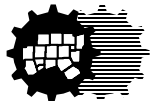


FY2023 Annual Report on Performance and Expenditures

FY2022 and FY2023 Unified Planning Work Program for Regional Transportation Planning



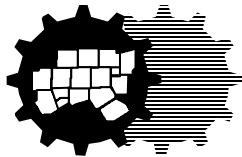
Transportation Department
North Central Texas Council of Governments

What is NCTCOG?

The **North Central Texas Council of Governments** (NCTCOG) is a voluntary association of, by, and for **local governments** within the 16-county North Central Texas region. The agency was established by state enabling legislation in 1966 to assist local governments in **planning** for common needs, **cooperating** for mutual benefit, and **coordinating** for sound regional development. Its purpose is to strengthen both the individual and collective power of local governments, and to help them recognize regional opportunities, resolve regional problems, eliminate unnecessary duplication, and make joint regional decisions – as well as to develop the means to implement those decisions.

North Central Texas is a 16-county **metropolitan region** centered around Dallas and Fort Worth. The region has a population of more than 7 million (which is larger than 38 states), and an area of approximately 12,800 square miles (which is larger than nine states). NCTCOG has 228 member governments, including all 16 counties, 169 cities, 19 independent school districts, and 24 special districts.

NCTCOG's **structure** is relatively simple. An elected or appointed public official from each member government makes up the **General Assembly** which annually elects NCTCOG's **Executive Board**. The Executive Board is composed of 17 locally elected officials and one ex-officio non-voting member of the legislature. The Executive Board is the policy-making body for all activities undertaken by NCTCOG, including program activities and decisions, regional plans, and fiscal and budgetary policies. The Board is supported by policy development, technical advisory, and study **committees** – and a professional staff led by **R. Michael Eastland**, Executive Director.



NCTCOG's offices are located in Arlington in the Centerpoint Two Building at 616 Six Flags Drive (approximately one-half mile south of the main entrance to Six Flags Over Texas).

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NCTCOG's Department of Transportation

Since 1974 NCTCOG has served as the Metropolitan Planning Organization (MPO) for transportation for the Dallas-Fort Worth area. NCTCOG's Department of Transportation is responsible for the regional planning process for all modes of transportation. The department provides technical support and staff assistance to the Regional Transportation Council and its technical committees, which compose the MPO policy-making structure. In addition, the department provides technical assistance to the local governments of North Central Texas in planning, coordinating, and implementing transportation decisions.

Prepared in cooperation with the Federal Highway Administration, US Department of Transportation, and the Texas Department of Transportation.

The contents of this report reflect the views of the authors who are responsible for the opinions, findings, and conclusions presented herein. The contents do not necessarily reflect the views or policies of the Federal Highway Administration, the Federal Transit Administration, or the Texas Department of Transportation.

FY2023 Annual Report on Performance and Expenditures

*FY2022 and FY2023
Unified Planning Work Program for
Regional Transportation Planning*

Regional Transportation Council

The Transportation Policy Body for the North Central Texas Council of Governments
(Metropolitan Planning Organization for the Dallas-Fort Worth Region)



Transportation Department
North Central Texas Council of Governments

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Surface Transportation Technical Committee

Walter Shumac, III, Chair
Director of Transportation and Mobility, City of Grand Prairie

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I. Task 1 – Administration and Management

Coordination, communication, and management tasks that are essential to maintaining the metropolitan planning process comprise the subtasks in the area of Administration/Management. Overall direction of planning activities and grant administration tasks such as purchasing, contract development, and auditing are included. The preparation and circulation of information relevant to regional transportation policy is a major focus of this element. This includes support to the Regional Transportation Council (RTC), associated technical committees, and the North Central Texas Council of Governments (NCTCOG) Executive Board. In addition, public involvement and outreach activities as emphasized in the previous Fixing America's Surface Transportation (FAST) Act and current Infrastructure Investment and Jobs Act (IIJA) are conducted under this element.

1.01 Community Outreach

This annual Work Program subtask will be conducted in FY2022 and FY2023 and includes staff activities in support of NCTCOG's Transportation Department Public Involvement, Outreach, and Education Program; monitoring of the regional transportation system performance and reliability; business community outreach; legislative outreach; internet/intranet outreach and support improvements; and public education campaigns and services to support transportation and air quality programs/policies. Communications outreach tools such as stock images, video subscriptions for music beds, video hosting and editing platforms, survey tools, a digital asset management tool to store and tag photos and videos, communications campaign analysis software, and an email campaign subscription are included in a cost allocation plan. Costs are allocated to all projects, including projects funded with Transportation Planning Funds and other funding sources. These costs are included in the funding summaries for each task.

Work Performed and Status: During FY2023, contracts for online communications tools and website subscriptions were renewed, including SurveyMonkey. A Getty Images subscription for the department was purchased, as well as MediaValet, a digital asset management service.

The cost allocation plan was used to support work activities. Work will continue in FY2024.

Efforts described below include activities that may be excluded from the cost allocation plan and charged directly to the funding sources identified.

Public Involvement, Publications, and Legislative Support

Transportation Planning Funds

Staff will appear regularly at community and business events to discuss transportation and air quality matters. Efforts to ensure full and fair participation in the transportation decision-making process consistent with Title VI and environmental justice principles are implemented through a Public Participation Plan. Anticipated products include:

- Regular opportunities, including public meetings, online opportunities, stakeholder engagement, a virtual public engagement platform, and listening sessions, among others, for North Texans to learn about and provide input on transportation and air quality plans, programs, and policies;

- Summaries of public input provided to the Regional Transportation Council (RTC);
- Appearances at neighborhood meetings, professional association meetings, business community/chamber of commerce meetings, and other events;
- Dynamic outreach and communications plans to continually enhance public involvement;
- Enhanced multimedia and social media presence;
- Communications through email services on transportation planning projects, as well as other projects supported through the Unified Planning Work Program (UPWP);
- Press releases and other media relations activities;
- Department newsletters, including Local Motion and Mobility Matters, among others;
- Progress North Texas state-of-the-region report and other reports and brochures;
- Contributions to agency newsletters;
- Communications pieces that explain the transportation planning process and opportunities to provide input;
- Summaries of activity in the Legislature and Congress relating to Metropolitan Planning Organization functions;
- Legislative testimony as a resource witness;
- Identification of issues or challenges related to implementation of the Metropolitan Transportation Plan for the attention of the Regional Transportation Council in order for the Council to develop its State and federal legislative programs; and
- Regular updates to policy and technical committee members on legislative initiatives related to RTC priorities.

Work Performed and Status: Public input opportunities were one of several avenues North Texans could learn about and offer input on transportation in FY2023. NCTCOG held nine public input opportunities. In accordance with the procedures outlined in the Public Participation Plan, copies of the presentations and documents presented for review were posted online, and a recorded video presentation was also provided. As an accessibility measure for individuals without a connection to the internet, print copies of presentation materials were made available upon request.

For both public meetings and online input opportunities, comments and written summaries were made available on the NCTCOG website. Public comment summaries were included on Surface Transportation Technical Committee (STTC) and Regional Transportation Council (RTC) meeting agendas.

Approximately 12,000 notices were sent by mail and email for each public meeting and online public input opportunity. Also, more than 140 libraries in the Metropolitan Planning Area received public meeting and online input opportunity flyers to make available to patrons. Additionally, flyers were provided to municipal offices. Notices for public meetings and online public input opportunities were placed in area newspapers, including minority publications, and translated ads were published in Spanish newspapers and a Vietnamese newspaper. Online and social media notices of input opportunities supplemented print notifications.

The NCTCOG Transportation Department participated in 16 community events to communicate information about multiple regional transportation and air quality programs and issues. NCTCOG also continued to coordinate with local cities, transit partners, community organizations, and nonprofits to maintain relationships and plan for opportunities to share transportation and air quality information in the future.

The RTC approved an amendment to the Public Participation Plan in November. The plan outlines how outreach efforts help address changing demographics and communications trends while

ensuring federal public involvement requirements are met. The amended plan updated an appendix that outlines rules for how the public can provide comments at meetings of the Regional Transportation Council, per HB 2840 (86th Texas Legislature).

Proactive media outreach efforts included the distribution of 35 press releases on major projects and programs to approximately 200 reporters at local, State, and national media outlets, including minority publications. Press releases were emailed to media contacts and interested parties and were posted to the department's online newsroom. In addition, multiple interviews were conducted with local and national print, radio, and television media, as well as podcasts. The media list is updated continuously.

The department also provided news and updates in Local Motion, its monthly newsletter, and Mobility Matters, a semiannual publication, as well as through contributions to agency newsletters. Local Motion was converted to an email newsletter, which was distributed monthly to more than 8,000 subscribers, and posted online. Mobility Matters was distributed to approximately 3,500 contacts on the public involvement mailing list, and the online version was also shared with regional partners. The department also contributed articles to an agency newsletter, What's New at NCTCOG, which is published online and distributed to partners and interested parties via email. Staff continued to distribute several other internal and external publications in print and online. A series of fact sheets for the general public were published in print and online. The fact sheets are also translated into Spanish and posted online.

Additionally, the department published Progress North Texas, its annual state-of-the-region report, which provided an update on transportation and air quality developments in the Dallas-Fort Worth area over the previous year. The report's theme was "Working Together to Improve Mobility." It examined efforts to collaborate in several areas, including mobility, growth, roadway, active transportation and transit improvements, funding, goods movement, aviation, safety, air quality, and public involvement. Approximately 6,000 copies were mailed to partners and residents throughout the region. The department continued to reach the public through the report's webpage, and copies were provided by mail and electronically to partners throughout the year.

To complement traditional outreach, staff maintained a presence in social media for the NCTCOG Transportation Department, using Facebook, Twitter, YouTube, and Instagram to post regular updates and interactive content in accordance with the department social media policy. Department workshops, webinars, and virtual outreach opportunities were shared through the Meetup social media platform, and links to the department's publications were posted to social media. Social media metrics were tracked, and reports were created for analysis by staff. Data from these reports is continuously used to improve the department's social media strategy and provide more engaging content to increase followers.

Finally, legislative assistance was provided throughout FY2023 to State Legislative and Congressional offices, as well as policy and technical committee members. Information was provided, as requested, on policy matters related to the Metropolitan Planning Organization. In preparation for the State Legislative session, staff, in coordination with elected officials, prepared the RTC's Legislative Program for the 88th Texas Legislature. Policy issues and challenges related to the implementation of the Metropolitan Transportation Plan were identified by staff and brought to the attention of the RTC. Policy and technical committees were provided with legislative updates each month during the Texas Legislative session. Tracking actions in the United States Congress were ongoing, and information on federal issues and rulemaking was relayed to policy and technical committee members as necessary.

The subscription to Constant Contact was renewed, and a contract for a virtual public engagement platform, Public Input, was renewed.

Transportation Planning Funds were used to support work activities. Work will continue in FY2024.

Other Funding Sources

North Central Texas Council of Governments Local funds will be utilized to support activities that are not eligible for federal reimbursement. Such items may include:

- Meal expenses;
- Travel expenses; and
- Special meetings with State or federal elected officials.

Work Performed and Status: Minimal North Central Texas Council of Governments local funds were used for postage and supplies in FY2023. Work will continue in FY2024.

Internet/Intranet Outreach and Support

Transportation Planning Funds

This element is ongoing throughout both FY2022 and FY2023, providing technical support for regional committees, public information and participation efforts, and the transportation planning process. This includes the ongoing creation, maintenance, and modernization of web resources presented externally and internally on the internet/intranet sites. Anticipated products include:

- Website assessment and improvement of visual architecture, accessibility, and usability; Website edits, updates, and maintenance;
- Website content development, including articles, public information resources, and program area updates;
- Websites and applications available on the most common browsers and an improving mobile experience;
- Web pages and applications audited and reviewed for internal standards/branding and security (QA/QC);
- Web page performance reports, including analytic assistance;
- Web application development and support;
- Standards for search engine optimization;
- Software upgrades, including evaluation and migration of web assets and content to new Kentico content management platform;
- Microsoft ERP: CRM and SharePoint Online D365 development/administration; and
- Internal training opportunities.

Work Performed and Status: Planning, oversight and execution of improvements and migration to online content and media were conducted in FY2023.

Migrations of content and web resources continued in a planned strategic prioritization of web goals. This included a focused effort to migrate web resources to an Azure managed environment to improve the security, efficiency, and flexibility of development workflows via the Model-View

Controller development framework. Branded campaign web projects, including applications, sites, and pages, continued to be migrated into a multi-site managed Kentico environment.

Content management efforts continued through training, documentation, and implementation of new widgets, and web parts on pages. Media library resources were reviewed and updated by removing orphaned files and importing, leveraging, and creating new media to support programmatic goals.

An audit of privacy notification, accessibility priorities, security concerns, and quality control workflows was conducted, and coordination meetings were held to identify achievements. Siteimprove reports to NCTCOG content writers and editors were used to identify broken links, misspellings, Search Engine Optimization needs, and accessibility requirements as part of web management workflow.

Improvements to staff-related intranet resources, email-based marketing software services, and public input services and resources continued throughout the year.

Transportation Planning Funds were used to support work activities. Work will continue in FY2024.

Transportation and Air Quality Education and Outreach

Other Funding Sources

The North Central Texas Council of Governments (NCTCOG) will continue to implement strategic communications efforts to educate and inform the region on transportation- and air quality-related issues, including improvement strategies, funding opportunities, training initiatives, and new programs/policies. Major efforts will focus on transportation and air quality education, outreach, and engagement programs. This work element will be supported through Surface Transportation Block Grant Program funds, Congestion Mitigation and Air Quality Improvement Program funds, and Transportation Development Credits. Paid media will be utilized when needed. This element is ongoing throughout FY2022 and FY2023. Anticipated products include:

- Regional air quality and transportation campaigns (including Air North Texas and other efforts that support transportation and air quality improvement strategies) utilizing communication strategies, including, but not limited to, website/web pages, paid education campaigns, social and electronic media, videos, photography, email and blog updates, air pollution alerts, flyers, brochures, and outreach and associated displays;
- Integrated campaign resources for use by local governments, the business community, education institutions, and other stakeholders/interested parties;
- Communication and education/outreach services for local governments, as well as other NCTCOG Transportation Department programs/campaigns;
- Procurement, inventory, and distribution of educational items;
- Performance measure strategies and analytics for transportation and air quality communication initiatives;
- Regional growth of overall efforts through regular meetings and conference calls with the Air North Texas Coalition, stakeholder groups, and other partners, including State, federal, and local interest groups about the campaign and other air quality education initiatives;
- New partner recruitment for transportation and air quality campaigns; and
- Partner recognition for work on programs such as Air North Texas.

Work Performed and Status: During FY2023, NCTCOG staff continued to develop and implement or support regional air quality and transportation campaigns and related communications strategies for initiatives such as Air North Texas. The Air North Texas air quality awareness campaign continued to be implemented through paid education, social media, educational items, and partner coordination. Outreach items were provided for distribution at in-person events. Clean Air Corner, the Air North Texas blog, was distributed monthly to more than 9,700 subscribers. Ozone alerts issued by the Texas Commission on Environmental Quality were monitored to ensure Air North Texas themed Ozone Action Day and Particulate Matter Alert messages were disseminated to interested parties. On June 2, 2023, Air North Texas celebrated the 14th annual Clean Air Action Day, which staff implemented with regional partners.

For Clean Air Action Day, educational materials and promotional ideas were provided to 35 Air North Texas partners, including cities, counties, and transportation agencies. More than 940 North Texans made over 3,300 commitments to participate in Clean Air Action Day due to these efforts. Also, staff produced air quality educational materials such as promotional items and other outreach pieces for partners.

Staff continued implementing a Transit Pandemic Recovery Campaign in conjunction with Dallas Area Rapid Transit, Denton County Transportation Authority, and Trinity Metro to help increase transit ridership. Campaign tactics and phases were implemented, and materials to educate North Texans about transit safety protocols were provided for use by the transit agencies and local partners. An online portal for partners was set up and NCTCOG staff informed partners of the availability. A new campaign creative to encourage transit ridership among workers returning to the office was created. NCTCOG staff reviewed campaign results, including those implemented by the transit agencies, and began outreach efforts to engage the business community. NCTCOG and the three transit agencies met monthly to manage the campaign's implementation.

Communication services continued for other department transportation and air quality-related programs and campaigns such as Dallas-Fort Worth Clean Cities, the Try Parking It commuter tracking program, GoCarma toll discount outreach, and bicycle/pedestrian education. In addition, staff begin production on a video series highlighting different program areas within the Transportation Department. Recordings of meetings were also uploaded to various NCTCOG websites, as well as the department's YouTube channel, for public viewing. Other materials developed and/or procured included graphics, outreach campaign materials, program-related video series/webinars, and educational items.

Elements of NCTCOG Transportation Department communication campaigns were tracked and reviewed to improve and refine campaign performance measures. For the Air North Texas campaign, 37 Ozone Action Day Alerts and 29 Weekend Forecasts were distributed to subscribers. Air North Texas website traffic was monitored, and the website recorded more than 13,000 users and 19,000 sessions for the fiscal year.

Contact with other State, federal, and local air quality partners to collaborate on consistent messaging and themes was maintained. For Air North Texas, NCTCOG staff continued to develop and grow relationships with a wide range of regional partners known as the Air North Texas Coalition. Staff planned and hosted six Coalition conference calls to coordinate the regional air quality awareness campaign.

In January 2023, several Coalition members were recognized for their notable contributions to the campaign as part of the partners' annual reporting process.

Congestion Mitigation and Air Quality Improvement Program funds (CSJs 0918-00-297, 0918-00-298, and 0918-00-369) and Transportation Development Credits were used to support work activities. This project is ongoing, and work will continue in FY2024.

1.02 Program and Policy Administration

Management and administrative activities conducted by MPO staff support operations of the NCTCOG Transportation Department and implementation of all projects. Activities such as development, monitoring, and coordination of the Unified Planning Work Program and necessary modifications; preparation of the Annual Performance and Expenditure Report; personnel and recruitment support; risk assessment; process development; committee support; legal review of agreements and policies; provision of furniture and consumable supplies for staff; and general office management are included in a cost allocation plan. Costs are allocated to all projects, including projects funded with Transportation Planning Funds and other funding sources. These costs are included in the funding summaries for each task.

Work Performed and Status: Two sets of modifications to the FY2022 and FY2023 Unified Planning Work Program (UPWP) received NCTCOG committee, State, and federal approvals during FY2023. These modifications reflected new initiatives, project modifications, and funding adjustments. The modifications were presented to the public for review and comment prior to seeking committee and funding agency approvals. Efforts to develop the Transportation Department's FY2024 and FY2025 UPWP, summarizing the department's work activities to be carried out over the next two years, were also conducted. The document was made available for public review and comment and received NCTCOG committee, State, and federal approvals. The FY2022 Report on Annual Performance and Expenditures was also developed. Performance reports on the accomplishment of Transportation Department goals established for FY2022 were also prepared and submitted to the NCTCOG Executive Director's office, as well as new goals for FY2023, for compilation into Agency documents to be provided to a number of agencies, including the Office of the Governor.

Monthly meetings of the Regional Transportation Council (RTC) and the Surface Transportation Technical Committee (STTC) were held. A video recording of the RTC meetings was available online for public access following each meeting. The RTC and STTC meeting agendas contained both action and information items for the committees' consideration and were posted online. Staff continued to prepare information for these meetings, develop meeting minutes, post items to the website, carry out committee actions, and respond to requests for additional information as needed. Staff also continued to support the submittal of transportation items to the NCTCOG Executive Board for consideration each month.

Staff recruitment efforts and personnel actions were conducted throughout the year (i.e., job postings; candidate interviews; processing of new hires, staff separations, internal promotions; maintenance of databases, and development of job descriptions). General office management activities also continued to be carried out (i.e., distribution of incoming mail, office assignments and moves, completion of timesheets, and the conduct of management and staff meetings). Professional development requests for NCTCOG staff were processed for attendance at webinars, seminars, training courses, and conferences. During FY2023, the department's Continuity of Operations Plan was also updated.

The cost allocation plan was used to support the above work activities. Work will continue in FY2024.

Program administration efforts described below include activities that may be excluded from the cost allocation plan and charged directly to the funding sources identified.

Program Administration

Transportation Planning Funds

This element includes management and administrative activities that directly support the NCTCOG Transportation Department's role as the Metropolitan Planning Organization and fulfillment of responsibilities outlined in regulations governing the administration of Federal Highway Administration Transportation Planning Funds. This element is ongoing throughout Fiscal Years 2022 and 2023 and includes participation in and support for the Association of Metropolitan Planning Organizations (AMPO), the Texas Metropolitan Planning Organization (TEMPO), and the Transportation Research Board (TRB). Additionally, this subtask includes oversight and coordination of the NCTCOG University Partnership Program. Consultant assistance may be utilized to assist with this element. Anticipated products include:

- NCTCOG representation at AMPO and TEMPO meetings;
- NCTCOG management participation in the TRB annual meeting and other conferences and professional development opportunities;
- Hosting and provision of training opportunities for local government, transportation providers, and/or planning agency staff;
- Appropriate office accommodations for staff and guests, including provision of consumable supplies, furniture, and leasehold improvements;
- Project topics for participation in the University Partnership Program;
- Assistance to the Texas Transportation Commission, as requested;
- Participation on and support for special task forces;
- Video/web hosting services; and
- Eligible and accurate billings within identified budgets.

Work Performed and Status: In FY2023, work activities included coordination of policy and institutional discussions between the Texas Transportation Commission (TTC), the Texas Department of Transportation (TxDOT), and the Regional Transportation Council (RTC). Staff continued to provide technical information in response to requests for information and/or meetings by the State and local elected officials.

NCTCOG staff provided advice and recommendations regarding Metropolitan Planning Organization (MPO) programs, plans, policies, and projects to comply with federal and State statutory and regulatory requirements, specifically 23 United States Code Section 134 and Programming. In addition, advice and recommendations were provided regarding compliance with the Texas Open Meetings Act and Texas Public Information Act.

The NCTCOG Director of Transportation continued to co-chair the Texas Department of Transportation/Metropolitan Planning Organization Statewide Safety Task Force, as requested by the Texas Transportation Commission to further identify and fund safety projects throughout the State with a focus on reducing the number of fatalities on Texas highways. The NCTCOG Assistant Director of Transportation also continued to serve as the chair of the Texas Association of Metropolitan Planning Organizations (TEMPO), and staff continued to support and attend meetings of the Transportation Research Board, TEMPO, and the Association of Metropolitan Planning Organizations.

Organizational memberships in transportation-related professional organizations for the NCTCOG Transportation Department were also processed. Furniture was purchased to accommodate staff needs.

Administration of the University Partnership Program continued. Work activities included coordination with the participating universities and other department staff to identify project topics, help ensure understanding and compliance with the program guidelines, and implement the contracting process, including execution of agreements. The three outstanding projects were completed in FY2023, and work performance on specific University Partnership Program projects is provided in the appropriate Work Program subtasks. In July 2023, the NCTCOG Executive Board authorized continuation of the partnership program with one university for another two years.

Staff submitted monthly requests for reimbursement to the Texas Department of Transportation for activities described in this report, specifically work budgeted for use of Transportation Planning Funds. All expenditures are supported by accounting records and receipts as requested by TxDOT.

Transportation Planning Funds were used to support work activities. Work will continue in FY2024.

Other Funding Sources

North Central Texas Council of Governments Local funds, Regional Transportation Council Local funds, and other local funds will be utilized to support activities in Program Administration that may not be eligible for federal reimbursement. Such items may include, but are not limited to:

- Small stipend and travel expenses for a minority student and supporting professor to attend annual TRB meetings to represent work conducted on behalf of NCTCOG under the TRB Minority Student Fellowship Program partnership;
- Meal expenses;
- Individual staff memberships in professional organizations;
- Service awards;
- Travel expenses for foreign applicants;
- Legal and application filing fees for foreign employees;
- Audio/video expenses (i.e., equipment, updates, and maintenance) in the Transportation Council Room;
- Video/web hosting services;
- Furniture;
- Consumable supplies;
- Travel expenses; and
- Other special projects.

Work Performed and Status: In FY2023, local funds were used to support items such as meeting and staff travel expenses, individual staff memberships in professional organizations, legal fees, consumable supplies, furniture, and video/web hosting services.

In addition, local funds were used to support a participant in the Transportation Research Board's (TRB) Minority Student Fellowship Program. NCTCOG used local funds to cover travel expenses associated with the student's attendance at the January 2023 TRB meeting to represent work

conducted on behalf of NCTCOG on the Impacts of COVID-19 on Travel Behavior – Telecommuting after COVID-19 or Is It Business as Usual University Partnership Program project.

Regional Transportation Council Local funds, North Central Texas Council of Governments local funds, and local funds were used to support the above expenses. Work will continue in FY2024.

Policy and Project Coordination

Other Funding Sources

This element will be ongoing throughout both FY2022 and FY2023, providing contract management and legal support. Among these activities is staff legal assistance relative to coordination for Regional Transportation Council policies and projects, enhancements of resources and compliance mechanisms related to the Disadvantaged Business Enterprise (DBE) Program, outreach to the vendor community to raise awareness of the DBE Program, and development of new partnerships with regional and State certification agencies. Surface Transportation Block Grant Program funds, supported by Transportation Development Credits, will be used for this effort. Anticipated products include:

- Assistance to the Texas Department of Transportation, as requested;
- Participation on and support for special task forces;
- Identification of federal and State laws to support policy decisions;
- Review of associated transportation funding and other associated policies;
- Education, outreach, events, and workshops with potential bidders/consultants, including partnerships with various contracting associations;
- Website content updates, including traditional and new media tutorials for potential bidders/consultants; and
- Collaboration and new partnerships with regional and State DBE certification agencies, such as the North Central Texas Regional Certification Agency.

Work Performed and Status: In FY2023, NCTCOG completed development of the FY2023-FY2025 Disadvantaged Business Enterprise (DBE) goal update. As part of NCTCOG's efforts to develop and refine tools to oversee DBE Program compliance, NCTCOG staff has continued to implement and improve the ongoing process to verify timelines of payments to subcontractors. Over the last year, staff has continued reviewing prompt payment procedures, submitted reports by prime consultants on the status of payments to subcontractors, verification of payments to subcontractors, including DBE firms, and followed up on contractual compliance deficiencies. Additionally, NCTCOG's staff completed review of attainment of DBE goals and followed up with project managers for contracts where the DBE attainment was lower than anticipated for additional information. NCTCOG staff continued review of contracting issues related to DBE attainment to determine guidance documents and training materials that could be developed to help ensure DBE commitments stay on track. NCTCOG staff completed website content updates and coordination with potential bidders and consultants on registration in NCTCOG's vendor database and regarding potential procurement opportunities. Further, Uniform Reports were prepared to report DBE participation on awarded, ongoing, and closed contracts. Current processes and tools for completing Uniform DBE reports were also reviewed to look for reporting efficiencies.

A subcomponent of the Surface Transportation Block Grant Program funding agreement for this element includes Regional Transportation Council (RTC) Policy and Project Coordination. As part

of this effort, staff conducted a review of RTC and Texas Transportation Commission policies, statutory, and regulatory provisions related to the allocation of funding to the Dallas-Fort Worth region to assist the RTC in policy considerations on such matters. Cooperative efforts included continued coordination with Dallas Area Rapid Transit, Trinity Metro, and BNSF Railway on an amended Trackage Rights Agreement, including development of pilot options for additional freight movement for the Trinity Railway Express (TRE) Corridor. These efforts were in support of the North Texas MOVES BUILD grant for the double tracking portions of the TRE corridor.

Surface Transportation Block Grant Program funds (CSJ 0902-00-178), supported by Transportation Development Credits, were used to support work activities. This project is ongoing, and work will continue in FY2024.

1.03 Fiscal Management and Information Systems

North Central Texas Council of Governments staff continue to support diverse programs, providing opportunity to facilitate projects with unique and innovative funding methodologies. This subtask includes work activities and strategies to enable effective fiscal coordination and streamlined accounting. Some fiscal management and information systems activities such as accounting support for Transportation Department projects; enhancement of procedures; development of financial management tools; compilation, assessment, and coordination of the NCTCOG Transportation Department annual budget; and financial assessment, monitoring, and reporting are included in a cost allocation plan. These costs are included in the funding summaries for each task.

Work Performed and Status: During FY2023, staff facilitated and conducted work activities supporting transportation and air quality projects and programs. These activities included coordination of receipts and payments; financial monitoring and analysis; development and documentation of procedures and tools; budget development, monitoring, and modifications; compliance review and documentation; information systems and records management; reporting; assessment of internal controls and contract compliance; and coordination of fiscal requirements for the Agency. Staff also coordinated responses to audits and project reviews. The cost allocation plan was used to support work activities. Work will continue in FY2024.

The fiscal-related activities described below may be excluded from the cost allocation plan and charged directly to the funding sources identified.

Local Funding Commitments

Other Funding Sources

During FY2022 and FY2023, North Central Texas Council of Governments Local funds, Regional Transportation Council Local funds, and other local funds will be utilized to support certain fiscal processes and fulfill financial commitments. Such items may include:

- Local match to support TxDOT Direct State Costs for State-administered projects; and
- Other costs to supplement project implementation.

Work Performed and Status: During FY2023, funds were expended for miscellaneous supplies costs, fees, and accounting adjustments.

Staff also facilitated a financial contribution to the Leadership Institute on behalf of local governments across the Dallas-Fort Worth region to support development of future public sector focused leadership forums and seminars supported through the National Medal of Honor Museum. This financial contribution, requested by the Regional Transportation Council and supported by the NCTCOG Executive Board, acknowledges commitment to transportation-related improvements implemented in conjunction with construction of the National Medal of Honor Museum.

North Central Texas Council of Governments Local funds and Regional Transportation Council Local funds were used to support payments and work activities. Work will continue in FY2024.

Innovative Transportation Financing Strategies

Other Funding Sources

Ongoing throughout FY2022 and FY2023, activities under this work program element explore innovative transportation financing and funding strategies as authorized by State and federal law. Innovative funding tools allow for enhanced flexibility in meeting critical transportation needs. The Regional Transportation Council, in partnership with transportation providers in the Dallas-Fort Worth area, is pursuing many of these strategies, including the use of innovative public and private partnerships, State Infrastructure Bank loans, Transportation Infrastructure Financing and Innovation Act loans, tax increment financing, transportation reinvestment zones, and value capture mechanisms through municipal land-use authority. In addition, staff will explore the institutional structures, partnerships, and agreements necessary to leverage these innovative financing and funding tools in the Dallas-Fort Worth region. Lastly, staff will continue to monitor and track existing and proposed innovative financing partnerships and funding. Regional Toll Revenue funds will support work activities. Anticipated products include:

- Innovative finance policies and strategies;
- Assessments of State and federal legal authority;
- Development of funding partnership agreements; and
- Presentations and informational materials.

Work Performed and Status: Staff continued its efforts to review specific statutory tools for application to projects in the Metropolitan Transportation Plan (MTP). Legal staff coordinated, developed, and reviewed agreements related to innovative financial strategies throughout the region. Several innovative funding agreements were developed to memorialize Regional Transportation Council-approved funding strategies. Finalized funding agreements included NCTCOG/DART funding swap, NCTCOG/DART/City of Dallas funding partnership on the Five Mile Creek Trail project and MPO Revolver Fund, and amended Old Weatherford Road funding partnership. Staff worked to update tracking mechanisms related to the initiatives.

Regional Toll Revenue funds (CSJ 0902-00-236) supported work activities. Project activities are ongoing and will continue in FY2024.

1.04 Computer System Applications and Data Management

The overall goal of this subtask is to provide NCTCOG staff with the tools and technical support needed to complete work tasks in an efficient and timely manner. Computer resource

management activities are conducted by MPO staff in support operations of the NCTCOG Transportation Department and implementation of all projects. Activities such as planning for, monitoring, and coordinating computer and software replacements and upgrades, as well as various audio/video, computer and computer-related staff support, and system maintenance functions are included in a cost allocation plan. Costs are allocated to all projects, including projects funded with Transportation Planning Funds and other funding sources. These costs are included in the funding summaries for each task.

Work Performed and Status: In FY2023, staff coordinated computer and software replacements and upgrades, imaged and deployed computers to staff, performed preventative maintenance on equipment, maintained documentation of equipment and software licenses, monitored network drive space, responded to user questions, and provided solutions to software and hardware problems. Audio and video technical support was also provided for numerous meetings throughout the year, as well as webcasts.

The cost allocation plan was used to support work activities. Work is ongoing and will continue in FY2024.

Efforts described below include activities that may be excluded from the cost allocation plan and charged directly to the funding sources identified.

Computer Resource Management and Equipment Purchases

Transportation Planning Funds

This subtask is ongoing throughout FY2022 and FY2023 and includes the purchase or lease of computer equipment such as software and associated maintenance/support, licenses, and application subscriptions to support NCTCOG department staff in the fulfillment of their job responsibilities. A list of equipment and software purchases/leases anticipated to be obtained during the time period of this Work Program, including the identified funding sources, is provided as Exhibit VIII-3 in Chapter VIII, Overview of Work Program Funding. Equipment and software purchases over \$5,000 per unit that are being obtained with Transportation Planning Funds require prior State and federal approval. Consultant assistance may be pursued to assist with this task. Anticipated products include:

- Software licenses;
- New and upgraded software and associated maintenance/support;
- Video equipment and supplies;
- Air cards;
- Application subscriptions; and
- Associated equipment necessary to support activities.

Work Performed and Status: Software maintenance and support was purchased to continue annual vendor support for traffic modeling licenses of TransCAD and Microsoft licenses covered under NCTCOG Microsoft Enterprise Agreement Licensing Program for Windows Operation System upgrades. This includes Windows 10, Microsoft Office 365, and Software Assurance Benefits. New software licenses and upgrades were purchased as needed, including Smartsheet, Adobe Professional DC, Adobe Illustrator, Adobe InDesign, Adobe Creative Cloud – All Apps, to support staff needs.

Transportation Planning Funds were used to support the purchases. Work will continue in FY2024.

Other Funding Sources

Regional Transportation Council Local funds will be utilized to purchase or lease computer systems and related equipment/hardware that may not be eligible for federal reimbursement. Such items may include, but are not limited to:

- Desktop, portable, and tablet computers (i.e., replacement of computers that are out of warranty and new computers to support staff needs);
- Monitors/televisions;
- Printers and scanners;
- Audio/video equipment and updates, and maintenance for the Transportation Department meeting rooms;
- Voice-Over-Internet-Protocol phone devices; and
- Associated equipment necessary to support activities.

Work Performed and Status: Laptop and desktop computers were purchased to accommodate replacement computers for staff and new employee needs. Monitors/televisions and immersive wireless devices were purchased to support audio video in Transportation Department meeting rooms.

Regional Transportation Council Local funds were used to support the purchases. Work will continue in FY2024.

Database and Geographic Information System Management

Transportation Planning Funds

This element is ongoing throughout both FY2022 and FY2023 among efforts to inventory, develop, maintain, consolidate, and optimize the numerous internal and external data sources, hardware/software tools, and various computer or web-based applications critical for the comprehensive processing of NCTCOG transportation projects, programs, and stakeholder services. This includes the management, coordination, and more effective utilization of Geographic Information System (GIS) technologies, due not just to the spatial references tied to most databases relevant to transportation-related activities and effects, but also to their potential for increased visualization, communication, and performance tracking opportunities. This work will support the establishment of seamless multi-disciplinary linkages, improved productivity and analysis capabilities, expanded venues for public/agency interaction and consumption, and enhanced inter-relationships in identifying, tracking, and reporting on transportation needs, impacts, and outcomes. These objectives will be accomplished through extensive investigations, collaboration, training, and technical development among Transportation Department program areas, other NCTCOG departments, and external partnering agencies. Resulting databases and applications will integrate the following information, including, but not limited to:

- Transportation Improvement Program (TIP) projects and programs;
- Metropolitan Transportation Plan (MTP) projects and programs;
- Multimodal transportation networks and attributes (roadway, rail, bicycle/pedestrian, etc.);
- Infrastructure support systems/operations networks and attributes;

- NCTCOG Travel Demand Model attributes and outputs;
- Environmental features, constraints, and estimated/measured project effects for National Environmental Policy Act (NEPA) analysis purposes;
- Safety, security, and sustainability qualities;
- Demographic and environmental justice properties; and
- GIS features and outputs.

Anticipated products include:

- Multi-variate databases and application tools, including GIS datasets and maps;
- Online data and GIS services;
- GIS and database management training;
- Technical templates, manuals, and protocols for data coding, storage, manipulation, linkages, and visualization;
- Data collection, quality control/assurance processes, and analysis services;
- Open-source and/or web-based information sharing; and
- Performance measure/target tracking and reporting.

Work Performed and Status: Geographical Information System (GIS) and data-related services were provided to the Transportation Department in coordination with other NCTCOG departments. These tasks included data collection/analysis services, scripting and automation, creation and maintenance of online mapping products, creation of static maps and other cartographic tasks, project administration, and database/user management.

Ongoing maintenance of the department's authoritative GIS datasets continued, with an enhanced focus on providing new datasets to Transportation Department data users. An existing departmental inventory was updated and revamped. The GIS and Data Solutions Liaison Group continued to meet on a regular basis to help facilitate conversations on GIS and data topics and to provide a forum in which best practices can be shared. A departmental GIS strategic plan is in place and preliminary work on a data strategic plan was initiated. Development of onboarding material, procedures, and manuals continued.

Transportation Planning Funds were used to support work activities. This project is ongoing, and work will continue in FY2024.

Regional Digital Aerial Imagery

Other Funding Sources

During FY2022 and FY2023, this project will obtain high-resolution color digital imagery for areas of North Central Texas. The aerial photography and Light Detection and Ranging (LiDAR) imagery obtained will be high resolution and geocoded with high-accuracy Global Positioning System coordinates (latitude, longitude, and elevation). The digital imagery will align with industry accepted procedures and standards, and image accuracy will be ensured through ground control and surface integration. The resulting imagery will be used for a wide variety of planning purposes, including improvements to travel demand modeling, corridor alignment planning and engineering analysis (including for the Regional Outer Loop), watershed hydrology modeling, environmental support, and tracking for changes in population/employment, land uses, and impervious surface cover. Additional work will include post-processing, analysis, and creation of new data products derived from imagery products. This work will be supported through Surface Transportation Block

Grant Program funds and Texas Department of Transportation funds. Anticipated products include:

- Digital aerial imagery for use in a wide variety of planning purposes.

Work Performed and Status: Aerial imagery data collection took place in FY2023. Work activities in FY2023 included tasks needed to support on-time funding and acquisition of imagery, quality control and analysis of delivered data, continued development of processes to streamline acquiring imagery in future years (including, but not limited to, the next anticipated acquisition in FY2025).

Surface Transportation Block Grant Program funds (CSJs 0902-00-279 and 0902-00-341), Texas Department of Transportation funds, and Transportation Development Credits were used to support work activities. Work will continue in FY2024.

II. Task 2 – Transportation Data Development and Maintenance

Development and maintenance of travel and air quality data and the refinement and application of the travel and air quality models used to support regional transportation and air quality planning activities are critical tasks in support of the metropolitan planning process. This task includes the collection, development, and use of data; maintenance of and improvements to the Dallas-Fort Worth Regional Travel Model; monitoring of demographic and growth activity in the region; and refinement of demographic forecasting techniques.

2.01 Travel Forecasting Support

The purpose of this subtask is to provide analytical tools for travel forecasting within the Metropolitan Planning Area (MPA). The Regional Travel Model includes Hill County, in addition to the 12 counties that comprise the MPA, due to the fact that the southern split of IH 35 is located within the boundary of Hill County and because of the impact the IH 35 facility has on transportation planning within the MPA. The forecasting tool set includes various arrays of data, mathematical models, computer programs, and information system products. These tools are used in essential functions of the Metropolitan Planning Organization. These functions include the long-range Metropolitan Transportation Plan, Transportation Improvement Program, Congestion Management Process, Safety and Security Program, Air Quality Conformity analysis, roadway and transit alternative analyses, subarea studies, thoroughfare planning, environmental statements, and technical assistance to local public agencies. This subtask is closely complemented by Subtasks 2.02 and 2.03, which are related to data management and demographic forecasting, respectively. The components of this subtask are described below.

Dallas-Fort Worth Regional Travel Model for the Expanded Area

Transportation Planning Funds

This component covers activities related to the maintenance of the Dallas-Fort Worth Regional Travel Model for the Expanded Area (DFX). DFX is a collection of computer program software applications, training materials, and documents used by transportation analysts for planning the projects and policies in the region; this Regional Travel Model was originally developed in 2009. With the release of the Transportation Analytical Forecasting Tool (previously referred to as the Next Generation Regional Travel Model) in FY2020, DFX will not be the primary model used in the Dallas-Fort Worth region. DFX will be maintained and updated to support existing projects and maintain consistency in project analysis. The tasks related to DFX include software updates, version maintenance, file backup and archiving, and technical support. The technical support may include internal support to users within NCTCOG, responding to questions about DFX, and enabling member local governments or agencies to have access to DFX. The DFX maintenance and operations project is ongoing throughout FY2022 and FY2023. Anticipated products include:

- Model software application and component programs;
- DFX version library;
- Model run archive database; and
- Technical support.

Work Performed and Status: In FY2023, DFX, the existing regional travel model computer application for the expanded area, was maintained and updated to support existing projects. All versions of the model are saved in a DFX version library. The model archive was maintained; archiving of newer model runs was performed on request. NCTCOG staff provided support to internal and external users of the model.

Transportation Planning Funds were used to support work activities. Work on the DFX regional travel model will continue in FY2024.

Transportation Analytical Forecasting Tool

Transportation Planning Funds

The Transportation Analytical Forecasting Tool (TAFT) is the latest Regional Travel Model for the Dallas-Fort Worth Metropolitan Area that was released in September 2020. TAFT is a collection of computer program software applications, training materials, and documents used by transportation analysts for planning projects and policies in the region. Development and maintenance of a Regional Travel Model is a multiyear project with several subtasks that will incrementally complement each other to create a mature analytical tool. TAFT will gradually replace DFX as the main Regional Travel Model (RTM). Work activities include software component and application development, visualizations, required documentation, maintenance and updates, and management activities. These activities will continue through FY2022 and FY2023. NCTCOG will also collaborate with the Argonne National Laboratory to improve the usability of NCTCOG's future travel model as part of Argonne's Department of Energy grant award that will extend Metropolitan Planning Organization modeling capabilities. Anticipated products include:

- TAFT software application improvements and maintenance; and
- TAFT documentation update.

Work Performed and Status: Development and maintenance of the TAFT software application continued in FY2023. Roadway and Transit Coding tools were maintained and updated based on user needs. New model run analysis tools were developed and incorporated into the application. Updates were made to model component and reporting tools. The application was maintained for use internally and for use at Dallas Area Rapid Transit (DART) offices. Support was provided for the TAFT application to internal and external users. Periodic meetings were scheduled with internal users to discuss recent updates and to allow users to request new or improved functionality. Staff continued to write chapters for the model description document. Memos were created to describe component updates. TAFT model runs were stored in the model run archive on request.

Transportation Planning Funds were used to support these activities. Work on the TAFT regional travel model will continue in FY2024.

Regional Travel Model Application Support

Transportation Planning Funds

This component covers activities related to the support for Regional Travel Model (RTM) application work, both internal and external of the agency. The tasks in this component are categorized in four perspectives. First, general model application support includes RTM planning application activities, technical support, and the model's functions clarification. Second, project-based model application support is related to certain projects that involve more comprehensive model application support, including analysis of the projects, modification of the RTM to satisfy the projects' requirements, and review of the new analytical tool based on the RTM. Third, general model trainings are provided to model users as scheduled and requested. The training topics can be the model's usage, concept, and report. Fourth, coordination with model users that includes meeting with model users and collecting questions and feedback from model users. Regional Travel Model application support is ongoing throughout FY2022 and FY2023. Anticipated products include:

- Coordination meetings;
- Technical support; and
- Training sessions.

Work Performed and Status: NCTCOG staff continued to provide support for regional travel model usages, both on internal and external projects. Support for several project-based model applications is ongoing. Special versions of the RTM were created for specific project needs.

Transportation Planning Funds were used to support these activities. Work on the RTM application will continue in FY2024.

Household Travel Survey

Other Funding Sources

NCTCOG, in collaboration with the Texas Department of Transportation, has been a part of the National Household Travel Survey (NHTS) 2017 project. NCTCOG staff will analyze and summarize NHTS 2017 and participate in other activities related to NHTS NextGen efforts. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized to support work efforts. Anticipated products during FY2022 include:

- Summary tables of NHTS 2017 analysis.

Work Performed and Status: This project was completed in FY2022.

Innovative Data Collection Method and Data Analytics

Other Funding Sources

This component includes investigation of newly available data sources such as social media and big data for application in transportation planning. These emergent technologies may have a substantial effect on existing data collection and analytical tools. This element may also include

providing assistance to other NCTCOG program areas for the acquisition and purchase of data. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized to support work efforts. The anticipated products during FY2022 and FY2023 include:

- Documentation of results of the investigations of data sources and vendor products.

Work Performed and Status: This project was completed in FY2022. Coordination with the Texas Department of Transportation on data purchases continued in FY2023 under the Transportation Analytical Forecasting Tool element.

Regional Dynamic Traffic Assignment Model

Other Funding Sources

Dynamic Traffic Assignment (DTA) represents a more realistic and accurate assignment method superior to the existing time-of-day static assignment. DTA captures the interaction between travelers' route choices, traffic congestion, and time-dependent travel time in a temporally coherent manner. Specifically, DTA models aim to describe such time-varying network and demand interaction using a behaviorally sound approach. NCTCOG will administer a Request for Information (RFI) to gather from suppliers/vendors/universities their capabilities regarding DTA solutions they can provide. Based on the results of the RFI, NCTCOG will either develop a DTA solution in-house with purchased software, or contract with suppliers/vendors/universities to proceed with DTA development. This may require utilization of consultant services through the Request for Proposal process. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized to support work efforts. The regional DTA project will take place in FY2022 and FY2023. Anticipated products include:

- Summary of findings and staff recommendations based upon responses to RFI;
- Scope of services for consultant;
- Preliminary implementation of a regional DTA model; and
- Calibration and validation report of the developed regional DTA model.

Work Performed and Status: Based on the results of the FY2022 Request for Information, TransModeler was chosen as the software for this effort to build an in-house hybrid DTA simulation model, combining microscopic and mesoscopic traffic simulation, on a subarea. Since it is challenging to develop a single traffic assignment model for a 12-county metropolitan planning area, the planning area was broken into smaller areas to provide proof of concept. The study area was around 100 square miles and covered North Dallas County and most of the city of Plano. A preliminary Dynamic Traffic Assignment simulation model was developed, calibrated, validated, and documented in a final report.

Surface Transportation Block Grant Program funds (CSJs 0902-00-177 and 0918-00-314) and Transportation Development Credits were utilized to support work activities. North Central Texas Council of Governments local funds were utilized to cover a small cost overrun on this initiative. Work on this project will continue in FY2024.

Development of Non-Motorized Trip Model

Other Funding Sources

This component's main purpose is to develop a non-motorized trips module to represent the travel behavior of non-motorized trips in the RTM. Work activities include investigating existing methods, coding networks, restructuring zones, systemizing bike and person counts, developing travel behavior models, developing software applications, and file system development, documentation, and training. Consultant assistance may be utilized. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized to support work efforts. The development of a non-motorized trips model will take place in FY2022 and FY2023. Anticipated products include:

- Non-motorized trip model;
- Final report of the model; and
- User guide and model description.

Work Performed and Status: A literature review was conducted to understand state-of-the-art practices of non-motorized trip modeling used by other planning agencies and in academic research. Potential sources of high-fidelity network data and other data required for modeling non-motorized trips were identified. A high-level framework for modeling non-motorized trips in the region was developed. Discussions were held with the NCTCOG Sustainable Development team to ensure the developed model would be suitable for their needs. Internal discussions were also held with the Geographic Information Systems staff to understand the feasibility of using the identified data sources and the appropriate ways of collecting and storing the data.

Surface Transportation Block Grant Program funds (CSJ 0918-00-314) and Transportation Development Credits were utilized to support this project. Work on the non-motorized travel model will continue in FY2024.

Transit Travel Survey

Other Funding Sources

NCTCOG, in coordination with Dallas Area Rapid Transit, the Denton County Transportation Authority, and Trinity Metro, will re-initiate activities paused in FY2020 due to the COVID-19 pandemic and conduct a regional transit onboard survey in FY2022 and FY2023. This project will include a survey of transit routes as identified by the three transit agencies. The resulting data will be heavily used in updating the Regional Travel Demand Model. This project includes supplemental transit surveys such as an automatic passenger count validation study for Trinity Metro. Consultant assistance will be utilized. Surface Transportation Block Grant Program funds, local funds, and Transportation Development Credits will be utilized to support work efforts. Anticipated products include:

- Transit Travel Survey final report;
- Transit Travel Survey databases; and
- Trinity Metro automatic passenger count validation study report.

Work Performed and Status: NCTCOG continued coordination of the regional transit onboard survey in FY2023 with Dallas Area Rapid Transit (DART), Denton County Transportation Authority

(DCTA), Trinity Metro, and the consultant. Data collection continued on Trinity Metro and DCTA vehicles during fall 2022, and on DART and Trinity Railway Express (TRE) vehicles during spring 2023. NCTCOG scheduled regular calls with the agencies and the consultant to keep the project on schedule and all organizations informed of the progress.

NCTCOG gathered detailed ridership data from DART and TRE for the consultant to use in developing sampling and data collection plans for spring 2023. An on-to-off survey was conducted on rail and high-ridership buses. An origin-destination interview survey on all fixed bus routes and rail lines was also conducted. The consultant incorporated some new questions into the spring 2023 survey instrument and conducted a pilot study, trained surveyors for the surveys, and provided updates on the progress in meetings and through a dashboard tool.

This project also included a survey of mobility on-demand services at DART, DCTA, Trinity Metro, and Arlington Transportation. The survey instrument was finalized, the online survey was implemented for each agency, and meetings with app providers of each transit agency were conducted to coordinate survey invitations and reminders to riders. For DART, in-field data collection on the on-demand services was also conducted to reach survey goals and reach users who may not have booked through the main app.

The consultant geocoded the raw survey data, performed a series of quality assurance/quality control checks on the data, and expanded the dataset using ridership data that NCTCOG gathered from the individual agencies. A draft data visualization was developed, and draft chapters of the final report were written.

Surface Transportation Block Grant Program funds (CSJ 0918-00-313), local funds, and Transportation Development Credits were used to support these work activities. Work will continue on this project in FY2024.

Limited Access Facility User Survey

Other Funding Sources

In cooperation with the North Texas Tollway Authority, Texas Department of Transportation, and managed lane operators, NCTCOG will continue a survey initiated in FY2021 of limited access facility (LAF) users in six segments of regional corridors. The survey, previously referred to as the Toll Road User Survey, focuses on the socio-economic characteristics of the travelers, their trip patterns, their trip-making behavior, and willingness to pay for use of the limited access facilities. This study will also be used in an evaluation of environmental justice related to building the tolled facilities. Final survey results are expected during FY2023. Consultant assistance will be utilized. Work efforts will be supported through Surface Transportation Block Grant Program funds and Transportation Development Credits. Anticipated products during FY2022 and FY2023 include:

- Intermediate progress reports and final report; and
- LAF user survey database.

Work Performed and Status: In FY2023, NCTCOG staff used the limited access facility survey database to conduct data analysis, develop a statistics summary, develop a data visualization tool, and document the entire process in the technical report. The Limited Access Facility User Survey was completed in FY2023.

Surface Transportation Block Grant Program funds (CSJs 0902-00-196 and 0918-00-208) and Transportation Development Credits were used to support these work activities. North Central Texas Council of Governments local funds were utilized to cover a small cost overrun on this initiative.

Travel Model Network Development and Maintenance

Transportation Planning Funds

Included in this element are the development and maintenance of geographic electronic roadway and transit network files used in travel demand modeling. Staff will monitor local and regional transportation improvements in order to develop and maintain a current-year network and various forecasted networks. Activities will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Current-year transportation network;
- Roadway and transit networks for the Metropolitan Transportation Plan and Air Quality Conformity analysis;
- Roadway and transit networks for specific roadway and transit corridor studies;
- Network Development and Maintenance Program that is administered to continually evaluate network quality control through the review of existing and proposed transportation networks; and
- GIS-based roadway and transit networks for use in roadway corridor, transit corridor, and thoroughfare studies and as a response to technical assistance requests.

Work Performed and Status: A current-year transportation network continued to be monitored and updated to reflect the status of the region's transportation system. Roadway and transit networks were developed on request to support air quality analyses, along with specific roadway and transit corridor studies. To ensure quality control, a Network Development and Maintenance Process was utilized for a continual review of transportation networks. Geographic Information System based roadway and transit networks were provided to internal and external partners on an as-needed basis for technical assistance, and corridor and subarea studies.

Transportation Planning Funds were used to support work activities. Work will continue in FY2024.

Preston Road Corridor Analysis

Transportation Planning Funds

In FY2023, staff will initiate an analysis on Preston Road focusing on intersections between Interstate Highway 635 in Dallas and the north city limit of Plano. The goal is to evaluate various intersections based on cost, effectiveness in improving traffic condition, air quality, and safety. Citizen involvement is critical to determine if a common system of improvements is possible. The study will also consider the effect of improvements on accessibility to local businesses and residential developments. Traffic simulation modeling software may be purchased to assist in the analysis of grade separations anticipated in Plano. Anticipated products include:

- A report containing the results of the study.

Work Performed and Status: The Dynamic Traffic Assignment (DTA) simulation model, TransModeler, was utilized for microsimulation of the Preston Road Corridor. To access Plano's signal dataset, the software of Synchro was purchased. The developed DTA simulation model will be applied in intersection and signal alternatives analyses.

Transportation Planning Funds were used to support work activities. Future work in FY2024 on this corridor will be conducted using Surface Transportation Block Grant Program funds.

Identification of Employment-Housing Imbalances in the Region

Transportation Planning Funds

The goal of this project in FY2023 is a review of various transportation systems to understand the connection between housing and employment and address the integration of housing, transportation, and economic development strategies in the transportation planning process. This project intends to develop planning data and tools and to identify housing-employment imbalances in the region. The activities may include development of housing data and connecting socioeconomic data to accessibility and housing affordability. The products of this project will be used in transportation planning activities in relevant corridors and planning areas to address the deficiencies that can be rectified by transportation projects or for consideration in ranking various investments in transportation. Anticipated products include:

- A set of data sources, maps, and documents describing the process; and
- Peer reviews and training to describe the products to planners.

Work Performed and Status: An extensive literature review was conducted to understand the best practices in identifying employment-housing imbalances. Census data products required for determining imbalances were assembled. This data source was supplemented with data produced by the long-range travel demand forecasting model. A series of metrics that could potentially highlight imbalances were meticulously generated and evaluated for their practical usefulness. A set of these metrics were shortlisted and presented to members of the Sustainable Development team for their review. Additional metrics were generated based on their input and the existing metrics were finetuned. A final suite of imbalance metrics was computed and visualized for the entire region and stored in multiple easy-to-use Geographic Information System data formats. The metrics were used to evaluate the state of job-housing imbalances in three specific corridors of interest. Training was presented to relevant staff on the meaning of the imbalance metrics, and supporting documentation on the metrics was provided.

Transportation Planning Funds were used to support work activities. Work on this project was completed in FY2023.

2.02 Transportation Data Development

Enhancement of Quality of Data Collected by Radar Vehicle Detectors

Other Funding Sources

The purpose of this element is to enhance the base-line quality of data collected by existing vehicle detectors (also known as side-fire devices) in the Dallas-Fort Worth region and to measure the accuracy and reliability for use in several transportation planning activities. Consultant assistance will be utilized. Work activities will take place during FY2022 and FY2023. Surface Transportation Block Grant Program funds and Texas Department of Transportation funds will be utilized to support work efforts. Anticipated products include:

- Geographic dataset containing an inventory of existing side-fire devices in the Dallas-Fort Worth area;
- Consultant/vendor selection process to perform validation of a portion of the side-fire devices;
- Diagnostic of the side-fire devices based on the data collected at each vehicle detector identifying its level of accuracy and quality; and
- A database of the collected traffic data with acceptable accuracy and quality.

Work Performed and Status: The inventory of side-fire devices was updated with the information of new devices that were installed by the Texas Department of Transportation Dallas and Fort Worth districts in 2023. A list of side-fire devices needing to be recalibrated, repaired, or replaced was produced. Tables of traffic counts per direction at 15-minute intervals at all locations with valid data were created. A final report of activities accomplished was produced.

Surface Transportation Block Grant Program funds (CSJ 0902-90-052), Texas Department of Transportation funds, and Transportation Development Credits were used to support work activities. Work on this project was completed in FY2023.

Maintenance of Existing Datasets

Transportation Planning Funds

During FY2022 and FY2023, NCTCOG staff will carry out activities related to the maintenance of existing datasets. Efforts will include coordination with data providers, integration of data, dissemination of information in the form of services and websites, and analysis of data. Coordination with internal and external entities plays an important role in the efficiency of data products and activities. Anticipated products include:

- Database of contact information;
- Agreements with agencies, as necessary;
- Databases of compiled data provided by partner agencies and cities, including, but not limited to, traffic counts, transit ridership, travel times, speeds, lane occupancy, vehicle occupancy on special purpose lanes, airport movements, toll transactions, vehicle registrations, inventories, and vehicle miles traveled;

- Websites and other graphic user interfaces that allow users to see relevant and detailed data at different levels of accessibility; and
- Summaries, reports, and charts of the analyses done on the data.

Work Performed and Status: Traffic count data for the year 2022 were requested and obtained from the Texas Department of Transportation. Transit ridership data and updated routing schedules were requested and obtained from Dallas Area Rapid Transit, the Denton County Transportation Authority, and Trinity Metro. Travel time data was obtained from the Federal Highway Administration for September 2022 to August 2023.

The traffic and bicycle and pedestrian counts website was maintained to continue the availability of these data to the public. The website for transportation usage measures was updated with the data for the last 12 months. These data include transit ridership, vanpools, and gasoline consumption, among others. Transportation data associated with the impacts of COVID-19 continued to be made available during Regional Transportation Council and Surface Transportation Technical Committee meetings, as well as a Dashboard on the website for public access.

Transportation Planning Funds were used to support work activities. Work will continue in FY2024.

Technical Assistance and Services

Transportation Planning Funds

Throughout FY2022 and FY2023, NCTCOG staff will provide technical assistance, services, and training to other program areas in the Transportation Department on latest data sets and interfaces. Anticipated products include:

- Databases of transportation planning data;
- Investigation and identification of new sources of transportation data and analysis tools;
- Analyses, reports, maps, and charts; and
- Training sessions.

Work Performed and Status: NCTCOG staff continued to summarize traffic counts and travel time data to address several requests. In the specific case of the travel time data, it was used to create heat charts that were used to illustrate levels of congestion, by day and time of day, on corridors, and specific freeway segments. Data related to traffic, speeds, transit, bike/pedestrians, toll facilities, and airport passengers, among others, were summarized to illustrate the impact of the stay-at-home measures implemented due to the COVID-19 pandemic. Seasonal factors for Air Quality were calculated. Origin-Destination data from INRIX, Streetlight, and LOCUS was analyzed. New databases for travel demand surveys and employers were created. A review of the latest transportation datasets and interfaces was carried out, with emphasis on those associated to connected vehicle probe-data.

Transportation Planning Funds were used to support work activities. Work will continue in FY2024.

Connected Vehicle Data in Transportation Planning

Transportation Planning Funds

Connected vehicle data has been made available recently by several companies for its use in transportation planning and traffic engineering. The data delivered by these companies provide important spatial-temporal characteristics of a significant sample of the vehicles that travel in the NCTCOG area. As part of this element, the following potential uses of connected vehicle data will be explored: validation of radar traffic counters and the development of an innovative framework for travel demand forecasting. For this effort, university assistance through the University Partnership Program (UPP) will be utilized. Anticipated products include:

- Analysis reports, trip matrices, traffic profiles, and the corresponding computer codes.

Work Performed and Status: This project concluded in FY2022.

2.03 Demographic Data and Forecasts

This subtask focuses on creating data products and models related to land use and demographic data in the region. These products will be used for planning and transportation projects. The subtask is closely associated with Subtask 2.01 for compatibility of data. The activities related to this subtask are grouped into inventory of land use and demographic data, improvement and maintenance of a regional land use and demographic model, development of a regional demographic forecast, improvement and maintenance of a large employer geographic database, and development of auxiliary geographic databases. Data acquisition and purchases may be needed for this subtask.

Inventory of Land Use and Demographic Data

Transportation Planning Funds

An inventory of land-use and demographic data will be created through communications with local agencies and government entities. Various datasets, including up-to-date city boundaries, land inventory, Census 2020 and American Community Survey databases, and sub-county area employment estimates will be compiled. Technical support regarding access and use of the data will be provided. Ongoing throughout FY2022 and FY2023, anticipated products include:

- Geographic Information System Layer of updated city boundaries annually for FY2021 and FY2022;
- An information system of the inventory of land-use data based on uses such as residential, commercial, and industrial with a reference year of 2020;
- Processed subsets of decennial US 2020 Census data and American Community Survey data;
- Standardization of small area estimates of population and jobs by industry sector for subcounty areas, including 2020 Census tracts and block groups or updated transportation analysis zones; and
- Technical assistance in response to a variety of inquiries by phone or email.

Work Performed and Status: Development of the updated city boundaries layer, maintenance of 2020 land-use inventory, continued dissemination of 2020 Census data and associated support, development of small area employment estimates, and provision of responses to various requests for assistance were carried out by staff. Development of small area household and population estimates are in progress.

Transportation Planning Funds were used to support work activities. Work will continue in FY2024.

Improvement and Maintenance of a Regional Land Use and Demographic Model

Transportation Planning Funds

Efforts will continue on the improvement and maintenance of the current regional land use and demographic forecast model. Activities include compilation of various data sources into estimation datasets, and improvement of the calibration of the forecasting model. The regional land-use and demographic model forecasts will be used by the Regional Travel Model, as well as local transportation projects. Activities will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Model improvement progress reports;
- Validation results; and
- An updated set of programs and procedures for demographic forecasting.

Work Performed and Status: Initial refinements for the demographic model were identified and implemented; early validation results were presented to the Technical Workgroup. Finalization of the model improvements and associated results and reports is in progress.

Transportation Planning Funds were used to support work activities. Work will continue in FY2024.

Development of Regional Demographic Forecasts

Transportation Planning Funds

Regional demographic forecasts will be developed in consultation and coordination with local government agencies. Attention will be placed on the evaluation of possible methodologies for the demographic forecasting process. Specific demographic datasets may be generated for various projects. This effort will support the regional demographic model. Activities will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Forecasts of population, households, and employment for sub-county geographies such as transportation analysis zones;
- Downloadable forecast data for identified plan years; and
- Documentation providing general understanding of the forecasting process and specific descriptions of available forecast data.

Work Performed and Status: Support of the 2045 Demographic Forecast, including maintenance of downloadable data and associated documentation continued. Development of

regional demographic forecasts for 2050 has begun and will supersede the 2045 forecasts. Activities include model refinement, analysis and development of regional control totals, and the generation of input data.

Transportation Planning Funds were used to support work activities. Work is ongoing and will continue in FY2024.

Improvement and Maintenance of a Large Employer Geographic Database

Transportation Planning Funds

This element includes improvement and maintenance of a large employer geographic database. Large employers are defined based on number of employees and development size. This database will enhance quality control in local transportation projects and studies. When purchasing or evaluating new data sources, this database may also serve as a useful benchmark. Activities will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Information system of the large employers, including specific location, type of activity, and number of employees on site.

Work Performed and Status: The major employers' database, containing over 6,600 records, was updated on a continuous basis. In FY2023, 490 new records were created, and 2,425 records were updated.

Transportation Planning Funds were used to support work activities. Work is ongoing and will continue in FY2024.

Development of Auxiliary Geographical Databases

Transportation Planning Funds

This element involves creation of auxiliary geographic databases, including, but not limited to, inventories of pertinent features and development (schools, hospitals, offices, cemeteries, shopping malls, etc.) and major employers. Purchase or acquisition of datasets may be needed for this task. These databases are planned to be used in the Regional Travel Demand Model and will also be used in local transportation projects. Activities will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Databases of requested auxiliary datasets.

Work Performed and Status: Tracking of various significant features and developments is a continuous effort. In FY2023, school and apartment databases were reviewed and updated categorically; updates to features, developments, and employers received from local governments were also incorporated.

Transportation Planning Funds were used to support work activities. Work will continue in FY2024.

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III. Task 3 – Short-Range Planning and Programming, and Air Quality and Transit Operations

The continued growth in population and employment in the Dallas-Fort Worth metropolitan area and the resultant travel demand, coupled with the challenges facing the region with regard to air quality, requires the Metropolitan Planning Organization planning and programming process be both comprehensive and proactive in addressing the region's mobility and air quality needs. Close coordination with the Texas Department of Transportation, local governments, and transportation authorities to identify, evaluate, select, and prioritize those transportation projects to be included in the Transportation Improvement Program is a key function of this work program element. The companion effort of performing Air Quality Conformity analyses in order to ensure new project and programs being proposed for the region will have a positive impact on the region's air quality is a required and vital step toward implementation of these improvements. Programs addressing the demand for mobility, the transportation supply, and the importance of new technology are included as part of a coordinated and comprehensive planning approach to the region's air quality problem. In addition, this task recognizes the importance of continued support for planning associated with improving the expanding public transportation in the Dallas-Fort Worth area. Implementation activities aimed at helping the region reach attainment of the ozone standards and enhance transit service in the region are also included.

3.01 Transportation Project Programming

The Dallas-Fort Worth Metropolitan Planning Organization (MPO) coordinates with the Texas Department of Transportation (TxDOT), transit providers, local governments, and other transportation partners to prioritize and select projects for inclusion in the Transportation Improvement Program (TIP). The Regional Transportation Council (RTC) and North Central Texas Council of Governments (NCTCOG) continue to monitor and implement projects in the TIP.

Transportation Improvement Program

Transportation Planning Funds

The Transportation Improvement Program (TIP) is a staged, multiyear program of projects approved for funding by federal, State, and local sources within the Dallas-Fort Worth area. Before transportation projects are selected and listed in the TIP, they are evaluated to ensure consistency with the current Metropolitan Transportation Plan and Air Quality Conformity determination. These steps ensure that projects improve regional safety and mobility without detrimentally impacting air quality within the Dallas-Fort Worth area. In addition, the TIP has been analyzed to ensure that project listings are fiscally constrained to available resources, meaning that projects can only be included if federal, State, local, or other funds are available to cover project costs. Every two years a new TIP document is developed to which updates are made on a quarterly basis.

As funds are made available, the Regional Transportation Council issues funding initiatives or calls for projects to local governments and transportation agencies. It is anticipated that new projects will be selected in the FY2022 and FY2023 timeframe using federal, State, and local funding. As new funding sources or additional allocations arise, appropriate project processes will be initiated. In addition, coordination will continue with the Texas Department of Transportation

on the update of the region's 10-Year Plan and inclusion of projects into the Unified Transportation Program.

MPO staff will also provide general assistance to implementing agencies, elected officials, and the public regarding funded transportation projects, including the development and implementation of transportation solutions. In addition, projects will be tracked and monitored to ensure timely completion. Anticipated products in FY2022 and FY2023 include:

- A financially constrained 2023-2026 TIP document in FY2022;
- Quarterly TIP modifications in alignment with the Statewide Transportation Improvement (STIP) revision cycles;
- Calls for Projects and funding initiatives as funding becomes available; and
- A report to the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), and TxDOT that details the obligation of federal funds to individual projects at the end of each calendar year.

Work Performed and Status: The Regional Transportation Council approved \$280 million in funding through various project selections in FY2023. An update to the regional 10-Year Plan that included new projects and revisions to existing projects was also approved by the RTC after coordination between NCTCOG and TxDOT staff. To date, \$15.57 billion of projects have been funded through the region's 10-Year Plan. The FY2022 Annual Project Listing was initiated, and coordination between NCTCOG and TxDOT is ongoing. In addition, 425 modifications to the 2023-2026 TIP were completed through quarterly revision cycles, including 313 modifications that required Federal Highway Administration or Federal Transit Administration approval.

Transportation Planning Funds were used to support work activities. This project is ongoing, and work will continue in FY2024.

Regional Project Tracking, Monitoring, Assessment, and Software Development Project

Other Funding Sources

A series of improvements to the transportation project information system (TIP database) will continue. The goal of this project is to enable the tracking of projects by individual phase, including the cost, funding, start date, and completion date of each project phase. This project was originally created in response to the federally mandated year of expenditure/total project cost requirements, as well as the increased complexity involved with funding, tracking, and monitoring transportation projects. Expansion of this data management system will reduce administrative project review time and increase the availability of timely project information. This project is funded with Surface Transportation Block Grant Program funds and Transportation Development Credits. Anticipated products include work on the interactive, web-based interfaces noted below:

- Deployment of additional enhancements to the TIP modification editing interface expected in FY2022 and FY2023; and
- Deployment of updates to existing modules and additional modules in FY2022 and FY2023, including TIP development, project status tracking, additional Geographic Information Systems (GIS) mapping tools, and obligations tracking.

Work Performed and Status: Release 1.0 of the TIP Development module for internal users was deployed to assist with performing data entry, obtaining Metropolitan Transportation Plan (MTP) and Air Quality (AQ) staff concurrence, producing financial constraint and project listing reports, and generating the spreadsheet required for upload into the TxDOT eSTIP Portal. In addition, development of new Geographic Information Systems (GIS) mapping tools was initiated. Over the course of FY2023, 102 enhancements and updates were made to the TIP Development, TIP Modification Editing, Invoicing, and Reports modules. Discussions were held to plan the new Federal Highway Administration (FHWA) concurrence module, as well as project status and obligations tracking.

Surface Transportation Block Grant Program funds (CSJs 0902-00-240 and 0902-00-241), Regional Toll Revenue funds (CSJ 0918-00-285), and Transportation Development Credits were utilized to support work activities. This project is ongoing, and work will continue in FY2024.

Regional Toll Revenue Fund Management and Project Tracking Implementation

Other Funding Sources

Since 2007, MPO staff have tracked Regional Toll Revenue funds and projects, and efforts to monitor selected projects will continue. Regional Toll Revenue (RTR) funds will continue to support these activities. Anticipated products in FY2022 and FY2023 include:

- An up-to-date RTR-funded project list and account balances;
- Coordination with TxDOT and the NCTCOG Administration Department on RTR fund and expenditure discrepancies;
- Tracking the status of environmental clearance for RTR-funded projects;
- Quarterly submission of RTR project changes to TxDOT for inclusion in the Texas
- Transportation Commission (TTC) Minute Order for authorization;
- Communication with local agencies to provide close-out information for completed RTR-funded projects;
- Updated inventory of project before-and-after pictures; and
- Tutorial videos for using the Revenue and Project Tracking System (RAPTS).

Work Performed and Status: Projects selected with RTR funds continue to be tracked and progress noted. County RTR balances were analyzed, and adjustments were made to modify account balances as needed. Changes to projects funded with RTR requiring TTC approval were submitted after each TIP modification cycle to be included in the minute order. Efforts continued to close out completed projects. The current project before-and-after pictures have been inventoried. A tutorial video is still in development.

Regional Toll Revenue funds (CSJ 0918-00-285) were used to support work activities. This project is ongoing, and work will continue in FY2024.

3.02 Regional Air Quality Planning

Since 1991, the North Central Texas region has been in nonattainment for the National Ambient Air Quality Standard (NAAQS) for ozone. As a result of this designation, federal and State procedures are required in order for projects identified in multimodal transportation plans to

proceed to implementation. In response, a variety of air quality planning occurs to ensure these requirements are met.

Air Quality Planning

Transportation Planning Funds

The Dallas-Fort Worth State Implementation Plan (SIP) is a legal and federally enforceable plan mandated by the Clean Air Act (CAA). This plan identifies how nonattainment areas will reduce emissions from stationary, area, and mobile sources to demonstrate attainment and/or maintenance of air quality standards. In nonattainment areas, the CAA mandates federally funded and regionally significant transportation activities must conform to the SIP. Under this requirement, the Regional Transportation Council, the transportation policy body for the Metropolitan Planning Organization, is required to make an initial local-level transportation conformity determination on the Metropolitan Transportation Plan (MTP) and Transportation Improvement Program (TIP) before submitting recommendations to the US Department of Transportation for independent review and a final federal-level conformity determination. The conformity determination is a method to ensure federal funding and federal approval is given to transportation projects, programs, and policies consistent with regional air quality goals. In addition, many other transportation planning efforts occur throughout the year that ensure successful conformity determinations. Anticipated products in FY2022 and FY2023 include:

- Development, analysis, and monitoring of elements contained in and required of the SIP, as necessary, to meet air quality requirements;
- Assistance with addressing specific data and technical requests;
- Tracking and responding accordingly to statewide and national rules and guidance affecting the nonattainment area and surrounding counties such as the 8-hour NAAQS for ozone and other primary or secondary pollutants;
- Monitoring during ozone season and end-of-year summary of pollutant levels at monitoring stations located throughout the region;
- A successful regional Air Quality Conformity analysis incorporating new or updated projects proposed for inclusion in the MTP and TIP;
- Monitoring of the timely implementation of Transportation Control Measures;
- Monitoring, collection, and update of Mobile Source Emission Reduction Strategies commitments for annual reporting requirements of emission reductions projects;
- Guidance, rules, and proposals that incorporate NCTCOG direction/expertise and/or experience related to NAAQS and mobile source issues;
- Evaluation of technical models used in regional air quality planning, with feedback to agency developing the model(s) and, as appropriate, creation of in-house applications to successfully run models;
- Presentations for workshops, technical committees, student chapters, and training sessions; and
- Update of the NCTCOG website with latest air quality information.

Work Performed and Status: During FY2023, planning continued as the region was reclassified under two ozone National Ambient Air Quality Standards (NAAQS). This included coordination with the Environmental Protection Agency (EPA) and the Texas Commission on Environmental Quality (TCEQ) to understand upcoming requirements and regulatory guidelines. Ongoing review

of the Federal Register and the TCEQ's Rules, Proposals, and Adoptions was conducted. A successful Transportation Conformity determination was received from the United States Department of Transportation for Mobility 2045: The Metropolitan Transportation Plan for North Central Texas – 2022 Update and associated Transportation Improvement Program for North Central Texas.

Updates to the Mobile Source Emission Reduction Strategies (MoSERS) commitments of Congestion Mitigation and Air Quality Improvement Program (CMAQ)-funded projects continued as needed, based on project parameter updates, for inclusion in Transportation Improvement Program reporting and the annual CMAQ report. Staff completed and submitted the 2022 annual CMAQ report to the Texas Department of Transportation. Review was conducted to ensure CMAQ emissions reductions for performance measure targets were met for FY2022 (see UPWP Subtask 4.04 for more information on performance measures).

Assistance was provided to support statewide and national efforts, including the Association of Metropolitan Planning Organizations Air Quality Work Group, the Transportation Research Board's Transportation and Air Quality Committee, the MOVES Review Work Group, the Coordinating Research Council, the statewide Technical Working Group for Mobile Source Modeling, and the Advisory Council of the Texas Air Quality Research Program.

The NCTCOG air quality website was continuously updated with relevant information, including information on the SIP, Transportation Conformity, and the Environmental Protection Agency's 2008 and 2015 NAAQS for ozone. During ozone season, daily updates were made to allow public awareness to real-time ozone levels and trends. Tracking the relationship and impacts of COVID-19 on air quality also continued.

Transportation Planning Funds were used to support work activities. This project is ongoing and will continue in FY2024.

Regional Greenhouse Gas Emissions Inventory Program

Transportation Planning Funds

Regional greenhouse gas (GHG) emissions inventories provide regions an opportunity to understand GHG origins and magnitudes. This allows sound decision making to better manage emission levels through regional GHG emissions goals; enable cities who have their own inventories to compare themselves against a regional inventory; and provide a framework upon which to evaluate, analyze, and prioritize GHG reduction actions. Work is continuing on the emissions inventory initiated in FY2021 by NCTCOG staff to understand sources and sectors contributing to regional GHG emissions and begin development of a GHG emissions reduction strategy catalog. Staff will continue identifying primary sectors that contribute to GHG emissions at the regional level by analyzing model output results, and evaluating, selecting, and prioritizing emissions reduction measures appropriate for cities and other local governments toward creation of the catalog. Anticipated products in FY2022 and FY2023 include:

- Regional Greenhouse Gas emissions inventory;
- Report of quality assurance/control of results; and
- Regional greenhouse gas emissions reduction strategy catalog.

Work Performed and Status: The regional GHG emissions inventory for the Metropolitan Planning Area was completed. Staff continued to partner with interested cities in the development of citywide GHG emissions inventories.

Transportation Planning Funds were used to support work activities. This project is ongoing, and work will continue in FY2024.

Emission Inventories and Technical Studies

Other Funding Sources

Emission inventories estimate emission amounts from specific sources within a specified area and time interval. Transportation emission budgets used in transportation conformities are developed based upon emission inventories used in development of the State Implementation Plan (SIP) and the impact of control measures included within that SIP. Emissions are greatly impacted by regionally specific data, so updated regional inventories analysis is necessary to better predict future-case emission impacts from control strategies, vehicle miles traveled, vehicle activity from outside the nonattainment area, and evaporative emissions. This work element will be supported through Texas Commission on Environmental Quality funds and is ongoing throughout FY2022 and FY2023. Anticipated products include:

- A variety of emission inventories for federal, state, or local requirements; and
- Mobile source technical analysis performed to enhance state of the practice.

Work Performed and Status: During FY2023, no on-road emissions inventories were required from the Texas Commission on Environmental Quality.

This project is ongoing, and work will continue in FY2024.

Rider 7 Air Quality Planning Activities

Other Funding Sources

NCTCOG received funding from the Texas Commission on Environmental Quality (TCEQ) to carry out eligible air quality planning activities under Rider 7 of the TCEQ's legislative appropriation. Activities will include assessment of fleet vehicle emissions and monitoring of air quality using mobile sensing equipment in Hood and Hunt counties. University assistance will be used. Work will begin in FY2022 and be ongoing throughout FY2023. Anticipated products include:

- Quantification of emissions reductions that could be achieved through fleet vehicle replacement activities;
- Mobile source technical analysis to enhance state-of-the-practice; and
- Final report with results.

Work Performed and Status: Under Rider 7 funding, work continued on two projects in Hood and Hunt counties: fleet emissions inventories and ambient monitoring. Coordination and planning with the Texas Commission on Environmental Quality continued for the development of

Statements of Work and Quality Assurance/Control project plans. Scopes for each of the projects were completed and inserted into contracts that were executed.

Texas Commission on Environmental Quality funds were used to support work activities. This project is ongoing, and work will continue in FY2024.

3.03 Air Quality Management and Operations

The purpose of this subtask is to identify, design, implement, and promote voluntary local strategies to reduce transportation-related emissions, energy, and air quality impacts. Emphasis is placed on achieving reductions in ozone precursor emissions to achieve compliance with federal ozone standards, but work includes efforts to comprehensively reduce emissions of other air pollutants. In all areas, NCTCOG works collaboratively with local governments, peer organizations, State and federal agencies, and other stakeholders to advance emission-reducing activities. NCTCOG also carries out responsibilities as the Department of Energy (DOE)-designated Dallas-Fort Worth Clean Cities Coalition and as an Affiliate of the Environmental Protection Agency (EPA) SmartWay Transport Program.

Air Quality Initiatives: Fleets, Consumers, and Communities

Other Funding Sources

The transportation sector contributes nearly half of all ozone-forming pollution in the Dallas-Fort Worth ozone nonattainment area. Thus, NCTCOG works to reduce emissions from the transportation sector by facilitating projects that reduce emissions from vehicles, equipment, and related sources. Efforts include encouraging retirement of older, higher-polluting vehicles and equipment, adoption of cleanest available technologies that include zero-emission vehicles, and operational/behavioral strategies that ensure vehicles are operated in an efficient manner with minimized emissions (e.g., idle reduction). To reach the full spectrum of the transportation sector, efforts target all end-users – that is, both fleets and consumers. In addition, NCTCOG works toward “community readiness” by collaborating with local governments, workplaces, and others to help ensure regulatory frameworks and other factors create conditions that are supportive for end-users to adopt cleaner technologies. Work includes consideration of the Justice40 initiative. This work element will be supported through Surface Transportation Block Grant Program funds and Transportation Development Credits and will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Funding support, technical assistance, and outreach and education to facilitate emissions-reducing projects among local vehicle fleets, including use of alternative fuel vehicles, idle reduction, and other emissions-reducing measures;
- Technical assistance, outreach and education, and encouraging use of financial incentives to support emissions-reducing activities among consumers, including adoption of clean vehicle technologies (e.g., electric vehicles [EVs]), proper maintenance, and vehicle operation strategies that reduce emissions (e.g., idle reduction);
- Technical support, funding assistance, and outreach and education to support community readiness efforts by local governments, workplaces, and others who wish to facilitate adoption of emissions-reducing technologies and initiatives;

- Work associated with serving as the Dallas-Fort Worth Clean Cities Coalition; and
- Support for local government peer exchange on comprehensive air quality issues through the Regional Integration of Sustainability Efforts (RISE) Coalition, Air Quality Health Monitoring Task Force, and other avenues.

Work Performed and Status: Staff informed local fleets of available grant programs, including opportunities under the Texas Emissions Reduction Program, the Texas Volkswagen Environmental Mitigation Program, the Environmental Protection Agency Clean School Bus Rebate, the Federal Transit Administration's Low or No Buses Program, and enhanced tax credits under the Inflation Reduction Act. Outreach was completed through weekly email blasts, as well as targeted follow-ups based on prior interest. Fleet analysis was completed for several fleets, including recommendations of specific vehicle transition opportunities and associated grant programs. Staff developed and administered a Call for Partners to award rebates to private fleet and public sector entities for heavy-duty diesel vehicle and equipment replacements to be included in a proposal to the Environmental Protection Agency's 2023 Diesel Emissions Reduction Act funding opportunity. Two calls for projects (CFPs) were administered, and implementation continued for awardees relating to emissions-reducing projects: the North Texas Freight Terminal Electrification 2020 CFPs and the North Texas Clean Diesel Project 2021 CFPs. Across these initiatives, a total of six heavy-duty diesel vehicle replacements were awarded. Implementation of projects awarded in previous fiscal years continued, including reimbursement of three heavy-duty vehicles and equipment replacements. Staff performed three site visits and monitored subrecipients to ensure grant requirements were met. Competitive grant proposals were submitted to bring additional financial resources for project implementation to the region. This included the submittal of two proposals to the Federal Highway Administration Charging and Fueling Infrastructure Program and one to the Joint Office of Energy and Transportation Ride and Drive Electric Funding Opportunity Announcement. In addition, clean vehicle/alternative fuel project elements were incorporated into nine grant proposals submitted by other teams or organizations, four of which were awarded by the end of fiscal year 2023.

NCTCOG provided presentations regarding air quality and vehicle technologies (especially EV technology) at events held throughout the region. Data on local fleet activities was compiled through an annual survey and 25 fleets were recognized for their emissions-reducing and alternative fuel vehicle efforts through the Dallas-Fort Worth Clean Cities Fleet Recognition Program. Staff supported local events that offered local stakeholders first-hand opportunities, including a local National Drive Electric Week event, a Fleet Forward event, a FleetPros meeting, three electric school bus ride and drive events, a meeting on Resiliency Strategies for EV Infrastructure, a tour at Dallas Fort Worth International Airport, and an Oncor meeting series for fleet electrification projects. Further engagement with fleets and commercial freight stakeholders continued through the Saving Money and Reducing Truck Emissions Program by hosting eight webinars, transmitting 20 online newsletters, and promoting the EPA SmartWay Transport Program and EPA Verified Technologies. NCTCOG continued to encourage local governments to adopt Locally Enforced Idling Restrictions through the revised Regional Transportation Council Resolution 21-06, Resolution Supporting Locally Enforced Motor Vehicle Idling Restrictions in North Central Texas. Idle reduction best practices and consumer-related educational materials continued to be maintained on the Engine Off North Texas website. Regional Smoking Vehicle Program (RSVP) and car care awareness were used to inform the public how consumer behaviors impact vehicle emissions. 1,835 vehicles were reported through RSVP with 1,111 notification letters mailed. NCTCOG coordinated and participated in four car care events. Two Fix My Ride events were coordinated with a local nonprofit to help educate the public on proper vehicle

maintenance. Staff provided hands-on vehicle maintenance demonstrations, and distributed emergency roadside kits and other programmatic education materials.

Planning support for EV infrastructure continued, including collaboration with TxDOT on the Texas EV Charging Plan and a series of monthly peer exchange meetings focused on EV infrastructure development. Staff continued to share resources on EV-ready construction or parking standards. Websites were maintained and updated as needed, including www.nctcog.org/fleetpolicy and www.dfwcleancities.org.

Staff continued support to partnering local government law enforcement agencies through the Regional Emissions Enforcement Program, including the facilitation of one task force meeting. Staff attended two commercial vehicle enforcement events in Midlothian and Cedar Hill, Texas, to observe vehicle roadside enforcements and survey vehicle operators. Three stakeholder meetings were held to discuss evolving technology to improve the needs of state vehicle inspection programs for consumer vehicles.

Activities of the Dallas-Fort Worth Clean Cities Coalition continued. Weekly email blasts and updates to the website at www.dfwcleancities.org ensured consistent stakeholder communications, along with frequent one-on-one outreach and stakeholder follow-ups. Staff continued to participate in quarterly Regional Integration of Sustainability Efforts (RISE) Coalition meetings, bringing information related to clean or sustainable transportation strategies.

Surface Transportation Block Grant Program funds (CSJs 0918-00-317 and 0918-00-318) and Transportation Development Credits were used to support work activities. North Central Texas Council of Governments local funds were utilized to cover a small cost overrun on this initiative. This project is ongoing and will continue in FY2024.

Clean Fleet Technologies Program

Other Funding Sources

Emissions reductions can be achieved through use of clean vehicle technologies, including alternative fuel vehicles, new low-emitting conventional vehicles that replace older vehicles that are scrapped, and use of technologies that support idle-reduction efforts and other efficiencies. NCTCOG sometimes provides direct funding assistance when eligible technologies are available. NCTCOG also facilitates completion of emissions-reducing projects in the Dallas-Fort Worth area by promoting incentives available from other agencies and providing technical assistance or other application support. This work element will be supported through Congestion Mitigation and Air Quality Improvement Program funds and Transportation Development Credits and will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Planning efforts to develop funding initiatives for clean vehicle technologies;
- Administration of a Call for Projects to fund electric vehicle charging stations, which will consider the Justice40 initiative in project selection;
- Implementation and monitoring of funded technology projects; and
- Promotion of financial incentives for clean vehicle technologies and technical support to prospective applicants.

Work Performed and Status: Staff oversaw implementation and completed reimbursement of 14 electric vehicle charging station installations. Also, five site visits were performed and subrecipients were monitored to ensure grant requirements were met.

Congestion Mitigation and Air Quality Improvement Program funds (CSJ 0918-00-254) and Transportation Development Credits were used to support work activities. This project was completed in FY2023.

Alternative Fuels Corridor Study: IH 45 Corridor

Other Funding Sources

NCTCOG will develop a plan for deployment of infrastructure that supports the use of zero-emission vehicles (ZEV) along Interstate 45, with emphasis on supporting the transition of medium- and heavy-duty vehicles used in goods movement. The scope of the plan will include both EV charging and hydrogen fueling infrastructure to support both battery electric and hydrogen fuel cell electric vehicles. Development of the plan will include collaboration with stakeholders representing various industry perspectives (i.e., fuel providers, fleets, and utilities), State and federal agencies, and the Houston-Galveston Area Council. This work element will be supported through Federal Highway Administration funds and Regional Transportation Council Local funds. This element is ongoing throughout FY2022. Anticipated products include:

- Stakeholder lists and meetings;
- Case studies;
- A Zero Emissions Vehicle Infrastructure Deployment Plan; and
- A workshop showcasing plan elements and available vehicle technologies.

Work Performed and Status: This work was completed in FY2022.

Dallas-Fort Worth Clean Cities

Other Funding Sources

Since 1995, NCTCOG has been designated by the US Department of Energy (DOE) as the host agency for the Dallas-Fort Worth Clean Cities Coalition (DFWCC). DFWCC is part of a national network of local coalitions supported by national laboratories and the DOE. Through DFWCC, staff work to improve transportation efficiency and reduce emissions by increasing use of alternative fuels, idle reduction, fuel economy improvements, and other measures that conserve energy or reduce emissions. The coalition includes collaboration with a range of stakeholders, including fleets, consumer groups, industry representatives, local governments, utilities, and others. Work also includes consideration of the Justice40 initiative. This work element will be supported through funds provided by the Department of Energy and private funding sources. University assistance may be used. This element is ongoing throughout FY2022 and FY2023. Anticipated products include:

- Participation in calls, conferences, and other coordination with DOE, national laboratory staff, and other coalitions;

- Planning assistance for alternative fuel infrastructure, both within the NCTCOG region and along highway corridors connecting North Texas to other areas;
- Meetings, workshops, events, or tours that feature alternative fuels or other clean vehicle technologies to raise awareness and understanding among consumers and fleets;
- Technical assistance and coaching to fleets with regard to use of alternative fuels and other advanced vehicle technologies;
- Training for first responders, fleet managers, local government staff, and others about alternative fuel vehicle technologies and associated infrastructure; and
- Submittal of reports to DOE and national laboratory staff.

Work Performed and Status: Data about fleet accomplishments related to alternative fuel and fuel efficiency efforts throughout calendar year 2022 were collected, compiled, and submitted to the Department of Energy. Staff coordinated a peer exchange webinar with other Coalitions about the use of Customer Relationship Management software and facilitated the launch of an EV fleet engagement initiative by a local utility. Participation in the Corridor Council, working across State lines on alternative fuel highway infrastructure issues, continued, along with collaboration with the Texas Department of Transportation to support implementation of the Texas EV Infrastructure Plan. A variety of events were held to educate consumers and fleets about alternative fuels and infrastructure topics. Staff coordinated nominations, selection, and development of guiding principles for the Dallas-Fort Worth Clean Cities Technical Advisory Committee, which held its first meeting on September 26, 2023. Weekly email blasts and updates to the website at www.dfwcleancities.org ensured consistent stakeholder communications, along with frequent one-on-one outreach and stakeholder follow-ups. Preliminary work to develop a strategic plan was undertaken. Staff submitted reports and attended meetings as requested by the Department of Energy and national laboratory staff.

Department of Energy funds and local funds were used to support work activities. This work is ongoing and will continue in FY2024.

Electric Vehicle Widescale Analysis for Tomorrow's Transportation Solutions (EV-WATTS)

Other Funding Sources

In its role as the host agency of DFWCC, NCTCOG is a partner in this project to collect current, relevant, real-world data regarding use and operation of EVs and EV charging stations. Both fleets and individual drivers will be recruited to provide data, which will be anonymized as part of a nationwide project. This work element will be supported through funds provided by the Department of Energy and local funding sources and will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Participation in calls and webinars with the project team;
- Recruitment of fleets and individual EV drivers to participate in the project; and
- Distribution of project reports.

Work Performed and Status: Staff continued to liaise between local stakeholders and the coordinator of the national study on electric vehicles (EV) and EV charging station use to ensure that regional data is reflected in the findings. Additional information is available at <https://www.energetics.com/@/evwatts-vehicle-dashboard>.

Local funds were used to support work activities. This project concluded in FY2023.

Natural Gas Vehicle Updated Performance Tracking Integrating Maintenance Expenses (NGV UP-TIME) Study

Other Funding Sources

In its role as the host agency of DFWCC, NCTCOG is a partner with Clean Fuels Ohio to recruit local freight and goods movement fleets to participate and provide repair and maintenance data for an analysis project, Natural Gas Vehicle (NGV) Updated Performance Tracking Integrating Maintenance Expenses (UP-TIME). This project will provide fleets and natural gas vehicle industry stakeholders relevant, real-world information about NGV maintenance costs. The project will help improve total cost of ownership calculations and determine the maintenance cost differences between NGV technology generations and current advanced clean diesel engines. This work element will be supported through funds provided by the Department of Energy and local funding sources and will be ongoing throughout FY2022. Anticipated products include:

- Participation in calls and webinars;
- Recruitment of fleets and drivers to participate in the project; and
- Distribution of project reports.

Work Performed and Status: DFWCC staff assisted Clean Fuels Ohio with distributing the NGV UP-TIME Analysis final report to local regional fleets. Final report and results are found at <https://cleanfuelsohio.org/deo/ngv-uptime-project-page/>. Staff updated program spreadsheets and maintained related documents. Final tasks were concluded by DFWCC staff.

Department of Energy and local funds were used to support work activities. This project concluded in FY2023.

Regional Energy Management

Other Funding Sources

In collaboration with the NCTCOG Environment and Development Department, and funded through the State Energy Conservation Office (SECO), NCTCOG Transportation Department staff have launched efforts to increase the capacity and resources of local governments with regard to energy management, including energy efficiency, energy conservation, and use of renewable energy. Reduction in energy consumption helps improve air quality by reducing emissions associated with energy generation, or at least mitigating increased demand associated with population and economic growth. As EV adoption grows and the transportation system and energy grid become more integrated, this work will grow in importance. This work element will be supported through funds provided by the Department of Energy and Regional Transportation Council Local funds and will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Technical support, outreach, and education to local governments with regard to energy management, renewable energy, energy efficiency, and energy diversification/redundancy for emergency response;

- Engagement with local governments and SECO with regard to required annual energy reporting;
- Maintenance of websites at www.gosolartexas.org and www.conservenorthtexas.org;
- Engagement with utilities; and
- Submittal of reports to SECO.

Work Performed and Status: During FY2023, staff distributed a survey to identify priority energy management topics, hosted seven workshops/roundtables in response to identified priorities, and created a white paper to provide a template outline for assisting local governments in drafting energy plans. Participation from local governments representing Justice40 communities was documented to support achievement of the Justice40 objectives. Staff also conducted outreach and technical assistance for local governments' completion of reporting required under Texas Health and Safety Code Section §388.005(c).

Department of Energy funds (through the State Energy Conservation Office) and Regional Transportation Council Local funds were used to support work activities. This project was completed in FY2023.

Air Quality Initiatives: Energy Efficiency

Other Funding Sources

Certain air quality initiatives cross into sectors outside of transportation. Occasionally, staff efforts are devoted to work associated with the built environment, including renewable energy and energy efficiency efforts, and utility engagement. This is becoming more common with the growth of EVs and the deepening relationship between the transportation sector and energy grid. This work element will be supported through Regional Transportation Council Local funds and will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Technical support, outreach, and education to local governments with regard to energy management, renewable energy, energy efficiency, and energy diversification/redundancy for emergency response;
- Engagement with local governments and the State Energy Conservation Office (SECO) with regard to required annual energy reporting;
- Maintenance of websites at www.gosolartexas.org and www.conservenorthtexas.org;
- Engagement with utilities;
- Evaluation of emissions associated with energy generation; and
- Evaluation of opportunities for on-site renewables at NCTCOG offices.

Work Performed and Status: Work performed under this project is incorporated into the Regional Energy Management project described above.

This project was completed in FY2023.

Clean Diesel Grants: Clean Fleets North Texas

Other Funding Sources

NCTCOG was successful in competing for grant funding from the Environmental Protection Agency (EPA) Diesel Emission Reduction Act (DERA) National Grants Program for two consecutive years to subaward projects for local government fleets to replace older, high-emitting diesel vehicles and equipment. NCTCOG has distributed funding through open, competitive Calls for Projects and continues working with partners to implement awarded projects. This work element will be supported through Environmental Protection Agency funds and local funds provided by subrecipient partners. This element is ongoing throughout FY2022 and FY2023. Anticipated products include:

- Replacement of older, heavy-duty diesel vehicles and equipment, including purchases of new units and scrapping of replaced units;
- Management of subaward implementation, including funding disbursement and oversight and compliance activities; and
- Submittal of reports to EPA.

Work Performed and Status: Staff oversaw implementation of projects previously awarded and completed reimbursement of one diesel vehicle replacement. Quarterly reports were submitted to the Environmental Protection Agency.

Environmental Protection Agency funds and local funds were used to support work activities. This project is ongoing and will continue in FY2024.

EPA DERA 2018: North Texas Freight Terminal Electrification

Other Funding Sources

NCTCOG was awarded grant funding from the Environmental Protection Agency (EPA) Diesel Emission Reduction Act (DERA) National Grants Program to award rebates for idle reduction technology and eligible equipment at freight distribution centers and terminals. The funding is for installation of EPA SmartWay verified electrified parking spaces to reduce idling from transport refrigerated units (TRUs) of heavy-duty diesel trucks and trailers. NCTCOG has opened competitive Calls for Projects and continues to promote and implement awarded funds. This work element will be supported through Environmental Protection Agency funds and local funds provided by subrecipient partners. This element is ongoing throughout FY2022 and FY2023. Anticipated products include:

- Installation of EPA SmartWay verified electrified parking spaces and eligible equipment to reduce diesel engine idling from TRUs;
- Management of rebate implementation, including funding disbursement and oversight and compliance activities; and
- Submittal of reports to EPA.

Work Performed and Status: No expenditures were recorded to this funding award during this fiscal year. This project will end in FY2024.

EPA DERA 2019: North Texas Emissions Reduction Project

Other Funding Sources

NCTCOG was awarded grant funding from the Environmental Protection Agency (EPA) Diesel Emission Reduction Act (DERA) National Grants Program to award rebates for vehicle and equipment replacement, including electrification equipment and rail idle reduction technology. NCTCOG has opened a competitive Call for Projects and continues to promote and implement awarded funds. This work element will be supported through Environmental Protection Agency funds and local funds provided by subrecipient partners. This element is ongoing throughout FY2022 and FY2023. Anticipated products include:

- Replacement of older, heavy-duty diesel vehicles and equipment, including purchases of new units and scrapping of replaced units;
- Installation of rail idle-reduction technologies;
- Management of rebate implementation, including funding disbursement and oversight and compliance activities; and
- Submittal of reports to EPA.

Work Performed and Status: NCTCOG completed administrative tasks associated with internal meetings and answered rebate recipient questions. One rebate recipient took delivery of their new vehicle while NCTCOG processed their reimbursement requests. NCTCOG performed one rebate recipient site visit to witness and document vehicle and equipment destruction as required by the grant. Staff collected and reviewed monthly progress reports from the rebate recipients with executed agreements. Quarterly reports were submitted to EPA.

