

Truck Parking Study

A Freight North Texas Study

April 2018



A Product of the Transportation Department Freight Team



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Table of Contents

1.0 Introduction	1
1.1 The Importance of Freight	2
1.2 Freight North Texas.....	2
1.3 Regional Truck Parking Study.....	5
1.4 Summary	9
2.0 Regional Conditions	11
2.1 Regional Overview	11
2.2 Literature Review	13
2.3 Public Truck Parking.....	17
2.4 Regional Truck Stops.....	20
2.5 Local Truck Parking Ordinances	23
2.6 Hours of Service	26
2.7 In Region Travel Times	27
2.8 Heavily Traveled Freight Corridors	31
2.9 Driver Survey and Stakeholder Outreach	32
3.0 Analysis	35
3.1 Review of Driver Survey Results	35
3.2 Identifying Regional and State Issues	37
3.3 Corridors of Concern Criteria and Matrix	39
3.4 Corridors of Concern.....	41
3.5 Conclusion.....	53
4.0 Recommendations	55
4.1 State and Regional Recommendations.....	55
4.2 Partnership Opportunities	57
4.3 Technology Enhancements and Applications.....	58
4.4 Corridors of Concern Specific Recommendations	59
4.5 Next Steps	62
Report Summary	63



List of Figures

Figure 1-1: Metropolitan Planning Area	1
Figure 2-1: Regional Freight Facilities	12
Figure 2-2: TxDOT Rest Area Study	18
Figure 2-3: Regional Truck Stops	19
Figure 2-4: Regional Overnight Parking	22
Figure 2-5: Regional Fuel Centers	23
Figure 2-6: Travel Time from Great Southwest	28
Figure 2-7: Travel Time from Alliance	29
Figure 2-8: Travel Time from IIPPOD	30
Figure 2-9: Travel Time from Mesquite	31
Figure 3-1: Survey Requested Parking Locations.....	37
Figure 3-2: Park-and-Ride Facilities	39
Figure 3-3: IH 30/ SH 360 (Great Southwest Area).....	42
Figure 3-4: South Dallas (IH 45 and IH 20)	44
Figure 3-5: IH 35W (North of Downtown Fort Worth)	46
Figure 3-6: North Dallas (IH 35E and IH 635)	48
Figure 3-7: East Dallas County (IH 635).....	50
Figure 3-8: Parker County (IH 20 and IH 30)	52

List of Tables

Table 2-1: Rest Areas near the 12-County Metropolitan Planning Area	20
Table 2-2: Cities with Significant Freight-Oriented Development and Local Truck Parking Ordinances.....	24
Table 2-3: Hours of Service Requirements	27
Table 2-4: Heavily Traveled Freight Corridors	32



Appendices

Appendix 1.0: Complete Truck Parking Inventory

Appendix 2.0: Local Truck Parking Ordinances

Appendix 3.0: Driver Survey

Appendix 4.0: Corridors of Concern Matrix

Appendix 5.0: Corridors of Concern Recommendation Summary

Appendix 6.0: References

Appendix 7.0: Figures



Truck Parking Study
A FREIGHT NORTH TEXAS STUDY

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1.0 Introduction

Since 1974, the North Central Texas Council of Governments (NCTCOG) and the Regional Transportation Council (RTC) have served as the Metropolitan Planning Organization (MPO) for the Dallas-Fort Worth area. The North Central Texas region is a national leader and innovator in transportation policies, programs, and projects. NCTCOG oversees freight system planning in the NCTCOG 12-county Metropolitan Planning Area (MPA), shown in Figure 1-1. This 12-county region covers approximately 9,500 square miles and more than 170 municipalities.

Figure 1-1: Metropolitan Planning Area

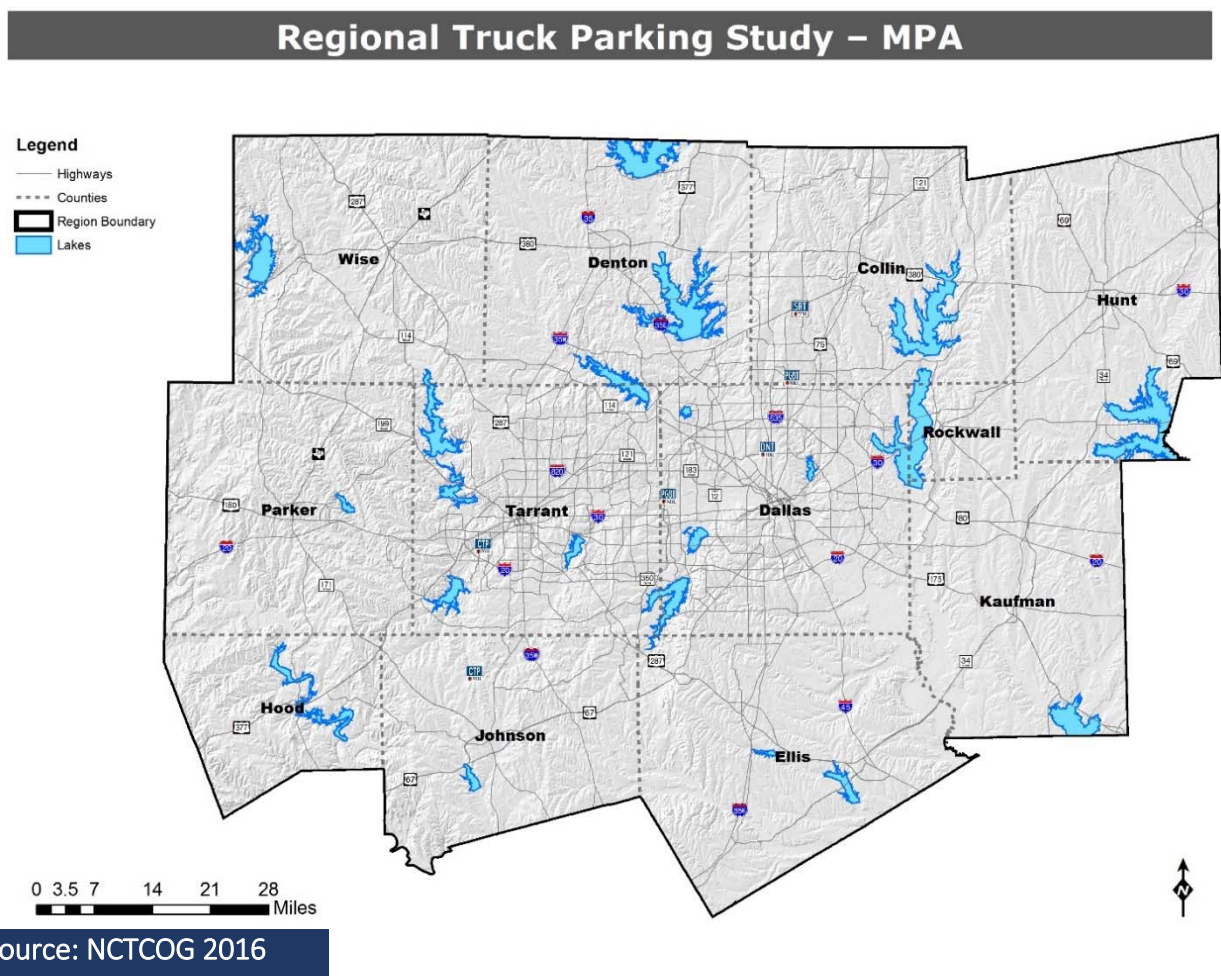


Figure 1-1 Metropolitan Planning Area 3

Figure 1-1: The North Central Texas MPA includes the counties of Collin, Dallas, Denton, Ellis, Hood, Hunt, Johnson, Kaufman, Parker, Rockwall, Tarrant and Wise.

The Regional Transportation Council (RTC) serves as the policy body for the Metropolitan Planning Organization for North Central Texas. The RTC is a 44-member independent

transportation policy body comprised of elected or appointed officials from the metropolitan area and representatives from area transportation providers. The RTC relies on technical committees made up of staff from local governments and transportation agencies to review, comment on, and prepare recommendations for transportation improvements. NCTCOG's Transportation Department provides support and staff assistance to the RTC and its technical committees.

1.1 The Importance of Freight

Freight and goods movement are essential to our daily lives. Without freight movement, manufactures would not be able to operate, homes could not be built, fuel could not be delivered, and even hospitals could not function. Each American requires goods that the freight network moves every day. Freight movement is critical to our national, state, and regional economies.

In 2015, North Central Texas accounted for 30 percent of Texas' Gross Domestic Product (GDP). Freight-related employment constitutes approximately 22 percent of all regional employment. The efficient movement of goods and services is vital to the North Central Texas economy and overall growth. To improve freight movement efficiency, NCTCOG created a program area focused on Goods, Services, and People Movement.

1.2 Freight North Texas

Regional transportation planning is built around the Metropolitan Transportation Plan (MTP). The MTP is the central mechanism for selecting investments to develop the metropolitan transportation system. It is also a long-term plan for how the infrastructure will be built and serves as a "blueprint" for transportation systems and services aimed at meeting the mobility needs of the Dallas-Fort Worth Metropolitan Area through the next 20+ years. The current MTP is *Mobility 2040*, available online at www.nctcog.org/trans/mtp/2040/.



The Freight North Texas program is key in defining successful regional planning processes outlined in the MTP. Goods, services, and people movement planning involves an array of programs, one of which is Freight North Texas. Policies, programs, and projects have been developed to assess, understand, and improve upon regional freight movements to, through, and within the region. The Goods, Services and People Movement section, under the *Mobility* Heading in the MTP, includes the region's goals, policies, and programs as they pertain to Goods Movement and Freight Planning. It also provides an overview of regional freight planning and the role it plays in the everyday lives of North Texas residents.

The goal of the Freight North Texas program is to enhance the safety, mobility, efficiency, and air quality associated with freight movements within the Dallas-Fort Worth area.

The implementation of policies and programs to facilitate more efficient freight improvements requires the use of freight performance measures. Freight performance measures are an important part of the planning process and an effective means to evaluate transportation system resiliency. For a complete list of the performance measures included for the freight program see Appendix E of *Mobility 2040*.

Freight planning has always been a priority at NCTCOG and there have been multiple freight planning studies completed over the past few decades. Significant studies include the *Hazardous Material Routing Study Phases 1 and 2* completed in 1985, *Regional Trucking Issues* completed in 1996, and *Truck Lane Restriction Study* completed in 2006. These studies underscore the commitment to freight planning and the safe efficient movement of goods.

Other notable related programs and projects designed to improve freight movements are the Railroad Crossing Reliability Partnership Program, implementation of Truck Lane Restrictions, Railroad Crossing Banking Program, and Tower 55 upgrades that increased capacity and improved air quality, safety, and mobility.

All of these studies, programs, and projects were precursors to the development of the Freight North Texas planning program; a comprehensive approach to evaluating regional freight system needs. This initiative began with an expansive inventory of the existing freight system.

The North Central Texas Regional Freight System Inventory

In 2013, NCTCOG completed the North Central Texas Regional Freight System Inventory. This report assessed the freight network capacity, concerns, and opportunities as well as the need for future programs and studies. Completion of this inventory was the first step in a continuous planning process. As more data is collected and additional studies are conducted, the Freight North Texas program will continue to develop and improve the North Central Texas transportation system.



Elements of the Freight North Texas Study

Overview of Freight in North Central Texas – This section identifies the elements that create the freight system. This includes freight modes (Trucks, Rail, Pipelines, Air Cargo and Intermodal), the importance of freight to the region, Foreign Trade Zones, and key infrastructure issues.

The Regional Freight System – Outlined in this section are the Regional Freight Network; freight system concerns; freight facility locations; city, county, and regional economic information;

regional rail and truck initiatives; truck routes; key infrastructure points; key freight groups; air quality mitigation strategies and environmental justice concerns.

Current System Issues – This section reviews the freight system challenges related to land use, truck traffic and volume, infrastructure strategies for the future regional freight system, future federal and regional policies impacting freight, and performance measures.

Freight North Texas Recommended Follow-up Studies

Freight Congestion and Delay Study (Completed 2016)

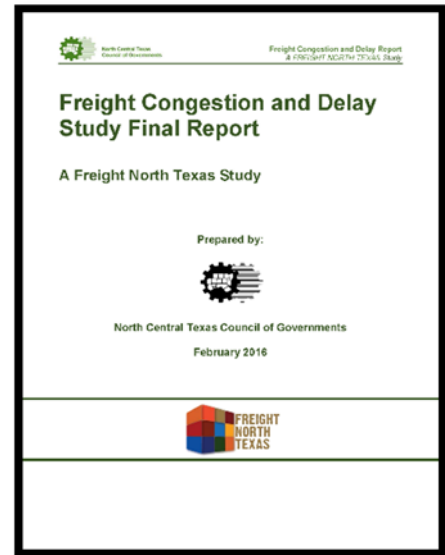
The study primarily examines congestion in four areas that represent diversity in regional freight facilities. The result of the study was recommended policies and programs that can be applied regionally and “low cost” projects for each focus area. Implementing the recommendations is intended to improve mobility within the “first/last” mile of a freight trip in the focus areas. The report can be found on the Freight North Texas web page at www.nctcog.org/FNT.

Economic Impact of Freight on the Region

A study will be conducted to determine the freight industry’s economic impact to the region. The freight industry is a multi-billion dollar industry nationwide and an important factor of economic growth. This study will take into account all aspects of the freight system in the North Central Texas region. It will track the economic impact of freight in real dollars and demonstrate the importance of freight to the region as an economic force.

Freight Project Evaluation System

Criteria for prioritizing freight projects based on safety, mobility, and air quality will be developed. The projects will be ranked on a point system that will include cost estimates/thresholds, available funding, regional significance, time-sensitivity, and location in relation to the freight corridors identified in Freight North Texas. Once the Freight Project Evaluation System is developed, various sources of funding and implementation strategies will be identified. Also a timeline will be developed to determine potential funding sources for the freight improvements recommended in Freight North Texas. The estimated start date for this study is 2018.



Land-Use Compatibility Analysis

A land-use evaluation for all freight facilities within the region will be conducted. An inventory of the facilities within or adjacent to non-compatible land uses will be created. A detailed definition of compatible and non-compatible land uses and a review of adjacent vacant land and county-specific future land-use plans will also be developed. Freight infrastructure that is in danger of disappearing, in need of preservation, or has already disappeared will also be documented. The estimated start date for this study is 2018.

The Regional Freight Advisory Committee

As part of this process to create the inventory, in September 2011, NCTCOG staff convened the Regional Freight Advisory Committee (RFAC) consisting of knowledgeable freight professionals who have direct experience with goods movement. The Regional Freight Advisory Committee provides guidance to NCTCOG staff and regional policy makers regarding freight activities and input on strategic product and project review. The Committee meets bimonthly throughout the year.

To learn more about the Regional Freight Advisory Committee, please visit www.nctcog.org/rfac.

1.3 Regional Truck Parking Study

This report was conducted to determine the locations and adequacy of both short-term and long-term truck parking in the North Central Texas region.

Study Needs

The North Central Texas Regional Freight System Inventory identified a need for increased truck parking facilities and a greater understanding of truck parking networks within the region. It also identified the need for data collection on truck parking and what common concerns truck drivers currently have with regard to finding a parking facility.



Truck parking is a nationwide concern and has been addressed in the last two national highway spending bills and federal legislation. The national transportation bill: Moving Ahead for Progress in the 21st Century (MAP 21) which was signed into law in 2010, Fixing America's Surface Transportation Act (FAST Act) and Jason's Law required better efforts for truck parking nationwide and mandated the Federal Highway Administration to conduct a nationwide survey on the need for expanded truck parking.

In the North Central Texas region, truck parking is a significant issue. NCTCOG's Regional Freight Advisory Committee recommended that this Freight North Texas follow up study be elevated as

a high priority. They recognized the need to understand existing parking concerns and possible solutions for improving parking availability.

Background

The trucking industry is vital to the movement of goods nationwide. In fact, of all goods transported to and from the North Central Texas region, 77 percent is moved by trucks. The trucking industry is made up of thousands of freight motor carriers, with millions of drivers moving goods locally or on long hauls between cities and states. The importance of trucks in freight movements cannot be overstated. For the truck driver, high demand for goods movement and product delivery can mean driving long hours, pressure to meet deadlines, and maneuvering on congested routes making it difficult to find or access available parking locations.



The Hours of Service (HOS) rules that Commercial Vehicle drivers are required to follow can make these demands even more difficult. HOS rules require mandatory breaks, both long and short. Drivers must find adequate parking to maintain compliance and if no available parking location is nearby, this places the driver in a difficult situation. Another added concern is related to the nature of today's logistics industry as "just in time" deliveries are popular with many shipping

customers. Just in time deliveries move goods to a specific location just before it is needed and helps control inventory. These daily constraints make any time looking for parking, critical. Delays caused by congested roadways can also have a negative impact on a driver's ability to find parking. Drivers may not even be able to find adequate parking at state rest areas or commercial truck stops due to a lack of capacity. When this occurs, they often have to park in undesignated or unsafe locations. These locations can cause many problems for drivers and can adversely affect the rest that they should be receiving at these locations. They may also have to park on roadway shoulders and ramps which creates an unsafe situation for the driver and other motorists, increasing the risk of accidents.

Truck drivers need a reliable inventory of available parking spaces to remain in compliance with HOS restrictions and minimize fatigue. They should have access to resources and amenities and the assurance that if they need to stop to follow their Hours of Service rules there will be safe, adequate parking available.

The importance of trucking to the freight industry, the demands placed on drivers, and the issues and concerns associated with finding parking facilities illustrates the importance of this



study and others like it. Both national and regional freight movements are impacted greatly by truck parking and the needs of drivers at those facilities. It is a national, state, and regional issue that needs to be addressed to increase the number of adequate truck parking locations and enhance existing facilities.

Purpose

The Regional Truck Parking Study was conducted to determine the locations and adequacy of both short-term and long-term truck parking within the region. The study defines areas or corridors in which current parking needs are not being met and develops possible solutions to regional truck parking concerns.

The study assesses the overnight and temporary truck parking needs in the North Central Texas region. The study includes review of existing information from previous truck parking studies, results of data collection, results of driver surveys, analysis of regional Corridors of Concern, and recommendations for possible solutions for the Dallas-Fort Worth area.

Data Collection

The following data sets were collected for the study:

Regional Overview – Classification of the freight infrastructure in the region, major freight facilities, and freight-oriented development

Literature Review – Review of recently completed truck parking studies that identify opportunities and challenges faced by other cities, regions, and states

Texas Safety Rest Areas – Review of Texas Department of Transportation-sponsored rest areas identifying locations of in-region or near-region rest areas, total truck parking lanes available, and amenities offered at each site

Regional Truck Stops – Inventory of all regional truck stop facilities including the name of the location, the highway and exit, number of truck parking spaces, overnight parking applicability, locations of combined fueling centers, other driver amenities, and any relevant technology installed

Local Truck Parking Ordinances – Aggregated list of municipal parking ordinances

Hours of Service – Federal rules on Hours of Service (HOS)

In-Region Travel Times – Series of maps and data that track travel times from specific areas across the region

Heavily Traveled Freight Corridors – Review of regional highways and the number of trucks that routinely travel these highways

Driver Survey and Stakeholder Outreach – Results from the “Truck Parking Study Driver Survey” and stakeholder outreach meetings

Some limitations of data collection were observed such as when and where truck parking is at or near capacity throughout the day. This and other issues were considered when collecting data. An analysis of collected data follows.

Analysis

The goal of the analysis phase in this study was to understand the data collected and begin to identify patterns in common areas or corridors where truck traffic is frequent and freight-oriented developments are in high concentrations, to help identify locations where parking may be insufficient. Both short- and long-term parking needs were assessed. A Commercial Motor Vehicle (CMV) driver survey was conducted to gauge what amenities might be needed at existing and additional locations. The data was analyzed from the compiled driver surveys, assembled, and mapped to demonstrate the locational aspects of the responses. All of the analyzed information was refined by cross-referencing the following criteria:

- Existing truck parking locations
- Freight-oriented developments and major freight facilities
- Local truck parking ordinances and land-use plans
- Travel times and hours of service
- Heavily traveled freight corridors
- Driver surveys and stakeholder outreach

From this criteria and analyzed data, high priority Corridors of Concern were identified. The study does not identify specific locations but general areas and corridors which could benefit from additional or improved truck parking availability and truck parking facilities. The high priority corridors and areas include:

- IH 30/SH 360 (Great Southwest Area)
- South Dallas (IH 45 and IH 20)
- IH 35W (north of Downtown Fort Worth)
- North Dallas (IH 35E and IH 635)
- East Dallas County (IH 635)
- Parker County (IH 20/IH 30)

These corridors and areas have specific challenges and opportunities associated with future advancement of truck parking solutions. Opportunities for increased truck parking availability, amenities tailored to CMV driver needs, and an enhanced network of truck parking locations which could be instituted in these areas are proposed in the following section.

Recommendations

In addition to regional data analysis, the study recommendations take into account ideas and strategies that other agencies and groups around the country are currently utilizing to provide solutions for truck parking concerns. Recommended strategies include:

State and Regional Strategic Partnerships – Truck parking facilities could be located on public land and serve as public rest areas. Funding agreements between the state and local/regional public agencies could be arranged for facility construction, maintenance, and operation.

Public-Private Partnerships – The public and private sectors could collaborate to develop more truck parking in specified areas through a mutually-beneficial incentivized plan. Incentives and benefits may include roadway improvements, entrance/exit upgrades, curb cuts, utility work, beautification, maintenance, right of way acquisition, competitive leasing, special zoning districts, intelligent parking availability notification (advanced signage), electrified parking, security measures, and other driver amenities.

Technology Enhancements and Applications – Technologies may be implemented to promote a more cohesive relationship between actual truck parking availability or projected availability, notification of availability, and amenities specific to individual facilities.

Corridor Specific Recommendations – Specific recommendations for regional high priority corridors and corridors of concern identified in this report are outlined in the Recommendations Section of this report.

1.4 Summary

NCTCOG's innovative and freight-friendly approach to metropolitan transportation planning has led to the creation of the North Texas Goods Movement Program and the *Freight North Texas: Regional Freight System Inventory*. The *Truck Parking Study* was recommended as a high priority concern as one outcome of the Regional Freight System Inventory. To ensure adequate truck parking is available within and around the region, a formal study must be completed to identify possible opportunities and challenges of the region's truck parking network.

Truck parking is a major issue both nationally and within our region. The study takes a comprehensive look at truck parking to identify innovative solutions to meet the growing needs of the logistics industry. CMV parking data was collected and analyzed to form area-specific recommendations that could be adopted by public and private agencies to increase truck parking availability, to help freight move more efficiently and safely to its final destination.



2.0 Regional Conditions

The existing conditions, data sets, and information sources outlined in the following sections provide a current overview of the strengths and weaknesses of truck parking within the region.

2.1 Regional Overview

The North Central Texas region is a major logistics hub and inland port with trucks constantly moving through, within, to, and from the region. These movements create an enormous demand for truck parking.

There are four major Interstate Highways that cut across the region: IH 20, IH 30, IH 45, and IH 35 (including IH 35E and IH 35W branch routes). IH 35 is a major North American Free Trade Agreement (NAFTA) corridor moving freight from Mexico through Texas to the rest of the United States and Canada. This creates significant truck traffic moving through the region and necessitates adequate availability of CMV parking.

In addition to being a crossroads of major Interstates, the region has three Class 1 railroads with operations spanning the Dallas and Fort Worth area. The Class 1 railroads are Union Pacific Railroad (UPRR), Burlington Northern Santa Fe (BNSF), and Kansas City Southern (KCS). These three railroads have significant rail operations in the region including four intermodal facilities.

UPRR has operations in two locations in the southeast portion of the region with the Dallas Intermodal Facility located off IH 45 near IH 20 and the Mesquite Intermodal Facility located off US 80 near IH 635. BNSF has an intermodal yard in the northwest part of the region located off IH 35W and SH 170 in Alliance. KCS recently opened a new intermodal yard in Wylie in the northeast portion of the region off SH 78.

Intermodal facility operations are significant to roadway freight movements due to the truck trips they create. Also, near these facilities, a large amount of other freight activities tend to locate to ensure efficient supply chain management. It is critical that truck parking in these areas meet the demands for the safe and efficient movement of freight, but more importantly for CMV drivers which are adhering to federal HOS regulations.

North Central Texas is also home to two major freight airport operations; Dallas Ft Worth (DFW) International Airport located in the center of the region and Fort Worth Alliance Airport in the northwest part of the region. DFW has the 11th largest air cargo operation of any airport in North America and Alliance is a freight-focused airport. By 2018, Alliance will have completed runway expansions to accommodate the anticipated increase in cargo capacity and operations. Similar to intermodal facilities, airports generate a significant amount of freight activities which require warehousing and distribution centers located in the immediate vicinity of the airport.

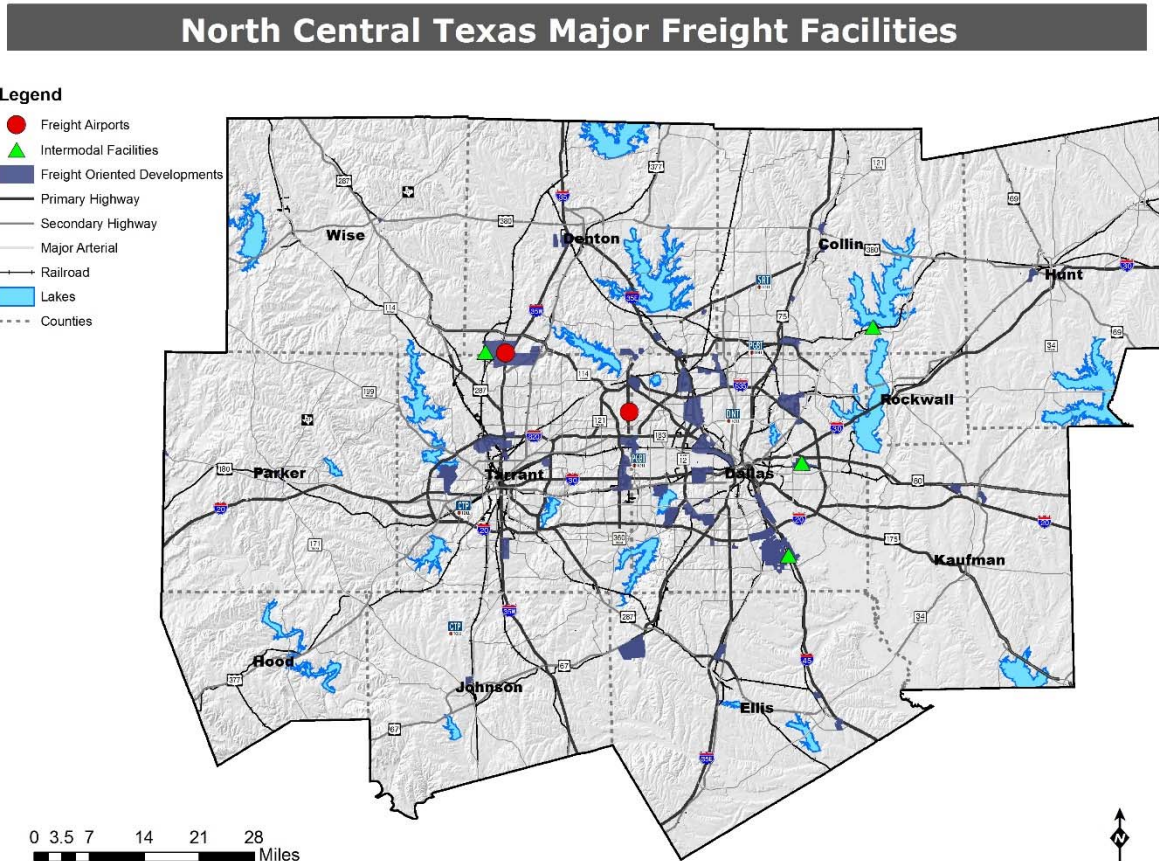
Freight-oriented developments (FODs) are simply defined as areas that are zoned, planned for, and built for freight activities. They are locations where freight activities are consolidated for increased efficiency and expected to be major freight generators in the region.

Key freight facilities in North Central Texas include:

- Burlington Northern Santa Fe Railway Intermodal and Carload Transportation Center at Alliance
- Kansas City Southern Wylie Intermodal Terminal in Wylie
- Union Pacific Railroad Dallas Intermodal Terminal in Wilmer
- Union Pacific Railroad Mesquite Intermodal Terminal in Mesquite
- Dallas/Fort Worth International Airport Air Cargo Terminals
- Alliance Airport Air Cargo Terminals
- Foreign Trade Zone Number 39: Dallas/Fort Worth International Airport; Number 113: Ellis County; Number 168: Dallas-Fort Worth; Number 196: Fort Worth (Alliance)

The Interstate Highways, railroads, intermodal facilities, FODs and major freight airports are shown in Figure 2-1.

Figure 2-1: Regional Freight Facilities



Source: NCTCOG 2016

2.2 Literature Review

There have been multiple truck parking studies across the country at both the federal and state levels. In preparing for this truck parking study, several relevant studies were examined with best practices and ideas collected and applied as appropriate from more recent studies having the most current data and demonstrated best practices. The following studies were reviewed with key findings and recommendations documented below.

Jason’s Law Truck Parking Survey Results and Comparative Analysis Federal Highway Administration (FHWA) – August 2015

This report documents the findings of the FHWA’s Jason’s Law Truck Parking Survey, conducted to meet the requirements of the Moving Ahead for Progress in the 21st Century (MAP-21; P.L. 112-141). The purpose of Section 1401 of MAP-21, more popularly known as “Jason’s Law,” was developed to address the commercial motor vehicle parking shortage at public and private facilities along the National Highway System (NHS).

Key findings in *Jason’s Law Truck Parking Survey Results and Comparative Analysis* include:

- 72% of States reported having problems with truck parking shortages
- Greatest shortages experienced on weeknights
- Shortages occur during all hours, all days, and all months
- Capacity issues are present even in areas with high numbers of spaces relative to truck activity
- Shortages are most pronounced along major trade corridors and near major freight hubs
- Despite the lowest ratio of parking to truck activity, the survey reveals fewer spaces in the Northeast/Mid-Atlantic region

The report recommendations include:

- Develop new approaches and data to support advanced measurement of truck parking and inclusion in transportation planning
- Educate and provide outreach with MPOs, State Highway Agencies, and private sector stakeholders to ensure that all partners are aware of the opportunities to advance projects and the eligibility of these projects for funding under the Federal-Aid Highway Program
- Continue to support Intelligent Transportation Systems (ITS) based solutions that improve truck drivers’ awareness of parking availability
- Investigate P-3 approaches (public-private partnerships) that involve private sector partners in the development of truck parking investments
- Begin or continue coordination with other public sector and private sector stakeholders to identify and prioritize short-term, emerging, and long-term solutions
- Expand dialogue and coordination to the corridor level with neighboring counties, states, and countries where necessary



- Improve data collection and analysis
- Update plans and investment programs to include truck parking solutions, both for facilities and technology for truck parking information services
- Work with law enforcement to educate and train them about improved use of safe and available spaces

As part of the *Jason's Law Truck Parking Survey Results and Comparative Analysis*, the FHWA made available the Facilities and Spaces shapefile, a GIS database containing the truck stops across the country, including North Central Texas, with the number of truck parking spaces at each location.

Virginia Truck Parking Study

Virginia Department of Transportation (VDOT) – July 2015

The primary purpose of this study, conducted by VDOT, was to identify the frequency of trucks parking on ramps near interchanges, rest areas, and welcome centers on the Corridors of Statewide Significance (CoSS) and to determine where truck parking is needed. The study utilized the most current interstate truck parking research in Virginia.

Key findings in the *Virginia Truck Parking Study* include:

- Vehicles parked on mainline and ramp shoulders pose a significant safety risk to the travelling public.
- Many truck parking facilities are not designed to meet the current size requirements for truck, which creates other maintenance challenges.
- Truck parking challenges and shortages in adjacent states, especially near the state borders, also impact truck parking and route planning in and through Virginia.
- More than 70% of truckers surveyed reported that overnight truck parking is a personal safety concern.
- Truckers surveyed indicated that the recent Hours of Service (HOS) regulation changes require an increase in the frequency of their rest stops and it is difficult to plan routes and stops, especially through congested corridors, due to travel time unreliability.

The report recommendations include:

- Partner with private industry and local governments to increase capacity and related improvements.
- Provide accurate and real-time information about truck parking supply and availability in Virginia.
- Improve the safety, effectiveness, and supply of truck parking spaces at State owned facilities.

Minnesota Interstate Truck Parking Study

Minnesota Department of Transportation (Mn/DOT) – January 2008

The Minnesota Interstate Truck Parking Study examined the supply and demand of public and private commercial vehicle parking along Minnesota's three primary interstate corridors: IH 90, IH 35, and IH 94. It was undertaken to develop information to support future decisions about truck parking in Minnesota.

Key findings in the *Minnesota Interstate Truck Parking Study* include:

- More staging areas for peak traffic times
- Overnight parking is in short supply around Twin Cities area
- Shortage for staging within 30 miles of shippers/receivers (Nationwide problem)
- Re-think rest area closures, especially in Northern Minnesota. Rest areas at Forest Lake are not nearly big enough
- All interstate highways lack parking capacity. Drivers are required to stop, but then are chased from truck stops, rest areas and entrance ramps
- Every large city needs additional parking (radius of 100 miles) to accommodate pickup/delivery

The report recommendations include:

- Public-private partnerships
- Parking capacity additions
- Parking policy revisions
- Intelligent Technology Systems (ITS)

Study of Adequacy of Commercial Truck Parking Facilities

Federal Highway Administration (FHWA) – March 2002

This 2002 FHWA report documents a study to investigate adequate commercial truck parking facilities serving the National Highway System (NHS) in response to Section 4027 of the Transportation Equity Act for the 21st Century (TEA-21). The purpose of the study was to “determine the location and quantity of parking facilities at commercial truck stops and travel plazas and public rest areas that could be used by motor carriers to comply with Federal hours-of-service rules.”

Key findings in the *Study of Adequacy of Commercial Truck Parking Facilities* include:

- Half of truck operators surveyed reported available parking spaces at public rest areas are rare
- Truck operators preferred commercial truck stops and travel plazas for activities that required them to park their vehicles for long-term rest and for short-term rest drivers generally prefer public rest areas
- Twenty-three percent of drivers prefer public rest areas and 77 percent prefer commercial truck stops

- The estimated public facility parking demand far outweighs the supply, while commercial facility supply seems sufficient to meet estimated demand
- A shortage of parking at public rest areas may exist in up to 35 States, and a shortage of total parking may exist in up to 12 states
- Parking shortages at public rest areas will continue to worsen, while growth rate of parking spaces at commercial truck stops and travel plazas will accommodate the expected growth in demand for these spaces
- Truck drivers value public rest areas primarily for ease of access and convenience and value commercial truck stops and travel plazas for their amenities

The report recommendations include:

- Expand or improve public rest areas
- Expand and/or improve private truck stops and travel plazas
- Encourage the formation of public-private partnerships
- Educate and/or inform drivers about available spaces
- Change parking enforcement rules
- Conduct additional truck parking studies

Commercial Motor Vehicle Parking Shortage Federal Highway Administration (FHWA) – May 2012

This report updates the major findings of Study of Adequacy of Commercial Truck Parking Facilities with current estimates and forecasts of long-distance truck activity, information from the Truck Parking Pilot Grant Program, and observations made by safety enforcement.

The private sector invests in commercial truck stops where profitable, and in 2002, the FHWA recommended additional actions such as creating public-private partnerships to provide additional capacity where needed.

The significant take away from the literature review was how similar the recommendations were. These studies indicate several of the same strategies and recommendations to address truck parking. The overlapping strategies include public-private partnerships, accurate real-time data on how much parking is available, and changing or updating parking laws or policies to make areas more truck-parking friendly.

The common themes and recommendations to address truck parking shortages include:

- Public rest areas need to be expanded and improved
- Current private truck stops and travel plazas need improvements and expansion
- Public-private partnerships can be a solution to truck parking needs
- Technologies such as ITS should be implemented to provide real-time information.
- Update current parking enforcement rules

2.3 Public Truck Parking

Public-provided truck parking is very limited in the region, as shown in the Texas Safety Rest Areas in Figure 2-2. The Texas Department of Transportation (TxDOT) funds and operates the rest areas within the state. The following map illustrates the current and proposed rest areas throughout the State of Texas. These make up the bulk of publicly-owned truck parking facilities.

The North Central Texas region has only one Texas Safety Rest Area listed within its boundaries, located on US 287 (northbound only) two miles north of Decatur. The rest area has no dedicated truck parking spaces and is one of the older rest areas in the state. There is another rest area without dedicated truck parking in Palo Pinto County on IH 20 just west of Parker County. There are no other Safety Rest Areas within the region.



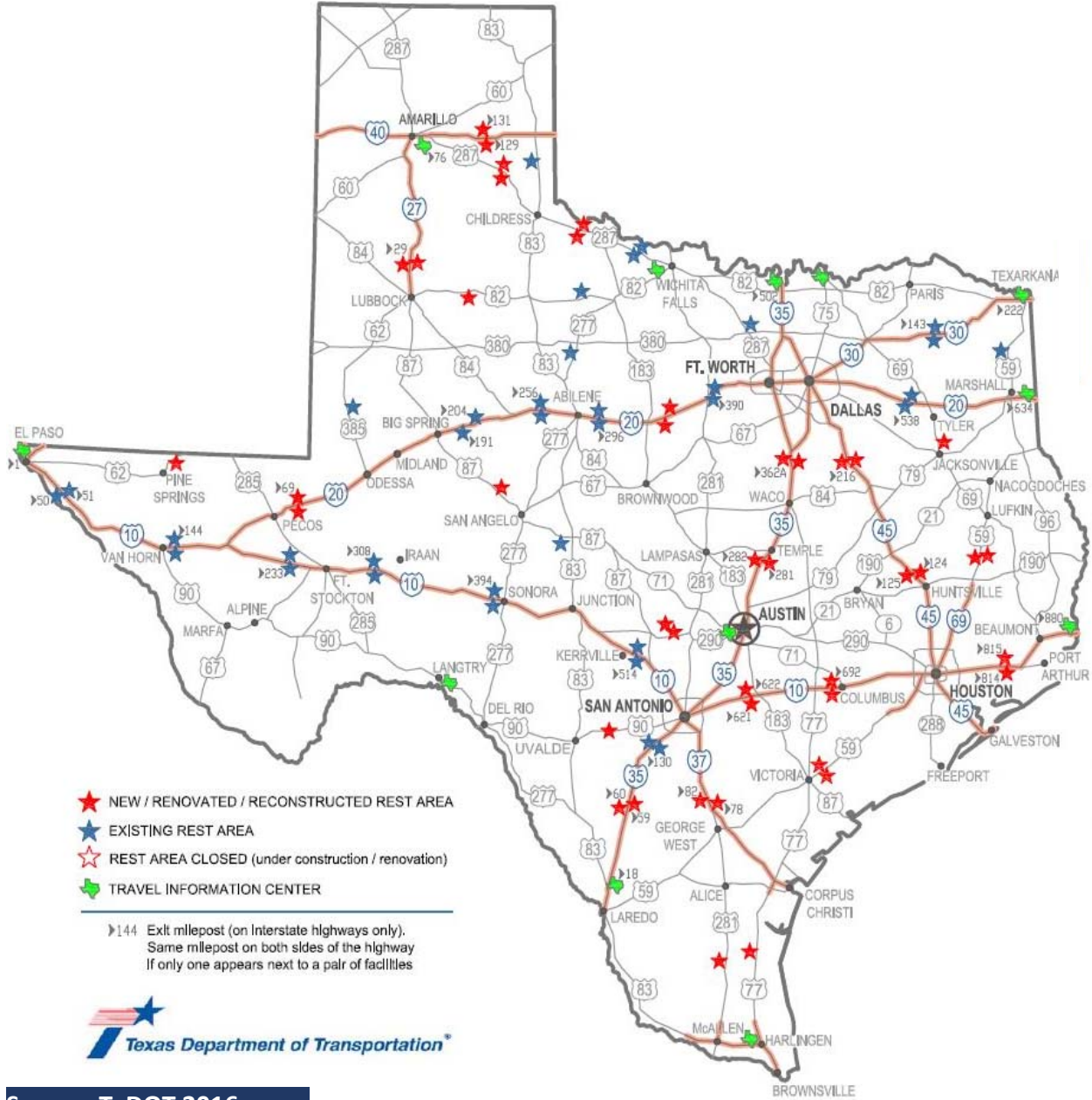
Credit: Google Maps

TxDOT Rest Area, Wise County US 287 N.

There are, however, several rest areas that provide for truck parking on major routes leading into the region. These rest areas include Hill County on IH 35 (both north and southbound), Navarro County on IH 45 (both north and southbound), Cooke County on IH 35 (southbound only) and Grayson County on US 75 (southbound only). The rest areas provide pull through parking for trucks, restrooms, and picnic tables. Although these rest stops are not within the region, they provide important parking amenities to drivers going to and from the DFW area. Please see Table 2-1 for a complete account of near-region safety rest areas.

As learned in the 2002 FHWA study, drivers prefer to use public rest areas for their short-term breaks due to easy on-off access. The lack of rest areas and dedicated public truck parking in the region is a major issue.

Figure 2-2: TxDOT Rest Area Study



Source: TxDOT 2016

Figure 2-2: Publicly-provided truck parking is illustrated in the TxDOT rest area map.

Figure 2-3: Regional Truck Stops

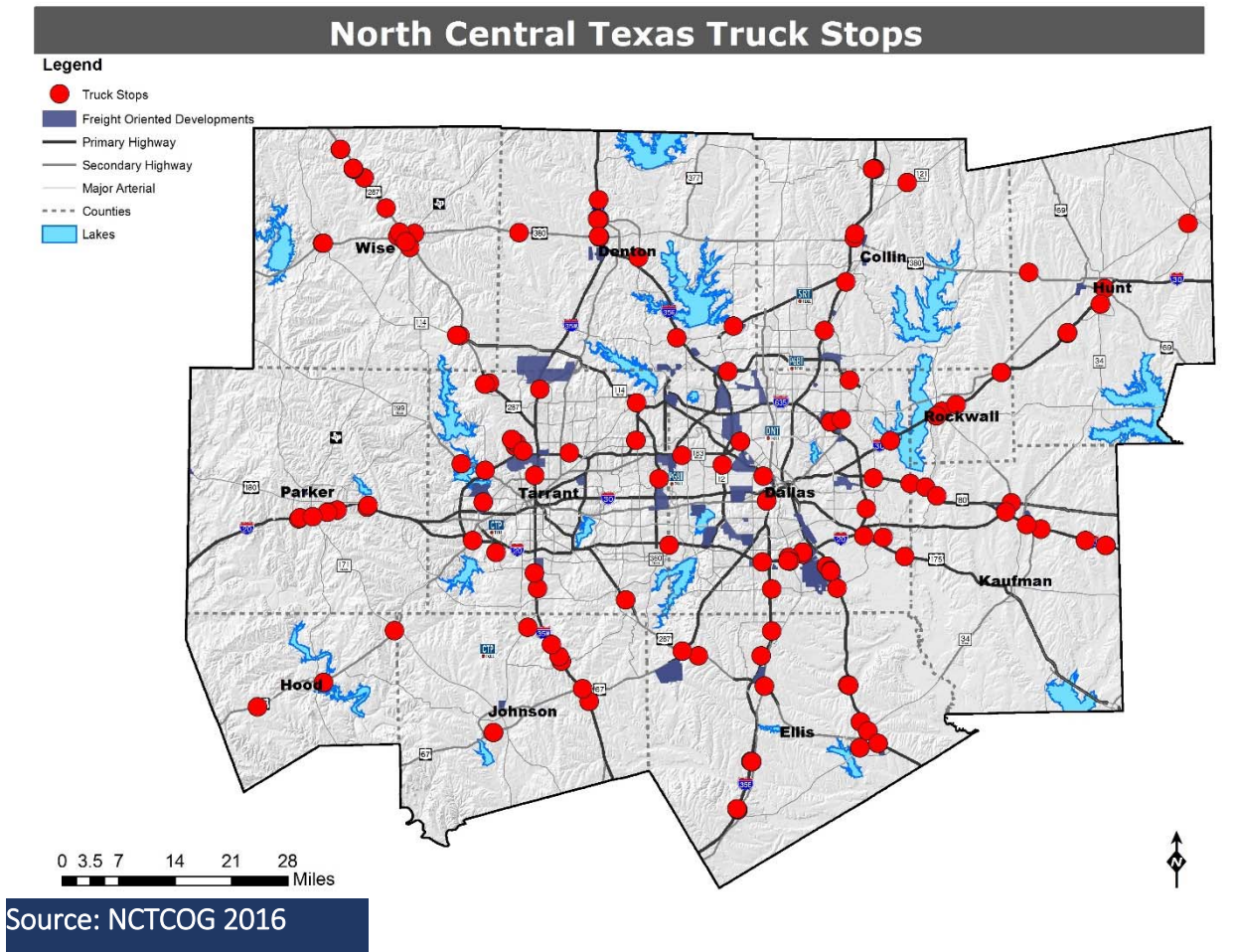


Figure 2-3: The North Central Texas Truck Stop Fuel Centers Map details the geographic coverage of all truck stops located within the region. The map also highlights the locational relationship to freight-oriented developments and the Highway System.



2.4 Regional Truck Stops

Table 2-1: Rest Areas near the 12-County Metropolitan Planning Area

Table 2-1						
Rest Area Locations	Direction	Highway	Milepost	Truck Parking Spaces	Parking Type	Amenities
Hillsboro County	Northbound and Southbound	IH 35	236A	62	Pull Through	Restrooms, Picnic Tables, Drinking Water
Navarro County	Northbound and Southbound	IH 45	216	27	Pull Through	Restrooms, Picnic Tables, Drinking Water
Palo Pinto County	Eastbound	IH 20	390	0	No dedicated truck parking	Restrooms, Picnic Tables, Drinking Water
Texas Travel Information Center at Denison	Southbound	IH 35	502	48	Pull Through	Restrooms, Picnic Tables, Drinking Water, Motor Carrier Permits/Txtag
Texas Travel Information Center at Gainesville	Southbound	US 75	75	23	Pull Through	Restrooms, Picnic Tables, Drinking Water, Motor Carrier Permits/Txtag
Van Zandt County	Eastbound	IH 20	538	0	No dedicated truck parking	Restrooms, Picnic Tables, Drinking Water

Table 2-1

Rest Area Locations	Direction	Highway	Milepost	Truck Parking Spaces	Parking Type	Amenities
Van Zandt County	Westbound	IH 20	538	15	Pull Through	Restrooms, Picnic Tables, Drinking Water
Wise County	Northbound	US 278	2 miles north of Decatur	0	No Dedicated Truck Parking	Restrooms, Picnic Tables, Drinking Water

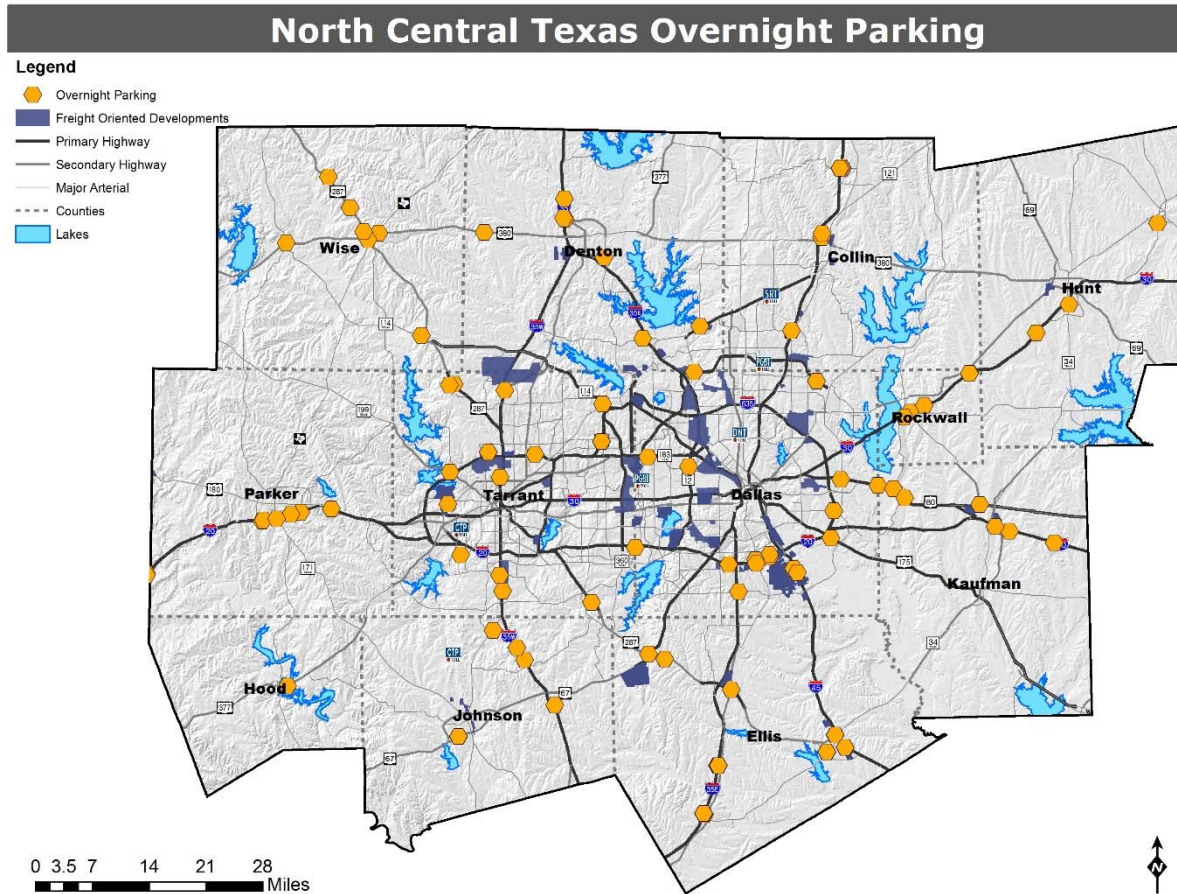
NCTCOG maintains up-to-date data on all truck parking facilities located within the region and for this study all truck stops in the region were inventoried by the following methods: site visits, review of websites, review of area maps, and review of the facilities/spaces shapefile provided by FHWA as part of the *Jason's Law Truck Parking Survey Results and Comparative Analysis*. As a result, the regional truck stop database was expanded to include new information and detail about each truck stop that was discovered.

Staff reviewed the existing data on hand then compared it to data available from the above sources. The goal was to inventory the total number of truck parking spaces in the region, identify the locations, and note amenities offered at or surrounding the parking location. Existing NCTCOG truck parking data was compared to the *Truck's Friend* website published data and a hard copy version of their directory. Major truck stop companies' websites were reviewed to confirm store information, amenities offered at specific locations, and available parking spaces. These websites included Love's, Travel America Travel Centers, Pilot, and Flying J. After collecting and incorporating website data, site visits were conducted to clarify any questions about data at particular locations. In addition to site visits, Google Earth/Google Maps were also used to complete the review of the region. The Facilities and Spaces shapefile, provided by FHWA as part of the *Jason's Law Truck Parking Survey Results and Comparative Analysis*, was used to compare all data as a final check.

The information from the survey included over 100 truck stops and more than 4,100 truck parking space locations and provides a thorough overview of what kind of parking facility amenities are available and where the facilities are located. Critical information includes each truck stop's store/location name, city and county location, which highway and exit number (if applicable), and number of parking spaces. Information was gathered on overnight parking locations, noting whether or not it is a fueling center, if there are driver amenities, and if there is special technology in use at the location. Special technology includes Electrified Parking

Spaces (idle-reduction technology) that allow a driver to plug into electrical grids to power the cabin for heating, air conditioning, etc., without idling their engine.

Figure 2-4: Regional Overnight Parking

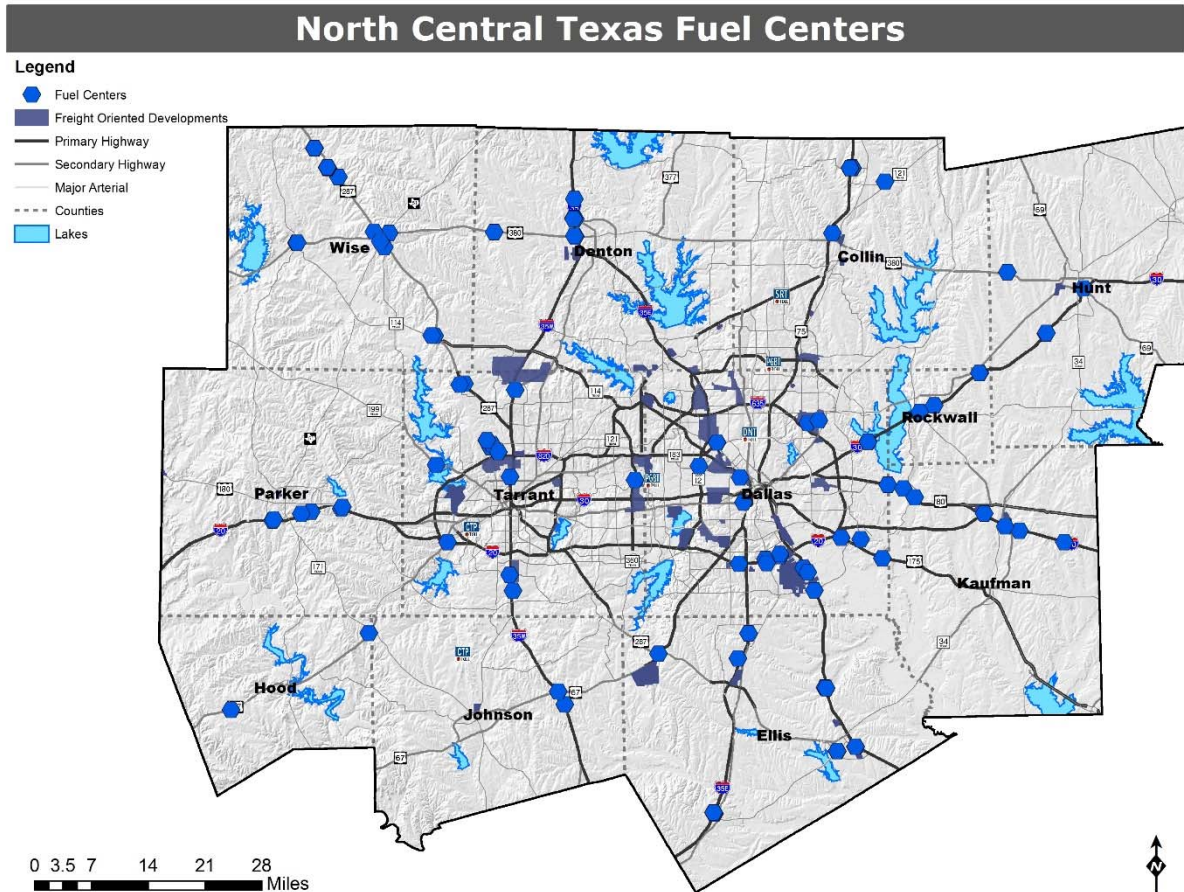


Source: NCTCOG 2016

Figure 2-4: The North Central Texas Overnight Parking Locations map details where overnight or long-term parking is located within the region. The map also highlights the locations' relationship to freight-oriented developments and the Highway system.

All truck stops were mapped and their information tracked in GIS. This information will be updated on a regular basis (every two years) to ensure all truck parking is accounted for within the region. From this data, regional truck parking facilities and parking availability starts to take shape and areas of opportunity where additional parking could be needed becomes readily identifiable. For the complete list of truck stops and related information in the DFW area, please see Appendix 1.0.

Figure 2-5: Regional Fuel Centers



Source: NCTCOG 2016

Figure 2-5: The North Central Texas Fuel Centers Locations Map details the geographic coverage of fuel centers located within the region. The map also highlights the locations in relationship to freight-oriented developments and the Highway System.

2.5 Local Truck Parking Ordinances

Many cities in the North Central Texas region have truck parking ordinances that limit the areas in which trucks can be parked. These ordinances limit parking in residential areas, require permits to park in certain cities, and do not allow truck parking overnight. Many drivers are unaware of the local ordinances unless proper signage is put in place detailing where parking is not allowed. Parking conditions similar to these can delay freight movements and force drivers to park in unsafe locations.

Local ordinances can have a serious impact on truck parking, especially in areas with heavy freight activity. Reducing short-term parking around freight-oriented developments can negatively impact a driver’s ability to stay in compliance with federal Hours of Service rules.

There are 38 cities with truck parking ordinances in the region. Most limit truck parking in residential areas but still allow truck parking in non-residential areas for at least a short time. Some of the ordinances limit truck parking if there is a large amount of residential zoning near the FODs. There are cities that do not allow truck parking at all. While these tend to be smaller cities that do not have significant freight activity, the Cities of Grapevine, Carrollton, and Mesquite all have FODs located in their city boundaries, but do not allow truck parking. Both Grapevine and Carrollton are near DFW airport and have many warehouses and distribution centers. Mesquite has a Union Pacific Railroad intermodal facility.

Having access to public right-of-way for short-term and long-term parking near and around freight facilities is key to ensure on-time delivery and driver safety. Cities that prevent truck parking entirely should review their ordinances and consider designating eligible areas to ensure the safe and efficient movement of freight. A summary of the local truck parking ordinances can be found in Appendix 2.0.

Table 2-2 highlights cities with truck parking ordinances and significant freight-oriented development by city, county, ordinance section, title, and overview of the ordinance.

Table 2-2: Cities with Significant Freight-Oriented Development and Local Truck Parking Ordinances

Table 2-2				
City	County	Ordinance Section		Overview
Arlington	Tarrant	Sec. 7.01	Parking vehicles	No truck parking in residential areas.
Carrollton	Dallas	Sec. 72.11	Parking of trucks and other commercial vehicles	No parking vehicles over one ton capacity on any street, alley, or public place within the city.
Dallas	Dallas	Sec. 11.28.80	Parking of Commercial Vehicles	A person commits an offense if he stops, parks, or stands a truck-tractor, road tractor, trailer, semitrailer, pole trailer, bus, or any commercial motor vehicle upon a public street, alley, parkway, boulevard, or public place.

Table 2-2

City	County	Ordinance Section		Overview
Dallas	Dallas	Sec. 11.28.81	Parking of vehicles with capacity of more than one and one-half tons in certain districts	<p>A person commits an offense if he stops, parks, or stands a truck-tractor, road tractor, semitrailer, bus, trailer, or truck with a rated capacity in excess of one and one-half tons, according to the manufacturer's classification, upon property within a residential area.</p> <p>This subsection shall not apply to the parking or standing of a vehicle for the purpose of expeditiously loading or unloading passengers, freight, or merchandise.</p>
Farmers Branch	Dallas	Sec. 82.221	Parking in residential areas	No truck or trailer parking in residential areas.
Fort Worth	Tarrant	Sec. 22.162.1	Parking of oversize commercial vehicles unlawful on private property	It is unlawful to park any oversized commercial vehicle, with a gross weight of at least 15,000 pounds (or any vehicle designed to carry more than 15 passengers) on any residentially zoned property.
Fort Worth	Tarrant	Sec. 22.162.2	Parking of large and oversize vehicles on streets	It is unlawful for the driver, owner, or operator of an oversized commercial vehicle to park or permit to be parked, stand, or remain motionless on public street zoned residential or any street not zoned residential for more than 2 hours.

Table 2-2				
City	County	Ordinance Section		Overview
Grand Prairie	Dallas	Sec. 2.25.57	Trucks and RV in certain districts or areas	No truck parking with 3 or more axles and/or over 1 1/2 tons in street, alley, parkway, or public place within or adjacent to residential zone.
Mesquite	Dallas	Sec. 2.9.167	Parking of commercial/oversized vehicles prohibited on public streets, alleys, etc.	No oversized or commercial vehicles parked on the street.

2.6 Hours of Service

Truck drivers must abide by the Hours of Service (HOS) rules that apply to all commercial motor vehicle operators. The final rule on HOS can be found in the Code of Federal Regulations, Title 49 – Transportation (Part 395). The HOS Final Rule was published in the Federal Register on December 27, 2011. The Final Rule went into effect on February 27, 2012. The rules of service limit how long a driver can be on-duty and when he must take long- and short-term breaks. Truck parking availability impacts a drivers’ ability to adhere to the HOS rules as drivers need adequate facilities located near freight pick-up and delivery locations. If there is not an adequate truck parking facility near the driver’s destination point, the driver will have to spend time on duty looking for a place to park. This may cause the driver to violate HOS rules and cause a disruption in the drivers break period.

The Hours-of-Service requirements are shown in Table 2-3.

Table 2-3: Hours of Service Requirements

Table 2-3	
11 Hour Rule	May drive a maximum of 11 hours after 10 consecutive hours off duty.
14 Hour Rule	May not drive beyond the 14th consecutive hour after coming on duty, following 10 consecutive hours off duty. Off-duty time does not extend the 14-hour period.
Rest Breaks	May drive only if 8 hours or less have passed since end of driver's last off-duty or sleeper berth period of at least 30 minutes. Does not apply to drivers using either of the short-haul exceptions in 395.1(e). [49 CFR 397.5 mandatory "in attendance" time may be included in break if no other duties performed]
60/70 Hour Rule	May not drive after 60/70 hours on duty in 7/8 consecutive days. A driver may restart a 7/8 consecutive day period after taking 34 or more consecutive hours off duty.

Source: Federal Motor Carrier Safety Administration

2.7 In Region Travel Times

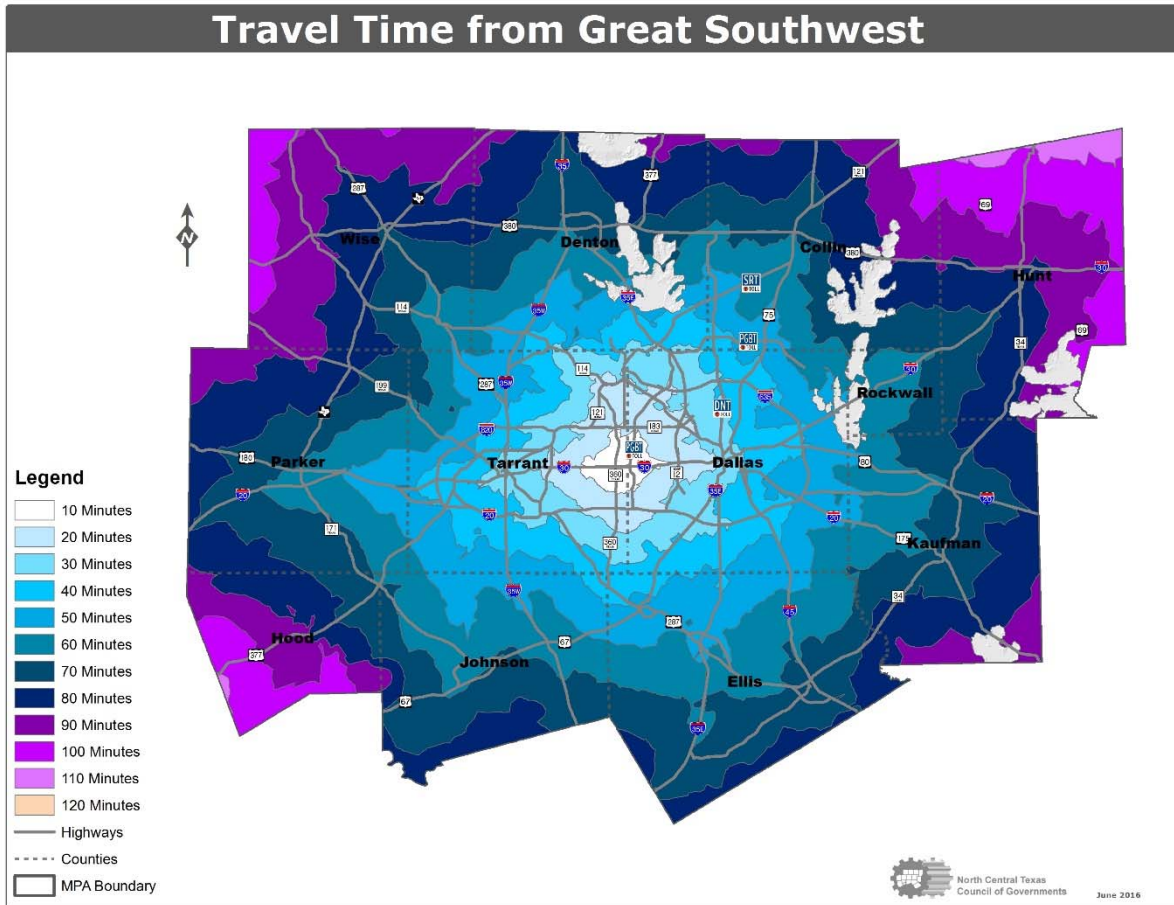
Using the National Performance Management Research Data Set (NPMRDS) provided by FHWA, NCTCOG was able to create travel times for trucks across the region from a specific location. By analyzing travel time data in 10 minute intervals, by vehicle type, NCTCOG staff created the following Travel Time Maps.

There were four focus areas chosen for this type of analysis directly from *The Freight Congestion and Delay Study*. These focus areas were chosen because they represent unique freight areas within the region. The focus areas include:

- Great Southwest – located near and around IH 30 and SH 360
- The Alliance area – located near and around where IH 35W and SH 114 meet
- Intermodal Inland Port of Dallas (IIPOD) – located at IH 45 and IH 20
- The Mesquite Intermodal Hub – located near US 380 and IH 635

Travel times are from the four focus areas listed in figures 2-6 through 2-9. The travel time maps also graphically demonstrate the AM peak impact that in-region travel has on truck parking.

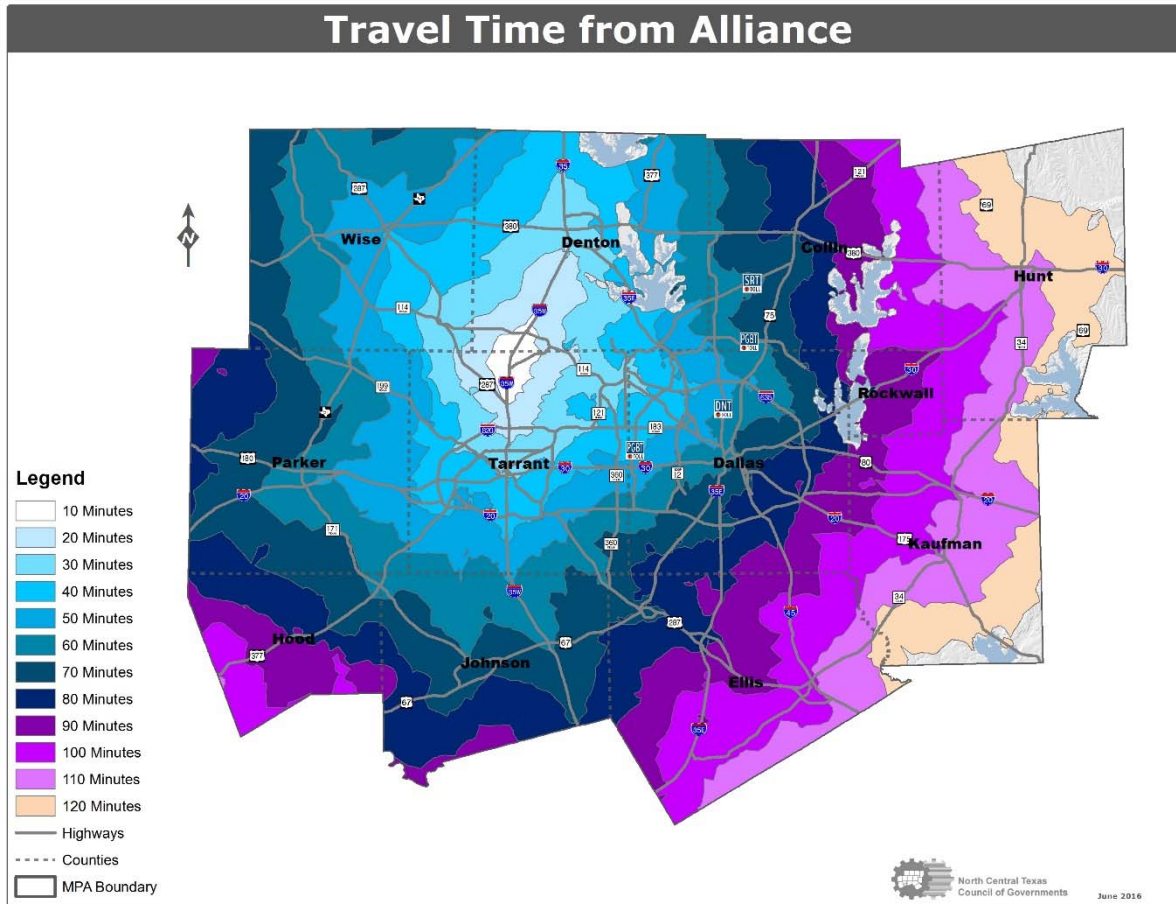
Figure 2-6: Travel Time from Great Southwest



Source: NCTCOG 2016

Figure 2-6: AM peak Travel Times from Great Southwest (IH 30 and SH 360). Located in the center of the region south of DFW Airport, this area has a large freight presence including the GM assembly plant. Travel times for this area are not extreme due to its location in the center of the region and has easy access to most major highways.

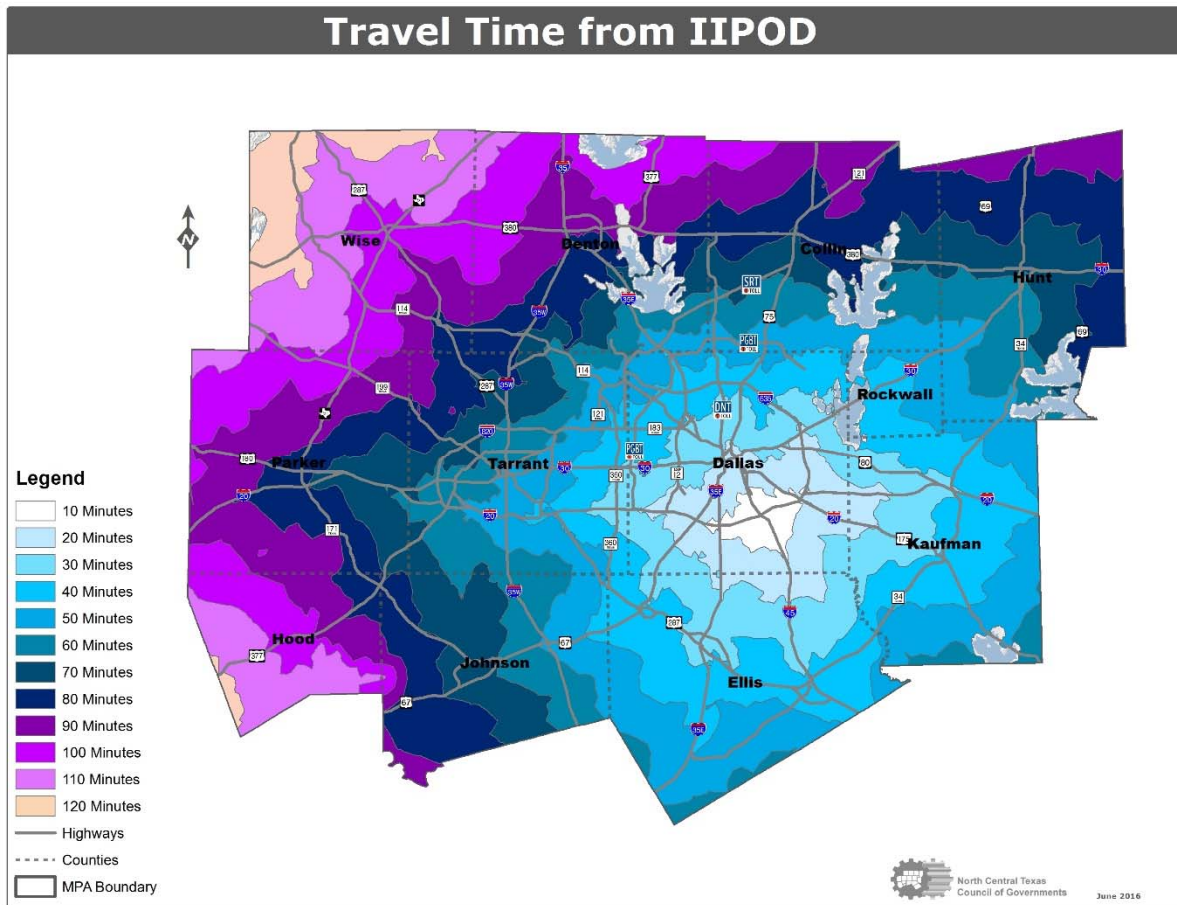
Figure 2-7: Travel Time from Alliance



Source: NCTCOG 2016

Figure 2-7: AM peak Travel Times from Alliance (IH 35W and SH 114). Located in the northwest portion of the region, the Alliance area includes both the BNSF intermodal facility and Alliance Airport. Travel times for this area can be difficult when traveling to the east or south side of the region and can reach 80 - 90 minutes.

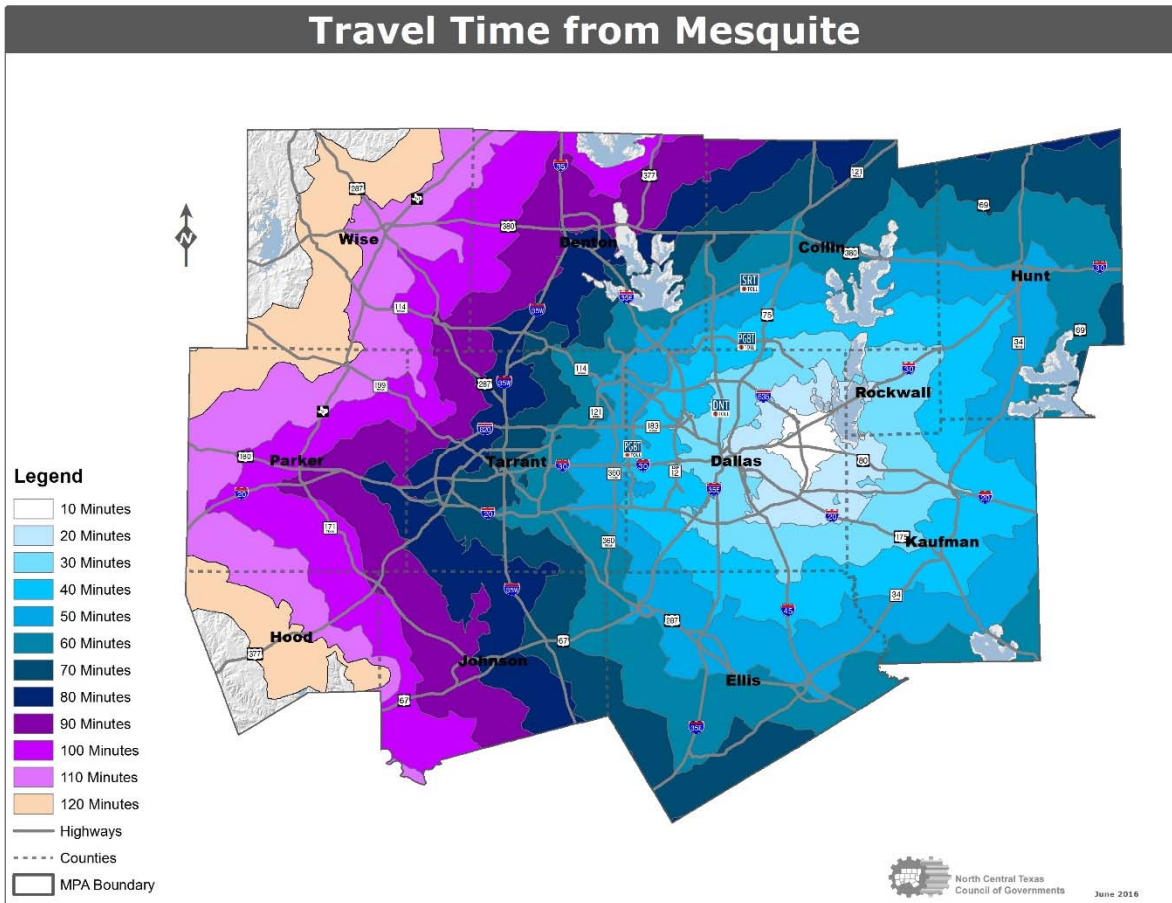
Figure 2-8: Travel Time from IIPOD



Source: NCTCOG 2016

Figure 2-8: AM peak Travel Times from IIPOD (IH 20 and IH 45). Located in the southeast portion of the region, the IIPOD area includes the UPRR intermodal Dallas facility and both manufacturing and warehousing centers.

Figure 2-9: Travel Time from Mesquite



Source: NCTCOG 2016

Figure 2-9: AM peak Travel Times from Mesquite (IH6 35 and US 80). Located in the Eastern portion of the region the Mesquite area includes the UPRR intermodal Mesquite facility and multiple other freight-oriented developments. Travel times from this area are on par with travel times from the Alliance area.

2.8 Heavily Traveled Freight Corridors

Heavily traveled freight corridors are limited access facilities that have high volumes of trucks, major freight facilities or FODs located near or along the corridor. The TxDOT Statewide Planning Map was used for identifying data and information to determine the total number and percentage of trucks traveling in the specified corridors. From this data and information a list of the heavily traveled freight corridors was created, illustrated in Table 2-4.

When reviewing the corridors it was determined the top freight corridors should be limited access highways with truck volumes of 10,000 or more and have a truck percent of 15% or more. This was based on common features of the heavily used corridors across the region.

The top freight corridors in the region include IH 35W, IH 35E, IH 20, IH 45 and IH 30. These roadways have the highest combination of truck volumes and percent of trucks. Other corridors may have a high percentage of trucks such as US 287 (20%) but do not carry the volume of trucks (with just over 5,000 truck AADT). US 287 carries less than half the volume as the top freight corridors. Other corridors may have a greater volume of trucks moved everyday as does US 75, (12,000) but lack the truck percentage (8%).

Table 2-4: Heavily Traveled Freight Corridors

Table 2-4		
Highway	Volume	Percentage
IH 30	11,165	15%
IH 20	10,395	17%
US 75	12,592	8%
IH 45	13,984	28%
IH 35W	11,392	20%
IH 35E	13,163	17%
IH 635	14,831	10%
US 287	5,310	20%
SH 78	2,643	16%

Source: [Texas Department of Transportation Statewide Planning Map](#)

2.9 Driver Survey and Stakeholder Outreach

To gain better insight into regional truck parking conditions and to understand the surrounding issues, NCTCOG sought input from drivers and fleet managers for this study. A driver survey was conducted from August of 2015 to April of 2016. Different groups of motor carriers were surveyed to obtain their opinions and observations regarding truck parking availability and what was valued at truck parking locations. The survey consisted of nine survey questions given to drivers that frequent the North Central Texas region and are familiar with truck parking facilities within the region. The first six were about truck parking and the last three concerned other driver issues. NCTCOG staff distributed the survey at The Great American Truck Show and the survey was also available online. A copy of the survey is provided in Appendix 3.0.

The purpose of the survey was to attain stakeholder feedback and better understand driver parking selection priorities such as safety, general availability of parking location, cost, etc. The survey included questions on what a driver looks for in both long- and short-term parking, what

amenities they prefer, and where additional parking may be needed in the area. The survey asked the respondents to identify specific facilities where wait times were an issue and areas with first/last mile and infrastructure concerns. Results from the survey were mapped and included in the analysis.

In addition to the Truck Parking Survey, additional stakeholder outreach was conducted. Fleet managers were engaged to determine specific areas of concern for short- and long-term parking. Site visits to truck stops were also conducted to identify availability of parking and amenities at specific locations. The *Truck Parking Study* was also discussed at the Regional Freight Advisory Committee public meetings to gather stakeholder input on truck parking needs and to help determine specific corridors of concern.



Truck parking space with few amenities



Freight facility truck parking

3.0 Analysis

The analysis was to build upon what was learned from reviewing the Regional Conditions to identify where truck parking is deficient, specifically, in and around freight-oriented areas. The data sets were analyzed with a statewide viewpoint to identify trends or issues on a broader scale so macro level solutions could be proposed. All the data from the Regional Conditions analysis was used to identify areas or corridors of concern. These were identified based on both qualitative and quantitative analysis.

3.1 Review of Driver Survey Results

The results of the driver survey provided important insight into truck parking issues in the North Central Texas region. The drivers were asked a series of questions about truck parking in the region

Results

Question 1 - What is the most important factor in choosing overnight parking locations?

(1 - Highest, 3 - Lowest) Ranking: Safety, Convenience and Cost

Safety was rated most important of the highest priority ranking and an average rank of 1.21 and Convenience ranking second with an average ranking of 1.74. The least important factor was Cost with an average rank of 2.24. The result clearly show that drivers are looking for a safe and convenient place to park.

Question 2 - What amenities are most important at a truck stop?

(1 - Highest, 4 - Lowest) Ranking: Security, Food, Showers, and Electrification

Security was rated the most important amenity with an average ranking of 1.74. Food and showers ranked a close second and third. The least important amenity was electrification with an average ranking of 3.20. From the responses to the first two questions, clearly safety and security are important considerations when choosing a parking location.

Question 3 - Where in the DFW area would you like to see additional overnight parking?

This was a write in question for drivers to note specific corridors and areas that have overnight or long-term parking capacity issues. The top answer for the question was that the entire region needs more parking. Other responses in order of frequency include IH 35 in Denton traveling



north, the IH 30 corridor through Ft Worth and Arlington, IH 45 in south Dallas County, IH 20 both on the east and west sides of the region, IH 35W and IH 35E, and IH 635 in North Dallas. The responses for Question 3 have been mapped and can be reviewed in Figure 3-1.

Question 4 - What is the most important factor in choosing short-term parking?

(1 - Highest, 3 - Lowest). Ranking: Safety, Convenience and Cost.

The top answer again was Safety with an average ranking of 1.38. The difference between this and Question 1 is how much closer the second place answer is. Convenience is much closer to Safety in short-term parking. In this question it has an average ranking of 1.52. In Question 1 it was 1.74. One can conclude that with less time to find a place and park, convenience is a much higher priority. As in Question 1, Cost is the least important factor in choosing a parking location.

Question 5 - What amenities are most important at short-term parking locations?

(1 - Highest, 3 - Lowest). Ranking: Food Choices, Restrooms and Shopping Choices.

This question looks to discover the nature of quick errands or desired amenities a driver prioritizes when on a short break. Restrooms are the top priority with food selection coming in second. Shopping selection was the least important amenity for short-term parking selection. The responses to this question clearly show drivers place priority on the most basic necessities for short-term parking.

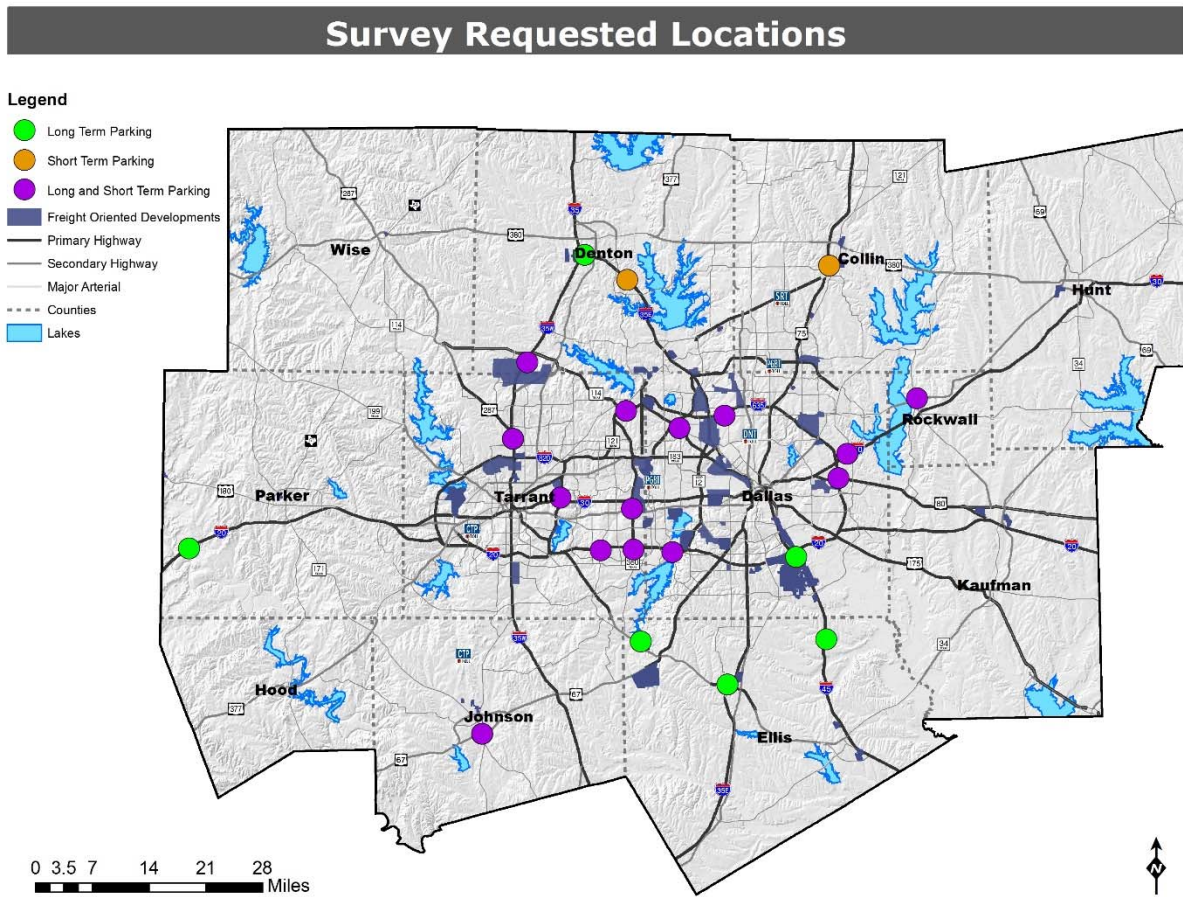
Question 6 - Where in the DFW area would you like to see additional short-term parking?

This was a write in question for drivers to note specific corridors and areas that have issues with short-term parking. The top answer for the question was ***the entire region needs more short-term parking***. This shows the need for additional short-term parking region wide and region-wide solutions need to be developed. The additional top answers included SH 360, specifically in the Great Southwest region, north on IH 35 in Denton, the IH 30 corridor through Ft Worth and Arlington, IH 20 in between Dallas and Ft Worth, IH 35W north of Ft Worth, IH 35E north of downtown Dallas, and IH 635 in North Dallas. The responses for Question 6 have been mapped and can be reviewed in Figure 3-1.

An analysis of the survey results shows clear trends and priorities for truck parking. Safety and security are by far the biggest factors in choosing both short and long-term parking.

Convenience is a short-term parking high priority and a preference in long-term parking. The results and the analysis of the survey will be used later in this section as well as in the recommendations that follow.

Figure 3-1: Survey Requested Parking Locations



Source: NCTCOG 2016

Figure 3-1: The map displays where both short- and long-term parking needs were identified based on the survey results.

3.2 Identifying Regional and State Issues

As noted earlier, there is clearly a lack of Texas Safety Rest Areas locally available for truck parking. However, some research and analysis has revealed locations where there are several intermittently-used rest areas and weigh stations that could be used for short-term truck parking, when not being utilized for operations. These areas include weigh stations off IH 45 in South Dallas and IH 20 on the east side of the region. There is also TxDOT owned land on both IH 35E and IH 35W that have both north and southbound exits which can provide quick and convenient short-term parking.

Another source of public land that could be maximized for efficient use is the regions' various park-and-ride facilities. Park-and-Ride facilities serve as parking areas for people transferring to higher occupancy vehicles. They are often located and designed to serve bus or rail transit. A

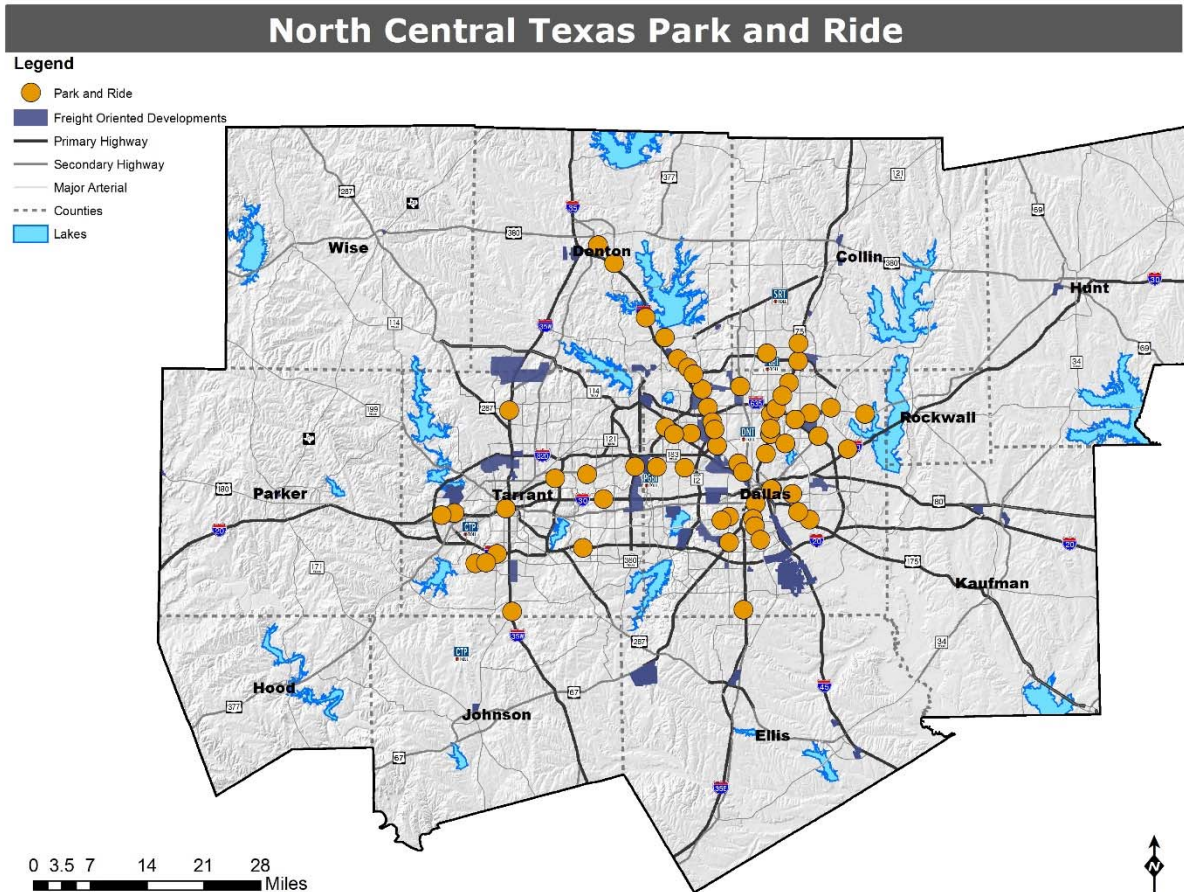


map of the regions' Park-and-Ride locations can be found in Figure 3-2. These facilities are managed by Dallas Area Rapid Transit, Fort Worth Transportation Authority, Denton County Transportation Authority, and various cities in the area. These facilities are often not used or lightly used at night and off-peak times and could potentially add to regional truck parking capacity.

Local municipal laws and ordinances, in some cities, are proving to be a deterrent to available truck parking on a regional level. The State Transportation Code and many cities in the region have adequate restrictions for truck parking in or around residential areas. However, some cities within the region have taken the restrictions to the next step and prohibited truck parking in the entire city. There are 38 regional ordinances limiting truck parking. Some of these cities have major freight developments which require a significant amount of truck traffic.

By updating local ordinances, cities could provide much needed guidance to developers which could in turn help create parking solutions that would greatly increase the short-term parking availability. Additionally, updating local ordinance standards for freight facilities, such as distribution centers and warehouses to provide short-term parking and/or staging areas, would benefit drivers struggling to meet hours of service requirements, creating a safer environment for everyone on the roadways.

Figure 3-2: Park-and-Ride Facilities



Source: NCTCOG 2016

Figure 3-2: Park-and-Ride facilities in North Central Texas managed by DART, FWTA, DCTA, and various cities

3.3 Corridors of Concern Criteria and Matrix

One of the main goals of this analysis was to identify Corridors of Concern. These corridors are heavily traveled and lack critical truck parking infrastructure. Using the data collected, a matrix was created to score and rank specific corridors. It was determined that a corridor must have at least five of the six *concern* factors identified in the matrix to qualify as a Corridor of Concern. This criteria is identified and discussed below.



Freight-Oriented Developments (FOD) and Major Freight Facilities

FODs are defined as areas that are zoned, planned, and built for freight activities. Major freight facilities are intermodal facilities, air cargo facilities, Foreign Trade Zones, and major manufactures such as GM and GE. These facilities attract freight movements and encourage additional freight growth in proximity. Airports and intermodal terminals are not required to be in proximity, however, the area should be primarily freight-focused. The greatest identified need in these areas is short-term parking.

Availability of Existing Truck Parking Locations

The existing truck parking location analysis identifies truck parking within a corridor. Considerations include the number of truck parking facilities and overall spaces that either do or do not meet current demand. The parking should be easily accessible from the major highway along that corridor. It is important to determine if the available truck parking in that corridor is near a freight-oriented development and if there is public parking provided in proximity.

As discussed earlier, there are no TxDOT sponsored rest areas in the region with designated truck parking. However, rest areas near the region will be considered on a macro scale. If it appears that there is not sufficient existing truck parking along the corridor based on the criteria for this factor, it is marked as an issue on the Corridors of Concern matrix found in Appendix 4.0.

Local Truck Parking Ordinances and Land Use

This factor identifies corridors that lack adequate parking due to local truck parking ordinance restrictions at any time within the city limits. If there are cities with these types of ordinances in place along a given corridor, short-term parking will likely be inadequate. Any specific ordinances that address residential and FOD combined areas should be evaluated for compatibility.

Travel Times and Hours of Service

This factor examines the travel time effects on corridors across the region. Considerations include how long it takes to travel across the region on a given corridor, the effect on a drivers' hours of service, and the travel time to/from FODs and major freight facilities.

If the analysis demonstrated a negative impact, it was marked as an issue on the matrix.

Heavily Traveled Freight Corridors

This factor is based upon the heavily traveled freight corridors outlined in the regional conditions.

The top freight corridors are limited access highways with truck volumes of 10,000 or more and truck percentages at 15% or more. This criteria is based on common features of heavily used



corridors across the region. If the corridor is a heavily traveled corridor, it was marked as an issue on the matrix.

Driver Surveys and Stakeholder Outreach

The survey data analysis identified corridors where additional truck parking was requested. Specific areas identified in outreach and stakeholder meetings were also taken into account. This includes input from Regional Freight Advisory Committee meetings, visits with fleet managers, and staff site visits to freight specific areas. Please see Appendix 4.0 for complete criteria assessments of the corridors reviewed.

3.4 Corridors of Concern

The identified Corridors of Concern were analyzed individually to identify detailed characteristics in and around the area, including:

- Freight activities
- Existing parking availability
- Major highways
- Travel times and other needs for the area

The Corridors of Concern as determined by the criteria are:

- IH 30/SH 360 (Great Southwest Area)
- South Dallas (IH 45 and IH 20)
- IH 35W (North of Downtown Fort Worth)
- Dallas and Framers Branch (IH 35E and IH 635)
- Garland and Mesquite (IH 30 and IH 635)
- Parker County (IH 20/IH 30)

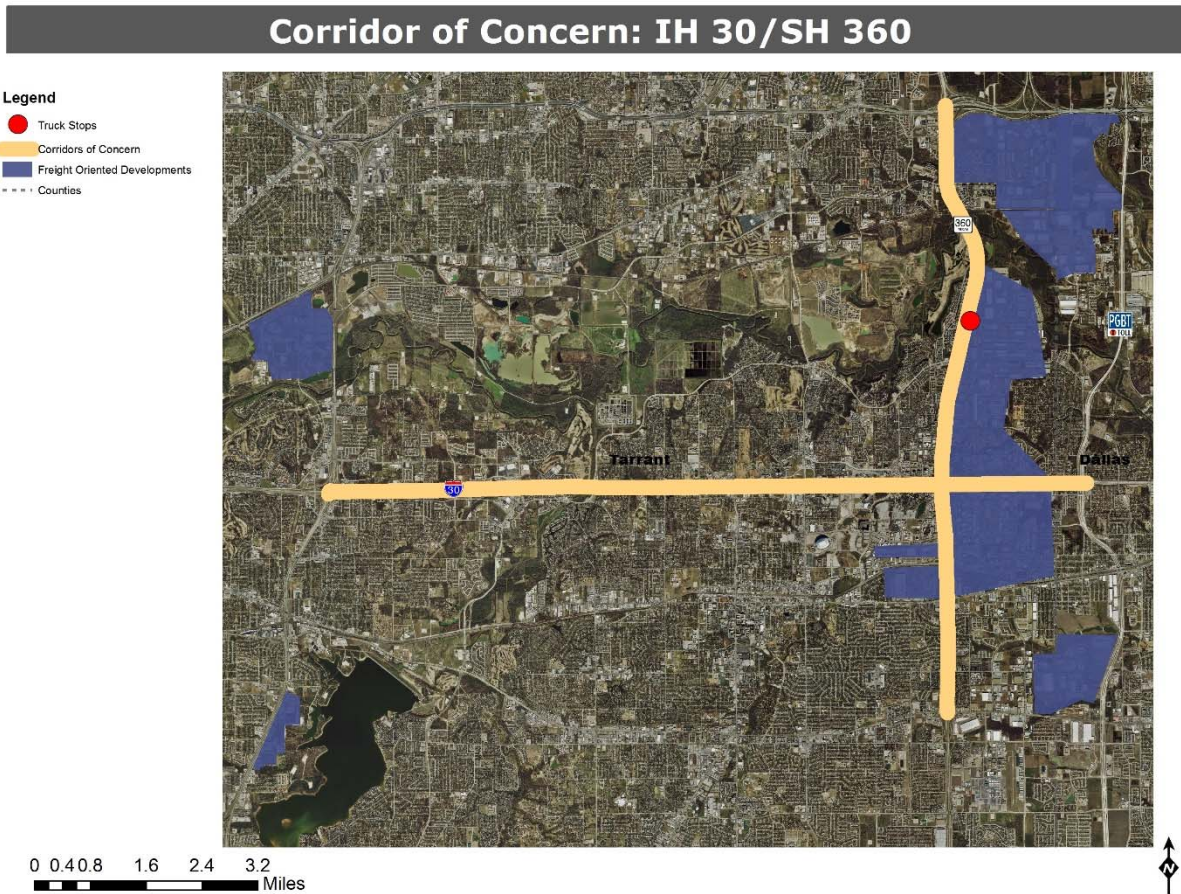
These corridors and freight-oriented developments all have characteristics which increase the need for truck parking. A description of each Corridor of Concern is discussed in detail below. A matrix score of 5 or 6 qualifies as a Corridor of Concern.

IH 30/SH 360 (Great Southwest Area)

Matrix Score 6/6

The first Corridor of Concern is located at IH 30 and SH 360 in the Arlington/Grand Prairie area. The general boundaries of the corridor are IH 820 in the west, DFW Airport to the north, (SH 183), SH 303 to the south, and SH 161 on the east side. The total mileage along the two highways located in the corridor is approximately 19.5 miles. Major cities adjacent to this corridor are Ft. Worth, Arlington, and Grand Prairie. The Corridor of Concern is highlighted in Figure 3-3.

Figure 3-3: IH 30/ SH 360 (Great Southwest Area)



Source: NCTCOG 2016

Major non-freight related features of the corridor include the Arlington Entertainment District (AT&T Stadium, Globe Life Park, Six Flags and Hurricane Harbor), American Airlines Headquarters, the Trinity River, and Arlington Convention Center. There are also several residential neighborhoods and golf courses along the corridor. Although many of these neighborhoods are not freight-focused, they are in a corridor with heavy freight movements, making it difficult to locate truck parking spaces.

Freight Activities

Major freight activities in this corridor include the General Motors (GM) Arlington Assembly Plant, and Bell Helicopter. Distribution centers in the corridor include Office Depot, G.E., Papa John’s, and the Great Southwest Industrial Park, one of the largest FODs in the region. There is also a UPRR switching yard operation off SH 360 near GM. The core of the corridors’ freight activities are along SH 360 south of the DFW Airport to SH 303 on the east side of the highway, then along IH 30 from SH 360 to SH 161. With two major highways in the corridor, IH 30 and SH 360, daily truck traffic is 8,775 vehicles on IH 30 and 9,500 vehicles on SH 360. In addition to

these major highways, the corridor is adjacent to IH 820, SH 161, and SH 183. All of these roadways bring significant freight traffic to the area.

Existing Truck Parking

There is only one major truck stop in this corridor; *Quick Fuel* off SH 360. It is located mid-way through the north/south portion of the corridor and has minor capacity. The location only has about four truck parking spaces, for short-term use only. This means there is no designated long-term parking spaces in this corridor.

The driver survey responses identified this area as one of the top corridors needing both short-term and long-term parking capacity. The absence of truck stops in the corridor's area is in relation to ordinances and laws limiting truck parking in or near residential areas. Ft Worth, Arlington, and Grand Prairie all have laws limiting truck parking which severely limits where drivers can park, due to a high amount of residential areas mixed with the FODs.

Corridor Needs

With such a high volume of freight activity, there is a high demand for truck parking in this corridor.

Long-Term Parking – There is currently no long-term parking to help meet driver needs.

Short-Term Parking – With very little on-street parking and limited designated truck parking at one fueling station in the area, short-term parking is also in high demand, especially on SH 360 between West Carrier Parkway and Avenue K.

Please see 4.4 Corridors of Concern Specific Recommendations for further information.

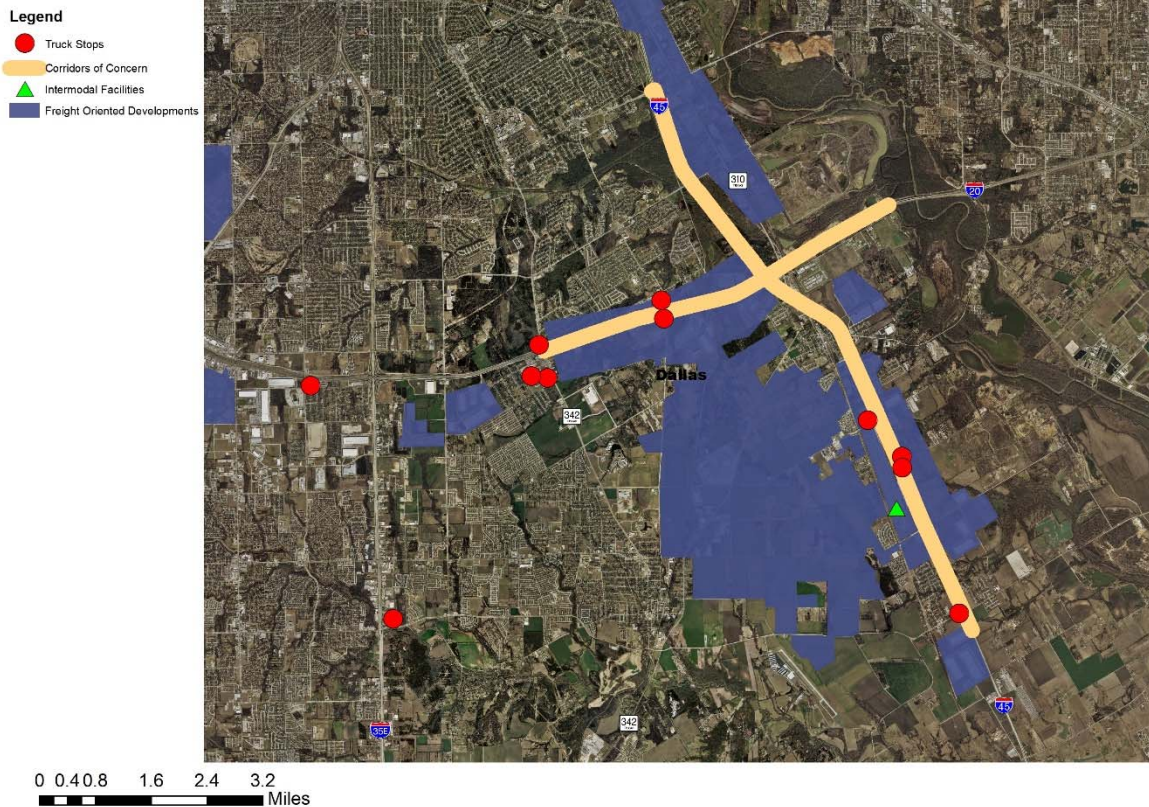
South Dallas (IH 45 and IH 20)

Matrix Score 5/6

The next Corridor of Concern is located around IH 45 and IH 20 in the South Dallas area. The general boundaries of the corridor are SH 342 in the west, Loop 12 on the north side, Belt Line Road in Wilmer to the south, and the Trinity River on the east side. The total mileage along the two highways located in the corridor is approximately 15.5 miles. The major cities in this corridor are Dallas, Lancaster, Hutchins, and Wilmer. The South Dallas Corridor of Concern is illustrated in Figure 3-4.

Figure 3-4: South Dallas (IH 45 and IH 20)

Corridor of Concern: South Dallas (IH 45 and IH 20)



Source: NCTCOG 2016

Major non-freight related features of the corridor include: the Trinity River, ADESA Auto Auction, McCommas Bluffs Landfill, Cedar Valley College, Lancaster High School, and Wilmer Hutchins High School. There are also several residential neighborhoods along the corridor. This corridor is far less populated than some of the other corridors and therefore has more diverse land uses than the other focus areas.

Freight Activities

This Corridor of Concern is in the International Inland Port of Dallas (IIPD), which is a developing FOD in South Dallas County. There are major distribution operations in the corridor including Amazon, Proctor and Gamble, FedEx Ground (their largest ground operation in the country), Whirlpool, and Sprouts. UPRR has a major intermodal facility off IH 45 just south of IH 20. The core of the freight activities in the corridor is located along both sides of highway IH 45, south of IH 20 and daily truck traffic is 27,500. Along IH 20, daily truck traffic is 13,250 and the majority of freight activity is to the south of the highway, with the north side of the highway devoted to more residential developments.

Existing Truck Parking

There are seven major truck stops within the corridor, four are off IH 20 on the west side. The other three are on IH 45 with two of those near the intermodal facility and the one located further south in Wilmer. These locations have about 720 short-term and long-term truck parking spaces. Many of these spots can be reserved using the location reservation system.

During the stakeholder outreach meetings with area representatives, it was noted that even though there are a significant amount of spaces, there is still not enough to meet demand. Site visits were conducted to these locations and it was discovered that the locations are near capacity even in the middle of the day. The biggest impact on truck parking in the corridor is the location. This corridor is on the edge of the region's urban area. It is the gateway for all freight that moves through the IH 45 corridor into the region.

Area Needs

This corridor has heavy freight traffic on both major highways, IH 45 and IH 20. Due to heavy freight traffic truck parking needs in this area will continue to increase over time as the inland port expands and adds new freight-oriented developments. The parking needs for the corridor are:

Long-Term Parking – The corridor has a significant amount of existing truck parking. However the analysis has shown that it needs more, especially near the UPRR intermodal facility.

Short Term Parking – While not a significant issue, it is still a concern in the area around the UPRR facility.

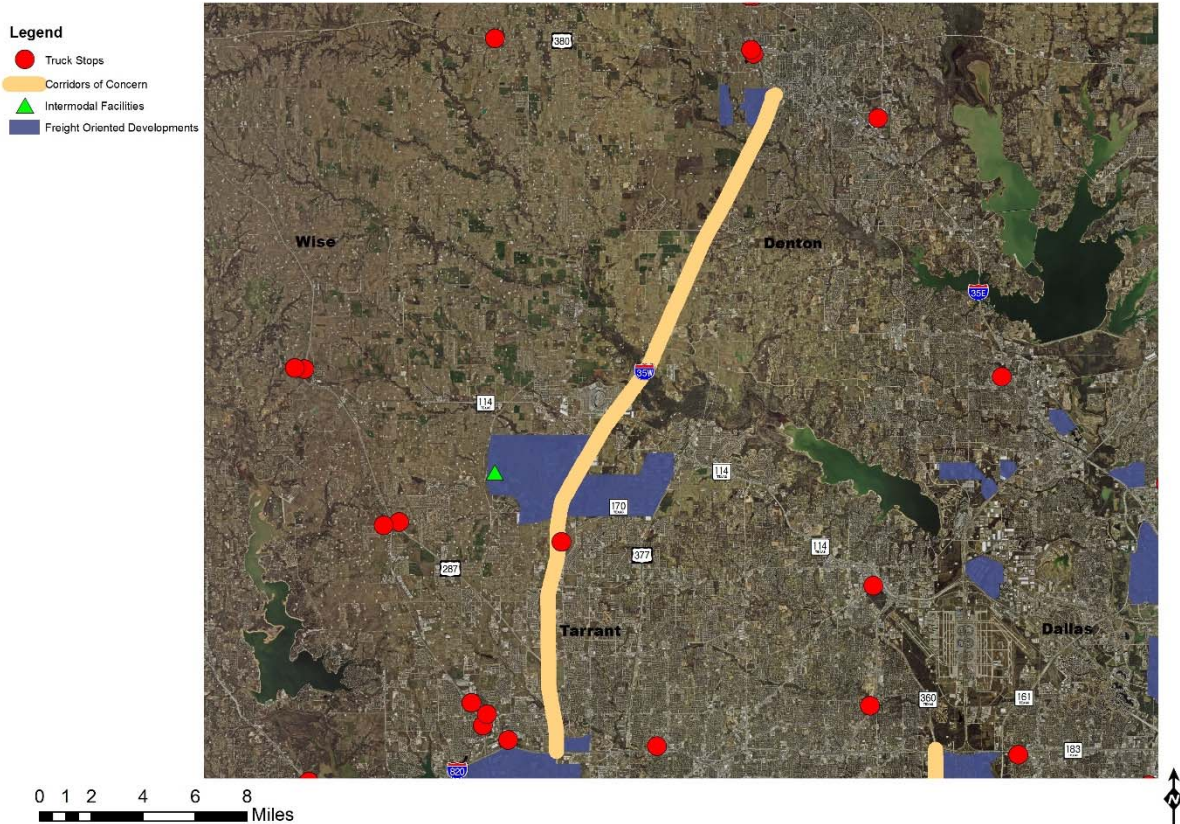
IH 35W (North of Downtown Fort Worth)

Matrix Score 6/6

The *IH 35W Corridor of Concern* is located between Ft. Worth north of IH 820 and south of highway 380 in Denton. The focus point of the corridor is along IH 35W between SH 114 and SH 170. The total mileage along the corridor is 27.5 miles. The major cities in this corridor are Ft. Worth, Haslett, Northlake, Argyle, and Denton. The Corridor of Concern is highlighted in Figure 3-5.

Figure 3-5: IH 35W (North of Downtown Fort Worth)

Corridor of Concern: IH 35W (North of Downtown Fort Worth)



Source: NCTCOG 2016

The significant goods movement operations in the corridor include Alliance Airport, FedEx, G.E. and BNSF Headquarters. Major non-freight-related features of the corridor include: the University of North Texas, Texas Motor Speedway, the Trinity River, Denton Enterprise Airport, and Medical Center at Alliance. There are also several residential neighborhoods along this corridor.

Freight Activities

Multiple major distribution operations in the corridor include Coca Cola, Amazon, Michaels, FedEx, Kraft Foods, Volkswagen, and LG Electronics. BNSF Railway owns a major intermodal facility off of IH 35W just south of SH 114, and there is an auto loading facility located off of Intermodal Parkway. G.E. also has a manufacturing facility located off of SH 156 that primarily focuses on locomotive production, which is adjacent to Alliance Airport. The majority of the freight activities in the corridor are located in the Alliance area along IH 35W.



The major roadways include IH 820, IH 35W, SH 170 and SH 114. The daily truck traffic on IH 35W through this corridor is 6,500.

Existing Truck Parking

There is one major truck stop within the corridor, located at the SH 170 interchange with IH 35W and is operated by Pilot. This location has about 150 truck parking spaces for short-term and long-term use. These spots can be reserved by using the location reservation system and as an added amenity, Electrified Parking Spaces are offered for greater efficiency at this location.

Cabela's sporting goods store is located across SH 170 from this location and it has experienced issues with trucks parking in the designated Recreational Vehicle (RV) parking spaces, which causes conflicts with the intended store parking plan. Additional truck parking in and around the Alliance area would alleviate conflict points and provide adequate facilities for truck drivers.

During stakeholder outreach meetings, it was noted that having only one truck stop in the area causes issues as it does not provide enough parking for the growing corridor. Site visits were conducted to the area and it was confirmed that the parking facility is at or near capacity most of the day. Feedback from the driver survey also highlighted this corridor as an area in need of more long-term parking.

Area Needs

The parking needs for the corridor are:

Long-Term Parking – The corridor has only one location for long-term parking and the lot is full much of the day leaving little options for truck drivers looking to rest and remain compliant with federal rules. This is a large corridor and will continue to experience increased growth rates both in population and freight-oriented developments.

Short Term Parking – While some short-term parking is available, it is insufficient to meet demand.

The review of the IH 35W Corridor of Concern has demonstrated the importance of the area to the overall truck parking network in the North Central Texas region and the corridor. Please see the corresponding IH 35W Corridor in the Recommendation Section.

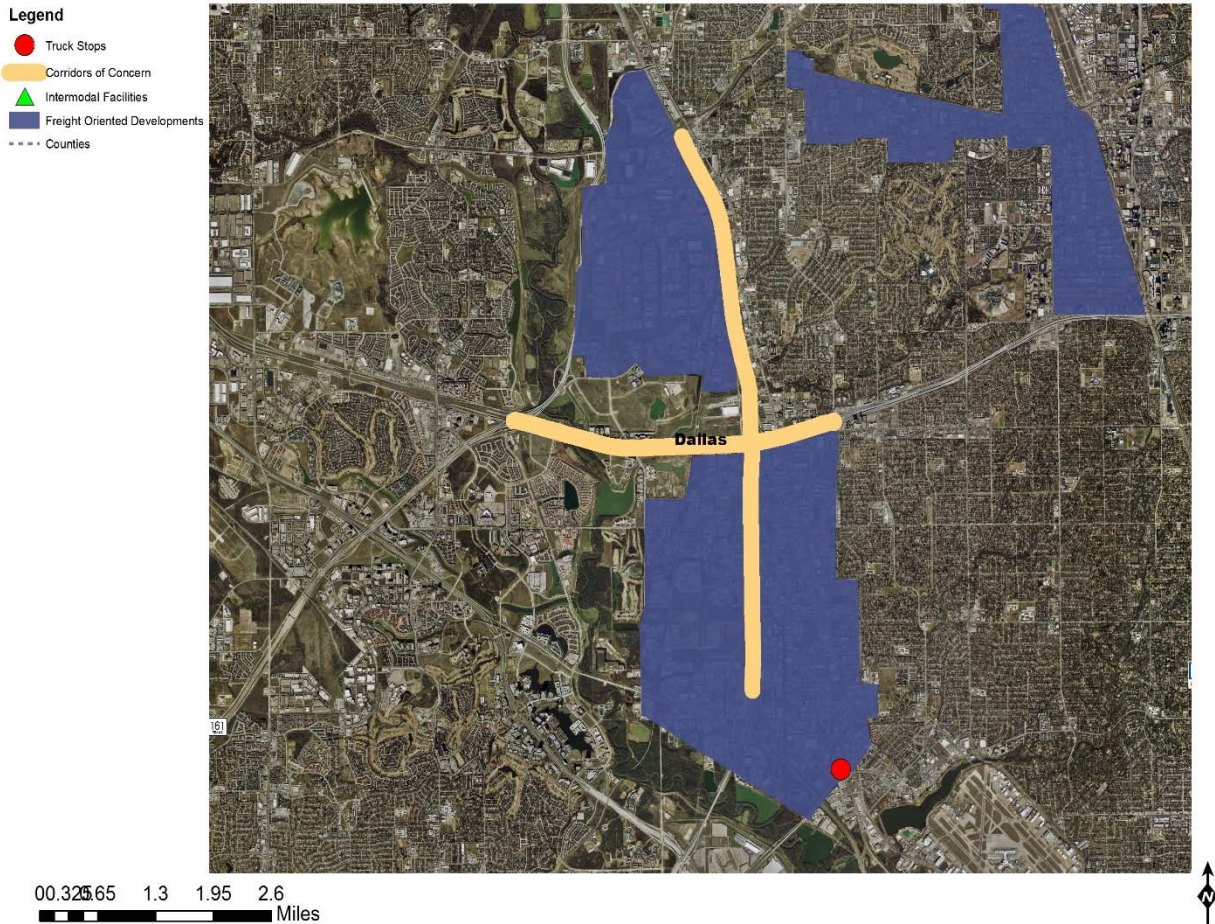
Dallas and Framers Branch (IH 35E and IH 635)

Matrix Score 6/6

The North Dallas Corridor of Concern is the portion of IH 35E and IH 635 in the North Dallas Area. The limits on IH 35E are Loop 12 in the south and Belt Line Road in the north. The limits on IH 635 are President George Bush Turnpike (PGBT) in the west and Josey Lane in the east. The focus point of the corridor is where IH 35E meets IH 635. The total mileage along the corridor is 10 miles. The major cities in this corridor include Dallas, Farmers Branch, Carrollton and Irving. The Corridor of Concern is highlighted in Figure 3-6.

Figure 3-6: Dallas and Farmers Branch (IH 35E and IH 635)

Corridor of Concern: Dallas and Framers Branch (IH 35E and IH 635)



Source: NCTCOG 2016

Major non-freight-related features of the corridor include the Dallas Christian College, the Trinity River, and Omni Dallas Hotel. There are residential neighborhoods located in the northeast and western portion of the corridor, however most of the corridor is commercial and freight-focused development.

Freight Activities

There are several industrial parks located along the corridor and the major freight generators in the area include Southwestern Motor Transport, Dal-Tile Stone & Slab Center, International Paper plant, and Glazer's Wholesale and Midwest Hose & Specialty. There are also many smaller freight operations in the corridor. IH 35E daily truck traffic through this corridor is 13,300 and IH 635 daily truck traffic is 13,250.



Existing Truck Parking

This corridor is not the largest in the study areas but does have a significant amount of truck traffic moving through and within the corridor. However, there is no major truck stop with designated truck parking located within the corridor, which causes serious concerns with so many freight-oriented developments.

During the stakeholder outreach meetings with managers from this area, it was noted that more short-term and long-term parking was needed. The driver survey also highlighted this corridor as an area in need of more long-term parking.

Area Needs

This corridor is smaller in comparison to other study areas however it houses an array of varied freight uses in a dense freight-oriented development. Since there is no dedicated truck parking in this corridor, the truck parking needs are great. The parking needs for the corridor include:

Long-Term Parking – Due to no existing long-term parking facilities along the corridor there is high demand for long-term parking.

Short-Term Parking – Short-Term parking is an issue along this corridor and more is needed to ensure drivers have the ability and space to rest if needed. Ordinance Sec. 72.11 from the City of Carrollton should be reviewed to include short-term parking for this freight-oriented development.

A review of the North Dallas Corridor of Concern shows the characteristics of what makes it important to the truck parking situation in North Texas and the specific needs of the corridor. With these in mind, specific recommendations can be made for the corridor. Please see the corresponding elements in the Recommendation Section.

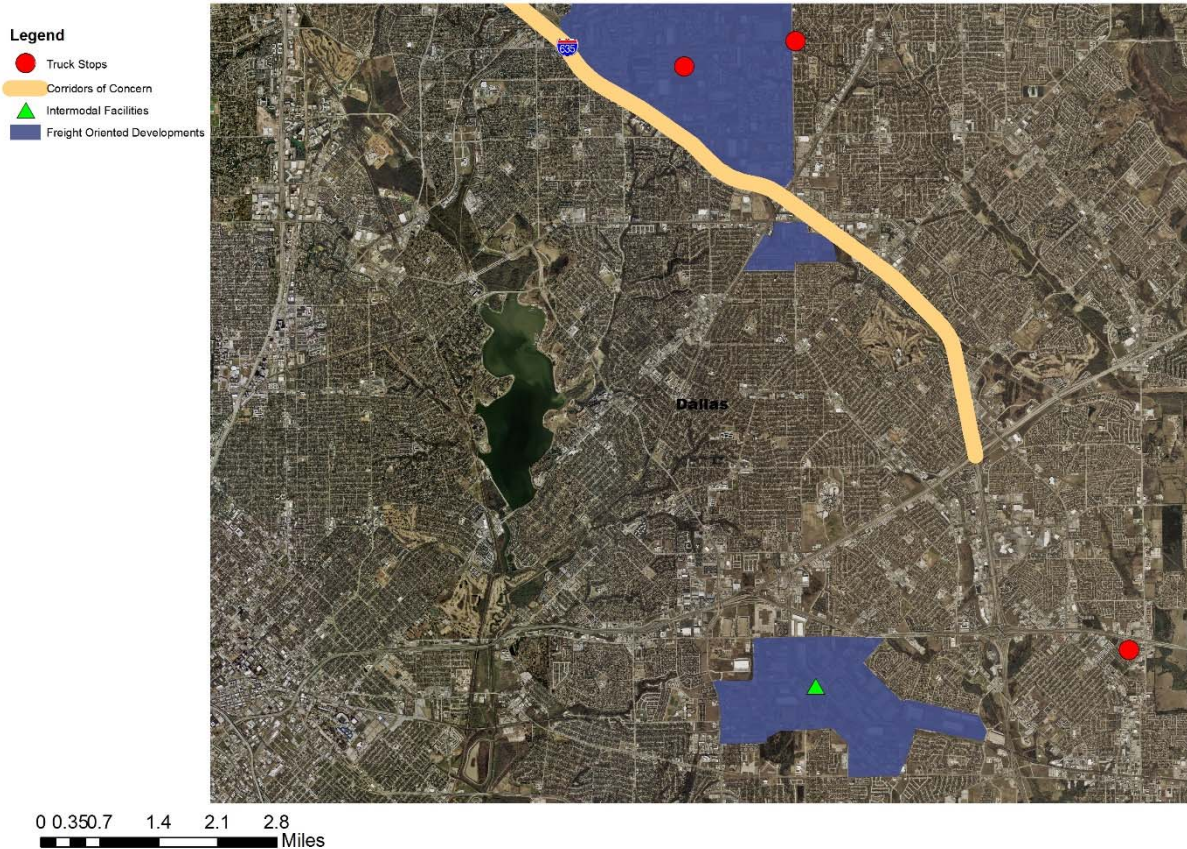
Garland and Mesquite (IH 635)

Matrix Score 6/6

The Garland and Mesquite Corridor of Concern, is the portion of IH 635 north of SH 352 in Mesquite and south of Skillman Road in Dallas. The focus areas in the corridor are located along IH 635 just north of IH 30 and near US 80. The total mileage along the corridor is 11.5. The major cities in this corridor are Dallas, Garland, and Mesquite.

Figure 3-7: Garland and Mesquite (IH 635)

Corridor of Concern: Garland and Mesquite (IH 635)



Source: NCTCOG 2016

The Corridor of Concern is highlighted in Figure 3-7. Major non-freight related features of the corridor included the Dallas Athletic Club, Town East Mall, the Trinity River, and Mesquite Arena. There are also several residential neighborhoods found near the freight-oriented developments in the corridor.

Freight Activities

The East Dallas County Corridor has many freight-oriented developments including the Northgate Business Park which is one of the major FODs in the region, several major distribution operations including Fossil, Sears Logistics Services, PETCO, Prime Distribution Services, and UPS. There are also several services operating in the corridor including Waste Management, O'Neal Flat Rolled Metals, and Stephen's Pipe & Steel. Union Pacific Railroad also has an intermodal facility located in Mesquite.



The major roads in the corridor include IH 30 and US 80. These highways help bring significant freight traffic to the area. IH 635 daily truck traffic through this corridor is 16,000 trucks per day.

Existing Truck Parking

There are two truck stops within the corridor with minimal undesignated short-term parking. They are both located on the north end of the corridor in the Northgate Business Park. However, there is no long-term or short-term designated truck parking in this corridor.

This area was one of the top areas cited by drivers in response to the Driver Survey for both long-term and short-term parking needs. The City of Dallas has laws limiting parking in or near residential areas and Mesquite does not allow trucks to park on the street. This may be problematic for this corridor as there is considerable residential housing near the freight development. However, it may be possible for businesses in the area to work with the cities to define areas within the freight-oriented development that will allow for long-term and short-term truck parking.

Area Needs

The truck parking in the corridor is lacking. It is a long corridor with many different freight uses. The corridor is already developed as strong freight-driven area and needs parking to help with the demands of the freight industry. The parking needs for the corridor are:

Long-Term Parking – The corridor does not have any long-term parking and needs this type of parking availability to help the many drivers going through and to the corridor every day.

Short-Term Parking – There needs to be additional short-term parking created in this corridor. Short-term parking availability can be an issue any time there are ordinances that do not allow for truck parking near a freight-oriented development.

A review of the East Dallas County Corridor of Concern shows the characteristics of what makes it important to the truck parking situation in North Texas. With these parking needs in mind specific recommendations have been made for the corridor. Please see the corresponding section in the Recommendations below.

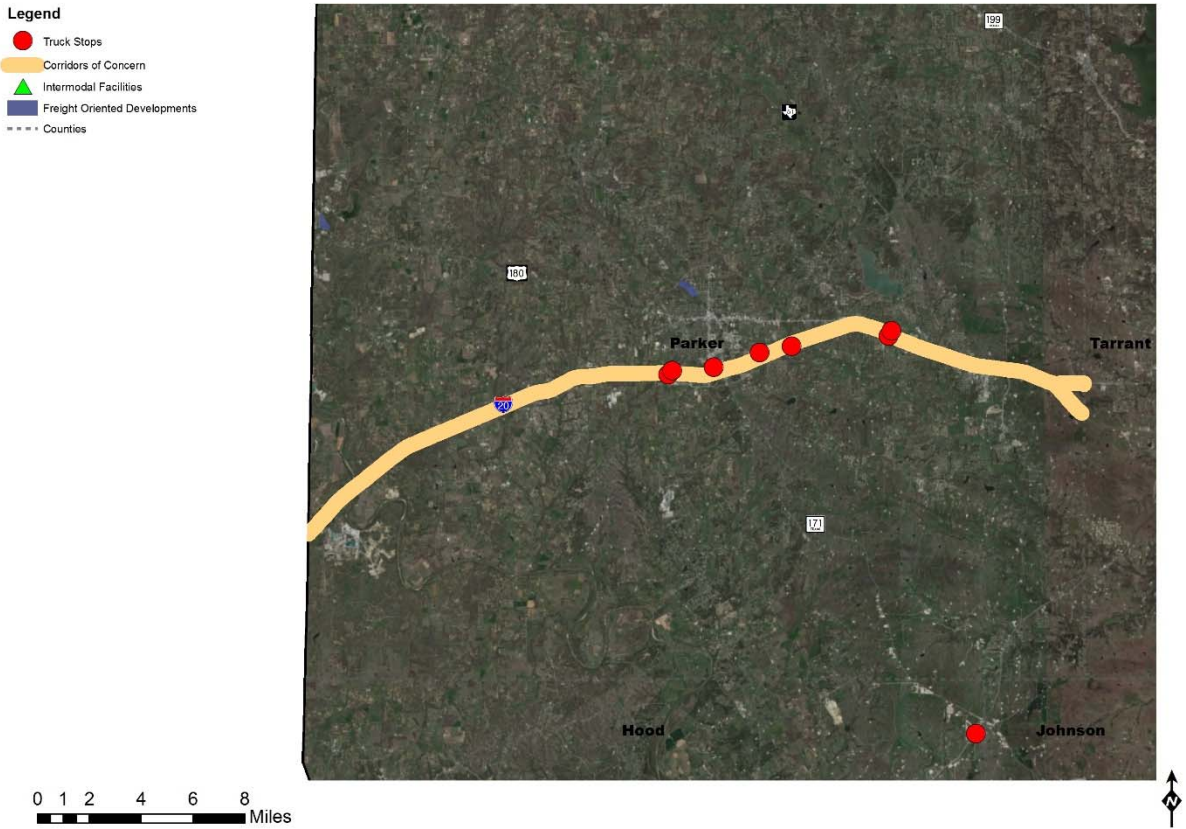
Parker County (IH 20 and IH 30)

Matrix Score N/A

This corridor is different from the other corridors because it is not highlighted by its freight activities and truck movements. It is highlighted by the lack of Texas Safe Rest Areas with designated truck parking in the western portion of the region. The Corridor of Concern is highlighted in Figure 3-8.

Figure 3-8: Parker County (IH 20 and IH 30)

Corridor of Concern: Parker County (IH 20 and IH 30)



Source: NCTCOG 2016

The corridor extends the length of Parker County on IH 20. It is a largely undeveloped portion of the North Texas region and the IH 20 and IH 30 split is located on the east side of the county. The focus of this corridor was to identify the best general location to build a rest area with designated truck parking. The major roads in the corridor include IH 30 and US 80. These highways help bring significant freight traffic to the area in addition to the daily truck traffic through the IH 20 corridor of approximately 13,750 trucks.

Texas Safety Rest Areas

TxDOT has established rest areas leading into the region from all directions. West of the region a small rest area is located in Palo Pinto County. North of the region there are welcome centers on IH 35 and US 75, both with truck parking availability. South of the region rest areas are located on both IH 35 and IH 45. East of the region a rest area is located on IH 20 in Van Zandt County. These rest areas provide much needed parking availability for commercial vehicle operators. However, the rest area located in Palo Pinto County does not provide adequate truck parking, especially long-term parking.

Existing Truck Parking

There are 6 truck stops within the corridor but not all of them offer truck parking. There are, however, over 620 truck parking spaces among the ones that do. Responses provided in the driver survey noted the need for additional parking in this corridor.

Area Needs

As was stated in the overview, it was chosen as a Corridor of Concern because of its need for a rest area and additional parking. This would not only help with the specific needs of the corridor but help the entire region with a parking solution.

3.5 Conclusion

Each of the Corridors of Concern was analyzed to identify specific long-term and short-term parking needs. This analysis was the foundation for recommendations that can be applied to both the region and the individual Corridors of Concern. The goal of the analysis was not to identify the specific number of spaces needed, or the exact locations, but to gain an overall understanding of where and what kind of parking was needed along larger corridors or areas.



Short-term truck parking



Rest area truck parking

4.0 Recommendations

The overarching goal of this study is to recommend solutions for truck parking in the North Central Texas region, based upon the data collection and analysis that was conducted. Best practices and lessons learned from efforts across the country were considered and applied to the recommendations. The goal of this study and the recommendations is to provide solutions to regional truck parking issues.

4.1 State and Regional Recommendations

Several of the ideas and changes that can be made must take place at a local, regional, and state level by public agencies. These are changes to policies or ordinances that would make more parking available to truck drivers who have very few, and in some cases, no parking options. Some recommendations include augmenting existing facilities that are not being used or could possibly support truck parking in some capacity by allowing truck parking in these areas. There is also a need to develop new truck parking facilities by public agencies, such as TxDOT. However, a more immediate solution could be to augment existing facilities. Below are the recommendations for State and Regional level solutions.

State Historic Picnic and Rest Areas Information

There are state historic picnic areas that have space for trucks to park throughout the region. They do not currently have designated truck parking but, with minor augmentation, these facilities could support some truck parking. An example of these types of rest areas is located in North Hill County on IH 35W just south of Johnson County. It is nothing more than a few tables and a place to park. One issue associated with this type of facility is the ability to locate these. TxDOT does not include them on their Safety Rest Area Map and they are harder to identify while on the road. One recommendation is to make information on these rest areas more available to the public.

Parking in Unused TxDOT and Other Publicly-Owned Areas

Right-of-Way that TxDOT owns that is not in use, including weigh stations and closed rest areas, may be a short-term option for providing much needed truck parking availability. There are weigh stations both on IH 20 and IH 45 within the region. The weigh station on IH 20 is on the east side of the region away from the urban boundary in Kaufman County. This would provide much needed short-term parking as a driver is entering or leaving the region. The weigh station on IH 45 is near the UPRR intermodal facility on the south side of IH 20. This weigh station is periodically used by Dallas County but is not in use at all times. It would provide much needed parking to drivers arriving and leaving the intermodal facility. Other states such as Florida have begun using this method to increase truck parking capacity.



In addition to these weigh stations, closed rest areas such as those on IH 35E and IH 35W on the southern side of the region can be used for truck parking. These would be safer parking options than parking on the shoulder of the road or parking illegally. It would be a place off the highway which a driver can park and be out of harm's way and with minor adjustments such as lighting, security cameras or a security guard, provide an extra level of safety.

The last area of publicly-owned land that could be used for truck parking is Park-and-Rides. As identified and discussed in the Analysis Section of the report, Park-and-Rides are facilities which serve as parking areas for people transferring to higher occupancy vehicles. These facilities could provide truck parking during off-peak hours when the parking lot is not being used or underutilized. As noted in the previous section, these are managed by DART, FWTA, DCTA, and various cities in the area.

The recommendation for underutilized TxDOT and other publicly-owned areas is to use existing public right-of-way to increase the amount of truck parking at a very low cost, with minimal augmentation.

Safety Rest Areas

As described in the Regional Conditions and Analysis Sections of the report, there are no safety rest areas in the region with designated truck parking. However, there are safety rest areas leading into the region which do provide much needed parking for drivers that operate to, through, and from the region. As identified in the Analysis Section, the western portion of the region would benefit greatly from a safety rest area with designated truck parking and Parker County would be an ideal location for a TxDOT safety rest area. The facility could be located between Weatherford and the IH 20/IH 30 interchange and it would provide some amenities that safety rest areas on IH 35 in Hill County provide. Most importantly, it would enhance the coverage of Safety Rest Areas that surround the DFW region and provide additional parking.

The recommendation for Safety Rest Areas is building a new facility in Parker County and a review of the region by TxDOT to identify the additional needs for Safety Rest Areas that connect North Texas to the rest of the state.

Truck Parking Ordinances

One of the simplest ways to reduce the need for short-term parking is to require on-site parking at freight-focused facilities such as distribution centers or warehouses. This would be parking specifically set aside for drivers who need somewhere to park if they arrive too early or have to take a break due to their hours of service. Right now, most off-street parking ordinances in the region only require facilities to provide space for employees. Adding short-term truck parking "staging" requirements into local parking ordinances would provide designated parking for drivers arriving or leaving facilities that need parking for a short break. The recommendation for Truck Parking Ordinances is instituting an ordinance for new freight-orientated developments to provide adequate availability for onsite short-term parking. A sample truck parking ordinance

will be included in NCTCOG's Metropolitan Transportation Plan Policy Bundle process for cities and counties to institute. Adopting the Policy Bundle will allow a local agency to embrace regional policies that will allow them to receive an offset of local funds in federal transportation projects.

Land-Use Study

In the course of conducting analyses on the Corridors of Concern, it became clear that typically land uses around FODs are not compatible. Residential lots are often near or even mixed in with heavily freight-focused areas. The Regional Inventory completed in 2013 for Freight North Texas recommended that a Land Use Study be completed. This study and analysis underpins the need for a review of land uses and zoning conflicts around the region.

4.2 Partnership Opportunities

Truck parking is an issue that cannot be solved by one agency or strategy. Public-Private Partnerships can be leveraged to maximize funding and provide much more in terms of amenities at each truck stop. This would create the next generation of truck stops with an opportunity to improve upon current design and expectations for better security, fuel, parking space reservation services, and other amenities that drivers need. However, many obstacles still remain including public perception, infrastructure, road quality, and proper access to truck parking locations.

It is not unusual for the public and the private sector to work together on an array of infrastructure projects, especially when mutually beneficial. If done correctly, benefits for the public include additional truck parking availability, improved air quality, increased driver security, increased public safety, increased compliance with Hours of Service requirements, and additional tax revenue. Private industry benefits could include utility, street, and road improvements that provide better access to truck stops and greater cooperative planning approaches for surrounding developments, which may increase notoriety of specific facilities.

The recommendation is for more Public-Private Partnerships that provide mutual assistance for increased availability of truck parking across the region. Public assistance could include infrastructure upgrades and private industry investments could focus on maximizing facility amenities for drivers. The partnerships would be available to new and existing truck stop facilities and could improve parking layouts to maximize use or increase security. Other amenities could be added such as bicycling/pedestrian areas adjacent to the facilities.

Recommendations for collaborative efforts to develop regional truck parking facilities/increase truck parking space capacity through public-private partnerships:

Public Funds Could Possibly Provide:

- Street Improvements/Construction
- Utility Improvements/Construction

- Public and City Involvement
- Enhanced Development Planning
- Enhanced Signage
- Enhanced Fitness Areas (bicycle and pedestrian connections)

Private Funds Could Possibly Provide:

- Parking
- Electrified Parking Spaces
- Security and Driver Amenities
- Easy Online Access for Parking Reservations and Availability
- Street Improvements/Construction
- Utility Improvements/Construction

Public and private sector entities working together will help create truck parking where it is needed. Sufficient truck parking will enhance mobility and create healthier, economically viable solutions for drivers, public agencies, and the private industry.

4.3 New Technology Enhancements and Applications

As noted in the Literature Review, there are public and private industry approaches with enhanced technologies to help ease truck parking concerns. These 21st century solutions to truck parking issues and are forward-looking and rely on new technologies. Here are some of the ongoing initiatives.

Public Approaches

Truck Parking Availability System (TPAS) - Florida Department of Transportation (FDOT)

This project helped solve imbalances of truck parking capacity due to a lack of parking information management. FDOT found an overflow of parking at some locations while others remain underutilized. FDOT is using funds received from the 2016 FASTLANE Grant program to help with TPAS installation along IH 4, IH 10, IH 75 and IH 95 at welcome centers, weigh stations, and rest areas.

Regional Truck Parking Information and Management System - Kansas Department of Transportation, Indiana Department of Transportation, Iowa Department of Transportation, Kentucky Department of Transportation, Michigan Department of Transportation, Minnesota Department of Transportation, Ohio Department of Transportation, Wisconsin Department of Transportation: These eight DOTs received 25 million in TIGER Grant funds in 2016 to implement a regional truck parking information and management system with existing Intelligent Transportation Systems (ITS) technology on major freight routes in eight Midwestern states. The information will be disseminated through smartphone applications, dynamic road signage, websites, and parking facilities.

Private Approaches

Private approaches focus on applications for mobile devices.

Park My Truck – National Association of Truck Stop Operators (NATSO)

NATSO has developed an app known as “Park My Truck” which allows any parking provider, whether public or private, to report their parking availability for free through this application. It does not require any special technology, only internet access.

Trucker Path – Is a crowd sourced application that provides truckers with information to search and compare truck stops, weigh stations, fuel prices, rest areas, real-time parking availability, and GPS.

Both public and private approaches focus on disseminating information about parking availability to drivers. Since it is best to consider technology-based solutions at a statewide level, enhanced coordination with TxDOT will be needed to ensure that the best technologies for the region and the state are developed.

4.4 Corridors of Concern Specific Recommendations

The analysis of the Corridors of Concern emphasized the issues with truck parking availability throughout the region. This section will specify the recommendations for each of the Corridors of Concern.

IH 30/SH 360 (Great Southwest Area)

The first Corridor of Concern is the area where IH 30 and SH 360 meet in the Arlington-Grand Prairie area. The general boundaries of the corridor are IH 820 in the west, DFW Airport on the north side (or SH 183), SH 303 in the south, and SH 161 on the east side.

Corridor Needs

Long-Term Parking – This corridor does not have any long-term parking availability and with the amount of freight activity in the area there must be long-term parking availability to help meet the needs of the drivers that are subject to federal Hours of Service rules.

Short-Term Parking – With very little designated truck parking at one location in the area, short-term parking is in high demand in this corridor, especially in the area around the IH 30/SH 360 interchange. New and existing facilities are encouraged to plan and provide for parking and staging areas.

- Encourage cities to allow short-term parking in unused lots or convert abandoned lots to provide security surveillance and restroom access.
- Clearly define where drivers can and cannot in park in freight-focused areas using signage and ordinances.
- