9,492,648,697.94	1.000024	29	89
1/30/2020	1.5593%	0.000042721	\$9,530,109,177.92	1.000032	31	90
1/31/2020	1.5736%	0.000043112	\$9,728,196,391.64	1.000027	32	89
Average	1.5514%	0.000042504	\$9,086,927,273.44		33	96



TexSTAR Participant Services
1201 Elm Street, Suite 3500
Dallas, TX 75270
1-800-839-7827

TexSTAR Board Members

William Chapman	Central Texas Regional Mobility Authority	Governing Board President
Nell Lange	City of Frisco	Governing Board Vice President
Eric Cannon	City of Allen	Governing Board Treasurer
David Medanich	Hilltop Securities	Governing Board Secretary
Jennifer Novak	J.P. Morgan Asset Management	Governing Board Asst. Sec./Treas.
Monte Mercer	North Central TX Council of Government	Advisory Board
Becky Brooks	City of Grand Prairie	Advisory Board
Nicole Conley	Austin ISD	Advisory Board
David Pate	Richardson ISD	Advisory Board
James Mauldin	Qualified Non-Participant	Advisory Board
Sandra Newby	Tarrant Regional Water District/Non-Participant	Advisory Board
Ron Whitehead	Qualified Non-Participant	Advisory Board



The material provided to TexSTAR from J.P. Morgan Asset Management, Inc., the investment manager of the TexSTAR pool, is for informational and educational purposes only, as of the date of writing and may change at any time based on market or other conditions and may not come to pass. While we believe the information presented is reliable, we cannot guarantee its accuracy. HilltopSecurities is a wholly owned subsidiary of Hilltop Holdings, Inc. (NYSE: HTH) located at 1201 Elm Street, Suite 3500, Dallas, Texas 75270, (214) 859-1800. Member NYSE/FINRA/SIPC. Past performance is no guarantee of future results.

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**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 20-010

**AWARDING A CONTRACT TO HILLTOP SECURITIES FOR FINANCIAL
ADVISORY SERVICES**

WHEREAS, the Mobility Authority desires to obtain financial advisory services to advise the Mobility Authority on financial matters; and

WHEREAS, on October 14, 2019 the Executive Director issued a request for proposals (RFP) to firms interested in providing financial advisory services to the Mobility Authority; and

WHEREAS, on December 13, 2019, the Mobility Authority received timely responses from three qualified firms; and

WHEREAS, an evaluation committee comprised of the Deputy Executive Director, Chief Financial Officer and Controller, evaluated the submissions from each of three firms in accordance with Mobility Authority procurement policies; and

WHEREAS, based on the evaluation of the responses to the RFP, the Executive Director recommends that the Board select and authorize negotiation of a contract for financial advisory services with Hilltop Securities.

NOW THEREFORE, BE IT RESOLVED that the Board hereby approves the selection of Hilltop Securities to provide financial advisory services to the Mobility Authority; and

BE IT FURTHER RESOLVED that the Executive Director is authorized to negotiate a financial services agreement with Hilltop Securities; and

BE IT FURTHER RESOLVED that once an agreement is reached the Executive Director shall present that proposed contract to the Board for its approval.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 26th day of February 2020.

Submitted and reviewed by:



Geoffrey Petrov, General Counsel

Approved:



Robert W. Jenkins, Jr.
Chairman, Board of Directors

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 20-011

**APPROVING AN AGREEMENT WITH LUNA DATA SOLUTIONS INC. FOR
THE IMPLEMENTATION AND LICENSING OF A VIDEO SHARING SYSTEM FOR
REGIONAL INCIDENT RESPONSE COORDINATION**

WHEREAS, the Mobility Authority is developing a Traffic Incident Management and Intelligent Transportation System Master Plan to help standardize and coordinate the regional traffic incident management operations between regional partner agencies; and

WHEREAS, Mobility Authority staff have identified video interoperability and sharing technology as a key component to support regional coordination for traffic incident response; and

WHEREAS, the Executive Director has negotiated a scope of work for the implementation and support for a cloud-based video interoperability and sharing solution (VISS) for the Mobility Authority based on the proposal received from Luna Data Solutions Inc. which is attached hereto as Exhibit A; and

WHEREAS, Luna Data Solutions Inc. currently provides services to the State of Texas through Texas Department of Information Resources (DIR) Contract No. DIR-TSO-3819; and

WHEREAS, pursuant to Texas Government Code Section 2054.0565, the Mobility Authority may use the DIR contract with Luna Data Solutions Inc. for the implementation and support of a VISS without the need to seek competitive bids; and


WHEREAS, the Executive Director recommends entering into an agreement with Luna Data Solutions Inc. for the implementation and support of a VISS in an amount not to exceed \$253,400 through their DIR contract.

NOW THEREFORE BE IT RESOLVED that the Board of Directors hereby approves the proposal from Luna Data Solutions Inc. for the implementation of a cloud-based video interoperability and sharing solution attached hereto as Exhibit A; and

BE IT FURTHER RESOLVED, that the Executive Director is authorized to enter into an agreement with Luna Data Solutions Inc. in an amount not to exceed \$253,400 through their contract with the Department of Information Resources for the implementation of a cloud-based video interoperability and sharing solution in support of the Mobility Authority's traffic incident response coordination.


Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 26th day of February 2020.

Submitted and reviewed by:



Geoffrey Petrov, General Counsel

Approved:



Robert W. Jenkins, Jr.
Chairman, Board of Directors

Exhibit A



CENTRAL TEXAS
Regional Mobility Authority

CTRMA Solicitation
Video Interoperability and Sharing System
Amended Proposal

Luna Data Solutions Inc.

1408 W Koenig Ln Ste D

Austin, TX 78756

Primary Contact: **Dana R Jones**

(512) 784-7208

dana@lunadatasolutions.com

February 12, 2020

Contents

- 1 EXECUTIVE SUMMARY3
- 2 SOLUTION4
 - 2.1 Skyline Video Sharing Solutions Overview4
 - 2.2 Step 1: Normalize5
 - 2.3 Step 2: Stream.....5
 - 2.4 Step 3: Manage6
 - 2.4.1 Stream Manager6
 - 2.4.2 Claris Portal7
 - 2.5 Step 4: Monitor.....8
 - 2.6 Virtual Video Wall, Vero9
- 3 SKYLINE MAP TO CTRMA VISS REQUIREMENTS9
 - 3.1 Understanding Scope.....9
 - 3.2 Video Sources and Output Requirements Map11
 - 3.3 System Administration Requirements Map12
 - 3.4 Web-Based Portal and integration with Third-Party Websites Map.....13
 - 3.5 System Reporting Requirements Map14
 - 3.6 Operations Support & Monitoring Requirements Map.....14
 - 3.7 Contractor Responsibilities.....15
 - 3.7.1 Formal project Kickoff Meeting15
 - 3.7.2 Project Management Plans16
- 4 PROJECT SCHEDULE21
- 5 PRICING AND SCHEDULE OF PAYMENTS23
- 6 SUPPORT SERVICE & OPERATIONAL OBJECTIVES24
- 7 PROPOSAL CLARIFICATIONS28

1 EXECUTIVE SUMMARY

Luna Data Solutions Inc. partnering with Skyline Technology Solutions is pleased to present this proposal to meet the Central Texas Regional Mobility Authority's (CTRMA) needs for a Video Interoperability and Sharing Solution (VISS). Skyline's Claris Video Interoperability as-a-Service (VIaaS) offering meets all the goals and requirements of the VISS as stated in the CTRMS Solicitation.

The Luna/Skyline team will demonstrate in our proposal that we fully understand the technical and management requirements for successful performance and have the capability to meet or exceed those requirements. The Luna/Skyline team will support and manage the CTRMA IT environment from a 24/7 standpoint; this will provide CTRMA an always available and fully dedicated support partner.

The core of our managed Video Interoperability services offering is our centralized IT services. Our managed services workflow design automates and delivers consistent and predictable end results to our client's.

Our managed video streaming services has over 20,000 cameras securely shared to over 500 partner agencies in 13 states including school systems, police departments, park services, stadium authorities, hospitals, and other state, federal, and local municipalities. Skyline has developed the expertise to become the Department of Transportation (DOT) industry leader in providing live streaming video sharing systems.

The Luna/Skyline's differentiator is we are service provider network engineering experts and consulting company, managing fiber assets for states and DOTs. Having built and managed thousands of miles of fiber, lit up thousands of circuits to hundreds of agencies, along with the cyber security infrastructure for state wide enterprise networks, has put us in position to understand the challenges states have with streaming and sharing live low latency video securely in a manner acceptable to all agencies sourcing and viewing video.

As a result, Luna/Skyline has a unique VIaaS architecture approach to solve the sharing security concerns, in a scalable cloud-based manner that addresses the goals and requirements of CTRMA's VISS program.

The Luna/Skyline team understands the CTRMA goals throughout the Region are to:

- Reduce the impacts of incidents to travelers, reduced roadway clearance time, and incident clearance time.
- Reduce secondary crashes.
- Provide accurate and timely traveler information to travelers.

We believe, as we have seen with our other customers, that by CTRMA taking a collaborative approach with regional partner entities towards mobility management will help ensure cohesion in the region by coordinating traffic incident management operations with its regional partners.

Below in Section 2 we will explain the products and services that make up our Video Interoperability as a Service offering which will provide a regional platform for CTRMA to reach those goals. Following in Section 3, we address how all the requirements of the RFP will be met.

2 SOLUTION

2.1 Skyline Video Sharing Solutions Overview

For the CTRMA Video Interoperability and Sharing System, Luna will be leveraging the Skyline Video Sharing Solution currently available as a Commercial-Off-The -Shelf product, the Claris Portal.

The Claris Portal has been implemented for interoperable video sharing solutions of similar type and of significantly larger size for nearly ten (10) years to state and local government agencies. Skyline's Claris Portal is currently supporting thirteen (13) State DOT's with their video sharing systems, utilizing both on-premise (or locally hosted) solutions and solutions hosted completely or partially in the cloud.

The Skyline Claris Portal is configurable to support the following requirements:

- Integration with complex IP networks including LAN and WAN to provide stable and secure transport of video stream.
- Video collection from diverse cameras, networks, and locations.
- Normalization of video to a common format that is easy to transport and share.
- Secure and efficient video distribution to the public, media, partners and first responders.
- Integrating with multiple source and destination networks.
- Web based portals providing secure access to partners and operational support.
- Innovative features to enhance the video sharing system capabilities.
- Support for smart phones and tablets.
- 24/7 monitoring and support in our Network Operations Center (NOC) and Service Desk.
- Proven enterprise level product.

The most common barriers are network security, limited bandwidth, and diverse consuming agencies. The Luna/Skyline proposes a video sharing architecture to deal directly with these challenges and has enabled many agencies to provide live streaming video to the Traffic Management Centers and first responders. The architecture/approach is broken into areas: Normalize, Stream, Manage, and Monitor.

2.2 Step 1: Normalize

The key to any video sharing system is to have a way to normalize the video to a common format, size, and compression that is easy to move around an IP network. The Transcoding Appliance was designed specifically for the purpose of normalizing live IP video streams regardless of compression (MPEG2, MPEG4, H.264), frame rate (1-30), resolution (QCIF to D1), bandwidth (96kbps to 4 mbps), and format/codec (Impath, Optelecom, Cohu, Coretec, etc.). The Transcoder converts the diverse video sources to industry standards for compression, H.264, and format, RTP (Real Time Protocol), essentially normalizing the video. The Transcoder pulls only one video stream from a source but can produce multiple video sizes of the same stream (i.e. one low bandwidth for large volume distribution efforts and one high bandwidth for internal operations and sharing with media partners).

CTRMA currently has 50 total cameras in scope, all of which are H.264 and can put overlays of text or logos if desired. Given this, the transcoding service and infrastructure is not needed for this Phase 1 deployment of these 50 cameras. Should other partner agencies have non H.264 cameras or need special overlays not supported natively on the cameras, then the Transcoders and the Normalization step will be needed for those camera feeds.

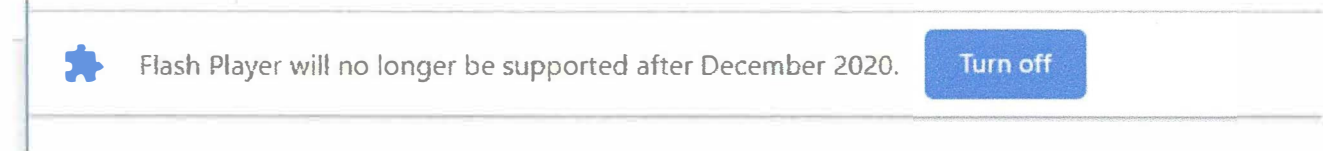
2.3 Step 2: Stream

Once the video is normalized, CTRMA will need the video to be securely distributed to the Claris video portal for the TxDOT, City of Austin, and other trusted partners such as Police and to view on any device. These groups have specific needs regarding format, quality of video, security and volume. In order to support the diverse applications, streaming appliances are strategically placed on specific network firewall DMZs providing the ability to distribute video via the Claris portal from the CTRMA, TxDOT, COA and other school or government networks. The Streaming Appliances now become the edge distribution device for each consumer group and enable the ability to create unique sets of cameras for each and to offline those cameras when required.

This architecture also allows thousands of end users to view a single camera, while at no time will there be more than one connection to the camera, nor will the county network be consumed and burdened with providing connections to 3rd party viewers. VLaas streaming service can scale to ingest additional source cameras with the ability to support thousands of concurrent viewers.

The streaming appliance distributes video streams via Skyline's Claris Live Streaming Protocol (CLSP), RTMP, RTSP/RTP/RTCP, or HLS/HTTP live protocol based on the request received from the user's device. This allows streaming video to be viewed on virtually any device, putting real-time streaming video into the hands of decision makers and responders wherever they may be located wherever they may be located.

The Death of Flash:



You may have seen this above banner in Chrome browser. Claris Live Streaming Protocol (CLSP) video protocol was developed to provide a low latency and high-volume replacement for the RTMP/Flash video format. Currently RTMP/Flash video format is in the final stages of end of life and currently requires manual intervention on the Google Chrome browser. In time RTMP /Flash will not be available on any browsers. CLSP uses industry standard HTML5 media extensions because there is no other option to provide the low latency and high volume required for emergency response and for real time coordination. We provide this format to any portal at the request of our clients. It comes standard with the Claris Portal and is available for any 3rd party website as open source on Git Hub.

2.4 Step 3: Manage

Now that the video is ready for distribution, CTRMA will need the ability to manage the operations and distribution of the video. Luna will use two web-based portals created by Skyline, to handle this requirement, the **Stream Manager** and the **Claris Portal**.

2.4.1 Stream Manager

The *Stream Manager Portal* enables efficient and effective operation of the SFS1000 and TS1000 appliances that make up the live video sharing system. Admins can view current status reports on the Stream Manager. Stream manager consolidates real-time stream status reports into an easy to use dashboard where a single user can connect to and manage every SFS/TS device in the video sharing architecture. The Stream Manager also provides a single location for camera meta data database which is used to support API (applications polling interface) polling capabilities supplying presentation applications with real time info on every camera. Often identified as the most important function the Stream Manager performs, the ability to offline or red button camera feeds from a single point is critical. The interface allows a user to turn off specific cameras on one or multiple streaming appliances which corresponds to specific security groups. Most commonly this capability is used to offline cameras to the public and media, while maintaining streaming to internal and external partners. The Stream Manager is a key component to our video sharing architecture.

2.4.2 Claris Portal

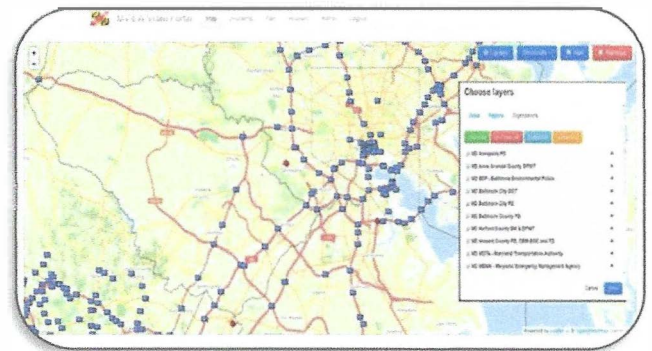
Claris Portal provides web-based access to video content virtually anywhere. Whether out in the field, government office, or in the Traffic Management or police command center, Claris portal provides a flexible interface to view and manage video streams. Claris provides CTRMA with the ability manage access rights to their cameras and potentially partner agency cameras. All participating agencies/partners can view cameras based upon their access rights through a common portal, with no client software requirements or additional licensing fees. The Video Wall, Incident, and Map pages are three ways users can view video content in the Claris web-based portal.



The *Video Wall page* allows you to create your own dashboard with up to eighteen cameras and save your favorite configurations for quick reference. Choose from cameras organized by region or participating agency, city or partner. Each partner can view different videos independent of any other videos that may be requested by other partners and only has access to those video streams which CTRMA provides permission to view.

The *Incident page* provides agencies the ability to quickly select traffic/congestion incidents as provided by ATMS or CAD applications and see the video streams coming from the nearest four cameras. Coming soon is the ability to view cameras from mobile response units based upon their real-time geo-location, giving agencies a quick bird's eye view along with an on-the-ground view of the situation.

The *Map-based page* provides the ability to quickly geo-locate cameras and other data points like traffic speeds, lane closures, incidents and other pertinent information from your ATMS or third-party provider.



Claris also provides *administrative management tools* that allow agencies to easily incorporate new cameras from the network and quickly share with partner agencies based upon secure access rights. CTRMA will be able to grant access within minutes and partner agencies can share and restrict access to subgroups of cameras based upon agency need.

Claris can also incorporate LDAP databases so that access credentials can be managed from a single database for agencies. Within Claris, users will only see the cameras that they were granted access to view. Cameras not within the approved device group for that partner will not be displayed. There are two levels of administration: Global and Local.



A global administrator can manage the application’s configuration, organizations, global device groups, and regions. A local administrator can manage users, markers, and device groups within one’s own organization, produce reports, and manage the sharing of cameras and markers with users from other organizations.

2.5 Step 4: Monitor

Skyline has perfected the monitoring, maintenance and operations of the video sharing solution over the last 10 years. The Luna/Skyline team maintains a fully functional Service Desk which meets the Information Technology Infrastructure Library (ITIL) standards. ITIL helps an IT Services company develop a baseline of processes, procedures, tasks and checklists from which it can plan, implement, and measure success. The Service desk is available by phone at any time through the use of a local or a toll-free number and provides the capabilities needed to fully support any client. These capabilities include the following:

- Proactive and first response to network and appliance monitoring and alerts.
- A documentation repository for each network and appliance infrastructure.
- A documentation repository for all standard operating procedures and policies.
- A flexible incident management system for incident and problem management and tracking.



In order to ensure reliable consistent responses for phone support, emails, and network monitoring alerts our service desk has been fortified with redundancy, including provisions for power, telephone, Internet services, and connectivity back to the data centers housing all of Skyline Technology Solutions systems and video infrastructure. Skyline also maintains a fully redundant disaster recovery office within 15 minutes of its primary offices which includes redundant telephone, network, systems, and Internet services.

The Luna/Skyline team will be providing the following services for CTRMA:

- 24x7 Service Desk phone support.
- Ticketing system support w/ tracking of Incidents, Requests, and Maintenance.
- Hardware maintenance to include Firmware and Software updates.
- Onsite hot swappable spares appliance equipment.
- 48-hour hardware replacements supported with hot swappable spares.
- Emergency incident response.

2.6 Virtual Video Wall, Vero

The Vero video wall product replaces the legacy and expensive video matrix switch approach that hard wires video inputs to a set HDMI outputs to a wall of monitors. This approach limits where the wall can be seen to the local room. It also limits the number of simultaneous inputs and outputs.

Our approach is different, a web based, IP Stream based, virtual switch where any video can be matrixed on a wall of monitors. There are no limitations to counts of sources and destinations. Being virtualized and web based, allows for anyone with an account on the Vero system to bring up the Traffic Management Center wall on their browser, such as a VIP conference room, or another emergency management room, or any PC. The user can also define and select their own wall, and cycle through video tours they individually define.

The Video Wall capability is not in scope of this Proposal however, may be of use to CTRMA as the VISS system grows.

3 SKYLINE MAP TO CTRMA VISS REQUIREMENTS

3.1 Understanding Scope

The tables below map the Skyline Video Interoperability as a Service component or feature that provides the required capability from the CTRMA VISS RFP.

Understanding Scope Requirements	Skyline Understands and Meets
<p>the VISS shall provide a fully operational turnkey solution, including all services to design, implement, configure, and test the most effective and efficient solutions to deliver the best value for CTRMA.</p>	<p>Our packaging of all the architecture components described above in a single Video Interoperability as a Service offering was designed exactly for that purpose, to provide a turnkey managed solution.</p>
<p>CTRMA is looking at a web-based, cloud hosted solution based on existing COTS Software Solution with streaming capabilities originating in the cloud.</p>	<p>Skyline’s Claris VIaaS is just that. A web-based cloud hosted solution for streaming is the basis for multi-agency collaboration, a primary CTRMA goal, which otherwise would not be achievable.</p>

Understanding Scope Requirements	Skyline Understands and Meets
<p>CTRMA is looking for minimal equipment required to be installed locally at its facilities to facilitate the delivery of streams to the cloud. Only one feed can be pulled from each camera regardless of how many end-users will be viewing the stream.</p>	<p>The architecture optionally would place a single SFS1000 appliance at the DMZ segment where all the video aggregates, which is understood to be at the Cedar Park TIMC. This provides a secure demarcation point to the cloud streaming service to send a single stream per camera to the cloud.</p>
<p>Any cloud services shall be hosted in a Tier 1 telecommunications facility with multiple power and internet backup connections</p>	<p>All our cloud datacenters / telecommunication centers surpass Tier 1 requirements and achieve Tier 2 and 3 with multiple power and internet redundant and alternate path connections.</p>
<p>The VISS will be designed to have no impact on CTRMA network security or capacity.</p>	<p>None of the collaborative 3rd party agencies will have any access to any component on the CTRMA network and not impact its security or bandwidth consumption. The architecture is the CTRMA local streamer device pushes a single stream per camera to the Cloud based service. It's from this cloud-based service is where the other agencies pull the stream for viewing, therefore not exposing CTRMA to any 3rd party connections.</p>
<p>The Contractor of the VISS shall provide any initial engineering service required to support the connection of the dedicated circuit, supplied by CTRMA, between the CTRMA's network and the VISS provided hosted services, and provide recommendations on the circuit capacity.</p>	<p>As a Network Engineering company architecting, managing and monitoring thousands of circuits for our customers, we have the skills and processes to provide the optimal engineering services for supporting the direct connection from CTRMA network to the cloud hosting facility. We understand the circuit(s) will be provisioned directly with the carriers and not in-scope of the VIaaS service. We will provide the specifications and engineering details to work with CTRMA IT and the carriers to see it is engineered and provisioned correctly.</p>

3.2 Video Sources and Output Requirements Map

Video Sources and Output Requirements	Skyline Meets
<p>The contractor shall provide equipment and services to securely share live video streams from 50 CTRMA cameras to internal users, external partner agencies, and the public.</p>	<p>Our Streaming service scales well beyond 50 cameras and has ability to set role-based access controls on who can view the video based on agency and user account or to a public portal.</p>
<p>The VISS needs to incorporate video feeds from CTRMA and share video feeds with other partner agencies such as TXDOT or the City of Austin (COA) in a straightforward manner.</p>	<p>Our cloud based streaming service will provide access to TXDOT or COA by simply creating the organization profiles for each and user accounts in our Claris portal platform. Then share groups are defined to set who can see what streams if and when such filtering is needed.</p>
<p>VISS must be capable but not limited to handling and sharing simultaneous MPEG2, MPEG4, H.264 video inputs, and distributing on an industry standardized H.264 format.</p>	<p>The Transcoders were designed to pull in MPEG2, MPEG4, and H.264 feeds from cameras or other VMS sources and produce H.264 outputs at any standard frame rate and resolution, in real time.</p>
<p>VISS shall not be limited in the number of cameras to be shared or the number of simultaneous viewers of cameras. The solution shall quickly scale, allowing to add new cameras within the system.</p>	<p>Our SF Streamers support, depending on resolution, up to 400 simultaneous inputs and thousands of simultaneous viewers. This scales in minutes in our cloud by auto-provisioning additional streamer appliances. Adding new cameras is a simple and quick task of entering or importing the meta data describing the camera, frame rate and resolution settings, GPS locations, and device group associations.</p>
<p>The streaming video shall be made available to end-users based upon the format required by the viewing device. Outbound video streams shall be automatically configured to Real-Time Messaging Protocol (RTMP), Real-Time Streaming Protocol (RTSP) protocols, or HTTP Live Streaming (HLS) protocol for mobile devices.</p>	<p>The Streamers provide different viewing formats depending whether the viewer is on an Apple device with HLS, a viewer of a web site still using RTMP Flash, a thick client viewer on RTSP so that any device and standard browsers can view the live streams.</p>

3.3 System Administration Requirements Map.

System Administration Requirements	Skyline Meets
<p>The VISS must be capable of quickly and simultaneously shutting down the video feeds in whole or per camera to the public while still providing access to videos for CTRMA and specified partner agencies.</p>	<p>The Stream Manager portal provides a systems administrator the interface to shut down in whole or per camera to the public feed while still allowing video feeds to other viewer communities such as CTRMA and other partners. This is called the “Red Button” feature with a simple click to off-line specified cameras.</p>
<p>The VISS shall provide administrative tools that provide CTRMA the ability to easily incorporate new cameras from the network and quickly share with its partner agencies.</p>	<p>The Stream Manager tool purpose is to quickly add new cameras, configure any setting, and verify the connection. These are immediately available for sharing by adding them in the appropriate device groups.</p>
<p>The VISS shall provide administrative tools that allow CTRMA’s authorized users to grant access to whole groups of cameras, or subsets of cameras, to internal CTRMA’s users and external partners, as necessary.</p>	<p>The Claris portal administration page defines cameras in device groups to map to partner agencies user groups for authorizing viewing permission. This is used in the Greater Washington DC area to provide secure access from over 60 video source agencies at the Federal, State, and local agencies to 160+ viewing agencies.</p>
<p>The VISS shall provide CTRMA the ability to group cameras into sub-groups for a specific user or all users based upon region, event, road, or other categories as defined by CTRMA.</p>	<p>Claris Portal provides for the definition of device groups and sub-groups for cameras that can be associated with individual or groups of users. These groups can be based on regional tags, roads, or other categories as defined by CRMTA.</p>
<p>The VISS shall provide multiple levels of administration. VISS shall allow higher management control over configurations, groupings, and organization and local administration to manage users, assign credentials, produce reports. Individual users cannot have access to administrative functions.</p>	<p>Claris Portal has 3 primary user types; Global Administrators with complete control over the system including configurations, groupings, and organizations; Local Administrators with control limited to their agencies cameras, users, assign credentials, produce reports. ; and Individual users have no administrative right, just view rights granted to them by an administrator.</p>

3.4 Web-Based Portal and integration with Third-Party Websites Map

Web-Based Portal and integration with Third-Party Websites Requirements	Skyline Meets
<p>Video streams shall be available to internal users and partner agencies via a web-based portal with user permissions assigned by CTRMA without the use of thick client proprietary, license-based software. Each user will only be able to view the specific cameras included in their user credential profile.</p>	<p>Claris VIaaS intent is for sharing video from any device, any agency, and any network to any device. A web-based platform is the only way to obtain that goal in a operationally effective means, where you don't need to have a thick client installed on all devices that partake in the system. That would be extremely cumbersome if not impossible in a multi-agency use case. However, every agency and every device has a browser. With Claris VIaaS, there is no need for proprietary clients, just a browser supporting HTML5. Cameras will only be viewable if the user has been granted direct permission or are a member of a user group that has been granted permission as defined in their user credentials profile.</p>
<p>End-users shall be able to view up to a minimum of nine (9) simultaneous videos on a single screen. The portal will provide the ability for each user to store custom views based upon the cameras that the user may need to view regularly.</p>	<p>Users can view more than nine (9) and typically view 12, 16 or more on their screen. They have multiple layout and size options and can map video sources to places on the screen layouts. These screen configurations can be saved and named, providing multiple pre-arranged layout presets which can be later selected for viewing.</p>
<p>The VISS portal shall provide multiple viewing options for video streams and ways of selecting video streams to view, including map and list based.</p>	<p>Claris Portal has a Map view with icons for each camera to select for viewing. Claris also has a list view for searching, sorting and filtering by multiple criteria and selecting for viewing.</p>
<p>The <u>streaming</u> video shall be available and viewable on mobile devices.</p>	<p>Android devices and Apple iPhone and iPads are supported for viewing video streams.</p>
<p>The VISS shall be able to publish an API that allows incorporating video streams into third party websites and applications for the traveling public and other potential partners.</p>	<p>Skyline Claris APIs have been used by many public facing 511 web site, and internal facing 3rd party 911 CAD systems such as RapidDeploy, and 3rd party Advance Traffic Management Systems to ingest Claris Video into their web portals. This provide a simple aggregation service to the third parties for live video support.</p>

3.5 System Reporting Requirements Map

System Reporting Requirements	Skyline Meets
<p>The VISS shall provide reporting capabilities that include data about 1) system usage by a user; 2) inventory of cameras and metadata; 3) inventory of user and their user levels; 4) contact information and agency name; 5) cameras viewed by a user, and 6) most utilized cameras.</p>	<p>Claris Portal includes a robust reporting and analytics module that has the ability to view all system data and logs in numerous outputs and visualizations that an administrator can define with a simple interface. There are pre-established reports that provide the 6 use cases listed here: 1) system usage by a user; 2) inventory of cameras and metadata; 3) inventory of user and their user levels; 4) contact information and agency name; 5) cameras viewed by a user, and 6) most utilized cameras.</p>

3.6 Operations Support & Monitoring Requirements Map.

Operations Support & Monitoring Requirements	Skyline Meets
<p>The Contractor shall provide 24x7x365 monitoring of the VISS, alerting CTRMA staff of dropped video feeds and loss of network connectivity to the cloud and monitor availability and quality of video streaming service.</p>	<p>We will leverage a Network Operation Center (NOC) / Service Desk which has been in continual operations without and interruption 24x7x365 for the past 12 years. This NOC currently supports TxDOT enterprise business network and the TxDOT Intelligent Transportation Network and provides proactive monitoring of all devices on those networks. The NOC monitors dropped video feeds, network health, and connectivity of our customers circuits and networking devices, as well as the video quality. Our matured ITIL based standard operating procedure ensures we respond to all alerts and notify our customers following a escalation schedule till resolution.</p>
<p>The contractor shall provide a 24x7x365 service desk staffed by U.S. based engineers to respond quickly to any system issues. Access to support shall be provided through both email and phone.</p>	<p>Our NOC / Service desk is in the US at Glen Burnie Maryland is staffed 24x7x365 by US engineers to respond quickly to all system issues. Skyline has a toll-free number 888-767-9040 and email Support@skylinenet.net and portal https://www.skylinenet.net/help to request assistance.</p>

Operations Support & Monitoring Requirements	Skyline Meets
<p>The contractor is required to provide an automated ticketing system to document, track, and follow-up with the customer service requests and established SLAs. The contractor shall have in place standard operating and escalation procedures to process system issues, measure performance, and abide by the agreed SLAs and KPIs.</p>	<p>Our Service desk has an automated ticketing system and follows ITIL defined processes to document, track, escalate incidents with disciplined follow-up processes to ensure established SLAs and KPIs are met. Our standard operating procedures have been in use and continually maturing over several years. After go live of the project, Skyline will provide a monthly report stating performance, uptime, and incident statistics.</p>
<p>The contractor shall include in its response the Standard Terms and Conditions of its Support and Monitoring Service, its proposed Cloud Management Service with any established SLAs and KPIs.</p>	<p>The Terms and conditions of our support monitoring service are listed below in Section 3.7.2, Operational Support after Go-Live.</p>

3.7 Contractor Responsibilities

The Luna/Skyline team is prepared to perform all Project Management services required to design, implement, configure, test, and support the VISS after go-live and throughout the Contract. We have successfully managed deployments from design through testing and operations for over 17 DOTs at the state and county levels.

The Luna/Skyline team will develop a work plan that will include configuration and implementation efforts for the VISS system. Below is the requested Project management and deployment services we will perform.

3.7.1 Formal project Kickoff Meeting

The Luna/Skyline team will review in detail with CTRMA and all interested stakeholders during the project kickoff meeting the project work plan to deliver the items described above. The Luna/Skyline team will bring the project management, networking, delivery and account management resources to this meeting to create a comprehensive view of our team and how we conduct these projects. To ensure we understand the CTRMA's goals and objectives correctly, our teams frequently ask why, so that we get to the root of the challenges trying to be solved. This helps us better align what we build to your true needs.

Our meeting goals include:

- Reinforce relationships with all CTRMA stakeholders and define a shared understanding of the project goals.
- Define expectations, roles and responsibilities for both Luna/Skyline and CTRMA staff.
- Confirmation of System requirements.
- Detailed discussion of project work plan.
- Discussion of preliminary network design.
- Creation of project communications plan and tools, which include status reports and cadence of project meetings with CTRMA.

3.7.2 Project Management Plans

The project plan will clarify the tasks, timelines, critical path or potential blocker issues to complete the project. The first draft will be reviewed in the kickoff meeting and then updated based on the decisions made with the CTRMA.

Training Plan: The Luna/Skyline team will develop a Training plan to ensure that the Administrative and User community have a clear understanding of the appliances, the architecture and how to operate the portals. The goal is to enable the CTRMA to operate independently in the video solution. The Luna/Skyline team will incorporate onsite training sessions or remote training session, troubleshooting sessions and provide training manuals for each application and user level.

Communications Plan: The Luna/Skyline team will document a Communications plan defining:

- regular checkpoint meetings are scheduled, and with whom.
- how and when status reporting will be delivered and accessed.
- an escalation process to resolve issues and blockers.
- document the roles and responsibilities of CTRMA and Luca/Skyline team members.
- who are the point people and path for communications.
- any Configuration Control Board (CCB) or Change Advisory Board (CAB) communication requirements from CTRMA so CTRMA's Information Technology department is aware and scheduled time for all deployment or configuration activities.

Documentation Plan: The Luna/Skyline team will provide all the documents identified in this section such as the Project management plan, The Communications plan, Preliminary design, Network Diagrams as-builts, Testing plans, and the Technical Special Provisions (TSP). This is the final deliverable which Luna/Skyline presents to a client at Project Closeout. TSP document which is used to clarify the entire solution and how support will be delivered in one document.

The document details out the inventory, support agreements, diagrams, severity definitions, contact procedures, and more. The TSP document is provided to the CTRMA at the Go-Live Meeting.

Throughout the project status reports will be provided biweekly to document progress and issues that need resolution. A formal signoff document for final acceptance will be issued to CTRMA to close out the initial deployment and professional services lump sum phase of the effort.

Testing and Acceptance Testing: The Luna/Skyline team has a proven **Pre-Production Testing** process to validate the entire video architecture prior to deploying in production to ensure we get the results that we expect based on the requirements of the RFP and the performance specifications of the equipment. After usefully ensuring all components and cameras are working properly we will schedule and provide a comprehensive User Acceptance Test plan based upon the functional and performance requirements as stated in the RFP. At the end of the UAT period, established by CTRMA, the Claris product will be put into production for internal CTRMA users initially, and then later onboard external partners, and the public when CTRMA is ready.

Information Gathering and Site Surveys: The Luna/Skyline team has a process of gathering all the camera inventory data, GPS locations, and meta data, protocols supported such as Onvif. This gathering process requires the assistance of CTRMA staff to provide the detailed inventory and associated data elements. We also perform a site survey visit to gather the installation information to prep for the deployment. We plan to visit the demarcation and video aggregation location to ensure proper rack space, cable distance requirements, HVAC environmental, power, and networking connectivity is in place to support any direct connect and or MPLS circuit circuits and local streaming servers will be interfaced. While there we will test the network flows and camera video feeds.

Distribution and Network Analysis - The Luna/Skyline will determine bandwidth and network requirements with MPLS carrier. We will review the distribution requirements with CTRMA and determine any changes required with this new hosted distribution point. Then we will define the network circuit specifications for CTRMA to order with the carrier. The Luna/Skyline team will formalize and document the network design that includes integration of MPLS circuit and cloud-based streaming appliances.

System and Portals Deployment: The Luna/Skyline team has a cloud hosting capabilities and provisioning procedures for creating the VIaaS servers and network components. We will host the streaming and management services in our cloud environment.

A direct connect circuit to this environment engineered by the Luna/Skyline team will be procured by CTRMA. We will work with CTRMA IT department to establish the networking and firewall rules for this connectivity. Once this has been provisioned, we will assist CTRMA in the configuration of the Claris portal with creating the Global and Local administration accounts, define initial device groups and region, and create organization groups. We will setup the Stream Manager Server and import the previously collected camera meta data to configure the VISS. Then we will work with CTRMA to assist in the mapping cameras to device groups for its operational use cases.

Operational Support Analysis: The Luna/Skyline team will review our existing standard operating procedures for our managed service center and determine if any changes need to be made to most effectively serve CTRMA going forward. We will prepare the Service center to onboard the VISS components for monitoring and the operational communication and escalation procedures with CTRMA when incidents occur.

System Documentation: The Luna/Skyline team will provide as-built documentation for the network connectivity, and a user's guide for the Claris VIaaS services supporting the CTRMA VISS. Reports are available in Stream Manager and Claris Portal for the current state of the system. The internal systems hosting management and patching procedure will be managed and performed by the Luna/Skyline team as part of the managed services.

System Burn in: The Luna/Skyline team performs a 2-week burn-in period to exercise the system and uncover and troubleshoot any networking issues and will work with CTRMA to remediate cameras and configuration issues.

System Training: The Luna/Skyline team will provide the training agreed upon in the Training Plan.

Conduct UAT Period: CTRMA will establish a UAT group and conduct usage of the system over a one-week period. Any issues will be documented and any critical issue will be corrected prior to go-live.

System Go-Live: The Luna/Skyline team will Conduct a Go-Live Meeting to review the documents, ensure there are no blockers, review team's readiness, and finalize the go-live date and time.

System Final Acceptance: CTRMA will review the VISS system for final acceptance. Critical issues that prevent or significantly impair operational use will be documented and addressed. If any enhancements or non-critical issues are identified, those items will be put in the operations and support issue list or feature list to be worked on and delivered post acceptance and go live. The Luna/Skyline team will provide the CTRMA VISS program manager a signoff sheet for formal acceptance of delivery of the VISS system.

Operational Support after Go-Live: The Luna/Skyline team has a 24x7 Network Operations Center / Support Center to monitor the health of the VaaS service. This team will be alerted and create support tickets as needed. There is a support email and phone number to call them directly to report any issue with the system. Luna/Skyline team has a dedicated team of Product Technicians to support and manage the VaaS offering. This includes promptly responding to all trouble tickets, with defined escalation procedures following ITIL practices. This team also performs the following activities as part of the Operational Support services.

- Updates for all user manuals.
- A minimum of yearly firmware and software updates for appliance and portals including all minor software releases that provide bug patches and new functionality that falls within the product roadmap.
 - Any upgrades follow a rigorous testing approach.
 - Automated and manual testing of proposed release.
 - Regression testing of release in Skyline's lab.
 - UAT for any new software release in the client's environment if required.
 - Change Control process for rolling out new release into a client's production environment.
 - Security patching - Skyline patches vulnerabilities which are identified throughout the development process. For vulnerabilities that are critical in nature, Luna/Skyline may coordinate with CTRMA to patch the system at an agreed upon time outside of the normal release cycle.
- 48-hour parts replacement for mission critical components
- **Ticketing and Escalation** - When a service call or email comes into the Service Desk, our employees follow a carefully scripted sequence of activities to thoroughly troubleshoot, resolve and track all communications and activities associated with the ticket. The Service Desk can support your agency's service-level requirements for video sharing program through a series of detailed steps in a Run Book created specifically for each client.
 - The process starts with the Service Desk as Tier-1 and Tier-2 support and escalates through Tier-3 and Tier-4 engineering and management support. The Service Desk has tiered teams to provide escalation responses as detailed in our Service Level Agreement.

- The Service Desk provides an initial response to the client within five minutes of detection.
 - A ticket is created in the incident management system in order to keep a comprehensive work log detailing the history and current status of the incident.
 - Service Desk begins diagnosis of the event with the mission of determining the severity level.
 - Once the severity level is determined, the Service Desk will begin a notification process.
 - The ticket is tracked and all work on the related issue is documented within the ticket including all details through to the final resolution.
 - The operations service manager provides each client with a report indicating the actions taken, root cause and the current status of the issue.
- **Enhancements** - The Luna/Skyline team uses the Agile software development approach (utilizing scheduled sprints) that allows us to compartmentalize and schedule enhancements to our products. It also prevents us from doing “one-off” development exercises that are hard to update and support and can make the overall product line unreliable and hard to maintain.
 - We establish a roadmap that outlines the next 3-12 months of new features. Development sprints are scheduled on a quarterly basis and new enhancements are automatically considered to be at least one quarter out depending upon the current backlog of the team.
 - Enhancements are treated as additional small projects and will be estimated and presented to CTRMA for approval. All Enhancements to the system that are a result of requests from other DOT clients are included in the yearly O&M for CTRMA at no extra charge.
 - Functional enhancements that are considered to be highly critical to CTRMA operations are considered separately and can be scheduled into sprints on short notice upon approval of the development team and management.

4 PROJECT SCHEDULE

The proposed project schedule is as follows:

Date	Task
1 weeks from NTP (0-7 days)	Conduct Kick-Off Meeting with CTRMA and Associate Stakeholders <ul style="list-style-type: none"> • Submit Project Plan and Updated Timeline • Submit Drafts Other Required Documents • Draft Regular Meeting Schedule and Communication Expectations CTRMA initiates private circuit discussions/purchase with Vendor & Provider
2nd to 3rd week from NTP (8-21 days)	CTRMA assists the Luna/Skyline team in Initial Information Gathering <ul style="list-style-type: none"> • Points of Contacts • Camera Lists (~50 cameras with Meta Data) • Site Survey Template • Network Information • Power Requirements • Pre-Site Survey Planning • Equipment Specification and Ordering • Network Equipment Feedback on Project Plan and Other Documents Weekly Meetings and Communications
4th week from NTP (22-28 days)	Site Survey one week on site, with One (1) Technician <ul style="list-style-type: none"> • Stream Testing • Network Survey • Create Site Documentation Update Training Plan Weekly Meetings and Communications
5th week from NTP (29-35 days)	Post Site Survey <ul style="list-style-type: none"> • Establish VPN credentials • Communicate any issues identified with camera streams or network pathways Create network connection specifications for CTRMA to order necessary circuits to cloud. Provide preliminary design documentation. Schedule Training Weekly Meetings and Communications
6th and 7th week from NTP (36-49 days)	Appliance, Equipment and Portal Staging <ul style="list-style-type: none"> • Build Appliances and Configure Streams <ul style="list-style-type: none"> ○ Transcoding Appliances (dependent on Option selected) ○ Streaming Appliances • Build Portals and Configure Stream information <ul style="list-style-type: none"> ○ Stream Manager Portal ○ Claris Portal Client private circuit installed and tested Weekly Meetings and Communications

Date	Task
8th week from NTP (50-56 days)	Deploy Appliances and Portals <ul style="list-style-type: none"> • Hardware Installation • Test Streams • Test Applications • Troubleshooting if necessary Documentation <ul style="list-style-type: none"> • Internal ITGlue • TSP Documentation • Network Documentation Weekly Meetings and Communications
9th thru 10th weeks from NTP (57-70 days)	Burn-in Equipment <ul style="list-style-type: none"> • Troubleshoot issues • Working with CTRMA to remediate issues with cameras • Assist CTRMA with any configurations User Acceptance Testing Training <ul style="list-style-type: none"> • Conduct any necessary system training Post Training Support <ul style="list-style-type: none"> • Provide remote training support following initial training sessions Weekly Meetings and Communications
11th week from NTP (71-77 days)	Conduct Go-live pre-meeting <ul style="list-style-type: none"> • Review TSP, Network and ITGlue information Schedule Go-live Rollout Begin Support Period Weekly Meetings and Communications
Begin Support and HW/SW Maintenance	The Operational phase of the project begins once Go Live meeting is scheduled and held with primary stakeholders (CTRMA & Vendor). The Technical Special Provisions (TSP) document will be presented and reviewed at the Go-Live meeting, and any edits must be agreed to by both parties. The Support process and agreements will be fully detailed in the TSP.
As required	Assist providing an after-action report and resolutions for severe outages in partnership with CTRMA staff. The report should include a summary and timeline of the issue, impacted stakeholders, resolution, next steps and follow-up.
Monthly	Once the streaming service is established and operational provide monthly reports on general operations of the system (i.e. uptime), recent helpdesk tickets, and cameras with the highest number of views within each of the associated video products/viewing platform.

5 PRICING AND SCHEDULE OF PAYMENTS

The following table covers all in-scope deliverables and activities described above. The pricing is based on a three-year contract with one optional 1-year extension.

Price Item	Quantity	Price
Professional Services (CAPEX) <i>Include design, implementation, testing, training, documentation, and project management services to implement the VISS fully.</i>	Lump-Sum	\$50,000
50 Cameras, All-inclusive Claris VIaaS Hosted Services SW and Maintenance (OPEX)	Year-1	\$64,000
50 Cameras, All-inclusive Claris VIaaS Hosted Services SW and Maintenance (OPEX)	Year-2	\$64,000
50 Cameras, All-inclusive Claris VIaaS Hosted Services SW and Maintenance (OPEX)	Year-3	\$64,000
50 Cameras, All-inclusive Claris VIaaS Hosted Services SW and Maintenance (OPEX)	Year-4 <i>(Optional)</i>	\$64,000
Total 4 Year Contract Value <i>(Total includes year 4 optional extension)</i>		\$306,000

Schedule Milestone	Deliverable Name	Payment Milestone
Delivery of PM plans, design, testing, training, documentation, and system deployed ready for testing.	Testing	50% Professional Services (\$25,000)
User Acceptance Testing complete, Go Live, Acceptance	Acceptance	Remaining 50% Professional Services (\$25,000) + 100% of Year-1 Annual Hosted Services (\$64,000)
Annual Software license fees, hosting fees, and maintenance support fees	VISS Hosted Services	100% of Annual Hosted Services on each anniversary of Acceptance (\$64,000)

6 SUPPORT SERVICE & OPERATIONAL OBJECTIVES

Support Service Business Hours: 8:00 AM to 5:00PM ET Monday – Friday

After Hours: All hours outside this window, and holidays.

Holidays: New Year’s Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, Day after Thanksgiving, Christmas Eve, Christmas Day.

General

Specific terms/ points of these objectives may be adjusted on a case by case basis as required based on mutual agreement by Luna and the Agency.

Exceptions

Luna/Skyline shall not provide any credits under this agreement in connection with any failure or deficiency of our provider’s network caused by or associated with the following:

- Circumstances beyond reasonable control, including without limitation,
 - acts of any governmental body
 - war, insurrection, sabotage, embargo
 - “Acts of God” (i.e., fire, flood, earthquake, tornado, etc.)
 - strike or other labor disturbance
 - interruption of or delay in transportation
 - unavailability of or interruption or delay in telecommunications or third-party services,
 - failure of third-party software or inability to obtain raw materials, supplies
 - power used in or equipment needed for provision of the Service Agreement.
- Telco Failure (i.e., cutting a fiber line somewhere)
- Backbone peering point issues (PAIX)
- Scheduled maintenance for hardware/software upgrades
- DNS issues not within our direct control
- Agency acts or omissions, including without limitation,
 - any negligence, willful misconduct, or use of our services in breach of our Policy, by agency or others authorized by agency.
- DDoS attacks or any IRC related attacks

In the event of an unfortunate third-party outage (e.g., telecom provider, power service, etc.) the Luna/Skyline team owns the process as well as responsibility to continue service to their best ability should a third-party provider be unable to deliver service.

Measurement

On an average of every 5 minutes the support service polls the agency video systems components using monitors specifically for network and host server availability. The monitoring is completed using software and hardware components capable of measuring application traffic and responses.

We uses a method of PING and SNMP responses, and agency acknowledges that such measurements may not measure the exact path traversed by a client's internet connection, and that such measurements constitute measurements across our network, but not other networks to which a client may connect. We reserve the right to periodically change the measurement points and methodologies it uses without notice to clients. Full network and server reporting will be posted to a location designated by the Luna/Skyline team and made available to agency. The measurement of service is computed by averaging the availability across all active servers and services (minus any equipment in maintenance).

Trusted Brands

The Luna/Skyline team commits to using name brand, trusted equipment partners to provide best in tier service. Specific brand examples include Dell, Juniper, Ciena, Aruba, Cisco, Microsoft, Apple, Axis, WTI, etc.

Hardware Failure

The Luna/Skyline team makes a commitment that all hosted equipment if found to be in a failed state will be corrected as soon as possible, and in accordance with the *Expected Response Times for Incidents and Service Requests*. Faulty hardware is rare but cannot be predicted nor avoided. We utilize only name brand hardware of the highest quality and performance. We will replace all faulty hardware affecting performance levels of equipment as soon as possible, which includes hardware issues that cause server crashes or speed issues. Hardware failure resulting in complete network/server outage/downtime will also be corrected as soon as possible. Router failure is an exception to this guarantee and may require on-site engineers or backbone provider emergency personnel to correct the problem. We will replace all faulty hardware on equipment, at no charge to agency, with an unlimited free replacement policy during the term of service. This includes parts ordered as upgrades.

Accountability

The Luna/Skyline team will discuss availability during the Monthly Status Meeting. Any actions for remediation will be proposed and discussed during the scheduled meeting. Such actions will be agreed to by both agency and vendor, as well as any plans or associated tasking.

Incident Severities

Incident Definition: An unplanned interruption to a video service or reduction in the quality of the service. The incident management process ensures that normal service operation is restored as quickly as possible and the business impact is minimized.

Severity-1 – A critical, or major incident where a severe outage spans one or many TOCs/sites, or one or many Streamers (SFS1000’s) that are in a non-functional state, or all users are impacted, or an outage of a hosted application or its subsystems (i.e., Claris, Stream Manager, Map Server, etc.) or any incident during a special event.

Severity-2 – Incident resulting in an outage of one or many Transcoders (TS1000), or one Streamer (SFS1000), or an outage which impacts functionality, but the system remains usable. A degradation in functionality of the application or service, or Streamer (SFS1000).

Severity-3 – Incident affecting one stream, or a small subset of camera feeds, or an incident which results in service degradation thereof.

Service Request – Not an incident. Request in which nothing is degraded or non-functional. This is an appeal for a new account, service, information, functionality, modification of existing service, etc.

Maintenance –Not an incident, or a service request. Modification of a Production or Non-Production system that is required to keep the system functioning in an optimal and secure manner. The process utilizes the standard Change Management process (CCB) and may at times require additional documentation.

1. Expected Response Times for Incidents and Service Requests.

Incident Severity	Initial Response	Initial Communication	Frequency of Communication	Resolution Objective	Root Cause Analysis
Severity 1	Phone call to the submitter of the ticket within fifteen (15) minutes from receipt of system ticket, system monitor, technician discovery, or client phone call to the Service Desk. Internal Conference	Formal email communication to client within thirty (30) minutes from confirmation/verification that the issue is a Sev-1. To be distributed no later than one (1) hour since report of issue.	Formal email communication to client within sixty (60) minutes from the previous communication.	Two (2) hours. With formal notification.	Formal email communication to client within two (2) business days from the distribution of the Resolution communication. Upon client request for a post mortem. Analysis may be performed.

Incident Severity	Initial Response	Initial Communication	Frequency of Communication	Resolution Objective	Root Cause Analysis
	bridge to be opened. Basis of response is 24x7x365.				
Severity 2	Phone call to the submitter of the ticket within thirty (30) minutes from receipt of system ticket, system monitor, technician discovery, or client phone call to the Service Desk. In some cases, email correspondence (or via ticketing system). Basis of response is 24x7x365.	Formal email communication to client within one (1) hour from confirmation/verification that the issue is a Sev-2. To be distributed no later than one (1) hour since report of issue.	Email correspondence using the ticketing system every two (2) hours. In some cases the frequency of communication may be reduced.	One (1) business day. With email (i.e., ticket system) notification.	Formal email communication to client within two (2) business days based on a specific client request.
Severity 3	Phone call within thirty (30) minutes from receipt of system ticket, system monitor, technician discovery, or client phone call to the Service Desk. Basis of response is 24x7x365.	Email correspondence using the ticketing system within one (1) business day of confirmation/verification that the issue is a Sev-3.	Email correspondence using the ticketing system once (1) per business day.	Three (3) business days. With email (i.e., ticket system) notification.	Formal email communication to client within two (2) business days based on a specific client request.

Incident Severity	Initial Response	Initial Communication	Frequency of Communication	Resolution Objective	Root Cause Analysis
Service Request	Phone call within thirty (30) minutes from receipt of system ticket, or client phone call to the Service Desk. Basis of response is 24x7x365.	Within one (1) business day of Initial Response.	Dependent on nature of request.	Dependent on nature of request.	None.

7 PROPOSAL CLARIFICATIONS

This section provides further details to the previous sections based on CTRMA request for clarifications issued on December 6th, 2019 and Luna/Skyline clarifications provided on December 13th, 2019.

System Architecture

1. CTRMA Question: CTRMA understands that your proposal and price does not include any Transcoding Appliances since all CTRMA's cameras already support H.264. Please confirm.

Luna/Skyline Response: Correct, no Transcoding appliances were included in the quote.

2. CTRMA Question: Should a Transcoding Appliance be required in the future to connect different cameras, what would be the price associated with the supply, installation, and configuration of the relative hardware and software?

Luna/Skyline Response: The following is pricing for (1) TS1000 Transcoding Appliance which can process up to (20) streams simultaneously:

- i. Transcoder Appliance - \$6,000 one-time fee. Typical lifespan of these appliances 5-6 years before refresh needed.*
- ii. Configuration, Installation, Travel, and Simple Training - \$5,480 one-time fee.*
Annual Software Assurance / Hardware Maintenance - \$2,680/year for up to 5 years or refresh, whichever comes first.

3. CTRMA Question: CTRMA understands that this proposal and price include two (2) Streaming Appliances SFS1000: one to manage interagency streaming and one to manage public streaming. Please confirm.

Luna/Skyline Response: This proposal includes (3) total Streaming Appliances. (1) Streaming Appliance that will be installed at CTRMA, and then (2) Streaming Appliances which will be installed at Skyline's Data Center (one for interagency streaming, and one for public streaming)

4. CTRMA Question: Please confirm the maximum capacity of the proposed streaming appliances expressed as the maximum number of cameras that can be connected to the appliance. Assume all cameras are streaming at the highest allowed resolution. Or, provide the spare capacity for the proposed Streaming Appliance, available to CTRMA, beyond the proposed initial count of 50 Cameras.

Luna/Skyline Response: The maximum number of input streams based on resolution are as follows:

- i. LQ (320x240, 15 fps, 192 kbps) – 400 Input Streams*
 - ii. SD (720x480, 15fps, 768 kbps) – 200 Input Streams*
 - iii. 720p (1280x720, 30fps, 2000 kbps) – 75 Input Streams*
5. CTRMA Question: Should an additional Streaming Appliance be required in the future to connect other cameras, what would be the price associated with the supply, installation, and configuration of the relative hardware and software?

Luna/Skyline Response: The following is pricing for (1) SFS1000 Streaming Appliance which can process up to (400) streams simultaneously:

- i. Streaming Appliance - \$7,000 one-time fee. Typical lifespan of these appliances 5-6 years before refresh needed.*
- ii. Configuration, Installation, Travel, and Simple Training - \$5,480 one-time fee*
- iii. Annual Software Assurance / Hardware Maintenance - \$3,288/year for up to 5 years or refresh, whichever comes first.*

6. CTRMA Question: CTRMA will be responsible for providing rack space (1U), power supply, and communication circuits for the Streaming Appliances provided by Luna/Skyline. Please confirm.

Luna/Skyline Response: Correct

7. CTRMA Question: Based on your experience, please provide an estimate of the type of circuits needed by CTRMA and their estimated cost.

Luna/Skyline Response: We leverage MPLS circuits for this type of hosted service. Cost will vary based on the quality of the video stream. We can provide rough pricing once we know your quality of the video. Circuit costs are the responsibility of CTRMA and pricing is not included in this Proposal

System Integrations

1. CTRMA Question: CTRMA is interested in leveraging the Incident View in the Claris Portal. We understand that it will require an API to integrate with Kapsch and Lonestar TIMC software to retrieve incident alarms and automatically associate the closest cameras into the Claris Portal. Please confirm if such APIs already exist and could be leveraged in CTRMA's implementation at no extra cost. If not, what additional cost will require its development, and what is the expected impact on the proposed project schedule?

Luna/Skyline Response: Claris has an existing integration with Lonestar that supports pulling in incident data, DMS sign data, and speed sensor data. There is no additional cost for implementation of these layers. If additional layers would be needed, there would be an additional cost for integration. Specific costs and schedule would be determined upon discovery of those layers. Claris does not currently have an integration with Kapsch, but we could integrate with Kapsch for an additional cost. Specific costs and schedule would be determined upon discovery of the integration details.

2. CTRMA Question: Please confirm if you anticipate that such APIs require the TIMC supplier (Kapsch or Lonestar) to provide any additional development or support to Luna/Skyline during project implementation.

Luna/Skyline Response: There may be some support hours needed to setup a test environment (if one does not already exist), or to engage in collaboration required to ensure successful API integration.

Solution Pricing

1. CTRMA Question: In your proposal, Section 5 - Pricing and Schedule of Payments, you require an Annual Payment of \$64,000. In the Price Column, you state, "Total 4 Year Contract (\$192,000.00)". CTRMA understands that the \$192,000 amount accounts for three (3) 1-year renewals following the first one and that the Lump Sum amount of \$114,000 already includes \$64,000 for the first year of support. Please confirm.

Luna/Skyline Response: Correct. This proposal has been amended accordingly.

2. CTRMA Question: If, after the first year, CTRMA decides not to renew its contract, please confirm what CTRMA obligations are. Is CTRMA committed to pay for the 4-year term as a minimum or mandatory term?

Luna/Skyline Response: We suggest that first 3 years are mandatory. This proposal has been amended accordingly.

Contractual Terms

- CTRMA Question: CTRMA will procure the VISS solution through Texas DIR. Please provide all details regarding the DIR Contract that Luna / Skyline intends to use, as it applies and including:
 - a. The draft Contract covering the professional service for implementation.
 - b. The draft Contract covering the annual supports services with the proposed KPIs and SLAs;
 - c. The DIR Price Items and quantity to be billed to CTRMA and matching the submitted Pricing Proposal;
 - d. Any other contractual document required by TxDIR.

Luna/Skyline Response: CTRMA will contract with Luna through the TxDIR Contract # DIR-TSO-3819. Skyline is teaming with Luna as its subcontractor. The Contractual Terms and Conditions that will apply between CTRMA and Luna are the DIR Terms and Conditions. This Proposal, as amended, represents the statement of work to be provided by the Luna/Skyline team for the CTRMA VISS project. The annual support services will be provided in adherence to the KPIs and SLAs described in "Section 6-Support Service & Operational Objectives" of this amended proposal.



“This is to signify that the Central Texas Regional Mobility Authority and Lunda Data Solutions, Inc. have entered into an Agreement in an amount not to exceed \$306,000 pursuant to Texas Government Code Section 2054.0565 utilizing Texas Department of Information Resources Contract No. DIR-TSO-3819 for the purchase and installation of equipment and services described in this proposal. All terms and conditions of Texas Department of Information Resources Contract No. DIR-TSO-3819 are applicable to and made part of this Agreement.”


LUNA DATA SOLUTIONS, INC.

**CENTRAL TEXAS REGIONAL
MOBILITY AUTHORITY**



Dana R. Jones
CEO

Mike Heiligenstein
Executive Director



Date

Date

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 20-012

**APPROVE AMENDMENT NO. 1 TO THE INTERLOCAL AGREEMENT WITH
THE TEXAS A&M TRANSPORTATION INSTITUTE FOR A TECHNOLOGY
CORRIDOR STRATEGY**

WHEREAS, by Resolution No. 19-009, dated February 27, 2019, the Board of Directors approved an Interlocal Agreement (“ILA”) with the Texas A&M Transportation Institute (“TTI”) to conduct a customer satisfaction and MoPac Express Lane use survey, analyze real world MoPac travel data, assess wrong-way driving characteristics and identify mitigation measures, and provide a research and methodology brief on survey panels; and

WHEREAS, the Executive Director has determined there is a need for additional technical and research support services for the development of a technology corridor strategy to advance the Mobility Authority’s innovation process and regional collaboration support on innovation; and

WHEREAS, the Executive Director also recommends additional funding of \$250,000 and extending the ILA through June 30, 2021; and

WHEREAS, the Executive Director and TTI have negotiated proposed Amendment No. 1 to the ILA for the development of a technology corridor strategy to advance the Mobility Authority’s innovation process and regional collaboration support on innovation which extends the expiration date of the ILA to June 30, 2021 and increases the funding by \$250,000, resulting in an ILA in a total amount not to exceed \$703,000; and

WHEREAS, the Executive Director recommends that the Board approve the proposed Amendment No. 1 with TTI in the form or substantially in the same form as Exhibit A attached hereto.

NOW THEREFORE, BE IT RESOLVED, that the Board approves Amendment No. 1 to the Interlocal Agreement with the Texas A&M Transportation Institute and authorizes the Executive Director to finalize and execute proposed Amendment No. 1 with the Texas A&M Transportation Institute in the form or substantially the same form as Exhibit A.

Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 26th day of February 2020.

Submitted and reviewed by:



Geoffrey Petrov, General Counsel

Approved:



Robert W. Jenkins, Jr.
Chairman, Board of Directors

Exhibit A

AMENDMENT NO.1

Interlocal Cooperation Contract

Additional Scope of Services

Pursuant to Article 2 of Exhibit A to the Interlocal Cooperation Contract (the Contract) entered into by and between the Central Texas Regional Mobility Authority (the Mobility Authority) and Texas A&M Transportation Institute (TTI) dated March 22, 2019, the parties hereby mutually agree to this Amendment No. 1 to the Contract as provided below:

A. Section IV is amended to read as follows:

The total amount of this contract shall not exceed: Seven Hundred and Three Thousand, \$703,000. The maximum amount payable under this contract is contingent upon availability of funds.

B. Section VIII is amended to read as follows:

Payment under this contract beyond the end of the current fiscal year is subject to availability of appropriated funds. If funds are not appropriated, this contract shall be terminated immediately with no liability to Receiving Party. This contract begins when fully executed by both parties and terminates on June 30, 2021.

C. Schedule A is amended by adding a new Task 5

New Task 5. Research and Planning Support for a Regionally Coordinated Technology Corridor Strategy is added, reading as follows:

Task 5. Research and Planning Support for Regionally Coordinated Technology Corridor Strategy

The purpose of this task is to secure support from TTI to develop a process by which rapidly emerging technology innovations in the transportation sector can be incorporated in Mobility Authority corridor projects. Of interest are projects that involve cross-agency coordination with local agencies including but not limited to Texas Department of Transportation (TxDOT) Austin District Office, the City of Austin, and Capital Metro. Specifically, under this task, TTI will support the Mobility Authority with strategic and organizational planning and collaborative partnership-building, through the development of a regionally coordinated Technology Corridor Strategy, which could become a model to extend to future roadway projects.

The work will be conducted through the following three subtasks:

- Subtask 5.1 Conduct Research to Inform the Vision and Process for a Regionally Coordinated Technology Corridor

- Subtask 5.2 Assist in Building Stakeholder and Partner Support
- Subtask 5.3 Support Development of a Technology Corridor Strategy

Subtask 5.1 Conduct Research to Inform a Vision and Process for a Regionally Coordinated Technology Corridor.

Under this subtask, the TTI team will perform background research to inform the development of the vision and process for a regionally coordinated Technology Corridor Strategy. The research activities will include the following:

- Develop from existing sources a baseline summary of travel characteristics and customer travel needs and expectations for existing Mobility Authority corridors.
- Document the current and planned technology infrastructure and innovation strategies applied to the corridors, including past, existing and proposed pilot programs. Identify Mobility Authority innovation programs at the corridor or system level that could have a relationship to each corridor.
- Conduct a public survey to gauge Central Texan's thoughts on emerging technology and connected and autonomous vehicle (CAV). The survey will provide insights on local awareness and acceptance levels of emerging technology and help aid understanding on the concerns about future technology deployment scenarios. Findings will be integrated into the Technology Corridor Strategy; in particular, they will inform public engagement and education to ensure road user safety during deployments and to build public trust and acceptance of testing and full deployment of emerging technology.
- Gather information from public and private stakeholders via structured interviews (10-12) to assess shared need, interests, and opportunities for partnership in the corridors.
- Develop and conduct an evaluation of a connected vehicle pilot program scheduled for summer 2020, including the following activities:
 - documentation of pilot program objectives
 - identification of performance metrics associated with program objectives, both technological and customer-oriented
 - assessment of data requirements to support performance metrics
 - collection of before and after data provided by others
 - development of a pilot evaluation report.

Deliverable 5.11 Technical Memorandum on the Baseline Research for Development of the Technology Corridor Strategy. Timeframe: February 2020 – June 2020. Due date: Draft May 22, 2020; Final June 17, 2020.

Deliverable 5.12 Research Plan including Questionnaire, for a Public Survey on Emerging Technology and CAV. Timeframe: March 2020 – April 2020; Due Date: April 17, 2020.

Deliverable 5.13 Report on Public Sentiment Survey. Draft Interim Findings: June 19, 2020; Final Report, PPT, and Summary: August 31, 2020.

Deliverable 5.14 Evaluation Plan of Ford Connected Vehicle Pilot Project. Timeframe: February 2020 – May 2020; Due date: May 29, 2020.

Deliverable 5.15: Technical Memorandum on the Evaluation of Ford Connected Vehicle Pilot Project. Timeframe: June 2020 – November 2020. Due Date: November 27, 2020

Subtask 5.2 Assist in Building Stakeholder and Partner Support

The purpose of this subtask is to conduct a half-day workshop with public and private stakeholders as a venue for:

- (1) engaging with them in the development of a vision, goals and value proposition for enabling technology solutions to solve mobility challenges in one or more of Mobility Authority corridors; and,
- (2) obtaining their input on key activities and opportunities for collaboration, strategies, available resources for advancing mobility innovations, and the process for communication and collaboration on this effort.

In carrying out this task, TTI will work closely with the Mobility Authority innovation team to develop a plan that outlines the goals and objectives of the workshop, identifies the public and private stakeholders (along with key relationships, value and expectations for each, and rationale for inclusion), and provides details on a planning schedule and logistics for the workshop (e.g., date, location, agenda, letters of invitation, and a detailed planning schedule leading to the workshop).

Upon approval, TTI will implement the workshop plan, conduct the workshop, and prepare a technical memorandum that documents the workshop discussions, outlines recommendations and action items pertaining to the regionally coordinated Technology Corridor Strategy goal, vision and value proposition, and tentative strategies and opportunities for collaboration and sharing resources. Finally, the plan will outline the process for developing the Technology Corridor Strategy.

Deliverable 5.21. Workshop Plan. Timeframe: March-April 2020. Due date: April 17, 2020.

Deliverable 5.22. Technical Memorandum Documenting the Stakeholder Workshop. Timeframe: April 2020 – June 2020. Due date: June 12, 2020.

Subtask 5.3 Support Development of a Regionally Coordinated Technology Corridor Strategy

Under this subtask, TTI will assist Mobility Authority in carrying out the process defined in Task 5.2 to develop the Technology Corridor Strategy. Upon review and approval of Subtasks 5.1 and 5.2, Mobility Authority will issue a Notice to Proceed to initiate work on this task, including the following activities:

- Develop a detailed schedule for and assist with coordination of the process outlined in Task 5.2. Identify and track key milestones for inclusion in the Strategy.
- Prepare for (e.g., Agenda, invitations, meeting materials, secure guest speakers) and participate in monthly meetings. A focus of these meetings will be on obtaining continued input and review of the Strategy goals and objectives, furthering the planning and coordination of agency-specific activities and action items which will ultimately be incorporated into the Strategy, and reviewing/identifying public sector candidate solutions and technologies for the target corridor(s). This process shall be documented and included in the Strategy.
- Advise and participate in a digital process for engaging and collaborating with the private sector on prospective technology or mobility solutions for Mobility Authority technology corridors. This will entail advising on the platform design and criteria for evaluating prospect submissions, coordinating with the Agency Working Group, and participating in follow up meetings with private sector candidates, as necessary. This process shall be documented and included in the Strategy.
- Develop the Strategy and coordinate with the Agency Working Group members, as necessary. The Strategy will be dynamically developed over the course of several months allowing time for the Agency Working Group and public sector engagement process to run course. TTI shall prepare a draft and final annotated outline before proceeding with the development of the draft version of the Strategy.

Deliverable 5.31. Detailed Schedule for the Strategy Development Process. Timeframe: July 2020. Due Date July 10, 2020.

Deliverable 5.32. Annotated Outline, Draft and Final Coordinated Technology Corridor Strategy. Timeframe: July - December 2020. Due Dates: Annotated Outline, August 14, 2020; Draft October 23, 2020; Final December 4, 2020

Task 5 Budget: \$250,000.00

D. Schedule A is amended by adding delivery schedules for Tasks 1, 2 and 3 as follows:

Task 1: Customer Experience Survey

Subtask No.	Deliverable	Due Date
1.A.1	Kick-Off Meeting Agenda	3/11/2019
1.A.2	Kick-off Meeting Summary Notes	3/12/2019
1.B.1	Tech Memo on Literature Review Findings	5/3/2019
1.C.1	Draft Instrument	10/25/2019
1.C.2	Final Instrument	02/07/2020
1.E.1	Sample Plan	08/28/2019
1.E.2	Incentive Management Plan	09/05/2019
1.F.1	Data Collection Plan	02/21/2020
1.F.2	Pilot Technical Memorandum	03/21/2020
1.G.1	Cleaned Survey Dataset	06/01/2020
1.G.2	Data Dictionary	06/01/2020
1.H.1	Final Report	06/29/2020
1.H.2	PowerPoint	06/29/2020

Task 2: Analysis of Real World MoPac Driver Behavior

Subtask No.	Deliverable	Due Date
2.1	Dataset of MoPac Trips Dataset	6/31/2020
2.2	Final Report	9/30/20

Task 3: Assessing Wrong Way Driving Characteristics and Identifying Mitigation Measures

Subtask No.	Deliverable	Due Date
3.1	Technical Memorandum Documenting the Approach and Implementation Suggestions	09/17/2019
3.2	Final Technical Memorandum and PowerPoint	6/30/2020

E. All other terms and conditions of the Interlocal Cooperation Contract not hereby amended are to remain in full force and effect.

IN WITNESS WHEREOF, this additional task and time extension shall become effective on the date of the final execution of the parties hereto.

THE PERFORMING AGENCY
 The University of Texas at Austin
 Center for Transportation Research

**CENTRAL TEXAS REGIONAL
 MOBILITY AUTHORITY**

 (Signature)

 (Signature)

 (Printed Name)

Mike Heiligenstein

 (Printed Name)

 (Title)

Executive Director

 (Title)

 (Date)

 (Date)

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 20-013

**APPROVE AN INTERLOCAL AGREEMENT WITH
THE CAPITAL AREA RURAL TRANSPORTATION SYSTEM TO PROVIDE
FUNDING FOR THE EASTSIDE BUS PLAZA**

WHEREAS, both the Central Texas Regional Mobility Authority (Mobility Authority) and the Capital Area Rural Transportation System (CARTS) are authorized to design and construct transportation projects to advance regional mobility and connectivity; and

WHEREAS, Chapter 791 of the Texas Government Code provides that any one or more public agencies may contract with each other for the performance of governmental functions or services in which the contracting parties are mutually interested; and

WHEREAS, CARTS is currently developing a bus plaza which will include a one-story terminal building providing passenger waiting areas, restrooms, ticketing facilities, and a one-way bus driveway with bus boarding platforms to serve CARTS interregional routes as well as several Capital Metropolitan Transportation Authority (Capital Metro) local bus routes (Eastside Bus Plaza); and

WHEREAS, CARTS will be providing partial funding for the Eastside Bus Plaza and has secured additional financial commitments from the Capital Area Metropolitan Planning Organization, Capital Metro, and the City of Austin; and

WHEREAS, CARTS has requested that the Mobility Authority contribute \$400,000.00 for construction of the Eastside Bus Plaza; and

WHEREAS, the Eastside Bus Plaza is in close proximity to the Mobility Authority's 183 South Project, and Mobility Authority roadways will be used by CARTS for travel to and from the facility; and

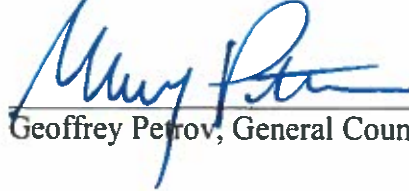
WHEREAS, the Executive Director and CARTS staff have negotiated an interlocal agreement to provide for the Mobility Authority's funding contribution as well as to allow for opportunities for the Mobility Authority to occupy retail space to display branding and advertising materials for the Mobility Authority, its pay-by-mail program, its affiliated electronic tag payment programs or other customer service programs at the Eastside Bus Plaza; and

WHEREAS, the Executive Director recommends that the Board approve the proposed interlocal agreement to provide \$400,000.00 for development and construction of the Eastside Bus Plaza, in the form or substantially the same form attached hereto as Exhibit "A".

NOW THEREFORE, BE IT RESOLVED, that the Board hereby approves the proposed interlocal agreement with the Capital Area Rural Transportation System and authorizes the Executive Director to finalize and execute the interlocal agreement on behalf of the Mobility Authority in the form or substantially the same form as Exhibit "A".

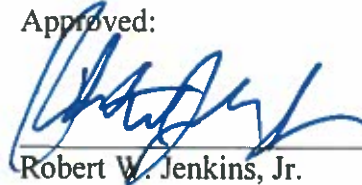
Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 26th day of February 2020.

Submitted and reviewed by:



Geoffrey Petrov, General Counsel

Approved:



Robert W. Jenkins, Jr.
Chairman, Board of Directors

Exhibit A

**INTERLOCAL COOPERATION AGREEMENT
BY AND BETWEEN
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY
AND
CAPITAL AREA RURAL TRANSPORTATION SYSTEM**

This Interlocal Cooperation Agreement (this “**Agreement**”), dated effective as of the last signature date below (the “**Effective Date**”), is made and entered into by and between the Central Texas Regional Mobility Authority, a political subdivision operating under Chapter 370 of the Texas Transportation Code (“**CTRMA**”), and the Capital Area Rural Transportation System, a rural transit district and political subdivision of the State of Texas organized under Chapter 458 of the Texas Transportation Code (“**CARTS**”). CTRMA and CARTS are referred to in this Agreement individually as a “**Party**” and collectively as the “**Parties**.”

RECITALS

1. CARTS intends to develop and operate a bus plaza for the integration of its regional routes at 363 Shady Lane, Austin, Texas, which will include a one-story terminal building providing passenger waiting areas, restrooms, ticketing facilities, and a one-way bus driveway with bus boarding platforms to serve CARTS interregional routes as well as several Capital Metropolitan Transportation Authority (“Capital Metro”) local bus routes. The project will serve as a hub providing interconnections with and between CARTS rural or regional bus routes and Capital Metro’s local routes. The facility will be located on land owned by TxDOT and is referred to herein as the “**Eastside Bus Plaza**” or “**EBP**”.
2. CARTS and CTRMA agree that conducting certain joint operations with Capital Metro at the Eastside Bus Plaza will benefit the general public as it will provide transportation options enhancing mobility in furtherance of the Parties’ respective missions. The Parties further agree that the Eastside Bus Plaza will be in close proximity to the CTRMA’s 183 South Project, and that it will benefit users of that project by facilitating additional mobility options to travel through the 183 South corridor.
3. Funding for development and construction of the EBP, including roadway rehabilitation and signal work, will come from multiple sources as set forth below:

Funding Source and Use	Amount
CARTS – Project Development and Construction	\$2,000,000
CAMPO – Project Development and Construction	\$3,000,000
Capital Metro – Project Development and Construction	\$1,500,000
City of Austin – Roadway Rehabilitation and Signals	\$640,000
Mobility Authority – Project Development and Construction	\$400,000
TOTAL	\$7,540,000

In addition to the foregoing, the project will be located on property owned by the Texas Department of Transportation (“TxDOT”) subject to an agreement (see Section 2.A.(i) below) valued at \$750,000.00.

4. CARTS has procured construction services for the EBP and has executed a contract therefore in the amount of \$5,599,306.02.
4. CTRMA is willing to contribute certain funding to the construction of the Eastside Bus Plaza in exchange for the consideration granted to CTRMA by CARTS as is outlined in this Agreement.
5. The Parties intend to enter into this Agreement to set forth each Party’s responsibilities with respect to the development, operation and maintenance of the Eastside Bus Plaza pursuant to the Interlocal Cooperation Act, Texas Government Code Section 791.001, et seq.

AGREEMENT

IN CONSIDERATION OF the duties, obligations and covenants of each party to the other, and other good and valuable consideration, CARTS and CTRMA agree as follows:

1. CTRMA’S ROLES AND RESPONSIBILITIES

- A. CTRMA will make available to CARTS the sum of Four Hundred Thousand Dollars (\$400,000.00) on a reimbursement basis to fund CARTS’ work associated with the construction of the EBP. CTRMA participation will be invoiced by CARTS once a month, such payments being an amount equal to CTRMA’s proportionate share of the construction price but not to exceed, in the aggregate, \$400,000.00. Based on a contracted construction price of Five Million Five Hundred Ninety-Nine Thousand Three Hundred Six Dollars and Two Cents (\$5,599,306.02), CTRMA’s share of the construction price is 7.14%. Each month CARTS will send an invoice and supporting documentation related to the total of construction costs actually incurred for the preceding month, and CTRMA shall (subject to review and confirmation) pay 7.14% of the total amount. Such invoices shall include adequate supporting documentation for those costs associated with project construction, oversight and construction services associated with the EBP.
- B. In addition to the financial assistance described above, CTRMA will provide adequate staff resources to facilitate timely invoice review and prompt payment during the construction of the EBP. This obligation shall terminate after all invoices pertaining to the construction of the EBP have been paid or otherwise settled. CTRMA, including its representatives, will have access to the project in order to inspect progress and confirm work performed provided that any such inspections shall not interfere with ongoing work.
- C. CTRMA’s obligations as outlined in this Section shall be expressly contingent on CARTS meeting each of its responsibilities as are set forth in Section 2 below.

2. CARTS’ ROLES AND RESPONSIBILITIES

- A. CARTS roles and responsibilities in the design, construction and completion of the EBP include each of the following:

- (i). Maintaining the necessary rights from TxDOT to use land for the project. Under the TxDOT MOU and that certain Multiple Use Agreement by and between CARTS and TXDOT, dated effective May 4, 2017, (the “TxDOT MUA”), TxDOT consented to CARTS operating transit services on the Property for an initial term of forty (40) years. CARTS represents that the TxDOT MOU and TxDOT MUA permits CARTS to use the Property for constructing and operating the EBP and mass transit services in accordance with this Agreement. CARTS will take all appropriate measures to remain in compliance with the TxDOT MOU and TxDOT MUA and will prevent any interference with CARTS’ operations at the EBP.
- (ii). Performing its duties and responsibilities under its interlocal agreement with Capital Metro so as to ensure CARTS remains eligible to receive funding in the amount of One Million Five Hundred Thousand Dollars (\$1,500,000.00) from the Capital Metro.
- (iii). Taking such actions as are necessary to secure and receive funding, or in-kind contributions or services, in an amount of up to Six Hundred Forty Thousand Dollars (\$640,000.00) for work on signals and/or pavement from the City of Austin.
- (iv). Taking such actions as are necessary to secure and receive allocated funding of Three Million Dollars (\$3,000,000.00) from the Capital Area Metropolitan Planning Organization (“CAMPO”).
- (v). Contributing a minimum of Two Million Dollars (\$2,000,000) of CARTS’ own funds for the planning, design and construction of the EBP.
- (vi). Development of plans to ensure access to adequate funding for continued operation and maintenance of the EBP following its commencement of operations, either from funding provided by CARTS or made available to CARTS from third-party sources, for a period of not less than ten (10) years.
- (vii). Providing adequate staff for coordination of the planning, design and construction of the EBP.
- (viii). Incorporating the operations and maintenance plan associated with the EBP into CARTS’ fiscal operating budget following the commencement of operations at such facility.
- (ix). Developing branding and related marketing materials for the EBP, including but not limited to route maps and flyers for communications to the public regarding the service and benefits thereof. Such branding and marketing materials shall note the participation of CTRMA in the Project.
- (x). Providing quarterly reports to CTRMA on the status of development and construction phase of the Project.
- (xi). Providing opportunities, at no further cost to CTRMA, for use of retail space and coordinating or arranging the necessary staffing resources for CTRMA to offer electronic tag, pay-by-mail or other toll payment program customer service functions at the Eastside Bus Plaza. CTRMA shall be responsible for costs of any finish-out of the retail space for its use and for staffing the facility for the purpose of CTRMA conducting its business.
- (xii). Providing opportunities for CTRMA to display branding and advertising materials for CTRMA, its pay-by-mail program, its affiliated electronic tag payment programs or other customer service programs at the Eastside Bus Plaza.

(xiii). Recognizing CTRMA's contribution to the project, including CTRMA's approved logo on the materials related to the opening or initial promotion of the Eastside Bus Plaza.

3. **PERMISSION FOR USE.**

CARTS shall grant permission and a license to CTRMA's employees, or contractors, to use the EBP to allow CTRMA to offer electronic tag, pay-by-mail or other toll payment program customer service functions at the EBP. If so CTRMA elects to conduct such activities, it's employees may utilize all areas of the EBP, as appropriate, except that outside of CARTS' operating hours, the only areas within the Passenger Terminal Building at the EBP that CTRMA's employees and contractors may access are a designated bathroom, operator break room and, with respect to a limited number of CTRMA IT employees and contractors, the IT/telecommunications area.

CTRMA's rights to enter upon and use the EBP is limited to the use described above and extends to and includes CTRMA's invitees and members of the general public. CTRMA will not use or occupy any part of the EBP for any purpose or in any manner which (i) is unlawful or in violation of any applicable legal or governmental requirement, ordinance or rules; (ii) may be dangerous to persons or property, including, without limitation, the storage of any flammable or hazardous substances; or (iii) conflicts with any covenant or obligation of CTRMA under any agreement relating to the EBP or may create a nuisance or disturbance to the surrounding property owned and/or operated by CARTS.

4. **TERM.**

Unless terminated early in accordance with the terms of this Agreement, the term of this Agreement (the "**Term**") will commence on the last date of execution the Agreement by CARTS and CTRMA ("Effective Date") and continue thereafter for a term of ten (10) years at which time this Agreement shall automatically terminate. The Parties may agree to extend the Term by the execution of a written amendment to this Agreement.

5. **COMPLIANCE WITH LAW AND CONTRACTUAL OBLIGATIONS.**

In their respective use and operation of the EBP, the Parties shall comply with all applicable city, state, federal, City ordinances, rules and regulations regarding its work, and OSHA regulations. Each Party, at its cost, shall obtain all necessary or appropriate licenses and permits related to its operations at the EBP.

This Agreement and the Parties' rights under this Agreement are subject the authority of the Federal Transit Administration, the Texas Department of Transportation, and the requirements of any federal grants obtained by the Parties in connection with the EBP.

6. **UTILITY COSTS.**

CARTS will be responsible for all utility costs for the development and operation of the EBP.

7. **TERMINATION:**

A. Termination for Convenience. Notwithstanding anything in this Agreement to the contrary, either Party may terminate this Agreement upon sixty (60) days written notice to

the other for any reason. If CARTS terminates this Agreement for convenience prior to the commencement of operations at the EBP, CARTS will reimburse CTRMA for the total amount of the CTRMA contribution paid as of the termination date.

- B. Termination by CARTS. This Agreement may be terminated by CARTS upon material default by CTRMA in the performance of any covenant or agreement herein required to be performed by CTRMA and the failure of CTRMA to remedy such default within thirty (30) days after receipt of a written notice to remedy the same from CARTS.
- C. Termination by CTRMA. This Agreement may be terminated by CTRMA upon CARTS' default on the performance of any other obligation of CARTS hereunder, and such default has not been cured within thirty (30) days after receipt of written notice of default.
- D. Termination for Failure to Construct. Notwithstanding anything in this Agreement to the contrary, this Agreement will automatically terminate if construction of the EBP has not been completed and/or operations at the EBP have not commenced within eighteen (18) months of the Effective Date hereof (the "Construction/Operations Deadline"), provided that if any delay in completion of construction or commencement of operations is due to regulatory events or the directives of another governmental entity with jurisdiction over the Project (such as direction to stop construction or delay operations due to environmental or archeological issues) or otherwise through no fault or negligence of CARTS, the Parties will meet and confer regarding an appropriate means to address the issues and delays. If an acceptable resolution cannot be agreed upon within twelve (12) months of the Construction/Operations Deadline, this Agreement will automatically terminate. In the event of a termination under this Section 7.D, CARTS will reimburse CTRMA for the total amount of the CTRMA contribution paid as of the termination date.

8. **INSURANCE:**

Each Party shall carry worker's compensation insurance for all of its employees who staff the EBP prior to or following commencement of operations at the EBP. In addition, each Party will carry property and casualty insurance coverage for any equipment and furnishings it installs at the EBP.

9. **LIABILITY.**

TO THE EXTENT ALLOWED BY TEXAS LAW, CARTS AND CTRMA AGREE THAT EACH ENTITY IS RESPONSIBLE FOR ITS OWN PROPORTIONATE SHARE OF ANY LIABILITY FOR ITS NEGLIGENT ACTS OR OMISSIONS FOR CLAIMS, SUITS, CAUSES OF ACTION, DEMANDS, PROCEEDINGS, COSTS, DAMAGES, AND LIABILITIES, INCLUDING CLAIMS FOR PROPERTY DAMAGE, PERSONAL INJURY AND DEATH, ARISING OUT OF OR CONNECTED TO THIS AGREEMENT.

10. **ADMINISTRATIVE APPROVALS.**

CARTS' General Manager and the CTRMA Executive Director will have the authority to negotiate and execute amendments to this Agreement without further action from the CARTS Board of Directors or CTRMA Board of Directors, but only to the extent necessary to implement and further the clear intent of the respective CARTS Board of Directors' and CTRMA Board of Directors' approval, and not in such a way as would constitute a substantive modification of the terms and

15. NON-DISCRIMINATION, AFFIRMATIVE ACTION, AMERICANS WITH DISABILITIES ACT

CARTS agrees that no person, on the grounds of race, color national origin, age, sex or handicap, shall be excluded from participation in, denied the benefits of, or be otherwise subject to discrimination, in the use of the Terminal Area. CARTS will comply fully with all provisions of Public Law 101-336, Americans with Disabilities Act of 1990 to the extent applicable.

16. NON-WAIVER OF RIGHTS

Continued performance by either party hereto of the terms of this Agreement following a default shall not be deemed a waiver of any right to cancel this Agreement for any subsequent default and no waiver of such default shall be construed or act as a waiver of any subsequent default.

17. INVALIDITY OF CLAUSES

In the event that any covenant, condition or clause, herein contained is held to be invalid by a court of competent jurisdiction, the invalidity of any such covenant, condition or clause, shall in no way affect any other covenants, conditions or clauses.

18. ATTORNEYS' FEES

In any action brought by either party for the enforcement of the obligations of the other party, the prevailing party shall be entitled to recover interest at the maximum lawful rate, reasonable attorneys' fees and court costs and other expenses of litigation.

19. HEADINGS

The paragraph headings contained herein are for convenience in reference and are not intended to define or limit the scope of any provision of this Agreement.

20. RELATIONSHIP

This Agreement establishes the rights and obligations of each party and it is agreed that nothing contained in this Agreement shall be deemed or construed as creating a partnership, joint venture, or a relationship of landlord and tenant between CTRMA and CARTS.

21. ENTIRE AGREEMENT

It is understood and agreed that this instrument contains the entire agreement between the parties hereto with respect to the subject matter of this Agreement and may not amended or modified except in writing signed by both Parties.

22. COUNTERPARTS

This Agreement may be executed in any number of counterparts, including by facsimile or e-mail, with the same effect as if both Parties hereto had executed the same document and delivery by facsimile or other electronic means shall be deemed delivery of this Agreement. All such counterparts shall be construed together and shall constitute one instrument.

23. GOVERNMENTAL IMMUNITY

The Parties are governmental entities organized under the laws of the State of Texas. Nothing contained herein shall be deemed a waiver of any rights or privileges afforded governmental entities under the laws of the State of Texas law or the Texas Constitution.

24. CERTIFICATIONS

The Parties certify that: (a) the obligations and services specified above are properly within the statutory functions and programs of the affected governmental entity; (b) the proposed arrangements serve the interest of efficient and economical administration of the governmental function; (c) the services, supplies or materials contracted for are not required by Section 21 of Article 16 of the Constitution of Texas to be supplied under an Agreement given to the lowest responsible bidder nor is this Agreement prohibited by Texas Government Code, Section 791; and (d) this Agreement neither requires nor permits either party to exceed its duties and responsibilities or the limitations of its authority.

25. PAYMENTS FROM CURRENT REVENUES

The Parties each agree that, in performing the governmental functions contemplated in this Agreement or in paying for the performance of those governmental functions, each party will make that performance or those payments from current revenues legally available to that party. The Parties each affirmatively find that the performance of this Agreement in the common interest of both parties, that undertaking this Agreement will benefit the public and that the division of responsibilities and costs associated with this Agreement fairly and adequately compensate the performing party for its services or functions performed under this Agreement.

(Signature Page Follows)

IN WITNESS WHEREOF, this Agreement is hereby executed by CARTS and CTRMA as of the dates set forth below, to be effective as of the Effective Date.

**CENTRAL TEXAS REGIONAL MOBILITY
AUTHORITY**

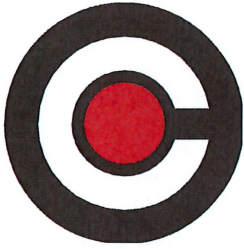
**CAPITAL AREA RURAL
TRANSPORTATION SYSTEM**

By: _____
Mike Heiligenstein
Executive Director

By: _____
David Marsh
General Manager

Date: _____

Date: _____



October 30, 2019

Mike Heiligenstein
Executive Director
Central Texas Regional Mobility Authority
3300 N. IH-35, Suite 300
Austin, TX 78705

RE: Eastside Bus Plaza
363 Shady Lane, Austin Texas 78702

THE CARTS DISTRICT

5300 Tucker Hill Ln
Austin, TX 78612

PO Box 6050
Austin, TX 78762

512/481 1011
f 512/478 1110

RideCARTS.com

Regional transportation for the
non-urbanized areas of Bastrop,
Blanco, Burnet, Caldwell,
Fayette, Hays, Lee, Travis and
Williamson counties.

Dear Mr. Heiligenstein:

Since 2017, CARTS has been performing pre-development, design and engineering activities for the construction of a new regional transit hub which will serve as the interface between CARTS' seven Interurban regional bus routes and Capital Metro's local and crosstown bus routes. We also anticipate this will be the nexus for offering improved commuter offerings from the CARTS nine-county district to the metropolitan area. The Eastside Bus Plaza (EBP) is strategically located at the intersection of E. Cesar Chavez Street and Shady Lane, just west of CTRMA's US 183 South improvement project.

Since March 2018 the CARTS EBP team has been actively working with CTRMA engineering staff which has resulted in several suggestions that have been incorporated into the final design of the project. We continue to work with CTRMA staff on preparing for the CTRMA Board of Directors' consideration of financial participation on improvements to the roadways surrounding the EBP site.

We also have had active and ongoing partnerships with TxDOT, Capital Metro, CAMPO and the City of Austin with each providing, respectively, a 40-year lease of the site, technical assistance and coordination, \$3 million of federal funding, and coordinated development review.

Capital Metro views the Eastside Bus Plaza project as a key component of Project Connect, providing for regional connections throughout the Capital Metro and CAMPO areas. In July 2019, the Capital Metro Board of Directors approved an Interlocal Agreement with CARTS which provides \$1.5 million financial participation toward the project's completion as a shared transit hub for the two agencies.



As development has progressed, elements have been identified for which CARTS is seeking cost participation. Our consultants have identified adjacent roadway and multi-modal elements of the project which could be appropriate for CTRMA participation, potentially through the US 183 South project. These elements include construction of (1) traffic signal on E. Cesar Chavez Street at Shady Lane, (2) widening of 500' of E. Cesar Chavez Street along with roadway pavement repair, mill and overlay from the intersection of Shady Lane to E. 5th Street to accommodate a bus only lane and (3) crack seal and micro-seal overlay of E. 5th Street from Shady Lane to Cesar Chavez as well as Shady Lane from E. 5th Street to Cesar Chavez Street. The attached exhibits delineate these elements.

THE CARTS DISTRICT

5300 Tucker Hill Ln
Austin, TX 78612

PO Box 6050
Austin, TX 78762

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f 512/478 1110

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Fayette, Hays, Lee, Travis and
Williamson counties.

On October 11th, CARTS issued a Request for Proposal (RFP) for construction of the EBP, with proposals due November 15th. Within the RFP, there are "deduct alternates" for the roadway pavement work. This will permit CARTS to determine the cost for roadway paving and signal work which can assist us in working with CTRMA staff in determining potential CTRMA financial participation for some or all of the items listed above.

We appreciate you and your staff's continued support and guidance to the EBP Team over these past eight months and look forward to CTRMA's continued partnership in developing multimodal transportation options in Central Texas.

If I can provide additional information or if you have any questions, please let me know.

Thanks for the consideration of these items.

Sincerely,

David Marsh
General Manager

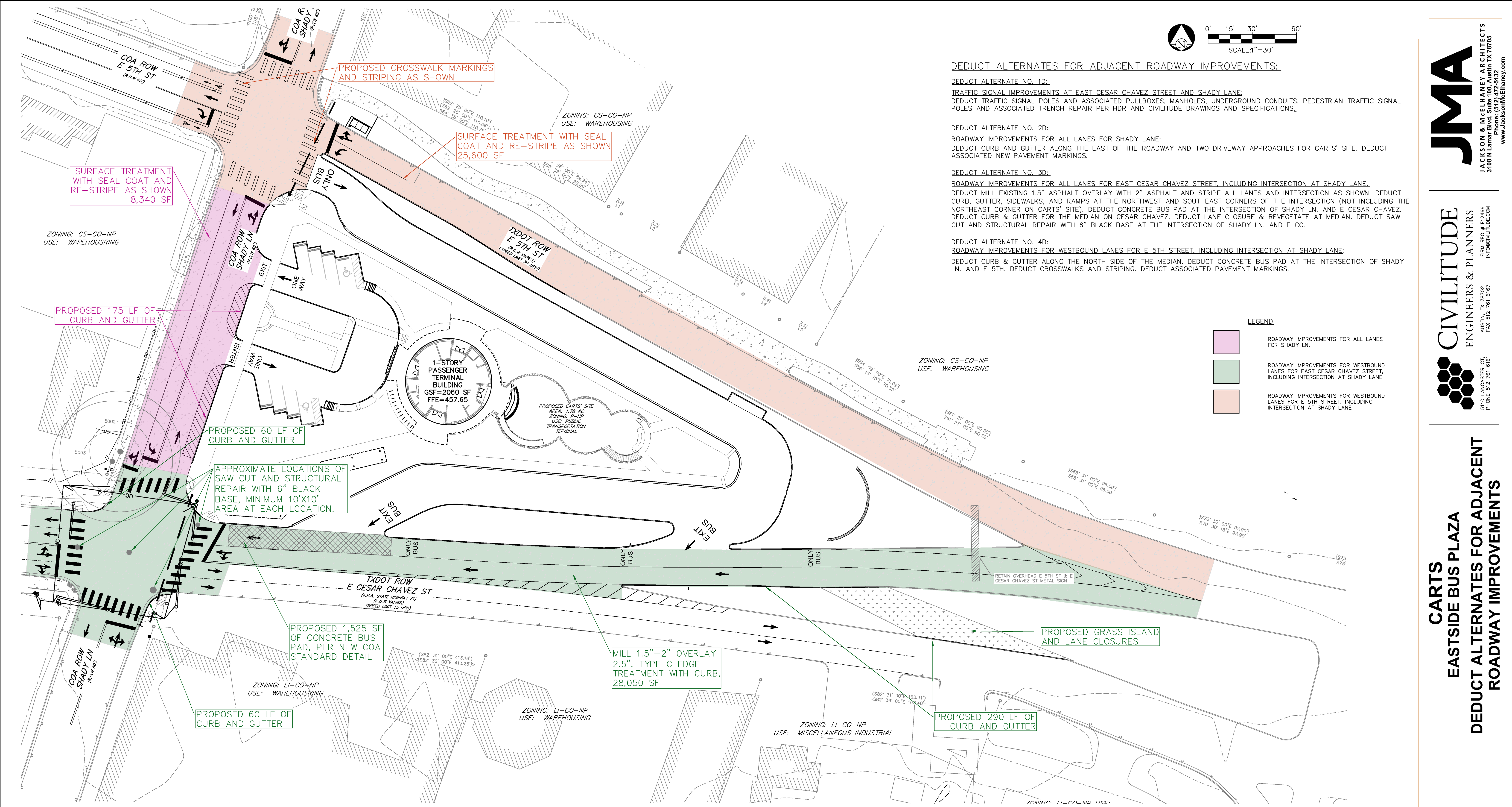
Attachments

cc: Randy Clarke, Capital Metro



SITE PLAN
CARTS Eastside Bus Plaza
 August 16, 2019





DEDUCT ALTERNATES FOR ADJACENT ROADWAY IMPROVEMENTS:

DEDUCT ALTERNATE NO. 1D:
 TRAFFIC SIGNAL IMPROVEMENTS AT EAST CESAR CHAVEZ STREET AND SHADY LANE:
 DEDUCT TRAFFIC SIGNAL POLES AND ASSOCIATED PULLBOXES, MANHOLES, UNDERGROUND CONDUITS, PEDESTRIAN TRAFFIC SIGNAL POLES AND ASSOCIATED TRENCH REPAIR PER HDR AND CIVILITUDE DRAWINGS AND SPECIFICATIONS.

DEDUCT ALTERNATE NO. 2D:
 ROADWAY IMPROVEMENTS FOR ALL LANES FOR SHADY LANE:
 DEDUCT CURB AND GUTTER ALONG THE EAST OF THE ROADWAY AND TWO DRIVEWAY APPROACHES FOR CARTS' SITE. DEDUCT ASSOCIATED NEW PAVEMENT MARKINGS.

DEDUCT ALTERNATE NO. 3D:
 ROADWAY IMPROVEMENTS FOR ALL LANES FOR EAST CESAR CHAVEZ STREET, INCLUDING INTERSECTION AT SHADY LANE:
 DEDUCT MILL EXISTING 1.5" ASPHALT OVERLAY WITH 2" ASPHALT AND STRIPE ALL LANES AND INTERSECTION AS SHOWN. DEDUCT CURB, GUTTER, SIDEWALKS, AND RAMPS AT THE NORTHWEST AND SOUTHEAST CORNERS OF THE INTERSECTION (NOT INCLUDING THE NORTHEAST CORNER ON CARTS' SITE). DEDUCT CONCRETE BUS PAD AT THE INTERSECTION OF SHADY LN. AND E CESAR CHAVEZ. DEDUCT CURB & GUTTER FOR THE MEDIAN ON CESAR CHAVEZ. DEDUCT LANE CLOSURE & REVEGETATE AT MEDIAN. DEDUCT SAW CUT AND STRUCTURAL REPAIR WITH 6" BLACK BASE AT THE INTERSECTION OF SHADY LN. AND E CC.

DEDUCT ALTERNATE NO. 4D:
 ROADWAY IMPROVEMENTS FOR WESTBOUND LANES FOR E 5TH STREET, INCLUDING INTERSECTION AT SHADY LANE:
 DEDUCT CURB & GUTTER ALONG THE NORTH SIDE OF THE MEDIAN. DEDUCT CONCRETE BUS PAD AT THE INTERSECTION OF SHADY LN. AND E 5TH. DEDUCT CROSSWALKS AND STRIPING. DEDUCT ASSOCIATED PAVEMENT MARKINGS.

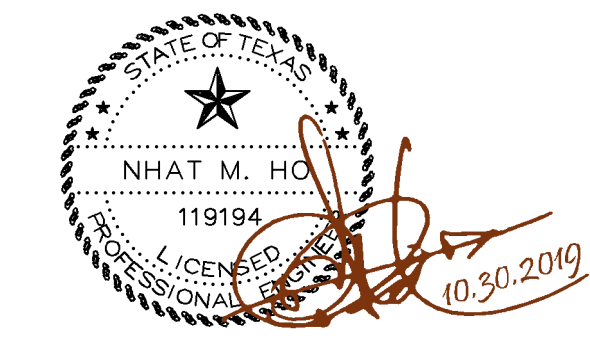
LEGEND

- ROADWAY IMPROVEMENTS FOR ALL LANES FOR SHADY LN.
- ROADWAY IMPROVEMENTS FOR WESTBOUND LANES FOR EAST CESAR CHAVEZ STREET, INCLUDING INTERSECTION AT SHADY LANE
- ROADWAY IMPROVEMENTS FOR WESTBOUND LANES FOR E 5TH STREET, INCLUDING INTERSECTION AT SHADY LANE

NOTE TO CONTRACTOR:
 QUANTITIES ARE INTENDED TO MATCH THE PLANS. CONTRACTOR TO VERIFY.

APPROVAL OF THESE PLANS BY THE CITY OF AUSTIN INDICATES COMPLIANCE WITH APPLICABLE CITY REGULATIONS ONLY. COMPLIANCE WITH ACCESSIBILITY STANDARDS SUCH AS THE 2010 STANDARDS FOR ACCESSIBLE DESIGN OR THE 2012 TEXAS ACCESSIBILITY STANDARDS WAS NOT VERIFIED. THE APPLICANT IS RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE ACCESSIBILITY STANDARDS.

SITE PLAN APPROVAL SHEET 6 OF 40
 FILE NUMBER: SPC-2018-0506C APPLICATION DATE: 10/22/2018
 APPROVED BY COMMISSION ON UNDER SECTION 142 ON
 CHAPTER 25-5 OF THE CITY OF AUSTIN CODE CASE MANAGER J SILTALA
 EXPIRATION DATE (25-5-81, LDC) PROJECT EXPIRATION DATE (ORD.#970905-A) DWPZ DIZ



Director, Development Service Department
 RELEASED FOR GENERAL COMPLIANCE: ZONING: P-NP
 Rev. 1 Correction 1
 Rev. 2 Correction 2
 Rev. 3 Correction 3
 Final plan must be recorded by the Project Expiration Date, if applicable. Subsequent Site Plans which do not comply with the Code current at the time of filing, and all required Building Permits and/or a notice of construction (if a Building permit is not required), must also be approved prior to the Project Expiration Date.

Revisions:

**GENERAL MEETING OF THE BOARD OF DIRECTORS
OF THE
CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY**

RESOLUTION NO. 20-014

**APPROVING WORK AUTHORIZATION NO. 15 WITH ATKINS NORTH AMERICA,
INC. FOR GENERAL ENGINEERING CONSULTANT SERVICES FOR THE
DEVELOPMENT OF THE MANOR EXPRESSWAY (290E) PHASE IV PROJECT**

WHEREAS, by Resolution No. 17-067, dated December 13, 2017, the Board of Directors approved a Master Agreement with Atkins North America, Inc. for general engineering consultant services; and

WHEREAS, the cities of Manor and Elgin have passed resolutions in support of extending the 290E Manor Expressway to SH 95 in Elgin; and

WHEREAS, considering the support of the local communities and continuing commercial and residential development along the 290 East Corridor, the Executive Director has determined it would be appropriate to undertake a feasibility study to investigate the potential extension of 290E Manor Expressway further eastward to SH 95 in Elgin; and

WHEREAS, the Executive Director and Atkins have negotiated proposed Work Authorization No. 15 for general engineering consultant services associated with a feasibility study analyzing a potential eastward extension of the 290E Manor Expressway (Phase IV) in an amount not to exceed \$996,917; and

WHEREAS, the Executive Director recommends the Board approve the work authorization in the form or substantially the form as is attached hereto as Exhibit A.

NOW THEREFORE, BE IT RESOLVED that the Board approves an amount not to exceed \$996,917 for the services described in the work authorization; and

BE IT FURTHER RESOLVED that the Executive Director is authorized to finalize and execute the work authorization on behalf of the Mobility Authority in the form or substantially the same form as Exhibit A.


Adopted by the Board of Directors of the Central Texas Regional Mobility Authority on the 26th day of February 2020.

Submitted and reviewed by:



Geoffrey Petrov, General Counsel

Approved:



Robert W. Jenkins, Jr.
Chairman, Board of Directors

Exhibit A

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

WORK AUTHORIZATION NO. 15

ATKINS

ATTACHMENT A – SCOPE OF SERVICES

SERVICES TO BE PROVIDED BY THE GENERAL ENGINEERING CONSULTANT (GEC)

The Engineer shall provide planning and engineering services associated with the development of a feasibility study and implementation plan for proposed improvements to US 290E from SH 130 to SH 95 under the issuance of an initial Notice to Proceed (NTP1). Services may include additional tasks, as requested, through issuance of a second NTP to further develop feasibility concepts to a more advanced partial schematic-level design to refine viable project scope and costs. Improvements are generally described as a reconstruction and widening of the existing 4-lane divided US 290E to 6 general purpose lanes and the addition of 6 tolled lanes within the center median. Specific limits for this initial work effort will include analysis of US 290E from:

- SH 130 to FM 973
- FM 973 to SH 95

The Engineer shall coordinate with others, as needed, to compile concepts and options to advance for further study. Scope of services will include the preliminary development of the necessary corridor concepts, public involvement coordination activities with local stakeholders, the State, City of Austin, City of Manor, City of Elgin, Travis and Bastrop Counties, and other special interest groups; and coordination with other concurrent efforts within the project limits. Fee schedule for these tasks is provided in Attachment B.

Services provided, and study analyses shall be prepared in English units and comply with applicable written State and Federal Highway Administration (FHWA) procedures and manuals in place at the time of the execution of this Work Authorization. The Engineer shall utilize data previously collected by others to the extent possible to continue to develop the Project.

General assumptions regarding this scope of services include:

1. Improvements reviewed shall include the reconstruction and widening of the existing 4-lane divided US 290E to 6 general purpose lanes and the addition of 6 tolled lanes within the center median.
2. Improvements evaluated will include intersection, interchange, ramping and frontage road improvements as required to accommodate the capacity improvements.
3. NTP1 task levels of engineering investigation are anticipated to be an approximate 10% design effort, sufficient to confirm feasibility of concepts general Right of Way (ROW) requirements and determine parametric estimate of probable cost from SH 130 to SH 95.
4. NTP2, if issued, may include engineering investigations to advance and refine the initial feasibility study of NTP1 toward a 30% schematic level design to develop a more refined, quantity-based estimate of probable cost.
5. Multi-modal considerations will be limited to accommodations of existing published plans that impact the study limits, and accommodation of bus, bicycle and pedestrian modes within the corridor when necessitated by proposed improvements.
6. This study will coordinate with concurrent efforts by TxDOT on FM 973, including intersection improvements with US 290 in Manor, but will proceed independently of this project.
7. No formal public meeting or outreach is planned.
8. No supplemental survey, ROW mapping, or Level A/B/C Sub-surface Utility Engineering (SUE) efforts are anticipated with NTP1.

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

WORK AUTHORIZATION NO. 15

ATKINS

ATTACHMENT A – SCOPE OF SERVICES

9. No geotechnical investigation is included in the NTP1 scope. All pavement sections, bridge, retaining wall or other foundation assumptions will be based on as-built information or as directed by the Authority.
10. Water Quality design is not part of the scope of this project. The limits of the project are not within TCEQ's EAPP jurisdiction.

NTP1

Upon issuance of NTP1, the Engineer shall provide the following services to perform an initial feasibility study of the project.

1.0 Project Management and Administration

The Engineer shall manage all project activities and work. The Engineer shall provide continuous project coordination and administration; preparation of progress reports, invoices and billings; meetings and coordination activities; preparation of meeting minutes; and other project management activities specified by the CTRMA. The Engineer shall meet the deliverable expectations established by the work authorization. Tasks include:

1.1. Project Management

The Engineer will manage the daily activities of the program and will serve as the primary contact between the Authority, design consultants, third party consultants, utility companies, public agencies, and the general public. The Engineer shall manage all project activities and work identified under each task to assure they are in accordance with Federal and State statutes, regulations, and guidelines and are on schedule within project scope and budget. Activities shall include:

1.2. Coordinate, Procure, and Administer Work Authorizations

Prepare contracts as required between the GEC and the Authority and GEC and subconsultants. Monitor and supervise GEC subconsultant activities, review all work products prepared by subconsultant for accuracy and consistency, review and approve subconsultant reports and invoices.

1.3. Record Keeping and File Management

Maintain records and files related to the Project throughout the duration of the Services. Transfer project files to the Authority upon completion of the work or as directed by the CTRMA.

1.4 Project Schedule Development and Updates

The Engineer shall maintain a project schedule for the duration of the project to focus on key milestones and critical path. It shall depict the order and interdependence of various tasks, subtasks, milestones, and deliverables. Progress will be reviewed by the Authority during coordination meetings and should reviews indicate a substantial change in progress, the schedule will be updated by the Engineer as necessary. Any issues that need resolution or action items will be identified in the progress report.

1.5 Progress Report Preparation and Submittal

Prepare and issue monthly progress reports specifying any deliverables that were completed during that month, physical and financial percent complete for that work, the precise nature of work that was done that did not result in a deliverable, whether the work is on schedule for timely delivery or not, any issues that may delay the work in the future, any actions by the Authority or other remedial actions that are required, and for the following month, the anticipated work that will be performed and the deliverables that will be submitted.

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

WORK AUTHORIZATION NO. 15

ATKINS

ATTACHMENT A – SCOPE OF SERVICES

1.6 Coordination Meetings

The Engineer shall conduct coordination meetings to review project status, including; development of meeting agenda with input from the Authority, documentation of meeting attendees and preparation and distribution of meeting minutes.

2.0 Existing Data

2.1 Data Collection

- The Engineer will collect pertinent existing information to assist the development of the feasibility study. The Engineer will collect existing data, reports, existing as-built plans, drainage and irrigation, structures and other pertinent information as available, including, but not limited to:
 - Utility Plans -Request available plans and documents of existing utilities (public & private)
 - Right-of-Way Data -Utilize ROW data of record from TxDOT strip maps, Travis Central Appraisal District, Bastrop Central Appraisal District, and other information of record. This data will not be proofed, verified or confirmed via survey or field reconnaissance
 - Prior TxDOT feasibility studies
 - Existing facility operations - configurations, traffic volumes, vehicle occupancy, transit usage, alternative mode use, and travel times
 - Updated Transportation Plans from the State, CAMPO, and local governments, including committed improvements and travel forecasts
 - Pertinent data on existing and planned major utilities and railroad facilities
 - Past studies, databases, materials, and mapping
 - Previously proposed environmental document showing extension to FM 973
 - Pricing and costs associated with Project construction items, corridor ROW, and building displacements
 - TxDOT FM 973 improvement plans and any US 290E proposed corridor information
 - Existing sidewalk, trail, or shared-use path plans

3.0 Environmental Services

3.1 Environmental Constraints Mapping

- The Engineer shall provide environmental services necessary to produce a high-level fatal flaw analysis of the study area. Constraints to be identified include but are not limited to:
 - Cemeteries
 - Parks, Preserves, Trails & Greenbelts, Schools, Hospitals, Daycares, Clinics, and Assisted Living/Rehabilitation Centers
 - Soils
 - Farmlands (based upon prime farmland zones defined by the Natural Resources Conservation Service)
 - Oil/gas wells
 - Hazardous material sites
 - Historic Properties and Historic Districts
 - Archeological sites (documented in separate maps and marked as confidential)
 - Low, Medium, and High Probability for Archeological Resources
 - Data from the Texas Parks and Wildlife Department's Natural Diversity Database
 - USFWS's Critical Habitat Mapper

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

WORK AUTHORIZATION NO. 15

ATKINS

ATTACHMENT A – SCOPE OF SERVICES

- National Wetland Inventory Data
- Floodplains
- National Hydrography Dataset
- Land uses identified through aerial photo interpretation
- Zoning
- Municipal Limits and Extraterritorial Jurisdictions
- Existing and planned development identified by city planning departments
- The above information shall be mapped in Geographic Information System (GIS) and utilized for the evaluation of alternatives.
- For Task 1 – Conceptual Plan Development, the Engineer will not conduct a field reconnaissance to confirm data obtained from desktop search of resources. This effort will not include delineations of waters of the U.S., absence or presence surveys, identification of sensitive noise receptors, pedestrian cultural resources surveys, geologic assessments, or a Phase I Environmental Assessment.
- Deliverables:
 - Internal-Use Preliminary Constraints Map (to be used for alternatives analysis and delivered as an ARCGIS or *.kmz file)
 - Draft Constraints Maps (.pdf) to the CTRMA (delivered as a series of 11X17 figures as well as one large oversized constraints map)
 - Final Constraints Map (.pdf) to the CTRMA (delivered as a series of 11X17 figures as well as one large oversized constraints map)

4.0 Route and Design Studies

4.1 Task 1 – Conceptual Plan Development

4.1.1 Typical Sections

The Engineer shall develop applicable typical sections of existing and proposed roadways at a proportional scale for incorporation into conceptual exhibits. Typical sections shall include width of travel lanes, shoulders, outer separations, border widths, curb offsets, and ROW.

4.1.2 Segment 1 - SH 130 to FM 973

Engineer shall prepare two planning-level geometric alternative design concept exhibits including horizontal and vertical conceptual designs to sufficient detail to determine an anticipated roadway plan layout, ROW needs, access requirements, and approximate projected earthworks for the purposes of developing a capital cost/construction estimate. Preliminary design considerations will include the following: design criteria (operation/safety), traffic operations review, ROW requirements, environmental impacts, maintenance of traffic and constructability, project costs and life cycle costs. Local access needs will be evaluated for those to be maintained based on previous schematic and prior stakeholder input, if available.

4.1.3 Segment 2 - FM 973 to SH 95

Engineer shall prepare a planning-level geometric design concept exhibit including horizontal and vertical conceptual designs to sufficient detail to determine an anticipated roadway plan layout, ROW needs, access requirements, and approximate projected earthworks for the purposes of developing a capital cost/construction estimate. Preliminary design considerations will include the following: design criteria (operation/safety), traffic

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

WORK AUTHORIZATION NO. 15

ATKINS

ATTACHMENT A – SCOPE OF SERVICES

operations review, ROW requirements, environmental impacts, maintenance of traffic and constructability, project costs and life cycle costs. Local access needs will be evaluated for those to be maintained based on previous schematic and prior stakeholder input, if available.

4.1.4 Conceptual Hydrology and Hydraulic Studies/Drainage Design

- On FEMA regulated crossings, where best available hydrologic and hydraulic models are available, existing frequency data within the models will be used that best represent the Atlas 14 design frequency precipitation depths. For example, the current 500-year event may be used as a proxy for the Atlas 14 100-year event.
- Non-FEMA regulated crossings are assumed to be adequately sized in their existing condition and proposed crossings will maintain the existing configuration and sizing. Meetings (four meetings are assumed: TxDOT, Travis County, Austin, Manor) with local floodplain administrators and maintenance staff will be conducted to interview and anecdotally evaluate this assumption.
- Segment 1 –
 - There are no Non-FEMA regulated Crossings identified within Segment 1.
 - There are 5 FEMA regulated crossings within Segment 1 (1 Zone A and 4 Zone AE).
 - Hydrologic and hydraulic analysis/mitigation/detention are not included in this segment scope.
 - The Engineer shall provide cross drainage structures sizes for CTRMA to perform the preliminary cost estimate.
 - Zone A proposed crossing structures will be assumed based on 1.5 times the width of the 500-year event Flood Hazard Area.
 - Zone AE proposed crossing structures will be assumed based on 1.25 times the width of the 500-year event Flood Hazard Area
- Segment 2 –
 - There are 5 Non-FEMA regulated Crossings identified within Segment 2.
 - There are 7 FEMA regulated crossings within Segment 1 (5 Zone A and 2 Zone AE).
 - Hydrologic and hydraulic analysis/mitigation/detention are not included in this segment scope.
 - The Engineer shall provide cross drainage structures sizes for CTRMA to perform the preliminary cost estimate.
 - Zone A proposed crossing structures will be assumed based on 1.5 times the width of the 500-year event Flood Hazard Area.
 - Zone AE proposed crossing structures will be assumed based on 1.25 times the width of the 500-year event Flood Hazard Area

4.1.5 Utility Engineering

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

WORK AUTHORIZATION NO. 15

ATKINS

ATTACHMENT A – SCOPE OF SERVICES

- The Engineer will compile and collect existing utility record information (Level D SUE) to identify significant conflicts within the limits of the proposed Project. The limits of the utility conflict analysis will study potential 200' of ROW acquisitions to the north or south of existing 240' ROW corridor.
- The Engineer will prepare estimates of probable costs to relocate any major utilities in conflict with the proposed project and will prepare anticipated time required within the project development schedule to coordinate and relocate the identified utility conflicts.

4.1.6 ROW Engineering

- The Engineer will perform an analysis of land-use and possible developments along and throughout the project corridor for the purposes of establishing ROW acquisition costs and schedule requirements.
- The Engineer will prepare estimates of probable costs and anticipated time to acquire proposed ROW the project development schedule and the likely duration of potential condemnation proceedings.

4.1.7 Conceptual Cost Estimates and Quantities

- Total Construction/Capital Cost Estimates - For the two Segments, the Engineer will develop independent preliminary opinion of probable construction costs, including anticipated Utility and ROW costs. Costs will be based on statewide and/or Austin District average unit prices, from the TxDOT website. Preliminary cost estimates will include an appropriate contingency considering the level of conceptual design concepts to be developed.
- Operations and Maintenance Estimates – The Engineer will develop independent operations and maintenance estimates for each Segment, utilizing lane mileage and area quantities developed from Conceptual Plans. Routine maintenance and lifecycle/renewal costs will be estimated for the duration of a projected financing term and will estimate the costs to operate and maintain the width of the proposed ROW corridor, including tolling equipment and operations costs.

5.0 Financial Feasibility & Funding

5.1 Toll Configuration

- The Engineer will develop a tolling point stick diagram identifying locations of tolling mainlane and/or ramp gantries. The tolling point stick diagram will consider the impacts of segment phasing, and any needed revisions to the tolling gantry layouts upon later phases of development.
- The Engineer will analyze the existing and proposed toll configurations of the US 290E/SH 130 interchange to determine any necessary revisions as a result of expanding the US 290E project to the East.
- The Engineer will coordinate with Toll and Revenue consultants as necessary to provide information to assist the development of sketch-level T&R study.

5.2 Funding Analysis

- The Engineer will study potential funding sources for the project and provide any viable funding alternatives to the CTRMA for consideration and possible further investigation.

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

WORK AUTHORIZATION NO. 15

ATKINS

ATTACHMENT A – SCOPE OF SERVICES

6.0 Traffic Operations

6.1 Traffic Operations Review

- Compile and evaluate crash rates and potential cause of incidents to support improvements.
- Identify current corridor congestion, safety, and operational concerns and items for improvement.

7.0 Feasibility Study and Project Development Schedule

7.1 Feasibility Study White Paper

- The Engineer shall prepare a Feasibility Study White Paper after initial review of previous work performed by others (City of Austin, the State), completion of environmental constraints mapping of information of record, and an initial screening of concepts, and shall provide a general corridor evaluation and include discussion of concepts under evaluation for the corridor, preliminary funding and financial feasibility summary, constructability and operational requirements, and a schedule for further action.

7.2 Project Development Schedule

Task 1 - The Engineer shall prepare a preliminary project development gantt chart in Microsoft Project identifying the major milestones and associated durations required to develop the project ultimately open to traffic. The gantt chart shall contemplate the possibility of phased development and identify any potential risk items identified in the environmental constraints mapping, ROW, and utility investigations which may potentially result in adverse impacts to the project development schedule.

NTP2

The Authority may issue an NTP2, authorizing the Engineer to perform additional services to support the development and preparation of the feasibility study, or further advance results of the initial feasibility study. NTP2 will be issued at the discretion of the Authority, and will include a detailed scope and fee negotiated for the services determined to be required, not to exceed the amount identified in Attachment B. Services anticipated to be provided upon issuance of an NTP2 may include:

- Additional data collection which may include field survey, SUE investigations, environmental constraint field investigations, geotechnical borings, etc.
- Advancement of feasibility study concepts toward 30% schematic level.
- Preliminary drainage analyses sufficient to prove feasibility of conceptual drainage elements for major stream crossings, bridge class culverts, and identified areas of known hydraulic concern (drainage feasibility study).
- Preparation of a Hydraulics Feasibility Study report to adequately document drainage assumptions, parameters, procedures, results, impacts, risks, risk mitigation, and recommendations.
- Drainage mitigation and/or detention alternative studies.
- Constructability reviews of Segment concepts developed, considering the constructability of the concept based on known construction techniques and their relative cost and construction impacts to the surrounding area due to the various techniques.

CENTRAL TEXAS REGIONAL MOBILITY AUTHORITY

WORK AUTHORIZATION NO. 15

ATKINS

ATTACHMENT A – SCOPE OF SERVICES

- Enhancement of the feasibility study independent preliminary opinion of probable construction costs, utilizing advanced feasibility concept designs, additionally collected data, and/or refined quantity takeoffs.
- Enhancement of the feasibility study operations and maintenance cost estimates, utilizing advanced feasibility concept designs, additionally collected data, refined quantity takeoffs, and/or alternate maintenance scopes.
- Public involvement support activities including facilitation of Stakeholder meetings, as necessary to support the study, or to advance or supplement the identification and mapping of environmental constraints.
- Development of a more detailed project development schedule using P6 Primavera to refine and advance the NTP1 feasibility study schedule.
- Other Engineering, Environmental, Public Involvement, or data investigations as necessary to support and advance the preliminary findings of the NTP1 feasibility study.

TASK NO	DESCRIPTION	Employee
1.0	Project Management and Administration	
	ATKINS	
		Gurley, Brian
		Gerry, Wenzie
2.0	Existing Data	
	ATKINS	
		Gurley, Brian
		Burford, Taylor
3.0	Environmental Services	
	ATKINS	
3.1		Hill, Ryan
3.1		Zuzak, Lara
3.1		Amponsah, Alex
3.1		Rosenthal, Janna
3.1		Kemmy, John
3.1		Barton, Jonathan
3.1		Rohrer, Deven
3.1		Friedel, Myron
3.1		Acuna, Laura
3.1		McClanahan, Krista
3.1		Russell, Kelley
3.1		Shortes, Russ
3.1		Bodah, Sara
3.2		Kenneally, Katie
	SUBCONSULTANTS	
3.2	Blonde Ambition	Blonde Ambition
3.2	Rifeline	Rifeline
4.0	Route and Design Studies	
	ATKINS	
4.1.1		Rackley, Jerel
4.1.1		Senior Engineer I
4.1.1		Engineer I
4.1.2/4.1.3		Rackley, Jerel
4.1.2/4.1.3		Senior Engineer I
4.1.2/4.1.3		Engineer I
4.1.7		Gurley, Brian
4.1.7		Burford, Taylor
4.1.7		Stracener, Michelle
4.1.7		Johnson, Matt
4.1.7		Gambrel, Matthew
4.1.6		Sedlacheck, James
	SUBCONSULTANTS	
4.1.4	K Friese	Hebbe, Craig
4.1.4	K Friese	KFA - Senior Engineer
4.1.4	K Friese	KFA - CADD Technician
4.1.4	K Friese	KFA - Administrative Assistance
4.1.5	Anderson Infrastructure	Anderson, Gordon
5.0	Financial Feasibility and Funding	
	ATKINS	
		Gurley, Brian
		Needham, Bubba
		Burford, Taylor
		Johnson, Matt
6.0	Traffic Operations	
	ATKINS	

	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Hours Total
1.0	44	29	29	21	21	21	21	186
								-
	24	24	24	16	16	16	16	136
	20	5	5	5	5	5	5	50
2.0	56	56	0	0	0	0	32	144
								-
	8	8						16
	16	16						32
3.0	116	124	126	88	76	56	56	642
								-
	16	16	20	20	20	16	16	124
	8	8	8	8	8	8	8	56
	16	12	12	8	8	4	2	62
	4	4	2	2	2	2	2	18
	16	16	16	16	16	8	8	96
	8	8	8	4	4	4	4	40
	6	6	6	6	6	6	2	38
	16	16	16	16	8	4	2	78
	4	16	4				4	28
	10	10	10	4	2	2	2	40
	12	12	12	4	2	2	2	46
			6				2	8
			6				2	8
	0	0	0	0	0	0	0	-
	0	0	0	0	0	0	0	-
	0	0	0	0	0	0	0	-
4.0	58	469	508	368	248	120	40	1,811
								-
		40	60	40	20			160
		80	80	40	40			240
		60	60	60	40			220
		60	80	40	20			200
		100	100	40	40			280
		80	80	60	40			260
						20	20	40
	8					20	20	48
						40		40
						8		8
	8	8	8	8	8	8	8	48
				40	40	24		104
								-
	16	16						32
	16	16						32
	8	8						16
	2	1						3
			40	40				80
5.0	0	32	0	0	0	64	0	96
								-
		8				16		24
						16		16
		16				16		32
		8				16		24
6.0	0	20	20	0	0	0	0	40
								-
								-

	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	FORECAST TOTAL
1.0	7,108	5,936	5,936	4,088	4,088	4,088	4,088	\$ 35,330.15
	7,108	5,936	5,936	4,088	4,088	4,088	4,088	\$ 35,330.15
	5,545	5,545	5,545	3,697	3,697	3,697	3,697	\$ 31,421.38
	1,564	391	391	391	391	391	391	\$ 3,908.77
	4,125	4,125	0	0	0	0	0	\$ 8,249.80
	4,125	4,125	0	0	0	0	0	\$ 8,249.80
	1,848	1,848	0	0	0	0	0	\$ 3,696.63
	2,277	2,277	0	0	0	0	0	\$ 4,553.16
	14,844	15,780	15,957	12,169	11,031	8,556	8,424	\$ 86,760.64
	14,844	15,780	15,957	12,169	11,031	8,556	8,424	\$ 86,760.64
	3,571	3,571	4,464	4,464	4,464	3,571	3,571	\$ 27,675.17
	1,586	1,586	1,586	1,586	1,586	1,586	1,586	\$ 11,098.81
	1,919	1,440	1,440	960	960	480	240	\$ 7,437.45
	474	474	237	237	237	237	237	\$ 2,130.78
	1,487	1,487	1,487	1,487	1,487	744	744	\$ 8,922.55
	830	830	830	415	415	415	415	\$ 4,149.04
	746	746	746	746	746	746	249	\$ 4,722.11
	1,435	1,435	1,435	1,435	718	359	179	\$ 6,995.88
	472	1,888	472	0	0	0	472	\$ 3,303.88
	980	980	980	392	196	196	196	\$ 3,920.49
	1,345	1,345	1,345	448	224	224	224	\$ 5,155.54
	0	0	505	0	0	0	168	\$ 672.99
	0	0	432	0	0	0	144	\$ 575.94
	0	0	0	0	0	0	0	\$ -
	0	0	0	0	0	0	0	\$ -
	0	0	0	0	0	0	0	\$ -
	0	0	0	0	0	0	0	\$ -
	8,758	68,009	78,719	54,041	32,317	22,607	7,467	\$ 271,916.65
	1,778	61,097	69,410	44,732	32,317	22,607	7,467	\$ 239,407.95
	0	8,313	12,470	8,313	4,157	0	0	\$ 33,253.29
	0	11,252	11,252	5,626	5,626	0	0	\$ 33,754.92
	0	6,153	6,153	6,153	4,102	0	0	\$ 22,561.88
	0	12,470	16,627	8,313	4,157	0	0	\$ 41,566.61
	0	14,065	14,065	5,626	5,626	0	0	\$ 39,380.74
	0	8,204	8,204	6,153	4,102	0	0	\$ 26,664.04
	0	0	0	0	0	4,621	4,621	\$ 9,241.58
	1,138	0	0	0	0	2,846	2,846	\$ 6,829.75
	0	0	0	0	0	10,995	0	\$ 10,994.96
	0	0	0	0	0	1,161	0	\$ 1,160.79
	640	640	640	640	640	640	0	\$ 3,839.62
	0	0	0	3,908	3,908	2,345	0	\$ 10,159.76
	6,980	6,912	9,309	9,309	0	0	0	\$ 32,508.70
	3,196	3,196	0	0	0	0	0	\$ 6,391.38
	2,949	2,949	0	0	0	0	0	\$ 5,897.44
	699	699	0	0	0	0	0	\$ 1,398.87
	136	68	0	0	0	0	0	\$ 203.50
	0	0	9,309	9,309	0	0	0	\$ 18,617.52
	0	5,286	0	0	0	12,748	0	\$ 18,033.33
	0	5,286	0	0	0	12,748	0	\$ 18,033.33
	0	1,848	0	0	0	3,697	0	\$ 5,544.95
	0	0	0	0	0	4,453	0	\$ 4,452.84
	0	2,277	0	0	0	2,277	0	\$ 4,553.16
	0	1,161	0	0	0	2,322	0	\$ 3,482.38
	0	3,223	3,223	0	0	0	0	\$ 6,446.49
	0	3,223	3,223	0	0	0	0	\$ 6,446.49

TASK NO	DESCRIPTION	Employee
		Gurley, Brian
		Johnson, Matt
		Burford, Taylor
7.0	Feasibility Study and Project Development Schedule	
	ATKINS	
		Blake, Greg
		Gurley, Brian
		Burford, Taylor
		Johnson, Matt
	SUBCONSULTANTS	
	LPC	Stuart, Jason
99.EXP	Expenses	
	ATKINS	
	Expenses	
	SUBCONSULTANTS	
90.02.X	Expenses	

Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Hours Total
	4	4					8
	8	8					16
	8	8					16
0	0	0	0	0	32	48	80
							-
					4	12	16
					12	24	36
					8	12	20
					8		8
							-
							-
							-
1	1	1	1	1	1	1	7
							-
							-

Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	FORECAST TOTAL
0	924	924	0	0	0	0	\$ 1,848.32
0	1,161	1,161	0	0	0	0	\$ 2,321.59
0	1,138	1,138	0	0	0	0	\$ 2,276.58
0	0	0	0	0	6,350	11,088	\$ 17,438.28
							-
0	0	0	0	0	6,350	11,088	\$ 17,438.28
0	0	0	0	0	1,279	3,836	\$ 5,114.34
0	0	0	0	0	2,772	5,545	\$ 8,317.42
0	0	0	0	0	1,138	1,707	\$ 2,845.73
0	0	0	0	0	1,161	0	\$ 1,160.79
0	0	0	0	0	0	0	\$ -
0	0	0	0	0	0	0	\$ -
500	500	500	500	500	500	500	\$ 3,500.00
							-
500	500	500	500	500	500	500	\$ 3,500.00
500	500	500	500	500	500	500	\$ 3,500.00
0	0	0	0	0	0	0	\$ -
							\$ -

Total Fee **\$ 447,675**

TASK NO	DESCRIPTION	Employee
1.0	NTP2	
	ATKINS	
		Gurley, Brian
		Gerry, Wenzie
		Burford, Taylor
		Rackley, Jerel
		Senior Engineer I
		Engineer I
	SUBCONSULTANTS	
		K Friese
		KFA - Senior Engineer
		KFA - Project Engineer 1
		KFA - Project Engineer 2
		KFA - CADD Technician
		KFA - Administrative Assistance
99.EXP	Expenses	
	ATKINS	
	Expenses	
	SUBCONSULTANTS	
90.02.X	Expenses	

	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Hours Total
	540	540	540	540	540	540	540	3,780
								-
	16	16	16	16	16	16	16	112
	4	4	4	4	4	4	4	28
	16	16	16	16	16	16	16	112
	80	80	80	80	80	80	80	560
	120	120	120	120	120	120	120	840
	100	100	100	100	100	100	100	700
								-
	24	24	24	24	24	24	24	168
	44	44	44	44	44	44	44	308
	64	64	64	64	64	64	64	448
	64	64	64	64	64	64	64	448
	5	5	5	5	5	5	5	35
	3	3	3	3	3	3	3	21
								-
								-
	1	1	1	1	1	1	1	7
								-
								-

	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	FORECAST TOTAL
	77,963	77,963	77,963	77,963	77,963	77,963	77,963	\$ 545,742.05
								-
	50,045	50,045	50,045	50,045	50,045	50,045	50,045	\$ 350,317.95
	3,697	3,697	3,697	3,697	3,697	3,697	3,697	\$ 25,876.43
	313	313	313	313	313	313	313	\$ 2,188.91
	2,277	2,277	2,277	2,277	2,277	2,277	2,277	\$ 15,936.07
	16,627	16,627	16,627	16,627	16,627	16,627	16,627	\$ 116,386.50
	16,877	16,877	16,877	16,877	16,877	16,877	16,877	\$ 118,142.22
	10,255	10,255	10,255	10,255	10,255	10,255	10,255	\$ 71,787.81
	27,918	27,918	27,918	27,918	27,918	27,918	27,918	\$ 195,424.11
	4,794	4,794	4,794	4,794	4,794	4,794	4,794	\$ 33,554.75
	8,109	8,109	8,109	8,109	8,109	8,109	8,109	\$ 56,762.81
	8,007	8,007	8,007	8,007	8,007	8,007	8,007	\$ 56,051.20
	6,367	6,367	6,367	6,367	6,367	6,367	6,367	\$ 44,570.83
	437	437	437	437	437	437	437	\$ 3,060.02
	203	203	203	203	203	203	203	\$ 1,424.49
	500	500	500	500	500	500	500	\$ 3,500.00
								-
	500	500	500	500	500	500	500	\$ 3,500.00
	500	500	500	500	500	500	500	\$ 3,500.00
	0	0	0	0	0	0	0	\$ -
								\$ -

Total Fee \$ 549,242

290E Phase IV Project

