FY2018 Annual Report on Performance and Expenditures

FY2018 and FY2019 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 229 member governments, including all 16 counties, 167 cities, 19 independent school districts, and 27 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 U.S. Department of Transportation (Federal Highway Administration and Federal Transit Administration) 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.
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December 2018

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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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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 Fixing America’s Surface Transportation (FAST) Act are conducted under this element.

1.01 Community Outreach

This annual Work Program subtask will be conducted in FY2018 and FY2019 and includes staff activities in support of NCTCOG’s Transportation public involvement, outreach, and education program; monitoring of the regional transportation system performance and reliability; legislative outreach; and Internet/Intranet outreach and support improvements.

Public Involvement, Publications, and Legislative Support

*Transportation Planning Funds*

Staff will appear regularly at community 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, 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, and other events;
- Dynamic outreach and communications plan to continually enhance public involvement;
- Press releases and other media relations materials;
- 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;
- Enhanced multimedia and social media presence;
- Summaries of activity in the Legislature and Congress relating to Metropolitan Planning Organization functions;
I. Task 1 – Administration and Management

- Legislative testimony;
- RTC 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 meetings were one of several ways North Texans could learn about and offer input on transportation in FY2018. Staff conducted 22 public meetings to educate the public on current and future metropolitan planning organization plans and seek input. Day and evening public meetings were scheduled at locations throughout the region that were accessible to individuals with disabilities, and whenever possible, near public transportation. Copies of the presentations and documents presented for review, as well as a video recording of one meeting in each series, were posted online for anyone who could not attend in person. In addition, two online public input opportunities were held to invite review and comment of routine proposed amendments and minor modifications to planning documents. 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 the online input opportunity, comments received and written summaries were also available on the North Central Texas Council of Governments (NCTCOG) website. Summaries, which included public comments, were included on Surface Transportation Technical Committee and Regional Transportation Council (RTC) meeting agendas.

More than 14,500 notices were sent by mail and email for each public meeting series and online public input opportunity. Also, more than 150 libraries in the Metropolitan Planning Area received public meeting flyers to make available to patrons. Additionally, flyers were posted at municipal offices. Advertisements about 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 advertising supplemented print advertising.

The Public Participation Plan outlines how enhanced outreach efforts are helping address changing demographics and communications trends while ensuring federal public involvement requirements are met. Work began to update the Public Participation Plan based on new regulations and other factors.

NCTCOG Transportation staff also participated in 26 community events throughout the region to distribute information about regional transportation and air quality issues. Through coordination with cities, transit partners, community organizations and school districts, NCTCOG transportation and air quality information was distributed at numerous other events to increase access to and reach of information.

Proactive media outreach efforts included the distribution of 21 press releases on major projects and programs to more than 210 reporters at local media outlets, including minority publications. Press releases were emailed to media contacts and posted to the online newsroom. In addition, multiple interviews were conducted with local and national print, radio and television media. 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. Mobility Matters was produced and distributed to contacts on the public involvement mailing list and made available at community outreach events. The online version was also shared with regional partners. Local Motion was printed and distributed to partners monthly and posted online. The Department also contributed articles to agency newsletters, It’s Your Region and What’s New at NCTCOG, both of which are published online and distributed to partners and interested parties through email lists. Staff continued to distribute several internal and external publications in print and online. A series of fact sheets intended to help the general public understand the Department’s projects and programs were published in print and online and shared with residents at public meetings and outreach events.

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 had an environmental focus, with its "Healthy Communities: Transportation and the Natural Environment" theme. It examined efforts in several areas, including mobility, growth, roadway, active transportation and transit improvements, funding, goods movement, aviation, safety, air quality and public involvement. More than 10,000 copies were mailed to partners and residents throughout the region, and additional copies were distributed throughout the year, including at public meetings and other events. In addition to providing printed copies, the Department continued to reach the public through the publication’s webpage.

To complement traditional outreach, staff maintained a presence in social media for the NCTCOG Transportation Department using Facebook, Twitter, YouTube, Instagram and Vimeo to post regular updates and interact with its audience in accordance with the department social media policy. Additionally, public meetings were shared through the Meetup social media platform. Links to the Department’s publications were also posted to social media.

Monthly social media performance reports continued to be provided to managers. Data from these reports is continuously used to improve the Department’s social media strategy and increase followers by providing more engaging content.

Legislative assistance was provided throughout FY2018 to State legislative and congressional offices, as well as policy and technical committee members. Data was gathered and information provided as requested on policy matters related to the MPO. In preparation for the State legislative session, staff worked to develop the RTC’s Legislative Program for the 86th Texas Legislature. Staff identified policy issues and challenges related to implementation of the Metropolitan Transportation Plan and brought those items to the attention of the RTC. Tracking actions in the United States Congress was ongoing, and information on federal issues and rulemaking was relayed to policy and technical committee members as necessary.

Transportation Planning Funds were used to support work activities.

Work will continue in FY2019.
Other Funding Sources

NCTCOG 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: Local funds were used for meeting expenses related to a Regional Transportation Council workshop on the legislative program for the 86th Texas Legislature.

Work will continue in FY2019.

Internet/Intranet Outreach and Support

Transportation Planning Funds

This element is ongoing throughout both FY2018 and FY2019, 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 edits, updates and maintenance;
- Website content development, including articles, public information resources and program area updates;
- Review of Web design/interface for enhanced usability;
- Web application development and support;
- Websites and applications available on the most common browsers and an improving mobile experience;
- Performance reports of Web page usage, including analytic assistance;
- Assessment and improvement of visual architecture, accessibility, and usability;
- Web pages and applications audited and reviewed for internal standards/branding and security (QA/QC);
- Standards for search engine optimization;
- Software upgrades, including migration of web assets and content to a new content management platform;
- Microsoft ERP: CRM 2016 and SharePoint 2013 development/administration; and
- Internal training opportunities.
Work Performed and Status: A comprehensive review of existing web content and information was performed in conjunction with a site-wide audit of digital assets over the past year. Working plans and preparation for the migration to a new content management platform proceeded after consultation with the Department’s program areas. New recommendations for design elements, content guidelines, internal standards, branding, and security were forwarded to a working group for discussion and adoption. Directed controls for critical strategic priorities (including content organization and relevance, usability, navigation, and mobile response) were communicated to staff involved with the content migration. Consolidated program goals were developed after an analysis of users and popular pages and system tools were identified and evaluated. Efforts to continue improvements, update software and identify stakeholders, as well as develop internal roles and controls, are being planned and performed to support ongoing migration efforts.

Transportation Planning Funds were used to support work activities, and work will continue in FY2019.

1.02 Program and Policy Administration

Management and administrative activities conducted by the 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; 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: During FY2018, five sets of modifications to the FY2018 and FY2019 Unified Planning Work Program (UPWP) were processed to reflect new initiatives, project modifications, and funding adjustments. Included in this process were the identification and compilation of needed amendments, presentations to the public and technical and policy committees, and submittal to the appropriate State and federal agencies for review and approval. Four sets of modifications have received approval; the fifth set is pending review. The FY2017 Annual Report on Performance and Expenditures was prepared and submitted, as well as reports on the accomplishment of departmental goals established for FY2017. New goals were identified for FY2018.

Staff recruitment efforts and personnel actions were conducted throughout the year (i.e., advertising; processing of new hires, staff separations, and internal promotions; maintenance of databases; development of job descriptions).

Required risk assessment processes were refined for the department’s contracting activities. Staff also conducted legal review of RTC-related agreements, memorandums of understanding, and policies.

General office management activities also continued to be carried out (i.e., distribution of incoming mail, office assignments, completion of time sheets, and conduct of management
and staff meetings). Records management activities also continued (i.e., purging/merging files, inventorying files, and sending files to storage facility).

Monthly meetings of the Regional Transportation Council and the Surface Transportation Technical Committee were held. Each meeting agenda contained both action and information items for the committees’ consideration. 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. In addition, two RTC subcommittees held meetings and three workshops were conducted during the year. Revisions to the Regional Transportation Council’s Bylaws and Operating Procedures were approved. An orientation session for new members of the RTC was also conducted. Staff continued to support the submittal each month of transportation items to the NCTCOG Executive Board for consideration.

The cost allocation plan was used to support work activities.

Work will continue in FY2019.

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 subtask 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 subtask is ongoing throughout Fiscal Years 2018 and 2019, 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. Anticipated products include:

- NCTCOG representation at AMPO and TEMPO meetings;
- NCTCOG 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 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;
I. Task 1 – Administration and Management

- Eligible and accurate billings within identified budgets;
- Agreement between the Texas Department of Transportation, the North Central Texas Council of Governments, and the Regional Transportation Council outlining continuing responsibilities of the Metropolitan Planning Organization.

**Work Performed and Status:** Staff served on the Texas Metropolitan Planning Organization Association (TEMPO) Executive Committee and attended TEMPO meetings throughout the year. Major activities included completion of the update to the TxDOT Category 2 funding formula and advancing performance based planning initiatives.

Over 200 professional development requests for NCTCOG staff were processed in FY2018 for attendance at webinars, seminars, training courses, and conferences, including the Transportation Research Board annual meeting.

Administration of the University Partnership Program (UPP) continued. Staff coordinated with the participating universities: University of Texas at Austin, University of Texas at Arlington, and Texas Southern University to identify project topics, help ensure understanding and compliance with the program guidelines, and implement the contracting process, including execution of agreements. Work performance with regard to the specific University Partnership Program projects is provided in the appropriate Work Program subtask.

The memorandum of understanding between the Texas Department of Transportation, the North Central Texas Council of Governments, the Regional Transportation Council, public transportation operators, and other transportation authorities was updated certifying that the transportation planning process continues to address the responsibilities of the Metropolitan Planning Organization. In addition, NCTCOG, the RTC, and TxDOT executed a new six-year agreement related to the roles and responsibilities between the MPO policy committee (RTC), the MPO (NCTCOG) and the MPO fiscal agent (NCTCOG). The agreement is the conduit for TxDOT to provide transportation planning funds to NCTCOG.

Transportation Planning Funds were used to support work activities.

Work will continue in FY2019.

**Other Funding Sources**

NCTCOG and RTC 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 meeting 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 and maintenance) in the Transportation Council Room (as noted in Exhibit 11-2 of Subtask 1.04); and
• Other special projects.

**Work Performed and Status:** In FY2018, local funds were used to support items such as meeting and travel expenses, individual staff memberships in professional organizations, legal and application filing fees for foreign employees, updated audio/visual equipment for the Transportation Council Room, and the live Internet broadcasts of the monthly Regional Transportation Council meetings.

As a participant in the Transportation Research Board’s (TRB) Minority Student Fellowship Program, NCTCOG also used local funds to cover travel expenses associated with the student’s and supporting professor’s attendance at the January 2018 TRB meeting to represent work conducted on behalf of NCTCOG on the Social Parameters as a Component of Transit Network Analysis project.

Regional Transportation Council Local funds and NCTCOG local funds were used to support the above expenses.

Work will continue in FY2019.

**Policy and Project Coordination**

**Other Funding Sources**

This element is ongoing throughout both FY2018 and FY2019, providing contract management and legal support. Among these activities is staff legal assistance relative to coordination for Regional Transportation Council policies and projects; evaluation, development, and negotiation of legal instruments and mechanisms to implement MPO programs and initiatives; 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;
• Identification of institutional mechanisms to implement policies and projects;
• Executed contracts and/or agreements and amendments;
• Education, outreach, events, and workshops with potential bidders/consultants;
- Website content updates, including traditional and new media tutorials for potential bidders/consultants;
- Collaboration and new partnerships with regional and State DBE certification agencies, such as the North Central Texas Regional Certification Agency.

**Work Performed and Status:** Legal staff provided advice and recommendations regarding MPO programs, plans, policies and projects in order to comply with federal and State statutory and regulatory requirements, specifically 23 United States Code Section 134 and 23 Code of Federal Regulations 450, Metropolitan Transportation Planning and Programming. In addition, advice and recommendations were provided regarding compliance with the Texas Open Meetings Act and Texas Public Information Act. Legal staff reviewed numerous agreements, Executive Board items related to MPO activities, and procurement materials for legal sufficiency and compliance with federal and State requirements. Staff developed and implemented a pilot program to test the electronic signature of agreements using DocuSign. Regular updates were made to www.nctcog.org/rfp for publication of procurement opportunities to potential bidders/consultants.

Surface Transportation Block Grant Program funds (CSJ 0902-00-195) and Transportation Development Credits were used for this effort.

This project is ongoing; work will continue in FY2019.

### 1.03 Fiscal Management and Information Systems

The North Central Texas Council of Governments staff continues 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 enhancement of procedures; development of financial management tools; compilation, assessment, and coordination of the NCTCOG Transportation Department annual budget; and accounting support activities and fiscal management processes are included in a cost allocation plan. These costs are included in the funding summaries for each Task.

**Work Performed and Status:** During Fiscal Year 2018, staff facilitated and conducted work activities supporting Transportation 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; records management; reporting; assessment of internal controls and contract compliance; staff development and training; and coordination of fiscal requirements for the Agency.

The cost allocation plan was used to support work activities. Work will continue in FY2019.

The activities described below may be excluded from the cost allocation plan.
Comprehensive Fund Management

Other Funding Sources

During FY2018 and FY2019, NCTCOG Local and RTC 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 FY2018, NCTCOG staff coordinated payment to TxDOT for support of non-construction projects. Local funds were also expended to reconcile miscellaneous project costs and facilitate accounting closeout activities.

Regional Transportation Council Local and other local funds were used to support work activities.

Work will continue in FY2019.

Fiscal Information Systems

Other Funding Sources

An extensive information system is utilized for overseeing the transportation fiscal management activities. This information system is constantly being expanded and improved upon to meet ever-evolving project management and reporting needs, including the following:

- Tracking grant and project management activities;
- Providing information for better and more consistent project management; and
- Generating reports for policy officials, members of the public, partners and consultants, and agencies providing funding for projects.

This element is ongoing for FY2018 and FY2019 and will specifically focus on modernizing and streamlining the current fiscal management information, transitioning from an Access-based interface to a web-based interface. Additionally, other code will be updated to improve the efficiency and reliability of the system. Surface Transportation Block Grant Program funds, supported by Transportation Development Credits, will be used for this effort. Anticipated products include:

- Web-based fiscal forms for NCTCOG staff.

Work Performed and Status: During FY2018, new interfaces were developed to facilitate preparation and management of status reports for submission to TxDOT, including enhancements to improve the accuracy of these reports. Staff also developed new consultant Disadvantaged Business Enterprise (DBE) reports to respond to a request from TxDOT.

Surface Transportation Block Grant Program funds (CSJ 0902-00-184) and Transportation Development Credits were used to support work activities.
Innovative Transportation Financing Strategies

Other Funding Sources

Ongoing throughout FY2018 and FY2019, the focus of this work program element is to 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; 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. Agreements with the following jurisdictions were executed: Town of Addison (Cotton Belt Contribution), City of Dallas (Bond Program), City of Irving (Irving Boulevard), City of Terrell (FM 148), and Dallas Fort Worth International Airport (Glade Road). In addition, other financial partnerships are in the process of negotiation and agreement development including: City of Haslet and City of Anna. Legal staff also provided an analysis of legal risk associated with the various LBJ East implementation options considered by the Regional Transportation Council. Work continued on the development of a Local Government Corporation for the Dallas-Fort Worth Core Express Service high-speed rail project.

Regional Toll Revenue funds (CSJ 0902-00-161) supported work activities.

Project activities will continue in FY2019.

1.04 Computer System Administration and Application Coordination

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 the 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:**  
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 and managed network drive space, responded to user questions, and provided solutions to software or hardware problems. Audio and video technical support was also provided for various meetings throughout the year, as well as webcasts.

The cost allocation plan was used to support work activities. Work will continue in FY2019.

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 FY2018 and FY2019. It includes software and hardware purchases or leases. As NCTCOG continues with the production of travel forecasts using the enhanced TransCAD model in a desktop computer/file and network server environment internal to the agency, additional computer hardware will be required. This will consist of desktop microcomputers, application groups of new TransCAD computers, network interconnection support, and additional software. Consultant assistance may be pursued to assist with this task. The list of equipment and software purchases for which Transportation Planning Funds will be utilized is provided as Exhibit II-1. Equipment and software purchases over $5,000 per unit require prior State and Federal approval. Anticipated products include:

- Replacement of computers that are out of warranty; and
- Software ordered.
### EXHIBIT II-1

**PLANNED COMPUTER SOFTWARE AND EQUIPMENT PURCHASES/LEASES USING TRANSPORTATION PLANNING FUNDS**

<table>
<thead>
<tr>
<th>QUANTITY</th>
<th>DESCRIPTION</th>
<th>ESTIMATED PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>110</td>
<td>Microcomputer systems (desktops, portable, tablet)</td>
<td>$275,000</td>
</tr>
<tr>
<td>8</td>
<td>Laser printers for network group usage</td>
<td>$76,000</td>
</tr>
<tr>
<td>12</td>
<td>High-end modeling computers</td>
<td>$240,000</td>
</tr>
<tr>
<td>20</td>
<td>Voice-over-Internet-Protocol (VoIP) phone devices, including accessories such as microphones for conference phones or hands-free devices.</td>
<td>$8,000</td>
</tr>
<tr>
<td>---</td>
<td>Other computer hardware items, replacements, accessories, and upgrades (for example, text and image scanners, hard drives, additional RAM, projectors, monitors/televisions, video cards, digital data tapes, network cards, network cabling, warranty extensions)</td>
<td>$23,000</td>
</tr>
<tr>
<td>---</td>
<td>Licenses to traffic simulation and assignment software packages (two “TransModeler” and one “DTA” dynamic)</td>
<td>$10,000</td>
</tr>
<tr>
<td>---</td>
<td>Two years of software support by Caliper and specific renewal for 50 TransCAD licenses</td>
<td>$150,000</td>
</tr>
<tr>
<td>---</td>
<td>Software purchases/upgrades (for example, the current or higher versions of: SPSS and Adobe licenses), software/services, cable service, application subscriptions, advanced mapping/presentation software, and software support renewals - Other</td>
<td>$60,000</td>
</tr>
</tbody>
</table>

**Work Performed and Status:** Computers out of warranty were replaced as needed and computers were purchased for new employees. Software maintenance and support was purchased to continue annual vendor support for the traffic modeling licenses of TransCAD and Microsoft licenses covered under the NCTCOG Microsoft Enterprise Agreement Licensing Program for Windows Operating System upgrades. This includes Windows 10, Office suite, Microsoft Outlook 365, Microsoft CRM, Microsoft SharePoint Server Enterprise, and Software Assurance Benefits. New software licenses and upgrades were purchased as needed including Adobe Professional, Adobe Illustrator, Adobe Photoshop, Adobe In-Design,
and Adobe Creative Cloud - All Apps. Printers and Voice-over-Internet-Protocol phones were also purchased to support staff needs.

Transportation Planning Funds were used to support these activities.

Work will continue in FY2019.

Other Funding Sources

Additional digital equipment, software and services funded by other sources are provided in Exhibit II-2. The funding is programmed in the appropriate subtask for the work.

### EXHIBIT II-2

**PLANNED COMPUTER SOFTWARE AND EQUIPMENT PURCHASES USING OTHER FUNDING SOURCES**

<table>
<thead>
<tr>
<th>QUANTITY</th>
<th>DESCRIPTION</th>
<th>ESTIMATED PRICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>---</td>
<td>Automated bicycle and pedestrian count equipment (Subtask 5.03)</td>
<td>$16,000</td>
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<tr>
<td>---</td>
<td>Web hosting and maintenance for Air North Texas and Clean Cities Coalition (Subtask 3.04)</td>
<td>$3,000</td>
</tr>
<tr>
<td>---</td>
<td>Tablets and audio, video, camera equipment for outreach and education (Subtask 3.04)</td>
<td>$28,500</td>
</tr>
<tr>
<td>---</td>
<td>Audio/video equipment, updates, and maintenance for the Transportation Council Room (Subtask 1.02)</td>
<td>$84,000</td>
</tr>
</tbody>
</table>

**Work Performed and Status:** Equipment and software purchases that were directly accountable to non-TPF individual projects are reflected under those respective work subtasks.

**Regional Aerial Photography**

*Other Funding Sources*

Carrying over from FY2017, this project will produce high-resolution color digital orthophotography for areas of North Central Texas. Data will be collected using a high-resolution aerial mapping camera and a high-accuracy Global Positioning System. Digital orthophotos will be created using industry-accepted procedures and standards, and image accuracy will be ensured through ground control and surface integration. The resulting photos will be used for a wide variety of planning purposes, including improvements to travel demand modeling, corridor alignment planning, outer loop planning, and population/employment change tracking. In addition, there may be some enhanced aerial photography needs specifically for aviation planning purposes. This work will be
supported through Surface Transportation Block Grant Program funds and Texas Department of Transportation funds. Anticipated products include:

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

**Work Performed and Status:** Aerial photography was processed and distributed by NCTCOG's Research and Information Services Department. The aerial photography was made available internally to all NCTCOG departments and was delivered to each TxDOT District within the Metropolitan Planning Area boundary: Dallas District (January 2018), Fort Worth District (April 2018), and Paris District (July 2018). A memorandum was completed detailing the delivery and acceptance by the Districts.

Surface Transportation Block Grant Program funds (CSJ 0902-00-200) and Texas Department of Transportation funds were used to support work activities.

This project is completed and no work will occur in FY2019.

**Geographic Information Systems Coordination**

**Transportation Planning Funds**

This element is ongoing throughout both FY2018 and FY2019 and seeks to manage, coordinate and effectively utilize Geographic Information System (GIS) technologies to support transportation planning. This may include development, research, training, technical support and software and data maintenance. Anticipated products include:

- GIS dataset and resource management and organization;
- GIS training;
- Map design and creation; and
- GIS analysis services.

**Work Performed and Status:** Internal and external GIS services were provided. These tasks included creating maps and performing data analysis for multiple department projects. An Enterprise GIS system has been established for the present and future integration and use of GIS. File organization and GIS data and mapping standards are in continuance across the department. A GIS liaison group has been developed to provide assistance in facilitating communication related to the GIS enterprise project amongst the NCTCOG Transportation Department program areas. A GIS workgroup is also in continuance to address department-wide issues and training. Technical assistance with GIS data and mapping was provided to both staff and external partners.

Transportation Planning Funds were used to support work activities.

This project is ongoing and work will continue in FY2019.
### Task 1.0 – FUNDING SUMMARY

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<td><strong>$647,353</strong></td>
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<td><strong>$2,153,848</strong></td>
<td><strong>49.6%</strong></td>
<td><strong>$1,282,887</strong></td>
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1 TxDOT does not provide authorized funding at a Sub-task level. Funding is reported at a Mega-task level.

---

### TASK 1.0 - TPF FUNDING SUMMARY FY2018

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<tr>
<th>Amount Programmed</th>
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<th>Amount Expended</th>
<th>Balance of Programmed</th>
<th>% Expended Programmed</th>
<th>Balance of Authorized</th>
<th>% Expended Authorized</th>
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<tr>
<td><strong>1.01 - Community Outreach</strong></td>
<td></td>
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<tr>
<td>TPF</td>
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<td>$1,365,414</td>
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<td><strong>1.02 - Program Administration</strong></td>
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<td>TPF</td>
<td>$268,300.00</td>
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<td>34.7%</td>
<td>$175,078</td>
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<tr>
<td><strong>1.04 - Computer System Administration and Application Coordination</strong></td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$2,512,200.00</strong></td>
<td><strong>$2,512,200.00</strong></td>
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<td><strong>$594,916.51</strong></td>
<td><strong>76.3%</strong></td>
<td><strong>$594,916.51</strong></td>
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</tbody>
</table>

*TxDOT does not provide authorized funding at a Sub-task level. Funding is reported at a Mega-task level.*
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 and improvements to the Dallas-Fort Worth Regional Travel Model; and monitoring of demographic 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 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.

Regional Travel Model
Transportation Planning Funds

This component covers activities related to the regional travel model (RTM), which is the main tool in the analytical tool set of the subtask. The RTM 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. The regional travel model includes Hill County in addition to the 12 counties that comprise the Metropolitan Planning Area (MPA) due to the fact that the southern split of IH 35 is located within the boundary of this county and because of the impact that this facility has on transportation planning within the MPA. The tasks in this component are divided into three sections: the existing RTM, the next generation of the RTM, and the information system for transportation supply system. Two University Partnership Program projects and communication subcomponents are also included in this component to support the three tasks.

The existing RTM is called the Dallas-Fort Worth Regional Travel Model for the Expanded Area (DFX). The tasks related to the DFX are grouped into maintenance and operation (M&O) of the DFX, and ongoing training and documentation of the changes to the DFX. Maintenance and operation activities include technical support, software updates, version maintenance, file backup and archiving, incorporation of updates, and providing services to the Texas Department of Transportation (TxDOT) and member local governments. The technical support may include enabling the local governments or agencies to have access to DFX. Training and documentation
includes training model users and updating documents to reflect the latest changes. The documentation may include creation of validation reports to benchmark the performance of the model.

The next generation RTM encompasses model development, software and hardware design, and documentation. The model development portion includes conversion of data from travel surveys into estimation data sets, and calibration of the various sub-models of the next generation RTM. The software and hardware activities include software design and implementation of the application software, and development specifications of the hardware on which the next generation RTM will run. The documentation explains the development process and the performance of the developed model.

The activities related to the transportation supply system are categorized into development of transit networks, development of roadway networks, and software and hardware design. Transit networks represent fixed routes of public transit in the region obtained from three local transportation agencies. The roadway network is a geographic information system of all roadways except local access roads. These networks are maintained in an information system that is supported by a software application and special hardware.

Two University Partnership Program (UPP) projects will include managed lanes in travel modeling and Behavioral Estimation of Origin-Destination (OD) Trip Tables. The North Texas region has several managed lanes that serve travelers with reliable travel times. The Managed Lanes UPP project will enhance NCTCOG’s travel model forecasting capabilities with regard to managed lanes. The study will involve the inclusion of travel time reliability on managed lanes, as well as determine the value of time to the users of these facilities. Travel time reliability measures the probability of on-time arrival of the trips experienced by travelers due to uncertainties present in the roadway network. Project results will be used to help guide long-term transportation planning decisions.

The purpose of the Behavioral Estimation of OD Trip Tables UPP project is to create a method of estimating travel demand based on trip generation/distribution and traffic counts. The challenge of the traditional method is that the estimation of travel demand is based on traffic counts, and the connection between trip generation/distribution is lost. This initiative will develop and implement a method that can change trip generation/distribution parameters to result in a traffic assignment that matches traffic counts.

Additionally, this subtask provides for technical communication and participation at the state and national levels to ensure the travel models are developed in a coordinated manner according to future needs and expectations. The RTM components and sub-components are ongoing throughout FY2018 and FY2019. Anticipated products include:

- model software application;
- training material, documentation, and reports;
- technical services;
- transit and roadway networks; and
- software and hardware for networks.
Work Performed and Status: The existing regional travel demand model computer application for the expanded area (DFX) was maintained and improved. NCTCOG provided support to internal and external users of the model. A new management system for archived RTM files was developed to decrease the file storage requirements. A new method for access to the travel model was developed through which consultants and local entities can have access to the regional model in their own offices.

A preliminary version of the next generation RTM was developed from data collected between 2009 and 2016. The design of the model software application for the next generation RTM was created. The hardware design for the network required for the next generation RTM has started. The development of the training material and final document will begin after the final software and hardware are deployed. Improvement of the newly developed model will continue in FY2019.

The roadway and transit networks for forecast years through 2045 were created for air quality conformity analysis and the long-range metropolitan transportation plan.

Through the University Partnership Program, the state of the practice using value-of-time (VOT) and value of reliability (VOR) to model driver behavior on toll facilities and managed lanes were reviewed and documented. Discrete and continuous VOT was analyzed and compared in the toll model. Traffic equilibrium models which incorporate uncertainty for managed lanes were investigated. A final report has been provided.

Transportation Planning Funds were used to support work activities. Work will continue in FY2019.

Alternative Transit Ridership Models

Transportation Planning Funds

This component encompasses the development or adoption of simplified transit ridership models that can produce quicker results than the regional travel model. The purpose of these models is to provide a faster alternative method for preliminary analysis of transit lines in short-range time horizons. This work will be done in coordination with the Federal Transit Administration and other planning and transit agencies. It is anticipated that Dallas Area Rapid Transit (DART), the Fort Worth Transportation Authority (FWTA), and the Denton County Transportation Authority (DCTA) will use the products of this effort for transit planning and enhancement of modeling tools for transit studies. This component will begin in FY2018 and conclude in FY2019. Anticipated products include:

- A simplified direct model for estimation of ridership.

Work Performed and Status: Supplemental data preparation for development of the transit ridership models continued.

Transportation Planning Funds were used to support work activities, and work will continue in FY2019.
II. Task 2 – Transportation Data Development and Maintenance

**Documentation of the Model Needs and Development Process**

**Other Funding Sources**

Activities in this element will document the thought process and significant decision-making challenges that are encountered through development of the intermediate-range plan for travel data and models. The goal of this project is to produce presentable material for the Federal Highway Administration (FHWA) to be shared with other planning agencies as an example of good practice. Work efforts are funded through a grant from FHWA and Transportation Development Credits. This component will be ongoing throughout FY2018. Anticipated products include three main categories of material:

- Document describing the expectations from the travel demand model in practical applications, defining a framework for long-range activities;
- Several documents and material describing the calibration and validation process for each model component; and
- Presentation material for the FHWA Travel Model Improvement Program in various subjects of the model system developments.

**Work Performed and Status:** Work began on the development of a document describing the roadway model performance. Various components of the model have been documented in formal presentations and memorandums.

Federal Highway Administration funds (CSJ 0902-00-154) and Transportation Development Credits were used to support these activities. Work will continue in FY2019.

**Development of a Regional Dynamic Traffic Assignment Model**

**Other Funding Sources**

Dynamic Traffic Assignment (DTA) represents a further improvement upon the existing time-of-day static assignment as it seeks to provide a more detailed means to represent the interaction between travel choices, traffic flows, and time and cost measures in a temporally coherent manner. Specifically, dynamic traffic assignment models aim to describe such time-varying network and demand interaction using a behaviorally sound approach. The foundations for a DTA will be set and its implementation will start using available software applications in the industry. This activity will include the collection of detailed operational data, such as traffic counts by time of day. This component will be an ongoing activity in FY2018 and FY2019. Surface Transportation Block Grant Program funds, local funds, and Transportation Development Credits will be utilized to support work activities. Anticipated products include:

- A DTA model and software integrated in the regional travel model.

**Work Performed and Status:** No work was conducted in FY2018 due to limited staff resources. Work is anticipated to begin in FY2019.
Regional Travel Data Collection

Other Funding Sources

This element includes traffic and travel data collection and surveys. Specific survey initiatives include household, toll road user, transit, and external surveys. These efforts will result in the creation of several travel databases that will be used in the development of new travel forecasting tools. Major projects in this area are described below:

Household Travel Survey – NCTCOG, in collaboration with TxDOT, has joined the FHWA-managed National Household Travel Survey (NHTS) 2016 project, which utilizes consultant assistance. The estimated overall household samples in the 12-county Metropolitan Planning Area are expected to be approximately 8,500. The final survey results will be available in FY2018. NCTCOG staff will continue to analyze and summarize NHTS 2016, as well as previous household surveys during FY2019. Surface Transportation Block Grant Program and local funds, as well as Transportation Development Credits will be utilized to support work efforts. Anticipated products during FY2018 and FY2019 include:

- Travel survey documentation; and
- Travel survey databases.

Work Performed and Status: NCTCOG participated in coordination meetings for final database design and online tool development. Unweighted and weighted survey databases, data definition tables, and documentation have been received from FHWA. A cursory review of the data contents was conducted. NCTCOG initiated a re-weighting of the data to use county or county group control totals as opposed to Texas control totals to better localize the data. Re-weighting to produce the final database will be conducted in FY2019.

Surface Transportation Block Grant Program funds (CSJ 0918-00-239) and local funds were used to support these work activities. This project is ongoing, and work will continue in FY2019.

Transit Travel Survey – NCTCOG, in coordination with DART, DCTA, and FWTA, will prepare to conduct a regional transit onboard survey beginning in FY2019. This survey will be heavily used in updating the travel demand model. In addition, in FY2018 an Automatic Traffic Count Validation study will be conducted for the Fort Worth Transportation Authority. This study involves a comparison of automatic passenger counters (APCs) against observed passenger counts to validate the accuracy of the APC devices. Consultant assistance will be utilized. Surface Transportation Block Grant Program funds and local funds will be utilized to support work efforts. Anticipated products include:

- Report on the APC count comparison for FWTA;
- Scope of work for the regional transit onboard survey; and
- Interagency agreements.
Work Performed and Status: No work in this element was conducted in FY2018. Work on the regional transit onboard survey is scheduled to begin in FY2019, and the initiation of work on the automatic passenger counts is pending notification from the Fort Worth Transportation Authority on a desired start date.

External Travel Survey – In cooperation with TxDOT and the Texas Transportation Institute, an external travel survey began in FY2016. This survey includes innovative approaches in data collection, such as cellphone location data, Global Positioning System data, and the deployment of Bluetooth reader devices in the region. Staff activities for FY2018 will include coordination of the technical process, analysis of data, and analyzing the data products. The project will be completed in FY2018 when final survey results are expected. Work efforts will be supported through Surface Transportation Block Grant Program and local funds, and Transportation Development Credits. Anticipated products during FY2018 include:

- Intermediate progress reports; and
- Databases for external-external and external-internal trips.

Work Performed and Status: The raw data was converted into inputs of the regional travel model, and a sub-model for external trips was created and integrated with the next generation regional travel model. The databases for External-External and External-Internal trips have been created. Progress reports were received from Texas A&M Transportation Institute.

Surface Transportation Block Grant Program funds (CSJ 0918-00-239) and local funds were used to support these work activities. The project is complete.

Toll Road User Survey – In cooperation with the North Texas Tollway Authority, NCTCOG will conduct a survey of toll and non-toll users in several corridors related to the socio-economic characteristics of the travelers and to their trip behavior, and their willingness to pay for use of the tolled facilities. This study will also be used in an evaluation of environmental justice related to building the tolled facilities. Final survey results are expected in FY2019. Consultant assistance will be utilized. Work efforts will be supported through Surface Transportation Block Grant Program funds and Transportation Development Credits. Anticipated products during FY2018 and FY2019 include:

- Intermediate progress reports; and
- Toll road user travel database.

Work Performed and Status: The preliminary framework for the study has been designed. No additional work was performed due to limited staff resources.

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.

This project is ongoing, and work will continue in FY2019.
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 FY2018 and FY2019. 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 was monitored and updated to reflect the status of the region's transportation system. Roadway and transit networks were developed which detailed current and projected conditions for use in Mobility 2045 and the corresponding air quality conformity analysis. 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 FY2019.

2.02 Transportation Data Management

This subtask complements the analytical tool sets of Subtask 2.01 and provides data products for virtually all planning activities in the department. The components of this subtask are related to data collection, organization and management, and dissemination of information in the forms of services and websites. Coordination with internal and external entities plays an important role in efficiency of data products and activities. Therefore, one important component of this section focuses on this area of work.
Collection of Traffic Data

Transportation Planning Funds

The activities of this component are associated to providing support in the collection of data considered for Subtasks 5.05 (Congestion Management) and 5.06 (Regional Freight Planning). Both subtasks require the collection of traffic counts for planning and validation of data.

The collection of traffic data for Congestion Management is required to ensure that vehicle detectors report accurate speeds and traffic counts. The data collected is used to calibrate and validate more than 500 detectors that are installed at freeway sections of the Metropolitan Planning Area. This effort involves the coordination with the Dallas and Fort Worth Texas Department of Transportation districts for the creation and maintenance of an accurate inventory of vehicle detectors.

For Regional Freight Planning, the collection of data refers to traffic counts by time of day and type of vehicle at numerous locations on freeways, arterials and collectors of the Metropolitan Planning Area. The support provided for this subtask includes assisting in the identification of the best location for the traffic counts, scheduling, and providing guidance of the best equipment to be utilized. This component will be an ongoing activity in FY2018 and FY2019. Anticipated products include:

- A geographic database of classification traffic counts; and
- Inventory of vehicle detectors and results of their calibration and validation.

**Work Performed and Status:** The integration of classification counts obtained to assist in the assessment of freight movements in the region was completed.

The inventory of vehicle detectors was updated based on the latest information provided by the TxDOT Fort Worth and Dallas Districts. The calibration and validation will continue in FY2019 under Subtask 5.05, Congestion Management Planning and Operations, Transportation System Management and Operations, utilizing Surface Transportation Block Grant Program funds.

Transportation Planning Funds were used to support work efforts.

Coordination with Data Providers

Transportation Planning Funds

The activities considered in this component focus on establishing communication and collaboration agreements with agencies and cities that regularly collect transportation performance data. The goal of these activities is to obtain the most recent and accurate data from these agencies so that it can be used in the transportation planning process. These data include, among others, the following items: 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. This component also considers building consensus among stakeholders, participating in decision making and setting
guidelines for the collection, integration, and analysis of transportation data. A privacy protocol for data maintenance will be created to ensure privacy protection of public participants in NCTCOG surveys and data collection programs. It will provide assurance for data providers that their data will not be shared with competitors without permission. This component will be an ongoing activity in FY2018 and FY2019. Anticipated products include:

- Datasets from the Texas Department of Transportation (TxDOT), North Texas Tollway Authority (NTTA), Federal Highway Administration (FHWA), Dallas Area Rapid Transit (DART), Fort Worth Transportation Authority (FWTA), Denton County Transportation Authority (DCTA), Dallas Fort Worth International Airport (DFWIA), and other agencies and cities;
- Database with contact information;
- Privacy guidelines for data security; and
- Agreements with agencies.

**Work Performed and Status:** The database containing staff contact information for providers at major cities and regional agencies was updated. Traffic count data for the years 2015, 2016, and 2017 was 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, Denton County Transportation Authority and the Fort Worth Transportation Authority. Travel time data was obtained from FHWA for September 2017 to August 2018.

Transportation Planning Funds were used to support work efforts.

This project is ongoing, and work will continue in FY2019.

**Integration of Data**

*Transportation Planning Funds*

This component encompasses the development of methods and computer tools to facilitate and optimize the integration of the data collected by NCTCOG or provided by participating agencies. The purpose of this effort is to provide better access to the transportation data by staff, stakeholders, and the public. The datasets assembled by NCTCOG from participating agencies and cities will be transferred from their original files into spatial SQL Server databases and GIS layers. Examples of these datasets are the traffic count files from TxDOT; the travel time data that FHWA delivers as part of the National Performance Management Research Dataset (NPMRDS); and the ridership statistics, routes, and schedules compiled by regional transportation agencies. This component will be an ongoing activity in FY2018 and FY2019. Anticipated products include:

- Database for traffic counts;
- Database for speed and travel-time data;
- Geographic databases of transportation inventories; and
- Databases for several transportation performance measures.
**Work Performed and Status:** Approximately 1.15 billion records were added to the database of speed and travel times. Over 2,300 traffic count locations and 1.8 million traffic count records were added to the corresponding database. Transit ridership statistics for 12 months were added to the database and the most recent routes and itineraries were uploaded to the corresponding Geographic Information System layers.

Transportation Planning Funds were used to support work activities, and work will continue in FY2019.

**Dissemination of Data**

*Transportation Planning Funds*

This element focuses on building graphic user interfaces that allow the public to generate reports, maps and summaries of assembled transportation data. Activities involve the development and maintenance of websites that allow users to see relevant and detailed data. This component will be an ongoing activity in FY2018 and FY2019. Anticipated products include:

- Website for traffic counts;
- Website for speed and travel-time data; and
- Website for transportation performance measures.

**Work Performed and Status:** The website for traffic counts was maintained and updated to conform with the recently updated NCTCOG website. The website for transportation usage measures was updated with the data for the last 12 months.

Staff developed the software framework for a new web development environment to display traffic counts and other transportation related data. A Request for Proposals was issued for consultant assistance to provide implementation software.

Transportation Planning Funds were used to support work activities. Work will continue in FY2019.

**Analysis of Data**

*Transportation Planning Funds*

This item refers to the support of staff and stakeholders for specific analyses of the integrated transportation data. Analyses of transportation data related to air quality, traffic accidents, vehicle detectors, travel times, historical transportation-related measures and gasoline consumption and correlations with the Census and American Community Survey. This element is ongoing throughout FY2018 and FY2019. Anticipated products include:

- Summaries and reports;
- Performance charts; and
- Static and animated maps.
Work Performed and Status: Traffic counts and travel-time data were summarized to be used in the travel model calibration/validation. In addition, the indicated data was analyzed and summarized to address several requests from NCTCOG staff and local partners. The traffic counts were used to calculate hourly and seasonal factors that were used as input in the estimation of air quality emissions. Heat maps and travel-time contours were produced to characterize vehicular congestion on several corridors and locations.

Transportation Planning Funds were used to support work activities. Work will continue in FY2019.

Transit Fare Box Data Analysis

Other Funding Sources

DART and FWTA transit networks are equipped with electronic fare collection systems. These systems produce a large amount of data about the travel patterns of transit users, but has not been fully analyzed yet. This element includes the comprehensive analysis of this dataset that will contribute to the improvement of the transit assignment model and assist the transit agencies in better understanding the system through accessing boarding counts. Consultant assistance may be utilized. Federal Transit Administration funds and Regional Transportation Council Local funds will be used to conduct this planning study scheduled to begin in FY2018. Anticipated products include:

- Various databases;
- Intermediate progress reports; and
- Software programs.

Work Performed and Status: No work was performed on this project pending notification from Dallas Area Rapid Transit on a desired start date.

Data-Supported Transportation Operations and Planning (D-STOP) in the Dallas-Fort Worth Area

Other Funding Sources

Through the University Partnership Program, NCTCOG will participate in D-STOP research activities that focus on harnessing innovative technologies and data sources to develop architectures and systems for data collection and analysis. Some of these can be directly applied today in the operation or long-range planning of transportation systems and some will support next-generation methods for operations and planning. These methods will be useful for evaluating proposed solutions with a broad range of metrics (e.g., reflecting multimodal or equity issues), with greater accuracy and precision than before and for allocating scarce funding in a way that maximizes the potential for equitable economic growth. Regional Transportation Council Local funds will be utilized. Anticipated products include:

- Reports that provide guidance and methods for using data from emerging transportation technologies such as automated vehicles in modeling, forecasting and planning;
II. Task 2 – Transportation Data Development and Maintenance

- Scenarios and probability ranges relating to emerging transportation technologies and business models (e.g., shared mobility) on key elements going into transportation modeling and planning;
- Reports and guidance on the nature and pace of the adoption of emerging transportation technologies and business practices;
- Analyses of consumer and market responses to emerging transportation technologies and business practices; and
- Analyses of the impact of emerging transportation technologies and business practices on infrastructure and vehicular elements relating to transportation.

**Work Performed and Status:** In FY2018, through the University Partnership Program, work was completed on phase two of the Travel Modeling in an Era of Connected and Automated Transportation Systems. Work performed during this phase included modeling of selected scenarios to represent the impact of connected/automated vehicles on transportation demand and supply in future years. Year three of this initiative will be carried out in FY2019 and will involve running a variety of scenarios through the model developed in year two.

Regional Transportation Council Local funds were used to support work activities. Work will continue in FY2019.

2.03 Demographic Data and Forecasts

The purpose of this subtask is to create 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, and creation of demographic forecast.

**Inventory of Land-Use and Demographic Data**

*Transportation Planning Funds*

The purpose of this item is to create an inventory of land-use and demographic data through communications with local agencies and government entities, and to conduct independent analysis. This item includes development of up-to-date city boundaries; compilation of land-use inventories in the region into a single information system; refinement of Census 2010 and American Community Survey databases; identification and tracking of developments with at least 80,000 square feet, 80 housing units, or 80 employees on site; estimation of the employment demographic data for sub-county areas; and technical support. Data acquisition and purchases may be needed for this item. Ongoing throughout FY2018 and FY2019, anticipated products include:

- Geographic Information System Layer file of updated city boundaries;
• An information system of the inventory of land, based on uses such as residential, commercial, and industrial;

• Processed decennial US Census data and American Community Survey data;

• An information system of the monitored large developments in the region (development monitoring);

• Small-area estimates of population and jobs by industry sector for sub-county areas like Census tracts; and

• Technical assistance in response to a variety of inquiries by phone or email.

**Work Performed and Status:** Data for city limit updates were acquired. NCTCOG staff processed 2017 parcel data for Hood, Johnson, Kaufman, and Tarrant counties, and 2018 parcel data for Collin, Denton, Hunt, and Tarrant counties. An inventory of public schools, hospitals and other medical facilities, apartments and other multi-family developments in the region were verified and updated. Data tables from the Census Bureau’s American Community Survey one-year and five-year tabulations were downloaded and processed. Local review of major employers was completed, and an inventory of major employers in the region was verified and updated. Data for use in production of small-area employment estimates were downloaded and processed, and draft 2018 tract-level estimates of population for Denton and Tarrant counties were produced. Hundreds of requests for technical assistance were completed.

Transportation Planning Funds were used to support work activities, and work will continue in FY2019.

**Development of Regional Demographic Forecasts**

*Transportation Planning Funds*

This item includes improvement and support of the regional demographic/land-use model, generation of project-based demographic datasets, and evaluation of other possible methodologies for the demographic forecasting process. Activities will be ongoing throughout FY2018 and FY2019. Anticipated products include:

• Project-based demographic forecasts; and

• Advances in the development of a new demographic forecast model.

**Work Performed and Status:** Development of a specialized system for demographic/land-use modeling continued. NCTCOG staff also continued to create project-level forecasts in response to internal and external requests.

Transportation Planning Funds were used to support work activities, and work will continue in FY2019.
## TASK 2.0 – FUNDING SUMMARY

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1. TxDOT does not provide authorized funding at a Sub-task level. Funding is reported at a Mega-task level.

### TASK 2.0 - TPF FUNDING SUMMARY FY2018

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1. TxDOT does not provide authorized funding at a Sub-task level. Funding is reported at a Mega-task level.
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 that 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 that new projects 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 and 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, multi-year 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 FY2018 and FY2019 timeframe using federal, State, and local funding. As new funding sources or additional funding allocations arise, staff will implement appropriate project selection processes.

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, MPO staff will track and monitor projects to ensure timely completion. This subtask is supported with Transportation Planning Funds. Anticipated products in FY2018 and FY2019 include:

- A financially constrained 2019-2022 TIP document in FY2018;
- Quarterly TIP modifications in alignment with the Statewide Transportation Improvement Program (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 2019-2022 Transportation Improvement Program (TIP) was developed and submitted to the Texas Department of Transportation (TxDOT) for inclusion in the Statewide Transportation Improvement Program (STIP) in June 2018. This TIP contained $8.23 billion in funding commitments for 283 projects.

A total of 333 roadway and 59 transit modifications were processed for the 2017-2020 TIP in FY2018 and 195 of these modifications were submitted to TxDOT as STIP revisions.

Throughout the year, recommendations were developed and RTC approval received for several funding programs through the 2017-2018 Congestion Mitigation and Air Quality Improvement Program (CMAQ)/Surface Transportation Block Grant (STBG) Funding Program totaling $270 million in projects. In addition, NCTCOG coordinated with TxDOT to select projects and make updates to the Regional 10-Year Plan. A total of $7.7 billion in projects has been funded through the 10-Year Plan.

The FY2017 Annual Project Listing, which details the federal funding obligated on projects during FY2017, was submitted to the Texas Department of Transportation, Federal Highway Administration, and Federal Transit Administration in December 2017.

Transportation Planning Funds were used to support work activities. This program is ongoing and will continue in FY2019.
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, Regional Toll Revenue funds, and Transportation Development Credits. Anticipated products include work on the interactive, web-based interfaces noted below:

- Deployment of the re-designed TIP modification editing module at the Control Section Job (CSJ) level and enhancements to the TIP modification editing interface expected in FY2018; and
- Deployment of additional TIP database modules including: TIP development, transit project tracking, project status tracking, additional Geographic Information Systems (GIS) mapping tools, and obligations tracking; significant progress anticipated in FY2018 and FY2019.

Work Performed and Status: Staff identified, tested, and deployed 87 software programming corrections and enhancements of the TIP Modification Editing module into production, continued development of the TIP Development and Obligations tracking modules, released four software programming corrections and enhancements to existing GIS mapping tools, and started testing the migration of Phase data from project level to CSJ and fiscal year level.

This effort is funded with Surface Transportation Block Grant Program funds (CSJs 0902-00-183, and 0902-90-049) and Transportation Development Credits. Work will continue in FY2019.

Regional Toll Revenue Fund Management and Project Tracking Implementation

Other Funding Sources

Since 2007, MPO staff has 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 FY2018 and FY2019 include:

- An up-to-date RTR-funded project list and account balances;
- Standard operating procedures to maintain data integrity;
- Coordination with TxDOT and 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; and

Communication with local agencies to provide close-out information for completed RTR-funded projects.

**Work Performed and Status:** NCTCOG staff continued tracking the programmed amounts, expenditures, Transportation Improvement Program (TIP) modifications, and status of each Regional Toll Revenue (RTR) project selected within the region, thereby maintaining a project list throughout FY2018. In addition, work continued in coordination with TxDOT and the NCTCOG Administration Department on the documentation of RTR account balances for each county, taking into account interest earned, expenditures, reclassifications of funding between counties, and loans. RTR project changes were submitted to TxDOT for inclusion in the Texas Transportation Commission (TTC) Minute Order for authorization on February 22, 2018; April 26, 2018; and September 27, 2018. Close-out information for completed RTR-funded projects was communicated to local agencies and staff completed 11 project close-outs in FY2018. The NCTCOG Transportation Department Environmental Streamlining team reviewed and supported approximately 10 RTR projects through the local environmental process. Further coordination to develop standard operating procedures to maintain data integrity will continue.

This effort is funded with Regional Toll Revenue funds (CSJ 0918-00-238). Work will continue in FY2019.

### 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. This element is ongoing throughout FY2018 and FY2019. Anticipated products 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 eight-hour NAAQS for ozone and other primary or secondary pollutants;
- Annual report 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, collecting, and updating 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 the latest air quality information.

**Work Performed and Status:** During FY2018, assistance was provided to local governments by estimating emissions benefits for different strategies and grant applications as requested. Several Motor Vehicle Emissions Simulator (MOVES) runs were performed to provide emissions by model year and non-road emissions to assist teams in the department.

Staff continued to monitor air quality science, policy issues, appropriate rules and regulations relating to criteria pollutants, oil and gas production activities, law suits, and other areas potentially affecting air quality. Coordination with Texas ozone nonattainment areas and the Texas Department of Transportation (TxDOT) to develop methodology for the Congestion Mitigation and Air Quality Improvement Program (CMAQ) emissions reductions for Performance Measures Three baseline and targets. The CMAQ Performance Plan was drafted and submitted to TxDOT describing how the Dallas-Fort Worth (DFW) ozone nonattainment area is working towards achieving Performance Measures Three targets. Staff continued tracking updates on the development of emissions models used in regional air quality planning. Various model runs were conducted and post-processed using Texas A&M Transportation Institute's (TTI) utilities in an attempt to streamline and refine NCTCOG’s air quality modeling process.
A 2018 Transportation Conformity analysis for the NCTCOG Metropolitan Transportation Plan, Mobility 2045: The Metropolitan Transportation Plan for North Central Texas and 2019-2022 Transportation Improvement Program for North Central Texas was completed, and a positive US Department of Transportation determination was received in November 2018.

Updates to the Mobile Source Emission Reduction Strategies (MoSERS) commitments of CMAQ-funded projects continued as needed, based on project parameter updates, for inclusion in Transportation Improvement Program reporting and the annual CMAQ report. The 2017 annual CMAQ report was completed and submitted to the Texas Department of Transportation. In addition, the revised MoSERS technical guidance and the associated calculation spreadsheets review continued.

Participation and assistance with other statewide and national efforts continued. This work included, but was not limited to, the Association of Metropolitan Planning Organizations Air Quality Work Group, the Transportation Research Board’s Transportation and Air Quality Committee, the Fort Worth Chamber’s Environment and Safety Committee, the MOVES Review Work Group, the Coordinating Research Council, the statewide Technical Working Group for Mobile Source Modeling, the Advisory Council of the Texas Air Quality Research Program, Texas State Transportation Innovation Council, and the TxDOT Planning and Environmental Functional Area Committee.

The NCTCOG air quality website was continuously updated with relevant information, and most notably changes were made to provide updates on the State Implementation Plan (SIP), Transportation Conformity development, and the Environmental Protection Agency’s 2015 NAAQS for ozone. During ozone season, daily updates were made to allow public awareness to real-time ozone levels and trends. NCTCOG Transportation Department technical staff worked closely with the transportation and air quality marketing team and the NCTCOG Research and Information Services Department to update and promote the air quality index for the Dallas-Fort Worth area.

Staff collaborated and completed the development of On-Road Mobile Source Redesignation and Maintenance Inventories for the Dallas-Fort Worth counties in either the four-county area and/or nine-county area previously designated as nonattainment for the one-hour and/or the 1997 eight-hour ozone NAAQS.

Transportation Planning Funds were used to support work activities. This project is ongoing, and work will continue in FY2019.

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 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

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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. This element is ongoing throughout FY2018 and FY2019. 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 FY2018, the Dallas-Fort Worth MOVES2014a-based Reasonable Further Progress on-road inventories and control strategy reductions for 2011, 2017, 2018, 2020, and 2021 for the SIP revision for the 2008 NAAQS were completed. Texas Commission on Environmental Quality funds were used to support work activities. This project is ongoing, and work will continue in FY2019.

### 3.03 Air Quality Management and Operations

Ten counties in the North Central Texas Council of Governments (NCTCOG) service area have been designated as nonattainment for the pollutant ozone. As the majority of ozone-forming emissions are attributable to mobile sources and other transportation-related activities, numerous strategies are being implemented to reduce emissions and air quality impacts. This is accomplished through a variety of programs aimed at reducing nitrogen oxides, volatile organic compounds, and other criteria pollutant emissions by expediting the use of advanced technologies as well as implementing demonstration programs to study the feasibility of control measures for possible region-wide deployment. NCTCOG staff also recommends policies, participates in partnerships, and provides support for other stakeholders who are implementing emission-reducing activities. All efforts are undertaken with the goal of working toward attainment of the federal ozone standards and improving overall ambient air quality. Work also supports and complements objectives of the Dallas-Fort Worth Clean Cities Program.

**Technology Improvements**

**Other Funding Sources**

Technology improvements are achieved through programs, often implemented through regional funding opportunities, which enhance the use of cleaner, sustainable, more fuel-efficient vehicles, equipment, and technologies. Activities may be comprised of accelerated fleet replacement; vehicle emissions repairs; engine repowers, upgrades, and retrofits; alternative fuels and vehicles; advanced truck technologies; idle-reduction technologies; and other low-energy-use technologies. Staff efforts under this element include not only award of funds, but also monitoring of grant-funded activities ensuring adherence to reporting and project fulfillment.

Work also includes promotion of relevant funding initiatives available from other agencies who offer funding programs, such as the US Environmental Protection Agency or the Texas Commission on Environmental Quality. In this case, staff works to improve awareness of such programs among local vehicle or equipment owners to ensure that the region is competitive in
seeking and receiving funds. This work element will be supported through Congestion Mitigation and Air Quality Improvement Program funds, Surface Transportation Block Grant Program funds, Environmental Protection Agency funds, Texas Commission on Environmental Quality funds, Regional Transportation Council local funds, other local funds, Transportation Development Credits, and private funding sources. Consultant assistance may be used. NCTCOG may seek assistance from universities through the University Partnership Program for data collection and/or analysis to optimize use of funded improvements. This element is ongoing throughout FY2018 and FY2019. Anticipated products include:

- Competitive grant applications to seek additional funds to further leverage Calls for Projects (CFPs) and technology implementation efforts;
- Open competitive CFPs to select eligible technology projects for implementation, which may include vehicle or equipment repair, replacement, repower, retrofit, idle reduction technologies, refueling infrastructure, or other emissions reduction technologies;
- Development and implementation of a revolving loan program to fund emission-reduction strategies;
- Executed subgrantee agreements and documentation of subgrantee compliance to grant requirements through monitoring and on-site inspections;
- Implemented technology projects, including, but not limited to, installation of electrified parking space technology, light-duty vehicle replacements, diesel truck or bus replacements, and replacement of diesel airport ground support equipment;
- Technology project reimbursements;
- Reports on funded grant activities, including an assessment of how to optimize utilization of electrified parking space technology; and
- Resources to assist vehicle/equipment owners in identifying potential technology improvements and related financial assistance.

**Work Performed and Status:** During FY2018, two grant proposals were submitted to the Environmental Protection Agency (EPA) to fund replacements of older diesel vehicles and equipment for local governments or private companies contracted to local governments, and to install electrified parking spaces at terminals and distribution centers, respectively. EPA notification on whether these projects were selected for funding is still pending.

Efforts are ongoing to award subgrants for technology improvement projects. During FY2018, NCTCOG executed an agreement with the EPA for an award received under the FY2017 National Clean Diesel Funding Assistance Program that was awarded to NCTCOG under a competitive grant program. Through this award, NCTCOG opened the Clean Fleets North Texas 2018 Call for Projects (CFP) to provide approximately $2 million in funding for replacement of older diesel vehicles and equipment owned by local governments or private companies contracted to local governments. This CFP also included Texas Commission on Environmental Quality (TCEQ) Supplemental Environmental Project funds. By the end of the fiscal year, approximately $1.2 million in subgrant projects were awarded, and contracting with subrecipients is ongoing. Staff will continue to accept project applications in FY2019 until funding is fully awarded. Staff continued to promote availability of funds under the North Texas
Airport Emissions Reduction CFP to replace or repower diesel-powered airport ground support equipment. As of the end of the fiscal year, no applications had been received.

Work to implement previously awarded projects continued. Implementation of an electrified parking space project at a trucking terminal in southern Dallas County was completed in FY2018 and reimbursement for the project was processed. Efforts to implement approximately $2.5 million in vehicle replacement projects awarded in FY2016 under the Clean Fleets North Texas 2015 CFP continued in early FY2018. As reported last year, the project had been put on hold because the Federal Highway Administration (FHWA) had stopped issuing waivers for Buy America compliance for vehicle projects. Staff evaluated the potential for using other funding sources to implement these projects but determined that due to the amount of time elapsed since award, and the availability of other funding programs for similar projects, it would be best to terminate the awards under the 2015 CFP. Documentation to formally terminate these awards will be completed in FY2019. Staff continued to evaluate self-reported data and conduct site visits to verify performance of previously reimbursed subgrant activities.

Background information began to be collected to lay the foundation for a revolving loan program. The program will be designed to help recipients obtain emission reducing equipment, vehicles, or technology by offering qualified and eligible recipients low-interest loans. Determining whether to administer the loan program directly through NCTCOG or use an outside vendor is currently being assessed.

Over the past year, 90 site visits were completed where activities/equipment were inspected and facilities monitored to ensure compliance with grant requirements. In total, staff inspected four rubber tire loaders, one soil stabilizer, six-wheel loaders, one auxiliary power unit, six excavators, 30 electrified parking spaces, and 31 transit buses. Staff visited 70 vehicle repair facilities and automobile dealerships along with eight regional transit agencies. Memorandums and reports to summarize each site visit were drafted, compiled, and scanned for internal files. Summaries of each review, including any deficiencies observed or possible corrective actions needed, were prepared. As needed, subrecipients were referred to legal for additional enforcement due to not meeting grant obligations.

NCTCOG partnered with a university through the University Partnership Program to develop a study to better understand truck stop electrification (TSE) station activities and perceptions in order to find better ways to encourage more usage. The university began working on the study June 1, 2018.

During FY2018, administration of the AirCheckTexas Drive a Clean Machine Program continued for Collin, Dallas, Denton, Ellis, Johnson, Kaufman, Parker, Rockwall, and Tarrant Counties. After the Governor vetoed funding for FY2018-2019, participating counties stopped collecting fees used to fund the program; however, NCTCOG continued operations utilizing carryover funds from FY2016 and FY2017. The replacement aspect of the program saw an increase from FY2017 with 2,015 vehicles replaced and 731 vehicles repaired. Marketing and outreach efforts continued in FY2018, with staff attending and distributing program information at 23 outreach events, hosting 14 onsite processing events and 48 dealer workshops, as well as mailing out 24,000 program postcards to households in those zip codes with the highest
failure rates. In addition, staff provided numerous interviews with both television and print media.

Throughout the fiscal year, staff maintained the website at www.nctcog.org/AQfunding as a resource to promote availability of funding opportunities for technology improvements available from a variety of funding sources. These opportunities were also promoted through distribution of email blasts, newsletters, and presentations. Staff also collaborated with the TCEQ to host several grant workshops on-site at the NCTCOG offices. Efforts were made to educate regional stakeholders on upcoming availability of funding assistance through the Volkswagen Mitigation Trust. This work included development of a dedicated webpage on the NCTCOG website, accessible through www.nctcog.org/AQfunding, and delivery of presentations throughout the year at committee and stakeholder meetings.

Congestion Mitigation and Air Quality Improvement Program funds (CSJs 0918-00-272, 0918-00-207, 0918-00-254, and 0902-00-170), Surface Transportation Block Grant Program funds (CSJs 0902-00-158 and 0902-00-159), Environmental Protection Agency funds, the Texas Commission on Environmental Quality funds, Transportation Development Credits, and local contributions were used to support work activities.

This project is ongoing, and work will continue in FY2019.

Demonstration Programs

Other Funding Sources

These types of programs investigate methods to reduce fuel use and emissions not only through emissions testing, but also through activity and behavior modifications. Typically, these programs seek to demonstrate the benefit and feasibility of potential or conceptual measures for greater implementation. Projects may include both light- and heavy-duty vehicles, non-road equipment, and energy conservation techniques. NCTCOG may seek assistance from consultants, or universities through the University Partnership Program for data collection and/or analysis. 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. This element is ongoing throughout FY2018 and FY2019. Anticipated products include:

- Feasibility studies on existing or new programs;
- Vehicle deployment pilot program to encourage the purchase and use of low-emitting vehicles through partnerships and opportunities for individuals to experience Alternative Fuel Vehicles (AFV) first-hand, including through a loaner program opportunity under the Alternative Fuel Vehicle Deployment Initiatives Project;
- Educational campaign to reduce idling at school campuses through the Idle Free School Zones Project, including before and after studies utilizing remote sensing technology;
- Evaluation of oversize/overweight heavy-duty vehicles and emissions impacts on air quality;
- Executed consultant agreement(s); and
- Reports including outcomes and follow-up related to various pilot programs or demonstration projects and technology improvement programs targeting diesel vehicles.

**Work Performed and Status:** Work continued toward implementation of the Idle Free School Zones project, executing a contract amendment with the Texas Department of Transportation (TxDOT) to enable use of a public sector research partner as opposed to a private consultant. Initial steps toward identification of school campuses have been completed, including a meeting with Dallas Independent School District staff to discuss the project. Contracting with a research partner is expected in early FY2019.

Work on a vehicle loaner program under the Alternative Fuel Vehicle Deployment project has stalled due to Buy America constraints. Because no resolution of this obstacle is apparent, staff has evaluated ways to re-scope the project to avoid the need to purchase vehicles and will be amending the project scope in early FY2019.

NCTCOG partnered and executed an agreement with Texas A&M Transportation Institute to develop a study aimed at documenting the relationship between air emissions and oversized and overweight heavy-duty trucks in the Dallas-Fort Worth region. Gathering of data has begun and a literature review has been drafted.

Surface Transportation Block Grant Program funds (CSJs 0902-00-158 and 0902-00-159), Congestion Mitigation and Air Quality Improvement Program funds (CSJs 0918-00-257, 0918-00-256, and 0918-00-255), and Transportation Development Credits were used to support work activities.

This project is ongoing, and work will continue in FY2019.

**Partnerships and Collaborations**

*Other Funding Sources*

This element includes participation in collaborative efforts on the local, State, and federal levels to promote or implement projects or programs that help improve air quality. New innovative partnerships may also be sought with local governments, and private and non-profit stakeholders with key connections or interest in air quality or promoting “green” initiatives, such as hospitals, hotels, utility companies, or private developers. Collaborations may also be established with entities having connections to vehicles/equipment/technologies. Staff may also provide technical assistance and develop resources to facilitate involvement and aid decision making among local governments, industry, and the public. This work element will be supported through Congestion Mitigation and Air Quality Improvement Program funds, Surface Transportation Block Grant Program funds, US Department of Energy funds, Regional Transportation Council Local funds, local funds, and Transportation Development Credits. NCTCOG may seek assistance from universities through the University Partnership Program for data collection and/or analysis to optimize use of funded improvements. This element is ongoing throughout FY2018 and FY2019. Anticipated products include:

- Continued partnerships with federal, State, and regional/local partners including, but not limited to, the National Association of Regional Councils (NARC) and DOE;
- Continued membership in and support of formal partnership arrangements, including the North Central Texas Stewardship Forum and EPA SmartWay Transport Partnership;
- Administration of a cooperative purchasing initiative to reduce alternative fuel vehicle costs, in conjunction with local fleets and the NARC through the Fleets for the Future project;
- Administration of the Freight Efficiency Outreach Program or similar program, in collaboration with local trucking industry representatives and other entities;
- Comments drafted and submitted on air quality regulations, projects, programs, or studies by federal, State, local, or private entities, as requested and appropriate;
- Periodic meetings and conference calls regarding various air quality initiatives;
- Innovative new partnerships with key stakeholder organizations, such as vehicle auctioneers, charities and non-profits who accept donated vehicles, hospitals and universities, vehicle rental companies, and major employers in the region;
- A website that serves as a “clearinghouse” of information regarding energy efficiency and conservation associated with air quality, transportation, and related issues;
- A report evaluating the effectiveness of various funding programs; and
- Continued implementation of DFW Clean Cities Coalition activities including, but not limited to, collaboration with stakeholders to identify strategies to increase use of Clean Cities approaches with regard to resiliency and emergency response efforts, hosting of meetings/trainings/workshops/webinars focused on Clean Cities initiatives (including maintenance of the DFW Clean Cities website as noted in Exhibit II-2 of Subtask 1.04), recognition and highlights of local fleet efforts, coordination of alternative fuel and electric vehicle activities associated with implementation of the Volkswagen Settlement, collaboration regarding designation of alternative fuel corridors under Section 1413 of the FAST Act, and collection/submittal of data regarding alternative fuel use in the North Central Texas region.

**Work Performed and Status:** Partnerships with federal, state, and local/regional agencies are ongoing. NCTCOG continues to be asked to participate as a stakeholder in a variety of initiatives, including serving on the steering committee of the Texas Energy Summit, helping coordinate agenda development for meetings of the Texas Clean Air Working Group, and providing feedback on technical tools developed by the Federal Highway Administration and Department of Energy. Staff also continues to support, and guide activities of the North Texas Stewardship Forum as needed.

In an effort to promote SmartWay, NCTCOG has posted monthly SmartWay related posts on social media such as Facebook and Twitter. The SmartWay website has been updated on a monthly basis with information on how to become a SmartWay partner, air emission facts related to the trucking industry, and ways to improve air quality.

Staff continued carrying out activities under the Fleets for the Future (F4F) project, in which NCTCOG is a subrecipient of the National Association of Regional Councils (NARC). Two Requests for Proposals were issued in FY2018 seeking volume discount pricing from vendors.
However, no vendor responses were received on either solicitation, prompting staff to shift direction on the project. Rather than completing a regional-scale cooperative procurement, NCTCOG promoted procurement opportunities available nationally through NARC and other F4F team members. Through the NCTCOG cooperative procurement initiative - North Texas SHARE - webpages dedicated to alternative fuel contract operations were developed and integrated into the North Texas SHARE platform, in hopes of increasing transparency and deployment of available vehicles.

Outreach was conducted through the Saving Money and Reducing Truck Emission (SMARTE) program, formerly known as the Freight Efficiency Outreach Program, which included face-to-face outreach at truck stops and emails sent to SMARTE and SmartWay contacts regarding webinars, workshops, and funding opportunities related to the trucking industry. NCTCOG staff attended the Great American Truck Show (GATS) and hosted a booth in which fuel-efficient strategies and SMARTE program information were provided to attendees. SMARTE promotional materials and informational folders for truck drivers, fleet managers, and vendors were created and distributed during SMARTE outreach events.

Staff reviewed and submitted comments regarding proposed rulemakings resulting from passage of Senate Bill 1731, which prompted changes to several Texas Emissions Reduction Plan funding programs. Formal comments or input were also submitted to Electrify America and the TCEQ regarding the Zero Emission Vehicle Investment program and Environmental Mitigation Trust elements of the Volkswagen Settlement, respectively. The Conserve North Texas clearinghouse website was completed and launched in FY2018. This resource will continue to consolidate regional information and resources on energy, water, fuel, and transportation conservation strategies.

Throughout FY2018, the Dallas-Fort Worth Clean Cities (DFWCC) continued efforts to educate North Texans on the Clean Cities mission of advancing energy security, protecting environmental and public health, and stimulating economic development by promoting practices and decisions to reduce petroleum consumption and improve air quality. Efforts continued with local municipalities to provide technical guidance and assistance to fleets through monthly webinars or meetings, with additional outreach through emails and newsletters. The DFWCC Coalition continued its annual fleet recognition program at the DFWCC Bi-Annual Meeting by providing awards to 18 North Texas entities.

Staff continued regular communication with the Department of Energy (DOE) and other Clean Cities Coalitions throughout the country by participating in webinars, conference calls, and face-to-face meetings with DOE and national laboratory staff. DFWCC was asked to support several different projects submitted to the FY2018 funding opportunity released by the DOE Vehicle Technologies Office.

In early FY2018, staff provided support to TxDOT to submit additional roadways for designation by the FHWA as alternative fuel corridors under Section 1413 of the Fixing America's Surface Transportation (FAST) Act. Throughout the year, coordination with TxDOT continued in preparation for submitting additional roadway segments for designation in FY2019. Focus also began to shift toward placement of signage to publicize presence of these corridors, as well as their significance.
Throughout FY2018, staff dedicated much efforts to the developing Volkswagen Settlement. Following the designation of the TCEQ as the lead agency for the State of Texas Environmental Mitigation Trust, NCTCOG submitted formal comments as recommendations on developing the draft Mitigation Plan. Staff also played a key role in coordinating statewide meetings in collaboration with other Texas Clean Cities Coalitions and other stakeholders, such as the Texas Clean Air Working Group. The draft mitigation plan for Texas under the Volkswagen Settlement was published on August 8, 2018. Staff reviewed and identified how the draft Texas mitigation plan differs from the court settlement, and provided additional comments to maximize benefits for the DFW area. Staff also submitted input to Electrify America with regard to implementation of the Zero Emission Vehicle Investment portion of the Volkswagen Settlement, and participated in follow-up calls and webinars about plans for these funds. In conjunction with DFWCC, the Electric Vehicles North Texas (EVNT) program continued to increase awareness and adoption of electric vehicles (EVs). With the launch of a state rebate for EVs through the Texas Emissions Reduction Program, much effort was put into publicizing the opportunity to combine federal tax credits, the state rebate, and local incentives through the AirCheckTexas Drive a Clean Machine Program. In response to growing local government interest in installing publicly available electric vehicles charging stations, staff hosted a workshop with charging infrastructure companies in early FY2018 and followed up with one-on-one presentations and technical assistance to individual cities throughout the year. Electric Vehicles North Texas (EVNT) efforts culminated at the end of FY2018 with an all electric vehicle show, a National Drive Electric Week event, which once again beat records set in previous years in registered EVs, making it one of the largest events in the country. Over 600 individuals registered to attend, and 169 electric vehicles were counted at the event.

Surface Transportation Block Grant Program funds (CSJs 0902-00-158 and 0902-00-159), Congestion Mitigation and Air Quality Improvement Program funds (CSJ 0918-00-207), Department of Energy funds, Environmental Protection Agency funds, Regional Transportation Council Local funds, local in-kind contributions, sponsorship funds, and Transportation Development Credits were used to support work activities. This project is ongoing, and work will continue in FY2019.

Regional Policies and Best Practices

Other Funding Sources

These policies provide guidance on best practices to minimize the emissions impact of individual entities’ activities and may consider acquisition, operation, and/or maintenance behaviors. Information sharing can reduce the magnitude of resources needed to implement best practices and can offer insight into ways to reduce barriers to adoption of emission-reducing activities. Staff will work with regional stakeholders, including local governments and relevant private-sector entities, to evaluate opportunities where policies might best be suited to facilitate emissions reductions and develop such policies where appropriate. Implementation assistance will also be provided by staff to adopting entities throughout the region. This work element will be supported through Surface Transportation Block Grant Program funds, Regional Transportation Council Local funds, US Department of Energy funds, and Transportation Development Credits. This element is ongoing throughout FY2018 and FY2019. Anticipated products include:
• Locally Enforced Idling Restrictions and Clean Fleet Policy adoption by additional local governments;
• Opportunities to streamline regulations and/or permitting practices that impact use of technologies that help reduce emissions, including but not limited to, AFVs, electric recharging equipment, and alternative energy sources;
• Identification and distribution of best practices for AFV procurement for local fleets, including resources developed under the Fleets for the Future project;
• Equitable, favorable options for capturing revenues from vehicles that do not pay traditional gasoline tax;
• A revised Public Works Construction Standards – North Central Texas document containing Clean Construction Specification elements (in coordination with the NCTCOG Environment and Development Department); and
• Identification and development of additional RTC policy positions that encourage actions to help reduce mobile and other transportation sector air emissions.

Work Performed and Status: Adoption of the Clean Fleet Policy, as adopted by the Regional Transportation Council in FY2015, continued to be encouraged throughout FY2018. As of the end of FY2018, 68 organizations had adopted the policy, which reflects an increase of four adoptees from the previous year. Clean Fleet Policy adoption is required in order to receive funding made available through the Regional Transportation Council. At the beginning of FY2018, the NCTCOG Executive Board adopted the Public Works Construction Standards North Central Texas, Fifth Edition, which includes Clean Construction Contract Language. These construction standards are widely referenced in the Dallas-Fort Worth area, and inclusion of this language ensures that the idea of air quality requirements in construction contracts is presented to local governments across the area. NCTCOG continues to collect information on adoption of the Clean Fleet Policy, Clean Construction Contract Language, and Locally Enforced Idling Restrictions through the Metropolitan Transportation Plan policy bundle effort.

Over the past year, brochures, posters, and anti-idling street signs were provided upon request to cities in the region to assist them with resources to continue anti-idling enforcement. Staff continued to support Engine Off North Texas (EONT) efforts by hosting Texas Clean Air Working Group (TCAWG) idling subcommittee meetings in February, May, and September. This group, comprised of organizations representing state nonattainment areas, held discussions to promote the Texas Commission on Environmental Quality’s (TCEQ) Idling Restriction Memorandum of Agreement and ways to streamline the statute idling rule. A State Idling Rule Adoptee map was updated and provided in the Mobility 2045 regional plan and displayed on the website. The EONT website was redesigned and a new look was published in FY2018. Staff continued to maintain and update a list of contacts to share EONT information. Email templates for notifying adoptees of idle restricted cities, counties, and school districts of reports filed within their jurisdictions were created and sent as needed.

Preliminary efforts have begun related to developing guidance or best practice recommendations for local governments wanting to support electric vehicles (EV) deployment through codes, ordinances, and other regulatory tools that can help local governments be...
more EV-friendly. Staff also compiled long-range forecasts related to electric vehicles adoption to help inform ideas related to equitable options for all vehicles to pay into the transportation system, in absence of fuel taxes for EVs.

Surface Transportation Block Grant Program funds (CSJs 0902-00-158 and 0902-00-159), US Department of Energy funds, and Transportation Development Credits were used to support work activities.

This project is ongoing, and work will continue in FY2019.

Enforcement Activities

Other Funding Sources

Enforcement is a critical component to ensuring adherence to established policies. Various initiatives are designed to specifically target vehicles producing excessive emissions and not in compliance with automobile emissions standards. Through these efforts, counties will continue to be encouraged to enhance Regional Emissions Enforcement Programs by including other enforcement-related projects, including truck-lane restrictions and idling restrictions. In addition, staff will continue to expand and improve various information systems, and continue to provide training and support to local law enforcement agencies.

Staff will also continue administering the Regional Smoking Vehicle Program (RSVP) and facilitating events corresponding with National Car Care Month. Enforcement efforts will be supported by Congestion Mitigation and Air Quality Improvement Program funds, Surface Transportation Block Grant Program funds, and Transportation Development Credits. This element is ongoing throughout FY2018 and FY2019. Anticipated products include:

- Emissions enforcement database enhancements;
- Continued partnerships with law enforcement, State and federal agencies, and other inspection/maintenance interested parties;
- Periodic meetings and training classes regarding emissions enforcement issues;
- Education and training for law enforcement regarding temporary tag fraud resulting from the elimination of the windshield inspection sticker in Texas;
- RSVP process improvements;
- Correspondence and follow-up with vehicle owners regarding RSVP; and
- Local car clinics focused on vehicle emissions maintenance during National Car Care Month each April.

Work Performed and Status: In FY2018, work continued with local counties across North Texas and the State to implement the Regional Emissions Enforcement Program. The emissions enforcement database was updated weekly with vehicle inspection records from the Texas Commission on Environmental Quality. Task forces from participating counties performed operations targeting emissions inspection-related fraud in North Texas and met with staff on a quarterly basis through the Mobile Emissions Enforcement Working Group.
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(MEEWG). Topics discussed during MEEWG meetings included sharing best practices, discussion of desired legislative changes impacting emissions enforcement, and quantifying and understanding the temporary vehicle registration tag problem that has increased significantly since Texas eliminated the windshield inspection certificate in 2015. Planning began for the upcoming 86th Texas Legislature with staff coordinating with other regions to identify legislative enhancements to modernize the Local Initiatives Projects (LIP) program, which funds the emissions enforcement task forces. Staff helped Dallas County resume its emissions enforcement task force and assisted with a grant application for Local Initiatives Projects funds. Staff continued to manage the NCTCOG Emissions Database (NED), which contains vehicle registration and inspection records and is used by officers performing emissions enforcement.

NCTCOG developed the Heavy-Duty Diesel Inspection and Maintenance (I/M) Working Group, which is made up of representatives from jurisdictions and researchers from the United States and abroad that are interested in heavy-duty diesel inspections and evolving the technology in order to meet the needs of vehicle inspection programs. A website was created for the group and staff coordinated meetings and created surveys to understand the current scope of diesel emissions inspection programs and future equipment needs. Coordination began with commercial vehicle enforcement officers to determine how they could collect emissions-related data from heavy-duty diesel vehicles in the course of their enforcement duties. Staff prepared information for a grant application for the Advanced Transportation and Congestion Management Technologies Deployment grant to investigate ways to improve vehicle on-board diagnostic systems, integrate data to enhance compliance with vehicle inspection programs, and provide more useful data to policy makers.

Work also continued on the Regional Smoking Vehicle Program (RSVP), with over 1,400 reports submitted by phone, online, and received from the TCEQ. This reporting resulted in over 1,100 letters being sent to reported vehicle owners. Internal process improvements were initiated and completed, which included revising the website information, updating the language on the letter templates, and implementing additional letter criteria based on funding opportunities available to diesel vehicles. A marketing campaign to increase awareness of the RSVP was implemented in August 2018. The campaign included advertisements on DART buses and bus stop benches in Fort Worth.

Staff partnered with eight local Recognized Emissions Repair Facilities to hold Car Care Clinics in April 2018. These events helped the public comply with Texas’ annual vehicle emissions inspection requirements by providing preliminary diagnoses of over 50 vehicles with illuminated check engine lights and promoting the AirCheckTexas Drive a Clean Machine Program.

Congestion Mitigation and Air Quality Improvement Program funds (CSJ 0918-00-207), Surface Transportation Block Grant Program funds (CSJs 0902-00-158 and 0902-00-159), and Transportation Development Credits were used to support work activities.

This project is ongoing, and work will continue in FY2019.
3.04 Transportation and Air Quality Communications

As policies, projects, and programs are implemented to fulfill obligations required under federal and State transportation and air quality regulations, communication efforts are strategically created and implemented to educate and inform the region on current and new transportation and air quality programs and/or policies.

Transportation and Air Quality Marketing, Education, and Engagement

Other Funding Sources

The North Central Texas Council of Governments (NCTCOG) will continue to implement strategically created communications efforts to educate and inform the region on transportation- and air quality-related issues, including strategies for improvement, funding opportunities, training initiatives, and new programs/policies. Major efforts will focus on Transportation and Air Quality Marketing, Education, and Engagement Programs, and Clean Vehicle Technologies Programs. This work element will be supported though Congestion Mitigation and Air Quality Improvement Program funds, Surface Transportation Block Grant Program funds, US Department of Energy funds, Transportation Development Credits, and other funding sources. Paid media will be utilized when needed. This element is ongoing throughout FY2018 and FY2019. Anticipated products include:

- Regional air quality and transportation campaigns (including Air North Texas, AirCheckTexas Drive a Clean Machine, Car Care Clinics, Electric Vehicles North Texas, Engine Off North Texas, and other efforts that support transportation and air quality improvement strategies), utilizing communication strategies including, but not limited to, web site/web pages, (as noted in Exhibit II-2 of Subtask 1.04), paid advertising and media, social and electronic media, videos, 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 marketing services for local governments, as well as other NCTCOG Transportation Department programs/campaigns;
- Procurement, inventory, and distribution of educational items;
- Performance measure strategies for transportation and air quality communication initiatives;
- Purchase of electronic equipment, devices (e.g., counters, outreach wheels), online services, and computers for the purpose of outreach, technical guidance, photography and video production (as noted in Exhibit II-2 of Subtask 1.04);
- 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 partners recruitment for transportation and air quality campaigns; and
• Partner recognition for work on programs, such as Air North Texas.

Work Performed and Status: During FY2018, 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, Dallas-Fort Worth Clean Cities/Electric Vehicles North Texas, and AirCheckTexas. The Air North Texas air quality awareness campaign continued to be implemented through paid advertising, social media, educational items, events and partner coordination. Paid advertising ran from approximately April 2018 through August 2018. Ads were run in English and in Spanish languages and were also placed in publications targeted to the African-American audience. Clean Air Corner, the Air North Texas blog, was distributed monthly to more than 2,700 subscribers. Ozone alerts, issued by the Texas Commission on Environmental Quality, were monitored to ensure local Air North Texas themed Ozone Action Day Alert messages were disseminated to interested parties. NCTCOG staff continued to attend outreach events throughout North Texas where staff shared information about transportation and air-quality related programs, and Air North Texas celebrated the ninth annual Clean Air Action Day on June 22, 2018. Staff worked with partners to implement the event.

For Clean Air Action Day, marketing materials and ideas were created and provided to 35 Air North Texas partners, including cities, counties, and transportation agencies. More than 1,000 North Texans made commitments to participate in Clean Air Action Day due to these efforts. Staff also coordinated with Air North Texas university partners to create and implement an air quality awareness event, Campus Clean Air Action Day, tailored for universities and college campuses. Air North Texas staff created a webpage with information and clean air action ideas that are easy for students to implement. Additionally, staff created and provided marketing ideas and materials to university partners to help get students and faculty involved. University partners hosted Campus Clean Air Action Days on their campuses throughout spring 2018. More than 50 faculty and staff participated as a part of this effort. Also, staff produced and provided air quality educational materials, such as promotional items, calendars, and advertisements to partners.

Communication the marketing services continued for other NCTCOG Transportation Department air quality and transportation related programs and campaigns, such as AirCheckTexas, Try Parking It commuter tracking program, TEXpress Lanes (managed lanes) outreach, and bicycle/pedestrian education. Some other materials developed and/or procured included graphics, ads, videos, and educational items. The AirCheckTexas campaign sponsored a television news segment and movie theatre advertising.

Work was undertaken to develop around 40 performance measures for the Transportation Department communication campaigns, and these elements are tracked and reviewed to make campaign improvements. In fact, for the Air North Texas Campaign, 20 Ozone Action Day Alerts and one PM alert were distributed to subscribers. Air North Texas website traffic was monitored indicating traffic continued to be steady with more than 22,000 users and 31,000 sessions from September 2017 to August 2018. Additionally, staff attended 26 outreach events. A staff member attended the American Association for Public Opinion Research annual conference in Denver, Colorado, which provided valuable insight into NCTCOG’s work on performance measures.
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 and/or meetings to discuss and coordinate the regional air quality awareness campaign. Staff also attended the National Air Quality Conference in Austin, Texas and presented on NCTCOG Air Quality and Transportation campaigns such as Air North Texas, Try Parking It, AirCheckTexas, and National Drive Electric Week.

Staff also collected data/statistics to further present to technical schools/community colleges on the need for specific alternative fuel vehicle trainings. Calls were held to coordinate on this effort throughout the year. In late summer 2018, Air North Texas gained a new partner, the University of Texas at Dallas. Department of Energy grant activities ended in FY2018. Final subawardee invoices were paid and close-out reports finalized and submitted.

In November 2017, several Coalition members were recognized for their notable contributions to the campaign as part of the partners’ annual reporting process. In spring and early summer 2018, Air North Texas facilitated a Clean Air Action Day Challenge for partners to host departmental competitions within their organizations to increase overall participation in Clean Air Action Day.

Congestion Mitigation and Air Quality Improvement Program funds (CSJs 0918-00-262 and 0918-00-272), Surface Transportation Block Grant Program funds (CSJ 0902-90-049), US Department of Energy funds, local funds (including in-kind contributions), and Transportation Development Credits were used to support work activities.

This project is ongoing, and work will continue in FY2019.

3.05 Public Transportation Planning and Management Studies

This work program subtask provides funding to assist local governments and transportation providers with public transportation funding, operational, 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.

Public Transportation Funding and Operations

Transportation Planning Funds

This planning activity is ongoing throughout both FY2018 and FY2019, 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 13 transportation providers in the region to process 27 Fiscal Year (FY) 2018 Programs of Projects totaling $124.6 million in Federal Transit Administration (FTA) formula program funds as well as 1.7 million in Transportation Development Credits (TDCs). A cost allocation workshop was held for 10 subrecipients to receive support with financial planning of federal funds. In addition, assistance was provided to four public transportation providers to address 19 instances of financial need and disseminate guidance on the use of federal funds.

Transportation Planning Funds were used to support work activities. This project is ongoing, and work will continue in FY2019.

**Regional Public Transportation Coordination and Planning**

*Transportation Planning Funds*

This planning activity is ongoing throughout both FY2018 and FY2019, 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. Regional coordination activities will primarily focus on the 12 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. Carrying over from FY2017, University Partnership Program (UPP) assistance will be utilized in planning for access to opportunity and community transit viability. This activity also includes technical assistance and general planning support to the transportation authorities in the region, as well as smaller transit agencies.

- An adopted update to the Access North Texas plan;
- Implemented coordination strategies identified in the Access North Texas Plan;
- Planning for the transportation needs of the disadvantaged, including low income, seniors, and individuals with disabilities, in an effort to increase opportunities and access to public transportation;
- Assistance to transit agencies including travel demand model data, ridership projections, financial modeling, planning studies, and technical assistance;
- Support for transit system improvements resulting in seamless regional connectivity;
• Facilitation of improved efficiency in the use of transit capital resources in the region, resulting from pursuing opportunities for vehicle sharing, retired vehicle or community vehicle programs;

• UPP report on access to opportunity, including an opportunity score or index for the Metropolitan Planning Area and a menu of investments or other interventions that could positively influence scores; and

• UPP report on community transit viability.

**Work Performed and Status:** In FY2018, eight projects totaling $1.6 million were approved and funded through a Call for Projects. All eight projects will implement strategies identified in the 2014 regional public transportation coordination plan for North Central Texas, Access North Texas Plan. The update of Access North Texas was completed and adopted in FY2018. The plan update involved 60 public meetings covering the North Central Texas Council of Governments (NCTCOG) 16-county region with a total of 1,486 participants and 1,081 survey responses received. This feedback was used to develop 129 strategies to address gaps in public transportation service. As requested throughout FY2018, staff provided travel demand modeling support, planning support and technical guidance to 10 partner agencies. The public transportation section in the region’s adopted metropolitan transportation plan, Mobility 2045, was completed in FY2018. The plan update included efforts of support for transit system improvements resulting in seamless regional connectivity, including update of five transit programs and 18 recommended transit projects, development of long-term transit financing with transit providers, and documentation of innovative transit planning trends and techniques. Staff conducted coordination meetings with transportation providers, local governments, members of the private sector, and academic representatives as needed. This effort included three meetings of a Mobility on Demand working group to support seamless regional connectivity, a coordination meeting, and preparation of materials for one survey with transit providers to establish Transit Asset Management regional targets. In FY2018, two transit planning projects were completed using university assistance. The University Partnership Program (UPP) project on planning for access to life-essential opportunities via quality transit service was completed with a report regarding the quality of transit service in the Metropolitan Planning Area, development of an opportunity index, and a menu of strategies that could positively influence the index. The UPP project on community transit viability was completed with a report on the feasibility of developing quantitative performance measures to assess community transit needs and the need to apply these measures to identify communities of transit needs within the NCTCOG Metropolitan Planning Area.

Transportation Planning Funds were used to support work activities. Work will continue in FY2019.

**Planning Assistance to Small Operators**

**Other Funding Sources**

This planning activity is ongoing throughout both FY2018 and FY2019, supporting initiatives that encourage short- and long-term operational planning by local transit providers. Activities include providing assistance to subgrantees as they implement identified strategies and
recommendations. Federal Transit Administration and local funds, and Transportation Development Credits will support these activities. Anticipated products include:

- Planning conducted on behalf of Urbanized Area Formula Program subgrantees based on identified needs.

**Work Performed and Status:** Staff analyzed geographical data to identify boundaries between small transit providers’ urban and rural service areas. Planning assistance and mapping was provided to five small transit providers. No other projects were identified or implemented in FY2018. An inventory of remaining funds was conducted and additional projects will be identified and implemented in FY2019.

Federal Transit Administration funds and Regional Transportation Council Local funds were used to support work activities. Work will continue in FY2019.

### 3.06 Transit 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 FY2018 and FY2019, 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. Federal Transit Administration funds, Regional Transportation Council (RTC) Local funds, subgrantee local funds, and Transportation Development Credits will support these activities. Consultant assistance may be used. Anticipated products include:

- FY2018 and FY2019 funding allocations;
- Calls for Projects;
- Grant and agreement management;
- Application of oversight and compliance initiatives;
- Funding disbursement of reimbursable project expenses to subgrantees;
- Administration of a vehicle lease 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 11 Urbanized Area Formula Program grants, two Job Access/Reverse Commute Program grants, three New Freedom Program grants, six Enhanced Mobility of Seniors and Individuals with Disabilities Program grants, four Bus and Bus Facilities grants, and one Congestion Mitigation and Air Quality Improvement Program (CMAQ) grant for a combined total of approximately $63 million in federal funds. Project development activities were initiated for six projects awarded through the 2017 Transit Call for Projects, and updated Call for Projects applications were initiated in preparation for the 2019 Transit Call for Projects. Staff managed existing transit contracts for 13 subrecipients, developed and executed agreements for an additional eight subrecipients, and closed out two transit contracts for two subrecipients. Oversight activities were conducted for nine subgrantees to address compliance issues and 21 meetings were held with subgrantees to ensure subrecipients complied with Federal Transit Administration (FTA) programmatic requirements. Administrative functions associated with all projects continued and monthly requests for reimbursements were processed totaling approximately $2,400 in federal JA/RC funds, $86,000 in federal New Freedom funds, $2,500,000 in Urbanized Area Formula funds, and $1,400,000 in Enhanced Mobility for Seniors and Individuals with Disabilities funds. Staff developed the scope of work and contract for the 2017 Cooperative Camera Procurement to purchase and install transit camera systems on behalf of four subrecipients, and initiated the development of the 2019 Cooperative Vehicle Procurement solicitation on behalf of five subrecipients. Procurement guidance and review was provided for six subgrantees. Staff submitted 60 quarterly progress reports, four charter service reports, and six National Transit Database (NTD) annual reports, as well as 72 NTD monthly ridership and safety and security reports. Staff also transferred three vehicles to two nontraditional transportation providers as part of the Regional Transit Vehicle Lease Program and coordinated with 16 transit providers to ensure understanding of Transit Asset Management (TAM) requirements. NCTCOG, as the designated recipient of Federal Transit Administration funds for the region, sponsored and developed a TAM Group Plan on behalf of transportation providers.

Federal Transit Administration funds and local funds supported these activities. Work will continue in FY2019.

**Sustainability for Transit**

*Other Funding Sources*

This implementation activity is ongoing throughout both FY2018 and FY2019, supporting coordination and implementation of transit sustainability initiatives. 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. Regional Toll Revenue funds will support these activities. Anticipated products include:
III. Task 3 – Short-range Planning and Programming, and Air Quality and Transit Operations

- 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:** Work on this initiative is anticipated in FY2019.
Task 3.0 – FUNDING SUMMARY

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<th>Funding Source</th>
<th>Amount Programmed (2-year)</th>
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¹ TxDOT does not provide authorized funding at a Sub-task level. Funding is reported at a Mega-task level.
² NCTCOG Local funding was used to cover small cost overruns.
³ Negative expenditures are due to adjustments made to FY17 expenditures.
### Task 3.0 – FUNDING SUMMARY

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1. TxDOT does not provide authorized funding at a Subtask level. Funding is reported at a Mega-task level.
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 (FAST) Act. 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 NCTCOG’s 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 roadway 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 a number of categories detailed below, which are monitored and amended as necessary to meet air quality conformity and funding requirements.

Metropolitan Transportation Plan Development and Monitoring

Transportation Planning Funds

This subtask is ongoing throughout FY2018 and FY2019. 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 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), the Fort Worth Transportation Authority (FWTA), 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 2040, to ensure that they reflect the latest planning assumptions, allowing those projects to proceed through the planning and environmental stages of project development.

Staff will coordinate efforts with transportation partners and the public during the development of Mobility 2045, which is a new planning effort that will factor in a planning horizon year of 2045, new demographics, financial assumptions, and planning requirements. 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.

Staff will develop the MTP based on data collected during monitoring and development efforts. The recommendations will include a revised analysis of the projects and programs identified in the existing fiscally constrained MTP. Additionally, an air quality conformity determination will be needed to satisfy federal regulations for the MTP. Changes to the MTP will be made in coordination with local transportation providers and partners. During development of the MTP, preliminary evaluations will occur for corridor studies requested by local governments.

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 will coordinate with TxDOT to establish regional transportation system performance measures and targets once federal guidance is released on the FAST Act. Performance measure development will occur in coordination with the INVEST Implementation project, as noted in Subtask 4.02.

Anticipated products of this subtask include:

- Documentation of the MTP;
- Executive Summary of the MTP;
- 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 and the Surface Transportation Technical Committee documenting status of MTP implementation; and
- Coordination meetings to monitor and ensure the continued progress of project recommendations.

Work Performed and Status: During FY2018, NCTCOG staff completed the development of the Metropolitan Transportation Plan (MTP), Mobility 2045. This new plan was initiated in accordance with federal rules requiring long-range MTPs to have a time horizon of at least 20 years. New demographics and air quality conformity requirements formed the basis for a new MTP to replace Mobility 2040. Staff developed new financial forecasts to include new funding sources and revised its projections.

Monitoring and tracking of policies, programs, and projects in the previous MTP, Mobility 2040, along with coordination meetings with regional transportation partners, identified several corridors requiring an update to conform with the latest recommendations from the National Environmental Policy Act and related implementation studies. Staff collaborated with partner agencies and local governments including TxDOT, FHWA, DART, FWTA, DCTA, and NTTA
to identify these project updates along with new corridor concepts, and re-examine agency priorities.

An updated project prioritization system incorporating performance measures and input from Regional Transportation Council (RTC)-guided priorities was utilized in the development of the MTP recommendations. This prioritization system used existing data including traffic counts and crash information, along with forecasted travel demand model outputs including projected volumes.

Recommendations of Mobility 2045 centered on creating a region of transportation choice and connectivity while also recognizing the reality that infrastructure projects alone cannot manage or solve transportation congestion. Therefore, the voluntary policy bundle was again incorporated into Mobility 2045, encouraging local governments and partner agencies to adopt policies to help meet the challenges of rapid growth. This voluntary policy bundle will continue to be refined, updated, and implemented in FY2019.

Numerous presentations to STTC, RTC, and regional partners and stakeholders notified them of the policies, programs, and projects contained in Mobility 2045. In addition, STTC, RTC, and regional partners and stakeholders were updated on progress towards implementing regional initiatives outlined in Mobility 2045. Additional input and recommendations for Mobility 2045 was sought at public meetings held throughout the North Texas Region during the plan development process.

During FY2018, final documentation for Mobility 2045 was published and distributed. The travel model networks, GIS shapefiles, recommendations listings, and performance reports were electronically transmitted to regional partners and stakeholders during FY2018.

Transportation Planning Funds were used to support work activities, and work will continue in FY2019.

**Regional Thoroughfare Planning Inventory (RTPI)**

*Transportation Planning Funds*

In conjunction with the continual development of the Metropolitan Transportation Plan, NCTCOG 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 FY2018 and FY2019. Anticipated products include:

- Documented inventory of thoroughfare plans that were collected and included in transportation networks; and
- GIS-based regional arterial system map.

**Work Performed and Status:** Maintenance continued on a digital library containing thoroughfare plans for cities and counties in the region. NCTCOG monitored the availability
of new or updated plans, ensuring that the library remained current. 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 FY2019.

Regionally Significant Arterials (RSA)

Transportation Planning Funds

NCTCOG staff will continue to work in cooperation with the Federal Highway Administration, the Texas Department of Transportation, and all local governments to maintain, monitor, and amend, as needed, the RSA system for the Dallas-Fort Worth Metropolitan Area. Activities will be ongoing throughout FY2018 and FY2019. Anticipated products include:

- RSA database in both ArcGIS and TransCAD environments;
- Coordination with 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 air quality conformity analysis.

Work Performed and Status: The Regionally Significant Arterial (RSA) GIS-based databases were monitored for accuracy and updated as needed. Some minor administrative modifications were made to the Mobility 2040 RSA listing in FY2018. Staff coordinated with TxDOT and local governments to determine the planning status and staging of the RSAs in the development of the Mobility 2045 plan. The process of reviewing the current RSA system, along with proposed improvements for inclusion in Mobility 2045, was completed in FY2018. A new RSA listing was developed for Mobility 2045 and the associated 2018 Transportation Air Quality Conformity. The RSA listing was posted on the NCTCOG website and copies were made available to the public and transportation partners.

Transportation Planning Funds were used to support work activities, and work will continue in FY2019.

Federal Functional Classification System (FFCS)

Transportation Planning Funds

Staff will continue to work in cooperation with federal partners and the local TxDOT 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 FY2018 and FY2019. Anticipated products include:

- 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;
• 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) roadways continued. Staff worked with local governments directly or through the Transportation Improvement Program to determine potential additions or changes to the current system. 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 FY2019.

**Strategic Highway Research Program 2 (SHRP2) Performance Target Setting Collaboration**

**Other Funding Sources**

Building on previous work performed under this grant, during FY2018 and FY2019 this project will document the collaborative efforts between the Texas Department of Transportation (TxDOT) and NCTCOG in developing and reaching consensus on performance targets for federally required performance measures. Technical and policy committees will be engaged to review performance measure data and potential target setting processes. Using the Federal Highway Administration (FHWA) developed PlanWorks resource tool, NCTCOG will document which specific elements within PlanWorks were used to foster collaboration with TxDOT. Federal Highway Administration funds will be utilized for this project. Anticipated products include:

• Report documenting the agreed-upon targets; and
• Documentation of the collaborative process undertaken.

**Work Performed:** During FY2018, staff set up an internal subcommittee comprising representatives from NCTCOG program areas responsible for developing performance targets. A timeline for performance target development was agreed upon, and several subcommittee meetings throughout the target development process were held. Each member was responsible for engaging appropriate representatives from TxDOT regarding target setting and reported progress at subcommittee meetings. Subcommittee members gave numerous presentations on performance measures and performance measure targets to the NCTCOG Technical and Policy Committees and conducted a workshop on performance measures in August of 2018 for Technical Committee members. Targets that were required to be consistent between TxDOT and NCTCOG received special attention and several conversations were had between staff and TxDOT regarding the approval and reporting processes.
Federal Highway Administration Strategic Highway Research Program 2 Implementation Assistance funds (CSJ 0918-00-264) were used to support work activities.

Work is ongoing and will continue in FY2019.

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 is ongoing throughout FY2018 and FY2019 and will develop a framework to consider environmental, community, and economic goals early in the transportation planning stage, then carry them through the corridor and project development phases into construction and mitigation efforts. Anticipated products include:

- Metropolitan Transportation Plan environmental scoring and mitigation documentation;
- 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 associated with Mobility 2045 were completed providing a new method to identify potential impacts to natural resources by potential projects listed in Mobility 2045. Mobility 2045 was further enhanced with the Regional Ecosystem Framework to help score potential impacts to natural resources resulting from potential projects. As part of the Mobility 2045 process, NCTCOG met with transportation partners and utilized this time to coordinate PEL-related items and project tracking including National Environmental Policy Act (NEPA) status, traffic counts, and origin and destination studies.

Transportation Planning Funds were used to support work activities. This project is ongoing, and work will continue in FY2019.
Army Corps of Engineers Section 404 and 408 Permitting

Other Funding Sources

In FY2018 and FY2019, 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 provide assistance of 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 quarterly reports; and
- Clean Water Act Section 404 and 408 finalized permit decisions.

Work Performed and Status: Section 214 has resulted in the expedient of 13 permits, including such projects as the North Tarrant Express Segment 4, IH 35E Highland Village Hike and Bike Trail, TexRail, and FM 2514. A total of 176 finalized actions were completed in FY2018. The program has added an additional eight projects to expedite permits including the Dallas Water Gardens, FM 148, SH 190, and Frontier Parkway.

Regional Toll Revenue funds (CSJs 0918-00-229 and 0918-00-268) were used to support work activities. This project is ongoing, and work will continue in FY2019.

Environmental Stewardship Program

Other Funding Sources

The Environmental Stewardship Program will fund engineering studies for constructed wetlands and will fund a mobile-friendly Tree Tracker website. 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 FY2018 and FY2019. Anticipated products include:

- Agreements with external partners;
- Webinar for mitigation bankers;
- Outreach with stakeholders;
- Meeting summaries and presentations; and
• Mobile-friendly Tree Tracker website.

**Work Performed and Status:** A contract was finalized for consultant services, and work began on the engineering study for a constructed wetland. A contract was also executed for the purchase of trees that will be planted and entered into a mobile-friendly Tree Tracker website. An event was planned and hosted to educate private non-profit and business stakeholders about mitigation needs in the region. Staff also conducted a one-hour webinar for mitigation bankers and consultants to educate them about the potential demand for mitigation credits generated by long-range transportation plans. Approximately 45 bankers, consultants, and transportation partners attended the webinar. Outreach was conducted with stakeholders in the Denton Greenbelt; more than 30 stakeholders participated during three meetings, which were co-funded by the Federal Highway Administration's Infrastructure Voluntary Evaluation Sustainability Tool (INVEST) project. Meeting summaries and presentations were developed for the stakeholder meetings.

Regional Toll Revenue funds (CSJs 0902-00-193 and 0918-00-198) were used to support work activities, and work will continue in FY2019.

**Quantifying Benefits of Environmental Stewardship Efforts**

*Transportation Planning Funds*

NCTCOG Transportation staff will work with NCTCOG Environment and Development staff and a consultant in FY2018 to develop a decision-making tool to plan for potential mitigation activities and locations. These mitigation activities and locations may restore and maintain environmental functions that could be affected by recommendations made during the metropolitan transportation planning process. The tool will quantify the environmental and cost benefits, including economic return-on-investment, of potential mitigation associated with transportation projects and programs. The tool also will help plan which mitigation activities are appropriate for the scope and scale of future transportation projects, including transportation-related stormwater projects. Finally, the tool will enable those who make decisions about transportation investments or policy to make better planning decisions about potential mitigation activities and locations that may protect and enhance the environment. Anticipated products include:

- Description of mitigation needs generated by transportation projects, including transportation-related stormwater projects in the region;
- Outreach with stakeholders, community leaders, and members of the public;
- Meeting summaries and presentations;
- Decision-making tool; and
- Final report.
**IV. Task 4 – The Metropolitan Transportation Plan**

**Work Performed and Status:** Mitigation needs, including stormwater-related needs, were identified for transportation projects in the region. A consultant was procured to gather data and participate in stakeholder interviews. Stakeholders were interviewed and meeting summaries were under development for the project final report. Early stages of the decision-making tool were created. A final report is being developed.

Transportation Planning Funds were used to support work activities, and work will continue in FY2019.

**INVEST Evaluation of Sustainability in Denton Greenbelt Corridor**

**Other Funding Sources**

During FY2018, the 2011 Regional Outer Loop Corridor Feasibility Study will be updated to apply sustainability best practices identified by the Federal Highway Administration’s Infrastructure Voluntary Evaluation Sustainability Tool (INVEST). The update will focus on the Denton County and western Collin County portion of the formerly proposed Regional Outer Loop. Environmental data will be updated for the new feasibility study. Stakeholder and community outreach will take place to encourage sustainability and environmental stewardship in the portion of the corridor that travels through the Denton Greenbelt area. Federal Highway Administration and Regional Transportation Council Local funds will support work activities. Anticipated products include:

- Stakeholder and community outreach;
- Meeting summaries and presentations;
- Updates to environmental maps and charts;
- Updated feasibility study covering the Denton County and western Collin County portion of the proposed Regional Outer Loop; and
- INVEST final report.

**Work Performed and Status:** Three stakeholder meetings were held and attended by a total of more than 30 stakeholders. Presentations and meeting summaries were developed for each of these meetings, which were co-funded by the Environmental Stewardship Program. One public outreach event was attended where staff spoke to 23 community members. Environmental maps and charts were updated for the feasibility study, and a traffic analysis was also completed. The Infrastructure Voluntary Evaluation Sustainability Tool (INVEST) final report is under development and will continue in FY2019.

Federal Highway Administration INVEST Implementation Round 3 Program funds (CSJ 0918-00-274) and Regional Transportation Council Local funds were used to support work activities. Work will continue in FY2019.
Blue-Green-Grey Silo-Busting Initiatives

Other Funding Sources

In many cases, traditional transportation planning has resulted in “silos” that cause projects to be disjointed due to lack of communication or coordination amongst planners or project champions in various disciplines. To combat this challenge, NCTCOG solicited project ideas through a “Blue-Green-Grey” initiative to identify “silo-busting” projects that focus on three elements – blue (water), green (environment), and grey (transportation infrastructure). Selected projects are expected 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: the 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. This initiative is supported through RTC Local funds. Work will be completed during FY2018 and into FY2019. Anticipated products include:

• Installation of a bio-filtration system as a part of the City of Southlake Burney Lane repaving project;
• Completion of a Green Bus Stop Guidelines document for the City of Farmers Branch, along with a study of, and design for, ten existing bus stops;
• Completion of a community garden in a vacant parcel near the DART Hatcher Station; and
• Final reports/case studies summarizing impacts, lessons learned, and any future plans.

Work Performed and Status: This program has resulted in two rounds of funded projects. The contracts for the cities of Southlake and Farmers Branch have been executed. Work has initiated for Farmers Branch. Efforts to finalize an agreement with DART are continuing.

Round two of Blue-Green-Grey had an open round of proposals and a committee selected three projects to proceed. The three identified projects are from the City of Watauga and two private/non-profit companies. These projects are proceeding through scope development, with work to begin in FY2019.

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

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. Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations (1994), stated that, “each federal agency shall make achieving
environmental justice (EJ) part of its mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority populations and low-income populations.” As an MPO, NCTCOG strives to ensure that nondiscrimination and the principles of environmental justice are incorporated in its transportation plans, programs, policies, and activities.

To ensure nondiscrimination and environmental justice in its transportation planning activities, staff will work to enhance Title VI, Environmental Justice, and Limited English Proficiency considerations and inclusion in the planning process and ensure compliance with all federally and state-mandated requirements.

This Work Program subtask supports the following continued initiatives:

**Compliance with Federal and State Laws and Regulations**

*Transportation Planning Funds*

This element is ongoing throughout FY2018 and FY2019. Staff will hold meetings, workshops, and forums, as well as advise other department staff regarding appropriate ways to ensure consistency with applicable laws and regulations within their program areas. Anticipated products include:

- Redesigned promotional brochure in English and Spanish; and
- Compliance audit reports.

**Work Performed and Status:** A promotional brochure was redesigned and printed in English and Spanish. The brochure was distributed at 10 public outreach events. Data updates were made to the Language Assistance Plan. No compliance audit reports were required in FY2018. A presentation on environmental justice was included during the environmental coordination meeting for Mobility 2045; 15 representatives from local government, resource, and regulatory agencies participated in the meeting.

Transportation Planning Funds were used to support work activities, and work will continue in FY2019.

**Collection and Analysis of Data**

*Transportation Planning Funds*

This element is ongoing throughout FY2018 and FY2019. Work will include the collection and analysis of available demographic data, as well as research and review of similar processes across the country for applicability. In addition, University Partnership Program assistance initiated in FY2017 will identify transportation gaps and the effect they have on the quality of life among low-income (i.e., individuals living in households at or below the Department of Health and Human Services poverty line), transportation-disadvantaged older adults (i.e., individuals age 65 and above) in a low-density urban environment. Anticipated products include:
• Biennial report documenting NCTCOG programs or projects that incorporate environmental justice considerations;
• Presentations to department staff on regional demographic trends;
• Metropolitan Transportation Plan Environmental Justice analysis; and
• UPP report assessing mobility gaps faced by low-income, transportation-disadvantaged older adults living in a low-density urban environment.

**Work Performed and Status:** The FY2018-2019 Title VI/Nondiscrimination Annual Work Plan and Accomplishment Report was developed, in lieu of a biennial report, to document NCTCOG programs or projects that effectively implement the Title VI/Nondiscrimination Program. This report was provided to TxDOT and FHWA. A presentation was made to department staff on regional demographic trends. An environmental justice analysis was conducted on roadway and transit projects in Mobility 2045. A University Partnership Program (UPP) report was completed and reviewed; the report assessed mobility gaps faced by low-income, transportation-disadvantaged older adults living in a low-density urban environment.

Transportation Planning Funds were used to support work activities, and work will continue in FY2019.

**Public Outreach and Title VI Resource**

**Transportation Planning Funds**

This element is ongoing throughout FY2018 and FY2019. Work will include researching and integrating public engagement efforts to ensure protected populations are involved in the transportation planning process. Staff will hold meetings with program area environmental justice liaisons and review staff activities to advise regarding appropriate ways to incorporate Title VI and environmental justice into their program areas. Staff will also continue to serve as a Title VI/environmental justice resource for transportation committee members, local government members, and subrecipients. Anticipated products include:

• Title VI/environmental justice website updates;
• Presentations and documents necessary to support Title VI and environmental justice training activities; and
• Technical support for partners.

**Work Performed and Status:** NCTCOG’s Title VI/Environmental Justice website was updated to include the new promotional brochure. Two presentations were given to train environmental justice liaisons on topics including communicating with individuals with limited English proficiency. One presentation was provided, and a dialogue was held with program areas to educate staff about applicable equity issues. A working group met three times to discuss how program areas could address mobility gaps faced by environmental justice populations. Two meetings were held to discuss Title VI legal and transit requirements. Environmental Justice Index data was provided to partner agencies. A list of Title VI training opportunities was provided to a local government.
Transportation Planning Funds were used to support work activities, and work will continue in FY2019.

4.04 Performance-Based Planning and Coordination

Transportation Planning Funds

Recent federal and state regulations call for increased emphasis on 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 will provide for the coordination of this commitment and ensure that 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 products include:

- Documentation and presentation materials for stakeholder meetings;
- Maps and databases;
- Documentation of analysis methodologies; and
- Documentation of decision-making processes.

Work Performed and Status: NCTCOG reviewed federal performance measures guidance and rulemakings as part of Mobility 2045. Staff created a performance measures working group and produced a schedule to develop measures and targets for the region. Existing performance measures and forecast targets were reviewed by the working group during numerous coordination meetings with regional partners in FY2018.

Data necessary to calculate all federally required measures was summarized and documented. NCTCOG included a section on performance measures in Mobility 2045 including details on its analysis methodology with targets set for Safety and Transit Asset Management. Future targets for Infrastructure Condition and System Performance will be set and adopted by the Regional Transportation Council (RTC) in FY2019.

Transportation Planning Funds were used to support work activities.

Work is ongoing and will continue in FY2019.
### TASK 4.0 – FUNDING SUMMARY

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1 TxDOT does not provide authorized funding at a Sub-task level. Funding is reported at a Mega-task level.

### TASK 4.0 - TPF FUNDING SUMMARY FY2018

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1 TxDOT does not provide authorized funding at a Subtask level. Funding is reported at a Mega-task level.
Providing support to transportation providers is critical in the planning, operation, and maintenance of a comprehensive regional transportation system. NCTCOG 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 emergency preparedness, transportation 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 FY2018 and FY2019, 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 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), the Fort Worth Transportation Authority (FWTA), the North Texas Tollway Authority (NTTA), and the Texas Department of Transportation (TxDOT).
Where transportation-ended 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 pavement design and turning lane storage, 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;
- Corridor-level mobile source air toxics analyses;
- 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/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

Work Performed and Status: NCTCOG participated in and contributed to TxDOT-led roadway corridor studies and environmental document completion by attending regular meetings, reviewing project 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 development of Mobility 2045.

To assist in air quality planning efforts, NCTCOG staff developed Mobile Source Air Toxics (MSAT) data. Staff also developed corridor-level quantified Environmental Justice (EJ) data for all roadways seeking Federal Highway Administration (FHWA) approval. The quantified EJ data were developed to determine and document if proposed transportation corridor
improvements impair accessibility or cause disproportionate burdens to areas of the region with higher-than-average percentages of low-income, minority, or other protected populations.

Individual corridors involving significant staff time and resources during FY2018 included:

**IH 35/IH 35W - Denton County** – For the section of IH 35W within Denton County, NCTCOG staff worked with TxDOT Fort Worth during the ongoing development of Mobility 2045 to determine consistency related to ultimate schematics. Work on this corridor will continue in FY2019 as the project continues to develop.

**IH 35W - Tarrant/Johnson County** – NCTCOG staff attended a project initiation meeting with TxDOT Fort Worth in anticipation of development within the corridor. Traffic model data will be provided in the form of an Origin/Destination analysis as work on this corridor will continue in FY2019.

**IH 30 - Tarrant/Dallas County** – During FY2018, TxDOT Fort Worth proceeded with the re-evaluation of the IH 30 corridor from Cooper Street to SH 161. Staff attended corridor stakeholder meetings and was available to respond to inquiries, including those related to Mobility 2045. Work on this corridor will continue in FY2019 as this study will require continued coordination and technical support.

**SH 121 - Tarrant County** – During development of Mobility 2045 to ensure consistency with the plan, staff coordinated and held meetings with TxDOT Fort Worth as they developed the interim project for SH 121 in Tarrant County. Work is expected to continue in FY 2019 as the ultimate vision for this corridor will continue to be developed.

**IH 820/IH 20/US 287 Tarrant County (Southeast Connector)** – Staff participated in monthly conference calls, technical workgroup meetings, and a public meeting. These meetings provided information such as potential alternatives, traffic analysis, and corridor development schedule. Several alternatives were modeled and evaluated, and an origin-destination technical analysis was conducted. Work will continue into FY 2019 as this study will need continued coordination and technical support.

**SH 170 - NCTCOG staff** continued to provide assistance to TxDOT Fort Worth to determine the ultimate project scope for the SH 170 corridor for consistency with Mobility 2045. Work on this corridor is expected to continue in FY2019.

**SH 161/SH 360 Toll Connector** - Work on this corridor is pending collaboration between NCTCOG and TxDOT Fort Worth regarding the timeline and project scope. Work is expected to begin in FY2019.

**SH 199** – NCTCOG staff provided assistance to TxDOT and local governments in the development of SH 199 improvements in Lake Worth including the SH 199/IH 20 Interchange and support for the ongoing TxDOT feasibility study for SH 199 from IH 820 to Downtown Fort Worth.

Transportation Planning Funds were utilized to support work activities.
Other Funding Sources

The following projects will be completed using Texas Department of Transportation funds:

- US 75 – Dallas/Collin County
- US 80/IH 30 (Dallas/Rockwall/Kaufman/Hunt Counties)
- US 380 – Collin County
- IH 635 East
- City Map (Downtown Dallas Freeway Coordination Study)
- SH 190 East Branch

Work Performed and Status: NCTCOG continued to support TxDOT Dallas on transportation studies by providing travel forecast data to analyze potential improvement alternatives' impacts. Data provided included roadway networks, daily traffic volumes, and performance reports. Staff participated in project workgroup meetings, as well as conference calls. In FY2018, staff assisted TxDOT Dallas on the following corridors: US 380 in Collin County and IH 635 East in Dallas County.

Texas Department of Transportation funds supported these work activities.

Work will continue into FY2019 as staff expects to continue to support TxDOT Dallas in these studies.

North Texas Tollway Authority Feasibility Studies

Other Funding Sources

During both FY2018 and FY2019, NCTCOG will assist 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 inter-local 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 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:

- DNT Extension (US 380 to Grayson County)
• SH 190 East Branch (IH 30 to IH 20)
• 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:** NCTCOG assisted NTTA by providing updated travel model data necessary for traffic and revenue analyses and corridor studies. Model data deliverables included roadway networks, demographics, and person trip tables. In FY2018, NCTCOG assisted NTTA on the President George Bush Turnpike, Sam Rayburn 4th Lane Widening Project and the Sam Rayburn Frontage Road Project.

North Texas Tollway Authority funds supported work activities.

Staff may receive additional model-related requests from NTTA and its consultants in FY2019.

**Strategic Corridor Initiatives**

**Other Funding Sources**

Under this initiative, 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 reduce cost escalation due to inflation, alleviate congestion faster, and assist in meeting air quality goals. 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 FY2018 and FY2019, 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. Surface Transportation Block Grant Program funds, Regional Toll Revenue funds, Texas Department of Transportation 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:
• IH 35E - Dallas County
• IH 820/IH 20/US 287 – Tarrant County (Southeast Connector)
• IH 820/SH 121
• SH 183
• IH 635 East
• SH 199
• IH 30 – Tarrant County
• US 75 - Dallas/Collin County
• SH 190 East Branch
• Loop 9
• SH 161
• Denton County Outer Loop/Greenbelt Parkway

**Work Performed and Status:** NCTCOG staff supported transportation agencies as needed for projects such as SH 199, SH 190 East Branch, US 75, IH 35E Lower Stemmons, IH 30/SH 360 interchange, IH 635 East, Loop 9, SH 183, and the Denton County Outer Loop/Greenbelt Parkway. This support included the review of project documents (environmental documents, technical memos, and schematics), development of conceptual designs, and participation in meetings and conference calls to ensure projects met schedules.

Surface Transportation Block Grant Program funds (CSJs 0171-05-095, 0902-48-887, and 0902-48-888), Regional Toll Revenue funds (CSJs 0902-00-161 and 0918-00-197), and Transportation Development Credits supported work efforts.

Work on SH 199 was completed in FY2018, and work on the other projects will continue in FY2019.

**Collin County Strategic Transportation Initiative**

**Other Funding Sources**

Carrying over into FY2018 and FY2019, work efforts on this initiative include identifying recommended changes to the Hunt County Transportation Plan regarding access to Collin County; identifying potential improvements to the IH 30, US 380, and SH 66 corridors; and developing a multimodal Collin County plan with emphasis on north-south capacity and east-west connections to Hunt County. Surface Transportation Block Grant Program funds and Transportation Development Credits will be utilized to support this effort. 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; and
• Draft technical memorandum detailing methodology and results of analysis.

**Work Performed and Status:** Extensive work was done on the Collin County Strategic Transportation Initiative in FY2018. Staff presented project results to city councils, technical staff, and the public in the cities of Wylie, Garland, Rockwall, Lavon, Murphy, Lewisville, Farmersville, Rowlett and Lucas. Coordination meetings were also held with the US Army Corps of Engineers and Collin County staff.

Technical support for this effort included multiple alternative model runs for north/south arterial and freeway options, as well as east/west arterial and freeway options. Demographic analyses, performance reporting tables, quality control efforts, magnitude of volume change maps, and presentation slides were all additional technical support efforts. Additional analysis, meetings, and public outreach efforts are expected for the fall of 2018 as work continues on final recommendations.

Surface Transportation Block Grant Program funds (CSJ 0918-24-237) and Transportation Development Credits supported work efforts.

This project will carry over to FY2019.

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**Harry Hines Boulevard Corridor Study from Loop 12 to Downtown Dallas**

**Transportation Planning Funds**

Under this FY2018 and FY2019 initiative, NCTCOG staff will develop conceptual alternatives to test the travel demand for the Harry Hines corridor. The purpose of this initiative is to evaluate potential solutions to provide multi-modal transportation and technology options in the corridor. Anticipated products include:

• Conceptual alternatives and alignments;
• Travel demand modeling for study corridor alternatives and alignment analyses; and
• Technical memorandum documenting the findings for inclusion in future studies.

**Work Performed and Status:** NCTCOG staff attended Phase 1 project meetings with the City of Dallas staff to receive their vision for this phase of the Harry Hines corridor project. Staff also met internally to investigate travel patterns, land use, and travel lane information along the Harry Hines corridor; from these meetings preliminary modeling has begun. The work from Phase 1 will feed into the larger Harry Hines corridor plan noted below.

Transportation Planning Funds supported work activities.

Work will continue in FY2019.

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**Other Funding Sources**
In FY2019, NCTCOG will develop a 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 multi-modal 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 corridor plan for Harry Hines with an emphasis on sustainable development and providing multi-modal transportation and technology options.

**Work Performed and Status:** Work on this phase of the project (Phase 2) will begin in FY2019 following completion of Phase 1.

**IH 35E (IH 635 to US 380)**

**Other Funding Sources**

In addition to support activities on this corridor as noted above, during FY2018 and FY2019 staff will also provide support to TxDOT and local partners to help facilitate environmental, design, and funding reviews and approvals with appropriate agencies, as well as fulfillment of Senate Bill 1420 objectives and procurement requirements. Staff will work with TxDOT and the project contractor(s) to monitor, evaluate, and modify ongoing corridor traffic management programs or products during construction, if warranted. Regional Toll Revenue funds will be utilized to support this effort and anticipated products include:

- Construction progress reports;
- Presentations and briefings on access management;
- Detour routing; and
- Other construction-related design activities.

**Work Performed and Status:** Overall work on the 35Express Project (Phase 1) concluded at the end of 2017; however, staff worked with the TxDOT Dallas District to add extra near-term breakout projects for the IH 35E interchanges at Brinker Road and State School/Mayhill Road in Denton. Continued monitoring of ongoing traffic management programs and post-completion operational issues occurred throughout FY 2018. During the Mobility 2045 Plan development process, multiple meetings were conducted with TxDOT to identify specific conceptual ideas/strategies for the corridor’s second major construction phase, but formal environmental assessment/schematic development efforts will not get underway until a later date. Finally, staff ensured the continued inclusion of Phase 2 funding in the 2019 Unified Transportation Program/House Bill 20 Ten-Year Plan.

Staff activities were supported by Regional Toll Revenue funds (CSJ 0196-02-119), and work will continue in FY 2019.
High-Speed Passenger Technology

Other Funding Sources

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 Surface Transportation Block Grant Program funds, Regional Toll Revenue funds, local funds, and Transportation Development Credits. 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. Consultant assistance may be used for this initiative. RTC Local funds will be used to support project-related travel expenses associated with the Dallas to Fort Worth corridor.

The following products will be delivered during FY2018 and FY2019 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: During FY2018 NCTCOG staff initiated communications with other Metropolitan Planning Organizations between Dallas-Fort Worth and Laredo to identify a strategy to move forward with implementing high-speed passenger service. A request for proposals for an environmental study was developed, with procurement of consultant services anticipated in early FY2019. NCTCOG staff also completed an analysis of alignment alternatives between Dallas and Fort Worth. This analysis included coordination with transportation partners and an investigation of impacts associated with various alignment options. Work was performed to analyze land-use and transportation connectivity options for the proposed Dallas high-speed rail station. Work activities also included coordination with the Cities of Arlington, Dallas, Fort Worth, and Grand Prairie to form a Local Government Corporation for high-speed passenger service to, from, and within the Dallas-Fort Worth region. Travel to observe potential Hyperloop technology for use in the Dallas to Fort Worth corridor occurred.

Surface Transportation Block Grant Program funds (CSJ 0902-48-887), Regional Toll Revenue funds (CSJs 0902-00-194 and 0918-00-197), and Transportation Development Credits were utilized to support work activities. Regional Transportation Council Local funds were utilized to support travel expenses.

Work is ongoing and will continue in FY2019.
High-Speed Passenger Technology Core Express Service

Other Funding Sources

The Regional Transportation Council has secured Surface Transportation Block Grant Program funding, to be matched with Transportation Development Credits, to support the development of high-speed passenger technology between Dallas and Fort Worth. These dollars and credits will be utilized by NCTCOG to lead the initiative to complete the Environmental Impact Statement on the Core Express Service project. Anticipated products include:

- Final Environmental Impact Statement; and
- Record of Decision.

Work Performed and Status: NCTCOG staff initiated the development of draft procurement documents for a Dallas-Fort Worth Core Express Service Environmental Impact Statement study.

Surface Transportation Block Grant Program funds (CSJ 0902-48-887) and Transportation Development Credits supported work activities.

Work is ongoing and will continue in FY2019.

Regional People Mover 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 FY2018 and FY2019, NCTCOG staff, working in collaboration with the many project opportunity owners, stakeholders, and local government and transportation authority partners, will identify the merits of alternative people mover technologies available; assess each regional project opportunity for unique needs, including similarities and synergies; and evaluate the potential for cost efficiencies and savings provided by a single people mover technology and provider. 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 people mover technologies; and
- Technical memorandums evaluating the needs of the various regional people mover project opportunities.

Work Performed and Status: Work efforts during FY2018 focused on coordination with the selected consultant team to conduct a feasibility study for an Automated Transportation System (ATS) in the Midtown area of north Dallas. In partnership with NCTCOG, the consultant team developed a ridership model to forecast demand for ATS within the Dallas Midtown area. This group is working with regional stakeholders to determine the viability of a
circulator system with regional connections from the Midtown area to nearby DART rail lines and recommend an appropriate technology and implementation schedule.

Work on this task was funded by the Surface Transportation Block Grant Program (CSJ 0902-90-008) and Transportation Development Credits.

Work on this project will continue in FY2019.

Dallas Streetcar System

Other Funding Sources

Working in partnership with the City of Dallas and DART, NCTCOG will provide funding and technical assistance, including planning, engineering, and design efforts, in coordination with local, regional, state, and federal agencies for Dallas Streetcar starter system extensions. Assistance may also include efforts as needed leading to project implementation and Federal Transit Administration requirements for Satisfactory Continuing Control of original TIGER project. Consultant assistance may be utilized for this initiative. Funding sources include Surface Transportation Block Grant Program and Regional Toll Revenue funds, and Transportation Development Credits. Anticipated products include:

- Grant applications;
- Ridership estimates;
- Environmental analysis; and
- Technical reports.

Work Performed and Status: Working in collaboration with the City of Dallas, Dallas Area Rapid Transit (DART), and federal partners, NCTCOG staff continued to fulfill Federal Transit Administration (FTA) Grantee obligations for this project during FY2018. Work efforts included evaluation and processing of local fund reallocations for continued operation purposes, and legal document preparation associated with upcoming transfer of ownership and Satisfactory Continuing Control activities. NCTCOG continues to participate in planning efforts related to the Phase Three extension (north) to the Omni Dallas Convention Center Hotel, as well as the proposed Central Link extension to connect with the McKinney Avenue Trolley/Olive Street Urban Circulator extension.

Staff activities were supported by Regional Toll Revenue (RTR) funds (CSJ 0918-00-197), and work will continue in FY 2019 until official FTA closeout of the TIGER Grant and transfer of ownership efforts are concluded and approved.

M-Line Extension Feasibility Study

Other Funding Sources

During FY2018 and FY2019 and in coordination with the McKinney Avenue Transit Authority, the City of Dallas, Dallas Area Rapid Transit (DART), and other stakeholders in the area, NCTCOG
will conduct a feasibility study for an extension of the M-Line Trolley to connect Uptown with the Knox-Henderson neighborhood. The feasibility study will recommend alignments and stops; evaluate the cost of implementation, operation and maintenance; identify potential funding sources; and develop a preliminary implementation schedule. Consultant assistance may be used for this initiative. Funding source is Surface Transportation Block Grant Program funds and Transportation Development Credits. Anticipated products include:

- Ridership estimates;
- Preliminary environmental analysis; and
- Technical reports.

**Work Performed and Status:** The funding agreement with the Texas Department of Transportation has been executed and work on this initiative is anticipated to begin in FY2019, pending Stakeholder schedule.

Regional Passenger Rail Innovative Finance Initiative

*Other Funding Sources*

During FY2018 and FY2019, NCTCOG staff will further investigate innovative funding opportunities to generate revenue for capital and operating cost needs for regional passenger rail systems. NCTCOG staff will coordinate efforts with DART, DCTA, and FWTA, as well as representatives from local government, state and federal agencies; property owners and developers to investigate the possible funding methods. 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 include, but are not limited to, the Cotton Belt and the Frisco passenger rail corridors. 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 project implementation, and financial and governance structure options; and
- Mapping of potential alignment alternatives.

**Work Performed and Status:** An internal peer review of the Frisco Passenger Rail corridor was initiated in FY2018. Work continued on the development of a detailed work plan. Staff coordinated comments to the Draft Environmental Impact Statement (DEIS) for the Cotton Belt Regional Rail corridor developed by the project sponsor.

Work efforts were supported by Regional Toll Revenue funds (CSJs 0918-00-197 and 0918-45-877).

This activity is ongoing and will continue in FY2019.
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 county-wide transportation plan.

Comprehensive Transportation Planning Studies and Technical Support

Transportation Planning Funds

This subtask is ongoing throughout FY2018 and FY2019, 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 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, GIS shape files, and performance reports as model outputs;
• Project updates on 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 responding 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.

• Wise County Transportation Plan

Nearing completion, this study focuses on producing a countywide vision and roadway recommendations beyond the year 2040. Tasks include issue identification, data collection, technical analysis, and presentations of results and recommendations to the project policy committee. It is anticipated that a final report will be provided to the County in FY2018.

• Northwest 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 regards to connectivity and capacity needs.

Work Performed and Status: The evaluation of multimodal transportation needs at the subarea or corridor level supports local governments and responds to those needs. The pre-NEPA planning work performed and project status during the reporting period of FY2018 is as follows:

Hood County Transportation Plan (including Chisholm Trail Parkway Extension) - Future work on this project is pending collaboration between Hood County and NCTCOG regarding the timeline and scope of the project. This project will carry over to FY2019.

Wise County Transportation Plan - The final report for this project was submitted to the Wise County Commissioners’ Court for review and comment in January 2018, with modifications made to the document during the spring of 2018. The modified report was submitted to the
policy committee in August 2018. Pending any new comments on the document, this project is completed. In the event the county requests additional assistance, this project will carry over to FY2019.

Northwest Tarrant County Transportation Subarea Study - Preliminary coordination meetings were held with Tarrant County staff in the spring and summer of 2018. Priority corridors of study are currently being identified by Tarrant County. This project will carry over to FY2019. Transportation Planning Funds were utilized to support work activities.

Category 2

- City of Cleburne Thoroughfare Plan
- Dallas County Major Capital Improvement Program (MCIP)
- City of Dallas Comprehensive Thoroughfare Plan Update
- Tarrant County (Mansfield/Kennedale) Business 287/Kennedale Pkwy. Corridor Study
- Dallas County Thoroughfare Plan Update
- Fort Worth Subarea Transportation Plan
- Western Tarrant County Transportation Initiative
- Hunt County Thoroughfare Plan
- East-West Connector for Dallas Fort Worth International Airport
- City of Grapevine Thoroughfare Plan Update
- City of Balch Springs Master Thoroughfare Plan Update
- City of Dallas Bishop Arts Transportation Plan
- City of Wylie Collin College Regional Transportation Study
- City of Lake Worth Thoroughfare Planning Assistance
- City of White Settlement Thoroughfare Planning Assistance

Work Performed and Status: The evaluation of multimodal transportation needs at the subarea or corridor level supports local governments and responds to those needs. The pre-NEPA planning work performed and project status during the reporting period of FY2018 is as follows:

City of Cleburne Thoroughfare Plan – Work on this project is pending collaboration between the City of Cleburne and NCTCOG regarding the timeline and scope of the project. This project will carry over to FY2019.

Dallas County Major Capital Improvement Program (MCIP) – Through the spring and summer of 2018, NCTCOG staff attended a series of project workshops coordinated by Dallas County. Technical work on the MCIP is scheduled to begin in early 2019. This project will carry over to FY2019.
City of Dallas Comprehensive Thoroughfare Plan Update – Work on 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 FY2019.

Tarrant County (Mansfield/Kennedale) Business 287/Kennedale Parkway Corridor Study – Work on this project is pending collaboration between the City of Fort Worth and NCTCOG regarding the timeline and scope of the project. This project will carry over to FY2019.

Dallas County Thoroughfare Plan Update – Through the spring and summer of 2018, NCTCOG staff attended a series of project workshops coordinated by Dallas County. The project team is prepared to provide data and model runs should the county need additional assistance. This project will carry over to FY2019, with completion anticipated in early 2019.

Fort Worth Subarea Transportation Plan – Work on this project is pending collaboration between the City of Fort Worth and NCTCOG regarding the timeline and scope of the project. This project will carry over to FY2019.

Western Tarrant County Transportation Initiative – Meetings were held with the Tarrant County planning team in the fall of 2017. Additional model runs and data analysis were requested and completed throughout the winter and spring of 2018. Results and recommendations, including roadway volumes, performance report data, level-of-service, and roadway networks and GIS shapefiles, were provided to the county project team in the early summer of 2018. Some additional modeling efforts from NCTCOG may be needed in FY2019. This project will carry over to FY2019.

Hunt County Thoroughfare Plan – Work on this project is pending collaboration between Hunt County and NCTCOG regarding the timeline and scope of the project. This project will carry over to FY2019.

East-West Connector for Dallas Fort Worth International Airport – During late fall of 2017, staff worked with TxDOT Fort Worth and DFW Airport on coordination of project activities for the corridor. Items discussed were traffic volumes, MSAT analysis data and the project timeline. This project will carry over into FY2019.

City of Grapevine Thoroughfare Plan Update - Preliminary project meetings were held with city staff in October 2017 and February 2018. Additional work on this project is pending collaboration between the City of Grapevine and NCTCOG regarding the timeline and scope of the project. This project will carry over to FY2019.

City of Balch Springs Master Thoroughfare Plan Update - Work on this project is pending collaboration between the City of Balch Springs and NCTCOG regarding the timeline and scope of the project. This project will carry over to FY2019.

City of Dallas Bishop Arts Transportation Plan - Work on 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 FY2019.
City of Wylie Collin College Regional Transportation Study - Coordination meetings were held between NCTCOG staff and City of Wylie staff to discuss deliverables that could be provided to assist in development of the Collin College campus. Work on this project will continue into FY2019.

City of Lake Worth Thoroughfare Planning Assistance - Work on 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 FY2019.

City of White Settlement Thoroughfare Planning Assistance - Work on 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 FY2019.

Transportation Planning Funds were utilized to support work activities.

Category 3

- Technical Assistance

**Work Performed and Status:** Staff responded to multiple requests for information and assistance in FY2018. 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.
<table>
<thead>
<tr>
<th>Requesting Agency</th>
<th>Project Location</th>
<th>Technical Assistance Provided</th>
</tr>
</thead>
<tbody>
<tr>
<td>City of Allen</td>
<td>City of Allen</td>
<td>Roadway Capacity and Level of Service Information</td>
</tr>
<tr>
<td>City of Carrollton</td>
<td>City of Carrollton</td>
<td>Roadway Capacities</td>
</tr>
<tr>
<td>City of Cedar Hill</td>
<td>US 67 at Lake Ridge Parkway, City of Cedar Hill</td>
<td>Projected Volumes</td>
</tr>
<tr>
<td>City of Coppell</td>
<td>City of Coppell</td>
<td>Projected Volumes, Roadway Networks</td>
</tr>
<tr>
<td>City of Dallas</td>
<td>City of Dallas</td>
<td>Demographics</td>
</tr>
<tr>
<td>City of Dallas</td>
<td>Ervay Street, St. Paul Street, City of Dallas</td>
<td>Projected Volumes</td>
</tr>
<tr>
<td>City of Fort Worth</td>
<td>Meandering Road, City of Fort Worth</td>
<td>Projected Volumes</td>
</tr>
<tr>
<td>City of Fort Worth</td>
<td>Rosedale Street, City of Fort Worth</td>
<td>Projected Volumes</td>
</tr>
<tr>
<td>City of Haslet</td>
<td>Avondale Haslet Road, City of Haslet</td>
<td>Projected Volumes</td>
</tr>
<tr>
<td>City of Lancaster</td>
<td>City of Lancaster</td>
<td>Demographics, Projected Volumes, Trip Tables, Roadway Networks, Rail Network, Traffic Counts</td>
</tr>
<tr>
<td>City of North Richland Hills</td>
<td>City of North Richland Hills</td>
<td>Demographics, Projected Volumes, Trip Tables, Roadway Networks, Rail Network, Traffic Counts</td>
</tr>
<tr>
<td>City of Royse City</td>
<td>City of Royse City</td>
<td>Demographics, Projected Volumes, Roadway Network, Trip Lengths</td>
</tr>
<tr>
<td>City of Terrell</td>
<td>City of Terrell</td>
<td>Demographics, Projected Volumes, Lanes, Level of Service, VMT, Trip Lengths</td>
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<tr>
<td>Consultant Firm</td>
<td>Tarrant County</td>
<td>Demographics, Projected Volumes, Roadway Networks, Travel Modeling</td>
</tr>
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<td>DART</td>
<td>Regional</td>
<td>Regional Performance Measures</td>
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<tr>
<td>DART</td>
<td>Woodall Rodgers Freeway, City of Dallas</td>
<td>Projected Volumes, Roadway Network Coding, Travel Modeling</td>
</tr>
<tr>
<td>Ellis County</td>
<td>Ellis County</td>
<td>Demographics, Projected Volumes, Trip Tables, Roadway Networks, Traffic Counts</td>
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<tr>
<td>Consultant Firm</td>
<td>Rockwall County</td>
<td>Projected Volumes, Roadway Network, Travel Modeling, Performance Measures</td>
</tr>
<tr>
<td>Consultant Firm</td>
<td>City of Grand Prairie</td>
<td>Projected Volumes, Roadway Network, Travel Modeling</td>
</tr>
<tr>
<td>Consultant Firm</td>
<td>Rockwall County</td>
<td>Roadway Capacity and Level of Service Information</td>
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<tr>
<td>Consultant Firm</td>
<td>City of North Richland Hills</td>
<td>Projected Volumes, Roadway Network Coding, Travel Modeling</td>
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<td>Consultant Firm</td>
<td>City of Lancaster</td>
<td>Demographics, Projected Volumes, Trip Tables, Roadway Networks</td>
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<td>Consultant Firm</td>
<td>FM 428, City of Denton</td>
<td>Land Use/Demographic Data</td>
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<td>Consultant Firm</td>
<td>DFW Airport</td>
<td>Demographics, Projected Volumes, Roadway Networks, Transit Ridership</td>
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<td>City of Dallas</td>
<td>Projected Volumes, Roadway Network</td>
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<tr>
<td>Consultant Firm</td>
<td>City of Dallas</td>
<td>VMT Data</td>
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<tr>
<td>Private Business</td>
<td>City of Plano, City of Fort Worth</td>
<td>Regional Performance Measures</td>
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<td>Private Business</td>
<td>Tarrant County</td>
<td>Road/Street Map</td>
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<td>Consultant Firm</td>
<td>Bonds Ranch Road at US 287, City of Fort Worth</td>
<td>Projected Volumes</td>
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<tr>
<td>TxDOT</td>
<td>US 377, Tarrant County</td>
<td>Projected Volumes</td>
</tr>
<tr>
<td>University of Texas at Arlington</td>
<td>Regional</td>
<td>Roadway Centerline Miles</td>
</tr>
</tbody>
</table>
Transportation Planning Funds were used to support work activities.

Work will continue in FY2019.

**Transit**

**Category 1**
- No projects at this time

**Work Performed and Status:** No work was conducted.

**Category 2**
- No projects at this time

**Work Performed and Status:** No work was conducted.

**Category 3**
- Technical Assistance

**Work Performed and Status:** Technical assistance was provided to transit authorities throughout FY2018, including transit model runs, GIS-based transit networks, and demographic forecasts.

Please refer to Subtask 3.05 for additional transit reporting.

Transportation Planning Funds were used to support work activities.

Work will continue in FY2019.

**Collin County Outer Loop**

**Other Funding Sources**

Ongoing throughout FY2018 and FY2019, NCTCOG 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. RTR funds will be utilized to support this effort, and consultant assistance will be utilized. Anticipated projects include:

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

**Work Performed and Status:** In FY2018, staff completed its revisions to the local environmental document for the Collin County Outer Loop Segment 3a (from the Dallas North Tollway to SH 289) prepared by NCTCOG based on refinements to the design and right-of-way. Additionally, staff began development of the USACE 404 permit for the proposed impacts
to Doe Branch that bisects Segment 3a utilizing the Section 214 program. The study identified significant impacts to the stream which resulted in an ongoing redesign of the stream channelization.

The development of the local environmental document for the Collin County Outer Loop Segment 3 from SH 289 to US 75 is in progress. Two consultants have been procured for the document preparation and the archeological, historical, and mussel investigations. Field work has been initiated for the archeological, historical, and mussel surveys.

Regional Toll Revenue funds (CSJ 0918-24-174) were utilized to support work activities.

This effort is ongoing, and work will continue into FY2019.

Dallas Strategic Mobility Plan

Other Funding Sources

During FY2019, efforts will begin to develop a Strategic Mobility Plan for the City of Dallas designed to coordinate and integrate existing and previous plans into one cohesive and strategic vision for the City. The Plan, led by the City, will address connectivity and accessibility, safety and reliability of systems, integration of mobility plans and tools, alignment with community characters and land uses, collaboration and partnerships, environmental stewardship, and the timely implementation of goals and objectives. Regional Toll Revenue funds and local funds will support this effort. Consultant assistance will be utilized. Anticipated products include:

- Community engagement;
- Inventory of existing plans and infrastructure;
- Performance measures to track progress;
- Guiding principles and policies; and
- Short- and long-term recommendations.

Work Performed and Status: Work on this project will begin in FY2019.

5.03 Land-use/Transportation Initiatives

This subtask is ongoing throughout both FY2018 and FY2019. Work will include various elements, including Sustainable Development Initiatives, Transit-Oriented Development, Bicycle/Pedestrian Planning, Safety, and Engineering Initiatives.

Sustainable Development Initiatives

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 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, parking technology and management education and training, form-based code review, 3D visualization services, financing strategies and tools for economic development, zoning and special district analysis, and planning to promote infill and mixed-use developments; and

- Online information, training, and education on topics related to Green Infrastructure, Sustainable Resource Efficiency, sustainable zoning, and other such topics to assist in growth management and land-use planning.

**Work Performed and Status:** Staff began work to develop a phasing and funding partnership plan for major transportation projects currently being planned in west Tarrant County. Staff reviewed and scored agency applications for the NCTCOG policy bundle program which enables agencies to use credits earned through the adoption of certain policies as match on transportation infrastructure projects.

Staff provided recommendations for incorporating Safe Routes to School prioritization metrics into the Smart Growth Dallas online mapping tool created to help the City prioritize investments in green infrastructure and bicycle and pedestrian improvements. Staff assisted the North Texas Urban Land Institute Transit Oriented Development Technical Panel with data analysis for station areas. Work was done to develop value capture via tax increment financing revenue estimates for the City of Haslet.

Recommendations were developed through a department white paper for mitigating gentrification in walkable neighborhoods. Technical assistance was provided on land use and transportation solutions for the Butler Place housing development in Fort Worth, and staff identified and mapped walkable districts in support of economic impact analysis in coordination with George Washington University.

Transportation Planning Funds were utilized to support work activities.

These types of projects are ongoing, and work will continue in FY2019.

**Other Funding Sources**

Utilizing Regional Transportation Council (RTC) Local funds, staff will continue developing and tracking regional performance measures related to land-use and transportation projects and will develop future funding programs for implementation. Utilizing Federal Highway Administration (FHWA) Transportation Investment Generating Economic Recovery funds, RTC Local funds, Surface Transportation Block Grant Program funds, and Transportation Development Credits, staff will support efforts related to school siting and technical assistance. Anticipated products include:
• Funding programs and coordination on regional sustainability/livability grant initiatives;
• Development and implementation of land-use supported funding programs;
• Data collection and performance measure tracking;
• Coordination between Independent School Districts and other stakeholders to engage in regional issues related to school siting, safe routes to school, and various policy and transportation issues;
• Establishment of a regional working group;
• Coordination on growth and demographics;
• Technical assistance and best practices related to school siting, land banking, and transportation connections to schools;
• Development of Safe Routes to School plans;
• Safety and education information; and
• Training opportunities for various stakeholders.

Work Performed and Status: Staff worked on performance measures for Sustainable Development programs and projects. Staff continued to update tracking on three- and five-year reports after project closeout for Sustainable Development infrastructure.

Review continued for projects submitted under the new Sustainable Development/Context Sensitive/Transit-Oriented Development (TOD) funding program and for Transportation Development Credit partnership projects. Unique score sheets were utilized for projects related to Urban Thoroughfares, Transit-Oriented Development, and Bicycle and Pedestrian infrastructure.

Regional school siting policy and program efforts advanced. A guidebook, Planning for Community-Oriented Schools: A Guide to School Siting in North Texas, was developed that provides steps for improving city - school district coordination and strategies for building community - oriented schools. Technical planning assistance and facilitation was provided to six cities and independent school districts (ISDs) to evaluate the impact of proposed projects on school siting and pedestrian safety, and provide recommendations.

Staff hosted a session at the Texas American Planning Association's Planning Conference to provide training on school district - local government coordination and school siting best practices. Work began on planning for a school siting workshop and regional Safe Routes to School training, both to be held in late fall 2018. A review of existing transit - school district partnerships across the country was conducted, and of past studies of transit - school district partnerships, to inform interviews with transit agencies and school districts in the region, and be an eventual resource on improving collaboration between transit agencies and school districts.

Staff completed Safe Routes to School plans for three schools and began working with the cities and school districts on implementing the plans. Four additional schools were identified.
that will receive Safe Routes to School plans in FY2019 using a methodology for identifying the highest-need schools.

Surface Transportation Block Grant Program funds (CSJ 0902-00-185 and 0902-90-049), Federal Highway Administration funds, Regional Transportation Council Local funds, and Transportation Development Credits were utilized to support staff activities.

This project is ongoing, and work will continue in FY2019.

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 pass-through construction dollars will be 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 (RTR), STBG, and local funds were allocated to the program with the 2009-2010 Sustainable Development Call for Projects.

Exhibit VI-1 contains the listing of the sustainable development projects still underway, as well as other studies led by NCTCOG. The funds are used to provide:

- Infrastructure projects such as road construction, sidewalks, pedestrian amenities, bike trails, etc.;
- Planning reports developed by consultants; and
- Land purchases.

**EXHIBIT VI-1**

**SUSTAINABLE DEVELOPMENT PROJECTS**

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Type</th>
<th>Funding Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plano Transit Village</td>
<td>Infrastructure</td>
<td>STBG/CMAQ/RTC Local/TDCs</td>
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<tr>
<td>Fort Worth Ridglea Village (Westridge)</td>
<td>Infrastructure</td>
<td>CMAQ/RTC Local</td>
</tr>
<tr>
<td>Irving Northwest Corridor</td>
<td>Infrastructure</td>
<td>CMAQ/RTC Local</td>
</tr>
<tr>
<td>Fort Worth West Rosedale Improvements-Magnolia Green</td>
<td>Infrastructure</td>
<td>RTC Local</td>
</tr>
<tr>
<td>Dallas Mockingbird Plaza &amp; Midtown/Central/University</td>
<td>Infrastructure</td>
<td>RTC Local</td>
</tr>
<tr>
<td>Dallas Routh Street Underpass</td>
<td>Infrastructure</td>
<td>RTR/STBG/TDCs</td>
</tr>
<tr>
<td>Dallas Zang Triangle</td>
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<td>RTR/STBG/TDCs</td>
</tr>
<tr>
<td>Project Name</td>
<td>Category</td>
<td>Funding Source</td>
</tr>
<tr>
<td>-------------------------------------------------</td>
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</tr>
<tr>
<td>Dallas Project Paseo</td>
<td>Infrastructure</td>
<td>RTR/STBG/TDCs</td>
</tr>
<tr>
<td>Dallas Continental Mixed-Use Development</td>
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<td>RTR/STBG/TDCs</td>
</tr>
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<td>Dallas La Reunion Town Center - The Orleans &amp; The Courtyards</td>
<td>Infrastructure</td>
<td>RTR/STBG/TDCs</td>
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<td>Dallas Lake Highlands TOD Multimodal Connectivity Project</td>
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<td>Farmers Branch Station Area Sidewalks</td>
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<td>Lewisville Old Town Transit-Oriented Development</td>
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<td>Mesquite Thomasson Square</td>
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<td>Fort Worth Polytechnic/TWU Streetscape Enhancements</td>
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<tr>
<td>Fort Worth South Main Urban Village</td>
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<td>Connecting Kennedale: Revitalizing the City Center</td>
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<td>North Richland Hills Snider Street Extension Project</td>
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<td>Grapevine Hudgins Street Corridor Roadway &amp; Pedestrian Improvements</td>
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<td>Joshua Station TOD Infrastructure Project</td>
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<td>Regional Parking Analysis</td>
<td>Planning</td>
<td>RTC Local/STBG/TDCs</td>
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<tr>
<td>Curb Lane Management and Technology Study</td>
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<td>Local/STBG</td>
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</tbody>
</table>

The 2001 projects are coordinated directly between the implementing agencies and the Texas Department of Transportation. Utilizing RTC Local funds, NCTCOG staff will provide oversight for the implementation of the 2005-2006 infrastructure, landbanking, and planning studies. Utilizing STBG funds and TDCs, staff will oversee the implementation of the 2009-2010 infrastructure and planning projects and other planning projects that may be assigned that are project/corridor specific.

For the additional work done on parking, a combination of Surface Transportation Block Grant Program funds, RTC Local funds, other local funds, and Transportation Development Credits will be used to support activities in this area. Consultant assistance will also be utilized.

Anticipated products include:

- Implementation and tracking of infrastructure projects;
- Project tracking and technical assistance to local governments developing sustainable development projects;
- An approved acquisition plan for funded Sustainable Development Landbanking Projects which involve parcel assembly for redevelopment and future use;
- Work scopes for plan procurements;
- Consultant selection;
• Parking analysis of garage and transportation interfaces at various locations;
• A Curb Lane Management Study in the City of Dallas that is expected to be used as a pilot for the region to evaluate and recommend curb space facilities to coincide with existing and future development needs;
• Creation of a mobile application mapping system that provides real-time information regarding City of Dallas-owned parking facilities to include availability, rates, and access to payment, as well as access to multimodal trip planning. This application is expected to be used as a pilot for the region; and
• Continued partnership for the IH 30 Ballpark Park-N-Ride lot to remain open for daily commuters.

Work Performed and Status: Staff continued to work with local governments to implement projects in the Sustainable Development funding program. Fifteen projects are currently underway, and staff reviewed invoices and progress reports throughout the year. Some projects were closed out through appropriate processes and procedures. The Fort Worth Ridglea Village project was completed, and the North Richland Hills Snider Street Extension and Joshua Station TOD Infrastructure projects were cancelled. Work progressed on the Regional Parking Analysis planning project. Locally led initiatives and other sustainable development projects were tracked.

Staff continued to track the un-banking of property and funds for two land banking projects and worked with the City of Arlington on an agreed-upon final price for the first “un-banking” of properties.

Surface Transportation Block Grant Program funds (CSJs 0902-00-185 and 0902-90-049), Regional Transportation Council Local funds, and Transportation Development Credits were utilized to support staff activities. Regional Toll Revenue funds noted in Exhibit VI-1 above were paid directly by the Texas Department of Transportation.

Work is ongoing and will continue in FY2019.

Transit-Oriented Development

Other Funding Sources

The Transit-Oriented Development (TOD) Implementation Group was created through the 2005-2006 Sustainable Development Call for Projects and is funded by STBG funds and TDCs. The TOD Implementation Group was established to provide education, planning, data collection, and research assistance to TOD projects. Under this element, 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 work on developing job-housing balance strategies 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. 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;

• Meetings of the regional TOD Working Group to facilitate TOD education/training events and implementation strategies among the cities connected by rail transit and transit agencies;

• Research, 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: Three TOD Work Group meetings were held in FY2018. The first meeting focused on transit-oriented downtown revitalization through street improvements featuring local projects. The second meeting covered best practices in expanding TOD districts and preparing for new rapid transit modes like high speed rail and Hyperloop in North Texas. The third meeting targeted implementing better connectivity through development and revitalization around transit stations and construction of trails.

New TODs and TOD-related improvements throughout the region were tracked, and technical assistance for data requests was provided related to development options around the new Trinity Railway Express Trinity Mills Station. Initial work was also done on creation of a TOD regional strategy scope of work, and initial data collection for a TOD typology structure was produced.

A scope of work was created for Form Based Code (FBC) training and a vendor list developed with training to occur in early FY2019.

Surface Transportation Block Grant Program funds (CSJ 0918-00-214) and Transportation Development Credits were utilized to support work activities.

This project is ongoing, and work will continue into FY2019.

DART Red and Blue Lines TOD Planning Study

Other Funding Sources

The Transit-Oriented Development (TOD) Planning Pilot Grant was awarded to NCTCOG in October 2016 to support TOD planning around 28 Dallas Area Rapid Transit (DART) Red and Blue Line Light Rail Stations. The planning work will be coordinated with DART and the Cities of Dallas, Garland, Plano, and Richardson, with NCTCOG administering the grant and leading planning activities. Staff will coordinate with these project partners by hosting meetings, preparing
draft scopes of work, and taking part in planning work and data collection as needed. The planning work has three elements: a pedestrian and bicycle last-mile infrastructure study, a parking utilization study, and a survey of TOD residents and employers. Federal Transit Administration, RTC Local, and other local funds will be used to support work activities. Consultant assistance will be utilized. Anticipated products include:

- An implementation plan for prioritizing and understanding cost to improve last-mile pedestrian and bicycle connections to these rail stations;
- Data collection of parking utilization at specific sites around a sample of the 28 stations and comprehensive policy recommendation related to analysis of that data;
- Survey data collection and analysis of residents and/or employers in the station areas focused on their travel behavior, demographics, and preferences related to TOD; and
- Strategic recommendations for policy adjustment based on data collected and a process for replicating similar data collection and study across the region.

**Work Performed and Status:** Work was completed by staff to identify existing conditions at 28 rail stations and develop priority corridors. Consultants were procured for the Federal Transit Administration (FTA) Routes to Rail analysis to develop improvement recommendations, and the FTA Parking Analysis to study utilization. A scope of work for the survey portion of the project was developed and the procurement will occur in FY2019. Numerous city and DART stakeholder meetings were held throughout the process.

Federal Transit Administration funds and Regional Transportation Council Local funds were utilized to support work activities.

This project is ongoing, and work will continue in FY2019.

**Bicycle and Pedestrian Planning**

**Other Funding Sources**

The focus of this element is to assist in developing, educating on, and promoting bicycle and pedestrian mobility and safety throughout the region. Utilizing STBG funds, FHWA Enhancement Program funds, RTC Local funds, other local funds and TDCs, 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 (including automated bicycle and pedestrian count equipment as noted in Exhibit II-2 of Subtask 1.04). 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. Anticipated products include:

- Update of the Active Transportation Planning element for Mobility 2040, including the Regional Veloweb;
- 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;

• Federal and State Active Transportation Programs which may include Transportation Alternatives Programs such as Transportation Enhancement, Safe Routes to Schools, and Urban Thoroughfares;

• 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 GIS support.

Work Performed and Status: Updates to regional and countywide bikeway maps were finalized for the purpose of inclusion in Mobility 2045, which was adopted. These maps included the Regional Veloweb, Community Paths, and On-Street Bikeways. The 2017 Bicycle and Pedestrian Traffic Data and Monitoring Annual Report was finalized and distributed in March 2018. The report highlights bicycle and pedestrian facility user count data collected in 26 locations throughout the region.

Staff hosted six webinars for local bicycle and pedestrian partners in the region on topics ranging from placemaking to crosswalk design.

NCTCOG internal staff coordination efforts continued in order to provide count forecast data to determine the benefits of CMAQ-funded projects. Staff also attended meetings and provided technical assistance and data for Pedestrian and Bicycle Plans under development in the region. Four quarterly meetings of the Bicycle and Pedestrian Advisory Committee (BPAC) were held in FY2018.

The regional safety campaign branded as “Look Out Texans Bike-Walk-Drive Safely” continued throughout the year. The campaign website, www.lookouttexans.org, was updated regularly with new information. Throughout the year various outreach and advertising materials were distributed through print ads and articles, online ads and social media posts. In addition, NCTCOG staff attended a wide range of community outreach events such as Earth Day Texas, the Dallas Mayor’s Back to School Event, the Tarrant County Back to School Event, and bicycle rodeos, and coordinated with regional partners to promote the safety tips. A consultant was procured to assist in the bicycle rodeo outreach events.
A website was developed for the completed regional survey on bicycling preferences. The full report and an executive summary are available on the website. An overview powerpoint presentation was developed that highlights important information. This item was presented to the public and to various NCTCOG committees.

Staff assisted cities in programming Transportation Alternatives (TA) Set-Aside funded projects in the Transportation Improvement Program.

Surface Transportation Block Grant Program funds (CSJs 0918-00-214 and 0918-00-217), Federal Highway Administration Enhancement Program funds (CSJ 0902-00-140), Regional Transportation Council Local funds, other local funds, and Transportation Development Credits were utilized to support work activities.

This project is ongoing, and work will continue in FY2019.

Staff will also oversee the implementation of the Regional Bicycle/Pedestrian Sustainable Development Initiatives projects which utilize pass-through CMAQ funds and TDCs 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, multi-use trails, signage, pavement markings, traffic signals, and other supportive infrastructure. Staff oversight activities will be supported by STBG and local funds, and TDCs. Anticipated products include:

- Identification of funding needs and project scopes.

**Work Performed and Status:** Through the use of Congestion Mitigation and Air Quality Improvement Program (CMAQ) funds and Transportation Development Credits, efforts to develop and fund regional trails continued. Coordination occurred with cities related to trail funding along the Cotton Belt Rail Corridor and maps and costs developed for committee approvals. Project development, including stakeholder meetings, alignment, and budget development, occurred for future work in South Dallas County partnering with four local governments and Dallas County, with work to begin next year on possible connection alignments.

NCTCOG staff oversight activities were supported with Surface Transportation Block Grant Program funds (CSJs 0918-00-214 and 0918-00-217) and Transportation Development Credits.

This project is ongoing, and work will continue in FY2019.
Downtown Wylie Pedestrian Access and Streetscape Plan

Transportation Planning Funds

During FY2018 and FY2019, staff will lead a streetscape planning study for the City of Wylie. The study will engage the community and recommend multimodal transportation accommodations in context with the downtown area including facilities for pedestrian, bicycles, and motor vehicles supporting the community vision for a walkable destination place. Surface Transportation Block Grant Program funds and Transportation Development Credits will support work activities. Anticipated products include:

- Streetscape vision;
- Streetscape/roadway templates;
- Estimate of probable construction costs; and
- Implementation plan.

Work Performed and Status: Initial scope discussions were held with the City. Transportation Planning Funds were utilized to support work activities. Work is ongoing and will continue in FY2019.

Fort Worth Active Transportation Plan

Other Funding Sources

Staff will oversee the development of a citywide Active Transportation Plan for the City of Fort Worth focused on a seamless network of on- and off-street bicycle and pedestrian facilities integrated with the public transportation and thoroughfare networks. The Plan will include stakeholder involvement and the analysis of the existing and planned walking/bicycling/public transportation infrastructure network, including gaps in the network, crash data, and technology options. RTC Local funds and other local funds will be used to support planning activities, and existing STBG funds will be used for staff oversight activities. Anticipated products include:

- Updated city-wide bicycle network plan;
- Network analysis including appropriate corridors in the city-wide network as low-stress routes for bicyclists of “All Ages and Abilities (AAA)”;
- Recommended policies and programs;
- Project prioritization, implementation plan, and funding strategies;
- Technology options for information sharing; and
- Performance measures.

Work Performed and Status: A Notice to Proceed was issued to the consultant for work on the project. Existing Conditions and a Level of Comfort Analysis were completed, and two rounds of community engagement occurred.
Surface Transportation Block Grant Program funds (CSJs 0918-00-214 and 0918-00-217) and Transportation Development Credits were used to support staff activities. Consultant work will be funded out of Regional Transportation Council Local funds and other local funds.

This project is ongoing, and work will continue in FY2019.

Bicycle and Pedestrian Engineering

Other Funding Sources

Staff will oversee the preliminary engineering of the Midlothian-to-Waxahachie Regional Veloweb Shared-Use Path from the existing Waxahachie city trail in Getzendaner Park east of IH 35E to near downtown Midlothian. Coordination efforts will include the City of Midlothian, the City of Waxahachie, Ellis County, NCTCOG, TxDOT, and the Union Pacific Railroad. CMAQ funds and local funds will be used to support engineering activities, and STBG funds and TDCs will be used for staff oversight activities. Anticipated products include:

- Fifteen percent design development schematic;
- Environmental report;
- Estimate of probable construction cost; and
- Construction phasing plan by jurisdiction.

Work Performed and Status: Consultant services began on the project in April with an initial meeting held with NCTCOG staff, the Cities of Waxahachie and Midlothian, and Ellis County. Appraisal data information was collected and mapped for all properties adjacent to the trail, and right of entry forms were coordinated for survey work to occur. Base mapping was completed and route adjustments coordinated with local governments. Meetings were held with the Texas Department of Transportation and Union Pacific to discuss various alignments, and a fly-over occurred as part of the data collection. Environmental analysis and 15 percent design will begin early next year.

Surface Transportation Block Grant Program funds (CSJ 0918-00-214 and 0918-00-217) and Transportation Development Credits were used to support staff activities. Consultant work activities are supported through Congestion Mitigation and Air Quality Improvement Program funds (CSJ 0918-22-156) and local funds.

This project is ongoing, and work will continue in FY2019.

Additionally, staff will oversee the preliminary engineering of a Regional Veloweb Shared-Use Path from the existing trail at the Denton County Transportation Authority Hebron Station in Lewisville south to the Campion Trail in north Irving. The project would include connections to two DART stations in Carrollton and the existing Regional Veloweb North Levee trail along Denton Creek in Coppell. In addition to the seven agencies participating in the projects, coordination efforts will also include TxDOT, North Texas Tollway Authority, utility providers, and other public and private stakeholders in the area. CMAQ funds and local funds will be used to support
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engineering activities, and STBG funds and TDCs will be used for staff oversight activities. Anticipated products include:

- Feasibility and alignment study with 10-15 percent design development schematic;
- Permitting review;
- Estimate of probable construction cost; and
- Construction phasing plan by jurisdiction.

**Work Performed and Status:** Interlocal Cooperative Agreements were executed between the partner agencies and NCTCOG, and an agreement was executed with the Texas Department of Transportation. A scope of work for consultant procurement was completed, and procurement should launch in early FY2019.

Surface Transportation Block Grant Program (STBG) funds (CSJs 0918-00-214 and 0918-00-217) and Transportation Development Credits were used to support staff activities.

This project is ongoing, and work will continue in FY2019.

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**Regional Pedestrian and Bicycle Safety Plan**

*Other Funding Sources*

Staff will initiate and develop a regional pedestrian and bicycle safety plan to improve safety for the region’s pedestrian and bicycle transportation network. The plan will also serve as a template for the preparation and implementation of local agency pedestrian and bicycle safety plans. This initiative will be funded by STBG funds and TDCs. Consultant assistance may be utilized. Anticipated products include:

- Analysis of crash data and the contributing factors for pedestrian and bicycle crashes/fatalities throughout the region;
- Recommended countermeasures to improve safety for the region’s pedestrian and bicycle transportation network;
- Recommended engineering, enforcement, education, and evaluation activities to implement across the region; and
- A framework for local agency pedestrian and bicycle safety plans.

**Work Performed and Status:** Work continued on the development of a regional pedestrian safety plan. A public outreach plan was created and initial data collection has begun. National best practices were evaluated, and an outline for the plan was developed.

Coordination with the Texas Department of Transportation occurred regarding current pedestrian safety research efforts that may be able to inform the plan.

Surface Transportation Block Grant Program funds (CSJ 0902-00-185) and Transportation Development Credits were used to support staff activities.
Regional Economic Development Initiatives

Transportation Planning Funds

This element continues throughout FY2018 and FY2019, 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 work was conducted in FY2018. Assistance may be requested in FY2019.

5.04 Capital and Operational Asset Management System

This subtask will manage coordination for the continued development, monitoring, and other technical assistance for an Asset Management System among the North Central Texas region's transportation providers and local governments that will ultimately help maintain a successful balance between preserving and/or upgrading existing transportation assets and efficiently replacing assets of the greatest need.

Asset Management Data Collection and Analysis (CAPMAIN):

Transportation Planning Funds

This element will proceed with obtaining information about best asset management practices (applied through local governments, metropolitan planning organizations, and transportation providers) and examining various tools for storing, analyzing, and applying asset data. Steps to determine 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 will continue. Additional efforts will include evaluation of options for collecting additional data (which may include development of regional strategies); implementing techniques to increase awareness of the Asset Management System; reviewing and applying research on various engineering, economic, and environmental factors affecting asset condition/performance; examining utilization strategies to affect planning and deployment of corridor capacity maximization programs; and,
identifying potential pilot projects to demonstrate system interoperability and effectiveness. Corridors to be evaluated throughout this period will be based on Metropolitan Transportation Plan (MTP) and Congestion Management Process (CMP) guidance and outputs. Information will be used to support various analysis efforts under Subtask 5.01 (Regional Transportation Corridor Studies) and Subtask 5.02 (Transportation Subarea Studies), including activities to assist transportation providers and local governments in environmental clearance, schematic/final design initiatives, and potential staging implementation. Corridors to be evaluated include:

- IH 20 – Dallas/Tarrant County
- IH 20/IH 30 – Parker/Tarrant County
- IH 30 – Rockwall/Hunt County
- IH 35E – Ellis County
- IH 820 West – Tarrant County
- SH 360 – Tarrant County
- US 175 – Dallas County
- US 380 – Collin/Denton County
- US 75 – Collin/Dallas County

Work will be ongoing throughout FY2018 and FY2019 and the following products will be delivered as the result of work done on this project:

- Maps, tables, reports, and presentations which will highlight asset management data analyses; and
- Documentation to guide incorporation of asset management principles, performance measures, factors affecting asset condition/performance and mitigation strategies, and pilot project recommendations in the preparatory, analysis, and decision-making efforts for updates to the MTP, CMP, the Transportation Improvement Program (TIP), and the Unified Transportation Program (UTP).

**Work Performed and Status:** Staff prepared new or updated narratives, maps, and tables for the Metropolitan Plan Update (Mobility 2045) to address asset management data collection and analysis (also known as asset optimization), roadway maintenance, pavement and bridge performance measure requirements, and extreme weather vulnerability and sustainability.

As a result of the recently executed memorandum of understanding (MOU) between the Dallas-Fort Worth Metropolitan Planning Organization, TxDOT, public transportation operators, the tollway authorities, Dallas Fort Worth International Airport, and cities serving as designated recipients, for transit funds, to cooperatively identify mutual responsibilities related to asset management data collection, performance target setting, and other performance-based planning and programming requirements, staff was able to gain access to pavement and bridge condition data and analysis procedures. Staff provided regular updates to the
Regional Transportation Council and Surface Transportation Technical Committee on federal performance rules related to infrastructure conditions and asset management.

Staff participated in FHWA’s Transportation Asset Management Expert Task Group and Transportation Research Board (TRB) Asset Management conference to coordinate with other Metropolitan Planning Organizations, state Departments of Transportation (DOTs), transportation providers, and resource agencies on the integration of asset management principles into project design and metropolitan transportation planning practices.

During FY 2018, corridor-related asset management activities occurred within the following freeway locations:

IH 20 - Dallas/Tarrant County: Coordination meetings with TxDOT and alternatives analysis efforts were conducted throughout the year for IH 20 sections in Duncanville, Grand Prairie, Arlington, and Fort Worth where planning and construction funding was authorized in the 2018 and 2019 Unified Transportation Program/House Bill 20 Ten-Year Plan. New/revised recommendations were evaluated for inclusion in the Mobility 2045 Plan. Work in this corridor will continue in FY 2019.

IH 20/IH 30 - Parker/Tarrant County: Environmental documentation and schematic development efforts in coordination with TxDOT occurred throughout the year for sections of this corridor in Weatherford, Aledo, and Fort Worth. As a result of completion of the SH 183 corridor study, pre-NEPA conceptual development of potential alternatives for the IH 30 section between Las Vegas Trail and Bryant Irvin Road in coordination with TxDOT, the City of Fort Worth, and adjacent stakeholders also occurred. New/revised recommendations were evaluated for inclusion in the Mobility 2045 Plan. Work in the overall IH 20/IH 30 corridor will continue in FY 2019.

IH 30 - Rockwall/Hunt County: Through collaboration with TxDOT and stakeholders, advanced schematic development and environmental clearance efforts for the IH 30 section in Rockwall County proceeded throughout the year. Quarterly coordination meetings were conducted between NCTCOG, TxDOT, and Hunt County as new interchange projects were added to the 2019 Unified Transportation Program/House Bill 20 Ten-Year Plan. New/revised recommendations were evaluated for inclusion in the Mobility 2045 Plan. Work in this corridor will continue in FY 2019.

IH 35 E - Ellis County: Monitoring of implementation and operational issues regarding IH 35E Phase One in Waxahachie occurred throughout the year. Coordination to complete environmental documentation and schematic development, and identify potential phasing strategies for IH 35E Phase Two recommendations also occurred. Additionally, meetings with TxDOT and the City of Waxahachie to expedite delivery of an upgraded IH 35E/Butcher Road (FM 387) interchange were conducted. New/revised recommendations were evaluated for inclusion in the Mobility 2045 Plan. Work in this corridor will continue in FY2019.

IH 820 West - Tarrant County: As environmental assessment/schematic development of the IH 30 project between Linkcrest Drive and Las Vegas Trail continued this year, efforts to identify future needs at the IH 30/IH 820 interchange and additional upstream/downstream interchanges along IH 820 also occurred. NCTCOG staff continued to coordinate with TxDOT
and encourage incorporation of potential improvements into future project stages. New/revised recommendations were evaluated for inclusion in the Mobility 2045 Plan. Work in this corridor will continue in FY2019.

**US 380 - Collin/Denton County:** Technical assistance in the form of travel demand modeling analysis, physical condition reports, thoroughfare plan guidance, review of land use/development patterns, and other work efforts were conducted to support preliminary NEPA/schematic development on multiple US 380 feasibility studies between the City of Denton and the Collin/Hunt County Line. Coordination for numerous staff meetings and other correspondence also occurred between TxDOT, local government representatives, and several NCTCOG program areas to support continued project development throughout the corridor, including several series of public meetings. The work included collaboration with work efforts on the Collin County Strategic Transportation Initiative in Subtask 5.01, Regional Transportation Studies. Work is expected to continue throughout the US 380 corridor in FY2019.

**US 75 - Collin/Dallas County:** Continued coordination with TxDOT and the local governments occurred throughout FY 2018 to implement peak-period shoulder-use lanes on US 75 between SH 121 and IH 635. Following the mid-2017 completion of a white paper detailing the congestion and air quality benefits of the shoulder-use lanes based on experiences with the SH 161 corridor, staff consulted with federal partners concerning operational compatibility with current CMAQ-oriented strategies. Implementation is expected to coincide with ITS and other innovative congestion mitigation strategies that will continue to be refined as current construction projects in the corridor conclude over the next several years. Work will continue in FY2019 under Subtask 5.01, Regional Transportation Studies, Strategic Corridor Initiatives. Transportation Planning Funds were utilized to support work activities.

This element is ongoing and will continue in FY2019.

**Other Funding Sources**

This element will provide technical, planning, design review, and financial assistance to transportation agencies and the Regional Transportation Council to help advance various regional projects through post-environmental clearance development, permit approval, and implementation as soon as possible. This effort is part of a NCTCOG Transportation Department need to expand its involvement beyond its current planning and programming functions to improve project implementation in the Dallas-Fort Worth region. Throughout FY2018 and FY2019, Surface Transportation Block Grant Program funds, Regional Transportation Council (RTC) Local funds, Texas Department of Transportation (TxDOT) funds, and Transportation Development Credits will support work efforts for the following corridors:

- DFW Connector – FM 2499/IH 635/SH 114/SH 121/SH 360;
- IH 35E – Dallas/Denton County;
- Loop 12/Spur 408;
- SH 183; and
- Other existing corridors planned for truck-lane restrictions, additional critical freight mobility considerations, and/or managed lane improvements.

The following products will be delivered as the result of work done for this element:

- Meeting summaries;
- TIP/STIP and UTP incorporation efforts;
- Comment review; and
- Technical memorandums.

**Work Performed and Status:** Staff served on an inter-agency team for proposed frontage roads and interchange improvements on US 287 in Mansfield. This work effort included coordination with TxDOT, City of Mansfield, and businesses; preparation of meeting agendas, handouts, presentations, and summaries; and the submittal of comments to TxDOT on the Design Summary Report (DSR).

Multiple efforts throughout the year to obtain federal funds through specific discretionary grant opportunities such as Infrastructure for Rebuilding America (INFRA) and Better Utilizing Investments to Leverage Development (BUILD) were conducted regarding a variety of critical freight projects in the region. These efforts also enabled abilities to improve data collection and applications associated with benefit-cost analyses that were incorporated into numerous project activities.

Surface Transportation Block Grant Program funds (CSJ 0902-48-858), Regional Transportation Council Local funds, and Texas Department of Transportation funds were utilized to support work efforts.

This element is ongoing and will continue in FY2019 as projects enter into the environmental clearance and design phases.

**Transportation Asset Management Plan (TAMP) Documentation**

**Transportation Planning Funds**

The Fixing America’s Surface Transportation (FAST) Act has authorized the Federal Highway Administration (FHWA) to require that states develop and implement risk-based transportation asset management plans for the National Highway System (NHS) to preserve or improve asset condition and system performance as part of the National Highway Performance Program (NHPP). State coordination with metropolitan planning organizations (MPOs) is critical to ensure collaborative efforts in defining asset management objectives and measures; preparing risk and performance gap analyses; identifying reasonable life-cycle planning assumptions with thorough incorporation of asset age, usage, composition, and environmental impedance factors; and certifying that financial plans and/or investment strategies are sufficient to meet or exceed various performance targets. To assist the State in the ongoing/regular development, monitoring, and reporting of TAMP parameters to FHWA, this element will provide technical, planning, and financial assistance to collect applicable performance data; determine and report performance
targets for the metropolitan area; identify actual system performance; and evaluate potential performance gaps and factors.

Work will be ongoing throughout FY2018 and FY2019 and the following products will be delivered as the result of work done on this project:

- Maps, tables, reports, meeting summaries, and presentations which will highlight TAMP data collection, analyses, and reporting roles/responsibilities for MPOs; and
- Documentation to guide incorporation of TAMP needs and conclusions as they relate and/or link to the preparatory, analysis, and decision-making efforts for updates to the MTP, CMP, TIP, and UTP.

**Work Performed and Status:** Staff prepared a new narrative for the Metropolitan Plan update (Mobility 2045) to address TAMP requirements. Staff received and distributed the initial TAMP submitted by TxDOT.

In addition, staff engaged in several transportation performance management (TPM) coordination activities with TxDOT on NHS Pavement/Bridge (PM2) targets and data, as well as TAMP status updates. Staff also participated in FHWA TPM webinars and “office hours” informational sessions.

Staff participated in monthly Texas Association of Metropolitan Planning Organizations (TEMPO) meetings with TxDOT to discuss and monitor the implementation of federal transportation performance management (TPM) regulations related to pavement and bridge condition and Transportation Asset Management Plan (TAMP) requirements for the National Highway System (NHS). A meet-and-greet was organized with representatives from TxDOT Austin (Transportation Planning and Programming, Maintenance, and Bridge) and the TxDOT Dallas and Fort Worth Districts (Maintenance) to discuss the target setting methodology and data exchange related to these federal TPM regulations.

Transportation Planning Funds were utilized to support these work activities.

This element is ongoing and will continue in FY2019.

**Project Evaluation/Selection Process for the UTP and the Ten-Year Plan (House Bill 20)**

*Transportation Planning Funds*

Because asset management is one of several important determinants regarding project planning and prioritization (particularly as they may be affected by the TAMP), this element will also include technical assistance on a recurring basis in support of TxDOT as it develops the annual statewide UTP and Ten-Year Plan. As stipulated in House Bill 20 (passed by the State Legislature in 2015), TxDOT is required to develop a comprehensive performance-based apparatus in collaboration with MPOs, local governments, and other transportation partners/stakeholders to identify, analyze, select, and prioritize roadway projects in urban areas for inclusion in the UTP and the Ten-Year Plan. Annual work efforts within this task will help ensure that all potential projects will be evaluated using the most updated data in terms of various mobility/congestion, safety, system
preservation, development/approval status, economic, and environmental parameters. Work efforts will also aid in certifying that the project selection process and implementation strategies are consistent with initiatives to establish and/or maintain various performance targets.

Work will be ongoing throughout FY2018 and FY2019 and the following products will be delivered as the result of work done on this project:

- Meeting summaries;
- Maps, tables, reports, and presentations which will highlight the project selection/prioritization process and help communicate various details to multiple audience types;
- Documentation to guide incorporation of any new data sources, expanded criteria, weight factors, visualization tools, and decision-making principles that will help to refine and/or expand the selection/prioritization process over time;
- Documentation describing ongoing TIP/STIP, CMP, and MTP incorporation efforts; and
- Technical memoranda.

**Work Performed and Status:** Asset optimization data collection, recent project experiences, and analysis of asset management performance factors continue to help refine and link existing technical tools imperative for project/program decision making. This effort continues to occur via guidance from INVEST, MAP-21/FAST Act transportation goals, and is also based on effective federal government asset management rulemaking and House Bill (HB) 20 principles. The resultant multi-faceted decision-making tool for organizing, selecting, and prioritizing projects was incorporated into the Mobility 2045 Plan development process, and the tool was also used to evaluate and score projects for the recently approved 2019 Unified Transportation Program (UTP).

Transportation Planning Funds were utilized to support these work activities.

This element is ongoing and will continue in FY2019.

### 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**

*Transportation Planning Funds*
As required by the provisions of the management system regulation 23 CFR Parts 450 and 500, the Congestion Management Process (CMP) shall be part of the metropolitan transportation planning process required under provisions of 23 USC 134 and 49 USC 5303. CMP provides for the effective management of new and existing transportation facilities through development and implementation of travel demand and transportation system management strategies, and by providing information to decision makers on system performance and effectiveness of implemented strategies.

The maintenance of the CMP document for the Dallas-Fort Worth Metropolitan Area is a major component of this Work Program subtask. The CMP seeks a “management” solution to a growing traffic problem by targeting resources toward improved performance for infrastructure assets, operational enhancements, and travel demand reduction strategies. Although major capital investments are needed to meet the growing travel demand, the CMP also develops lower-cost strategies that complement major capital recommendations. The result is a more efficient and effective transportation system, increased mobility, and a leveraging of resources.

The CMP is fully integrated into the region’s transportation planning and programming process. With the identification and mitigation of current and future traffic congestion as the foundation of planning and programming decision making, strategies for congestion mitigation are developed, monitored, and updated on the system level (via the Metropolitan Transportation Plan), on the corridor level (via Project Implementation Process documentation incorporated within corridor studies and NEPA documents), and on the project level (via the Transportation Improvement Program). Anticipated FY2018 and FY2019 products include:

- Documentation of the CMP;
- Executive Summary of the CMP;
- Presentations utilizing CMP data and information;
- Maps;
- Project tracking and monitoring system (Project Implementation Process documentation);
- Periodic reports to RTC and Surface Transportation Technical Committee documenting status of CMP implementation;
- Coordination meetings to ensure the continued monitoring and progress of various project recommendations;
- Single-occupancy vehicle (SOV) analysis on non-regionally significant roadway projects; and
- Integration of project-specific CMP and asset management information for utilization and analysis within the Metropolitan Transportation Plan initiated through Subtask 4.01, and within corridor studies initiated through Subtask 5.01.

**Work Performed and Status:** Staff developed a draft scope of work and proposed a milestone schedule for the 2019 CMP Update. The web pages for CMP and Asset Optimization were created for transition to the new NCTCOG website. Staff initiated outreach efforts for the 2019 CMP Update that included coordination with the Bicycle and Pedestrian Advisory Committee, Regional Freight Advisory Committee, Regional Safety Advisory...
Staff reviewed excel-based CMP Project Implementation Forms submitted by implementing agencies to determine if any congestion mitigation strategies identified in the CMP 2013 Update were considered for incorporation into any proposed capacity improvement projects. Staff continued to perform data collection and calculations to support quarterly SOV analyses for roadway projects submitted for Transportation Improvement Program/Statewide Transportation Improvement Program and Unified Transportation Program/Metropolitan Planning Organization 10-Year Plan consideration.

Transportation Planning Funds were utilized to support these work activities.

This project is ongoing and will continue in FY2019.

Transportation System Management and Operations

Transportation Planning Funds

This program is ongoing throughout both FY2018 and FY2019, 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 through the use of TPF dollars include:

- Monitoring, updating, and evaluation of regional TSM&O plans, policies and projects outlined in the Metropolitan Transportation Plan (MTP) and Congestion Management Process (CMP);
- Evaluation of TSM&O projects for inclusion in the Transportation Improvement Program (TIP) consistent with the Regional ITS Architecture;
- Participation in, and monitoring and coordination of Integrated Corridor Management activities to enable a multi-modal, cross-system performance comparison to generate common benchmarks and appropriate agency response options to incidents;
- Support and assistance to regional partners to plan strategies, and promote cooperation and participation in committee meetings;
- Development and monitoring of the implementation of ITS plans, policies, and projects in coordination with regional partner agencies; and
- Evaluation and implementation of vehicle and infrastructure technology.

Work Performed and Status: NCTCOG staff continued to develop, implement and monitor regional TSM&O goals and strategies outlined in the metropolitan transportation plan. Coordination efforts continued with cities and TxDOT to identify and track deployment of TSM&O strategies/projects within the region. Mobility 2045 Policy Bundles outlining policies
related to TSM&O were reviewed and modified as part of the long-range transportation plan, Mobility 2045: The Metropolitan Transportation Plan for North Central Texas. Staff reviewed and scored the TSM&O section of the Mobility 2045 Policy Bundle applications submitted by local governments, transit agencies, and Independent School Districts.

The Non-Competitive Project Selection Criteria for Traffic Signal and Intelligent Transportation System Projects for inclusion in the Transportation Improvement Program (TIP) was updated. Projects submitted through the TIP were evaluated to ensure consistency with the Regional Intelligent Transportation Systems (ITS) Architecture.

One ITS Stakeholder Task Force meeting was held for regional partners, providing an overview and update on various regional ITS activities, including ITS performance measures, 511DFW enhancements progress, and Advanced Transportation and Congestion Management Technologies Deployment Program Grant Application filed by NCTCOG staff.

Transportation Planning Funds were utilized to support work activities.

This project is ongoing, and work will continue in FY2019.

Other Funding Sources

This program also uses Surface Transportation Block Grant (STBG) Program funds, Congestion Mitigation and Air Quality Improvement Program (CMAQ) funds, Regional Transportation Council (RTC) Local funds, Texas Department of Transportation funds, and Transportation Development Credits to support activities in this area. Consultant assistance will be utilized. Anticipated products through the use of these dollars include:

- Agreements for regional communication, infrastructure, and information sharing, including The Memorandum of Understanding (MOU) between the Dallas-Fort Worth Regional Intelligent Transportation System (ITS) partner agencies;
- Identification and documentation of standards for interagency communication of data and video, and the implementation of 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;
- Identification of needed ITS integration;
- 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);
- Evaluation, improvement, and implementation of the 511DFW System with outreach and communications planning, and advertising and marketing services to enhance public awareness and use of 511DFW;
- Review of statements of consistency with the Regional ITS Architecture;
• Staging of wreckers and other ancillary services for incident clearance and operational improvements; and

• Strategies to integrate operations and rapidly clear collisions and stalled vehicles to improve roadway efficiency.

**Work Performed and Status:** Review and approval of all project-level statements of ITS Architecture consistency for ITS projects to receive federal funds continued. 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; monitor and initiate existing and new agreements needed for the regional communication system; and oversee the identification, prioritization and development of C2C plug-ins for local agencies.

Work on executing a Memorandum of Understanding by regional agencies to form a Regional Network Committee continued, with the purpose of establishing a regional network. This regional network would facilitate sharing of communications infrastructure, transportation data and transportation-related video. Staff initiated evaluation of upgrading technologies for video sharing opportunities.

The regional-level ITS Data Archiving project continued. 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 initiated evaluation of new methodologies for data transmission and archiving. Efforts continued to coordinate the multi-agency testing of the traffic signal C2C.

Staff completed the development of 511DFW Traveler Information System enhancements including Spanish version of all components. Staff began identification of additional future enhancements.

NCTCOG continued to work with NTTA, TxDOT, the City of Irving and the tow truck operator to stage tow trucks on the SH 161 corridor during the hours of operation of the peak-period shoulder lane. The lane is expected to close in FY2019 when the SH 161 corridor goes under construction.

Staff accumulated video footage of limited-access facilities within the Dallas-Fort Worth region. This video will be used to evaluate signage to identify improper directional information and other errors. This footage will also be utilized to improve way finding capabilities through signage refinements.

Surface Transportation Block Grant Program funds (CSJs 0902-00-160, 0902-00-176, 0902-00-182, 0918-00-233, 2964-01-050), Congestion Mitigation and Air Quality Improvement Program funds (CSJ 0918-00-242), Regional Toll Revenue funds (CSJ 0918-00-246), Texas Department of Transportation funds and Transportation Development Credits were utilized to support work activities.

This project is ongoing, and work will continue in FY2019.
Development of Regional and Corridor-Level TDM Strategies

Transportation Planning Funds

This element is ongoing throughout FY2018 and FY2019, providing for the planning and development of regional travel demand management (TDM) strategies including, but not limited to, employee trip reduction, carpool/vanpool, park-and-ride, 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 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. Additional TDM strategies will also be evaluated for their application. 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 document;
- Maintenance of and updates to the Regional Park-and-Ride Inventory database and map;
- Quarterly Regional Transit Coordination meetings with Dallas Area Rapid Transit, the Fort Worth Transportation Authority, and the Denton County Transportation Authority; and
- Monitoring and assessment of Metropolitan Transportation Plan Policy Bundle surveys for TDM-related survey components.

Work Performed and Status: Ongoing promotion and monitoring of regional and corridor-specific TDM strategies continued throughout FY2018. The TDM section of the Mobility 2045 Policy Bundle applications submitted by partner agencies was reviewed and scored. Staff hosted quarterly Regional Transit Coordination meetings with Dallas Area Rapid Transit, Fort Worth Transportation Authority (also known as Trinity Metro), and Denton County Transportation Authority, and provided vanpool providers updates on the Regional Vanpool Program, transit agency activities, and planned TDM-related events. Staff continued maintenance on the regional Park-and-Ride facility inventory. Monitoring of parking technologies and implementation of technology by regional partners continued. The TDM section of the 2045 Metropolitan Transportation Plan was also updated by staff.

Transportation Planning Funds were utilized to support these work activities.

This project is ongoing and work will continue in FY2019.

Special Events

Other Funding Sources

This program is ongoing throughout FY2018 and FY2019, 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;
- Funding sources or shared resources identified, and funding agreements executed with regional partners to implement projects; and
- Committee meetings.

**Work Performed and Status:** Staff coordinated activities, including the use of an inventory for regionally significant special events in the region; monitored special event calendars; and worked 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. Staff worked with TxDOT and the Cities of Arlington, Irving, and Grand Prairie to identify the hours of operation for the IH 30 HOV/managed t-ramp, reversible managed lanes, and SH 161 shoulder lane, and coordinated with TxDOT and NTTA to monitor the system and post messages on Dynamic Message Boards during 113 events.

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 FY2019.

**Managed Lane Technology Assessment**

*Other Funding Sources*

This element is ongoing throughout FY2018 and FY2019. To facilitate efficient operation and toll collection on the managed lanes, the region desires that a technology-based system be implemented 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 managed lanes. As part of this task, staff will provide public outreach and education regarding High Occupancy Vehicle (HOV)/managed lane pricing. Staff will also work with regional partners to develop approaches to address the implementation of occupancy-based tolling and dynamic pricing, and document lessons learned. 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 (CMAQ) funds, Surface Transportation Block Grant Program funds, Texas Department of Transportation funds, and RTC 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 HOV/managed lanes;
• Implementation and testing of pilot for technology to detect auto occupancy;
• Implementation and integration of technology to detect/verify auto occupancy on HOV/managed lane system; and
• Support for and participation in FHWA High Occupancy Vehicle/Managed Use Lane Pooled Fund Study.

**Work Performed and Status:** Quarterly meetings were held with partner agencies to discuss the operational aspect of the managed lanes within the region. A vendor was selected and began to test and implement an Automated Vehicle Occupancy Detection Solution. The pilot test was completed in January 2018 and the results were distributed to partner agencies. Staff worked with partner agencies to review pilot results, identify integration options, and develop a communication plan to continue to move forward with the selected vendor. In addition, staff continued to attend meetings and participate on the FHWA High Occupancy Vehicle/Managed Lane Pooled Fund Study.

Congestion Mitigation and Air Quality Improvement Program funds (CSJ 0902-00-171) Texas Department of Transportation funds and Regional Transportation Council Local funds were utilized to support work activities.

This project is ongoing, and work will continue in FY2019.

**Traffic Incident Management Training**

**Other Funding Sources**

This program is ongoing throughout FY2018 and FY2019, providing training for agencies responsible for managing and clearing traffic incidents. This training has been demonstrated to improve responder and motorist safety, and to reduce significantly 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. CMAQ funds, RTC Local funds, local funds, and Transportation Development Credits support this program. Consultant services may be utilized. Anticipated products include:

• TIM First Responder and Manager's Courses and TIM Executive Level Courses;
• Quick Clearance Crash Reconstruction Training workshops;
• Commercial Vehicle Enforcement Equipment Procurement Process and Training Program;
• Incident Management Equipment Purchase Call for Projects; and
• Support of general training and educational projects that promote the implementation of strategies that mitigate traffic incidents.

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 250 students attending. Staff reviewed and processed per-class invoices and performance reports, and maintained and updated course material. Activities related to oversight of project selected under the Incident Management Equipment Purchase 2014 Call for Projects (CFP) continued, including agency agreement execution and tracking activities for the remaining agencies in Phase 2; reviewing, processing, and approving reimbursement requests; invoice processing and tracking; communicating with award recipients; and performance reporting. Preparation began for the 2018 TIM CFP. Two Photogrammetry Software Training Workshops were hosted, with an attendance of 28 officers at the Basic Workshop and nine officers at the Advanced Workshop. The 2018 Traffic Incident Management Self-Assessment was coordinated and hosted in partnership with FHWA. Regional incident management performance measures, including incident response and clearance times, were requested and collected when available. Communication with Commercial Vehicle Enforcement (CVE) agencies continued including a March working group meeting. A survey was sent out to collect data on weight enforcement needs for the upcoming CVE Equipment and Training Procurement Process that was recently approved by TxDOT.

Congestion Mitigation and Air Quality Improvement Program funds (CSJ 0918-00-231), local funds and Transportation Development Credits were utilized to support these work activities. This project is ongoing, and work will continue in FY2019.

Mobility Assistance Patrol Program Administration

Other Funding Sources

This program is ongoing throughout FY2018 and FY2019, providing assistance to stalled or stranded motorists by helping them to move disabled vehicles from the main lanes of regional highway/freeway facilities and ultimately getting the vehicles operating or off the roadway completely. Provided to all motorists free of charge, this assistance includes minor mechanical and crash assistance, debris removal, and protection to first responders. Mobility assistance patrols are operated by the Dallas County and Tarrant County Sheriffs’ Offices. Activities are focused on congested roadway systems in Dallas and Tarrant Counties, but extend into portions of Collin and Denton Counties. Mobility Assistance Patrol Program (MAPP) coverage is also provided by the North Texas Tollway Authority on regional toll facilities and by private-sector partners 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. NCTCOG staff will provide program oversight. Anticipated products include:

• Evaluation of potential MAPP sponsorship opportunities and innovative tracking technologies;
• Assessment of the current program to ensure that the program is operating efficiently; and
• Documentation and analysis of program performance measures.

**Work Performed and Status:** Mobility Assistance Patrol Program (MAPP) performance measures were collected quarterly from the Dallas County Sheriff’s Office, Tarrant County Sheriff’s Office, the North Texas Tollway Authority, and private firms operating on the North Tarrant Express and LBJ Express corridors. These performance measures are combined at the end of each calendar year and added to the annual safety program performance report. Program development and budget assistance was coordinated with the Dallas County and Tarrant County patrols. Staff continued to investigate and encourage sponsorship opportunities as an innovative funding source for the program, and researched vehicle tracking technologies to improve the efficiency and effectiveness of the program.

Surface Transportation Block Grant Program funds (CSJ 0902-00-160) and Transportation Development Credits were utilized to support work activities.

This project is ongoing, and work will continue in FY2019.

**Regional Trip Reduction and Vanpool Programs**

**Other Funding Sources**

These programs are ongoing throughout FY2018 and FY2019. Both programs are designed to reduce employee commute vehicle trips. The Regional Trip Reduction Program (RTRP) is an educational commute options program aimed at educating large private and public employers in the region about available Travel Demand Management 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 pass program, walking, bicycling and similar strategies. The Try Parking It website, [www.tryparkingit.com](http://www.tryparkingit.com), the region’s ride-matching and commute tracking application is a major component of the RTRP. The DFW Connect-A-Ride website, [www.DFWConnectARide.com](http://www.DFWConnectARide.com), is the region’s first casual carpooling website and was developed as part of the Value Pricing Pilot Program along Interstate Highway 30.

The Regional Vanpool Program is one of the major rideshare programs for trip reduction, providing a “shared ride” alternative to single-occupancy vehicle travel for commuters traveling long distances or in areas with limited or no fixed-route service. The current Regional Vanpool Program is operated by Dallas Area Rapid Transit, the Fort Worth Transportation Authority, and the Denton County Transportation Authority.

Surface Transportation Block Grant Program funds, Regional Transportation Council Local funds, Transportation Development Credits, and local funds will be utilized for these programs. NCTCOG staff will provide management, oversight, and implementation of the programs. Consultant assistance will be utilized. Anticipated products include:

• Direct employer outreach to educate employers on available TDM strategies and assist them in establishing and/or strengthening alternate commute programs in the workplace;
• Maintenance of the RTRP performance database which includes monitoring and publication of ridership, VMT reduced, and emission reductions performance measures;
• Oversight of the Try Parking It website;
• Maintenance of the DFW Connect-A-Ride website;
• Promotion of NCTCOG’s Try Parking It website and DFW Connect-A-Ride website to increase the number of users in the programs;
• Coordination and oversight of regional vanpool program, including budget and invoice activities; and operational processes; and
• Management of the Vanpool Managed Lane Toll Reimbursement process.

Work Performed and Status: Project implementation and oversight activities continued for the Regional Vanpool Program and Regional Trip Reduction Program. Regional Vanpool Program activities included annual work plan, interlocal agreement development; coordination of program budgets; invoice review and payment activities for the DART Vanpool Program; and regular communications with vanpool program staff from DART, DCTA, Trinity Metro and regional private vanpool providers. At the end of FY2018, 383 total vanpools were in operation (292 through DART, DCTA, and Trinity Metro combined; and 91 through private vanpool providers), which contributed to vehicle miles of travel (VMT) reductions, along with producing savings of volatile organic compound (VOC) and nitrogen oxide (NOX) emissions. Staff continued to review and process reimbursement requests for the Vanpool Managed Lane Toll Reimbursement Program. Staff continued to manage and administer the Regional Trip Reduction Program, including oversight of the Try Parking It website. Staff participated in ongoing program implementation activities such as active communication and outreach to regional employers and commuters; participation in employer and community outreach events; and promotion of TDM strategies to regional employers and the general public. Try Parking It website project management activities included vendor oversight; monthly review/processing of invoices; monitoring of reward donations; commuter challenge oversight; collaborating with transit agencies in managing vanpool related information; and assisting commuters with website related inquiries. The Try Parking It Commuter Transportation Champion of the Year Award Luncheon to recognize individuals and employers that demonstrate a commitment to promoting and advancing commuter transportation options in the region was hosted by staff. Staff also worked with staff from the City of Plano and DART to develop business plans for the creation of two Transportation Management Associations within their jurisdictions. Regional TDM-related performance measures continued to be collected, tracked and monitored, and the annual TDM Performance Report for the region was published.

Surface Transportation Block Grant Program funds (CSJs 0918-00-280, 0918-00-214, 0918-00-217, and 0902-00-160), local funds and Transportation Development Credits supported work activities.

This project is ongoing, and work will continue in FY2019.
Regional Traffic Signal Retiming and Minor Intersection Improvement Program

**Other Funding Sources**

This program is ongoing throughout FY2018 and FY2019 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 local governments 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, high volumes, regional distribution, previously funded and unfunded projects, and safety. Improvements include, but are not limited to, traffic signal cabinets, traffic signal controllers, battery backup, intersection cameras, vehicle detection equipment, communications equipment, and Global Positioning System clocks.

Congestion Mitigation and Air Quality Improvement Program funds, Regional Transportation Council Local funds, Texas Department of Transportation funds, other local funds, and Transportation Development Credits will support this program. Consultant services may be utilized. NCTCOG staff will provide oversight of this project. Anticipated products include:

- A baseline analysis;
- Recommendation and implementation of low-cost capital improvements;
- Implementation of signal retiming plans;
- Identification of and implementation support for major and minor improvements;
- An analysis of improved conditions;
- Traffic Signal equipment procurement;
- Monthly progress meetings with consultants and TxDOT, as well as meetings with cities and consultants as appropriate; and
- Review of corridor reports, project summary reports, consultant invoices and progress reports.

**Work Performed and Status**: Coordination and implementation of Regional Traffic Signal Retiming Program Phases II, III, and IV continued, improving timing plans along arterial transportation systems and frontage roads. The Regional Traffic Signal Retiming Project includes a baseline analysis, recommendation and implementation of low-cost capital improvements, implementation of signal retiming plans, and a subsequent improvement analysis (improved conditions).

Staff provided oversight of consultant(s) work, quantified air quality benefits, integrated collected data, and coordinated with local agencies. Consultants submitted final reports for thirteen completed corridors.

Phase V and Minor Intersection Improvements target corridors for retiming and low-cost improvements to enhance mobility and improve air quality. Staff completed the Call for Projects for the Regional Traffic Signal Retiming and Minor Intersection Improvement
Programs. The corridors were selected based on several factors, including, but not limited to, high volumes, regional distribution, and previously funded and unfunded projects.

Congestion Mitigation and Air Quality Improvement Program funds (CSJs 0902-00-152, 0902-00-153, 0918-00-252, and 0918-00-253) and Transportation Development Credits were utilized to support work activities.

This project is ongoing, and work will continue in FY2019.

Congestion Management and Traffic Flow Improvements Projects

Other Funding Sources

This project is ongoing throughout FY2018 and FY2019, and is to administer, implement, and support one or more Call(s) for Projects to award funding for congestion and traffic flow improvements to local government agencies, Independent School Districts, and/or private-sector companies. Such 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 (CMAQ) funds and Transportation Development Credits support this project. Anticipated products include:

- Call(s) for Projects process for review and approval;
- Subrecipient agreements for pre-approval;
- Executed subrecipient agreements; and
- Review of monthly progress reports.

Work Performed and Status: No work was completed on this project in FY2018.

Work is expected to begin in FY2019.

Marketing Efforts for the DFW Connector Pilot Program

Other Funding Sources

The DFW Connector Pilot Program will be ongoing throughout FY2018 and will test strategies to increase TollTag usage in the DFW Connector corridor. Strategies will be tested independently to determine the relative success in increasing TollTag usage that can be applied to other corridors in the region. The strategies will be closely coordinated with the North Texas Tollway Authority, which will be responsible for implementing many of the strategies. Some strategies will be implemented only in targeted areas, which will be zip codes with a high number of ZipCash customers in low- to moderate-income areas. Strategies include TollPerks for new TollTag customers, prize giveaways, preloaded TollTags to targeted areas, TollTag sales at inspection stations in targeted areas, and TollTag sales at car dealerships in targeted areas. This project will utilize Regional Toll Revenue funds and possible contributions from the Texas Department of Transportation. Consultant assistance and paid media may be utilized when needed. Anticipated products include:
• Increased TollTag usage; and
• Report summarizing strategy results.

**Work Performed and Status:** An agreement was developed with the North Texas Tollway Authority to act as a consultant to complete three strategies: TollPerks for new TollTag customers, prize giveaways, and preloaded TollTags to targeted areas. Advertising strategy and creative designs for those advertisements were approved for the TollPerks and prize giveaways strategies. Advertising of the initiatives is complete, and a draft report has been prepared and is under review, which will determine whether an increased TollTag usage is noted. Advertising strategy and creative designs for those advertisements were approved for the preloaded TollTags to targeted areas strategy.

Regional Toll Revenue funds (CSJ 0902-90-073) were used to support work activities. This program is ongoing and will continue in FY2019.

**Video and Analytics Evaluating Lost Capacity Due to Technology-Related Behaviors**

**Other Funding Sources**

University Partnership Program (UPP) assistance will be initiated to analyze delay on the transportation system associated with distracted drivers. This study will investigate the assumed driver delay versus actual driver time delayed due to distractions. A survey may be conducted to observe reaction time and analyze if idling, queuing and other reductions of capacity has increased since the onset of technology. The study will determine if different assumptions used for modeling and operations need to be adjusted in order to more accurately reflect actual delay associated with new technology distractions. Surface Transportation Block Grant Program funds and Transportation Development Credits will be used to support this project. Anticipated products include:

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

**Work Performed and Status:** No work was completed on this project in FY2018.

Work is expected to begin in FY2019.

**5.06 Regional Freight Planning**

**Transportation Planning Funds**

University Partnership Program (UPP) assistance was initiated in FY2017 to study the feasibility of underground short-haul freight pipelines. A case study for a Dallas Fort Worth Airport application was undertaken. Such a system could have the potential to reduce the number of trucks on urban roadways, thus enhancing both the roadway capacity and safety, as well as
reducing adverse environmental impacts such as emissions and noise. This assistance should be completed in early FY2018. Anticipated products include:

- UPP final report on Feasibility of Underground Short-haul Freight Pipeline – Application to the DFW Airport.

**Work Performed and Status:** Multiple stakeholder meetings were held to discuss the progress of the feasibility study in FY2018. The report identified potential locations at the airport that could be suitable for the implementation of underground short-haul freight pipelines and a joint-use freight facility. The final report was completed. Transportation Planning Funds were used to complete this project.

**Other Funding Sources**

This subtask is ongoing throughout FY2018 and FY2019, assessing the impact of truck traffic, rail freight, and other freight movement issues within and through the DFW Region. This task includes the collection and analysis of data pertaining to freight mobility and safety. These tasks will include continued coordination with private-sector partners in the trucking, rail, and freight-forwarding businesses. Also, University Partnership Program (UPP) assistance will be utilized for supporting planning studies and analysis. Surface Transportation Block Grant Program (STBG) funds, Texas Department of Transportation, Regional Transportation Council (RTC) Local funds and Transportation Development Credits will be utilized to support this project. Consultant assistance will be used. Anticipated products include:

- Quarterly Regional Freight Advisory Committee (RFAC) meetings;
- Regional Transportation Council Intermodal/Multimodal/High Speed Rail/Freight Subcommittee meetings, as needed;
- Support to the USDOT Federal Highway Administration and Texas Department of Transportation for various projects as needed;
- Monitoring of truck-lane restriction corridor conditions;
- Various reports and studies regarding freight conditions in the DFW region, including a Regional Hazardous Materials Route Study, Economic Impact Analyses and a Freight and Passenger Rail Integration Study;
- Recommended follow-up studies identified in Freight North Texas: The North Central Texas Regional Freight System Inventory, including a Land-Use Compatibility Analysis and a Data Collection Program which could include traffic counts, classification counts and surveys for the Regional Freight Model;
- Freight Mobility Plan;
- Public outreach and educational programs; and
- UPP report on Automated Vehicles and Freight Transportation Analysis.
**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, February, and April. Staff participated in the Texas Freight Advisory Committee meeting held in November, hosted by the Texas Department of Transportation. Truck Lane Restriction corridor monitoring was also an ongoing initiative in FY2018 with a review of the current TxDOT timeline of implemented signage on designated routes. Work continued on the Regional Hazardous Material HAZMAT Route Study which consisted of compiling the data collected in FY2017 to form an initial review. This review analyzes the current conditions of regional HAZMAT routes and potential routes through the region. Work continued on Freight North Texas (FNT) recommended follow-up studies with the completion of the Truck Parking Study. Staff began work on the land-use analysis, also an FNT recommended study. Work efforts for the land-use analysis focused on gathering data and beginning the literature review. Classification traffic counts were collected on 1,000 locations during 24 consecutive hours on freeways, arterials, collectors and frontage roads between February 2017 and February 2018. Staff attended the Great American Truck Show and distributed regional freight planning publications including fact sheets, flyers, and promotional items highlighting goods movement, air quality, and other program offerings to freight carriers and other interested parties.

Surface Transportation Block Grant Program funds (CSJ 0902-48-858), Texas Department of Transportation funds, and Regional Transportation Council Local funds were utilized to support work activities.

Work is ongoing and will continue in FY2019.

**5.07 Transportation System Security and Emergency Preparedness**

*Transportation Planning Funds*

This program is ongoing throughout FY2018 and FY2019, 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 provides 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 (ITS) 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 (identifying transportation critical items or elements 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 security of the region’s transportation system.

Also in collaboration with the Emergency Preparedness Department, staff coordinated with regional partner agencies regarding critical infrastructure and security precautions. Technical transportation data was evaluated to maintain the inventory of critical infrastructure and key resources. Staff participated in Cyber Threat and Public Safety initiatives.

Local and State agencies were encouraged to develop internal approaches to identify and protect transportation infrastructure through funding opportunities and opportunities for cost reduction. Staff participated in discussions among transportation, law enforcement and other agencies. Transportation staff attended meetings and training associated with the Public Works Emergency Response Team to share transportation-related information and insight.

Transportation resource support for mass evacuation events is outlined in *Mobility 2045: The Metropolitan Transportation Plan for North Central Texas*.

Mobility 2045 policy bundles outlining policies related to transportation security were reviewed and modified as part of the long-range transportation plan.

Transportation Planning Funds were utilized to support work activities.

This project is ongoing, and work will continue in FY2019.

**5.08 Roadway and Railroad Safety**

This subtask is ongoing throughout FY2018 and FY2019, 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, 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 Fatality Analysis Reporting System, and hazardous material spill data from the National Response Center;
- Regional Safety Information System implementation activities;
- Monitoring and promotion of the implementation of regional intersection improvements outlined in NCTCOG’s Intersection Safety Implementation Plan (ISIP) and the Texas ISIP;
- Annual Safety Program performance measures;
- Safety-related education and training courses for member agencies; and
- Analysis of crash data and recommendations of safety improvements at high-crash locations.

**Work Performed and Status:** NCTCOG received, processed, and analyzed annual crash data from TxDOT for 2013-2017. Fatality and serious injury performance measures were also collected using TxDOT’s Crash Records Information Systems (CRIS) and Fatality Analysis Reporting System (FARS) and reported in federally mandated safety performance targets. National Response Center (NRC) data was used to track HAZMAT incidents which occurred on limited access facilities. Staff fulfilled crash data requests for internal staff as well as partner agencies, as requested. Low-cost intersection safety improvements were tracked in the Dallas and Fort Worth TxDOT Districts. Crash data was analyzed to develop regional crash rates for the 12-county Metropolitan Planning Area. Staff performed a contributing factor analysis for serious injury and fatality crashes on limited access facilities, as well as for Driving Under the Influence/Driving While Intoxicated related crashes. Tracking, monitoring, and reporting of regional safety-related programs and projects continued and were published in the annual Regional Safety Performance Report. Quarterly meetings of the Regional Safety Advisory Committee were hosted. Staff participated in the development process for the Texas Strategic Highway Safety Plan and participated on each of the seven emphasis area teams to develop crash reduction strategies in each area. Staff also worked to established Safety Performance Targets for the region in support of TxDOT’s targets. The Safety section of the 2045 Metropolitan Transportation Plan was updated, and partner applications submitted as part of the Mobility 2045 Policy Bundles process were reviewed/rated.

Transportation Planning Funds were used to support work activities.

This project is ongoing, and work will continue in FY2019.

**Other Funding Sources**

Surface Transportation Block Grant Program funds, local funds, and Transportation Development Credits will also be utilized to support this program. Anticipated products include:

- Procurement of a Regional Safety Information System application tool;
• Driver safety public education, outreach, and information programs including a contributing factor marketing campaign;
• Regional roadway safety strategic plan development activities; and,
• Systemic safety improvement funding program activities.

**Work Performed and Status:** Staff continued to investigate and participate in multiple software demonstrations for web-based mapping software applications that would be used to analyze regional crash data. Data analysis continued for the Driver Safety Social Marketing Campaign aimed at improving and correcting negative driver behaviors to assist in decreasing vehicle crashes throughout the region. Preliminary planning for the development of a regional roadway safety plan and Towards Zero Regional Plan was initiated.

Local funds were utilized to support work activities.

This is an ongoing project, and work will continue in FY2019.

**Railroad Crossing Coordination**

**Other Funding Sources**

This element is ongoing throughout FY2018 and FY2019 and includes the identification, planning, and implementation of rail crossing projects throughout the DFW region. Surface Transportation Block Grant Program funds, RTC Local funds, Texas Department of Transportation funds, and Transportation Development Credits will be utilized to support this project. Anticipated products include:

• Maintenance of the regional banking program;
• 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 on specific study areas were continued for Prairie Creek, Joppa, Ennis, and Haslett crossings. Staff worked with many cities to increase regional crossing safety partnerships including the City of Ennis, City of Dallas, City of Arlington, and the City of Fort Worth.

Surface Transportation Block Grant Program funds (CSJ 0902-48-858), Texas Department of Transportation funds, and Regional Transportation Council Local funds were utilized to support work activities.

Work will continue in FY2019 on railroad crossing coordination activities.
5.09 Regional Aviation Planning and Education

This work program subtask includes planning for the regional aviation system and the surface transportation system that links aviation facilities to the region. In addition, efforts to enhance and expand education and outreach regarding careers in aviation are included.

Surface Access to Aviation

Transportation Planning Funds

This element is ongoing throughout FY2018 and FY2019. 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 commercial and general aviation facilities. This project also includes input to the Regional Transportation Council and the Air Transportation Advisory Committee, as well as the Metropolitan Transportation Plan (MTP). Anticipated products include:

- Documentation of surface access to aviation impacts;
- Inventory and data collection of infrastructure improvements;
- Analysis and recommendations for infrastructure improvements affecting aviation;
- Travel-time contours for commercial and general aviation facilities;
- Inventory of surface transportation access to aviation facilities; and
- Monitoring and assessment of Metropolitan Transportation Plan Policy Bundles survey for aviation-related survey components.

Work Performed and Status: In FY2018 staff collected data and continued to maintain an inventory of surface access improvements to aviation facilities within the region. The review and funding of surface access improvements request from regional facilities was completed and incorporated into the Transportation Improvement Program. Staff developed regional aviation goals and strategies outlined in Mobility 2045: The Metropolitan Transportation Plan for North Central Texas. This included the review and scoring of the Aviation section of the Mobility 2045 policy bundle applications that were submitted by local governments, transit agencies and independent school districts. Staff continued to collect air cargo and commercial aviation data to monitor demand trends that could affect surface access to aviation facilities.

Transportation Planning Funds were used to support work activities.

Work will be ongoing in FY2019.
Regional Aviation System Planning

Other Funding Sources

This element is ongoing throughout FY2018 and FY2019 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. This project is funded through RTC 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 FY2018, four meetings of the Air Transportation Advisory Committee (ATAC) were held. Staff continued to engage Federal Aviation Administration (FAA) and the Texas Department of Transportation Aviation Division in discussions regarding airport funding.

In FY2018, staff also took the first step towards a new regional system plan update by measuring the accuracy of the current system plan forecast. This forecast accuracy analysis revealed that the current system plan forecast is still on track and will continue to be monitored in FY2019 and beyond.

Staff collaborated and coordinated with numerous stakeholders to continue work on the safe integration of UAS into our region's airspace, including, but not limited to, the planning activities associated with the UAS Safety and Integration Initiative/Task Force, set to begin in FY2019.

Regional Transportation Council Local funds were used to support work activities.

Work will be ongoing in FY2019.
Aviation Education Integration and Outreach

Other Funding Sources

This element is ongoing throughout FY2018 and FY2019 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, RTC Local funds, and industry partnerships. Anticipated products include:

- Participation in aviation advisory committees and presentations to school boards;
- Continued development of a Speakers Bureau;
- Creation of an 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: The aviation careers website was promoted at NCTCOG outreach events. In FY2018, staff participated in 22 outreach events (including conferences, expos, career days, and career fairs) promoting both the FLYBY DFW app and NCTaviationcareers.com. The aviation careers website is continuously updated with new content and relevant regional events and maintained to ensure accuracy. Staff continued to be involved with the DFW Aerospace Consortium to improve the aviation and aerospace talent pool in the region.

Staff also participated on the Irving High School Aviation Advisory Board and represented the Aviation Advisory Board on the Irving ISD Career and Technical Education District Advisory Board.

Regional Transportation Council Local funds were used to support work activities.

Work will continue in FY2019.

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 Fort Worth, Joint Reserve Base Land Use and Community Outreach Implementation

Other Funding Sources
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. This element is ongoing throughout FY2018 and FY2019. Regional Transportation Council Local 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 meetings; and
- Documentation and presentation material for forums, workshops, and meetings.

**Work Performed and Status:** Staff administration of the NAS Fort Worth, JRB Regional Coordination Committee (also known as the Regional Coordination Committee) during FY2018 included conducting four quarterly committee meetings and two officer meetings. Staff supported the committee by providing legislative updates related to compatible development, communication to residents affected by military operations and unmanned aircraft vehicles as detailed in the RCC Legislative Program for the 85th Texas Legislature. Other staff 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 Fort Worth, JRB Commanding Officer.

Regional Transportation Council Local funds and local government funds were used to support work activities.

This project is ongoing, and work will continue in FY2019.

**Regional Joint Land-use Study**

**Other Funding Sources**

The Department of Defense Office of Economic Adjustment (DOD OEA) funds planning studies to identify recommendations to maintain military operations and support compatible development surrounding military installations. NCTCOG received funding from the DOD OEA in FY2015 to conduct a Regional Joint Land-use Study (JLUS). The Regional JLUS will update the JLUS previously conducted for NAS Fort Worth, JRB, and analyze encroachment issues common to additional military facilities throughout the region. RTC Local funds will also be used for this project. Anticipated products include:

- Tool to track recommendations for each installation and progress made towards implementation:
- Outreach documents and presentations to stakeholder groups; and
Grant management requirements.

**Work Performed and Status:** The final report, as prepared by the Consultant, was distributed to study partners and made available on the project website. A tool was developed to track implementation of the study's recommendations by installation and by responsible entity. Action summaries toward implementation have been prepared and shared online. Resolutions were sought from local governments that participated in the study and presentations were made to city councils to summarize the study. An informational brochure was prepared for the NAS Forth Worth, JRB area to highlight progress since the previous JLUS and new recommendations.

US Department of Defense funds and Regional Transportation Council Local funds were used to support work activities.

This project is complete.

### 5.11 Automated Vehicle Technology

Activities in Subtask 5.11 will plan for the arrival of automated vehicles, focusing on the implications that automated vehicles may have with regard to travel demand, land use, and congestion. Planning tools, including travel forecasting models, are going to need to be able to account for these vehicles in the system. Automated vehicles are no longer only being discussed in the context of automobile passenger travel, but also in freight, transit, and people mover/shuttle systems.

**Automated Vehicles: Planning**

**Transportation Planning Funds**

This program is ongoing throughout FY2018 and FY2019 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;
- Establishment of information clearinghouse for 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:** Planning activities included introducing automated vehicle developers and numerous transportation technology companies to local and state officials for the purpose of launching pilot programs in North Texas. Two of the automated vehicle developers are now launching pilot deployments in the region. Another major activity included...
outreach and education to public and private organizations at more than 40 speaking engagements, which included up-to-date information on state-of-the-industry, legislative and regulatory landscapes, and sessions outlining major impacts of automated vehicles on infrastructure planning.

Staff began planning a three-tier funding initiative to enhance and accelerate both planning and deployment of automated vehicles across the region: (Tier 1) provide automated vehicle planning resources for local partners; (Tier 2) provide funding resources to local partners that deploy automated vehicles; and (Tier 3) plan and implement automated vehicle deployments that serve communities and use cases that are underserved or may not be served by current market conditions. Efforts were also initiated to secure funding for the programs by the end of 2019.

Transportation Planning Funds were used to support work activities.

Work is ongoing and will continue in FY2019.

Automated Vehicles: Development and Deployment

Other Funding Sources

This program is ongoing throughout FY2018 and FY2019 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, building information tools for policy makers and the public, and examining direct employment-related impacts of automated vehicles. Consultant assistance may be utilized to support work activities. University Partnership Program (UPP) assistance will continue to be utilized to support work activities in the information tools and employment impact study. This program uses Surface Transportation Block Grant Program funds, Congestion Mitigation and Air Quality Improvement Program funds, Texas Department of Transportation funds, Regional Transportation Council Local 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;
- Advancing emerging cellular-V2X, DSRC and other communications technologies;
- Liaison to the Smart City/Smart State program;
- Information tools about automated vehicles; and
- Reports on direct employment-related impacts of automated vehicles.

Work Performed and Status: Through the University Partnership Program, NCTCOG partnered with two universities on automated vehicle initiatives. One initiative was for the
conduct of a study on the workforce impact of automated transportation and the other was to develop an automated vehicle resource webpage and infographic.

Two rounds of grants were awarded to local governments for (1) developing traffic signal data sharing capabilities and (2) integrating Waze traffic data into local traffic management systems and tying that to the regional 511DFW system. Additionally, NCTCOG advised partner entities on possible automated vehicle solutions for mobility problems they have identified—including shared mobility use cases. Waze Carpool was connected to the region's TryParkingIt program, which led to a formal subsidy program for carpooling. Finally, NCTCOG assisted the City of Frisco to deploy the first on-street automated vehicle pilot program in Texas. The intent is to serve a cluster of corporate and mixed-use campuses that hold approximately 10,000 office tenants and residents.

NCTCOG received approval of a grant proposal to partner with the Texas Department of Transportation (TxDOT) to implement the IH 30 Technology Corridor project, which is part of TxDOT’s Connected Freight Corridor (TCFC) program that includes piloting new communications technologies along the highways that compose the "Texas Triangle." Technologies include direct short-range radio communications (DSRC) and fifth generation (5G) wireless technologies. This project along IH 30 will allow NCTCOG and other agencies to test the efficacy of various connected vehicle technologies.

Surface Transportation Block Grant Program funds (CSJs 0902-90-100, 0902-00-182, and 0902-00-233), Congestion Mitigation and Air Quality Improvement Program funds (CSJs 0902-00-152, 0918-00-252, and 0918-00-253), Texas Department of Transportation funds, Regional Transportation Council Local funds, and Transportation Development Credits were utilized to support work activities.

Work is ongoing and will continue in FY2019.
### TASK 5.0 – FUNDING SUMMARY

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<td><strong>99.9%</strong></td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>$610,700</strong></td>
<td><strong>$306,700</strong></td>
<td><strong>$308,768</strong></td>
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### TASK 5.0 - FUNDING SUMMARY (cont.)

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<th>Expended (FY2019)</th>
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<th>% Expended of Authorized (2-year)</th>
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<th>% Expended of Authorized (2-year)</th>
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</table>

¹ TxDOT does not provide authorized funding at a Sub-task level. Funding is reported at a Mega-task level.
² NCTCOG Local funding was used to cover small cost overruns

### TASK 5.0 - TPF FUNDING SUMMARY FY2018

<table>
<thead>
<tr>
<th>Amount Programmed</th>
<th>Amount Authorized¹</th>
<th>Amount Expended</th>
<th>Balance of Programmed</th>
<th>% Expended Authorized</th>
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</thead>
<tbody>
<tr>
<td>5.01 - Regional Transportation Corridor Studies</td>
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<td>$500,300.00</td>
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<td>5.03 - Land-use/Transportation Initiatives</td>
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<td>$186,200.00</td>
<td>$203,365.45</td>
<td>($17,165.45)</td>
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<td>5.05 - Congestion Management Planning and Operations</td>
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<td>$2,596,108.70</td>
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</table>

¹ TxDOT does not provide authorized funding at a Subtask level. Funding is reported at a Mega-task level.
VI. FUNDING SUMMARIES
### Transportation Planning Funds (FY2018)

<table>
<thead>
<tr>
<th>UPWP Task</th>
<th>Amount Programmed</th>
<th>Amount Expended</th>
<th>Balance of Programmed</th>
<th>% Expended of Programmed</th>
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</thead>
<tbody>
<tr>
<td>1.0</td>
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<tr>
<td>2.0</td>
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<td>$1,718,879.00</td>
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<tr>
<td>3.0</td>
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<tr>
<td>5.0</td>
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<tr>
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### Transportation Planning Funds (FY2019)

<table>
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## Transportation Planning Funds
### (Two-Year Total)

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<th>% Expended Programmed</th>
<th>Balance of Authorized</th>
<th>% Expended Authorized</th>
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</thead>
<tbody>
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<td>$ 4,521,600.00</td>
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<td>$ 2,605,316.51</td>
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<tr>
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<td>$ 3,568,600.00</td>
<td>$ 3,568,600.00</td>
<td>$ 1,849,721.00</td>
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<td>$22,941,600.00</td>
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<td>$12,074,991.19</td>
<td>47.4%</td>
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**FY 2018**

- **Carryover**: $6,372,718.57
- **FHWA PL-112**: $7,589,902.00
- **FTA 5303**: $2,774,086.35
- **Total Revenue**: $16,736,706.92
- **Total Expended**: $10,866,608.81
- **Carryover**: $5,870,098.11

**FY 2019**

- **Carryover**: -
- **FHWA PL-112**: -
- **FTA 5303**: -
- **Total Revenue**: -
- **Total Expended**: -
- **Carryover**: -
### Transportation Planning Funds

<table>
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<th>Amount Programmed</th>
<th>Amount Authorized</th>
<th>Amount Expended</th>
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<th>% Expended of Programmed</th>
<th>Balance of Authorized</th>
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## Congestion Mitigation and Air Quality Improvement Program Funds

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### Department of Defense Funds

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<th>% Expended of Programmed</th>
<th>Balance of Authorized</th>
<th>% Expended of Authorized</th>
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<tr>
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<td>$49,905</td>
<td>$49,784</td>
<td>($27,644)</td>
<td>224.9%</td>
<td>$121</td>
<td>99.8%</td>
</tr>
<tr>
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### Department of Energy Funds

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<td>$456,015</td>
<td>$270,888</td>
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<td>$266,519</td>
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### Environmental Protection Agency Funds

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### Federal Highway Administration Funds

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### Local Funds

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## North Central Texas Council of Governments Local Funds

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## North Texas Tollway Authority Funds

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<td><strong>Total</strong></td>
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<td><strong>$2,519</strong></td>
<td><strong>$45,681</strong></td>
<td><strong>5.2%</strong></td>
<td><strong>$69,655</strong></td>
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### Regional Toll Revenue Funds

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## Surface Transportation Block Grant Program Funds

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## Texas Commission on Environmental Quality Funds

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## Texas Department of Transportation Funds

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<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>$0</td>
<td>0.0%</td>
<td>$0</td>
<td>0.0%</td>
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<tr>
<td>5.00</td>
<td>$3,738,100</td>
<td>$2,331,404</td>
<td>$709,549</td>
<td>$3,028,551</td>
<td>19.0%</td>
<td>$1,621,855</td>
<td>30.4%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$3,911,860</strong></td>
<td><strong>$2,505,164</strong></td>
<td><strong>$883,309</strong></td>
<td><strong>$3,028,551</strong></td>
<td><strong>22.6%</strong></td>
<td><strong>$1,621,855</strong></td>
<td><strong>35.3%</strong></td>
</tr>
</tbody>
</table>
### SUMMARY OF FUNDS AND EXPENDITURES FY2018-FY2019

<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>1.0</td>
<td>$6,302,900</td>
<td>$4,479,938</td>
<td>$3,087,052</td>
<td>$0</td>
<td>$3,087,052</td>
<td>$3,215,848</td>
<td>49.0%</td>
<td>$1,392,887</td>
<td>68.9%</td>
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<td>$4,883,315</td>
<td>$2,285,359</td>
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<td>$4,513,282</td>
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<td>$2,597,956</td>
<td>46.8%</td>
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<td>$90,668,480</td>
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<td>$93,295,017</td>
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<td>$68,305,951</td>
<td>24.7%</td>
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<tr>
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<td>$5,846,770</td>
<td>$6,904,395</td>
<td>$2,007,375</td>
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<td>$4,897,020</td>
<td>29.1%</td>
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<tr>
<td>5.0</td>
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<td>$55,239,696</td>
<td>$15,093,507</td>
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<td>$15,093,507</td>
<td>$47,691,863</td>
<td>24.0%</td>
<td>$40,146,189</td>
<td>27.3%</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>$197,391,227</strong></td>
<td><strong>$162,175,825</strong></td>
<td><strong>$44,835,822</strong></td>
<td><strong>$0</strong></td>
<td><strong>$44,835,822</strong></td>
<td><strong>$152,555,405</strong></td>
<td><strong>22.7%</strong></td>
<td><strong>$117,340,003</strong></td>
<td><strong>27.6%</strong></td>
</tr>
</tbody>
</table>