Environmental Protection Agency funds were used to support work activities. This project is ongoing, and work will continue in FY2024.

EPA DERA 2020: North Texas Clean Diesel Project

Other Funding Sources

NCTCOG was awarded grant funding from the Environmental Protection Agency (EPA) Diesel Emission Reduction Act (DERA) National Grants Program to award rebates for replacing diesel vehicles, equipment, or engines; installing electric recharging infrastructure if necessary; and/or installing idle-reduction technology. NCTCOG works to open a competitive call for projects and continues to promote and implement awarded funds.

This work element will be supported through Environmental Protection Agency funds and local funds provided subrecipient partners. This element is ongoing throughout FY2022 and FY2023. Anticipated products include:

- Replacement of older, heavy-duty diesel vehicles and equipment, including purchases of new units and scrapping of replaced units;
- Installation of idle reduction technologies;
- Management of rebate implementation, including funding disbursement and oversight and compliance activities; and
- Submittal of reports to EPA.

Work Performed and Status: Staff reimbursed one subrecipient for replacement of two heavy-duty diesel vehicles with two new all-electric heavy-duty vehicles and scrapped the retired vehicles. Staff submitted quarterly reports to EPA.

Environmental Protection Agency funds and local funds were used to support work activities. This project is ongoing, and work will continue in FY2024.

North Central Texas Clean School Bus Program

Other Funding Sources

NCTCOG has been approved as a third-party administrator of Supplemental Environmental Project (SEP) funds by the Texas Commission on Environmental Quality (TCEQ). NCTCOG receives SEP contributions when TCEQ enters a settlement with a respondent related to certain enforcement actions. NCTCOG uses SEP funds to support replacement of old, high-polluting school buses with newer, cleaner-burning buses. This work element will be supported through the Texas Commission on Environmental Quality from local or private funding sources as SEP contributions and will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Replacement of old diesel school buses, including purchase of new units and scrappage of replaced units;
- Management of award implementation, including funding disbursement and oversight activities; and
- Submittal of reports to TCEQ.

Work Performed and Status: Staff completed reimbursement for one school bus to Kemp Independent School District (ISD) and oversaw implementation and completion of reimbursement for two school buses for Cedar Hill ISD. Reports were submitted quarterly as required. Administrative activities to close out this program with the TCEQ were completed.

Texas Commission on Environmental Quality funds and local contributions were used to support work activities. Work concluded in FY2023.

University Partnership: Transportation Health Risks

Other Funding Sources

Health impacts associated with pollution from the transportation system are a growing concern for local governments in the NCTCOG region. NCTCOG funded a study through the University Partnership Program to assess what these impacts may be to inform future development of potential control strategies to reduce exposure and impacts. This work element will be supported through Regional Transportation Council Local funds. University assistance will be used. This element is ongoing throughout FY2022. Anticipated products include:

- A report assessing health impacts associated with transportation conducted under the University Partnership Program.

Work Performed and Status: This project was completed in FY2022.

Transportation Low-Emissions Vehicle

Other Funding Sources

The NCTCOG Transportation Department provides a low-emission vehicle for staff use in carrying out NCTCOG business such as attending meetings, site visits, or outreach events, and transporting employees, committee members, and other individuals attending meetings at NCTCOG or other locations. This work element will be supported through Regional Transportation Council Local funds and will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Purchase or lease, operation, and maintenance of low-emission vehicle(s).

Work Performed and Status: One low-emissions vehicle was operated and maintained for staff business use. The vehicle was used for numerous site visits and external meetings, as well as public outreach events.

Regional Transportation Council Local funds were used to support work activities. This project is ongoing, and work will continue in FY2024.

3.04 Public Transportation Planning

This Work Program subtask provides funding to assist local governments and transportation providers with public transportation funding and planning activities that focus on identifying opportunities for increased service in the region, as well as improving the efficiency and effectiveness of current systems.

Trinity Metro Pedestrian Improvement Plan

Transportation Planning Funds

In FY2022 and FY2023, staff will oversee the development of a Pedestrian Improvement Plan for the Trinity Metro service area consistent with the City of Fort Worth's *Transit Moves Fort Worth* plan. The plan will review and identify pedestrian and other active transportation gaps and barriers to transit access along high-frequency (15-minute) routes and near existing transfer centers, park-n-ride lots and rail stations. Considerations will also be reviewed for potential wayfinding signage improvements. Anticipated products include:

- Gaps analysis related to existing pedestrian and active transportation infrastructure;
- Recommended improvements to infrastructure;
- Opinions of probable construction costs; and
- Plan with recommended priorities for implementation.

Work Performed and Status: Staff continued work on a study and development methodology of high-frequency bus routes served by Trinity Metro for pedestrian connections to bus stops. Sidewalk, Americans with Disability Act (ADA) curb ramps, crossings, land use/parcels, and other

data for the Camp Bowie Boulevard and Rosedale Street bus route corridors were updated. Development of draft prioritization process for identifying highest need pedestrian improvements was completed.

Transportation Planning Funds were used to complete project activities. This project is ongoing and will continue in FY2024.

Public Transportation Funding and Administration

Transportation Planning Funds

This planning activity is ongoing throughout both FY2022 and FY2023, supporting the efforts of metropolitan, urban, and rural transit providers in the North Central Texas region. General responsibilities include monitoring transit appropriations, grant activities and funding issues; identifying and monitoring transit-related issues of local, regional, and national interest; and responding to citizen, consultant, State, and federal requests for data, information, or assistance. Additional responsibilities include providing technical assistance to providers by coordinating the dissemination of technical information, federal regulations, and grant requirements. Anticipated products include:

- Planning for financial needs in coordination with local public transit providers; and
- Assistance to transit providers in the development of the annual program of projects and coordination of the programming of funds in an approved Statewide Transportation Improvement Program (STIP).

Work Performed and Status: Staff coordinated with nine transportation providers and two local municipalities in the region to process 20 FY2023 Programs of Projects totaling approximately \$182.1 million in Federal Transit Administration (FTA) Formula Program funds, as well as 2.2 million in Transportation Development Credits. A subrecipient compliance workshop was held for 10 subrecipients to receive training and information on updated federal regulations, updated processes, and financial planning of federal funds. Staff also provided technical assistance to FTA and transit providers with grant submittals and reporting requirements.

Transportation Planning Funds were used to support work activities. This project is ongoing, and work will continue into FY2024.

Regional Public Transportation Coordination

Transportation Planning Funds

This planning activity is ongoing throughout both FY2022 and FY2023, supporting activities that further a coordinated and seamless public transportation system. This activity includes the Access North Texas Plan, which outlines coordination goals, policies, and strategies to move the North Central Texas region toward more coordinated, efficient, and seamless transportation services for disadvantaged communities as expanded by the Justice40 initiative. Other initiatives include analyzing the availability and viability of accessible transportation options for vulnerable rural populations, providing planning assistance to partner agencies as they implement identified strategies and recommendations and gathering data on the implementation of micro-transit and on-demand services to improve transportation planning in the region. Regional coordination

activities will primarily focus on the counties that comprise the Metropolitan Planning Area. Coordination with surrounding areas will be included based on the impact that public transportation connections have within the planning area boundary. University assistance will be utilized. Anticipated products include:

- An adopted update to the Access North Texas Plan;
- Implemented coordination strategies identified in the Access North Texas Plan;
- Developing transit options for the transportation needs of the disadvantaged, including low income, seniors, and individuals with disabilities, to increase opportunities and access to public transportation;
- University Partnership Program report related to the implementation of micro-transit and on demand services;
- University Partnership Program final report assessing the availability and viability of transportation options for vulnerable rural populations especially as it relates to employment, medical care, and recreation access;
- Coordination meetings that engage and ensure disadvantaged populations are included in planning efforts; and
- Support for transit system improvements resulting in seamless regional connectivity.

Work Performed and Status: The 2022 Access North Texas plan was adopted by the Regional Transportation Council and endorsed by the Executive Board in early FY2023. The strategies identified in the 2022 Access North Texas plan continued to shape planning and funding decisions throughout the year. This included working with transit providers and the Cities of Cedar Hill and Duncanville to establish expansion of service in their municipalities, increasing the access and mobility of individuals with disabilities and seniors. It also included working with City of Mansfield staff to develop a new transit service in the city to increase access and mobility for disadvantaged populations and increase access to public transportation.

Support continued for partners through the University Partnership Program to complete the Reimagining Public Transportation for North Central Texas project. This study investigated the differences in mobility, access, economic activity, household health and quality of life, worker productivity, and subsidies between a traditional public transportation model and a primarily micro-transit model. The university team completed a literature review and overview of local programs; collected available data, including NCTCOG Travel Demand Model data; and submitted a report for review. Another team from the University Partnership Program completed the Revisiting Rural Accessibility and Transportation Options project. This study examined current public and private transportation options of rural residents in the region and determined what viable options exist for residents needing to access employment, recreation, and medical facilities. The university team assessed examples of existing service solutions, including partnerships between rideshare companies and transit agencies, and the eligibility and applicability of such partnerships across the region. A report was submitted and both University Partnership Program projects concluded in FY2023.

As requested throughout FY2023, staff provided planning support and technical guidance to partner agencies to increase opportunities and access to public transportation. Efforts included management of an online dashboard aggregating ridership of local providers on a quarterly basis. Staff also conducted coordination meetings with transportation providers, local governments, members of the private sector, and academic representatives as needed.

Transportation Planning Funds were used to support work activities. This project is ongoing, and work will continue in FY2024.

Regional Transit Planning Assistance

Transportation Planning Funds

This planning activity is ongoing throughout both FY2022 and FY2023, supporting activities that encourage short- and long-term transit planning for local governments and transit providers. Activities include providing technical assistance and general planning support to local governments with implementation options and investigating innovative funding and implementation opportunities for regional transit systems, including fixed guideway alternatives. Other initiatives include technical assistance and general planning support to the transportation authorities in the region, as well as smaller transit agencies, and oversight of federally required transit performance measures in support of the data-driven planning process. Complementing these efforts to support both local governments and transportation authorities, this planning activity includes preliminary project development activities for potential future rail corridors that would support follow-on corridor-specific feasibility and/or engineering studies. These preliminary project development activities include initial travel demand forecasting, early stakeholder coordination, and development of reasonable alternatives for future study. Examples of future rail corridors that would be included in these efforts are the McKinney Line and the Mansfield Line. Anticipated products include:

- Planning conducted on behalf of partner agencies based on identified needs;
- Support to transit agencies, including Travel Demand Model data, ridership projections, financial modeling, planning studies, and technical assistance;
- Assistance for transit system improvements resulting in seamless regional connectivity;
- Documentation of analysis methodologies, tracking, and monitoring of transit system performance documentation; and
- Preliminary project development planning for future rail corridors, including ridership forecasts and testing of planning assumptions.

Work Performed and Status: Planning conducted on behalf of the small transit providers in the region included continued coordination and planning to implement the Enhancing Mobility within the Southern Dallas Inland Port project. This project will enable an expansion of STAR Transit's service and supporting infrastructure in the International Inland Port of Dallas. Geographic Information System (GIS) mapping and data analysis was also provided to the small transit providers and other partners to aid in understanding the impacts of updated Federal Transit Administration Urbanized Area classifications on transit service areas and federal, State, and local funding for operations.

Staff continued refining passenger rail ridership modeling for rail corridors throughout the region based on updated demographics and modeling techniques, including TEXRail, McKinney, and Mansfield passenger rail lines. For TEXRail, staff continued to work with Trinity Metro and conducted a series of ridership model forecast scenarios for the TEXRail southwestern extension, including short, long-range, and alternative demographics.

Transit planning assistance was conducted for local governments through GIS mapping and project coordination for major sports and entertainment events in the region that occurred in FY2023 or are set to occur soon. Additionally, transit planning and funding assistance continued to be provided for a high-intensity bus service with Trinity Metro.

Work continued toward federally required performance-based planning and programming responsibilities. Activities included the monitoring and reporting of performance toward the

regional Transit Asset Management (TAM) and Public Transportation Agency Safety Plan targets based on the latest available data from the National Transit Database.

In response to the transit studies that were completed in FY2021 (Collin County, Southern Dallas County, Tarrant County), planning assistance was offered and provided to municipalities in the region, such as Mansfield, Frisco, Duncanville, Forest Hill, Anna, Murphy, and Cedar Hill, that have begun exploring or working on implementing the recommendations from the completed transit studies. This planning assistance included targeted analysis of data, short- and long-term scenarios, and recommendations for these municipalities. These efforts also involved providing assistance to Trinity Metro and STAR Transit in providing relevant data for contract service cost estimates.

Transportation Planning Funds were used to support work activities. This project is ongoing, and work will continue in FY2024.

Denton County Transit Planning Study

Other Funding Sources

This element is ongoing throughout both FY2022 and FY2023, providing support in the development of transit studies. Activities include developing a comprehensive approach to planning and implementing transit services outside of the Denton County Transportation Authority service area. Other initiatives include investigation of local and regional connections, focus on strategic implementation, near-term implementation strategies, increased transportation options, innovative funding opportunities, mobility transportation hubs for existing service, private-sector involvement, and potential options for inclusion in future transportation plans. Efforts will include a comprehensive transit study for Denton County. Federal Transit Administration funds, as well as Transportation Development Credits, will support these activities. Consultant assistance will be utilized. Anticipated products include:

- Coordination meetings with transit partners, local governments, and stakeholders that monitor and ensure the continued progress of study completion;
- Procurement and executed agreements for consultant assistance;
- Mapping of potential alignment alternatives;
- Strategic implementation plans of recommended transit infrastructure and services; and
- Technical reports on transit implementation options in identified subregions that may include potential public transit implementation options, funding sources (public and private), and increased regional connections.

Work Performed and Status: With consultant assistance, project activities in FY2023 included conducting and summarizing transit scenario planning, potential funding sources, and implementation recommendations for public transit in Denton County. These efforts were brought before the Project Advisory Committee and a public meeting for their input and direction setting. Once finalized, all elements of the study were integrated into a final report that highlights and summarizes all work performed to develop public transit recommendations for the county. The report was directly sent to all Project Advisory Committee members and has been made available to any other interested party or member of the public.

Federal Transit Administration funds and Transportation Development Credits were used to support work activities. This project is complete as of the end of FY2023.

East Dallas, Kaufman, and Rockwall Counties Transit Planning Study

Other Funding Sources

This subtask is ongoing throughout both FY2022 and FY2023, providing support in the development of transit studies. Activities include developing a comprehensive approach to planning and implementing transit services outside of transit agency service areas. Other initiatives include investigation of local and regional connections, focus on strategic implementation, near-term implementation strategies, increased transportation options, innovative funding opportunities, private-sector involvement, and potential options for inclusion in future transportation plans. Efforts will include, but are not limited to, a comprehensive transit study for Eastern Dallas, Kaufman, and Rockwall counties. Surface Transportation Block Grant Program funds and Transportation Development Credits will support these activities. Anticipated products include:

- Coordination meetings with transit partners, local governments, and stakeholders that monitor and ensure the continued progress of study completion;
- Procurement and executed agreements for consultant assistance;
- Mapping of potential alignment alternatives;
- Strategic implementation plans of recommended transit infrastructure and services; and
- Technical reports on transit implementation options in identified subregions that may include potential public transit implementation options, funding sources (public and private), and increased regional connections.

Work Performed and Status: Work continued on the Eastern Dallas, Kaufman, and Rockwall Counties Transit Planning Study throughout FY2023. The initial draft of Task 3: Existing Conditions Report was completed which explored the diverse needs for mobility, existing conditions, and how well existing services align with mobility demand in the study area. Staff utilized US Census data and a wide range of existing planning documentation from around the region to compile the report. Upon completion of Task 3, work began on Task 4: Market/Needs Assessment which details travel patterns, performs a transit market analysis, and will contain a gap analysis focused on the interconnectivity between Transit Analysis Zones.

Numerous Project Advisory Council and public meetings occurred during the fiscal year. Project Advisory Council meetings #2 and #3 helped keep stakeholders from around the region informed of progress made, and attendees assisted the team with public outreach for public meetings. Public Meeting #2 was held in the city of Rockwall and had a substantial turnout. Public Meeting #3 was held in Mesquite. Additional feedback on the project was obtained from an online survey.

Surface Transportation Block Grant Program funds (CSJ 0918-00-320) and Transportation Development Credits were used to support work activities. This project is ongoing, and work will continue in FY2024.

Intermodal Transportation Hub for Colleges and Universities Study

Other Funding Sources

During FY2022 and FY2023, in coordination with local governments, NCTCOG will assist colleges and universities in the North Central Texas region with planning potential intermodal transportation hub locations and associated traffic pattern impacts. Activities will include the impact to transit

ridership, bicycle and pedestrian mobility, and other modes used for on-campus traffic circulation. Consultant assistance will be utilized. Work activities will be supported by Surface Transportation Block Grant Program funds and Transportation Development Credits. Anticipated products include:

- Coordination meetings with transit partners, local governments, colleges/universities, and stakeholders that monitor and ensure the continued progress of study completion;
- Public involvement activities;
- Procurement and executed agreements for consultant assistance;
- Strategic implementation plans of recommended transit infrastructure and services;
- Planning of intermodal transportation hubs, transit service, and other transportation infrastructure; and
- Technical reports on mobility options for colleges and universities, including options for public transit, bicycle and pedestrian mobility, and other modes used for on-campus traffic circulation, along with regional connections.

Work Performed and Status: Utilizing consultant assistance, the project team continued to perform work activities for this study through most of FY2023. Project activities included robust public and stakeholder outreach to encourage input on campus mobility hub concepts through a design charrette, interactive public engagement activities, and survey responses. This effort led into finalizing the Campus Mobility Hub Scenario Development and Evaluation Report and developing funding and implementation strategy guides.

Following a final round of stakeholder engagement, an Executive Summary, Regional Campus Mobility Hub Catalog, and a University of North Texas Denton Mobility Hub Strategy were published and shared with Project Advisory Committee members. These reports were also made available to all campus affiliates and members of the public throughout the region.

Surface Transportation Block Grant Program funds (CSJ 0918-46-318) and Transportation Development Credits were used to support work activities. This project is complete as of the end of FY2023.

3.05 Transit Management and Operations

This Work Program subtask provides funding primarily for the implementation of projects that focus on eliminating gaps in services, reducing duplication of services, enhancing coordination, and improving the efficiency and effectiveness of the region's existing services.

FTA Urban Funding Grant Administration

Other Funding Sources

This implementation activity is ongoing throughout FY2022 and FY2023, supporting all responsibilities NCTCOG assumes as the designated recipient for Federal Transit Administration (FTA) grant funds received for urbanized areas in the region. General responsibilities include program administration, project implementation, grant management, and program oversight for all subgrantees who receive funds through the Bus and Bus Facilities Program, Congestion Mitigation and Air Quality Improvement Program, Enhanced Mobility of Seniors and Individuals with Disabilities Program, Job Access/Reverse Commute Program, New Freedom Program, and

the Urbanized Area Formula Program. Activities will also include the administration of emergency assistance funding made available by FTA to subgrantees in response to COVID-19, including the Coronavirus Aid, Relief, and Economic Security (CARES) Act and American Rescue Plan (ARP) Act of 2021, which are expected to be administered through FY2023. Federal Transit Administration funds, subgrantee local funds, and Transportation Development Credits will support these activities. Consultant assistance may be used. Anticipated products include:

- FY2022 and FY2023 funding allocations;
- CARES Act funding allocations;
- ARP Act funding allocations;
- Grant and agreement management;
- Application of oversight and compliance initiatives;
- Funding disbursement of reimbursable project expenses to subgrantees;
- Administration of a vehicle loaner program;
- Submittal of coordinated reports on behalf of subgrantees; and
- Procurements for services and equipment, including buses, on behalf of subgrantees.

Work Performed and Status: Staff managed eight Urbanized Area Formula Program grants; seven Enhanced Mobility of Seniors and Individuals with Disabilities Program grants; four Bus and Bus Facilities grants; two Surface Transportation Block Grant Program (STBG) grants; one Transit-Oriented Development (TOD) grant; and one Coronavirus Aid, Relief, and Economic Security Act (CARES) grant for a combined total of approximately \$90 million in federal funds. Staff also closed out one Job Access/Reverse Commute Program grant, one Urbanized Area Formula Program grant, one Innovative Coordinated Access and Mobility (ICAM) grant, two Enhanced Mobility of Seniors and Individuals with Disabilities Program grants, and three New Freedom Program grants upon completion of the projects designated therein. Staff submitted 60 quarterly progress reports, four Charter Service reports, six National Transit Database (NTD) Annual Reports, and 48 NTD Ridership and Safety and Security reports.

Administrative functions associated with all projects continued and monthly requests for reimbursements were processed totaling \$2,247,088 in CARES Act funds, \$1,523,068 in Urbanized Area Formula funds, and \$755,404 in Enhanced Mobility for Seniors and Individuals with Disabilities funds.

Procurement guidance and review was provided for five subrecipients. Thirty-four vehicles were purchased through a Cooperative Vehicle Procurement for subrecipients totaling \$722,336 in Bus and Bus Facilities funds and \$3,846,306 in Urbanized Area Formula funds.

Oversight and compliance was performed for five subrecipients in the areas of Drug and Alcohol Program, Satisfactory Continuing Control, Section 5307, Section 5310, Transit Asset Management, Americans with Disabilities Act, Title VI, and Maintenance.

Federal Transit Administration funds, local funds, and Transportation Development Credits were used to support work activities. North Central Texas Council of Governments local funds were utilized to cover a small cost overrun. This project is ongoing, and work will continue in FY2024.

Sustainability and Innovative Solutions for Transit

Other Funding Sources

This implementation activity is ongoing throughout both FY2022 and FY2023, supporting coordination and implementation of sustainable transit initiatives and innovative solutions. The program supports Chapter 461 of the Texas Transportation Code that focuses on maximizing the benefits of the State's investment in public transit through the coordination of services and other innovative transit-related projects. Activities include developing projects to encourage access to public transportation, implementing a regional equitable transit fares program aligned with Justice40 initiative efforts, and gathering data to improve transportation planning efforts for older adults, individuals with disabilities, individuals with low incomes, and additional environmental justice populations. University assistance will be utilized. Regional Toll Revenue funds and Regional Transportation Council Local funds will support these activities. Anticipated products include:

- Implementation of an equitable transit fare program to be coordinated with transit authorities, NCTCOG, and private partners for disadvantaged communities;
- Coordination with transit agencies, community colleges, colleges, and universities to provide students with transit passes;
- University Partnership Program final report related to use of an app-based technique for assessing the transportation gaps of environmental justice populations;
- Short- and long-range solutions that move the region toward more comprehensive, coordinated, accessible, efficient, and effective public transit services; and
- Policies, programs, and projects that support and encourage sustainable transportation options around the region while elevating customer service and air quality.

Work Performed and Status: Four projects continued in FY2023 to support transit sustainability initiatives: Equitable Fares Transit Program; Trinity Metro Alliance Link; Trinity Metro TCC (Tarrant County College) Transit Passes; and Trinity Metro Trinity Railway Express (TRE) Shuttle. Staff met periodically with partner agencies and internally to discuss agency efforts on equitable transit fare initiatives. After further deliberation, it was determined that delays from COVID-19 and the agencies' shifting focus to increasing ridership, the project would be reimaged with transit partners for future implementation. NCTCOG partnered with Trinity Metro for the Alliance Link project, providing first/last mile transit service in the Alliance area to connect employed persons to major employers; and the Trinity Railway Express Shuttle for Continued Operations project, providing critical first/last mile transit connections between the TRE Centreport Station and Dallas Fort Worth International Airport. These projects ended in FY2023, though the service continued with other financial support. Through a partnership with Trinity Metro, NCTCOG provided funding to support transit passes for eligible Tarrant County College students. This project will continue in FY2024. Staff also coordinated internally for an upcoming project in FY2025 for transit passes in the eastern portion of the region to provide colleges and universities with transit passes.

In addition to the projects noted above, as part of sustaining and enhancing access to public transportation services in the Southern Dallas Inland Port area, staff continued to meet internally and with partners to discuss transit needs, coordinate with the local Transportation Management Association (TMA), and identify alternative locations to support future transit electric vehicles and charging infrastructure for on-demand services. This area was awarded a competitive grant and staff prepared a draft Paper Grant Agreement for review by FTA and will work to execute partner agreements and implement projects beginning in FY2024.

Regional Toll Revenue funds (CSJs 0918-00-174, 0918-00-193, 0918-00-325, and 0918-00-349) and Regional Transportation Council Local funds were used to support work activities. This project is ongoing, and work will continue in FY2024.

Mobility Management

Other Funding Sources

These planning and coordination activities are ongoing for FY2022 and FY2023, supporting mobility management and Mobility as a Service (MaaS) initiatives to improve the coordination of transportation services in the Metropolitan Planning Area. Activities include the implementation of the Mobility on Demand (MOD) workgroup, monitoring MaaS platform integration, providing support to transit providers for improved operational planning through use of technologies, and creating new innovative partnerships with local governments and private and nonprofit stakeholders who hold key connections or interest in increasing mobility options in the region. Federal Transit Administration funds and Transportation Development Credits will support these activities. Consultant assistance may be used. Anticipated products include:

- Strengthened mobility management activities with transit partners for the management and delivery of coordinated transportation services to transit-dependent populations;
- MOD workgroup meetings to document best practices and promote partnerships in the region;
- Resources to assist local governments, transit providers, healthcare providers, community service agencies, and the public on available transit options; and
- Execution of subrecipient agreements and documentation of subrecipient compliance to grant requirements through monitoring and on-site reviews.

Work Performed and Status: Staff supported mobility management efforts in FY2023 by hosting three regional mobility manager meetings with transit partners to facilitate discussion and share best practices on regional mobility topics. Topics included an overview of ongoing transit studies within the North Central Texas region, insight into health-related transportation initiatives in Tarrant County, and rider initiatives with Dallas Area Rapid Transit (DART). Also, seven project proposals were reviewed for the Strategic Partnerships Program through the November 2022 and May 2023 cycles; four projects were selected for funding. These projects incorporate recommendations from adopted transit studies and address gaps in service for seniors and individuals with disabilities in Collin County and the cities of Arlington, Forest Hill, Allen, and Fairview. Staff activities included preparing documents for inclusion of the selected projects in Transportation Improvement Program (TIP) modifications, reviewing budgets, facilitating feedback on draft agreements, and holding coordination meetings with partners. Staff will work to execute necessary subrecipient agreements and provide subrecipient oversight related to these projects in FY2024.

Building upon MOD working group meetings, staff examined national best practices and developed a survey to inventory the software regional partners use to facilitate their mobility services. Information will inform future MOD efforts, including technology integration and regional micro-transit coordination. Also, staff prepared for an upcoming project in the Fort Worth 76104 zip code and gathered stakeholder information, updated resource information, and drafted a project summary for partners.

Staff continued to work with a consultant that was hired to assist NCTCOG's management with a strategic assessment of subrecipients' finance department structure and systems and capabilities

related to the establishment and management of allocation methodologies for pass-through federal funds. The consultant created a workbook and held a webinar to train five subrecipients on how to use the workbook with their accounting system. The project was completed in September 2023.

Federal Transit Administration funds and Transportation Development Credits were used to support these activities. This project is ongoing, and work will continue in FY2024.

My Ride North Texas Program

Other Funding Sources

These planning and coordination activities are ongoing for FY2022 and FY2023, supporting implementation of the My Ride North Texas Program to identify gaps in service and improve the coordination of transportation services in the Metropolitan Planning Area. Activities include coordinating the Regional Mobility Managers advisory group, extending mobility management services, and providing assistance to local governments, transit providers, healthcare providers, community service agencies, and the public to increase access to transportation and improve regional mobility. Enhancements of the program may include pilot of regional mobility management trainings; development of a website; and greater outreach to older adults, people with disabilities, and individuals with lower incomes. Federal Transit Administration funds and Regional Transportation Council Local funds will support these activities. Subrecipient assistance may be used. Anticipated products include:

- Enhancements to My Ride North Texas, with transit partners, to enable low-income seniors and individuals with disabilities access to healthcare, wellness trips, and jobs;
- Support of a regional call center for individuals to access transportation counseling services and referrals to available transit providers;
- Regional Mobility Managers meetings to document best practices and promote partnerships in the region; and
- Resources to assist local governments, transit providers, healthcare providers, community service agencies, and the public on available transit options.

Work Performed and Status: This project was completed in FY2022.

Strategic Partnership Program

Other Funding Sources

This implementation activity is ongoing for FY2022 and FY2023, supporting coordination with strategic partners to develop transit projects that meet the transit needs of seniors, individuals with disabilities, and low-income populations for job access. Transit projects will be developed based on several factors, including, but not limited to, previously identified strategies in Access North Texas, environmental justice impact with consideration to strategies aligned with the Justice40 initiative, accessibility, strategic value in the region, innovation, and sustainability. These efforts will generate projects that are responsive to needs of transit-dependent populations, address gaps in service, and contribute to the coordination of services among transit providers. Federal Transit Administration funds and Transportation Development Credits will support these activities. Anticipated products include:

- Implementation of Strategic Partnerships process for review of requests;
- Coordination with local governments, transit providers, community service organizations, and other stakeholders to evaluate requests;
- A mobility toolbox to provide local governments with resources on transit project development;
- Programs and projects through Strategic Partnerships to improve transit access for seniors, individuals with disabilities, and low-income populations;
- Implementation of projects that address gaps in service and integrate recommendations from recent transit studies, including Cedar Hill, other local governments, and partner agencies; and
- Execution of subrecipient agreements and documentation of subrecipient compliance with grant requirements through monitoring and on-site reviews.

Work Performed and Status: In FY2023, two selected projects were implemented from the Strategic Partnerships Program in the cities of Cedar Hill and Duncanville, and an outline of the mobility toolbox was completed. Transit providers coordinated with local stakeholders to ensure services were developed to address gaps in transit service for seniors and individuals with disabilities. Staff planning support is reflected in the work performance for Regional Public Transportation Coordination. For the May 2023 Strategic Partnership Program project application cycle, seven projects were submitted, and four projects were recommended in Tarrant and Collin counties for FY2024.

Federal Transit Administration funds and Transportation Development Credits were used to support project activities. This project is ongoing and will continue in FY2024.

Enhancing Mobility within the Southern Dallas Inland Port

Other Funding Sources

In FY2022, NCTCOG was awarded grant funding from the United States Department of Transportation (USDOT) under the Rebuilding American Infrastructure with Sustainability and Equity (RAISE) discretionary grant program to implement mobility enhancements to and within the Southern Dallas Inland Port. The project seeks to enhance connectivity in Southern Dallas County by optimizing transit service, improving pedestrian infrastructure, and updating traffic signals. NCTCOG staff will oversee project management of the RAISE Enhancing Mobility within the Southern Dallas Inland Port project once initiated. Contractor and subrecipient assistance will be utilized. Federal Transit Administration funds, Surface Transportation Block Grant Program funds, Regional Toll Revenue funds, and local funds will support these activities. Anticipated products include:

- Implementation of enhancements to recently implemented on-demand services to increase transit connectivity within the Southern Dallas Inland Port area;
- Procurement of electric vehicles and related charging equipment on behalf of subrecipients to deliver on-demand services;
- Installation of charging infrastructure for electric vehicles at strategic locations to optimize on-demand services;
- Coordination with transit agencies, employers, and local stakeholders to provide access to transit passes and promote public transportation options in the area;
- Construction and implementation of infrastructure to improve safety of pedestrian and vehicle movements, including transit; and

- Execution of subrecipient agreements and documentation of subrecipient compliance to grant requirements through monitoring and on-site reviews.

Work Performed and Status: Staff activities in preparation for implementation of the project are reflected in the work performance for Sustainability and Innovative Solutions for Transit above in Subtask 3.05. Federal agreements have been drafted and submitted for review. Project implementation is anticipated to begin in FY2024.

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IV. Task 4 – Metropolitan Transportation Plan

This task provides funding for the development and refinement of the Metropolitan Transportation Plan (MTP) in conjunction with metropolitan planning requirements of the Fixing America's Surface Transportation Act (FAST) and the Infrastructure Investment and Jobs Act (IIJA). It also supports more detailed feasibility studies on projects included in the MTP. Activities to coordinate and ensure that performance-based planning is fully integrated into the North Central Texas Council of Governments' planning process are also a component of this task. Efforts to coordinate the transportation and environmental planning processes, mitigate the environmental impacts of projects, and emphasize the incorporation of environmental justice analyses into planning documents, policies, and activities are also included.

4.01 Metropolitan Transportation Planning

This subtask encompasses the development of the metropolitan area's long-range transportation plan and related documentation of the region's transportation system. As corridor studies contained in the Metropolitan Transportation Plan advance to final recommendations, periodic amendments and updates to this plan may be required. Additionally, the arterials contained in the plan fall into several categories detailed below, which are monitored and amended, as necessary, to meet transportation conformity and funding requirements.

Metropolitan Transportation Plan Development and Monitoring

Transportation Planning Funds

This subtask is ongoing throughout FY2022 and FY2023. The Metropolitan Transportation Plan (MTP) provides a blueprint for a multimodal transportation system and responds to broad transportation-oriented goals for the region. These goals include enhancing mobility, improving access, and reducing congestion; quality-of-life goals such as encouraging balanced land use, promoting orderly economic development, and improving air quality; and financial goals such as identifying and pursuing long-term stable sources of funding. The MTP must also meet financial constraint goals where project and program costs must not exceed anticipated revenue.

At any given time, the MTP is being monitored, developed, or modified. Staff will work in cooperation with the Texas Department of Transportation (TxDOT), Dallas Area Rapid Transit (DART), Trinity Metro, the Denton County Transportation Authority (DCTA), the North Texas Tollway Authority (NTTA), the Collin County Toll Road Authority (CCTRA), local governments, and other public agencies, as needed, to monitor programs and projects recommended in the current MTP, Mobility 2045, to ensure they reflect the latest planning assumptions, allowing those programs and projects to proceed through the planning and environmental stages of project development.

It is anticipated that a plan update of Mobility 2045 will receive local approval during FY2022 and will include any corridor adjustments needed to meet federal requirements for air quality determination. Staff will continue to coordinate with transportation partners and the public during the development of the long-range plan. This update to Mobility 2045 will factor in planning efforts for the horizon year, demographics, financial assumptions, and other planning requirements. Planning efforts will also include any recommendations from Subtask 5.01, Regional

Transportation Studies, Regional Automated Transportation System Initiative. The update to Mobility 2045 will be developed in accordance with the rules outlining the contents of the MTP under the policy direction of the Regional Transportation Council, technical guidance of NCTCOG's technical committees, and public involvement efforts. Changes to the MTP will be made in coordination with local transportation providers and partners. Staff will also implement all RTC policies included in the MTP update, including monitoring and briefing RTC on emerging transportation technology proposals.

Moving Ahead for Progress in the 21st Century (MAP-21) introduced a new requirement to incorporate a performance-based approach in the transportation planning process. In response to this requirement, staff coordinated with TxDOT to establish regional transportation system performance measures and targets. Staff will continue to monitor and assess the performance of the transportation system and its effect towards meeting federally required performance targets according to guidance from the Infrastructure Investment and Jobs Act. Additional locally developed performance measures and metrics will also be evaluated. Anticipated products of this subtask include:

- Presentations utilizing MTP data and information;
- Maps;
- Collection and transmittal of travel model networks, GIS shapefiles, and performance reports as model outputs;
- Periodic reports to the Regional Transportation Council (RTC) and the Surface Transportation Technical Committee (STTC) documenting status of MTP implementation and applicable emerging transportation technology proposals per RTC policy;
- Coordination meetings to monitor and ensure the continued progress of project recommendations; and
- Mobility 2045 Update document.

Work Performed and Status: During FY2023, NCTCOG staff implemented the Metropolitan Transportation Plan, Mobility 2045 Update, adopted in FY2022, and developed administrative revisions as necessary to ensure consistency with other planning documents such as the Transportation Improvement Program. Staff monitored financial information and project costs to ensure a financially constrained plan.

Continual coordination between staff and partner agencies/local governments supporting the implementation of programs and projects under the Mobility 2045 Update took place. Travel model networks and outputs were shared with partners to support project development. Additionally, the voluntary MTP Policy Bundle Round 5 was held in FY2023, and Transportation Development Credits were allocated to participating local governments in that process to support the goals of the RTC.

Emerging technology proposals were reviewed, as a part of the Certification of Emerging and Reliable Transportation Technology (CERTT) Program, and staff updated RTC and STTC on these opportunities. Select proposals were advanced through the process, allowing local governments the opportunity to submit locations to the program where these technologies might be first implemented.

Transportation Planning Funds were used to support work activities, and work will continue in FY2024.

Regionally Significant Arterials (RSA)

Transportation Planning Funds

North Central Texas Council of Governments (NCTCOG) staff will work in cooperation with the Texas Department of Transportation, transportation agencies, and local governments to monitor the Regionally Significant Arterial system. The RSA database and listing will be amended to be consistent with the revised National Highway System and local planning efforts. Activities will be ongoing throughout FY2022 and FY2023 to monitor and amend the RSA system as needed. Anticipated products include:

- RSA database in both ArcGIS and TransCAD applications;
- Coordination with transportation partners and local governments in the planning and staging of transportation improvements; and
- A listing of existing and planned RSAs to be included in the Metropolitan Transportation Plan and transportation conformity analysis.

Work Performed and Status: The Regionally Significant Arterials (RSAs) data continued to be updated and maintained in a combination of SQL Server and ArcGIS Enterprise geodatabase environments. Detailed data used in travel demand forecasting was maintained in a TransCAD environment. The RSAs were monitored for consistency with active projects in the Transportation Improvement Program. The administrative revisions and revised RSA listings were posted on the NCTCOG website where the public were able to review and provide comments. The revised listing was also provided to transportation partners. Quarterly meetings and several ad hoc meetings were held with transportation partners to monitor the planning process of RSA recommendations, and appropriate changes were included in the Mobility 2045 Update.

Transportation Planning Funds were used to support work activities, and work will continue in FY2024.

Regional Thoroughfare Plan Inventory (RTPI)

Transportation Planning Funds

In conjunction with the continual development of the Metropolitan Transportation Plan, North Central Texas Council of Governments staff will collect, translate, and inventory local government thoroughfare plans and provide planning support from a regional perspective. Once the thoroughfare plans are combined and compared, some instances will require resolution of boundary disputes to ensure a high degree of consistency and continuity between local government planning efforts and regional planning efforts. Activities will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Documented inventory of thoroughfare plans that were collected and included in transportation networks; and
- A Geographic Information System (GIS)-based regional arterial system map.

Work Performed and Status: A new system of cataloging the digital library of thoroughfare plans for cities and counties within the Metropolitan Planning Area was developed, allowing staff to monitor the availability of new or updated plans in a more effective manner. Project additions and

improvements to the region's thoroughfare systems were included in GIS-based regional arterial maps and GIS-based transportation networks.

Transportation Planning Funds were used to support work activities, and work will continue in FY2024.

Federal Functional Classification System (FFCS)

Transportation Planning Funds

Staff will continue to work in cooperation with federal partners and the local Texas Department of Transportation districts to maintain the FFCS for the Dallas-Fort Worth Metropolitan Area. This element includes monitoring roadway system function to determine the necessary mid-cycle amendments, as needed, to the FFCS. Activities will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Participation in an anticipated nationwide universal update of the system initiated by the release of Census 2020 results;
- Electronic transportation network of FFCS roadways;
- Coordination with local governments in the planning and staging of transportation improvements;
- Amendments, as needed, to the roadway system to correct, remove, or add roadways; and
- Maps and presentations demonstrating location, function, and justification for amendments.

Work Performed and Status: Maintenance of an electronic network of the region's Federal Functional Classification System (FFCS) roadway continued. The anticipated nationwide universal update of the FFCS did not occur. Instead, staff worked with regional partners to identify and prioritize projects which required updates to the FFCS as part of the project development process. Amendments to the FFCS were initiated to ensure that programmed projects resulting in new or improved roadways are accurately represented in the system. Reference materials created for this process indicate location, function, and justification for amendment.

Transportation Planning Funds were used to support work activities, and work will continue in FY2024.

4.02 Coordination of Transportation and Environmental Planning Processes

Linking transportation planning and environmental planning represents a collaborative and integrated approach to transportation decision making. The following elements link development of data, processes and frameworks, and mitigation outcomes to enhance and support metropolitan transportation planning and project development activities.

Planning and Environment Linkages (PEL)

Transportation Planning Funds

This element will support a framework to consider environmental, community, and economic goals early in the transportation planning stage, then carry the goals through the corridor and project development phases into construction and mitigation efforts. This element is ongoing throughout FY2022 and FY2023. Anticipated products include:

- Metropolitan Transportation Plan environmental scoring and mitigation documentation;
- Outreach and technical assistance supporting stakeholder participation in transportation planning processes;
- Partnerships and agreements to expand or improve regional data needs and other partner agreements;
- Documentation and presentation material for coordination meetings, workshops, and training sessions; and
- Technical papers, as needed.

Work Performed and Status: Planning and Environment Linkages (PEL) efforts continued in FY2023 supporting the Texas Department of Transportation (TxDOT) and other transportation project providers. These efforts were performed for the Interstate Highway (IH) 20/IH 635/US Highway (US) 175 Interchange Feasibility Study in Dallas County; the planned Regional Outer Loop corridor in Denton County; the US 287 Feasibility Study in Ellis County; and the International Corridor (Spur 303) Project, State Highway (SH) 180 East Lancaster Avenue/Fort Worth Eastside Transportation Plan, and AllianceTexas Smart Port Project (SH 170/Intermodal Parkway Interchange) in Tarrant County. NCTCOG supported TxDOT and partnering local governments in the preparation and submittal of project applications for multiple Federal discretionary grant programs resulting from the Bipartisan Infrastructure Law (BIL)/Inflation Reduction Act (IRA), including the Rebuilding American Infrastructure With Sustainability and Equity (RAISE), Multimodal Projects Discretionary Grant (MPDG), and Reconnecting Communities and Neighborhoods (RCN) programs.

Throughout FY2023, staff reviewed multiple pre-National Environmental Policy Act (NEPA) projects for consistency/inclusion in the Metropolitan Transportation Plan, identified potential for environmental impacts, and communicated information to resource and regulatory agencies. Relevant information was also shared with federally recognized tribal nations, as well as data on NCTCOG-led studies. Additionally, environmental data was gathered/analyzed to facilitate the annual review of 10-Year Plan/Unified Transportation Program (UTP) projects on their potential/extent of environmental impacts. Staff participated and presented in multiple PEL-based workshops/webinars to assist the Federal Highway Administration (FHWA), TxDOT, and other stakeholders in advancing the state of the practice.

Transportation Planning Funds were used to support work activities. This project is ongoing, and work will continue in FY2024.

Army Corps of Engineers Section 404 and 408 Permitting

Other Funding Sources

In FY2022 and FY2023, staff will continue activities associated with the Water Resources Development Act Section 214 Memorandum of Agreement between the United States Army Corps of Engineers (USACE) and NCTCOG. This agreement was formed to expedite the evaluation of Section 404 permits for regional priority transportation projects. Staff will monitor the progress of permitting for specific projects identified by transportation partners. The performance and the cost-effectiveness of the USACE under this agreement will be evaluated by using specific performance measures identified by staff. Regional Toll Revenue funds and local funds will support Section 404 activities.

Additionally, staff will continue to monitor and aid in Section 408 permitting activities for major transportation projects. This effort could include attendance at meetings and coordination with resource agencies. Regional Toll Revenue funds will be utilized, and other funds may be sought to support this initiative. This effort will include the following products:

- USACE-reported performance metrics;
- Presentations, meetings, and annual reports; and
- Clean Water Act Section 404 and 408 finalized permit decisions.

Work Performed and Status: No work was conducted in FY2023 due to challenges in securing a long-term replacement for the retirement of the United States Army Corps of Engineers (USACE) staff member responsible for permitting through this program since its initiation and staff turnover at partner agencies responsible for submitting permitting requests. This project is expected to continue in FY2024 upon execution of a new funding agreement.

Environmental Stewardship Program

Other Funding Sources

The Environmental Stewardship Program will fund engineering studies for constructed wetlands. Consultants may be procured for these efforts. Staff will educate the private sector about mitigation needs in the region. Regional Toll Revenue funding will enable the procurement of trees to be planted to help mitigate the urban heat island effect. This element is ongoing throughout FY2022 and FY2023. Anticipated products include:

- Agreements with external partners;
- Updates of data relevant to stewardship or mitigation; and
- Documentation and presentation material for coordination meetings, workshops, and training sessions.

Work Performed and Status: Due to an executed agreement with the City of Fort Worth, new trees were procured and planted within public rights-of-way along Lancaster Avenue. Information was presented to stakeholders during multiple meeting occasions regarding preparations for the Healthy Streets Initiative grant program resulting from the Bipartisan Infrastructure Law (BIL), as well as the relevant equity and environmental benefits for preserving and expanding urban tree canopies in various communities. Wetland and stream mitigation credits continued to be reviewed in determining possible challenges for meeting transportation system demands. Other

environmental tools such as assessing the well-being of regional ecologically sensitive areas and calculating potential benefits for environmental stewardship applications, some of which are co-managed with NCTCOG's Environment and Development Department, are under examination to determine long-term viability issues. Maintaining and updating these tools on a regular basis is critical, as the obtained/processed information will advise a multitude of planning decisions to be collaborated and conducted at both the corridor and system levels of application.

Regional Toll Revenue funds (CSJ 0902-00-193) were used to support work activities. This project is ongoing, and work will continue in FY2024.

Denton Greenbelt Project

Other Funding Sources

The Denton Greenbelt project will address sustainability for a planned roadway expansion through the Denton Greenbelt. Staff will prepare a sustainability assessment and will educate stakeholders about indirect and cumulative effects the roadway expansion may have. This element is ongoing throughout FY2022 and will utilize Regional Transportation Council Local funds. Anticipated products include:

- Sustainability assessment; and
- Documentation and presentation material for coordination meetings, workshops, or outreach efforts.

Work Performed and Status: This project was completed in FY2022. Work in FY2023 supporting Denton County and the Texas Department of Transportation for Outer Loop Environmental Impact Statement (EIS) preparation was performed under UPWP Subtask 4.02, Planning and Environmental Linkages.

Blue-Green-Grey Silo-Busting Initiatives

Other Funding Sources

The focus of the "Blue-Green-Grey" initiative is to help address traditional transportation planning that can result in "silos" which cause projects to be disjointed due to lack of communication or coordination amongst planners or project champions in various disciplines. Blue-Green-Grey is an initiative to identify "silo-busting" projects that focus on three elements – blue (water), green (environment), and grey (transportation infrastructure). Selected projects will continue in FY2022 and FY2023. Additionally, staff will advance additional funding rounds throughout FY2022 and 2023 to help develop new ideas that engage multiple disciplines and implement projects that could be further developed and replicated regionwide. Through the 2017 solicitation, three projects were selected for funding: City of Southlake Burney Lane Biofiltration System, the City of Farmers Branch Green Bus Stop Design Guidelines, and the Dallas Area Rapid Transit Community Gardens Hatcher Station Pilot. Through the 2018 solicitation, three projects were selected for funding: Hightower Drive Biofiltration Rain Gardens, Retrofitting Neighborhood Commercial Green Bicycle Park, and Micro-Detention Storage System. Five of these six projects have been completed. Through the 2021 solicitation, three projects were selected for funding: Laboratory Testing of Engineered Media for Biofiltration Swales, Blue-Green Neighborhood Beautification Design Guidelines and Pilot Project-The Bottom District, and the City of Allen Inlet Floatables

Filter. This initiative is supported through Regional Transportation Council Local funds. Anticipated products include:

- New funding initiatives and project awards for round three;
- Installation of a biofiltration system at the City of Watauga's Hightower Drive storm drain inlets;
- Concept-level floatables filter inlet plan and maintenance/materials specifications;
- Green infrastructure and beautification plan and small-scale pilot project for Bottom District in Dallas;
- Research report on design criteria and implementation recommendations for use of engineered media in biofiltration swales;
- Final reports/case studies summarizing impacts, lessons learned, and any future plans; and
- Panels and expert reviews and papers on the success of the program.

Work Performed and Status: Work conducted in FY2023 was devoted to the three projects selected through the third Blue-Green-Grey Call for Projects solicitation from 2021: Inlet Floatable Filters, Laboratory Testing of Engineered Media for Biofiltration Swales, and Blue-Green Neighborhood Beautification Design Guidelines and Pilot Project – The Bottom District. The first two projects were completed, and final reports were provided. An agreement for the third project was executed near the end of FY2023 with initial coordination meetings scheduled and conducted.

Regional Transportation Council Local funds were used to support work activities. This project is ongoing, and work will continue in FY2024.

Integrated Planning for Regional Transportation, Urban Development, and Stormwater Management

Other Funding Sources

Throughout FY2022 and FY2023, activities contained in this Work Program element concentrate on the integration of regional transportation planning, regional stormwater management, urban development planning, and environmental planning for the purposes of identifying impacts and alleviating risks from severe weather events such as flooding, as well as from other current and future disruptive environmental factors. This comprehensive planning initiative would include assessments of infrastructure and land-use vulnerabilities, analysis of potential lifecycle-based adaptability and durability measures, and determination of possible delivery and maintenance strategies aimed at improving operational capabilities and reducing risk from flooding. Established initially through a working group of partners and stakeholders located in Wise, and portions of Dallas, Denton, Ellis, Johnson, Parker, and Tarrant counties (specifically, the combined watersheds of the Clear Fork, Elm Fork, and West Fork Trinity River basins), this effort would account for future transportation infrastructure plans, future land-use plans, and the resultant stormwater runoff and/or other environmental effects expected to occur based on these plans. Information and outcomes produced from this preliminary study could ultimately be used to conduct similar, all-inclusive, and contiguous studies facilitating opportunities throughout North Central Texas that may reduce lifecycle costs and other burdens to infrastructure and urban development as regional growth continues. The funding source for this initiative is Surface Transportation Block Grant Program funds, Regional Transportation Council Local funds, and Transportation Development Credits. Funds from other federal and state agencies are anticipated

as part of the overall program. Consultant and/or subrecipient assistance may be utilized. Anticipated products may include:

- Development, application, and technical analysis of dynamic numerical models for estimating the extent and severity of flooding and other environmental effects;
- Creation and maintenance of Geographic Information System (GIS) map layers, relational databases, web applications, and other technical tools supporting surveys/inventories, spatial analyses, permitting, and project implementation monitoring;
- Benefit-cost analyses and other economic outputs assessing potential multi-disciplinary alternative applications;
- Community engagement and analysis using the Community Health and Resource Management (CHARM) scenario planning tool in coordination with the Federal Emergency Management Agency (FEMA);
- Maps of current/future vulnerable areas and critical transportation facilities to target for enhanced protection and mitigation from flooding events;
- Identification or incorporation of performance measures and evaluation criteria to inform transportation project development and selection processes;
- Engineering products and tools aimed to calculate infrastructure/land-use design parameters, performance degradation, and lifecycle needs;
- Coordination with resource agencies, technical committees, stakeholders, and other partners highlighting outreach, education, training, and regulatory needs and actions; and
- Documentation of recommended policies, programs, and/or projects.

Work Performed and Status: During FY2023, all remaining interagency agreements were finalized between the multiple project partners, and appropriate administrative documentation, budgeting estimates, progress reporting, and deliverable worksheets were created, distributed, and completed to cover specific agency-tracking milestones. Biweekly leadership coordination meetings between NCTCOG and United States Army Corps of Engineers (USACE) staff were scheduled/conducted, and small task-oriented group meetings (transportation, environmental/land use, and hydraulic/hydrology issues) and large multi-agency “whiteboard” discussions were scheduled/conducted monthly. The second round of public/agency stakeholder meetings was accomplished in Decatur, Burleson, Denton, and Weatherford during April/May 2023, along with individual city case study/photo tour events held in Paradise and Venus. A Technical Advisory Group was established with meetings conducted in March and September 2023, and an elected official Steering Committee was also formulated with an initial meeting held in June 2023. A Request for Proposals was issued to procure Subject Matter Expert (SME) consultant assistance, with a proposed dual-purpose contract combining scopes of work from this project with the Dallas Opportunity Zone 1 – North Oak Cliff Planning and Conceptual Engineering Study described in UPWP Subtask 5.03.

Surface Transportation Block Grant Program funds (CSJ 0902-00-303), Texas Water Development Board funds, Regional Transportation Council Local funds, and Transportation Development Credits were used to support work activities. This project is ongoing, and work will continue in FY2024.

Everman Integrated Stormwater/Flooding Management Study

Other Funding Sources

In FY2022, NCTCOG will conduct a citywide stormwater baseline assessment to identify areas at risk of flooding, integrate stormwater management practices, and identify transportation needs. This baseline is critical to establish the appropriate design elements for the widening of Forest Hill Drive in the cities of Everman, Fort Worth, and Forest Hill. Regional Transportation Council Local funds will be used to support work activities. Anticipated products include:

- Technical memorandum documenting transportation alternatives, flood risks, and recommended stormwater management practices.

Work Performed and Status: In FY2022, NCTCOG staff collaborated with project partners to estimate budget, scope of work, and schedule assumptions for a citywide stormwater baseline assessment. In FY2023, this information was used by Tarrant County to procure consultant assistance, for which a contract was approved/executed by the Commissioners Court in January 2023. Study activities, initial findings, and a preliminary schedule for completion was provided for inclusion in the September 2023 Forest Hill Drive Study public meeting. Final study results are anticipated by January 2024.

Regional Transportation Council Local funds were used to support work activities. This project is ongoing, and work will continue in FY2024.

Forest Hill Drive Planning Study

Other Funding Sources

In FY2023, NCTCOG will initiate a thoroughfare plan review facilitating the future reconstruction and widening of Forest Hill Drive between Lon Stephenson Road and Shelby Road within the cities of Everman, Forest Hill, and Fort Worth. This work will follow the baseline stormwater analysis conducted in the Everman Integrated Stormwater/Flooding Management Study noted above. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized, and consultant assistance may also be acquired to support these efforts. Anticipated deliverables include:

- Technical memoranda documenting analysis of corridor transportation constraints, needs, and comparisons of proposed operational and capacity improvement alternatives;
- Coordination with resource agencies, technical committees, stakeholders, and other partners highlighting outreach, education, training, and regulatory needs/actions based on sustainability and asset management principles; and
- Final transportation planning direction for the widening of Forest Hill Drive will be documented.

Work Performed and Status: For the Forest Hill Drive Planning study, work began on Task 1 in March 2023 with the development of a project schedule, task chart, and delegation of assignments to appropriate staff members. Over the following months, the project team worked on Tasks 1, 2, 3, and 4. Initially, the project team conducted several site visits to collect traffic counts, turning movements, current design issues, and bike and pedestrian needs along the two-mile corridor. Once this information was gathered and analyzed, the team developed Geographic

Information System maps illustrating an overlay to identify potential impacts to surrounding properties and undeveloped land. This information was used to create a presentation showing potential cross-section designs and a potential alignment option for the new four-lane divided roadway to be included in a stakeholder meeting with the Cities of Everman, Forest Hill, Fort Worth, and Tarrant County (who is simultaneously conducting the Everman Flood Study), followed by a public meeting held in the city of Forest Hill. The Public Involvement team created fliers, social media posts, press releases, and other various forms of information targeting citizens impacted by this study to increase attendance at the public meeting. Coordination between the three cities, Tarrant County, landowners, and developers continued with the goal of developing the final planning direction to present to stakeholders and the public in FY2024.

Surface Transportation Block Grant Program funds (CSJ 0902-90-224) and Transportation Development Credits were used to support work activities. This project is ongoing and will continue in FY2024.

4.03 Ensuring Equity, Nondiscrimination, and Environmental Justice in MPO Planning/Program Activities

Transportation Planning Funds

As a recipient of federal funds, NCTCOG is required to ensure nondiscrimination under Title VI of the 1964 Civil Rights Act. Under Title VI and related statutes, each federal agency is required to ensure that no person is excluded from participation in, denied the benefit of, or subjected to discrimination under any program or activity receiving federal financial assistance on the basis of race, color, national origin, age, sex, disability, or religion. The Civil Rights Restoration Act of 1987 clarified the intent of Title VI to include all programs and activities of federal-aid recipients, subrecipients, and contractors whether those programs and activities are federally funded or not. Subsequent presidential executive orders call for environmental justice for minority populations and low-income populations; affirmative advancement of equity, civil rights, racial justice, and equal opportunity for people of color and others who have been historically underserved, marginalized, and adversely affected by persistent poverty and inequality; and accountability regarding pollution that disproportionately harms communities of color and low-income communities. As an MPO, NCTCOG strives to ensure that nondiscrimination and the principles of equity and environmental justice are incorporated in its transportation plans, programs, policies, and activities.

This element is ongoing throughout FY2022 and FY2023. Staff will ensure compliance with federal- and state-mandated requirements using data-driven and community-driven methods to assess transportation needs, benefits, and burdens. Anticipated products include:

- Annual and triennial reports;
- Data updates to support decision making;
- Analyses of benefits and burdens of plans, programs, policies, and activities, including the Metropolitan Transportation Plan; and
- Technical and outreach support and training for staff and transportation partners, including support and training related to the federal Justice40 initiative.

Work Performed and Status: Data was updated for the Environmental Justice Index and Transit Accessibility Improvement Tool. Staff received training on the Americans with Disabilities

Act and discussed steps to develop a transition plan. The Title VI/environmental justice website was updated. Training was developed for staff related to equity and environmental justice executive orders. A review of analysis tools was conducted with the aim of providing more options for demographic analysis.

Transportation Planning Funds were used to support work activities, and work will continue in FY2024.

Planning to Address Transit Needs in Fort Worth's 76104 Zip Code

Other Funding Sources

In FY2022, NCTCOG was awarded grant funding from the United States Department of Transportation (USDOT) under the Areas of Persistent Poverty (AoPP) Discretionary Grant Program to engage residents and stakeholders to identify innovative transit solutions that connect residents to healthy food, healthcare, affordable housing, jobs, and other needs. The study, *Planning to Address Transit Needs in Fort Worth's 76104 Zip Code*, which will begin in FY2023, will also identify strategies to reduce greenhouse gas emissions in this community, which is divided by an interstate freeway and experiences the lowest life expectancy in Texas. By identifying solutions that improve transit access and reduce emissions, the project will address racial inequities and environmental injustices in a zip code with six census tracts identified as Areas of Persistent Poverty. This initiative will be supported through Federal Transit Administration grant funds, matched with Transportation Development Credits. Anticipated products include:

- Public Involvement Plan;
- Presentations and meeting and interview notes;
- List of performance criteria and targets;
- Documentation of community's potential transit needs and recommended solutions;
- List of strategies to reduce greenhouse gas emissions; and
- Final report.

Work Performed and Status: An agreement with the Federal Transit Administration was executed at the end of September 2023. Work on this project is scheduled to begin in FY2024.

4.04 Performance-Based Planning and Coordination

Transportation Planning Funds

Federal and State regulations require performance-based planning to ensure the most beneficial transportation projects and programs are implemented. While data-driven decision making has been a cornerstone of the region's planning processes, this subtask provides for the coordination of this commitment and ensures the federal initiative is fully integrated into NCTCOG's planning process. Work efforts will support both short- and long-range transportation planning efforts. The focus of this subtask will be the continued coordination of data-driven planning activities between staff, regional transportation partners, elected officials, and the public. Activities will include review of evolving rules and regulations related to performance-based planning, as well as oversight of data collection, analysis, and processes to support performance-based planning efforts in the metropolitan transportation planning process. Anticipated FY2022 and FY2023 products include:

- Documentation and presentation materials for stakeholder meetings;
- Maps and databases;
- Documentation of analysis methodologies;
- Documentation of decision-making processes;
- Tracking and monitoring of transportation system performance documentation; and
- Web-based performance measure monitoring reports.

Work Performed and Status: NCTCOG continued to follow evolving federal guidance and rulemaking related to required performance measures. Staff worked with stakeholders, prepared materials, and compiled data in preparation for various target-setting activities, including Regional Transportation Council action on targets for the following rulemakings: Highway Safety (PM1) and Pavement and Bridge Condition (PM2) measures as required by federal rules. Staff also worked with stakeholders, prepared materials, and analyzed data for anticipated Regional Transportation Council target-setting action in mid-late FY2024 on System Performance, Freight, and CMAQ (PM3) measures. In addition, NCTCOG submitted the required Full and Baseline Performance Reports as required by federal rules.

NCTCOG continued to review and track progress towards meeting targets for these measures while maintaining a suite of its own performance measures beyond those required by federal rulemaking to relate data-driven performance metrics to the goals of its Metropolitan Transportation Plan, Mobility 2045 Update. Preliminary work began on updates to this framework for the next upcoming MTP update.

In recognition of the lingering impact that COVID-19 continues to have on the transportation system, NCTCOG continued to maintain and track its suite of measures monitoring these multimodal impacts.

NCTCOG continued to coordinate through a series of working groups on performance-based planning topics, including methodology documentation, and continued to maintain a web presence for performance-based planning coordination with enhanced documentation.

Transportation Planning Funds were used to support work activities. Work on performance measurement will continue in FY2024.

4.05 Understanding Public Return on Investment for Transportation Funding

Transportation Planning Funds

Major transportation projects often multiply economic and other effects to a region and the local communities adjacent to the project. This project is a regional study to develop a process for calculating return on investment of public funds for various transportation modes. As a part of this effort, procedures will be developed to apply this process to major transportation projects/corridors within the region. Components include evaluations of direct and indirect effects of a major transportation project such as safety, economic, social, and mobility benefits. Work for this effort will commence in FY2022 and likely extend into FY2023. Anticipated products include:

- Technical report outlining process to determine return on investment, including assumptions, standards, and procedures for application.

Work Performed and Status: Continued efforts to integrate known data sources for benefit/cost analyses by the department into a comprehensive return-on-investment process were undertaken. The draft methodological framework for determining return on investment was refined, including the prioritization of more impactful elements within the framework over less impactful elements to focus study resources.

Transportation Planning Funds were used to support work activities, and work will continue in FY2024.

4.06 Regional Passenger Rail Planning and Evaluation Process Development

Transportation Planning Funds

Throughout the Dallas-Fort Worth region, several opportunities exist to provide passenger rail service in existing freight rail corridors. During FY2022 and FY2023, North Central Texas Council of Governments (NCTCOG) staff will analyze opportunities within the region where potential passenger rail service may be feasible sometime in the future, and what local governments can do to preserve the corridor and develop compatible land use and economic development options. The activities will include collaboration with many project opportunity owners such as private industry, transportation partners, stakeholders, and local government entities; evaluation of corridor feasibility for rail service now and in the future; and how to prepare the corridor by evaluating land-use options that would facilitate future rail service. NCTCOG staff efforts will include analyzing the feasibility of combined or converted operations, including opportunities for unique synergy, cost efficiencies and savings, operations efficiencies, and transportation system effectiveness. The following products will be delivered as a result of work done on this project:

- Technical memorandums covering evaluation of various scenarios and corridor development alternatives;
- Ridership estimates;
- Technical memorandums identifying project feasibility; and
- Presentations and briefings notes.

Work Performed and Status: Staff continued to inventory appropriate assessment variables and industry best practices and developed a preliminary assessment methodology to evaluate community readiness. Coordination meetings with local government staff were held, discussing lessons learned from previous transit development experiences and the overall approach to the assessment methodology.

Transportation Planning Funds were used to support work activities. This project is ongoing and will continue in FY2024.

V. Task 5 – Special Studies

Providing support to transportation providers is critical in the planning, operation, and maintenance of a comprehensive regional transportation system. The North Central Texas Council of Governments provides support by conducting and participating in a wide range of travel forecasting, planning, and design projects. Emphasis in this task is placed on assisting local governments with subarea and thoroughfare planning studies, providing technical support for projects such as traffic impact analysis and thoroughfare planning, and participation with transportation providers in corridor or subarea studies where the regional transportation planning process has identified the need for additional transportation system capacity. Work in this area also addresses transportation and land-use planning issues, Intelligent Transportation System initiatives, congestion management activities, goods movement, transportation system security and safety, capital and operational asset management, and surface access to aviation. Efforts to streamline and coordinate the planning and environmental review processes to expedite project delivery, implementation projects or programs aimed at reducing congestion and improving air quality, and activities related to the arrival of autonomous vehicles and high-speed passenger technology in the region are also included.

5.01 Regional Transportation Studies

This subtask provides support in the development and refinement of major regional corridor studies. For corridors identified for improvement in the financially constrained Metropolitan Transportation Plan (MTP), as well as other potential facilities being considered for inclusion in future MTPs, a comprehensive, detailed, and environmentally focused study must be performed at the corridor level.

Corridor Studies/Environmental Studies Support

Transportation Planning Funds

This subtask is ongoing throughout both FY2022 and FY2023, providing support in the development of corridor studies. For corridors identified for improvement in the Metropolitan Transportation Plan (MTP), both in the financially constrained and the illustrative list of projects, as well as other potential facilities being considered for inclusion in future MTPs, a comprehensive, detailed, and environmentally and socially focused study must be performed at the corridor level. These corridor studies are funded by Transportation Planning Funds, unless otherwise noted, and may require environmental analysis, evaluation of existing and/or future infrastructure conditions, or other feasibility assistance. These studies are required by federal regulation and serve as a bridge between the regional planning process and the more detailed environmental analysis and corridor design, and engineering phases conducted with partner agencies, including Dallas Area Rapid Transit (DART), the Denton County Transportation Authority (DCTA), Trinity Metro, the North Texas Tollway Authority (NTTA), and the Texas Department of Transportation (TxDOT).

Where transportation investments are contemplated, reasonable alternative strategies for addressing the transportation demands and congestion at a corridor or subarea level of the Metropolitan Planning Area are identified and evaluated in these studies. The corridor study process provides information to elected officials, technical staff, the business community, nearby

property owners, and the general public on the costs, benefits, and impacts of these alternatives so that an informed decision can be made for a corridor improvement strategy. The study process also presents the opportunity to promote a balanced and multimodal transportation network to improve system interoperability and efficiency, and support the goals of the Metropolitan Transportation Plan, along with sustainability, livability, and community land-use objectives. Funding assistance may be requested from the participating agencies and potential private concessionaires involved in Comprehensive Development Agreement (CDA) efforts.

In addition, this Work Program subtask includes technical assistance enabling NCTCOG to respond to ad hoc requests for information and assistance from local governments, transportation authorities, public agencies, Transportation Management Associations, and private interest groups. TxDOT technical assistance requests, such as on- or off-system arterial corridor analysis projects that help determine design concept and scope, are similarly included in this element. Tasks performed as technical assistance usually involve special computer processing and rerunning portions of the travel forecast model to determine travel conditions and assumptions as specified in each individual request. This work is often done for local governments in conjunction with consultants retained by the local government to complete a study or project. Anticipated products of this subtask include:

- Travel demand modeling forecasts for study corridor alternatives and alignment analysis;
- Specialized model runs such as select-link analyses and alternative demographic modeling;
- Report of daily volumes, peak-hour volumes, level-of-service, vehicle miles traveled, ridership totals, boarding and alighting figures, and other travel model data for studies;
- Travel demand modeling forecasts and forecast results reports with supporting tabulations as required for New Starts applications;
- Travel model networks, Geographic Information System (GIS) shape files, and performance reports as model outputs;
- Coordination meetings that monitor and ensure the continued progress of environmental document completion;
- Collection and transmittal of travel model data for potential CDA proposals;
- Environmental study and project updates on the NCTCOG website;
- Feedback to sponsoring agencies on review of document recommendations and design schematics prior to federal action;
- Update to the regional tolling analysis that evaluates potential environmental justice impacts;
- Analysis that quantifies potential environmental justice impacts at the corridor level;
- Written statements of support at public meetings and hearings for corridors;
- Assistance to local toll project entities on feasibility studies for potential toll roads;
- Review of feasibility and corridor study components;
- Evaluation of institutional structures necessary to implement proposed toll roads;
- Public involvement activities;
- Coordination of planning activities with regional transportation partners, including TxDOT and NTTA;
- Corridor recommendations consistent with the Metropolitan Transportation Plan, the Transportation Improvement Program, and Regional Transportation Council policies; and
- Documentation to guide incorporation of asset management principles, performance measures, and pilot project recommendations in the preparatory, analysis, and decision-making efforts for updates to the Metropolitan Transportation Plan, Congestion Management Process, and the Transportation Improvement Program.

The following is a list of roadway and rail corridor studies in the Dallas-Fort Worth area that may require environmental analysis or other feasibility assistance and would be funded with Transportation Planning Funds. These studies will be conducted based on regional priorities, schedules of partner transportation agencies, and staff and funding availability. This list is not exhaustive of all potential corridor studies but is included as a guide for projects on which assistance is currently ongoing or is anticipated.

- IH 35/IH 35W – Denton County;
- IH 35W – Tarrant County/Johnson County;
- IH 30 – Tarrant County;
- SH 121 – Tarrant County;
- IH 820/IH 20/US 287 – Tarrant County (Southeast Connector);
- SH 170;
- SH 161/SH 360 Toll Connector;
- IH 20 – Tarrant County/Parker County;
- SH 114 – Tarrant County;
- SH 199;
- US 287 – Tarrant County/Johnson County/Wise County;
- SH 360;
- IH 820 West Loop;
- US 377; and
- SH 183 – Tarrant County.

Work Performed and Status: NCTCOG participated in and contributed to TxDOT-led roadway corridor studies and environmental document completion by attending regular meetings, reviewing corridor study documents, and providing travel model related data. Additionally, staff coordinated with partner transportation agencies at the regional, State, and federal levels in the development of corridor studies and analyses and worked to ensure consistency between study recommendations and the Mobility 2045 Update.

Individual corridors involving significant staff time and resources during FY2023 included:

IH 35/IH 35W – Denton County: NCTCOG continued to work with TxDOT Dallas and Fort Worth on the development of the overall concept and scope and to determine consistency related to the Mobility 2045 Update. Staff attended monthly Metropolitan Transportation Plan coordination meetings with TxDOT Dallas and Fort Worth. NCTCOG provided TxDOT with updated travel model data based on the Mobility 2045 Update to support corridor analysis. Work on this corridor will continue in FY2024 as plans continue to develop.

IH 35W – Tarrant County/Johnson County: NCTCOG staff attended monthly Metropolitan Transportation Plan coordination meetings with TxDOT Fort Worth. During these meetings, discussions were held to ensure the ultimate vision of the corridor was depicted correctly in the Metropolitan Transportation Plan, ensuring project consistency. Staff provided TxDOT with updated travel model data based on the Mobility 2045 Update to support corridor analysis. NCTCOG participated in a TxDOT pre-National Environmental Policy Act (NEPA) value engineering study to evaluate corridor alternatives. Work on this corridor will continue in FY2024.

IH 30 – Tarrant County: During FY2023, TxDOT Fort Worth continued with the re-evaluation of the IH 30 corridor from IH 35W to SH 161. NCTCOG staff provided additional travel model data to support corridor planning efforts as additional portions of IH 30 begin the alternatives analysis process. Staff attended corridor stakeholder meetings. NCTCOG participated in a TxDOT pre-

NEPA value engineering study to evaluate corridor alternatives on IH 30 from IH 820 to Camp Bowie Boulevard. Work on this corridor will continue in FY2024 as this study will require ongoing coordination and technical support.

SH 121 – Tarrant County: NCTCOG staff continued to work with TxDOT Fort Worth on the ultimate vision and recommendations for the SH 121 corridor. Work is expected to continue in FY2024.

IH 820/IH 20/US 287 (Southeast Connector) – Tarrant County: Staff continued to attend bimonthly corridor status meetings. These meetings provided information such as corridor updates, Mobility 2045 Update coordination, and development schedules. Work will continue into FY2024 as this study will need continued coordination and technical support.

SH 170: NCTCOG continued to assist TxDOT Fort Worth to determine the ultimate scope for the SH 170 corridor and for consistency with the Mobility 2045 Update. Staff also participated in modeling for the corridor to assist in a federal grant application. Additional planning activities will be needed for this corridor in FY2024.

SH 161/SH 360 Toll Connector: NCTCOG staff continued to work with TxDOT Fort Worth and the North Texas Tollway Authority on the evaluation of potential corridor alternatives and recommendations. Staff provided technical modeling assistance to TxDOT for alternative analysis, as well as updated travel model data from the Mobility 2045 Update. Work on this corridor will continue in FY2024 as this study will require additional coordination and technical support.

IH 20 – Tarrant County/Parker County: Staff attended monthly Metropolitan Transportation Plan coordination meetings with TxDOT Fort Worth and corridor study coordination meetings for IH 20 in Arlington and Grand Prairie. NCTCOG staff conducted origin-destination analysis for this corridor. NCTCOG also reviewed recommendations for IH 20 in Parker County for consistency with the Metropolitan Transportation Plan. Work on this corridor will continue in FY2024 as this study will require ongoing coordination and technical support.

SH 114 – Tarrant County: NCTCOG staff continued to work with TxDOT Fort Worth on the interim and ultimate recommendations for SH 114 in the Mobility 2045 Update. Staff also reviewed project recommendations and traffic forecasts to evaluate corridor needs. Work will continue into FY2024.

SH 199: NCTCOG continued to provide support to the ongoing TxDOT Fort Worth Feasibility Study for SH 199 from IH 820 to downtown Fort Worth. Staff attended monthly Metropolitan Transportation Plan coordination meetings with TxDOT Fort Worth and corridor coordination meetings related to IH 820, SH 183, and the Naval Air Station Joint Reserve Base Fort Worth. Staff also provided TxDOT updated travel model data from the Mobility 2045 Update. Work on this study will continue in FY2024.

US 287 – Tarrant County/Johnson County/Wise County: Staff attended monthly Metropolitan Transportation Plan coordination meetings with TxDOT Fort Worth, along with corridor coordination meetings. NCTCOG reviewed project recommendations for consistency with the Metropolitan Transportation Plan. Staff provided TxDOT with comments to support corridor development. Work on this corridor will continue in FY2024 as plans continue to develop.

SH 360: NCTCOG staff continued to work with TxDOT Dallas, TxDOT Fort Worth, and local cities/counties on proposed interim and ultimate improvements for this corridor. Travel demand

forecasting activities were also conducted for various segments of the corridor, including origin destination analysis. Staff attended monthly Metropolitan Transportation Plan coordination meetings with TxDOT Dallas and TxDOT Fort Worth, along with corridor coordination meetings. Staff hosted corridor stakeholder meetings, attended technical work group meetings, and participated in traffic modeling workshops. NCTCOG also provided TxDOT with updated travel model data and demographics based on the Mobility 2045 Update. Work on this study will continue in FY2024 as this study will require ongoing coordination and technical support.

IH 820 West Loop: Staff continued to coordinate with TxDOT on the ultimate vision for the corridor. NCTCOG attended monthly project progress meetings. Staff provided TxDOT with updated travel model data based on the Mobility 2045 Update to support corridor planning efforts. NCTCOG performed travel demand forecasting activities, including origin-destination analysis. This study will require ongoing coordination and technical support and continued work in FY2024.

US 377: NCTCOG staff continued to work with the TxDOT Dallas and Fort Worth districts on the development of the overall corridor concept and scope, and to determine consistency related to the Mobility 2045 Update. NCTCOG provided TxDOT with comments to support corridor development. Work on this corridor will continue in FY2024 as plans continue to develop.

SH 183 – Tarrant County: NCTCOG staff worked with TxDOT Fort Worth on the ultimate vision and recommendations for the SH 183 corridor. Work is expected to continue in FY2024.

US 75 – Dallas County/Collin County: Staff provided coordination and technical support for this corridor in FY2023. NCTCOG reviewed project recommendations for consistency with the Metropolitan Transportation Plan and provided TxDOT with comments to support corridor development. Work is anticipated to continue in FY2024.

US 80/IH 30 – Dallas County/Rockwall County/Kaufman County/Hunt County: Staff attended monthly Metropolitan Transportation Plan coordination meetings with TxDOT Dallas, along with corridor coordination meetings. NCTCOG reviewed project recommendations for IH 30 from IH 45 to Ferguson Road for consistency with the Metropolitan Transportation Plan. Staff provided TxDOT with comments to support corridor development. NCTCOG staff also attended the public hearing for IH 30 from IH 45 to Ferguson Road. Work on this corridor will continue in FY2024 as plans continue to develop.

US 380 – Collin County/Denton County: Staff attended monthly Metropolitan Transportation Plan coordination meetings with TxDOT Dallas, along with corridor coordination meetings. NCTCOG reviewed project recommendations for US 380 in McKinney, Prosper, and Farmersville for consistency with the Metropolitan Transportation Plan. Staff provided TxDOT with comments to support corridor development. NCTCOG staff also attended public hearings for US 380 in McKinney and Prosper. Work on this corridor will continue in FY2024.

Transportation Planning Funds were utilized to support the above work activities.

Other Funding Sources

Texas Department of Transportation funds will also be utilized to carry out the work activities noted above, as well as corridor-level mobile source air toxics analyses, on projects that TxDOT requests assistance on. The following projects are anticipated to be performed using Texas Department of Transportation funds:

- US 75 – Dallas County/Collin County;
- US 80/IH 30 – Dallas County/Rockwall County/Kaufman County/Hunt County;
- US 380 – Collin County/Denton County;
- IH 635 East;
- City Map (Downtown Dallas Freeway Coordination Study);
- SH 190 East Branch;
- IH 20 – Dallas County; and
- Spur 394.

Work Performed and Status: No requests for NCTCOG assistance were received during FY2023. Assistance is anticipated in FY2024.

North Texas Tollway Authority Feasibility Studies

Other Funding Sources

During both FY2022 and FY2023, the North Central Texas Council of Governments (NCTCOG) will assist the North Texas Tollway Authority (NTTA) in providing travel demand modeling for current and future corridor feasibility studies, environmental documents, air quality impact analyses, and traffic and revenue forecasts. NTTA funds have been provided through an interlocal agreement between the two agencies to support this element for corridors listed in the Metropolitan Transportation Plan, as well as other potential NTTA corridors being considered for inclusion in future MTPs. NCTCOG will employ the Dallas-Fort Worth Regional Travel Model, as well as other planning activities, to provide technical data to NTTA in the analysis of new toll or managed facilities, operational enhancements, capacity improvements, or reconstruction of existing toll roads. Anticipated products of this subtask include:

- Technical data from the travel model, including daily volumes, peak-hour volumes, levels-of-service, and vehicle miles traveled for use in the refinement of corridor recommendations; and
- Corridor-level mobile source air toxics analyses.

The following is a list of ongoing and potential feasibility or traffic and revenue studies for NTTA:

- Dallas North Tollway Extension (US 380 to Grayson County);
- SH 190 East Branch (IH 30 to IH 20); and
- President George Bush Turnpike (multiple segments).

This list is not exhaustive of all potential toll facilities or toll-related roadway improvements. The list is also not presented in any sort of order of priority or importance. It is included as a guide for possible projects for which assistance may be requested. Project list revisions, as required, may be made by mutual agreement by NTTA and NCTCOG.

Work Performed and Status: During FY2023, staff provided NTTA with updated travel model data based on the Mobility 2045 Update to support corridor planning efforts for SH 190 East Branch (IH 30 to IH 20). NCTCOG performed travel demand forecasting for corridor alternatives and provided NTTA with the resulting travel model data.

North Texas Tollway Authority funds were utilized to support work activities. NCTCOG staff expects to receive additional requests from NTTA in FY2024.

Strategic Corridor Initiatives

Other Funding Sources

Under this initiative, North Central Texas Council of Governments (NCTCOG) staff will continue to provide technical, planning, and environmental assistance to transportation agencies and the Regional Transportation Council to help advance critical regional projects through development, approval, and implementation as soon as possible. The goal of this program is to help improve life-cycle functionality and reduce cost escalation due to inflation, alleviate congestion faster, assist in meeting air quality goals, and ensure incorporation of asset management and congestion mitigation strategies/principles. As regional roadway and freight/passenger rail projects continue to increase in complexity, scope, and impacts, the NCTCOG Transportation Department has identified a need to expand its involvement beyond its current planning and programming functions to improve project implementation in the Dallas-Fort Worth region.

Throughout FY2022 and FY2023, the program activities will provide assistance to advance all surface modes of transportation, including passenger rail, freight rail, and roadway improvements, particularly on those projects that deal with multiple transportation modes and asset management initiatives. Surface Transportation Block Grant Program funds, Regional Toll Revenue funds, Regional Transportation Council Local funds, and Transportation Development Credits will support this effort. Work products will vary depending on the work performed and could include:

- Meeting summaries;
- Comment review; and
- Technical memorandums.

The following is a list of roadway corridors that may be studied in this element; additional corridors may also be identified:

- IH 820/SH 121;
- SH 183;
- IH 635 East;
- State Loop 9;
- SH 114;
- Outer Loop;
- IH 30 – Rockwall County/Hunt County;
- IH 20 – Dallas County/Tarrant County;
- IH 20/IH 30 – Parker County/Tarrant County;
- IH 35E – Dallas County (including the Dallas North Tollway/IH 35E interchange);
- IH 35E – Ellis County;
- IH 820 West – Tarrant County;
- SH 360 – Tarrant County;
- US 175 – Dallas County;
- US 380 – Collin County/Denton County; and
- US 75 – Collin County/Dallas County.

Work Performed and Status: NCTCOG continued to support the Texas Department of Transportation (TxDOT) with strategic project advancement initiatives identified within each of the corridors listed above. In summary, work was comprised of preparation and review assistance on environmental documents and associated technical memos; development, evaluation, and modification of conceptual designs and engineering schematics; preparation and analysis of travel

demand model simulations; estimations of capital, maintenance, and other lifecycle costs and benefits according to construction materials and use/activity types; assessments of current/future asset conditions and other safety, mobility, reliability, and resiliency performance factors; Metropolitan Transportation Plan (MTP)/Transportation Improvement Program (TIP) consistency checks; and continued coordination with various transportation, resource, and stakeholder agencies. These activities helped ensure projects met their accelerated delivery schedules, level of service capabilities, and/or functional life expectancies, whether through feasibility, environmental clearance, implementation, or asset management efforts.

Additional technical activities, documentation, and coordination were conducted with projects along the IH 820/SH 121, SH 183, State Loop 9, IH 20/IH 30, IH 35E, SH 114/SH 170, and US 175 corridors in Dallas, Denton, Ellis, Parker, and Tarrant counties for the purposes of evaluating compatibility with Bipartisan Infrastructure Law (BIL)/Inflation Reduction Act (IRA) discretionary grant programs. During FY2023, planning, technical, and administrative assistances were contributed to applications prepared and submitted for the Rebuilding American Infrastructure With Sustainability and Equity (RAISE) Program, Corridor Identification (ID) and Development Program, Charging and Fueling Infrastructure (CFI) Program, Safe Streets and Roads for All (SS4A) Program, Multimodal Projects Discretionary Grant (MPDG) Program, Reconnecting Communities and Neighborhoods (RCN) Program, and the Strengthening Mobility and Revolutionizing Transportation (SMART) Grant Program. Similar assistance was provided to TxDOT, other transportation providers, and local governments regarding Federal grant applications for projects on and/or impacting these and other regional on-system facilities. Evaluation and decision-making tools were advanced to enable proactive project slotting and scenario planning between both current and future BIL/IRA discretionary grant solicitations, and considerable efforts were also applied toward improving data collection and calculation methodologies associated with benefit/cost analyses (BCAs).

Staff participation in national and State resource agency committees continued to facilitate increased integration of asset condition factors and management principles into considerations of project design, programming for capital and maintenance investments, metropolitan transportation planning, and project candidacy for various federal discretionary grant applications. Examples include the Federal Highway Administration's (FHWA) Transportation Asset Management Expert Task Group (TAMETG), Transportation Research Board's (TRB) Asset/Performance Management Committees (AJE20/AJE30), American Association of State Highway Transportation Officials' (AASHTO) Performance-Based and Risk/Resiliency Management Committees, the Association of Metropolitan Planning Organization's (AMPO) Technical Committee, and the Texas Association of MPOs Statewide Resiliency Technical Work Group. Participation in events/meetings and coordination among team members/partners elicited greater and more comprehensive access to data, tools, best practices, and lessons learned with respect to asset condition assessments, lifecycle cost estimation methodologies, cross-asset resource allocations, planning strategies, and the preparation/deployment of effective communication, organizational, and policy-building frameworks. Based on the types of events, work efforts included preparing/conducting meetings, developing and reviewing technical reports, generating presentation materials, crafting and distributing surveys, and completing many other technical activities and documentation.

Staff completed the evaluation and establishment of initial two-year (2024) and four-year (2026) target-setting for NHS pavement and bridge assets because of Regional Transportation Council action in July 2023 supporting TxDOT statewide condition targets for FHWA's Second PM2 Performance Period (2022-2026). That support continues work effort with TxDOT and local governments on expediting improvements to NHS bridges and off-system arterial pavement

sections rated in “poor” condition. At the close of FY2023, all individual bridge projects are either under construction or completed for the North Texas Strategic NHS Bridge Program – Infrastructure for Rebuilding America (INFRA) Grant project, and new 2023 National Bridge Inventory (NHI) data has been downloaded and analyzed for possible project bundling opportunities to be proposed for FY2023FY2024 Bridge Investment Program (BIP) grant funding. Interlocal agreements with TxDOT have been developed and executed to begin in-depth analysis of and improvements to off-system NHS arterial pavement sections rated in “poor” condition according to FHWA revised target-setting methodologies for the Second PM2 Performance Period.

Evaluation of Bipartisan Infrastructure Law (BIL)/Inflation Reduction Act (IRA) implications, linkages, and progress reporting for condition-based planning, asset management, and resiliency metrics is ongoing, particularly with relation to various formula and discretionary grant programs. Extensive focus has been/will be with the BIP, Carbon Reduction Program (CRP), Healthy Streets Initiative, and guidance for State/regional/local resilience improvement plans provided through the Promoting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation (PROTECT) Program. Information regarding state of good repair and resiliency-based merit criteria were provided by staff to support multiple BIL/IRA discretionary grant applications submitted this past year by NCTCOG and partnering agencies. Staff also reviewed project agreement financial and scope information related to pavement conditions.

Surface Transportation Block Grant Program funds (CSJs 0902-00-263, 0902-00-265, and 0902-00-266), Regional Transportation Council Local funds, and Transportation Development Credits were used to support work efforts. This project is ongoing and will continue in FY2024. Future work related to performance-based asset management planning will be conducted in Subtask 5.04.

Collin County Strategic Transportation Initiative

Other Funding Sources

Carrying over into FY2022 and FY2023, work efforts on this initiative include developing a multimodal Collin County plan with emphasis on north-south capacity and east-west connections to Hunt County. Identification of additional modal needs, as well as integration of those modes into the countywide planning effort, will also be performed. Assistance through the University Partnership Program (UPP) will continue to be utilized to estimate the travel impacts of transportation projects under consideration, with a benefit/cost analysis and an economic impact analysis to evaluate the economic implications of potential transportation improvements in Collin County. Also carrying over from FY2021 are efforts focusing on identifying potential improvements to the IH 30, US 380, and SH 66 corridors, as well as identifying recommended changes to the Hunt County Transportation Plan regarding access to Collin County. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized to support these efforts. Anticipated deliverables include:

- Travel demand modeling;
- Report of daily volumes, peak-hour volumes, levels-of-service, vehicle miles traveled, and other Travel Demand Model data;
- Presentation of results to local government officials;

- Draft technical memorandum detailing methodology and results of analysis; and
- UPP report on the benefit/cost ratio and other economic analysis results to help decision makers evaluate the value of an investment and prioritize projects.

Work Performed and Status: No work was conducted in FY2023; no requests for additional assistance were received.

Harry Hines Boulevard Corridor Study from Loop 12 to Downtown Dallas

Other Funding Sources

In FY2022 and FY2023, NCTCOG will develop a transportation corridor plan for Harry Hines Boulevard from Loop 12 to downtown Dallas. The purpose of this study is to develop a context-sensitive design with modern engineering concepts to provide multimodal transportation options and to increase the sustainability/livability in the corridor. Work efforts will be supported through Surface Transportation Block Grant Program funds and Transportation Development Credits. Consultant services may be used to support this study. Anticipated products include:

- A master transportation corridor plan for Harry Hines emphasizing multimodal transportation and technology options to support sustainable development.

Work Performed and Status: Project was completed in FY2022.

High-Speed Passenger Technology

Other Funding Sources

North Central Texas Council of Governments (NCTCOG) staff will provide leadership and/or support for work activities related to high- and higher-speed passenger technology within the Dallas-Fort Worth planning area boundary and those areas outside the planning area boundary that impact travel within the boundary. NCTCOG work activities will be supported with Regional Toll Revenue funds and Regional Transportation Council Local funds. Efforts may include all activities associated with planning and implementation of high- or higher-speed passenger technology (i.e., rail, next generation magnetic levitation) in the Dallas-Fort Worth region, as well as activities related to connecting the Dallas-Fort Worth region to other metropolitan areas. Analysis of corridor-adjacent land use, as well as infrastructure modifications and needs associated with station locations, such as freeway crossings with caps or tunnel crossings with access portals, may supplement the staff activities associated with passenger rail planning. Consultant assistance may be used for these initiatives. Regional Transportation Council Local funds will be used to support travel and associated costs for implementation of high- or higher-speed passenger technology.

The following products will be delivered during FY2022 and FY2023 as the result of work done on this project:

- Various maps identifying alternatives and Regional Transportation Council policies;
- Development of ridership modeling analyses for various high-speed passenger technology alignments and station locations; and
- Recommended station locations, alignments, and technology.

Work Performed and Status: Work under this element focused on administering the consultant contract for the Dallas to Fort Worth High-Speed Transportation Connections Study, where the focus shifted from Phase 1 (alternatives analysis) to Phase 2 (preliminary engineering and National Environmental Policy Act [NEPA]). Stakeholder workshops to refine project alternatives in key locations (including station locations and alignments) and Open Houses providing opportunity for the public to comment on the project were held during FY2023. Several coordination meetings were held to investigate the opportunity for improving project corridor-adjacent land uses in key locations, along with potential existing and future infrastructure modifications that may be required as mitigation based on the preliminary project alignment. Staff continued regular coordination efforts with the Federal Railroad Administration (FRA) and Federal Transit Administration (FTA), with FTA transitioning to be the lead agency for Phase 2 of the project. Staff continued developing Phase 2 ridership modeling and methodology for use in the NEPA analysis. Additional efforts included NCTCOG's submittal of a Fort Worth to Houston (through Dallas) High-Speed Rail Corridor application to FRA's Corridor Identification and Development Program; engagement with other Metropolitan Planning Organizations along the IH 35 corridor in Texas for a potential hyperloop feasibility study; engagement with major stakeholders, developers and Amtrak on the progress of the Dallas to Houston High-Speed Rail project; and coordination with high-speed rail experts from around the world through membership in the US High Speed Rail Association.

Regional Toll Revenue funds (CSJ 0902-00-194) and Regional Transportation Council Local funds were used to support work activities. This project is ongoing and will continue throughout FY2024.

High-Speed Passenger Technology: Dallas-Fort Worth High-Speed Transportation Connections Study

Other Funding Sources

The Regional Transportation Council has secured Surface Transportation Block Grant Program funding, matched with Transportation Development Credits, to support the development of highspeed passenger technology between Dallas and Fort Worth. These dollars and credits will be utilized by the North Central Texas Council of Governments to lead the initiative to complete any pre-National Environmental Policy Act (NEPA) planning efforts, as well as the required environmental documents (either an Environmental Assessment or an Environmental Impact Statement) in accordance with the National Environmental Policy Act on the Dallas-Fort Worth High-Speed Transportation Connections Study. Consultant assistance will be utilized. Anticipated products during FY2022 and FY2023 include:

- Pre-NEPA planning efforts, including preparation of a service development plan;
- Fifteen percent conceptual and 30 percent preliminary design plans of Preferred Alternative;
- Final environmental documents (either Environmental Assessment or Environmental Impact Statement); and
- Finding of No Significant Impact or Record of Decision.

Work Performed and Status: Consultant project activities in FY2023 transitioned from Phase 1 efforts (alternatives analysis) to focus on accomplishing Phase 2 (preliminary engineering and National Environmental Policy Act [NEPA]). Activities included pre-NEPA planning efforts such as alternative refinement and urban connection alternative analysis; advancement of stakeholder engagement to refine alternatives; completion of Phase 1 Alternatives Analysis report; preparation

of conceptual engineering alignment and cross-sections; continued public engagement through open house events, as well as community group presentations; and coordination with transportation partners and public stakeholders on a proposed alignment to be reviewed in the NEPA process. The project team also prepared a class of action request letter for the Federal Transit Administration (FTA), the lead federal agency for this project in the NEPA process, to consider how best to advance this project into NEPA. The consultant supported staff in producing the Fort Worth to Houston High-Speed Rail Corridor application (which includes the Fort Worth to Dallas segment) to the Federal Railroad Administration's Corridor Identification and Development Program. Preliminary engineering along the proposed alignment, continued coordination with stakeholders and transportation agencies (including the Federal Transit Administration), and environmental analysis and documentation will advance this project in FY2024.

Surface Transportation Block Grant Program funds (CSJ 0902-00-074) and Transportation Development Credits were used to support work activities. This project is ongoing and will continue throughout FY2024.

Regional Automated Transportation System (ATS) Initiative

Other Funding Sources

Throughout the Dallas-Fort Worth region, many opportunities exist for an appropriate technology to serve as a "last mile" connection or distribution system within a mixed-use activity center area. During FY2022 and FY2023, North Central Texas Council of Governments staff, working in collaboration with the many project opportunity owners, stakeholders, and local government and transportation authority partners, will identify the merits of alternative automated transportation systems (sometimes referred to as people mover) technologies available and assess each regional project opportunity for unique needs, including similarities and synergies. This initiative also includes detailed feasibility studies and engineering design efforts for automated transportation systems (ATS) at particular locations and for particular use cases such as passenger and freight distribution. ATS projects are expected to be pursued in both the eastern and western subregions, as well as potential retrofit applications. Consultant assistance will be utilized for this initiative. Surface Transportation Block Grant Program funds and Transportation Development Credits will be used. The following products will be delivered as the result of work done on this project:

- Technical memorandums covering evaluation of alternative ATS technologies and guideway system integration;
- Technical memorandums evaluating the needs and feasibility of the various regional ATS project opportunities; and
- Engineering designs of location-specific infrastructure for alternative ATS systems.

Work Performed and Status: Consultant assistance was utilized in completing the NCTCOG Automated Transportation System Development study (final report available on NCTCOG's website), which inventoried existing automated vehicle (AV) technologies, developed a standardized guideway design, assessed the state of the industry in dynamic wireless charging for use in this ATS initiative, and reviewed compatibility of these vehicles and infrastructure guidelines in four opportunities to implement ATS projects. Three of these opportunities, one of which is a retrofit, are being advanced further in project development in FY2024; anticipating consultant assistance and engineering design activities to proceed. Staff coordinated with local

stakeholders in advancing these three projects and further refining project scopes for initial implementations.

Surface Transportation Block Grant Program funds (CSJs 0902-00-269 and 0902-00-270) and Transportation Development Credits were used to support work activities. This project is ongoing and will continue throughout FY2024.

Regional Passenger Rail Innovative Finance Initiative

Other Funding Sources

During FY2022, North Central Texas Council of Governments (NCTCOG) staff will further investigate innovative funding and implementation opportunities for regional passenger rail systems. NCTCOG staff will coordinate efforts with Dallas Area Rapid Transit, the Denton County Transportation Authority, and Trinity Metro, as well as representatives from local government, State, and federal agencies; property owners; and developers to investigate the possible funding options. NCTCOG, working with stakeholders, will explore options under state and local laws for project implementation, and financial and governance structures, to advance all regional passenger rail projects. Efforts will also include travel demand forecasting. Consultant assistance may be utilized for this initiative, and Regional Toll Revenue funds will be used. The following products will be delivered as the result of work done on this project:

- Technical memorandums documenting analysis related to travel demand forecasting, project implementation, and financial and governance structure options; and
- Mapping of potential alignment alternatives.

Work Performed and Status: Project was completed in FY2022.

High-Speed Rail/Cedars Planning Study

Other Funding Sources

This study of potential improvements, anticipated to begin in FY2023, will include the review of transportation thoroughfare systems over IH 30. This project will include transportation planning in the Cedars neighborhood of Dallas, transportation connections to the southern sector on both sides of the Trinity River, review of potential structures in proximity of the IH 30 freeway, and preliminary engineering of recommended improvements.

This work will be performed by NCTCOG staff and engineering consultants. It is anticipated that 50 percent of the entire project will be performed by NCTCOG staff and will be conducted in the first 18 months. Consultants will be used for engineering activities in the second 18 months of the study. It is anticipated this effort will be conducted over three years. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized to support work activities. The anticipated products will include:

- A proposed gridded thoroughfare system over IH 30;
- Transportation recommendations for the Cedars neighborhood;
- Transportation recommendations crossing the Trinity River, connecting Oak Farms to the Cedars neighborhood;

- An inventory of possible transportation and economic development structures in proximity to IH 30; and
- As stated previously, 50 percent of the effort will go primarily to engineering of critical projects.

Work Performed and Status: Work on this project is anticipated to begin in FY2024.

IH 30/Fair Park Street Grid Planning Study: Foundation for CBD/Fair Park Link

Other Funding Sources

In FY2022, NCTCOG will initiate a planning study of the street grid south and north of IH 30 in the area bound by IH 45 to the west, Carroll Avenue to the east, Main Street to the north, and Fitzhugh to the south to support system redundancy and the traffic incident management process, including travel forecasts and modeling. This project will include a study of the Central Business District (CBD)/Fair Park link. Surface Transportation Block Grant Program funds, Regional Transportation Council Local funds, and Transportation Development Credits will be utilized to support work activities. Anticipated products include:

- Coordination with City of Dallas, Texas Department of Transportation, Deep Ellum Foundation and Fair Park representatives on a common vision for thoroughfare street designs;
- Review of IH 30 thoroughfare and ramp designs to coordinate freeway access and thoroughfare street recommendations; and
- Development of plans to reconnect thoroughfare streets and advance the concept for the CBD/Fair Park Link.

Work Performed and Status: For the IH 30 Fair Park Street Grid Planning Study, staff coordinated with Fair Park First, the State Fair of Texas, Dallas Area Rapid Transit, Baylor Scott and White Hospital, the Deep Ellum Foundation, Texas Department of Transportation Dallas district, City of Dallas residents, and City of Dallas staff to introduce the study, gather information, and discuss transportation issues related to the study area. Staff coordination activities included stakeholder meetings, project site visits, and a public meeting, as well as NCTCOG staff project planning meetings. NCTCOG staff initiated the development of draft recommendations.

Surface Transportation Block Grant Program funds (CSJ 0918-47-426) and Transportation Development Credits were used to support work activities. This project is ongoing and will continue in FY2024.

5.02 Subarea Studies and Local Government Assistance

This subtask provides assistance to local governments, including thoroughfare planning support, comprehensive studies, and technical assistance. This includes coordinating with local, regional, State, and federal agencies and assisting in the preparation of environmental and planning documents, as well as working with local governments in developing the transportation component of a city's comprehensive plan or countywide transportation plan.

Comprehensive Transportation Planning Studies and Technical Support

Transportation Planning Funds

This subtask is ongoing throughout FY2022 and FY2023, providing an evaluation of multimodal transportation needs within a specific geographic area or along an arterial or transit corridor. Subarea studies are designed to study a specific issue and allow for a comprehensive assessment of general transportation needs within an area prior to examining system alternatives. A portion of this subtask is dedicated to assisting local governments in developing the transportation component of a city's comprehensive plan or in the development of citywide transportation plans through the delivery of travel forecasts and technical support for these efforts. This subtask includes technical assistance enabling the North Central Texas Council of Governments (NCTCOG) to respond to ad hoc requests for information and assistance from local governments, transportation authorities, public agencies, Transportation Management Associations, and private interests. Due to the large number of similar requests, NCTCOG will prepare countywide subarea forecasts that can be used to assist local governments with thoroughfare planning needs and to answer many technical assistance questions. Additionally, this subtask allows for coordinated planning efforts that provide Travel Demand Model ridership data and technical analysis to local transit agencies.

Specific projects in this work subtask are listed below. The list is not all inclusive, as additional requests may be considered pending staff and resource availability. The timing in which local governments are ready to begin studies and the availability of NCTCOG staff and consultant assistance drive the scheduling of these efforts. Consultant assistance may be utilized to support these studies, and local governments may be responsible for consultant assistance funding. The policies set forth to guide the activity in this Work Program element are contained in Exhibit I-5. This Work Program subtask also provides traffic forecasting and technical support for subtasks conducted by other program areas within the department. Anticipated products include:

- Countywide subarea forecasts and identification of recommendations;
- Thoroughfare planning guidelines;
- Travel demand modeling for study corridor alternatives and alignment analyses;
- Report of daily volumes, peak-hour volumes, levels-of-service, vehicle miles traveled, ridership totals, boarding and alighting figures, and other travel model data for studies;
- Collection and transmittal of travel model networks, Geographic Information System shape files, and performance reports as model outputs;
- Project updates on the NCTCOG website; and
- Incorporation of recommendations into the next Metropolitan Transportation Plan.

Provided below is a list of ongoing and candidate projects in the Dallas-Fort Worth area which will be conducted or supported based on regional priorities, schedules of partner transportation agencies, and staff and funding availability. This list is divided into three categories that provide a scaled level of NCTCOG staff involvement: Category 1 – NCTCOG is conducting the study; Category 2 – NCTCOG is providing limited analysis and data to support an external study; and Category 3 – NCTCOG is providing existing data in response to small, ad hoc requests for technical assistance.

Roadway

Category 1

- Hood County Transportation Plan (including Chisholm Trail Parkway Extension)
A countywide plan will be developed that incorporates land-use planning, traffic count and accident data, demographic projections, travel demand modeling, local government committee assistance, and public involvement.
- North Tarrant County Transportation Subarea Study
This study will focus on an assessment of transportation needs in northwest Tarrant County. This effort will include a review of current and future traffic volumes, with attention given primarily to the regional arterial system in regard to connectivity and capacity needs.
- Love Field Surface Transportation Planning Study
NCTCOG, working with the City of Dallas, will evaluate roadway and transit options to maximize accessibility to Love Field now and in the future. This study will analyze roadway improvement scenarios along the southern entrance corridor, which includes Mockingbird Lane, as well as evaluate the impacts of various other improvements, including autonomous transit vehicles, signal improvements, operational turn lanes, and grade separations. The focus of the effort extends from Stemmons Freeway to the Dallas North Tollway, taking advantage of the proposed improvements to Stemmons, Mockingbird Lane, and additional arterial streets in that area.

Work Performed and Status: Evaluations of multimodal transportation needs at the subarea or corridor level to support local governments were performed. The pre-NEPA planning work performed and project status during the reporting period of FY2023 is as follows:

- Hood County Transportation Plan (including Chisholm Trail Parkway Extension)
Commencement of this planning study is pending collaboration between Hood County and NCTCOG regarding the timeline and scope of the project. Internal meetings and preliminary data collection continued in anticipation of the planning study's commencement. This project will carry over to FY2024.
- North Tarrant County Transportation Subarea Study
Continued work on this project is pending additional collaboration between NCTCOG and Tarrant County. Tarrant County staff continues to refine criteria for identifying priority corridors for further study. NCTCOG will provide additional data and planning services when the County needs further assistance. This project will carry over to FY2024.
- Love Field Surface Transportation Planning Study
Meetings and preliminary data collection occurred in FY2023. Future work on this study in FY2024 will be conducted under the Love Field Surface Transportation Planning Study (Mockingbird Lane) project utilizing Regional Toll Revenue funds.

Transportation Planning Funds were utilized to support work activities.

Category 2

- Dallas County Major Capital Improvement Program (MCIP)
- City of Dallas Comprehensive Thoroughfare Plan Update
- City of Dallas Area Planning Program
- City of Dallas Bike Plan Update
- City of Dallas Comprehensive Plan Update
- Hunt County Thoroughfare Plan

- East-West Connector for Dallas Fort Worth International Airport
- City of Lake Worth Thoroughfare Planning Assistance
- City of White Settlement Thoroughfare Planning Assistance
- City of Cedar Hill West Side Mobility Assistance
- City of Rockwall Thoroughfare Plan Update

Work Performed and Status: Evaluations of multimodal transportation needs at the subarea or corridor level to support local governments were performed. Pre-NEPA planning work performed and project status during the reporting period of FY2023 is as follows:

- Dallas County Major Capital Improvement Program (MCIP): Continued work on this project is pending additional collaboration between NCTCOG and the County. NCTCOG will provide additional data and planning services when the County or its consultants need further assistance. This project will carry over to FY2024.
- City of Dallas Comprehensive Thoroughfare Plan Update: Commencement of this project is pending collaboration between the City of Dallas and NCTCOG regarding the timeline and scope of the project. This project will carry over to FY2024.
- City of Dallas Area Planning Program: Commencement of this project is pending collaboration between the City of Dallas and NCTCOG regarding the timeline and scope of the project. This project will carry over to FY2024.
- City of Dallas Bike Plan Update: Commencement of this project is pending collaboration between the City of Dallas and NCTCOG regarding the timeline and scope of the project. This project will carry over to FY2024.
- City of Dallas Comprehensive Plan Update: NCTCOG staff coordinated with city officials and consultants regarding modeling scenarios in the convention center area of Dallas. Roadway volumes, scenario maps, and performance report data were delivered upon completion. This project is ongoing and will carry over to FY2024.
- Hunt County Thoroughfare Plan: Continued work on this project is pending additional collaboration between NCTCOG and the County. NCTCOG will provide additional data and planning services when the County or its consultants need further assistance. This project will carry over to FY2024.
- East-West Connector for Dallas Fort Worth International Airport: NCTCOG continued to work with TxDOT Fort Worth and the Dallas Fort Worth International Airport (DFWIA) on coordination of this project through FY2023. NCTCOG will provide additional data and planning services when TxDOT Fort Worth or DFWIA staff indicate further need. This project will carry over to FY2024.
- City of Lake Worth Thoroughfare Planning Assistance: Commencement of this project is pending collaboration between the City of Lake Worth and NCTCOG regarding the timeline and scope of the project. This project will carry over to FY2024.
- City of White Settlement Thoroughfare Planning Assistance: Commencement of this project is pending collaboration between the City of White Settlement and NCTCOG regarding the timeline and scope of the project. This project will carry over to FY2024.
- City of Cedar Hill West Side Mobility Assistance: Alternative demographic and roadway modeling scenarios were run, with roadway volumes, maps, and performance report data provided to the consultants in spring 2023. Continued work on this project is pending additional collaboration between NCTCOG and the city. This project will carry over to FY2024.
- City of Rockwall Thoroughfare Plan: Alternative demographic and roadway modeling scenarios were run, with roadway volumes, maps, and performance report data provided to the consultants. This project is complete and will not carry over to FY2024.

- Balch Springs Traffic Impact Analysis: Meetings were held with the City to review preliminary data and technical work previously conducted in FY2022. This project is ongoing and will continue in FY2024.
- Kay Bailey Hutchison Convention Center Study: Work activities were performed under the City of Dallas Comprehensive Plan Update noted above.

Transportation Planning Funds were utilized to support work activities.

Category 3

- Technical Assistance

Work Performed and Status: NCTCOG staff responded to multiple requests for information and assistance in FY2023. A table highlighting the larger technical assistance efforts is provided below. This list is not all inclusive of assistance provided during the year. Phone calls and emails with simple responses are not documented but make up a large part of NCTCOG staff's job duties.

Requesting Agency	Project Location	Technical Assistance Provided
City of Burleson	Lakewood Drive, City of Burleson	Projected Traffic Volumes, Roadway Networks
City of Celina	Legacy Drive, City of Celina	Projected Traffic Volumes, Demographic Forecast Data
City of Dallas	Preston Road, City of Dallas	Traffic Count, Traffic Signal, DART Bus, Bicycle/Pedestrian, Land Use, and Speed Maps
City of Dallas	Frankford Road, City of Dallas	Projected Traffic Volumes
City of Dallas	Military Parkway, City of Dallas	Projected Traffic Volumes
City of Dallas	City of Dallas	Projected Traffic Volumes, Roadway Networks
City of Denton	City of Denton	Projected Traffic Volumes, Roadway Networks, Demographic Forecast Data, Traffic Analysis Zones, Trip Tables
City of Fort Worth	East Lancaster Avenue, City of Fort Worth	Projected Traffic Volumes, Roadway Networks, Demographic Forecast Data, Traffic Analysis Zones
City of Grapevine	SH 121, SH 114, SH 360, City of Grapevine	Traffic Counts, Projected Traffic Volumes
Consultant	Pecan Parkway, Town of Northlake	Thoroughfare and Planning Information
Ellis County	Ellis County	Projected Traffic Volumes, Roadway Networks, Demographic Forecast Data

Requesting Agency	Project Location	Technical Assistance Provided
Tarrant Regional Water District	University Drive, City of Fort Worth	Traffic Counts, Projected Traffic Volumes, Level of Service
Texas A&M Transportation Institute	NCTCOG Regional Travel Demand Model Area	Projected Traffic Volumes, Speeds
Texas A&M Transportation Institute	NCTCOG Regional Travel Demand Model Area	Trip Length Data, Travel Time Data
Town of Little Elm	Town of Little Elm	Projected Traffic Volumes, Demographic Forecast Data, Traffic Analysis Zones
Town of Little Elm	Town of Little Elm	Projected Traffic Volumes
Town of Prosper	Town of Prosper	Traffic Counts, Projected Traffic Volumes
Trinity Metro	Tarrant County	Performance Measures, Trip Length Data
Trinity Metro	Tarrant County	Projected Traffic Volumes
TxDOT Transportation Planning and Programming	US 377, US 75, Dallas North Tollway, Collin County, Denton County	Projected Traffic Volumes
U.S. Army Corps of Engineers	University Drive, City of Fort Worth	Projected Traffic Volumes, Roadway Networks

Transportation Planning Funds were used to support work activities and work will continue in FY2024.

Transit

Category 1

- No projects at this time

Work Performed and Status: No work was conducted in FY2023.

Category 2

- No projects at this time.

Work Performed and Status: No work was conducted in FY2023.

Category 3

- Technical Assistance

Work Performed and Status: No requests for assistance were received in FY2023.

Collin County Outer Loop

Other Funding Sources

Ongoing throughout FY2022 and FY2023, the North Central Texas Council of Governments will continue to assist Collin County with the development and implementation of the proposed Collin County Outer Loop. This includes coordinating with local, regional, State, and federal agencies and assisting in the preparation of environmental and planning documents. Regional Toll Revenue funds will be utilized to support this effort, and consultant assistance will be utilized. Anticipated products include:

- Local environmental documents working in collaboration with Collin County staff and consultants.

Work Performed and Status: Regular coordination with Collin County occurred throughout FY2023 regarding ongoing right-of-way acquisition and interim frontage road construction activities along Outer Loop Segment 3 between the Dallas North Tollway Extension and US 75. Additional planning considerations were devoted to compatibility/continuity issues from Outer Loop environmental studies in neighboring Denton and Rockwall counties as the corridor transitions into/out of Collin County, along with potential interactions resulting from the Southeast Collin County Mobility Study recommendations being conducted by the County.

Regional Toll Revenue funds (CSJ 0918-24-174) were used to support work activities. It is expected that this project will continue in FY2024.

5.03 Land-Use/Transportation Initiatives

This subtask is ongoing throughout both FY2022 and FY2023. Work will include various elements, including Sustainable Development Initiatives, Transit-Oriented Development, and Bicycle/Pedestrian Planning, Safety, and Engineering Initiatives.

Sustainable Development Initiatives

General Land Use and Transportation Coordination

Transportation Planning Funds

This subtask includes regional, subarea, corridor, and district-level planning, along with technical assistance focused on the interface between transportation and land use. Staff will continue work on the development and implementation of tools related to land-use planning principles such as sustainable zoning practices and others and will host training sessions and develop educational information. Staff will continue to pursue funding opportunities to expand or enhance activities. Anticipated products during FY2022 and FY2023 include:

- Technical assistance to local governments on implementing Sustainable Development programs and projects such as the development of unified corridor plans, land-use analysis, data collection, education and training regarding transportation and land-use planning best practices, form-based code review, housing and transportation analysis, 3D visualization services, financing strategies and tools for economic development,

zoning and special district analysis, and planning to promote infill and mixed-use developments;

- Online information, training, and education on topics related to Green Infrastructure, Sustainable Resource Efficiency, transportation and sustainable stormwater projects and practices, and other such topics to assist in growth management and land-use planning;
- Planning support for the development of the Blue-Green-Grey Program;
- Coordination with NCTCOG's Environment and Development (E&D) related programs;
- Practical tools for curb lane management throughout the region;
- Meetings and materials for the Coordinated Land Use and Transportation Task Force;
- Analysis of the impacts of mixed-use developments to travel patterns and congestion compared to economic return on investments;
- Kennedale Parkway corridor multimodal access, streetscape, and land-use recommendations for the City of Kennedale;
- Technical assistance to the City of Dallas for the Hensley Field Redevelopment Master Plan, including monitoring of progress as it relates to military planning activities in North Texas; and
- Technical assistance to the City of Plano regarding context-sensitive thoroughfare design best practices.

Work Performed and Status: Four quarterly meetings of the Coordinated Land Use and Transportation Planning Task Force were held to share education among local governments related to best practices for development of walkable mixed-use communities. A regional guide and interactive map for development of public community gardens near transit stations was completed. Comments were provided by staff to the City of Dallas throughout development of their curb management policy. Staff conducted reviews of regional housing and transportation best practices and programs. Staff assisted local governments with reviews of transportation and land-use project submissions and infrastructure needs and worked with local governments for Transportation Improvement Program (TIP) updates as needed. An analysis of the impacts of mixed-use developments to travel patterns and congestion was launched, including initial stakeholder coordination.

Staff attended NCTCOG Sustainable Public Rights of Way meetings regarding activities and best practices. A regional green infrastructure projects inventory was launched to support green infrastructure activities.

Transportation Planning Funds were utilized to support work activities. Work is ongoing and will continue in FY2024.

Increasing Safe and Accessible Transportation Options

Transportation Planning Funds

During FY2023, NCTCOG staff will coordinate with various local governments, transportation agencies, and the Texas Department of Transportation (TxDOT) to increase safe and accessible options for multiple travel modes for people of all ages and abilities. Technical assistance and education and training will be provided on the concepts and principles related to Complete Streets and context-sensitive design. Anticipated products include:

- Adoption of regional and local Complete Streets standards or policies, and the development of Complete Streets prioritization plans that identify a specific list of Complete Streets projects to improve the safety, mobility, or accessibility of a street;
- Development of transportation projects and plans that support a network of active transportation facilities (sidewalks, bikeways, or pedestrian and bicycle trails) to connect neighborhoods with destinations such as workplaces, schools, residences, businesses, recreation areas, healthcare and childcare services, or other community activity centers;
- Planning and technical assistance to create multiuse transportation facilities, including bikeways or pedestrian and bicycle trails that make connections within or between communities, increase public transportation ridership, and improve the safety of bicyclists and pedestrians;
- Multimodal corridor coordination with the regional model on active transportation modes and performance measure reporting; and
- Education and training on Complete Streets and context-sensitive design topics.

Work Performed and Status: Staff coordinated presentations and recommendations for the Regional Transportation Council approval of Resolution R22-04 supporting a regional model for Complete Streets (context sensitive design). Staff continued to research best practices and develop a scope for a complete street guide and checklist to be used by local agencies. Staff also participated in several complete street planning discussions for corridors around the region in which agencies were looking to modify cross sections and street geometries based on adjacent land uses.

Transportation Planning Funds were utilized to support work activities. Projects are ongoing and work will continue in FY2024.

Other Funding Sources

The Regional Transportation Council selected a series of infrastructure/construction, planning, and land-banking projects during three Sustainable Development Calls for Projects (SDCFP) in 2001, 2005-2006, and 2009-2010. Efforts in overseeing passthrough construction dollars are conducted in conjunction with local governments to better coordinate transportation investments and land use. This program of projects was originally funded by Surface Transportation Program– Metropolitan Mobility funds (now known as Surface Transportation Block Grant Program [STBG] funds), and Congestion Mitigation and Air Quality Improvement Program (CMAQ) funds and was established in 2001 when the RTC selected the first Land-Use/Transportation Joint Venture projects. Additional RTC Local funds were programmed to fund these projects through the 2005-2006 SDCFP. Regional Toll Revenue funds, Surface Transportation Block Grant Program funds, and local funds were allocated to the program with the 2009-2010 Sustainable Development Call for Projects, and Congestion Mitigation and Air Quality Improvement Program funds, Surface Transportation Block Grant Program funds, and local funds were allocated to the program with the Sustainable Development Phase IV: Turnback, Context-Sensitive, and Transit-Oriented Development funding initiative in FY2018.

Exhibit VI-1 contains the listing of the Sustainable Development infrastructure and land-banking projects still underway. The funds are used to provide:

- Road construction, sidewalks, pedestrian amenities, bike trails, etc.

EXHIBIT VI-1
Sustainable Development Projects

Project Name	Type	Funding Source
Dallas Zang Triangle	Infrastructure	RTR/STBG/TDCs
Dallas-Fiji/Compton	Infrastructure	RTC Local/Local
Dallas Lake Highlands Transit-Oriented Development Multimodal Connectivity Project	Infrastructure	RTR/STBG/TDCs
Dallas Collective	Infrastructure	RTR/STBG/TDCs
Dallas-Lake Highlands Transit-Oriented Development Town Center	Infrastructure	RTC Local/Local
Irving Heritage District	Land banking	RTC Local/Local
Crowley Main Street	Infrastructure	CMAQ/STBG/Local
Ennis UPRR Safety Zone	Infrastructure	CMAQ/STBG/Local
Irving SH 356/Irving Boulevard	Infrastructure	CMAQ/STBG/Local
Lewisville College Street	Infrastructure	CMAQ/STBG/Local/TDCs
DCTA Intermodal Transit Center	Infrastructure	CMAQ/STBG/TDCs
Weatherford US 180 (Northern Loop)	Infrastructure	CMAQ/STBG/Local

The 2001 and 2018 projects are coordinated directly between the implementing agencies and the Texas Department of Transportation with staff monitoring project progress. Utilizing Regional Transportation Council Local funds, NCTCOG staff will provide oversight for the implementation of the 2005-2006 infrastructure and land-banking projects. Utilizing Surface Transportation Block Grant Program funds and Transportation Development Credits (TDCs), staff will oversee the implementation of the 2009-2010 infrastructure projects that may be assigned that are project/corridor specific. Regional Transportation Council Local funds will also be used to identify and support the development of future funding opportunities for Sustainable Development initiatives. Anticipated products during FY2022 and FY2023 include:

- Implementation and tracking of infrastructure and land-banking projects which include invoice, progress report, and schedule review; and project sponsor meetings;
- Project tracking and technical assistance to local governments developing Sustainable Development projects;
- Work scopes for plan procurements and consultant selection;
- In-house studies on land use/transportation and sustainability/livability topics of regional benefit;
- Coordination on growth and demographics;
- Training opportunities on regional land use/transportation and sustainability/livability topics of benefit to stakeholders;
- Collection of data as needed, and development and tracking of regional performance measures for reporting to stakeholders and elected officials; and
- Development and assistance in identifying funding programs and grants for regional sustainability/livability initiatives.

Work Performed and Status: Staff continued to work with local governments to implement projects in the Sustainable Development Funding Program.

Two RTR-funded infrastructure projects (Lake Highlands TOD Multimodal Connectivity and the Dallas Collective) and one RTC Local-funded land-banking project (Irving Heritage District) are currently underway. Four CMAQ/STBG-funded projects (Lewisville College Street, Ennis UPRR Safety Zone, Irving SH 356/Irving Boulevard, and DCTA Intermodal Transit Center) are currently underway. One CMAQ/STBG-funded project was completed (Crowley Main Street), and one (Weatherford US 180 Northern Loop) was cancelled in FY2023. Staff continued development of metrics and data collection/analysis for an evaluation study of completed Sustainable Development Funding Program projects. Locally led initiatives and other Sustainable Development projects were tracked.

Regional Transportation Council Local funds and local funds were used to support the infrastructure and land-banking project activities. Surface Transportation Block Grant Program funds (CSJs 0918-00-347 and 0918-00-311), Regional Transportation Council Local funds, and Transportation Development Credits were used to support staff activities. Regional Toll Revenue funds noted in Exhibit VI-1 above were paid directly to the implementing agencies by the Texas Department of Transportation. This project is ongoing, and work will continue in FY2024.

Community Schools and Transportation

Other Funding Sources

During FY2022 and FY2023, staff will coordinate with various local cities, counties, independent school districts, and the Texas Department of Transportation to assist in Safe Routes to School project development. The team will provide technical assistance related to needed safety improvements and best practices related to school location siting. Surface Transportation Block Grant Program funds and Transportation Development Credits will support work activities. Anticipated products include:

- Development of Safe Routes to School plans, training, and education information, as well as promotion of Safe Routes to School encouragement activities;
- Technical assistance and best practices related to school siting and transportation connections to schools, and assistance in reviewing roadway and active transportation projects impacting schools and analysis of potential school sites;
- Various maps and route analysis for specific safety or access projects;
- Training opportunities for technical staff and elected officials;
- Coordination meetings between independent school districts (ISDs) and other stakeholders to engage in regional issues related to school siting, safe routes to school, and policy and transportation issues;
- Practical tools for rapidly growing and greenfield cities and ISDs to plan proactively for school siting and safe bicycle/pedestrian access to schools; and
- Survey and/or data collection of site conditions as needed.

Work Performed and Status: Regional school siting and Safe Routes to School Program efforts advanced. A final draft and Geographic Information System (GIS) analysis for the Safe Routes to School regional action plan were completed. A workshop focused on neighborhood design and Safe Routes to School was planned. Staff continued to provide assistance to cities and independent school districts regarding planned or proposed school sites, Safe Routes to School projects, and school site planning coordination efforts. Safe Routes to School projects awarded funding as part of a Transportation Alternatives Call for Projects were monitored for progress in

advancement and coordination provided when needed. Staff completed planning and coordination, as well as outreach at public meetings and other venues for a Walk-to-School Day effort that provided free supportive materials to 24 participating schools on Walk-to-School Day in the region.

Surface Transportation Block Grant Program funds (CSJs 0918-00-347 and 0918-00-311) and Transportation Development Credits were utilized to support staff activities. This project is ongoing, and work will continue in FY2024.

Bachman Lake Area Planning Study

Other Funding Sources

In FY2022, NCTCOG staff will provide planning assistance to the City of Dallas to advance multimodal transportation coordinated with land use at the convergence of major transportation plans and improvements, including modification of major arterial roads such as Northwest Highway and Harry Hines Boulevard, and the possible second entryway to Love Field Airport. Planning efforts will use stakeholder engagement to identify priorities, goals, and determine areas of further study. Key emphasis of this multiyear study will be placed on addressing safe pedestrian access/facilities along major roadways to create connections to nearby trails, parks, and transit/DART stations; general connectivity of land uses; and coordination with ongoing studies. Consultant assistance may be utilized. Regional Transportation Council Local funds will be utilized to support work activities. In FY2022, anticipated products include:

- A completed report that will recommend the next phases of implementation.

Work Performed and Status: This project was completed in FY2022.

Hickory Tree Road Planning Study

Other Funding Sources

In FY2022, NCTCOG staff will provide planning assistance to the City of Balch Springs for redesign of the Hickory Tree Road corridor to advance context-sensitive design, mitigate congestion, and facilitate future economic growth. Planning efforts will use stakeholder engagement to identify goals and a preferred vision for the corridor and identify any areas of further study. Key emphases of this study will include connectivity of and safe pedestrian access to amenities, conceptual street design that emphasizes both pedestrian safety and access management, and transportation planning integration with land use to facilitate economic growth. Regional Transportation Council Local funds will be utilized to support work activities. In FY2022, anticipated products include:

- Draft and final plans and recommendations.

Work Performed and Status: This project was completed in FY2022.

Regional Mixed-Use Development Study

Transportation Planning Funds

During FY2022 and FY2023, NCTCOG staff will undertake a study investigating the traffic impacts of mixed-use development in the region and its characteristically higher density as compared to standard single use-focused development. The study will 1) explore definitions of mixed use, 2) develop a mixed-use development typology using examples from the region that represent a range of contexts where mixed-use development occurs, 3) use case studies from a range of contexts to investigate the traffic effects that may be associated with mixed-use development and/or other mitigating factors, and 4) explore tradeoffs associated with implementing mixed-use development. Anticipated products include:

- Development of project work scope; and
- Draft and final report and recommendations.

Work Performed and Status: Staff developed a work scope, compiled a preliminary mixed-use development inventory and typology, including review of literature and methodologies. An initial stakeholder meeting/workshop was held with various cities in Collin County to review the scope of work and research methods.

Transportation Planning Funds were utilized to support work activities. This project is ongoing, and work will continue into FY2024.

Dallas Opportunity Zone 1: North Oak Cliff Planning and Conceptual Engineering Study

Other Funding Sources

Beginning in FY2022, this project contains three components within this Opportunity Zone. The first component involves the planning and concept engineering of the Jefferson Viaduct, the Houston Viaduct, the interface thoroughfare street entitled Greenbriar Lane, and the extension onto Jefferson Boulevard. This future system of thoroughfare streets is impacted by the age of the infrastructure, changes to the Dallas levee flood control system, economic development opportunities, and context-sensitive design. The second component involves Eads Avenue on the eastern side of IH 35E. The third component is a program that involves traffic calming and access management. All three of these emphasis areas involve planning and concept engineering. It is anticipated that a majority of this work will be conducted through a procurement process engaging the engineering community. The funding source is Surface Transportation Block Grant Program funds, matched with Transportation Development Credits. This item will provide planning assistance to the City of Dallas and is part of a larger system of transportation projects in and near the future high-speed rail station. Anticipated products include:

- Identification of project needs and goals;
- Preliminary work scope for the Viaducts/Greenbriar Lane/Jefferson Boulevard;
- Context-sensitive designs for Eads Avenue; and
- Identification of principles necessary for traffic calming and access management.

Work Performed and Status: During FY2023, preliminary coordination and scope of work development activities with the City of Dallas continued concerning multiple other active/planned projects within and near North Oak Cliff and Downtown Dallas locations connected to the Houston

and Jefferson Street viaducts, including the Oak Farms Dairy Redevelopment, Southern Gateway Deck Park, IH 30 Downtown Dallas “Canyon”, Kay Bailey Hutchison Convention Center Dallas (KBHCCD) Redevelopment Master Plan, Texas Central Railway (TCR) Dallas High-Speed Rail (HSR) Station, and the Trinity Park Conservancy/West Dallas Gateway projects. A Request for Proposals (RFP) was issued to procure Subject Matter Expert (SME) consultant assistance, with a proposed dual-purpose contract combining scopes of work from this project with the Integrated Planning for Regional Transportation, Urban Development, and Stormwater Management (TSI) Study described in UPWP Subtask 4.02.

Surface Transportation Block Grant Program funds (CSJ 0918-47-307) and Transportation Development Credits were used to support work activities. This project is ongoing, and work will continue in FY2024.

Transit-Oriented Development

Other Funding Sources

The Transit-Oriented Development (TOD) Program was established to provide education, planning, data collection, and technical assistance to TOD projects. Under this element in FY2022 and FY2023, staff will coordinate with public-sector sponsors to evaluate specific needs for the successful implementation of TOD. Additional work will also be conducted to promote TOD in the region and to develop funding strategies and programs. Staff will analyze local data and identify and develop best practices for development around various transit modes. A regional TOD overall strategy will also be developed with local government participation. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized to support these efforts. Anticipated products include:

- Data collection intended to document existing conditions, develop performance measures for long-term transportation and land-use planning for areas surrounding rail stations, and other transit-supportive modes;
- Analysis, education, and planning assistance on criteria-related issues such as the impact of the passenger light-rail system on property values in areas near existing rail stations and other transit modes, parking, job-housing balance, typologies, codes, performance measures, and analysis of options for density and design/form-based code zoning;
- Technical assistance to develop market assessments and station area plans to promote TOD in the region; and
- A regional TOD strategy.

Work Performed and Status: Staff provided planning assistance to area cities on possible funding partnerships for development near rail stations. Data in support of grant applications for projects in rail station areas was collected and prepared. Information was prepared on parking management best practices for TOD in dense station areas.

Surface Transportation Block Grant Program funds (CSJs 0918-00-311 and 0918-00-347) and Transportation Development Credits were utilized to support staff activities. This project is ongoing, and work will continue in FY2024.

Bicycle and Pedestrian Planning

Other Funding Sources

The focus of this element during FY2022 and FY2023 is to assist in developing, educating on, and promoting bicycle and pedestrian mobility and safety throughout the region. Utilizing Surface Transportation Block Grant Program funds, local funds, and Transportation Development Credits, staff will plan facilities for active transportation modes; support and provide technical assistance to local governments and the Bicycle and Pedestrian Advisory Committee (BPAC); and advance general data collection, mapping, and a regional bicycle and pedestrian count program. Consultant assistance may be utilized. Staff will also develop and provide public education and information related to safety, accessibility, design, and economic impacts of bicycle and pedestrian facilities. Staff will also manage the updated Regional Safety campaign: Look Out Texans. Anticipated products include:

- Update of the Active Transportation Planning element for Mobility 2050, including the Regional Veloweb, and performance measures and targets;
- Implementation of a bicycle and pedestrian monitoring and data collection program in the region and coordination with local governments on initiatives;
- Bicycle and pedestrian facility plans associated with transit-oriented development areas, bicycle and pedestrian transportation districts, and corridor-area plans;
- Design guidelines and best practices for on-street and off-street bicycle facilities and shared-use paths, including policies related to context-sensitive solutions for multimodal accommodations within street rights-of-way;
- Healthy initiatives and air quality coordination data;
- Regional pedestrian and bicycle plans;
- Active transportation funding programs;
- Bicycle and Pedestrian Advisory Committee meetings;
- Bicycle and pedestrian public education, research, and information programs;
- Purchase of automated bicycle and pedestrian count equipment, parts, and services;
- A-Train Trail Corridor Utilization Study with the Denton County Transportation Authority;
- Federal and State active transportation programs which may include transportation alternatives programs such as Transportation Enhancement, Safe Routes to Schools, and Urban Thoroughfares;
- Technical assistance to large, regionally significant projects like the Cottonbelt Trail;
- Grant proposals to secure additional program funds or to support regional applications; and
- Technical assistance to cities, towns, and counties, including policy guidance, planning studies, data, mapping, technical guidance, and Geographic Information System (GIS) support.

Work Performed and Status: NCTCOG staff continued ongoing coordination with local governments to integrate updates to the regional trails and bikeway network database and related maps that will be integrated as part of Mobility 2050.

Bicycle and pedestrian traffic count data was collected and provided on a monthly basis to TxDOT's Texas Bicycle and Pedestrian County Exchange. Staff continued coordination to provide user count forecast data related to the benefits of Congestion Mitigation and Air Quality Improvement Program funded projects. Coordination also continued with local governments for a group multiagency approach to maintenance and service/equipment upgrades for installed automated bicycle and pedestrian count equipment expected to occur during FY2024.

Three meetings of the regional Bicycle and Pedestrian Advisory Committee were conducted. Information shared related to a wide variety of topics such as updates about dockless vehicle regulations by cities in the region (e.g. e-bikes and scooters); the MPO Transportation Alternatives Program Call for Projects; TxDOT's research project about green pavement markings at intersections for non-motorized users; lessons learned about bicycle protected intersection designs; retrofit of bikeway facilities on a major roadway bridge in Dallas; regional sidewalk data inventory; regional trail branding and wayfinding; planning for bicycle friendly communities; transit-oriented development planning along the Silver Line commuter rail corridor; Walk-to-School Day coordination and events; updated regional data for pedestrian and bicycle crashes; and annual updates to the regional trails and on-street bikeway database maintained by NCTCOG.

Staff provided technical assistance and data, attended community stakeholder meetings, and provided support for various local governments developing pedestrian and bicycle master plans.

The team distributed various outreach and educational materials to local governments and at community outreach events throughout the year and coordinated with regional partners to encourage safety through social media posts and announcements.

A study and recommendations for pedestrian first/last mile connectivity around six Denton County Transportation Authority (DCTA) A-train commuter rail stations in Denton, Lewisville, and Carrollton were finalized.

NCTCOG coordinated with the Federal Highway Administration to facilitate a roadway safety audit in Arlington identified as Prioritized Pedestrian Safety corridors by the regional Pedestrian Safety Action Plan.

Staff continued coordination with Dallas Area Rapid Transit (DART) and local governments for the engineering design and construction of the Phase 1 and Phase 2 sections of the Cotton Belt Trail that will be implemented by DART with the Silver Line Commuter Rail project.

Staff prepared a federal Rebuilding American Infrastructure with Sustainability and Equity grant application on behalf of DART, which awarded funding to support the construction of portions of the Cotton Belt Trail in Dallas, Richardson, and Plano. A similar application on behalf of DART was prepared for the TxDOT Statewide Transportation Alternatives Program Call for Projects to construct sections of the Cotton Belt Trail in Addison, Dallas, Richardson, and Plano. In addition, on behalf of the City of Dallas, staff modified a previously submitted federal Safe Streets and Roadways for All (SS4A) implementation grant application to construct various safety improvements in the Martin Luther King, Jr. Boulevard corridor in southern Dallas. Staff also prepared and submitted a SS4A planning grant application for the region to focus on conducting roadway safety audits, and additional planning activities to address recommendations from the regional Pedestrian Safety Action Plan and the regional Roadway Safety Action Plan.

Surface Transportation Block Grant Program funds (CSJs 0918-00-217, 0918-00-311, and 0918-00-347) and Transportation Development Credits were utilized to support work activities. This project is ongoing, and work will continue in FY2024.

Staff will also oversee the implementation of the Regional Bicycle/Pedestrian Sustainable Development Initiatives projects, which utilize pass-through Congestion Mitigation and Air Quality Improvement Program funds and Transportation Development Credits available to local governments for the implementation of various bicycle and pedestrian projects. These projects may include, but are not limited to, spot improvements, safety countermeasures, innovative

facilities, street reconstruction and rehabilitation as part of bicycle and pedestrian accommodation projects, multiuse trails, signage, pavement markings, traffic signals, and other supportive infrastructure. Staff oversight activities will be supported by Surface Transportation Block Grant Program funds and Transportation Development Credits. Anticipated products include:

- Identification of funding needs and project scopes; and
- General project coordination and project development.

Work Performed and Status: No active projects were assigned during FY2023.

Bicycle and Pedestrian Studies and Engineering

Other Funding Sources

Fort Worth-to-Dallas Regional Trail Branding Plan: During FY2022 and FY2023, staff will oversee the development of a plan for the Fort Worth to Dallas Regional Veloweb Trail, including elements such as tourism and major event infrastructure, wayfinding and directional signage, real-time display counters of trail users, economic development, branding and public education, and implementation. The planning effort will include the cities of Arlington, Dallas, Fort Worth, Grand Prairie, and Irving. Regional Transportation Council Local funds and local funds will be used to support consultant activities, and Surface Transportation Block Grant Program funds and Transportation Development Credits will be used for staff oversight activities. Anticipated products include:

- Plan for infrastructure, signage, development opportunities, branding and public education, and user count equipment; and
- Implementation plan and strategies.

Work Performed and Status: Staff coordinated with the project consultant to complete all project deliverables, including a branding and wayfinding guide, logos, and drawings for wayfinding signage fabrication. Scheduling, invoicing, and other project management items were also coordinated.

Surface Transportation Block Grant Program funds (CSJs 0918-00-217, 0918-00-311, and 0918-00-347) and Transportation Development Credits were used to support staff activities. Consultant work activities were supported through Regional Transportation Council Local funds and local funds from project partners. This project was completed.

City of Irving Bicycle Plan: During FY2022 and FY2023, staff will oversee the development of a citywide Bicycle Plan for the City of Irving focused on a seamless network of on- and off-street bicycle facilities integrated with the public transportation and the thoroughfare network. The plan will include stakeholder involvement and analysis of the existing and planned bicycling/public transportation infrastructure network, including gaps in the network, crash data, and technology options. Consultant assistance may be utilized in Phase Two to support planning activities.

Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized to support work activities. Anticipated products include:

- Citywide bicycle network plan; and
- Project prioritization, implementation plan, and funding strategies.

Work Performed and Status: Staff continued coordination with the City of Irving for a citywide on-street bike plan, conducted coordination meetings with city staff and ongoing stakeholder meetings, prepared draft recommendations for the recommended bikeway network, and prepared a draft narrative for the master plan, including action steps for implementation. Consultant assistance was secured to begin work on developing preliminary design concepts and high-level costs estimates for select corridors identified in the plan.

Surface Transportation Block Grant Program funds (CSJ 0918-47-294) and Transportation Development Credits were used to support staff activities. Work on this project is ongoing and will continue in FY2024.

Regional Pedestrian and Bicycle Safety Campaign

Other Funding Sources

During FY2022 and FY2023 staff will continue to manage and promote the Look Out Texans safety and education campaign. The campaign is intended to inform, encourage, and educate people of various ages, races, and backgrounds about the benefits of multimodal transportation and promote a culture of safety around active transportation in the region. Surface Transportation Block Grant Program funds and local funds will be used to support campaign activities, and Surface Transportation Block Grant Program funds and Transportation Development Credits will be used for staff oversight activities. Deliverables will include:

- Various education and outreach products, which may include billboards, radio ads, print material, social media, bus wraps, etc.; and
- Updates to the Look Out Texans website.

Work Performed and Status: The regional safety campaign, Look Out Texans Bike-Walk-Drive Safely, continued to be an available resource throughout the year via the campaign website, www.lookouttexans.org. No work activities were conducted in FY2023.

This project is ongoing and will continue in FY2024.

Regional Pedestrian Safety and Bicycle Safety Plans

Other Funding Sources

Carrying over from FY2021, efforts will continue in FY2022 and FY2023 on the implementation and refinement of a regional pedestrian and bicycle safety plan to improve safety for the region's pedestrian and bicycle transportation network. The plan implementation will also serve as a template for the preparation and implementation of local agency pedestrian and bicycle safety plans. This initiative will be funded with Surface Transportation Block Grant Program funds and Transportation Development Credits. Anticipated products include:

- Roadway safety audits of the identified top crash corridors;
- Additional analysis of land-use impacts and various geographies to the crash data;
- Monitoring of safety strategies and countermeasures included in Safety Action Plans, Vision Zero Safety Plans, or similar documents developed by local agencies in the region; and
- Final Plans.

Work Performed and Status: The Pedestrian Safety Plan was completed in FY2022. Work is expected to begin on the Bicycle Safety Plan and on specific roadway safety audits identified in the regional Pedestrian Plan in FY2024.

Regional Parking Management Tools and Strategies Program

Other Funding Sources

Parking management at the regional level is meant to improve the efficient use of parking spaces and coordinate the land-use elements of parking with its transportation impact. During FY2022 and FY2023, this program will develop data-driven tools and strategies to support public-sector management and programming of parking at various multimodal locations. Staff will lead planning activities and regional coordination with partner entities who set parking policy. Surface Transportation Block Grant Program funds and Transportation Development Credits will support work activities. Data collection and other consultant services may be required. Anticipated products include:

- Parking Management technology guidance;
- Development of parking management guidance, plans for strategic areas and pilot policy, and program implementation;
- Analysis of parking use and data collection within areas of interest;
- Coordination of integrated parking management studies with land-use planning; and
- Identification of strategies for transitioning parking with technology-driven transportation systems.

Work Performed and Status: Staff completed parking data collection on over 50 sites in North Texas and created a draft database table analyzing peak utilization. A public survey, on-site peak parking demand counts, stakeholder engagement, and best practice research for technical assistance to the City of Dallas on a Deep Ellum parking study will be completed in late 2023.

Surface Transportation Block Grant Program funds (CSJ 0918-00-308) and Transportation Development Credits were utilized to support staff activities. This project is ongoing, and work will continue in FY2024.

Smart Transit Corridors and Walkable Places

Other Funding Sources

Expanding transportation choices requires coordinating land use and transportation policy together to most effectively develop or redevelop multimodal corridors and achieve improved transportation outcomes. Throughout FY2022 and FY2023, this program will focus on multimodal strategies to increase non-single-occupancy transportation options in the region through coordinated land-use and transportation planning in priority transit corridors and walkable neighborhoods.

Staff will identify the priority locations based on regional data and coordination with partner agency staff. Planning work for applicable corridors and locations may include existing conditions analysis and mapping, visioning, data collection, stakeholder engagement, investigations on best practices, pilot implementation, and development of regional, corridor, or area plans. Surface

Transportation Block Grant Program funds and Transportation Development Credits will support work activities. Anticipated products include:

- Suggested improvements for bicyclists and pedestrians to access transit;
- Strategies to reduce multimodal transportation barriers in key corridors;
- Review of data and opportunities for job/housing balance;
- Tools and strategies to mitigate gentrification;
- Best practices to support mixed income and workforce housing that increase multimodal trips;
- Examination of economic potential and benefit of transit served and walkable places;
- Collaboration on public-private partnerships to support walkable development;
- Opportunities to leverage land banking in support of multimodal transportation infrastructure;
- Education and training events;
- Walkable area and corridor improvement plans;
- Transit corridor and station area plans; and
- Funding and development strategies for select corridors.

Work Performed and Status: Staff completed a North Texas Value Capture for Transportation Report recommending best practice for local application of Tax Increment Financing (TIF), Public Improvement Districts (PIDs), and impact fees for transportation. Staff drafted: a report on economic benefits and impacts of active transportation with coordinated land use; a 2023 update on transportation and gentrification with local government strategies for advancing equitable development; and a NCTCOG staff guide to creating benefit cost analysis for transportation projects. A regional sidewalk GIS layer for ongoing pedestrian project support was assembled. A final draft was developed of a pilot placemaking guide for local governments to develop innovative temporary treatments aimed at activating walking-friendly environments, and pilot placemaking training for local governments was held. Initial findings and a draft report on existing conditions related to jobs/housing balance in North Texas was completed. A draft report on NCTCOG land banking for coordinated land use and transportation projects was developed.

Surface Transportation Block Grant Program funds (CSJ 0918-00-312) and Transportation Development Credits were utilized to support staff activities. This project was completed during FY2023.

National Park Service Partnership (Phase 1)

Other Funding Sources

A multiyear effort beginning in FY2022 by NCTCOG Environment and Development Department staff will create and convene a regional stakeholder committee to coordinate various stakeholders seeking to facilitate tourism and recreation along the Trinity River National Water Trail. Regional Transportation Council Local funds will support work activities. Anticipated products include:

- Support to communities and the Trinity Coalition in the selection of new boat launch sites and strategizing on associated funding sources;
- Compliance with design requirements for new and existing boat launches;
- Publication of the national designation, as well as recreation and tourism opportunities with local media outlets; and

- Continuation of collaboration on regional connections between the river trail and the Fort Worth-to-Dallas Regional Veloweb Trail.

Work Performed and Status: Staff continued to participate in stakeholder committee meetings and provided support for planning related to new boat launch locations and the nearby Dallas-Fort Worth Discovery (Fort Worth-to-Dallas) Regional Veloweb Trail.

Regional Transportation Council Local funds were utilized to support work activities. This project is ongoing, and work will continue in FY2024.

Regional Economic Development Initiatives

Transportation Planning Funds

This element continues throughout FY2022 and FY2023 and will provide planning assistance and transportation demographic technical information and data to support economic development initiatives throughout the metropolitan area. Benefactors of this support may include the office of the Governor; area chambers of commerce; economic development coalitions, authorities, and groups; and public-private sector partnerships when working to attract new business and large industries to the region. Transportation Planning Funds will be used to support these initiatives, as well as non-federal sources of funding as they become available. Anticipated products include:

- Maps;
- Travel times;
- Traffic counts and volumes; and
- Socio-economic information.

Work Performed and Status: No requests were received in FY2023.

Silver Line Transit-Oriented Development Corridor Planning

Other Funding Sources

Through a grant award in FY2022 under the Federal Transit Administration's Pilot Program for Transit-Oriented Development (TOD) Planning, the Dallas Area Rapid Transit (DART) Silver Line TOD Plan will coordinate with the cities of Carrollton, Dallas, Grapevine, Plano, and Richardson; Town of Addison; Dallas Fort Worth International Airport; University of Texas at Dallas; DART; and private-sector partners along the corridor to advance equitable and connected TOD opportunities at nine regional rail stations. The plan will analyze pedestrian and bicycle access to stations, collect parking data, and evaluate opportunities for land-use policy to support increased access to workforce housing and jobs. Stakeholders will be engaged throughout the process. Varying tasks will be performed at different stations depending on community need. Consultant assistance may be utilized. Federal Transit Administration funds and Regional Transportation Council Local funds will be used to support this effort. Anticipated projects include:

- Sidewalk and bike routes to rail stations mapping, inventory, analysis, and evaluation of needs with recommended improvements;
- Parking study of existing sites with recommendations on policy and practices appropriate to station area needs;

- Land-use development analysis of jobs and housing access across the transit corridor and recommendations on policies advancing increased opportunity; and
- Stakeholder engagement including presentations, meetings, digital content, and creation of documents with planning recommendations.

Work Performed and Status: Coordination with local governments began on the Silver Line corridor, collecting existing TOD plans. Staff gathered data, contacted private properties, and launched a Request for Proposals (RFP) process for consultant services on a TOD Parking Study for the Silver Line.

Existing plans, available sidewalk data sets, and academic literature for developing an inventory of street trees and pedestrian lighting to include in the analysis related to identifying sidewalks and other pedestrian-related infrastructure needs along roadways leading to future Silver Line Rail Stations were reviewed.

Staff completed the RFP process for the Implementation of Bikeway Facilities to the DART Rail Stations Study, refined the scope of work and budget submitted by the recommended consultant, and finalized negotiations for the consultant scope of work and budget.

Federal Transit Administration funds and Regional Transportation Council Local funds were used for this planning work. This project is ongoing, and work will continue in FY2024.

Dallas Opportunity Zone: South Boulevard – Park Row Historic District Planning Study

Other Funding Sources

In FY2023, NCTCOG anticipates initiating a comprehensive plan to identify transportation and rehabilitation improvements in the South Boulevard – Park Row Historic District of the City of Dallas. This area is bound by Park Row Avenue on the north, Oakland Avenue (aka Malcolm X Boulevard) on the east, South Boulevard on the south, and South Central Expressway on the west. This initiative is intended to help promote revitalization in Environmental Justice communities. This planning effort will inventory the quality of the pedestrian, bicycle, street surface, and traffic signal conditions. An inventory of the quality of residential structures will also be assessed. The planning effort will be conducted by NCTCOG staff as an initial assessment on how best to preserve the quality of neighborhood assets and make recommendations to the modernization of the transportation elements. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized to support work activities. Anticipated products include:

- Inventory of transportation assets;
- Inventory of residential/housing assets; and
- Recommendations to advance additional transportation improvements that maximize the architecture, mobility, accessibility, and quality-of-life attributes of the Park Row historic district.

Work Performed and Status: Work on this project will begin in FY2024.

Grand Avenue Study (3G: Garland/Gaston/Grand to IH 30)

Other Funding Sources

In FY2023, NCTCOG will initiate a planning and conceptual engineering study to identify needed improvements to Grand Avenue (SH 78) between Garland Road/Gaston Avenue (White Rock Lake spillway) and IH 30. This project will include travel forecasts, travel modeling, context sensitive design and system planning principles for this east Dallas neighborhood. This project will also include management of an update to the prior Garland Road Vision Study by NCTCOG in 2010 that extended from the Dallas/Garland City limits (IH 635) to Garland Road/Gaston Avenue. It is intended that NCTCOG staff will conduct this planning/engineering effort. NCTCOG will partner with TxDOT, the City of Dallas, and the impacted east Dallas neighborhood. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized to support work activities. Anticipated products include:

- Review of the 2010 Garland Vision Study;
- Technical travel demand history and forecast of the impacted corridor from the 3G intersection to IH 30, including a simulation of the new IH 30 freeway design;
- Exploration of context sensitive design options for the corridor; and
- Recommendation on a typical cross section including roadway pedestrian and bicycle network connections.

Work Performed and Status: Work is anticipated to begin in FY2024.

South Dallas Improved Bicycle/Pedestrian Routes to Rail and Transit Technology Upgrades

Other Funding Sources

In FY2022, NCTCOG was awarded grant funding from the United States Department of Transportation (USDOT) under the Rebuilding American Infrastructure with Sustainability and Equity (RAISE) discretionary grant program to implement mobility infrastructure near stations on the Dallas Area Rapid Transit (DART) Blue Line in the East Oak Cliff neighborhood of South Dallas. The project will improve connectivity to transit through building new sidewalks, implementing bus stop and rail station safety enhancements, and extending a multi-use trail. NCTCOG staff will oversee project management of the RAISE South Dallas Improved Bicycle/Pedestrian Routes to Rail and Transit Technology Upgrades project once initiated. Contractor and subrecipient assistance will be utilized. USDOT grant funds, Congestion Mitigation and Air Quality Improvement Program funds, Regional Toll Revenue funds, and local funds will support these activities. Anticipated products include:

- Coordination with DART and the City of Dallas to implement project improvements;
- Oversight on procurement of services as needed;
- Reporting on grant progress and deliverables;
- Budget monitoring and oversight, including coordination with the Transportation Improvement Program; and
- Execution of agreement and documentation of compliance to grant requirements through monitoring and onsite reviews.

Work Performed and Status: This project is expected to be reassigned to the City of Dallas as the direct recipient of the grant award. No work was conducted in FY2023.

5.04 Transportation Asset Management

As defined in federal law, transportation asset management is a strategic and systematic process of operating, maintaining, and improving transportation assets to identify a structured sequence of maintenance, preservation, repair, rehabilitation, and replacement actions that will achieve and sustain a desired state of good repair (SOGR) over the lifecycle of these assets at minimum practicable cost. This subtask will involve work efforts to integrate transportation asset management principles within the metropolitan transportation planning process.

National Highway System (NHS) Infrastructure Performance Measures and Transportation Asset Management Plan (TAMP) Coordination and Reporting

Other Funding Sources

Existing federal regulations now require the Texas Department of Transportation (TxDOT) and the North Central Texas Council of Governments (NCTCOG) coordinate on the establishment and reporting of performance targets for pavement and bridge conditions on the National Highway System (NHS). The NHS includes all Interstate Highways and other roadways designated by the US Department of Transportation (USDOT) as important to the nation's economy, defense, and mobility. NCTCOG has the discretion to support TxDOT's NHS pavement and bridge targets (i.e., agree to plan and program projects so they contribute toward the accomplishment of TxDOT's established targets) or to establish its own quantifiable NHS pavement and bridge targets specific to its Metropolitan Planning Area. As part of NCTCOG's contribution toward achieving established targets, data analysis, project review, and other technical assistance will be applied toward expediting condition improvements, particularly for bridges and NHS "off-system" pavements. In addition to complying with NHS infrastructure performance measures, TxDOT is required to develop and implement a Transportation Asset Management Plan (TAMP) for the National Highway System to preserve or improve asset condition and system performance as part of the National Highway Performance Program (NHPP). TxDOT has prepared a TAMP that not only focuses on pavement and bridge conditions on the NHS but also addresses the entire State Highway System. The scope of this TAMP includes asset management objectives and performance measures, life-cycle planning, risk management, financial planning, and performance gap analyses. To assist TxDOT with TAMP implementation, this element highlights the supporting role of NCTCOG in aiding TxDOT on data collection/analysis, as well as to disseminate TAMP findings to local jurisdictions with NHS roadways.

Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized to support work activities. Work will be ongoing throughout FY2022 and FY2023, and the following products will be delivered as the result of work done on this element:

- Collection and analysis of NHS pavement and bridge data in coordination with TxDOT and local jurisdictions with NHS roadways;
- Establishment and reporting of NHS pavement and bridge performance targets in coordination with TxDOT and in accordance with federal deadlines;
- Distribution of presentations and reports to guide incorporation of NHS infrastructure performance measures and TAMP findings into updates to the MTP and TIP;
- Development and maintenance of a web page on NHS infrastructure conditions and TAMP compliance, including status updates, meeting materials, and resource information; and

- Development and management of a data and project management system to facilitate reviews of pavement scores and engineering applications directed toward improving NHS “off-system” roadways in poor condition.

Work Performed and Status: Work performed on performance-based asset management planning was conducted under Strategic Corridor Studies in Subtask 5.01. A minimal amount of Surface Transportation Block Grant Program funds (CSJ 0918-00-370) and Transportation Development Credits were used for administrative grant review. This project is ongoing, and work will continue in FY2024.

Asset Condition-Based Roadway Planning

Transportation Planning Funds

Improved asset management requires acknowledgment and engagement of the various environmental and economic risks that can affect infrastructure vulnerability and longevity. A durable system not only reduces the probability of component failure, but also reduces the potential extent and severity of overall destruction, service interruption, and recovery time as the result of major disruptive events such as severe weather (e.g., flooding, drought, extreme heat, etc.). To that end, this element will incorporate data evaluating regional pavement/bridge conditions and performance targets, recommendations resulting from the FY2021 University Partnership Program’s (UPP) Transportation Infrastructure Vulnerability Assessment Study, outcomes from the Integrated Planning Study for Regional Transportation, Urban Development, and Stormwater Management (as described within Subtask 4.02), and other initiatives to inform both project- and system-level asset planning studies. This work will form the basis for conducting systemwide multilevel criticality and vulnerability assessments, identifying customized durability enhancement tactics for various transportation facilities, and utilizing decision making and/or economic justification tools to aid in the development and prioritization of multimodal durability measures and strategic projects, as appropriate.

Work will be ongoing throughout FY2022 and FY2023, and the following products will be delivered as the result of work done on this element:

- Technical memoranda documenting vulnerable and critical transportation infrastructure itemized by defined asset stress types;
- Travel demand modeling forecasts for study corridor alternatives and alignment analyses;
- Quantification of potential asset management impacts and benefits at the corridor/project level;
- Feedback to sponsoring agencies of environmental document recommendations and design concepts prior to implementing agency approval and delivery;
- Project/corridor recommendations consistent with the Metropolitan Transportation Plan, the Transportation Improvement Program, and Regional Transportation Council policies; and
- Documentation guiding continued incorporation of asset management principles, lifecycle-based condition needs, and project recommendations for critical and vulnerable-area infrastructure as part of preparation, analysis, and decision-making efforts for updates to the Metropolitan Transportation Plan, Transportation Improvement Program, Congestion Management Process, and other complementary plans/programs.

Work Performed and Status: The continued retrieval and integration of updated bridge/pavement asset data to fulfill Fixing America’s Surface Transportation (FAST) Act and

Infrastructure Investment and Jobs Act (IIJA) target tracking requirements, including project-based progress reporting and resilience vulnerability assessment compliance requirements for the 2023-2026 Transportation Improvement Program (TIP), was performed during FY2023. Corridor asset information was collected/updated and utilized in the evaluation of corridors as possible candidates for State/federal discretionary grant opportunities. Staff remains actively engaged in webinars, peer exchanges, and other interactions/correspondence for chances to learn, evaluate, and apply available asset management and resilience-based databases, examination tools, return-on-investment/benefit-cost ratio calculation methodologies, communication/visualization platforms, and public/agency involvement strategies aimed to influence project programming activities toward improved system lifecycle optimization.

Work is ongoing regarding data collection, methodologies, and the development/deployment of tools aiding regular, comprehensive, and systemwide multimodal all-hazards criticality and vulnerability assessments of the transportation network. Advancement of tasks associated with the Integrated Planning Study for Regional Transportation, Urban Development, and Stormwater Management (UPWP Subtask 4.02), and other initiatives will soon inform project- and system-level asset planning studies, and initial worksheets indicating general estimations/projections of condition are under preparation for the next Metropolitan Transportation Plan.

Transportation Planning Funds were used to support these work activities. This project is ongoing, and work will continue in FY2024.

Streamlining Potential Interventions to Enhance the Life Cycle Condition and Maintenance of Bridge Assets

Transportation Planning Funds

As part of the Regional Transportation Council's commitment to help the Texas Department of Transportation and other National Highway System (NHS) asset owners make progress in the accomplishment of federal condition targets (PM2) for bridges, this initiative, through the University Partnership Program, will develop a strategic software tool for users to determine feasible interventions to improve condition ratings or extend serviceability of bridges throughout the regional roadway network. Methodology for the tool will be based on the comprehensive review of National Bridge Inventory (NBI) ratings, evaluation of a wide sample set of bridge inspection reports, categorization of possible deficiencies between good/fair/poor ratings on various bridge components, and the identification of corresponding and viable interventions with potential to upgrade safety, functionality, and/or service life. The tool would address a critical knowledge and implementation gap on available or innovative cost-effective maintenance measures for most bridge types, with due respect to environmental factors, service/load demands, and material thresholds, which can be used to either increase or slow the decline of condition ratings throughout a bridge's typical lifecycle. Work will occur throughout FY2023, and the following products will be delivered as the result of work performed on this element:

- Creation of regional bridge condition maps and location-specific fact sheets highlighting critical bridge attributes such as component performance, structure age, load and vertical clearance limitations, and obsolete design characteristics;
- Technical memorandums highlighting observations/assessments of NBI ratings, inspection reports, deficiency categories, and intervention measures;
- Software tool with user-friendly manual describing inputs, potential outputs, assumptions, and benefit/cost information;

- Final report describing tool methodology, applications, and possible implications for bridge PM2 target setting and progress reporting; and
- Stakeholder dissemination and training workshops to gain/apply feedback from asset owners.

Work Performed and Status: This University Partnership Program (UPP) project was aimed at improving NHS bridge conditions within North Central Texas. The project involved a comprehensive inspection report review for 90 selected Dallas-Fort Worth area bridges utilizing the Texas Department of Transportation (TxDOT) AssetWise database. This data served as the foundation for a thorough categorization of bridge deficiencies, with a particular emphasis on those categorized as in “poor” or “fair” condition. Historical data and inspection reports were analyzed to identify overarching trends and key influential factors impacting bridge conditions. The project employed quantitative analysis to reveal essential connections between bridge conditions and specific defect categories, offering critical insights into the factors contributing to bridge deterioration. Drawing from this analysis, the project team put forth recommendations for feasible interventions, designed to enhance bridge ratings and prevent further deterioration. A comprehensive cost analysis was conducted, incorporating TxDOT unit prices to estimate the costs associated with the proposed interventions. Additionally, the study evaluated benefit-cost ratios (BCR) to assess the cost-effectiveness of these recommendations. These efforts ultimately resulted in a user-friendly software tool enabling users to input relevant bridge-specific data, yielding personalized intervention suggestions, cost estimates, and BCR values for various individual bridge component treatments. It is hoped this tool will empower stakeholders and bridge management professionals toward a more efficient/accountable process for asset management.

Transportation Planning Funds were used to support work activities, and the project was completed in FY2023.

5.05 Congestion Management Planning and Operations

The Regional Transportation Council (RTC) has selected the following congestion management planning efforts and operational strategies through a series of funding initiatives. The strategies listed below are congestion management directives and special projects that NCTCOG is responsible for implementing and/or administering. Efforts in this subtask will be conducted in conjunction with local governments for better coordination of transportation operations and investments.

Congestion Management Process (CMP) Documentation and Compliance

Transportation Planning Funds

As defined in federal guidelines, the Congestion Management Process is a regionally coordinated approach that provides accurate, up-to-date information on measuring congestion levels and assessing strategies for addressing congestion that meets State and local needs. A CMP is required in urbanized areas with a population exceeding 200,000, known as Transportation Management Areas (TMAs). In TMAs designated as ozone or carbon monoxide nonattainment areas, federal regulations prohibit the programming of federal funds to projects that result in a significant increase in carrying capacity for single-occupancy vehicles (SOVs) unless such projects can be justified and incorporate any reasonable Travel Demand Management (TDM) and Transportation System Management and Operation (TSM&O) strategies identified in the CMP.

The updating and maintenance of the CMP documentation for the Dallas-Fort Worth Metropolitan Area is a major element of this Work Program subtask. While the wide range of higher-cost capacity expansion projects and other major infrastructure investments identified in the MTP are needed to meet long-term transportation demands, the CMP focuses on identifying a range of lower-cost, short-term strategies for addressing congestion on the most congested roadway corridors in the region. In addition to TDM and TSM&O strategies, the CMP identifies Asset Optimization strategies where corridor deficiencies and performance gaps can be addressed within the existing right-of way, using lower-cost operational and capital improvement strategies that are more cost-effective and quicker to implement than higher-cost capacity expansion projects. Work will be ongoing throughout FY2022 and FY2023, and the following products will be delivered as the result of work done in this element:

- Updated and maintained CMP documentation;
- Presentations and maps utilizing CMP data and information;
- Completion of justification analysis and CMP commitment identification for non-exempt single-occupancy vehicle (SOV) capacity-increasing projects submitted for Transportation Improvement Program (TIP) funding;
- Coordination with TxDOT and other implementing agencies of significant SOV capacity-increasing projects to complete CMP forms;
- Integration of corridor-specific CMP strategies into updates to the Metropolitan Transportation Plan and the TIP, and within corridor and environmental studies initiated through Subtask 5.01; and
- Development and maintenance of a web page on the CMP and related strategies, including status updates, CMP forms, meeting materials, and resource information.

Work Performed and Status: Congestion Management team members continued project planning and stakeholder outreach to coordinate and implement the 2021 Congestion Management Process. Staff continued to ensure CMP compliance through the Single-Occupant Vehicle (SOV) analysis and review of the CMP Implementation Form. Staff continued to provide guidance for the CMP compliance process to agencies adding capacity projects, including both TxDOT Dallas and Fort Worth District staff.

Transportation Planning Funds were used to support these work activities. This project is ongoing and will continue in FY2024.

Asset Information Planning Tool Development

Transportation Planning Funds

This element will involve the development of asset information planning tool software with database and visualization features for storing and analyzing transportation asset data. Work efforts will involve the identification of asset data that is readily available from internal and external sources, prioritizing the asset data (asset types, attributes, etc.), and collecting and organizing the asset data. Additional activities will include evaluation of options for collecting additional data, implementing outreach to increase awareness of this tool, and integrating congestion mitigation strategies from the Congestion Management Process (CMP). Work will be ongoing throughout FY2022 and FY2023, and the following products will be delivered as the result of work done on this element:

- Integration of the data fields from the corridor fact sheets from the Congestion Management Process Update documentation into the planning tool;
- Ongoing coordination with program areas to maintain the planning tool to keep data current and reliable; and
- Documentation to guide incorporation of planning tool information and reports into updates to the Metropolitan Transportation Plan, Unified Transportation Program, and Transportation Improvement Program.

Work Performed and Status: The integration of performance and asset data items to update the Congestion Management Process, as well as the data sources and evaluation methodologies continued in FY2023. Staff began collecting updated data items, including crash data from the Texas Department of Transportation (TXDOT) Crash Record Information System, travel time index and level of travel time reliability from the Federal Highway Administration National Performance Management Research Data Set, and TxDOT Pavement Management Information System bridge and pavement conditions data.

Transportation Planning Funds were used to support these work activities. Future work in FY2024 on this initiative will be conducted under Subtask 3.06, Congestion Management Planning, Congestion Management Process.

Other Funding Sources

This element will also utilize Surface Transportation Block Grant Program funds and Transportation Development Credits to assist with the development of the planning tool. Once the planning tool is in place, it would be maintained and upgraded by NCTCOG staff. Consultant assistance will be utilized. Anticipated products include:

- Development of a work program and request for proposals for the selection of a consultant to assist with the development of the planning tool software;
- Management and oversight of the consultant contract and invoices;
- Development of a planning tool software and website application that produces maps, tables, reports, and fact sheets which will highlight asset management data analyses and congestion mitigation strategy implementation and effectiveness; and
- Training classes, workshops, and instructional materials (user's guide) for internal and external users of the planning tool.

Work Performed and Status: Staff reviewed, inventoried, and evaluated possible tools to develop an automated data process and analysis effort for the Congestion Management Process. After reviewing the tools, it was determined this effort would be best completed internally by NCTCOG rather than through the procurement of a consultant. Staff identified steps and processes to develop software with multiple evaluation phases as part of the Congestion Management Process to evaluate corridors within the Dallas-Fort Worth region. Staff monitored progress on the development of these phases and processes. Unfortunately, due to staff vacancies, this development process was delayed, and the development of a fully automated tool was not completed.

Surface Transportation Block Grant Program funds (CSJ 0918-00-304) and Transportation Development Credits were used to support work activities. Future work in FY2024 on this initiative will be conducted under Subtask 3.06, Congestion Management Planning, Congestion Management Process.

Transportation System Management and Operations

Transportation Planning Funds

This program is ongoing throughout FY2022 and FY2023, supporting development of regional Transportation Systems Management and Operations (TSM&O) strategies. It includes strategies such as intersection and signalization improvements, grade separation, freeway bottleneck removal, and Intelligent Transportation Systems (ITS) which will be developed to reduce travel time and enhance system reliability. Anticipated products include:

- Monitoring, updating, identification, and evaluation of regional TSM&O plans, policies, and projects outlined in the Metropolitan Transportation Plan and Congestion Management Process;
- Evaluation of TSM&O projects for inclusion in the Transportation Improvement Program, including project-level statements of architecture consistency;
- Support and assistance to regional partners to plan strategies and promote cooperation and participation in committee meetings;
- Evaluation of vehicle and infrastructure technology; and
- Monitoring and assessment of Metropolitan Transportation Plan Policy Bundles survey for TSM&O-related survey components.

Work Performed and Status: NCTCOG staff continued to develop, implement, and monitor regional Transportation Systems Management and Operations goals and strategies outlined in the Metropolitan Transportation Plan. Coordination efforts continued with cities and the Texas Department of Transportation (TxDOT) to identify, evaluate, and track deployment of TSM&O strategies/projects and technologies within the region, and staff participated in regional TSM&O plan updates. Staff reviewed TSM&O elements of the Metropolitan Transportation Plan Policy Bundle responses.

Staff continued to work with TxDOT to update an inventory of agencies that are connected to center-to-center (C2C) plug-ins and those agencies that require connection. Together, TxDOT and NCTCOG monitored existing and initiated new agreements needed for sharing TxDOT data and video and for implementing the regional communication system. Staff also oversaw the identification, prioritization, and development of C2C plug-ins for local agencies.

Two ITS Stakeholder Task Force meetings were held for regional partners, providing an overview and update to participants on regional ITS activities. Activities included updates on TSM&O-related projects from NCTCOG and local agency staff.

Transportation Planning Funds were utilized to support work activities. This project is ongoing, and work will continue in FY2024.

Intelligent Transportation Systems (ITS) Architecture

Transportation Planning Funds

This program is ongoing throughout FY2022 and FY2023, supporting development of regional Intelligent Transportation Systems plans and Regional ITS Architecture. ITS improves transportation safety and mobility, reduces environmental impact, and enhances productivity through the integration of advanced communications-based information and electronic

technologies into the transportation infrastructure and vehicles. The ITS Architecture guides the use of ITS and builds regional consensus for integrating the systems of multiple agencies in the Metropolitan Planning Area. Anticipated products include:

- Identification and documentation of standards for interagency communication of data and video through Center-to-Center-related software and requirements to facilitate information sharing between agencies;
- Update of the Regional ITS Architecture and development of associated plans and documents;
- Review and approval of project-level statements of ITS Architecture consistency; and
- Update of the Regional ITS Architecture Strategic Deployment Plan.

Work Performed and Status: The Regional ITS Architecture was updated to incorporate and address new Service Packages in the US National ITS Architecture. Projects submitted through the Transportation Improvement Program were evaluated to ensure compliance with the Regional ITS Architecture. Review and approval continued for all project-level statements of ITS Architecture consistency for ITS projects to receive federal funds.

Seven Memorandums of Understanding (MOU) were executed in FY2023 by regional agencies to form a Regional Network Committee. To date, 12 agencies have executed MOUs. Agencies are encouraged to execute the MOU with the purpose of establishing a regional network. This regional network would facilitate sharing of communications infrastructure, transportation data, and transportation-related video.

The Regional ITS Architecture Strategic Deployment Plan Project Listing was updated, and discussions related to prioritization of projects continued with the ITS Stakeholder Task Force meeting participants. A Strategic Deployment Plan Project Listing Committee convened to update scoring and prioritization criteria.

Transportation Planning Funds were utilized to support work activities. This project is ongoing, and work will continue in FY2024.

Regional Data Hub and 511DFW

Other Funding Sources

This program is ongoing throughout FY2022 and FY2023, supporting development, testing, implementation, and operations of the regional data hub and 511DFW. There is a significant need for the transportation industry to roll out an enterprise solution that will provide standardized interfaces to reduce integration cost and ensure data interoperability and effective data sharing across the region. Utilizing the open-source data hub platform developed by the California Department of Transportation (CalTrans), NCTCOG plans to implement, test, and integrate data sources from the various regional partners and other sources into a cloud-based system to allow for scalability, latency, and security. The data hub will consume standard data inputs from applications, enable sharing of data within the region, make it easy to deploy best-of-breed applications without complex procurement specifications, and allow each agency the freedom to procure systems that best meet their needs. The 511DFW system will feed information into and may consume data from the data hub. 511DFW comprises the public-facing regional Traveler Information System, and the agency-facing user interface for information and performance measures platform. The 511DFW system's public website (511dfw.org) provides personalized

travel information and the Transit Trip Planner link. This program uses Surface Transportation Block Grant Program funds, Texas Department of Transportation funds, Regional Toll Revenue funds, and Transportation Development Credits to support activities in this area. Consultant services may be utilized. Anticipated products include:

- Testing and implementation of existing regional data hub and interfaces within the Dallas-Fort Worth region developed by CalTrans;
- Evaluation and integration of new and existing data types/sources into and from regional data hub;
- Evaluation, improvement, implementation, and operations of the 511DFW system with outreach and communications planning and educational services to enhance public awareness and use of 511DFW;
- Collection and verification of data ensuring that devices and systems are operated and maintained at a level to detect and report accurate information (i.e., speeds, counts, and other data items);
- Agreements for regional communication, infrastructure, and information sharing, including the Memorandum of Understanding between the Dallas-Fort Worth regional ITS partner agencies; and
- Agreements for data and video sharing with individual partners or third-party sources.

Work Performed and Status: Staff continued to work towards the establishment of a regional data hub to collect and archive ITS data. ITS data archiving is an initiative to archive traffic information by gathering data from multiple agencies using C2C software and the regional ITS communication network. Staff continued to work with the TxDOT Dallas and Fort Worth districts to address data issues and concerns, and to evaluate new methodologies for open-source data transmission and archiving. Efforts continued to encourage the multiagency use of direct data communication through C2C.

Management and operations of the 511DFW Traveler Information System continued, in addition to the identification of additional future enhancements. Recommendations for additional improvements continue to be solicited. An amendment to the consultant contract was implemented to provide maintenance and operations of the 511DFW system through June 2023 for an additional year. A new vendor was selected to establish a new 511DFW system and provide continued maintenance and operation. The scope and cost of the new system were developed for inclusion in the new contract.

Work was completed on the collection and verification of data to ensure that devices were operating at a level to detect and report accurate information. Work activities were carried out under UPWP Subtask 2.02, Transportation Data Development, Enhancement of Quality of Data Collected by Radar Vehicle Detectors.

Surface Transportation Block Grant Program funds (CSJs 0902-00-260, 0902-00-304, and 0918-00-371), Texas Department of Transportation funds, Regional Toll Revenue funds (CSJ 0918-00-364), and Transportation Development Credits were utilized to support work activities. This project is ongoing, and work will continue in FY2024.

Development of Regional and Corridor-Level TDM Strategies

Transportation Planning Funds

This element is ongoing throughout FY2022 and FY2023, providing for the planning and development of regional Travel Demand Management (TDM) strategies, including, but not limited to, employer trip reduction initiatives, carpools, vanpools, park-and-ride facilities, and transportation management associations. This element also supports the development of regional TDM strategies in the Metropolitan Transportation Plan. Regional Travel Demand Management strategies identified in the Congestion Management Process (CMP) will be applied on a regional level, and additional travel demand reduction strategies will then be evaluated for their application on the corridor and subarea levels. At the project implementation level, TDM projects are monitored so they can be added to the regional Transportation Improvement Program at the appropriate time with respect to the single-occupancy vehicle facility implementation. Anticipated products include:

- Monitoring of regional TDM goals and strategies outlined in the Metropolitan Transportation Plan and the Congestion Management Process;
- Assessment and monitoring of Metropolitan Transportation Plan Policy Bundle surveys for TDM-related survey components;
- Assessment and monitoring of public- and private-agency participation in the regional trip reduction target setting for single-occupancy vehicle trips;
- Maintenance of and updates to the Regional Park-and-Ride Inventory database and map;
- Coordination with regional partners for the collection of TDM-related performance measures and/or activity reports for inclusion in TDM reports; and
- Development and implementation assistance efforts to regional employers in developing or strengthening alternative commute programs within their agencies.

Work Performed and Status: Staff continued to oversee and manage the Regional TDM Program which included the monitoring of strategies in various plan documents and programs, and outreach to public and private employers to encourage the implementation of applicable TDM strategies. Staff also continued to update and maintain the regional park-and-ride facility inventory listing and updated online map resources. Staff also assessed and scored survey applications for the MTP Policy Bundle packet for trip reduction programs and policies. TDM-related performance measures were collected and tracked for inclusion in the TDM Annual Performance Report.

Transportation Planning Funds were used to support work activities. This project is ongoing, and work will continue in FY2024.

Special Events

Other Funding Sources

This program is ongoing throughout FY2022 and FY2023, providing planning and implementation activities for various transportation service needs for special events. NCTCOG continues coordination and technical support for local governments, transportation providers, and other key stakeholders in North Central Texas regarding the regional coordination of special event management plans and critical infrastructure needs to support these events. Surface Transportation Block Grant Program funds and Transportation Development Credits will support this initiative. NCTCOG staff will provide oversight of this program. Anticipated products include:

- An inventory of major special events in the region;
- Coordinated regional partner involvement;
- Implementation of coordinated congestion management strategies associated with special events;
- Identification of funding sources or shared resources, and funding agreements executed with regional partners to implement projects; and
- Committee meetings.

Work Performed and Status: Staff continued to coordinate activities, including the use of an inventory for regionally significant special events; monitor special event calendars; and work with regional partners to develop strategies and plans for special events. Dialogue was maintained with regional partners to plan for large special events within the region to understand critical infrastructure needs to support these events. An inventory of infrastructure and transportation needs was initiated for the upcoming Major League All-Star Game in 2024 and the 2026 World Cup. Staff continued to work with TxDOT and the Cities of Arlington and Grand Prairie to identify the hours of operation for the IH 30 reversible managed lanes and coordinate with TxDOT and the North Texas Tollway Authority to monitor the system and post messages on dynamic message boards during 130 events.

Surface Transportation Block Grant Program funds (CSJs 0902-00-049 and 0902-00-350) and Transportation Development Credits were utilized to support work activities. This project is ongoing, and work will continue in FY2024.

Auto Occupancy Detection Technology

Other Funding Sources

This element is ongoing throughout FY2022 and FY2023. To facilitate efficient operation, toll collection, and/or incentive credits on the use of the transportation system, the region has implemented a technology-based system to verify auto occupancy. The region plans to utilize advanced technology for vehicle occupancy detection and verification, as well as other equipment, to improve the safety and operations of the transportation system. As part of this task, NCTCOG staff will provide public outreach and education regarding auto occupancy detection and verification technology. Staff will also work with regional partners to implement occupancy-based technology, user-based incentives, and dynamic pricing. This element also supports NCTCOG's membership in, and support for, research under FHWA's High Occupancy Vehicle/Managed Use Lane Pooled Fund Study. Congestion Mitigation and Air Quality Improvement Program funds, Surface Transportation Block Grant Program funds, Federal Highway Administration funds, Regional Toll Revenue funds, Texas Department of Transportation funds, Regional Transportation Council Local funds, and local funds will be used to support these activities. Anticipated products include:

- Coordination and meetings with partner agencies as needed;
- Public outreach and education on auto occupancy detection technologies and user-based incentives;
- Implementation and integration of technology to detect/verify auto occupancy on the transportation system;
- Monitoring of the effectiveness of technology to detect auto occupancy; and

- Support for and participation in FHWA High Occupancy Vehicle/Managed Use Lane Pooled Fund Study.

Work Performed and Status: Regular meetings continued to be held with partner agencies to discuss operational aspects and performance measures of the auto occupancy detection and verification technology on managed lanes within the region. Updates continued on the communication plan to refresh communications talking points, creative pieces, and messaging. Communication work continued, including social media. Staff continued to track usage, monitor, and respond to customer service inquiries, and refine processes for violators. NCTCOG staff executed the funding agreement with the Texas Department of Transportation for the Surface Transportation System Funding Alternatives (STSFA) Program as well as the contracts with the service providers. Drafts of the required documents for the funding agreement and cooperative agreement were provided to the Federal Highway Administration for review. Work began to collect data and develop a process to select corridors for implementation. In addition, staff continued to attend meetings and participate on the FHWA High-Occupancy Vehicle/Managed Lane Pooled Fund Study.

Surface Transportation Block Grant Program funds (CSJs 0902-00-275 and 0902-00-324), Federal Highway Administration Surface Transportation System Funding Alternatives Program grant funds (0918-00-366), Texas Department of Transportation funds, Regional Toll Revenue funds, Regional Transportation Council Local funds, local funds, and Transportation Development Credits were utilized to support work activities. This project is ongoing and will continue in FY2024.

Traffic Incident Management Training

Other Funding Sources

This program is ongoing throughout FY2022 and FY2023, providing training for agencies responsible for managing and clearing traffic incidents. This training has been demonstrated to improve responder and motorist safety, and to significantly reduce the length and size of roadway closures. The Dallas-Fort Worth area was the first area in the nation to formalize the training process to reach out to all responders and generate improvements in the management of traffic incidents. The goal of NCTCOG Traffic Incident Management (TIM) training is to initiate a common, coordinated response to traffic incidents that will build partnerships, enhance safety for emergency personnel, reduce upstream traffic accidents, improve the efficiency of the transportation system, and improve air quality in the Dallas-Fort Worth region. By implementing best practices techniques throughout the region, clearance times can be reduced by as much as 40 percent. Such an improvement will reduce the impact of congestion, improve regional air quality, and improve the safety and efficiency of travel for all residents and visitors in the area. Surface Transportation Block Grant Program funds, Congestion Mitigation and Air Quality Improvement Program funds, Texas Department of Transportation funds, Regional Transportation Council Local funds, local funds, and Transportation Development Credits support this program. Consultant services may be utilized. Anticipated products include:

- Program management and oversight for the TIM Training Program;
- Implementation of TIM First Responder and Manager Courses and TIM Executive Level Courses;
- Quick Clearance Crash Reconstruction Training workshops;
- Annual TIM Self-Assessment, performance tracking, and coordination activities;
- Incident Management Equipment Purchase Call for Projects oversight activities;

- Commercial Vehicle Enforcement (CVE) Working Group, and CVE equipment and training initiative oversight;
- Support of general training, educational projects, and initiatives that promote the implementation of strategies that mitigate traffic and/or CVE incidents; and
- Staging of wreckers and other ancillary services for incident clearance and operational improvements.

Work Performed and Status: NCTCOG hosted six Traffic Incident Management (TIM) First Responder and Manager training classes and two TIM Executive Level classes, with a combined total of 168 students attending. Staff reviewed and processed per-class invoices and performance reports, and maintained and updated course material, including updates to the training registration websites. Staff updated the Request for Qualifications (RFQ) process to streamline the onboarding process for bringing new TIM instructors to the program and added an additional fire instructor to the Instructing Team. TIM class registration information was collected, and website updates were made in order to accurately track agency attendance.

Oversight activities continued related to the 2021 Incident Management Freeway Blocking Equipment Call for Projects (CFP), including invoice review/approval, project monitoring, and reviewing project change requests. Staff coordinated and participated in quarterly Dallas TIM Coalition meetings with regional incident management partners (i.e., police, fire, wrecking services, Department of Public Safety, Texas Department of Transportation, Comprehensive Development Agreement private partners, and the North Texas Tollway Authority) to discuss major incidents which occurred and to coordinate ways to address local incident management issues. Staff also initiated and finalized a Request for Information to assist in the development of a new crash reconstruction equipment and training program. Staff coordinated and participated in the 2023 ITS America Conference/Expo on Emergency Responder Day. Staff also attended various regional TIM planning related meetings and continued coordination activities for the regional Abandoned Vehicle Working Group, in an effort to address the increased frequency and timely removal of abandoned vehicles along regional highways and tollways. Regional incident management performance measures, including incident response and clearance times, were requested and collected when available. Staff continued to monitor the use of the portable scales distributed to 15 commercial vehicle enforcement (CVE) agencies across the region and initiated the planning process to offer a new round of CVE training courses for prosecutors and judges.

Congestion Mitigation and Air Quality Improvement Program funds (CSJs 0918-00-258 and 0918-00-348) and Transportation Development Credits were utilized to support these work activities. This project is ongoing, and work will continue in FY2024.

Mobility Assistance Patrol Program (MAPP) Administration

Other Funding Sources

This program is ongoing throughout FY2022 and FY2023, and aids stalled or stranded motorists by helping them to move disabled vehicles from the main lanes of regional limited access facilities and ultimately get the vehicles operating or off the facility completely. This support includes minor mechanical and crash assistance, protection to first responders, and the removal of debris. All assistance is provided free of charge to motorists. The MAPP is an essential element to the region's Traffic Incident Management operations and provides ancillary congestion relief, safety, and air quality benefits.

Mobility assistance patrols are operated by the Dallas County and Tarrant County Sheriffs' offices on congested roadway systems in Dallas and Tarrant counties, and portions of Collin, Denton, and Johnson counties. The North Texas Tollway Authority (NTTA) operates patrols on NTTA toll facilities throughout the region, and private-sector partners operate patrols on the LBJ and North Tarrant Express corridors. Surface Transportation Block Grant Program funds and Transportation Development Credits support this program. Consultant services may be utilized. Anticipated products include:

- Regional program oversight, including active coordination and support activities for Dallas and Tarrant County operations, and NTTA and private-sector partners on managed-lane facilities;
- Performance tracking, budget monitoring, and patrol route evaluation;
- Evaluation of supplemental funding opportunities and innovative technologies; and
- Comprehensive assessment of the current program to ensure that each program is operating equitably and efficiently.

Work Performed and Status: Oversight continued for the regional Mobility Assistance Patrol Program (MAPP). Staff collected quarterly performance measures and annual struck-by information from the Dallas County and Tarrant County Sheriffs' offices, the North Texas Tollway Authority, and the private operators patrolling the North Tarrant Express and LBJ Express managed corridors. Performance measures for each patrol were evaluated and reported in the annual safety performance report, as well as the annual Progress North Texas report. Performance measures were also used in a continued coordination of route expansions for both the Dallas and Tarrant County patrols. A series of ongoing meetings with Dallas and Tarrant County officials, TxDOT staff, and others continued to discuss geographic expansions and shift extensions. Budget assistance was coordinated with the Dallas County and Tarrant County patrols as well.

Surface Transportation Block Grant Program funds (CSJ 0902-90-049) and Transportation Development Credits were utilized to support work activities. This project is ongoing, and work will continue in FY2024.

Regional Vanpool Program

Other Funding Sources

This program, designed to reduce single-occupancy commuter trips, is ongoing throughout FY2022 and FY2023 and is an important rideshare program for trip reduction, providing a "shared ride" for commuters traveling long distances or in areas with limited or no fixed-route transit service. The Regional Vanpool Program was operated by Dallas Area Rapid Transit (DART), the Denton County Transportation Authority (DCTA), and Trinity Metro between October 2021 and February 2022, and is currently being operated by DCTA and Trinity Metro for the remainder of FY2022 and FY2023. Activities will include streamlining the program across providers through regional coordination, providing technical assistance to transit partners, monitoring performance measures, reporting trip reduction data, and exploring future program enhancement. Other initiatives include promoting updated vanpool services to the public and conducting a vanpool utilization study to assist with future systems and facilities planning, and for building interagency partnerships with regional partners for the purpose of increasing participation in commuter vanpools. Surface Transportation Block Grant Program funds, Regional Transportation Council

Local funds, local funds, and Transportation Development Credits will be utilized for this program. Consultant assistance will be utilized. Anticipated products include:

- Management and oversight of regional vanpool program including operational processes, program budget, invoice activities, agreement development activities, and program assessment activities;
- Coordination meetings with transit partners and stakeholders to maximize regional effectiveness;
- Educational outreach strategies with transit agencies to promote usage among potential riders; and
- Procurement and executed agreements for utilization study.

Work Performed and Status: Management and oversight of the Regional Vanpool Program continued in FY2023. Staff coordinated with the Denton County Transportation Authority and Trinity Metro regularly to discuss and strategize growing the program, and education and outreach, as well as best practices. Staff provided data analysis, produced maps, documented origin/destination of vanpools, and tracked vanpool-related performance measures. At the end of FY2023, 245 vanpools were in operation, which contributed to vehicle miles traveled (VMT) reductions, along with reducing volatile organic compound and nitrogen oxide emissions.

Surface Transportation Block Grant Program funds (CSJ 0918-00-343), Regional Transportation Council Local funds, and local funds were used to support these activities. This project is ongoing, and work will continue in FY2024.

Regional Trip Reduction Program

Other Funding Sources

This program is ongoing throughout FY2022 and FY2023 and is designed to reduce single-occupancy vehicle commute trips. The Regional Trip Reduction Program (RTRP) is an educational commute options program aimed at educating large private- and public-sector employers in the region about available Travel Demand Management (TDM) programs and strategies that reduce single-occupancy vehicle trips for work purposes. The strategies promoted under the RTRP include rideshare (carpool and vanpool) programs, telecommuting and flexible work-hour programs, transit programs, walking, bicycling and similar strategies. The Try Parking It website, www.tryparkingit.com, the regional commute tracking, ride-matching, and commuter reward system application is a major component of the RTRP.

Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized for the Regional Trip Reduction Program. NCTCOG staff will provide management, oversight, and implementation of the program. Consultant assistance will be utilized. Anticipated products include:

- Direct outreach to educate commuters and employers on available TDM strategies and assist employers in establishing and/or strengthening alternate commute programs in the workplace;
- Maintenance and update of the Employer Trip Reduction Manual for Regional Employers;
- Maintenance of the RTRP performance database which includes updating, monitoring, and publication of ridership, VMT reduced, emission reductions performance measures, and a

listing of new and existing vanpools in operation by regional transit agencies and private vanpool providers;

- Management and oversight of the Try Parking It Program website and commuter recognition activities;
- Promotion of NCTCOG's Try Parking It website to increase program recognition and usage;
- Collaboration with transit agencies in managing vanpool-related information included in the Try Parking It Program;
- Collaboration with private- and public-sector employers regarding their participation in the regional single-occupancy vehicle trip reduction target initiative;
- Management of the Regional Vanpool Managed Lane Toll Reimbursement Program; and
- Analysis of impacts of travel behavior changes experienced during COVID-19 related restrictions and an assessment of how continued use of alternative commute strategies can assist in reducing congestion and improving air quality.

Work Performed and Status: Staff continued to manage and implement the Regional Trip Reduction Program, including oversight of the Try Parking It website/application. Staff initiated and finalized a new procurement process for the Try Parking It website. Coordination to enhance the website continued and discussions to incorporate new cyber security requirements with the website were initiated. Staff continued to encourage TDM strategies and participated in employer and community outreach events for Try Parking It and provided outreach items. Staff continued the development of the One-Day-a-Week campaign in support of the Regional Transportation Council's Regional Single-Occupancy Vehicle (SOV) Trip Reduction Target Resolution which established an annual target of a 20 percent reduction for SOV trips during peak periods. Staff continued to oversee the implementation of the regional Vanpool Managed Lane Toll Reimbursement policy and finalized the update of reimbursement request documentation. Based on the updated Regional Trip Reduction Employer Guide, staff created presentations for Employer Transportation Coordinators to encourage the use of the Try Parking It system with regional employers.

Surface Transportation Block Grant Program funds (CSJs 0902-00-232, 0902-00-233, 0902-00-234, and 0902-00-319), and Transportation Development Credits supported work activities. This project is ongoing, and work will continue in FY2024.

Impacts of COVID-19 on Travel Behavior – Telecommuting after COVID-19 or Is it Business as Usual?

Transportation Planning Funds

University Partnership Program assistance will be used to explore whether the positive impacts of commute pattern changes associated with increased teleworking and telelearning during the COVID-19 pandemic will continue in a post-pandemic work environment. The study will investigate whether employers and educational institutions will continue to utilize teleworking and/or telelearning at the same or increased level or if telework policies will return to their pre-COVID status in a post-pandemic work environment. The study will also investigate if public and/or private employers will adopt new policies regarding teleworking and will track best practices by companies that have implemented telework policies. Anticipated products include:

- Meeting and survey summaries;
- Comment review;

- Technical memorandums; and
- Final report on study findings.

Work Performed and Status: Work continued on the "Teleworking after COVID-19 or is it Business as Usual?" project, which investigated the impacts of COVID-19 as it relates to telecommuting. University research staff finalized the results from the survey that was distributed in FY2022 to local businesses, local governments, and chambers of commerce to view their participation and usage of teleworking. The survey was provided via QR code, email, and phone. The university team also conducted focus groups using video conferencing. The research findings were drafted, finalized, and presented during the Transportation Research Board (TRB) Minority Student Fellows Research presentations in January 2023. Travel expenses to the TRB conference were paid using local funds under Subtask 1.02. The final report of the found literature and research was drafted and submitted for NCTCOG approval.

Transportation Planning Funds were used to support work activities, and work was completed in FY2023.

Regional Traffic Signal and Minor Intersection Improvement Program

Other Funding Sources

This program is ongoing throughout FY2022 and FY2023 and targets the improvement of the arterial transportation system, including frontage roads, in the Dallas-Fort Worth region. Efforts will be conducted in conjunction with the Texas Department of Transportation (TxDOT), local governments, independent school districts, and/or private-sector companies to identify corridors or intersections to be included. The corridors or intersections will be selected based on several factors, including, but not limited to, previously recommended low-cost program improvements; performance measures criteria; high volumes; regional distribution; previously funded and unfunded projects; safety; environmental justice; and local agency needs such as traffic signal software, traffic signal cabinets, traffic signal controllers, battery backup, intersection cameras, detection devices, communications with Traffic Management Center or other intersections, and Global Positioning System clocks. These efforts will generate nitrogen oxide and volatile organic compound emissions reductions to aid in future transportation conformity determinations. Congestion Mitigation and Air Quality Improvement Program funds, Texas Department of Transportation funds, Regional Transportation Council Local funds, other local funds, and Transportation Development Credits support this project. NCTCOG staff will provide oversight of this project and consultant services may be utilized. Anticipated products include:

- Subrecipient agreements for pre-approval and execution;
- Recommendation and implementation of major and minor improvements;
- Traffic signal equipment and other procurements;
- Inventory and review of regional traffic signal system and operation by corridor and individual signal;
- Development of regional traffic signal minimum equipment standard;
- Evaluation of traffic signal performance platforms that are available to measure the performance of the traffic signals regionwide and subsequent procurement;
- Implementation of signal retiming plans, including analysis of baseline and improved conditions;
- Monthly progress meetings with consultants, TxDOT, and local agencies as appropriate;

- Review of corridor reports, project summary reports, consultant invoices, and progress reports; and
- Signal retiming, evaluation and/or reimbursement of tolls for closures during construction and other planned and unplanned events.

Work Performed and Status: The coordination and implementation of the Regional Traffic Signal Program (RTSP) continued, focusing on enhancing corridor performance along arterial transportation systems and frontage roads. This program encompasses a regional inventory of traffic signal equipment, the establishment of minimum equipment standards, platform procurement, recommendations for and execution of low-cost capital improvements, signal retiming plans for arterials and frontage roads, and a subsequent analysis to compare conditions before and after implementation.

Staff provided oversight for consultant work, quantified air quality benefits, integrated collected data, and maintained coordination with local agencies. Consultants submitted completed corridor reports for three additional corridors, while ongoing work is underway for the corridors funded by Tarrant County. The consultants also finished a regional inventory of traffic signal equipment, contributing to the refinement of the minimum equipment standard for the region. To estimate the costs of achieving this standard, existing equipment conditions were compared against the newly established minimum standards at a high level.

A Request for Proposals (RFP) was issued for a traffic signal data platform featuring a performance measures dashboard. This platform, along with the dashboard, will be instrumental in evaluating corridor and signal performance for the purpose of identifying future improvements. Monthly coordination meetings were conducted with TxDOT and the consultants.

Staff continued oversight for the Minor Intersection Improvements Program (MIIP), which targets low-cost improvements to corridors for enhanced mobility and improved air quality. All subrecipient agencies have completed their projects.

Congestion Mitigation and Air Quality Improvement Program funds (CSJs 0902-00-217, 0902-90-054, 0902-00-172, and 0902-00-256), Texas Department of Transportation funds, Regional Transportation Council Local funds, and local funds were utilized to support work activities. The Regional Traffic Signal Program project is ongoing, and work will continue in FY2024. Work on the Minor Intersection Improvements Program is complete.

Incident Management Signage and Striping Project

Other Funding Sources

NCTCOG staff will continue to inventory regional signage for limited-access facilities within the 12-county Metropolitan Planning Area. Signage locations will be documented in which inaccurate, poorly located, or otherwise incorrect conditions exist that may contribute to congestion or unsafe traffic operations. These locations will be provided to TxDOT and recommended for replacement. Facilities under construction will be omitted from the inventory. This program uses Regional Toll Revenue funds. Activities will be ongoing throughout FY2022 and FY2023. Anticipated products include:

- Video footage of all limited-access facilities;
- Evaluation of video that will result in a documented inventory containing areas of incorrect or unclear signage;
- GIS-based maps identifying problem locations; and
- Coordination with local TxDOT districts to present project findings.

Work Performed and Status: A selection of limited-access facilities within the 12-county Metropolitan Planning Area were filmed, and the video subsequently reviewed to inventory any areas of incorrect or unclear signage. Geographic Information System based maps identifying problem areas were produced. NCTCOG staff met with local Texas Department of Transportation districts and other regional transportation agencies to present and discuss project findings.

Regional Toll Revenue funds (CSJs 0918-00-246 and 0918-00-344) were used to support work activities. This project is ongoing and will continue in FY2024.

5.06 Regional Freight Planning

This Work Program subtask includes activities related to the movement of goods in the Dallas-Fort Worth region, both on the regional roadway network and rail system.

Regional Goods Movement

Transportation Planning Funds

This subtask is ongoing throughout FY2023 supporting planning activities related to the movement of freight within and through the Dallas-Fort Worth region. Activities include support for meetings of the Regional Freight Advisory Committee, as well as the Regional Transportation Council Intermodal/Multimodal/High-Speed Rail/Freight Subcommittee, as needed. NCTCOG staff will also monitor progress of projects identified in various freight-related planning documents such as the Freight Mobility Plan, and freight land-use planning documents, including development of the Land-Use Policy Tool Kit. Anticipated products include:

- Public involvement activities;
- Coordination meetings that monitor and ensure the continued progress of freight document completion;
- Analysis that quantifies potential environmental justice impacts at the local level;
- Review of feasibility and freight study components; and
- Project-related Fact Sheets.

Work Performed and Status: Working in collaboration with freight industry professionals and public-sector representatives, NCTCOG staff conducted Regional Freight Advisory Committee (RFAC) meetings in November 2022 and May 2023. InTransit, the RFAC newsletter, was published on a quarterly basis throughout the year. Work was completed on the Regional Freight Mobility Plan, Freight North Texas. Work continued on Freight North Texas (FNT) recommended follow-up studies, including the Truck Parking Study Update and the Truck Routing Study, in addition to analyzing environmental justice impacts through several ongoing initiatives that impact local governments. Several fact sheets were created and updated, including fact sheets for Air Cargo, The Land Use Analysis, and General Freight Information.

Transportation Planning Funds were utilized to support work activities. Work is ongoing and will continue in FY2024.

Other Funding Sources

This subtask is ongoing throughout FY2022 and FY2023, assessing the impact of truck traffic, rail freight, and other freight movement issues within and through the Dallas-Fort Worth region. Activities will be conducted based on truck, rail, and air cargo movements throughout the region in support of city, county, State, and federal agencies. Coordination between private-sector stakeholders and public-sector staff will be initiated through multiple initiatives and meetings. This element also includes the collection and analysis of data pertaining to freight mobility and safety. These activities will include continued coordination with private-sector partners in the trucking, rail, and freight-forwarding businesses. A study of Region-to-State Connectivity and Emergency Logistics Planning includes developing and executing an analysis of several statewide freight issues that affect the Dallas-Fort Worth region, including freight flows in and out of the region and the State. In FY2020, NCTCOG was chosen for an award by the United States Department of Transportation (USDOT) under the Better Utilizing Investments to Leverage Development (BUILD) Discretionary Grant Program for the North Texas Multimodal Operations Velocity Efficiency and Safety (NT MOVES) Program. The NT MOVES Program seeks to improve freight and passenger mobility in the Dallas-Fort Worth region through strategic investment in rail capacity to improve multimodal transportation. It is anticipated that a portion of these funds will be used in FY2023 to support rail project improvements. NCTCOG staff will oversee project management of the NT MOVES/BUILD grant rail project improvements once initiated and will also oversee other freight rail initiatives. Consultant assistance may be utilized. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized for planning and management work activities. Federal Transit Administration funds may be utilized for potential pass-through administrative costs for the NT MOVES Program once project implementation begins. Anticipated products include:

- Monitoring of truck-lane restriction corridor conditions;
- Various reports and studies regarding freight conditions in the Dallas-Fort Worth region, including a Truck Bottleneck Analysis, Region-to-State Connectivity and Emergency Logistics Planning Study, and a Regional Rail Pathing Study;
- Recommended follow-up studies identified in Freight North Texas: The North Central Texas Regional Freight System Inventory, including a Land-Use Compatibility Analysis, Truck Routing Analysis, and a Data Collection Program which could include traffic counts, classification counts, and surveys for the Regional Freight Model;
- Support to the US Department of Transportation, Federal Highway Administration, and Texas Department of Transportation for various projects as needed;
- Region-to-state connectivity and emergency logistics planning;
- Corridor studies;
- Roadway/rail crossing assessments;
- Program management of the NT MOVES/BUILD grant projects;
- Public outreach and educational programs; and
- Technical assistance to the City of Dallas for its Freight Master Plan.

Work Performed and Status: Monitoring of Truck Lane Restriction corridors was an ongoing initiative in FY2023. Construction status on highways with Truck Lane Restrictions was evaluated to identify if restrictions/signage could be put in place. Work on various reports and studies regarding freight conditions in the Dallas-Fort Worth region, including the Region-to-State Connectivity and Emergency Logistics Planning Study was completed. Additionally, follow-up

studies from Freight North Texas moved forward, including the Data Collection Program with updates to the Truck Parking, Rail Crossing, and Truck Route databases. Staff participated in several Texas Freight Advisory Committee meetings. Work continued on several corridor studies, including the Richardson Truck Route Review, and the FIFA World Cup Passenger Rail Feasibility project. In addition, staff continued roadway and rail crossing assessments with efforts in Haslett, Justin, DISH, Ponder, Duncanville, and Ennis. Program management continued on the NT MOVES Rail Program and the double tracking projects. NCTCOG hosted multiple regional rail stakeholder meetings to continue ongoing coordination with regional rail agencies in support of the NT MOVES Program. Additional work on the NT MOVES Program included collecting data and submitting the project's performance measures to the Federal Transit Administration, collecting monthly reports from project partners, developing and submitting the required information, and reporting to the Federal Transit Administration on the project. In addition, work continued with regional rail partners and TxDOT on highway projects that affect the double track projects. The Freight Safety Initiative, which highlights public outreach and educational efforts to improve freight safety within the region, was completed in FY2023. Staff also assisted the City of Dallas with building base data layers for the creation of its new freight master plan. Additional staff efforts included data collection, assisting with grant submittals, and providing support to partner agencies.

Surface Transportation Block Grant Program funds (CSJs 0902-00-271, 0902-00-272 and 0902-00-273), local funds, and Transportation Development Credits were utilized to support work activities. Work is ongoing and will continue in FY2024.

Regional Rail Information System

Other Funding Sources

Ongoing throughout FY2022 and FY2023, this element includes planning and implementation activities related to the development and implementation of Regional Rail Information System (RRIS) technology in the North Central Texas region to monitor and forecast train traffic conditions for both freight and passenger operations. With the development and implementation of RRIS technology, NCTCOG seeks to remediate railroad congestion and delay in the Dallas-Fort Worth region on the basis of current operation and projected rail traffic growth. In FY2020, NCTCOG was chosen for an award by the United States Department of Transportation (USDOT) under the Better Utilizing Investments to Leverage Development (BUILD) Discretionary Grant Program for the North Texas Multimodal Operations Velocity Efficiency and Safety (NT MOVES) Program. The NT MOVES Program seeks to improve freight and passenger mobility in the Dallas-Fort Worth region through strategic investment in rail capacity to improve multimodal transportation. A portion of these funds will be used to support initiation of the RRIS technology. USDOT BUILD grant funds, Surface Transportation Block Grant Program funds matched with Transportation Development Credits, Regional Transportation Council Local funds, and local funds will support work activities. Anticipated products include:

- Development and initiation of a Regional Railroad Information System in the Dallas-Fort Worth region.

Work Performed and Status: Work on the Regional Rail Information System (RRIS) was initiated in FY2023. NCTCOG's consultant began meeting with different railroads and collecting the necessary data needed for the development of the system. Several milestones were met, including the creation of the reference map, maintenance of the way application, and meeting

daily reporting system requirements. In addition, staff continued to coordinate with regional rail partners, monitor contract costs, and hold regular meetings to advance the project.

Surface Transportation Block Grant Program funds (CSJ 0902-00-300) and Transportation Development Credits were utilized to support work activities. Work is ongoing and will continue in FY2024.

Engineering for Passenger Rail/Roadway Interfaces

Other Funding Sources

This element is ongoing throughout FY2022 and FY2023 and includes the establishment of agreements with freight and passenger railroads for engineering of rail projects and rail/roadway projects, allowing for streamlined design and review of design plans for regionally significant transportation projects. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized for work activities. Anticipated products include:

- Agreements with participating railroads; and
- Review of various rail/roadway projects.

Work Performed and Status: The funding agreement was executed in late FY2023. Work on this project will begin in FY2024.

5.07 Transportation System Security and Emergency Preparedness

Transportation Planning Funds

This program is ongoing throughout FY2022 and FY2023, supporting ongoing local, State, and federal initiatives to address transportation system security and emergency preparedness planning. NCTCOG continues a dialogue among local governments and transportation providers in North Central Texas regarding the regional coordination of response plans, response capabilities, and emergency medical services in the event of a major incident. Staff also provide technical transportation data needed to support these planning efforts, as well as to facilitate the coordination of various transportation providers and planning agencies.

NCTCOG's Transportation Department will continue to support the Emergency Preparedness Department in developing/enhancing regional emergency preparedness capacity as it relates to utilization of Intelligent Transportation Systems or transportation management tools and infrastructure protection by developing a framework for response and contingency planning due to the unexpected loss or intentional removal of roadway capacity. Scenario modeling may identify the impact to parallel or complementary routes for strategic corridors in the region to help determine potential temporary or interim traffic management solutions. Anticipated products include:

- Support and assistance to agency and regional partners, including monitoring of activities, promotion of regional coordination, and committee meetings;
- Interaction and cooperation between emergency responders and transportation staff;
- Technical transportation data, performance analyses, and planning services related to transportation security;

- Infrastructure protection measures (identifying regional transportation assets, including recommending vulnerability analyses on regional facilities and services); and
- Transportation resource support for mass evacuation events.

Work Performed and Status: In collaboration with NCTCOG’s Emergency Preparedness Department, staff continued to provide support to national, State, and local initiatives directed to support the region’s transportation system security. Support and technical transportation data were provided upon request. Local and State agencies were encouraged to develop internal approaches to identify and protect transportation infrastructure through funding and cost-reduction opportunities.

Additionally, staff coordinated with the Emergency Preparedness Department and regional partner agencies regarding critical infrastructure and security precautions. Staff participated in public safety initiatives, including coordination for TxDOT video feed sharing with NCT911 and other local agencies. Staff participated in discussions among transportation, law enforcement, and other agencies.

Transportation staff attended working group meetings associated with the Public Works Emergency Response Team (PWERT) to share transportation-related information and insight. Participation included coordination of potential sharing of Portable Changeable Message Signs (PCMS) to optimize the use of publicly owned equipment for incident and event management. To inventory the availability of portable changeable message signs, staff completed a partner agency survey.

Transportation Planning Funds were utilized to support work activities. This project is ongoing, and work will continue in FY2024.

5.08 Roadway and Railroad Safety

This subtask is ongoing throughout FY2022 and FY2023, supporting planning efforts to develop safety policies, programs, and projects.

Transportation Safety Planning

Transportation Planning Funds

Staff coordinates with the Regional Safety Advisory Committee, the Texas Department of Transportation (TxDOT), Texas Department of Public Safety, Federal Highway Administration, local governments, and other partners to develop strategies for regional safety planning efforts, data collection, and analysis. These partners also assist in developing policies, programs, and projects to improve safety related to the transportation system. Anticipated products include:

- Collection, processing, maintenance, and analysis of regional safety data, including crash data from TxDOT’s Crash Records Information System, fatality data from the National Highway Traffic Safety Administration’s Fatality Analysis Reporting System, and hazardous material spill data from the National Response Center;
- Regional Safety Information System implementation and assessment activities;
- Monitoring and promotion of the implementation of regional intersection improvements outlined in NCTCOG’s Intersection Safety Implementation Plan (ISIP) and the Texas ISIP;

- Regional and federal safety performance measure tracking and reporting activities;
- Safety-related education and training courses for member agencies, which may include, but not be limited to, Vision Zero Plan Development, Highway Safety Manual, Employer Traffic Safety Program, National Highway Traffic Safety Administration courses, and National Safety Council training courses;
- Coordination of regional Wrong-Way Driving Mitigation Program and mitigation strategies; and
- Coordination efforts for the Regional Safety Advisory Committee.

Work Performed and Status: Crash Data from TxDOT’s Crash Records Information Systems (CRIS) was analyzed for the 12-county region for the 2018-2022 time period. Along with CRIS data, National Highway Traffic Safety Administration Fatality Analysis Reporting System (FARS) data was used to set new federally mandated safety performance targets through 2027, which were adopted by the Regional Transportation Council in February 2023. Crash data was also utilized for internal data requests, grant proposals, and to analyze crash trends, densities, and hotspots. An annual safety performance report was completed, including contributing factor analysis and updated data for each of the eight emphasis areas identified in the Roadway Safety Plan. Crash rates were calculated for the 12-county Metropolitan Planning Area along limited access facilities. Hazardous material incidents were tracked and reported using data available from the National Response Center. Updates on regional safety-related programs and projects were published in the annual Regional Safety Performance Report. Additional safety statistics were included in a supplemental Regional Crash Fact Sheet. Three Regional Safety Advisory Committee meetings were held. Staff participated in emphasis area team meetings for the Texas Strategic Highway Safety Plan. Staff also participated in the review of Transportation Development Credit policy bundle applications for safety-related improvements and policy developments. Low-cost systemic intersection improvements, including wrong-way driving countermeasures, were tracked in the TxDOT Dallas and Fort Worth districts. Staff also participated in various local Vision Zero Plan development committees and meetings being initiated by partner agencies.

Transportation Planning Funds were used to support work activities. This project is ongoing, and work will continue in FY2024.

Other Funding Sources

Surface Transportation Block Grant Program funds, State Planning and Research funds, local funds, Transportation Development Credits, and grants will also be utilized to support this program. Anticipated products include:

- Regional Safety Information System application tool;
- Development and implementation of driver safety public education, outreach, and information programs, including a contributing factor public education campaign and development of a Drive Aware North Texas website;
- Regional Roadway Safety Plan development activities;
- Development and maintenance of an inventory of safety strategies and countermeasures included in Roadway Safety Plans, Local Safety Plans, Vision Zero Safety Plans, or similar documents developed by regional partner agencies;
- Systemic safety improvement funding program activities; and

- Inventory and coordination of safety activities across the region and provision of an annual update of implemented activities to the Texas Department of Transportation that includes performance measures, coordination and outreach, work plan and priorities, achievements, and next steps.

Work Performed and Status: Staff initiated activities to re-release a Request for Proposals (RFP) for a cloud-based predictive crash analysis tool that can identify crash risk along roadway segments and at intersections and suggest appropriate safety countermeasures. Staff plans to release the RFP and procure the tool in FY2024. The Drive Aware North Texas website, a regional driver safety education website and outreach campaign to positively influence negative driver behaviors, was updated with regional crash statistics on dangerous driving behaviors and includes helpful tips to prevent these behaviors. Staff finalized and published the NCTCOG region's first regional Roadway Safety Plan and received Regional Transportation Council approval in March 2023. The plan includes analyses of fatal and serious injury crashes by time of day; location; demographics; national, state, and regional trends; crash types, and several other variables. The plan also considers environmental justice factors and identifies a High Injury Network of roadways with a history of fatal and serious injury crashes. The plan will be used to provide a framework to identify challenges to roadway safety and serve as a guide for the implementation of future systemic safety projects and programs to work towards a goal of zero fatalities on regional roadways by 2050. Wrong-way driving crashes were investigated based on crash location and time of day and preventative countermeasures have been identified at high-risk intersections by the Texas Department of Transportation. Staff provided data and assistance on completing a Safe Streets for All grant application to allocate funds for problem roadway corridors with a high history of fatal and serious injury crashes and bicyclist and pedestrian crashes. The TxDOT/MPO Statewide Safety Task Force efforts were completed; staff co-chaired this task force. A new committee, Friends of the Safety Task Force, was established to continue to share innovative ideas and best practices to reduce fatalities across the State and the region.

Surface Transportation Block Grant Program funds (CSJs 0902-00-248 and 0902-00-250) and Transportation Development Credits were used to support these work activities. This project is ongoing, and work will continue in FY2024.

Railroad Crossing Coordination

Other Funding Sources

This element is ongoing throughout FY2022 and FY2023 and includes the identification, planning, and implementation of rail crossing projects throughout the Dallas-Fort Worth region. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized to support this project. Anticipated products include:

- Maintenance of the regional railroad banking program;
- Coordination with local, State, and federal agencies for review of potential rail crossing projects;
- Regional rail crossing assessments;
- Analysis of rail safety data to identify target areas for educational efforts;
- Public outreach and education efforts in the region; and
- Enhanced regional partnerships.

Work Performed and Status: Railroad crossing safety work plans continued for specific study areas, including the city of Fort Worth, Prairie Creek Road in the city of Dallas, the West Dallas Gateway, and the city of Grand Prairie crossings. Work efforts were completed in FY2023 for the Fort Worth Crossing Analysis. This included site visits to each of the at-grade crossings in the city, prioritizing the crossings based on safety mitigation strategies, and completing the final report. To increase regional crossing safety partnerships, staff collaborated with the Texas Department of Transportation, regional railroad agencies, and the Cities of McKinney, Terrell, Dallas, Arlington, and Fort Worth. In addition, staff continued to work with the railroads and local leaders on crossing issues in the North Fort Worth area.

Surface Transportation Block Grant Program funds (CSJ 0902-00-272) and Transportation Development Credits were utilized to support work activities. Work will continue in FY2024.

5.09 Regional Aviation Planning and Education

This Work Program subtask includes planning for the regional aviation system and linkages to surface transportation assets within the region. The safe integration of Unmanned Aircraft Systems into the Dallas-Fort Worth region, in addition to public outreach, to help expand and enhance aviation and aerospace education and career skills are also included.

Surface Access to Aviation

Transportation Planning Funds

This element is ongoing throughout FY2022 and FY2023. Work includes data collection and planning efforts to access infrastructure to aviation facilities and associated improvement needs. This item includes a review of travel-time contours, air cargo trends and connectivity, and land use implications surrounding aviation facilities. This project also includes reporting to the Regional Transportation Council and the Air Transportation Advisory Committee, and input into the Metropolitan Transportation Plan (MTP) and other transportation planning activities. Anticipated products include:

- Inventory and data collection of aviation needs;
- Analysis and recommendations for infrastructure improvements affecting aviation;
- Travel-time contours for aviation facilities;
- Inventory of surface transportation access to aviation facilities; and
- Monitoring and assessment of Metropolitan Transportation Plan Policy Bundles survey and other planning activities for aviation-related components.

Work Performed and Status: In FY2023, staff collected data and continued to maintain an inventory of surface access improvements to aviation facilities within the region. Staff collected air cargo and commercial aviation data to monitor demand trends that could affect surface access to aviation facilities. Staff also updated MTP Policy Bundle survey questions.

Transportation Planning Funds were used to support work activities. Work will be ongoing in FY2024.

Urban Air Mobility and Advanced Air Mobility Integration

Transportation Planning Funds

This element includes the continued work in FY2022 and FY2023 around Urban Air Mobility (UAM) and Advanced Air Mobility (AAM) integration into the traditional transportation planning process. Urban Air Mobility envisions a safe and efficient aviation transportation system that will use highly automated aircraft that will operate and transport passengers or cargo at lower altitudes than traditional aircraft within urban and suburban areas to complement and relieve congestion on the existing surface transportation system. The main program for this effort is the North Texas Unmanned Aircraft System (UAS) Safety and Integration Initiative, including the UAS Safety and Integration Task Force and Working Groups. UAM will be comprised of an ecosystem that considers the evolution and safety of the aircraft, the framework for operation, access to airspace, infrastructure development, and community engagement. Advanced Air Mobility builds upon the UAM concept by incorporating use cases not specific to operations in urban environments such as commercial intercity (longer range/thin haul), cargo delivery, public services, private/recreational vehicles, emergency medical response, and infrastructure monitoring and inspection. Anticipated products include:

- Coordination of the North Texas UAS Safety and Integration Task Force and Working Groups;
- Establishment of Routine Beyond Visual Line of Sight (BVLOS) operations in the region;
- Scaling of the Arlington Entertainment District UAS Integration Pilot Program to other sites in the region;
- Planning for the integration between Advanced Air Mobility and intermodal transportation hubs within the region;
- Determination of synergies between Advanced Air Mobility integration and the Automated Vehicle integration initiatives around the region;
- Planning of air taxi and air cargo/package corridors or procedures between Dallas Fort Worth International Airport and partner cities;
- Planning for the integration of North Texas airports into the air taxi network for inter and intracity travel; and
- Development of a best practice document for public outreach, engagement, and education strategy.

Work Performed and Status: Staff collaborated and coordinated with numerous stakeholders to continue work on the safe integration of unmanned aircraft systems (UAS) into the region's airspace, including, but not limited to, the planning activities associated with the UAS Safety and Integration Task Force. Eleven Unmanned Aircraft System Safety and Integration Task Force meetings were completed. Also, in FY2023, staff continued NCTCOG's obligation with NASA for planning assistance in accelerating the integration of vertical mobility into North Texas, including the development of airspace corridors in the region. Staff continued to coordinate with the City of Arlington on the Entertainment District UAS Integration Program and is still working to scale the program to other sites within the region.

Staff successfully laid out the principles of a North Texas Airspace Awareness Program. With the assistance of software from multiple vendors this system will eventually enable residents and businesses to fly safely. The public would be notified of local drone operations through the provision of live data on areas of potential risk, advisories for local events or emergencies, and other flight planning features at no cost to NCTCOG or local cities.

Transportation Planning Funds were used to support work activities. Work will be ongoing in FY2024.

Aviation Education Integration and Outreach

Other Funding Sources

This element is ongoing throughout FY2022 and FY2023 and describes implementation and outreach efforts associated with recommendations from the North Texas Aviation Education Initiative Study completed in 2010. Facilitation for development of regional aviation programs, as well as a variety of outreach strategies to local students, will be conducted. These efforts are funded through a combination of grants, Regional Transportation Council Local funds, and industry partnerships. Anticipated products include:

- Participation in aviation advisory committees, school career days, and other outreach opportunities;
- Continued development of a Speakers Bureau;
- Enhancement of the aviation careers-based mentorship program;
- Enhancements to NCTAviationcareers.com;
- Program curriculum development and facilitation;
- Regional workshops with educators, industry stakeholders, and policy officials; and
- Continued promotion of the aviation education gaming app, FLYBY.

Work Performed and Status: In FY2023, work continued with Career and Technology Education (CTE) programs within independent school districts (ISDs) to promote aviation education. Staff continued to promote aviation careers and education at speaking engagements, presentations, and other outreach events, including the Tarrant County Community College Advisory Committee, the Arise Planning Committee, Bell Aerial Robotics Advisory Committee, Fort Worth Drone Advisory Committee, the NCTX Aerial Robotics Leadership Committee, Fort Worth ISD UAS Workforce Steering Group, the Irving ISD Aviation Advisory Board, Crowley ISD CTE Advisory Board, and the Midlothian ISD Advisory Board. Staff also continued the annual presentation at the Urban Land Institute's Center for Leadership Transportation Technology Panel. Staff also continued to support the aviation education gaming app, FLYBY.

Staff educated State airports on vertiports and aviation careers at the Texas Aviation Conference. During the Transportation Research Board's Young Members Council in Washington, DC, staff encouraged-aviation careers on a national level.

Regional Transportation Council Local funds were used to support work activities. North Central Texas Council of Governments local funds were used to cover small project cost overrun. Work will continue in FY2024.

Regional Aviation System Planning

Other Funding Sources

This element is ongoing throughout FY2022 and FY2023 and includes continuous system planning efforts and implementation of the Regional General Aviation and Heliport System Plan. Ongoing technical assistance to local governments and stakeholders for development

recommendations and preservation of the North Central Texas regional aviation system is provided. Coordination with State and federal governments and aviation stakeholders will be completed to provide input to the National Plan of Integrated Airport Systems, the Texas Airport System Plan, and North Central Texas Council of Governments' documents (such as the Metropolitan Transportation Plan). Airport system evaluation may include demand forecasting and capacity assessments. Consultant services may be utilized. This project is funded through Regional Transportation Council Local funds. Anticipated products include:

- Air Transportation Advisory Committee meetings;
- Stakeholder meetings and associated outreach materials;
- Continued implementation of the Regional General Aviation and Heliport System Plan;
- Aviation system performance measures;
- Collection of geospatial data related to airport infrastructure;
- Geographical Information System (GIS) web interface;
- Monitoring of compatible development surrounding airports, including obstructions;
- Aviation environmental planning tools such as noise modeling and wildlife tracking; and
- Monitoring, coordination, and evaluation of the impacts of unmanned aircraft systems (UAS) on the regional aviation system.

Work Performed and Status: In FY2023, staff hosted four quarterly Air Transportation Advisory Committee (ATAC) meetings to include briefings for elected officials at the local, State, and federal levels. Regional aviation funding was monitored, tracked, and presented at each meeting. Presentations included airport updates on airport improvements, planning and programming updates from the Federal Aviation Administration and TxDOT Aviation, and other general aviation-related topics. Sharing among airports fostered more communication and collaboration among committee members. Staff also visited eight regional airports to tour their facilities and have direct planning discussions and will visit more in FY2024.

Regional Transportation Council Local funds were used to support work activities. Work will continue in FY2024.

5.10 Regional Military and Community Coordination

This Work Program subtask includes the planning and implementation of programs to support regional military and community coordination.

Naval Air Station Joint Reserve Base Fort Worth Land Use and Community Outreach Implementation

Other Funding Sources

Following a 2008 study funded through the Department of Defense Office of Local Defense Community Cooperation (DOD OLDCC) that focused on compatible development near military installations, the Naval Air Station Joint Reserve Base (NAS JRB), Fort Worth Regional Coordination Committee (RCC) was formed. Participating local governments include, but are not limited to, Tarrant County and the cities of Benbrook, Fort Worth, Lake Worth, River Oaks, Sansom Park, Westworth Village, and White Settlement. The interjurisdictional partnership is based on the identification of actions that can be taken jointly by the community and the installation to promote compatible development and address current and future encroachment as identified through the

Joint Land Use Study. The RCC created a development review Web tool for communities to discuss proposed developments near NAS JRB Fort Worth. This element is ongoing throughout FY2022 and FY2023. Regional Transportation Council Local funds and other local funds will be utilized to support activities in this area. Anticipated products include:

- Community outreach meetings;
- Tracking of bills proposed in the State legislature;
- Regional Coordination Committee (RCC) development review web tool project inventory and comments;
- At least four RCC meetings and RCC Officer coordination; and
- Documentation and presentation material for forums, workshops, and meetings.

Work Performed and Status: Administration of the NAS JRB Fort Worth Regional Coordination Committee (also known as the Regional Coordination Committee or RCC) during FY2023 included conducting four quarterly committee meetings and four officer meetings. Committee efforts were supported by providing legislative updates related to compatible development and communication to residents affected by military operations and unmanned aircraft vehicles as detailed in the RCC Legislative Program for the 88th Texas Legislature. Other support included preparing presentations, providing updates on transportation projects near the base, drafting correspondence, maintaining the RCC Development Review Web Tool, and assisting the NAS JRB Fort Worth Commanding Officer.

Regional Transportation Council Local funds were used to support work activities. This project is ongoing, and work will continue in FY2024.

Regional Military Compatible Use Implementation

Other Funding Sources

The Department of Defense Office of Local Defense Community Cooperation (DOD OLDCC) funds implementation of recommendations from planning studies to maintain military operations and support compatible development surrounding military installations. The North Central Texas Council of Governments (NCTCOG) recently completed a Regional Joint Land Use Study (JLUS), now known as a Compatible Use Study, that contained over 150 recommendations. The Regional Military Compatible Use Implementation will involve work with federal and State military installations, the Texas Military Department, local governments, and the business community to implement the study recommendations. This element is ongoing throughout FY2022 and FY2023. Department of Defense funds and Regional Transportation Council Local funds will be used for this project. Anticipated products include:

- Active parcel compatibility management tool and analysis of parcel data for changes in compatibility;
- Inventory of compatibility actions taken since initial 2008 JLUS;
- Homeowner relations program to inform new residents about quality-of-life issues near military installations and identify resources related to sound attenuation, including a regional noise reporting clearinghouse, homebuilder certifications, documentation of sound attenuation, and a sound attenuation incentive program;
- Updates to local government zoning ordinances, future land-use plans, building codes, and Statewide local government codes to increase compatibility near military installations, and participation in local government planning studies near military installations;

- Improved and formal communications channels for Texas Military Department installations;
- Economic development and transportation projects near Texas Military Department installations;
- Efforts to protect military installations from encroachment by unmanned aircraft systems (UAS);
- Information exchanges between both military installations and local governments within the region and between communities across Texas that participate in the Department of Defense Compatible Use Program; and
- Grant management requirements.

Work Performed and Status: Work began on the inventory of compatibility actions, including identification of an online story map as the interface for the information.

The contents and design for the Welcome Packet were completed following review by city managers. A digital version of the Welcome Packet was also finalized. As part of the Welcome Packet, an informational flyer on safe unmanned aircraft systems (UAS) was developed. The Department of Defense released draft rules for the Community Noise Mitigation Program, which will provide funding to complete sound insulation near military installations experiencing high noise. These rules were reviewed, and discussions were started with city managers about potential participation in the program once final rules have been released. A map has been created that shows potentially eligible parcels broken out by the noise contours and by city to better understand the magnitude of the potential program in the region.

A land use analysis was completed that assessed the increase or decrease in compatibility for any parcel within the noise contours and accident potential zones for the most recent five-year period. In addition, an upgrade to the RCC Development Review Tool was completed by changing to a new platform that allows cities to more easily upload potential developments and more easily assess the compatibility of such proposed developments.

Monthly meetings were held with Texas Military Department staff to discuss compatible development, transportation, and economic development improvements. Staff continued to participate in meetings regarding the Hensley Field Planning Study, which would impact several installations in the region.

A transportation project status tracking tool was maintained as a clearinghouse for details on projects near NAS JRB Fort Worth.

A committee comprised of first responders from communities surrounding the base, as well as Lockheed Martin and NAS JRB Fort Worth, was established to discuss perimeter security issues that can be facilitated on the community side. The full committee met twice and there were several stakeholder meetings preceding the committee's establishment.

Three meetings were held with other entities in Texas involved in compatible use planning as a way to share best practices.

Regional Transportation Council Local funds were used to support maintenance costs (i.e., mowing, debris cleanup, lighting) for the commercial property located adjacent to the south end of the runway at NAS JRB that was purchased in FY2022. This property was considered as incompatible with regard to noise and safety considerations given its location to the base resulting in its purchase.

US Department of Defense funds and Regional Transportation Council Local funds were used to support work activities. This project is ongoing, and work will continue in FY2024.

Aviation, Aerospace, and Defense Manufacturing Agile Curriculum Program

Other Funding Sources

The Department of Defense Office of Local Defense Community Cooperation (DOD OLDCC) funds work to provide resilience to the aviation, aerospace, and defense manufacturing industrial base. In coordination with partner stakeholders at the regional, industrial, and academic levels, NCTCOG will develop an agile curriculum program that will be guided by a governing body to identify training gaps and develop and deploy courses to students recruited to participate in the program. This element is ongoing throughout FY2022 and FY2023. Regional Transportation Council Local funds and Department of Defense funds will be used for this project. Anticipated products include:

- Framework agreement among the program stakeholders to determine roles and responsibilities;
- Inventory of current training programs related to aviation, aerospace, and defense manufacturing careers;
- Using a compression planning approach, inventory, and prioritization of initial training gaps;
- Evaluation criteria, including performance metrics and a framework for data to be collected and reported;
- Program contact road map maintained with current points of contact for each program stakeholder defining institutional touch points and responsibilities;
- Establishment, and ongoing staff support, of a governing body and technical advisory committees;
- Feedback loop process and tool developed to collect data, report on progress towards outcomes, and identify needed program improvements related to academic implementation, student completion/graduation, career placement, and student career performance, among others;
- Based on prioritized training gaps identified, development of agile curriculum at the appropriate level (enhancement to existing courses, new courses, degree programs, certificates, training for specific employer, etc.) that may be targeted to upskilling existing employees or attracting new applicants;
- Student recruitment strategic plan;
- Student recruitment materials developed and distributed to students at all levels (high school, community college, university, existing workforce) to promote each agile curriculum course, as well as to raise awareness in the community at large about career opportunities in aviation, aerospace, and defense manufacturing industries, including specific focus on underrepresented communities and individuals transitioning from military to civilian careers; and
- Grant management requirements.

Work Performed and Status: The Agile Curriculum Program Committee, a cross-industry advisory group comprised of workforce solutions, post-secondary educational institutions, and aerospace and defense companies, was established in FY2022 to serve as the institutional framework for the program, and this group meets regularly to guide initial project efforts.

A consensus was established to develop curriculums for identified skill set gaps in the defense industry targeting Information Assurance Engineers, Cybersecurity Analysts, and Data Engineers. Staff coordinated meetings with higher educational institutions and defense industry partners to advance curriculum development efforts. This led to the first Agile Curriculum Program Compression Planning Session that was held in March 2023. Agile Curriculum higher-education partners met to explore the framework for curriculum development and the methodology for the higher-education institutions to work together in collaboration with defense companies to create, modify, or adapt curriculum to improve existing and emerging gaps in cybersecurity and manufacturing needs. They were then able to explore specific ways the institutions could collaborate in the development of Agile Curriculum. This was the first in a series of Compression Planning Sessions.

Staff established a cross-section of defense industry cybersecurity engineer specialists in key leadership positions from four major national defense aeronautics companies. The Agile Curriculum defense engineer members identified critical graduate-level cybersecurity training needs. These needs were provided to one of the program's university partners to research areas within its existing curriculum and syllabi to identify areas for implementing the Agile Curriculum Program that would specifically address defense industry training needs.

Staff held the first meeting between the university and the defense industry cybersecurity engineer leaders. This was the foundational step for establishing an ongoing forum for implementing cybersecurity education focused on incorporating identified defense industry training needs. The forum also opened the door for defense cybersecurity leaders to be adjunct professors and guest lecturers to present key insights into real-time industry experiences.

US Department of Defense funds and Regional Transportation Council Local funds were used to support work activities. Work is continuing into FY2024.

Surface Access to Critical Infrastructure

Transportation Planning Funds

This element supports planning activities to help ensure the accessibility of critical infrastructure in North Texas, including military installations and energy, water, and communications facilities. NCTCOG will provide support for community thoroughfare planning, support for feasibility studies by the Texas Department of Transportation and other implementing agencies, and technical assistance to military installations and other critical infrastructure facilities seeking transportation system performance data. Planning for the Strategic Highway Network (STRAHNET) and connections between the STRAHNET and military installations is included. This element is ongoing throughout FY2022 and FY2023. This work includes reporting to the Regional Transportation Council and NAS JRB Fort Worth Regional Coordination Committee, as well as input into the Metropolitan Transportation Plan (MTP) and other transportation planning activities. Anticipated products include:

- Inventory and data collection of surface transportation access to military installations and other critical infrastructure;
- Analysis and recommendations for infrastructure improvements affecting military installations and other critical infrastructure; and
- Planning efforts to improve access to military installations and other critical infrastructure.

Work Performed and Status: NCTCOG staff continued to provide planning support to the State Highway (SH) 183 feasibility study, a major north-south corridor with industrial, residential, and commercial developments that serves as the primary roadway access to the NAS JRB Fort Worth. NCTCOG is working with the Texas Department of Transportation (TxDOT) Fort Worth District on its preliminary design for an approximate five-mile section of SH 183 between Interstate Highway (IH) 30 and SH 199, running through the cities of Fort Worth, River Oaks, Westworth Village, and White Settlement.

NCTCOG staff continued to provide planning support to the Cities of Fort Worth and River Oaks on the Meandering Road and LTJG Barnett Road projects which together form a key transportation corridor that serves as a principal route for local commuters and provides critical access to the NAS JRB Fort Worth East Gate from SH 183 and several highways and transportation facilities. The proposed project includes the reconstruction of Meandering Road between Roberts Cut Off Road and LTJG Barnett Road that will result in a more context-sensitive roadway compatible with adjacent land uses and the community character. Both motorized and non-motorized transportation accessibility are critical to NAS JRB Fort Worth operations and sustainability of its regional economic impact.

NCTCOG staff continued to provide planning support to TxDOT and the cities of Fort Worth and White Settlement in the development of improvements to Las Vegas Trail Boulevard between IH 820 and Quebec Drive, a critical project serving NAS JRB Fort Worth and the Lockheed defense manufacturing complex. This project includes improvements to several highly dangerous intersections and expanding the roadway to four lanes.

NCTCOG staff continued to provide planning support to the SH 199 corridor (from IH 820 to downtown Fort Worth). TxDOT is working with the Cities of Lake Worth, Sansom Park, and Fort Worth; Tarrant County; and NCTCOG to improve mobility, operations, and safety to provide transportation options and to develop safe transportation solutions along SH 199. A corridor master plan study for SH 199 is being developed to advance these visions into a design. The corridor master plan will use context-sensitive solution principles and modern engineering concepts to recommend phased improvements to increase livability in the corridor, provide transportation options for different users and improve drainage. The plan will study many elements such as landscaping and streetscaping, intersection improvements, water runoff and drainage, economic market analysis, parking, bicycle and pedestrian improvements, public transportation, and roadway widening.

Transportation Planning Funds were used to support work activities. This project is ongoing, and work will continue in FY2024.

5.11 Transportation Technology and Innovation Program

Activities in Subtask 5.11 will plan for the arrival of automated vehicles, focusing on the implications that automated vehicles may have regarding travel demand, land use, congestion, and transportation data, as well as vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2X) communications. Planning tools, including travel forecasting models, will be forced to adapt in ways that account for the effect upon the roadway system brought about by these technological innovations and transformations. Automated vehicles are no longer discussed solely in the context of automobile passenger travel, but also in the context of freight, transit, and people-mover/shuttle systems. Planning efforts will include coverage of associated technologies such as connected

vehicle technologies and emerging technologies, including digital and virtual reality technologies that allow people to engage in life activities without having to travel through physical space.

Automated Vehicles: Planning

Transportation Planning Funds

This program is ongoing throughout FY2022 and FY2023, providing planning for the arrival of automated vehicles and determining the impact of such vehicles on the transportation system. Strategies include analyzing the impact of automated vehicles and monitoring legal development relating to automated vehicles. Anticipated products include:

- Support for existing NCTCOG programs, including transportation planning and modeling;
- Monitoring of automated vehicle laws and policies;
- Maintenance of an information clearinghouse for the region on automated vehicle issues;
- Planning and coordination of pilot programs advancing the deployment of automated vehicles; and
- Liaison on automated vehicle issues with public and private parties.

Work Performed and Status: Staff monitored legislation within the State of Texas and nationally to advise regional partners on the evolving regulatory environment for connected and autonomous vehicles (C/AVs). The connected and autonomous vehicle webpages were updated to highlight projects and partnerships within the region.

Outreach efforts on behalf of staff consisted of attendance and participation in various conferences and focus groups across not only the state of Texas, but the nation as well. These efforts were inclusive of travel events to the TxDOT Annual Short Course, AMPO Annual Conference, NCHRP, TRB Annual Meeting, TxDOT Annual Transportation Forum, FHWA Focus Group on Digital Infrastructure Strategy, TxDOT-Hosted National Digital Roadway Infrastructure Strategy, and speaker at Connected America 2023.

Staff also developed an innovation zone concept to be implemented in Southeast Fort Worth which was the winner of the 2023 Texas Innovation Alliance Innovation Invitational. New studies focusing on cybersecurity in the realm of transportation were also initiated, with presentations to multiple academic and municipal audiences provided to seek input and spur discussion.

Lastly, staff engaged with multiple transportation technology vendors to identify opportunities for inclusion into upcoming projects for regional benefit. The future landscape of projects in which these vendors would have interest include, but are not limited to, cybersecurity, distributed acoustic sensing, broadband and digital equity programs, situational awareness apps, and new use cases for automated vehicle service deliveries.

Transportation Planning Funds were used to support work activities. This project is ongoing, and work will continue in FY2024.

Automated Vehicles: Development and Deployment

Other Funding Sources

This program is ongoing throughout FY2022 and FY2023, providing for the development and deployment of automated vehicles and related technologies. Strategies include building an open data infrastructure to support safe deployment of automated vehicles, encouraging shared mobility transportation models to deliver more mobility to more people in the region more cost-effectively, and exploring the benefit of using automated/driverless vehicles. Consultant assistance may be utilized to support work activities. This program uses Surface Transportation Block Grant Program funds, Texas Department of Transportation funds, and Transportation Development Credits to support activities in this area. Anticipated products include:

- An open data infrastructure for use by automated vehicles;
- Support for shared mobility service delivery models, especially those that increase average vehicle occupancy;
- Development and deployment of automated vehicle technologies in the region;
- Advancement of emerging cellular-V2X, DSRC, and other communications technologies; and
- Liaison to the Smart City/Smart State Program.

Work Performed and Status: Work in FY2023 on smart infrastructure and vehicle automation initiatives continued in multiple regards. Staff engaged with various municipal stakeholders both during their automated vehicle deployments and in planning efforts for future deployments.

Furthermore, staff engaged with USDOT staff on connected vehicle protocols and multimodal integration of automated vehicles. Staff held meetings with municipalities regarding advanced transportation technologies and various innovation efforts. NCTCOG staff also continued to provide support to the Texas Connected Freight Corridors initiative to deploy advanced connected vehicle technologies along the IH 30 corridor. Staff developed multiple planning documents and presentations, which were employed at meetings with technology vendors, partner agencies, and regional municipalities. Staff conducted outreach to identify technology platforms most well-suited for use in the corridor. Staff also assisted in the development of work scope documents and provided feedback as the project entered the implementation phase. The IH 30 corridor initiative led by TxDOT resulted in the implementation of 24 Road-Side Units along IH 30.

Staff worked to progress the Work Zone Data Exchange (WZDx) initiative with regional vendors and municipal stakeholders. A regional roundtable was held at NCTCOG to introduce the five WZDx vendors that were selected through the TXShare program. Staff also planned a funding strategy to implement WZDx activities throughout the region, which is ongoing and will continue into FY2024. As an extension of WZDx outreach, staff continued to gauge regional interest in the Situational Awareness App known as Payver, which is also included in the TXShare program.

Surface Transportation Block Grant Program funds (CSJs 0902-00-214 and 0902-90-100), Texas Department of Transportation funds, and Transportation Development Credits were used to support work activities. Work will continue in FY2024.

Updated Regional Automated Vehicle Program (AV 2.0)

Other Funding Sources

Automated Vehicles 2.0 (AV2.0) consists of three elements: 1) “Planning for Local Partners” (or, AV2.1): Provide planning assistance for public entities that are planning ahead for the deployment of AVs in their communities; 2) “Cost Coverage for Local Partners” (AV2.2): Funding to help public entities cover infrastructure, equipment, safety, public education, and other costs incurred when an AV deployment comes to a community; and 3) “Regional Strategic Investments” (AV2.3): Comprehensive support for AV deployment projects supporting use cases/communities that have not attracted AV developer interest but offer an important opportunity to solve a transportation “pinch-point.”

In 2020, NCTCOG procured a consultant to lead the effort in developing a regional planning framework for connected and automated vehicles as part of AV2.1: Planning for Local Partners. This framework may include, but is not limited to, traffic modeling, identifying use cases, policy development, public outreach and education, scenario planning, and land-use planning. The grants linked to AV2.2: Cost Coverage for Local Partners will be accessible by public entities with active or in-development deployments of connected and automated vehicle technology. Eligible costs for reimbursement could include, but are not limited to, local government staff and consultant time, infrastructure upgrades, legal services, public education, safety, and software and technical expertise. AV2.3: Regional Strategic Investments will be selected from proposals on a competitive basis according to selection criteria determined by the Regional Transportation Council. Surface Transportation Block Grant Program funds, Regional Transportation Council Local funds, and Transportation Development Credits will be utilized. Consultant assistance may be utilized. Anticipated products during FY2022 and FY2023 include:

- Automated transportation planning resources for local partners;
- Reimbursement opportunities for local partners that deploy automated transportation solutions;
- Comprehensive projects that address transportation “pinch-points” in the region that require public intervention; and
- Financial and operational support for local partners hosting an automated vehicle implementation.

Work Performed and Status: Planning efforts and work related to AV2.2-2.3 continued throughout FY2023. These related activities focused on consultations, planning support for local partners, and outreach surrounding the project reports found in <https://www.connectntxfutures.org/learn>.

Planning efforts involving the expansion of “broadband as a mode of transportation” have begun and a project is being scoped with local agencies for implementation in FY2024. The implementation of broadband infrastructure will allow communities to offer faster, more reliable high-speed internet at affordable rates for low-to-middle income neighborhoods.

Additionally, staff worked to coordinate an automated vehicle deployment with internet-enabled capacity to operate as a mobile Wi-Fi hotspot in communities where there is either a lack of appropriate broadband technology, or the existing technology is unaffordable. These planning efforts were halted due to administrative turnover amongst regional stakeholders. Efforts to revitalize this initiative will be made in FY2024.

Surface Transportation Block Grant Program funds (CSJs 0902-00-280, 0902-00-281, 0902-00-282, 0902-00-283), Regional Transportation Council Local funds, and Transportation Development Credits were used to support work activities.

Dallas-Fort Worth Freight Optimization Corridors

Other Funding Sources

During FY2022 and FY2023, this project will use connected vehicle and related technologies to optimize the flow of trucks between freight hubs and expressways in the region. The freight industry has identified this initiative as a top priority. The Value of Time for goods movement approaches \$75 per hour. There are safety, operational, and environmental benefits from reducing the number of truck stops/starts at intersections. This project will focus on intersections with high volumes and proportions of freight traffic. It will use the optimal mix of technologies and data sharing to reduce the number of stops trucks make at signalized intersections. Deployment locations will be selected based on an assessment of potential benefits and costs, and after consultation with the responsible local jurisdictions and freight companies. The project will include continual performance monitoring and adjustment to deliver the maximum net benefits. Consultant assistance will be utilized. Surface Transportation Block Grant Program funds, Regional Transportation Council Local funds, and Transportation Development Credits will be utilized to support project activities. Anticipated products include:

- Completion of before and after studies of focus intersections;
- Coordination meetings with the Texas Department of Transportation, freight industry, and other public agencies responsible for roadways in the focus areas;
- Evaluation, procurement, and implementation of connected vehicle and other technologies; and
- Development of data sharing tools that bridge platforms between public- and private-sector stakeholders.

Work Performed and Status: Work on the Freight Optimization project continued throughout FY2023 through the combined efforts of staff and consultant project teams. The first live deployment of the freight signal priority system was deployed in the City of Garland. In addition, major progress was made toward the development and implementation of the Key Performance Indicator Dashboard. The project team also integrated multiple new municipalities into the project, and signed agreements for 503 traffic signals to receive signal priority. The team also established data sharing and other technical agreements needed to facilitate deployment across seven jurisdictions.

Significant progress was made to engage the freight industry and educate the public-sector stakeholder. Staff and consultants presented at multiple convenings of interested parties throughout the region, State, and nation to solicit feedback on the project and develop plans for refinement and improvement throughout the implementation phase. The consultant team developed a mobile application that was released to the public. Work on a test plan for the mobile app and signal priority system was completed and will begin validation in early FY2024.

Surface Transportation Block Grant Program funds (CSJ 0902-00-301)—and Transportation Development Credits were used to support work activities. Work will continue in FY2024.

IH 30 – Dallas/Tarrant County Line to IH 635

Other Funding Sources

In FY2023, NCTCOG will initiate a planning study to review roadway corridor design elements to accommodate automated and electric vehicles, including, but not limited to, dynamic inductive charging technology usable by all vehicles, geometric design for autonomous vehicles and retrofit of new facilities using existing technologies to advance next generation autonomous vehicle implementation. The new section of IH 30 from the Dallas/Tarrant County line to Downtown Dallas will be the candidate location for retrofit technologies. The older section of IH 30 from Downtown Dallas to IH 635 will be the location for new geometric design for autonomous vehicles. It is anticipated that consultant assistance may be utilized to perform a significant portion of the work. Surface Transportation Block Grant Program funds and Texas Department of Transportation funds will be used to support work activities. Anticipated products include:

- Plans, reports, studies, drawings, visualizations, simulations, and other types of planning products.

Work Performed and Status: Work on this project is anticipated to begin in FY2024.

IH 30 – IH 35W to Dallas/Tarrant County Line

Other Funding Sources

In FY2023, NCTCOG will initiate a planning study to review roadway corridor design elements to accommodate automated and electric vehicles, including, but not limited to, dynamic inductive charging technology usable by all vehicles, geometric design for autonomous vehicles, and retrofit of new facilities using existing technologies to advance next generation autonomous vehicle implementation. The new section of IH 30 from Cooper Street to the Dallas/Tarrant County line will be the candidate location for retrofit technologies. The older section of IH 30 from Downtown Fort Worth to Cooper Street will be the location for new geometric design for autonomous vehicles. It is anticipated that consultant assistance may be utilized to perform a significant portion of the work. Surface Transportation Block Grant Program funds and Texas Department of Transportation funds will be used to support work activities. Anticipated products include:

- Plans, reports, studies, drawings, visualizations, simulations, and other types of planning products.

Work Performed and Status: Work on this project is anticipated to begin in FY2024.

5.12 Red River Navigation System Feasibility Study

Other Funding Sources

During the 86th Texas Legislative Session, Texas legislators approved the conducting of a feasibility study by the Red River Authority of Texas on increasing navigation on the Red River between approximately Texarkana and Denison, Texas. This is a partnership effort between the states of Arkansas, Louisiana, Oklahoma, and Texas. During FY2022 and FY2023, NCTCOG will continue this partnership and participate in the planning process. The extension of the navigable

waters could provide the Dallas-Fort Worth region with access to the sea and result in logistics changes for goods movement in the region. The use of the Red River could potentially provide additional freight transport options, divert freight traffic, provide an inexpensive transportation option for bulk freight, provide potential electric power generation, result in possible air quality benefits, and provide an opportunity to partner with the federally recognized tribal nations. Regional Transportation Council Local funds will be utilized to support this initiative. Anticipated products include:

- Financial feasibility study of increasing navigation on the Red River; and
- Presentation to the Regional Transportation Council.

Work Performed and Status: No work was conducted on this initiative in FY2023. The contract with the United States Army Corps of Engineer has been extended, and the project will continue in FY2024.

5.13 North Texas Center for Mobility Technologies

Other Funding Sources

The North Central Texas Council of Governments has partnered with the Texas Research Alliance to develop a mobility research center, the North Texas Center for Mobility Technologies (NTCMT), that will bring together North Texas' top mobility research talent to work on sponsored research projects. Regional Transportation Council Local funds will be utilized to launch this initiative, with contributions from university partners as the initiative progresses. The primary functions and anticipated products of the NTCMT during FY2022 and FY2023 include:

- Readymade research and development network of and for mobility-related companies, municipalities, and other public agencies;
- Attraction of industry and academic talent to North Texas;
- Mobility-related research capabilities within North Texas universities;
- Facilitation of communication and collaboration among the universities with respect to research and development projects and the pursuit/execution of grants;
- Facilitation of university-public sector partnerships on mobility-related projects;
- Facilitation of mobility-related internships for workforce enhancement;
- Acting as a catalyst for building similar North Texas area university networks in other industry sectors;
- Research and industry reports, regional assessments, white papers, and scholarly articles focused on mobility innovation topics; and
- Applications for grants and other prospective funding sources.

Work Performed and Status: Work during FY2023 continued to support new and existing industry-sponsored initiatives in mobility technologies. Work continued on an advanced parking system which will support higher levels of vehicle autonomy and increase efficiency of parking in dense urban areas. This effort is projected to continue through May 2025. Projects relating to Advanced Air Mobility and Urban Air Mobility Systems within the Dallas-Fort Worth region continued to be successful and resulted in the development of an Airspace Hazard Alerting Service (AHAS), which will see incorporation into a new UAS-related NTCMT project that will kick-off in 2024 and will deliver a robust communications and detection protocol for dedicated UAS and AAM corridors.

Regional Transportation Council Local funds were used to support work activities, and work will continue in FY2024.

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VI. Funding Summaries

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TASK 1 – FUNDING SUMMARY

Funding Source	Amount Programmed (2-year)	Authorized (2-year) ¹	Expended (FY2022)	Expended (FY2023)	Amount Expended (2-year)	Balance of Programmed (2-year)	% Expended of Programmed (2-year)	Balance of Authorized (2-year)	% Expended of Authorized (2-year)
1.01 – Community Outreach									
TPF	\$4,393,900	\$4,393,900	\$2,162,688	\$2,128,796	\$4,291,484	\$102,416	97.7%	\$102,416	97.7%
CMAQ	\$2,979,900	\$3,305,379	\$1,056,765	\$1,351,158	\$2,407,923	\$571,977	80.8%	\$897,456	72.8%
STBG	\$245,000	\$0	\$0	\$0	\$0	\$245,000	0.0%	\$0	0.0%
NCTCOG LOCAL	\$4,000	\$4,000	\$0	\$41	\$41	\$3,959	1.0%	\$3,959	1.0%
Subtotal	\$7,622,800	\$7,703,279	\$3,219,453	\$3,479,995	\$6,699,448	\$923,352	87.9%	\$1,003,832	87.0%
1.02 – Program and Policy Administration									
TPF	\$770,550	\$770,550	\$171,829	\$108,769	\$280,599	\$489,951	36.4%	\$489,951	36.4%
STBG	\$267,500	\$267,508	\$50,121	\$28,187	\$78,308	\$189,192	29.3%	\$189,200	29.3%
LOCAL	\$208,400	\$159,659	\$16,241	\$19,777	\$36,018	\$172,382	17.3%	\$123,640	22.6%
NCTCOG LOCAL ²	\$119,800	\$119,800	\$45,025	\$42,283	\$87,308	\$32,492	72.9%	\$32,492	72.9%
Subtotal	\$1,366,250	\$1,317,517	\$283,217	\$199,016	\$482,233	\$884,017	35.3%	\$835,284	36.6%
1.03 – Fiscal Management and Information Systems									
LOCAL ^{3,4}	\$6,000	\$1,895,000	(\$575)	\$1,879,505	\$1,878,930	(\$1,872,930)	31,315.5%	\$16,070	99.2%
NCTCOG LOCAL	\$20,000	\$14,755	\$7,247	\$1,760	\$9,007	\$10,993	45.0%	\$5,749	61.0%
RTR	\$345,300	\$345,297	\$90,021	\$80,154	\$170,175	\$175,125	49.3%	\$175,123	49.3%
Subtotal	\$371,300	\$2,255,053	\$96,692	\$1,961,419	\$2,058,112	(\$1,686,812)	554.3%	\$196,941	91.3%
1.04 – Computer System Applications and Data Management									
TPF	\$1,171,600	\$1,171,600	\$443,828	\$565,658	\$1,009,486	\$162,114	86.2%	\$162,114	86.2%
STBG	\$1,281,200	\$1,467,000	\$434,953	\$528,405	\$963,358	\$317,842	75.2%	\$503,642	65.7%
TXDOT	\$320,350	\$366,750	\$108,738	\$132,101	\$240,840	\$79,510	75.2%	\$125,910	65.7%
LOCAL	\$295,800	\$572,943	\$178,989	\$61,877	\$240,866	\$54,934	81.4%	\$332,077	42.0%
Subtotal	\$3,068,950	\$3,578,293	\$1,166,508	\$1,288,041	\$2,454,549	\$614,401	80.0%	\$1,123,744	68.6%
Total	\$12,429,300	\$14,854,143	\$4,765,871	\$6,928,471	\$11,694,342	\$734,958	94.1%	\$3,159,801	78.7%

¹ Authorized TPF funding reported here is consistent with amount programmed. Total authorization amount (see total revenue amount reflected in Exhibit VI Funding Summaries – Transportation Planning Funds [Two-Year Total]) is received from TxDOT through work orders. Allocation to task is approved through authorization of the UPWP.

² Expenditures for FY2022 may reflect adjustments made after submission of the FY2022 Annual Report on Performance and Expenditures.

³ Regional Transportation Council Local (RTC Local) funds used to support the Leadership Institute Medal of Honor Museum were not programmed in the UPWP.

⁴ Local expenditures include credits from TxDOT for return of unexpended direct state cost payments for completed projects.

TASK 1 – TPF FUNDING SUMMARY FY2023

	Amount Programmed	Amount Authorized ¹	Amount Expended	Balance of Programmed	% Expended Programmed	Balance of Authorized	% Expended Authorized
1.01 - Community Outreach							
TPF	\$2,307,900.00	\$2,307,900.00	\$2,128,795.92	\$179,104.08	92.2%	\$179,104.08	92.2%
1.02 - Program Administration							
TPF	\$263,300.00	\$263,300.00	\$108,769.37	\$154,530.63	41.3%	\$154,530.63	41.3%
1.04 - Computer System Administration and Data Management							
TPF	\$716,500.00	\$716,500.00	\$565,657.66	\$150,842.34	78.9%	\$150,842.34	78.9%
Total	\$3,287,700.00	\$3,287,700.00	\$2,803,222.95	\$484,477.05	85.3%	\$484,477.05	85.3%

¹ Authorized TPF funding reported here is consistent with amount programmed. Total authorization amount (see total revenue amount reflected in Exhibit VI Funding Summaries – Transportation Planning Funds [Two-Year Total]) is received from TxDOT through work orders. Allocation to task is approved through authorization of the UPWP.

TASK 2 – FUNDING SUMMARY

Funding Source	Amount Programmed (2-year)	Authorized (2-year) ¹	Expended (FY2022)	Expended (FY2023)	Amount Expended (2-year)	Balance of Programmed (2-year)	% Expended of Programmed (2-year)	Balance of Authorized (2-year)	% Expended of Authorized (2-year)
2.01 – Travel Forecasting Support									
TPF	\$2,057,300	\$2,057,300	\$1,061,556	\$1,155,310	\$2,216,866	(\$159,566)	107.8%	(\$159,566)	107.8%
STBG ²	\$3,423,500	\$3,708,985	\$728,248	\$1,171,993	\$1,900,241	\$1,523,259	55.5%	\$1,808,745	51.2%
LOCAL	\$373,000	\$372,925	\$0	\$372,925	\$372,925	\$75	100.0%	\$0	100.0%
NCTCOG LOCAL ³	\$0	\$1,126	\$0	\$1,126	\$1,126	(\$1,126)	0.0%	\$0	100.0%
Subtotal	\$5,853,800	\$4,962,286	\$1,789,804	\$2,701,353	\$4,491,157	\$1,362,643	76.7%	\$471,129	90.5%
2.02 – Transportation Data Development									
TPF	\$464,100	\$464,100	\$228,033	\$216,286	\$444,318	\$19,782	95.7%	\$19,782	95.7%
STBG	\$319,000	\$257,724	\$114,613	\$140,686	\$255,299	\$63,701	80.0%	\$2,425	99.1%
TXDOT	\$79,800	\$64,431	\$28,653	\$35,172	\$63,825	\$15,975	80.0%	\$606	99.1%
Subtotal	\$862,900	\$786,256	\$371,299	\$392,143	\$763,442	\$99,458	88.5%	\$22,813	97.1%
2.03 – Demographic Data and Forecasts									
TPF	\$1,257,700	\$1,257,700	\$690,244	\$545,533	\$1,235,777	\$21,923	98.3%	\$21,923	98.3%
Subtotal	\$1,257,700	\$1,257,700	\$690,244	\$545,533	\$1,235,777	\$21,923	98.3%	\$21,923	98.3%
Total	\$7,974,400	\$8,184,292	\$2,851,347	\$3,639,030	\$6,490,377	\$1,484,023	81.4%	\$1,693,915	79.3%

¹ Authorized TPF funding reported here is consistent with amount programmed. Total authorization amount (see total revenue amount reflected in Exhibit VI Funding Summaries – Transportation Planning Funds [Two-Year Total]) is received from TxDOT through work orders. Allocation to task is approved through authorization of the UPWP.

² A portion of the programmed and authorized funding includes funding that was transferred from TxDOT to FTA.

³ NCTCOG Local funding was used to cover small cost overruns.

TASK 2 – TPF FUNDING SUMMARY FY2023

	Amount Programmed	Amount Authorized ¹	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
2.01 - Travel Forecasting Support							
TPF	\$1,127,400.00	\$1,127,400.00	\$1,155,309.54	(\$27,909.54)	102.5%	(\$27,909.54)	102.5%
2.02 - Transportation Data Development							
TPF	\$212,900.00	\$212,900.00	\$216,285.59	(\$3,385.59)	101.6%	(\$3,385.59)	101.6%
2.03 - Demographic Data and Forecasts							
TPF	\$567,100.00	\$567,100.00	\$545,533.33	\$21,566.67	96.2%	\$21,566.67	96.2%
Total	\$1,907,400.00	\$1,907,400.00	\$1,917,128.46	(\$9,728.46)	100.5%	(\$9,728.46)	100.5%

¹ Authorized TPF funding reported here is consistent with amount programmed. Total authorization amount (see total revenue amount reflected in Exhibit VI Funding Summaries – Transportation Planning Funds (Two-Year Total)) is received from TxDOT through work orders. Allocation to task is approved through authorization of the UPWP.

TASK 3 – FUNDING SUMMARY

Funding Source	Amount Programmed (2-year)	Authorized (2-year) ¹	Expended (FY2022)	Expended (FY2023)	Amount Expended (2-year)	Balance of Programmed (2-year)	% Expended of Programmed (2-year)	Balance of Authorized (2-year)	% Expended of Authorized (2-year)
3.01 – Transportation Project Programming									
TPF	\$2,906,700	\$2,906,700	\$1,233,666	\$1,307,019	\$2,540,685	\$366,015	87.4%	\$366,015	87.4%
STBG	\$976,200	\$1,211,570	\$213,075	\$415,475	\$628,551	\$347,649	64.4%	\$583,020	51.9%
RTR	\$1,183,300	\$1,151,150	\$353,841	\$496,985	\$850,826	\$332,474	71.9%	\$300,325	73.9%
Subtotal	\$5,066,200	\$5,269,421	\$1,800,582	\$2,219,479	\$4,020,062	\$1,046,138	79.4%	\$1,249,359	76.3%
3.02 – Regional Air Quality Planning									
TPF	\$1,297,200	\$1,297,200	\$679,710	\$723,521	\$1,403,232	(\$106,032)	108.2%	(\$106,032)	108.2%
EPA ²	\$0	\$1,000,000	\$0	\$13,225	\$13,225	(\$13,225)	0.0%	\$986,775	1.3%
TCEQ	\$270,000	\$294,549	\$20,221	\$105,363	\$125,584	\$144,416	46.5%	\$168,965	42.6%
NCTCOG LOCAL	\$0	\$2,702	\$2,702	\$0	\$2,702	(\$2,702)	0.0%	\$0	100.0%
Subtotal	\$1,567,200	\$2,594,451	\$702,633	\$842,110	\$1,544,743	\$22,457	98.6%	\$1,049,708	59.5%
3.03 – Air Quality Management and Operations									
CMAQ	\$1,530,600	\$1,390,419	\$326,589	\$681,186	\$1,007,776	\$522,824	65.8%	\$382,644	72.5%
DOE ³	\$341,500	\$418,227	\$131,850	\$218,439	\$350,289	(\$8,789)	102.6%	\$67,938	83.8%
EPA	\$7,402,250	\$8,013,479	\$2,012,179	\$545,372	\$2,557,552	\$4,844,698	34.6%	\$5,455,927	31.9%
FHWA	\$12,300	\$11,169	\$11,169	\$0	\$11,169	\$1,131	90.8%	\$0	100.0%
STBG	\$5,824,000	\$4,820,674	\$2,075,876	\$2,197,205	\$4,273,082	\$1,550,918	73.4%	\$547,593	88.6%
LOCAL ³	\$16,300,279	\$16,255,479	\$4,424,513	\$1,206,177	\$5,630,690	\$10,669,589	34.5%	\$10,624,789	34.6%
TCEQ	\$275,000	\$276,433	\$89,600	\$157,236	\$246,836	\$28,164	89.8%	\$29,598	89.3%
NCTCOG LOCAL ⁴	\$0	\$1,285	\$0	\$1,285	\$1,285	(\$1,285)	0.0%	\$0	100.0%
Subtotal	\$31,685,929	\$31,187,167	\$9,071,777	\$5,006,901	\$14,078,677	\$17,607,252	44.4%	\$17,108,490	45.1%
3.04 – Public Transportation Planning									
TPF	\$1,704,900	\$1,704,900	\$788,125	\$987,086	\$1,775,211	(\$70,311)	104.1%	(\$70,311)	104.1%
FTA	\$976,600	\$917,473	\$326,603	\$434,972	\$761,575	\$215,025	78.0%	\$155,897	83.0%
STBG	\$816,800	\$729,417	\$354,914	\$311,349	\$666,263	\$150,537	81.6%	\$63,154	91.3%
RTR	\$0	(\$1,431)	(\$1,431)	\$0	(\$1,431)	\$1,431	0.0%	\$0	100.0%
Subtotal	\$3,498,300	\$3,350,358	\$1,468,211	\$1,733,407	\$3,201,618	\$296,682	91.5%	\$148,740	95.6%
3.05 – Transit Management and Operations									
FTA ⁵	\$25,256,050	\$34,888,454	\$6,137,983	\$11,483,418	\$17,621,401	\$7,634,649	69.8%	\$17,267,053	50.5%
STBG	\$1,000,000	\$0	\$0	\$0	\$0	\$1,000,000	0.0%	\$0	0.0%
LOCAL	\$1,459,400	\$6,588,831	\$548,489	\$360,838	\$909,326	\$550,074	62.3%	\$5,679,505	13.8%
NCTCOG LOCAL ⁴	\$0	\$131	\$0	\$131	\$131	(\$131)	0.0%	\$0	100.0%
RTR	\$2,659,000	\$2,877,437	\$929,514	\$772,646	\$1,702,160	\$956,840	64.0%	\$1,175,277	59.2%
Subtotal	\$30,374,450	\$44,354,853	\$7,615,986	\$12,617,032	\$20,233,018	\$10,141,432	66.6%	\$24,121,835	45.6%
Total	\$72,192,079	\$86,756,250	\$20,659,189	\$22,418,929	\$43,078,119	\$29,113,960	59.7%	\$43,678,132	49.7%

¹ Authorized TPF funding reported here is consistent with amount programmed. Total authorization amount (see total revenue amount reflected in Exhibit VI Funding Summaries – Transportation Planning Funds [Two-Year Total]) is received from TxDOT through work orders. Allocation to task is approved through authorization of the UPWP.

² Environmental Protection Agency funds used to support Climate Pollution Reduction Planning Grant activities were not programmed in the UPWP.

³ Expenditures for FY2022 may reflect adjustments made after submission of the FY2022 Annual Report on Performance and Expenditures.

⁴ NCTCOG Local funding was used to cover small cost overruns.

⁵ A portion of the expenditures were incurred under pre-award authority in compliance with FTA rules.

TASK 3 – TPF FUNDING SUMMARY FY2023

	Amount Programmed	Amount Authorized ¹	Amount Expended	Balance of Programmed	% Expended Programmed	Balance of Authorized	% Expended Authorized
3.01 - Transportation Project Programming							
TPF	\$1,506,800.00	\$1,506,800.00	\$1,307,019.09	\$199,780.91	86.7%	\$199,780.91	86.7%
3.02 - Regional Air Quality Planning							
TPF	\$704,500.00	\$704,500.00	\$723,521.20	(\$19,021.20)	102.7%	(\$19,021.20)	102.7%
3.04 - Public Transportation Planning							
TPF	\$896,300.00	\$896,300.00	\$987,085.94	(\$90,785.94)	110.1%	(\$90,785.94)	110.1%
Total	\$3,107,600.00	\$3,107,600.00	\$3,017,626.23	\$89,973.77	97.1%	\$89,973.77	97.1%

¹ Authorized TPF funding reported here is consistent with amount programmed. Total authorization amount (see total revenue amount reflected in Exhibit VI Funding Summaries – Transportation Planning Funds [Two-Year Total]) is received from TxDOT through work orders. Allocation to task is approved through authorization of the UPWP.

TASK 4 – FUNDING SUMMARY

Funding Source	Amount Programmed (2-year)	Authorized (2-year) ¹	Expended (FY2022)	Expended (FY2023)	Amount Expended (2-year)	Balance of Programmed (2-year)	% Expended of Programmed (2-year)	Balance of Authorized (2-year)	% Expended of Authorized (2-year)
4.01 – Metropolitan Transportation Planning									
TPF	\$2,477,900	\$2,477,900	\$1,210,918	\$1,282,771	\$2,493,689	(\$15,789)	100.6%	(\$15,789)	100.6%
Subtotal	\$2,477,900	\$2,477,900	\$1,210,918	\$1,282,771	\$2,493,689	(\$15,789)	100.6%	(\$15,789)	100.6%
4.02 – Coordination of Transportation and Environmental Planning Processes									
TPF	\$511,600	\$511,600	\$79,985	\$40,911	\$120,896	\$390,704	23.6%	\$390,704	23.6%
STBG	\$3,460,000	\$3,465,000	\$31,350	\$393,236	\$424,586	\$3,035,414	12.3%	\$3,040,414	12.3%
LOCAL	\$688,810	\$663,183	\$108,071	\$84,761	\$192,832	\$495,978	28.0%	\$470,351	29.1%
TWDB ²	\$0	\$3,000,000	\$0	\$112,132	\$112,132	(\$112,132)	0.0%	\$2,887,868	3.7%
RTR	\$814,600	\$1,111,740	\$107,268	\$200,000	\$307,268	\$507,332	37.7%	\$804,472	27.6%
Subtotal	\$5,475,010	\$8,751,523	\$326,674	\$831,040	\$1,157,714	\$4,317,296	21.1%	\$7,593,809	13.2%
4.03 – Ensuring Equity, Nondiscrimination, and Environmental Justice in MPO Planning/Program Activities									
TPF	\$453,900	\$453,900	\$161,450	\$19,858	\$181,308	\$272,592	39.9%	\$272,592	39.9%
FTA	\$270,000	\$269,698	\$0	\$0	\$0	\$270,000	0.0%	\$269,698	0.0%
Subtotal	\$723,900	\$723,598	\$161,450	\$19,858	\$181,308	\$542,592	25.0%	\$542,290	25.1%
4.04 – Performance-Based Planning and Coordination									
TPF	\$339,400	\$339,400	\$64,003	\$30,316	\$94,319	\$245,081	27.8%	\$245,081	27.8%
Subtotal	\$339,400	\$339,400	\$64,003	\$30,316	\$94,319	\$245,081	27.8%	\$245,081	27.8%
4.05 – Understanding Public Return on Investment for Transportation Funding									
TPF	\$98,200	\$98,200	\$4,372	\$5,826	\$10,198	\$88,002	10.4%	\$88,002	10.4%
Subtotal	\$98,200	\$98,200	\$4,372	\$5,826	\$10,198	\$88,002	10.4%	\$88,002	10.4%
4.06 – Regional Passenger Rail Planning and Evaluation Process Development									
TPF	\$105,800	\$105,800	\$22,765	\$63,439	\$86,204	\$19,596	81.5%	\$19,596	81.5%
Subtotal	\$105,800	\$105,800	\$22,765	\$63,439	\$86,204	\$19,596	81.5%	\$19,596	81.5%
Total	\$9,220,210	\$12,496,421	\$1,790,181	\$2,233,250	\$4,023,431	\$5,196,779	43.6%	\$8,472,990	32.2%

¹ Authorized TPF funding reported here is consistent with amount programmed. Total authorization amount (see total revenue amount reflected in Exhibit VI Funding Summaries – Transportation Planning Funds [Two-Year Total]) is received from TxDOT through work orders. Allocation to task is approved through authorization of the UPWP.

² Texas Water Development Board (TWDB) funds used to support the integrated Planning for Regional Transportation, Urban Development, and Stormwater Management project were not programmed in the UPWP.

TASK 4 – TPF FUNDING SUMMARY FY2023

	Amount Programmed	Amount Authorized ¹	Amount Expended	Balance of Programmed	% Expended Programmed	Balance of Authorized	% Expended Authorized
4.01 - The Metropolitan Transportation Planning							
TPF	\$1,359,200.00	\$1,359,200.00	\$1,282,770.76	\$76,429.24	94.4%	\$76,429.24	94.4%
4.02 - Coordination of Transportation and Environmental Planning Processes							
TPF	\$255,300.00	\$255,300.00	\$40,911.45	\$214,388.55	16.0%	\$214,388.55	16.0%
4.03 – Ensuring Equity, Nondiscrimination, and Environmental Justice in MPO Planning/Program Activities							
TPF	\$240,000.00	\$240,000.00	\$19,858.06	\$220,141.94	8.3%	\$220,141.94	8.3%
4.04 - Performance-Based Planning and Coordination							
TPF	\$171,500.00	\$171,500.00	\$30,316.11	\$141,183.89	17.7%	\$141,183.89	17.7%
4.05 - Understanding Public Return on Investment for Transportation Funding							
TPF	\$45,600.00	\$45,600.00	\$5,826.28	\$39,773.72	12.8%	\$39,773.72	12.8%
4.06 -Regional Passenger Rail Planning and Evaluation Process Development							
TPF	\$51,400.00	\$51,400.00	\$63,439.00	(\$12,039.00)	123.4%	(\$12,039.00)	123.4%
Total	\$2,123,000.00	\$2,123,000.00	\$1,443,121.66	\$652,143.62	68.0%	\$679,878.34	68.0%

¹ Authorized TPF funding reported here is consistent with amount programmed. Total authorization amount (see total revenue amount reflected in Exhibit VI Funding Summaries – Transportation Planning Funds [Two-Year Total]) is received from TxDOT through work orders. Allocation to task is approved through authorization of the UPWP.

TASK 5 – FUNDING SUMMARY

Funding Source	Amount Programmed (2-year)	Authorized (2-year) ¹	Expended (FY2022)	Expended (FY2023)	Amount Expended (2-year)	Balance of Programmed (2-year)	% Expended of Programmed (2-year)	Balance of Authorized (2-year)	% Expended of Authorized (2-year)
5.01 – Regional Transportation Studies									
TPF	\$1,366,400	\$1,366,400	\$669,666	\$675,431	\$1,345,097	\$21,303	98.4%	\$21,303	98.4%
STBG ²	\$15,575,400	\$13,029,015	\$3,434,047	\$2,915,755	\$6,349,801	\$9,225,599	40.8%	\$6,679,214	48.7%
TXDOT	\$73,600	\$300,000	\$0	\$0	\$0	\$73,600	0.0%	\$300,000	0.0%
LOCAL	\$178,400	\$249,033	\$73,360	\$64,263	\$137,624	\$40,776	77.1%	\$111,409	55.3%
NTTA	\$50,000	\$75,000	\$800	\$1,597	\$2,397	\$47,603	4.8%	\$72,603	3.2%
RTR	\$3,455,000	\$2,730,697	\$340,512	\$411,562	\$752,074	\$2,702,926	21.8%	\$1,978,623	27.5%
Subtotal	\$20,698,800	\$17,750,144	\$4,518,385	\$4,068,608	\$8,586,993	\$12,111,807	41.5%	\$9,163,151	48.4%
5.02 – Subarea Studies and Local Government Assistance									
TPF	\$1,314,600	\$1,314,600	\$550,497	\$489,499	\$1,039,996	\$274,604	79.1%	\$274,604	79.1%
RTR	\$149,000	\$285,990	\$4,295	\$1,168	\$5,463	\$143,537	3.7%	\$280,527	1.9%
Subtotal	\$1,463,600	\$1,600,590	\$554,792	\$490,667	\$1,045,459	\$418,141	71.4%	\$555,131	65.3%
5.03 – Land-Use/Transportation Initiatives									
TPF	\$904,200	\$904,200	\$448,677	\$431,219	\$879,897	\$24,303	97.3%	\$24,303	97.3%
CMAQ	\$19,708	\$0	\$0	\$0	\$0	\$19,708	0.0%	\$0	0.0%
FTA	\$467,000	\$800,000	\$512	\$103,496	\$104,008	\$362,992	22.3%	\$695,992	13.0%
STBG	\$7,626,200	\$8,685,890	\$1,661,120	\$1,543,250	\$3,204,369	\$4,421,831	42.0%	\$5,481,521	36.9%
USDOT	\$78,375	\$0	\$0	\$0	\$0	\$78,375	0.0%	\$0	0.0%
LOCAL	\$730,009	\$856,834	\$331,409	\$121,584	\$452,993	\$277,016	62.1%	\$403,841	52.9%
RTR	\$19,708	\$0	\$0	\$0	\$0	\$19,708	0.0%	\$0	0.0%
Subtotal	\$9,845,200	\$11,246,924	\$2,441,718	\$2,199,549	\$4,641,267	\$5,203,933	47.1%	\$6,605,657	41.3%
5.04 – Transportation Asset Management									
TPF	\$203,700	\$203,700	\$55,213	\$72,209	\$127,422	\$76,278	62.6%	\$76,278	62.6%
STBG	\$222,200	\$1,011,890	\$21,890	\$57	\$21,947	\$200,253	9.9%	\$989,943	2.2%
Subtotal	\$425,900	\$1,215,590	\$77,102	\$72,266	\$149,368	\$276,532	35.1%	\$1,066,222	12.3%
5.05 – Congestion Management Planning and Operations									
TPF	\$1,317,800	\$1,317,800	\$558,311	\$641,568	\$1,199,879	\$117,921	91.1%	\$117,921	91.1%
CMAQ	\$7,093,400	\$9,210,095	\$3,319,789	\$1,208,241	\$4,528,030	\$2,565,370	63.8%	\$4,682,066	49.2%
FHWA	\$2,000,000	\$4,400,000	\$0	\$1,641,789	\$1,641,789	\$358,212	82.1%	\$2,758,212	37.3%
STBG ³	\$10,044,100	\$11,349,701	\$2,519,410	\$2,690,600	\$5,210,010	\$4,834,090	51.9%	\$6,139,691	45.9%
TXDOT ³	\$1,776,300	\$2,030,370	\$687,854	\$535,117	\$1,222,972	\$553,328	68.8%	\$807,398	60.2%
LOCAL ³	\$5,404,180	\$7,954,246	\$397,103	\$3,449,105	\$3,846,208	\$1,557,972	71.2%	\$4,108,038	48.4%
RTR	\$653,000	\$1,654,931	\$14,189	\$421,748	\$435,936	\$217,064	66.8%	\$1,218,995	26.3%
Subtotal	\$28,288,780	\$37,917,144	\$7,496,657	\$10,588,168	\$18,084,824	\$10,203,956	63.9%	\$19,832,320	47.7%
5.06 – Regional Freight Planning									
TPF	\$387,800	\$387,800	\$0	\$299,080	\$299,080	\$88,720	77.1%	\$88,270	77.1%
FTA	\$1,297,000	\$25,000,000	\$0	\$0	\$0	\$1,297,000	0.0%	\$25,000,000	0.0%
STBG	\$8,226,900	\$9,113,235	\$787,812	\$1,740,186	\$2,527,998	\$5,698,902	30.7%	\$6,585,237	27.7%
LOCAL	\$2,008,000	\$400,000	\$0	\$296,601	\$296,601	\$1,711,399	14.8%	\$103,399	74.2%
Subtotal	\$11,919,700	\$34,901,035	\$787,812	\$2,335,868	\$3,123,680	\$8,796,020	26.2%	\$31,777,356	9.0%
5.07 – Transportation System Security and Emergency Preparedness									
TPF	\$65,000	\$65,000	\$12,129	\$10,808	\$22,938	\$42,062	35.3%	\$42,062	35.3%
Subtotal	\$65,000	\$65,000	\$12,129	\$10,808	\$22,938	\$42,062	35.3%	\$42,062	35.3%

Funding Source	Amount Programmed (2-year)	Authorized (2-year) ¹	Expended (FY2022)	Expended (FY2023)	Amount Expended (2-year)	Balance of Programmed (2-year)	% Expended of Programmed (2-year)	Balance of Authorized (2-year)	% Expended of Authorized (2-year)
5.08 – Roadway and Railroad Safety									
TPF	\$642,800	\$642,800	\$266,470	\$266,981	\$533,451	\$109,349	83.0%	\$109,349	83.0%
STBG	\$1,532,300	\$922,445	\$331,210	\$446,055	\$777,265	\$755,035	50.7%	\$145,180	84.3%
LOCAL	\$15,800	\$15,809	\$3,988	\$0	\$3,988	\$11,812	25.2%	\$11,821	25.2%
Subtotal	\$2,190,900	\$1,581,054	\$601,668	\$713,036	\$1,314,704	\$876,196	60.0%	\$266,350	83.2%
5.09 – Regional Aviation Planning and Education									
TPF	\$260,600	\$260,600	\$28,904	\$150,217	\$179,121	\$81,479	68.7%	\$81,479	68.7%
LOCAL	\$819,400	\$814,550	\$391,665	\$340,707	\$732,372	\$87,028	89.4%	\$82,178	89.9%
NCTCOG LOCAL ⁴	\$0	\$101	\$0	\$101	\$101	(\$101)	0.0%	\$0	100.0%
Subtotal	\$1,080,000	\$1,075,251	\$420,569	\$491,025	\$911,594	\$168,406	84.4%	\$163,657	84.8%
5.10 – Regional Military and Community Coordination									
TPF	\$193,000	\$193,000	\$15,800	\$48,141	\$63,940	\$129,060	33.1%	\$129,060	33.1%
DOD ³	\$1,171,100	\$1,169,034	\$232,696	\$373,500	\$606,196	\$564,904	51.8%	\$562,838	51.9%
LOCAL ³	\$556,500	\$3,236,677	\$2,433,152	\$173,607	\$2,606,759	(\$2,050,259)	468.4%	\$629,918	80.5%
Subtotal	\$1,920,600	\$4,598,712	\$2,681,648	\$595,248	\$3,276,896	(\$1,356,296)	170.6%	\$1,321,816	71.3%
5.11 – Transportation Technology and Innovation Program									
TPF	\$606,400	\$606,400	\$336,570	\$251,987	\$588,557	\$17,843	97.1%	\$17,843	97.1%
STBG	\$20,378,800	\$8,430,171	\$2,130,755	\$664,587	\$2,795,342	\$17,583,458	13.7%	\$5,634,829	33.2%
TXDOT	\$1,036,600	\$41,192	\$6,927	\$15,882	\$22,809	\$1,013,791	2.2%	\$18,383	55.4%
LOCAL	\$386,600	\$362,622	\$6,203	\$78,936	\$85,139	\$301,461	22.0%	\$277,483	23.5%
Subtotal	\$22,408,400	\$9,440,385	\$2,480,455	\$1,011,392	\$3,491,846	\$18,916,554	15.6%	\$5,948,539	37.0%
5.12 – Red River Navigation System Feasibility Study									
LOCAL	\$472,800	\$492,084	\$1,977	\$0	\$1,977	\$470,823	0.4%	\$490,107	0.4%
Subtotal	\$472,800	\$492,084	\$1,977	\$0	\$1,977	\$470,823	0.4%	\$490,107	0.4%
5.13 – North Texas Center for Mobility Technologies									
LOCAL	\$2,496,000	\$2,494,187	\$88,368	\$161,507	\$249,875	\$2,246,125	10.0%	\$2,244,312	10.0%
Subtotal	\$2,496,000	\$2,494,187	\$88,368	\$161,507	\$249,875	\$2,246,125	10.0%	\$2,244,312	10.0%
Total	\$103,275,680	\$124,378,100	\$22,163,280	\$22,738,142	\$44,901,421	\$58,374,259	43.5%	\$79,476,679	36.1%

¹ Authorized TPF funding reported here is consistent with amount programmed. Total authorization amount (see total revenue amount reflected in Exhibit VI Funding Summaries – Transportation Planning Funds [Two-Year Total]) is received from TxDOT through work orders. Allocation to task is approved through authorization of the UPWP.

² A portion of the programmed and authorized funding includes funding that was transferred from TxDOT to FTA.

³ Expenditures for FY2022 may reflect adjustments made after submission of the FY2022 Annual Report on Performance and Expenditures.

⁴ NCTCOG Local funding was used to cover small cost overruns.

TASK 5 – TPF FUNDING SUMMARY FY2023

	Amount Programmed	Amount Authorized ¹	Amount Expended	Balance of Programmed	% Expended Programmed	Balance of Authorized	% Expended Authorized
5.01 – Regional Transportation Studies							
TPF	\$749,700.00	\$749,700.00	\$675,431.09	\$74,268.91	90.1%	\$74,268.91	90.1%
5.02 – Subarea Studies and Local Government Assistance							
TPF	\$731,200.00	\$731,200.00	\$489,498.56	\$241,701.44	66.9%	\$241,701.44	66.9%
5.03 – Land-Use/Transportation Initiatives							
TPF	\$459,800.00	\$459,800.00	\$431,219.30	\$28,580.70	93.8%	\$28,580.70	93.8%
5.04 – Asset Management System							
TPF	\$110,700.00	\$110,700.00	\$72,208.96	\$38,491.04	65.2%	\$38,491.04	65.2%
5.05 – Congestion Management Planning and Operations							
TPF	\$651,600.00	\$651,600.00	\$641,568.07	\$10,031.93	98.5%	\$10,031.93	98.5%
5.06 – Regional Freight Planning							
TPF	\$387,800.00	\$387,800.00	\$299,079.81	\$88,720.19	77.1%	\$88,720.19	77.1%
5.07 – Transportation System Security and Emergency Preparedness							
TPF	\$33,400.00	\$33,400.00	\$10,808.09	\$22,591.91	32.4%	\$22,591.91	32.4%
5.08 – Roadway and Railroad Safety							
TPF	\$326,400.00	\$326,400.00	\$266,981.20	\$59,418.80	81.8%	\$59,418.80	81.8%
5.09 – Regional Aviation Planning and Education							
TPF	\$198,000.00	\$198,000.00	\$150,216.99	\$47,783.01	75.9%	\$47,783.01	75.9%
5.10 – Regional Military and Community Coordination							
TPF	\$105,000.00	\$105,000.00	\$48,140.56	\$56,859.44	45.8%	\$56,859.44	45.8%
5.11 – Transportation Technology and Innovation Program							
TPF	\$279,000.00	\$279,000.00	\$251,987.14	\$27,012.86	90.3%	\$27,012.86	90.3%
Total	\$4,032,600.00	\$4,032,600.00	\$3,337,139.77	\$695,460.23	82.8%	\$695,460.23	82.8%

¹ Authorized TPF funding reported here is consistent with amount programmed. Total authorization amount (see total revenue amount reflected in Exhibit VI-1 Funding Summaries – Transportation Planning Funds [Two-Year Total]) is received from TxDOT through work orders. Allocation to task is approved through authorization of the UPWP.

Transportation Planning Funds (FY2022)

UPWP Task	Amount Programmed	Amount Expended	Balance of Programmed	% Expended of Programmed
1	\$3,048,350.00	\$2,778,345.22	\$270,004.78	91.1%
2	\$1,871,700.00	\$1,979,832.91	(\$108,132.91)	105.8%
3	\$2,801,200.00	\$2,701,501.68	\$99,698.32	96.4%
4	\$1,863,800.00	\$1,543,491.81	\$320,308.19	82.8%
5	\$3,229,700.00	\$2,942,237.41	\$287,462.59	91.1%
Total	\$12,814,750.00	\$11,945,409.03	\$869,340.97	93.2%

Transportation Planning Funds (FY2023)

UPWP Task	Amount Programmed	Amount Expended	Balance of Programmed	% Expended of Programmed
1	\$3,287,700.00	\$2,803,222.95	\$484,477.05	85.3%
2	\$1,907,400.00	\$1,917,128.46	(\$9,728.46)	100.5%
3	\$3,107,600.00	\$3,017,626.23	\$89,973.77	97.1%
4 ¹	\$2,123,000.00	\$1,443,121.66	\$679,878.34	68.0%
5	\$4,032,600.00	\$3,337,139.77	\$695,460.23	82.8%
Total	\$14,458,300.00	\$12,518,239.07	\$1,940,060.93	86.6%

¹ Due to staff vacancies, 75 percent of the programmed amount was not expended

Transportation Planning Funds (Two-Year Total)

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended	Balance of Programmed	% Expended Programmed	Balance of Authorized	% Expended Authorized
1	\$6,336,050.00	\$6,336,050.00	\$5,581,568.17	\$754,481.83	88.1%	\$754,481.83	88.1%
2	\$3,779,100.00	\$3,779,100.00	\$3,896,961.37	(\$117,861.37)	103.1%	(\$117,861.37)	103.1%
3	\$5,908,800.00	\$5,908,800.00	\$5,719,127.91	\$189,672.09	96.8%	\$189,672.09	96.8%
4	\$3,986,800.00	\$3,986,800.00	\$2,986,613.47	\$1,000,186.53	74.9%	\$1,000,186.53	74.9%
5	\$7,262,300.00	\$7,262,300.00	\$6,279,377.18	\$982,922.82	86.5%	\$982,922.82	86.5%
Total	\$27,273,050.00	\$27,273,050.00	\$24,463,648.10	\$2,809,401.90	89.7%	\$2,809,401.90	89.7%

	FY2022	FY2023
Carryover	\$4,719,096.67	\$5,535,186.89
FHWA PL-112	\$9,818,194.72	\$10,035,889.96
FTA 5303	\$2,943,304.53	\$3,843,584.27
Total Revenue	\$17,480,595.92	\$19,414,661.12
Total Expended	\$11,945,409.03	\$12,518,239.07
Carryover	\$5,535,186.89	\$6,896,422.05

**Transportation Planning Funds
(Two-Year)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended (FY2022)	Amount Expended (FY2023)	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1	\$6,336,050	\$6,336,050	\$2,778,345	\$2,803,223	\$5,581,568	\$754,482	88.1%	\$754,482	88.1%
2	\$3,779,100	\$3,779,100	\$1,979,833	\$1,917,128	\$3,896,961	(\$117,861)	103.1%	(\$117,861)	103.1%
3	\$5,908,800	\$5,908,800	\$2,701,502	\$3,017,626	\$5,719,128	\$189,672	96.8%	\$189,672	96.8%
4	\$3,986,800	\$3,986,800	\$1,543,492	\$1,443,122	\$2,986,613	\$1,000,187	74.9%	\$1,000,187	74.9%
5	\$7,262,300	\$7,262,300	\$2,942,237	\$3,337,140	\$6,279,377	\$982,923	86.5%	\$982,923	86.5%
Total	\$27,273,050	\$27,273,050	\$11,945,409	\$12,518,239	\$24,463,648	\$2,809,402	89.7%	\$2,809,402	89.7%

**Congestion Mitigation and Air Quality Improvement Program Funds
(Two-Year)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended (FY2022)	Amount Expended (FY2023)	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1	\$2,979,900	\$3,305,379	\$1,056,765	\$1,351,158	\$2,407,923	\$571,977	80.8%	\$897,456	72.8%
2	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
3	\$1,530,600	\$1,390,419	\$326,589	\$681,186	\$1,007,776	\$522,824	65.8%	\$382,644	72.5%
4	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
5	\$7,113,108	\$9,210,095	\$3,319,789	\$1,208,241	\$4,528,030	\$2,585,078	63.7%	\$4,682,066	49.2%
Total	\$11,623,608	\$13,905,894	\$4,703,143	\$3,240,585	\$7,943,728	\$3,679,880	68.3%	\$5,962,166	57.1%

**Department of Defense Funds
(Two-Year)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended (FY2022)	Amount Expended (FY2023)	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
2	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
3	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
4	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
5	\$1,171,100	\$1,169,034	\$232,696	\$373,500	\$606,196	\$564,904	51.8%	\$562,838	51.9%
Total	\$1,171,100	\$1,169,034	\$232,696	\$373,500	\$606,196	\$564,904	51.8%	\$562,838	51.9%

**Department of Energy Funds
(Two-Year)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended (FY2022)	Amount Expended (FY2023)	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
2	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
3	\$341,500	\$418,227	\$131,850	\$218,439	\$350,289	(\$8,789)	102.6%	\$67,938	83.8%
4	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
5	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
Total	\$341,500	\$418,227	\$131,850	\$218,439	\$350,289	(\$8,789)	102.6%	\$67,938	83.8%

**Environmental Protection Agency Funds
(Two-Year)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended (FY2022)	Amount Expended (FY2023)	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
2	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
3	\$7,402,250	\$9,013,479	\$2,012,179	\$558,598	\$2,570,777	\$4,831,473	34.7%	\$6,442,702	28.5%
4	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
5	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
Total	\$7,402,250	\$9,013,479	\$2,012,179	\$558,598	\$2,570,777	\$4,831,473	34.7%	\$6,442,702	28.5%

**Federal Highway Administration Funds
(Two-Year)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended (FY2022)	Amount Expended (FY2023)	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
2	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
3	\$12,300	\$11,169	\$11,169	\$0	\$11,169	\$1,131	90.8%	\$0	100.0%
4	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
5	\$2,000,000	\$4,400,000	\$0	\$1,641,789	\$1,641,789	\$358,212	82.1%	\$2,758,212	37.3%
Total	\$2,012,300	\$4,411,169	\$11,169	\$1,641,789	\$1,652,957	\$359,343	82.1%	\$2,758,212	37.5%

**Federal Transit Administration Funds
(Two-Year)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended (FY2022)	Amount Expended (FY2023)	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
2	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
3	\$26,232,650	\$35,805,927	\$6,464,586	\$11,918,390	\$18,382,976	\$7,849,674	70.1%	\$17,422,951	51.3%
4	\$270,000	\$269,698	\$0	\$0	\$0	\$270,000	0.0%	\$269,698	0.0%
5	\$1,764,000	\$25,800,000	\$512	\$103,496	\$104,008	\$1,659,992	5.9%	\$25,695,992	0.4%
Total	\$28,266,650	\$61,875,625	\$6,465,098	\$12,021,886	\$18,486,984	\$9,779,666	65.4%	\$43,388,641	29.9%

**Local Funds
(Two-Year)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended (FY2022)	Amount Expended (FY2023)	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1	\$510,200	\$2,627,602	\$194,656	\$1,961,159	\$2,155,814	(\$1,645,614)	422.5%	\$471,788	82.0%
2	\$373,000	\$372,925	\$0	\$372,925	\$372,925	\$75	100.0%	\$0.00	100.0%
3	\$17,759,679	\$22,844,310	\$4,973,002	\$1,567,014	\$6,540,016	\$11,219,663	36.8%	\$16,304,294	28.6%
4	\$688,810	\$663,183	\$108,071	\$84,761	\$192,832	\$495,978	28.0%	\$470,351	29.1%
5	\$13,067,689	\$16,876,042	\$3,727,226	\$4,686,311	\$8,413,537	\$4,654,152	64.4%	\$8,462,506	49.9%
Total	\$32,399,378	\$43,384,062	\$9,002,955	\$8,672,169	\$17,675,124	\$14,724,254	54.6%	\$25,708,938	40.7%

**North Central Texas Council of Governments Local Funds
(Two-Year)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended (FY2022)	Amount Expended (FY2023)	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1	\$143,800	\$138,555	\$52,272	\$44,084	\$96,356	\$47,444	67.0%	\$42,200	69.5%
2	\$0	\$1,126	\$0	\$1,126	\$1,126	(\$1,126)	0.0%	\$0	100.0%
3	\$0	\$4,118	\$2,702	\$1,416	\$4,118	(\$4,118)	0.0%	\$0	100.0%
4	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
5	\$0	\$102	\$0	\$101	\$101	(\$101)	0.0%	\$0	99.0%
Total	\$143,800	\$143,901	\$54,974	\$46,727	\$101,701	\$42,099	70.7%	\$42,200	70.7%

**North Texas Tollway Authority Funds
(Two-Year)**

UWP Task	Amount Programmed	Amount Authorized	Amount Expended (FY2022)	Amount Expended (FY2023)	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
2	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
3	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
4	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
5	\$50,000	\$75,000	\$800	\$1,597	\$2,397	\$47,603	4.8%	\$72,603	3.2%
Total	\$50,000	\$75,000	\$800	\$1,597	\$2,397	\$47,603	4.8%	\$72,603	3.2%

**Regional Toll Revenue Funds
(Two-Year)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended (FY2022)	Amount Expended (FY2023)	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1	\$345,300	\$345,297	\$90,021	\$80,154	\$170,175	\$175,125	49.3%	\$175,123	49.3%
2	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
3	\$3,842,300	\$4,027,157	\$1,281,925	\$1,269,631	\$2,551,555	\$1,290,745	66.4%	\$1,475,602	63.4%
4	\$814,600	\$1,111,740	\$107,268	\$200,000	\$307,268	\$507,332	37.7%	\$804,472	27.6%
5	\$4,276,708	\$4,671,617	\$358,995	\$834,478	\$1,193,473	\$3,083,235	27.9%	\$3,478,144	25.5%
Total	\$9,278,908	\$10,155,812	\$1,838,208	\$2,384,263	\$4,222,471	\$5,056,437	45.5%	\$5,933,340	41.6%

**Surface Transportation Block Grant Program Funds
(Two-Year)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended (FY2022)	Amount Expended (FY2023)	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1	\$1,793,700	\$1,734,508	\$485,074	\$556,592	\$1,041,666	\$752,034	58.1%	\$692,842	60.1%
2	\$3,742,500	\$3,966,710	\$842,861	\$1,312,679	\$2,155,540	\$1,586,960	57.6%	\$1,811,170	54.3%
3	\$8,617,000	\$6,761,661	\$2,643,865	\$2,924,030	\$5,567,895	\$3,049,105	64.6%	\$1,193,766	82.3%
4	\$3,460,000	\$3,465,000	\$31,350	\$393,236	\$424,586	\$3,035,414	12.3%	\$3,040,414	12.3%
5	\$63,605,900	\$52,542,347	\$10,886,243	\$10,000,490	\$20,886,733	\$42,719,167	32.8%	\$31,655,615	39.8%
Total	\$81,219,100	\$68,470,227	\$14,889,392	\$15,187,027	\$30,076,420	\$51,142,680	37.0%	\$38,393,807	43.9%

**Texas Commission on Environmental Quality Funds
(Two-Year)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended (FY2022)	Amount Expended (FY2023)	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
2	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
3	\$545,000	\$570,983	\$109,821	\$262,599	\$372,419	\$172,581	68.3%	\$198,563	65.2%
4	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
5	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
Total	\$545,000	\$570,983	\$109,821	\$262,599	\$372,419	\$172,581	68.3%	\$198,563	65.2%

**Texas Department of Transportation Funds
(Two-Year)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended (FY2022)	Amount Expended (FY2023)	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1	\$320,350	\$366,750	\$108,738	\$132,101	\$240,840	\$79,510	75.2%	\$125,910	65.7%
2	\$79,800	\$64,431	\$28,653	\$35,172	\$63,825	\$15,975	80.0%	\$606	99.1%
3	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
4	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
5	\$2,886,500	\$2,371,562	\$694,781	\$550,999	\$1,245,780	\$1,640,720	43.2%	\$1,125,782	52.5%
Total	\$3,286,650	\$2,802,743	\$832,172	\$718,272	\$1,550,445	\$1,736,205	47.2%	\$1,252,298	55.3%

**Texas Water Development Board Funds
(Two-Year)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended (FY2022)	Amount Expended (FY2023)	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
2	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
3	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
4	\$0	\$3,000,000	\$0	\$112,132	\$112,132	(\$112,132)	0.0%	\$2,887,868	3.7%
5	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
Total	\$0	\$3,000,000	\$0	\$112,132	\$112,132	(\$112,132)		\$2,887,868	3.7%

**United States Department of Transportation Funds
(Two-Year)**

UPWP Task	Amount Programmed	Amount Authorized	Amount Expended (FY2022)	Amount Expended (FY2023)	Amount Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
2	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
3	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
4	\$0	\$0	\$0	\$0	\$0	\$0	0.0%	\$0	0.0%
5	\$78,375	\$0	\$0	\$0	\$0	\$78,375	0.0%	\$0	0.0%
Total	\$78,375	\$0	\$0	\$0	\$0	\$78,375	0.0%	\$0	0.0%

**Summary of Funds and Expenditures
FY2022 and FY2023**

UPWP Task	Amount Programmed (2-year)	Amount Authorized (2-year)	Expended (FY2022)	Expended (FY2023)	2 Year Expended	Balance of Programmed	% Expended of Programmed	Balance of Authorized	% Expended of Authorized
1	\$12,429,300	\$14,854,143	\$4,765,871	\$6,928,471	\$11,694,342	\$734,958	94.1%	\$3,159,801	78.7%
2	\$7,974,400	\$8,184,292	\$2,851,347	\$3,639,030	\$6,490,377	\$1,484,023	81.4%	\$1,693,915	79.3%
3	\$72,192,079	\$86,756,250	\$20,659,189	\$22,418,929	\$43,078,119	\$29,113,960	59.7%	\$43,678,132	49.7%
4	\$9,220,210	\$12,496,421	\$1,790,181	\$2,233,250	\$4,023,431	\$5,196,779	43.6%	\$8,472,990	32.2%
5	\$103,275,680	\$124,378,100	\$22,163,280	\$22,738,142	\$44,901,421	\$58,374,259	43.5%	\$79,476,679	36.1%
Total	\$205,091,669	\$246,669,206	\$52,229,867	\$57,957,822	\$110,187,689	\$94,903,980	53.7%	\$136,481,516	44.7%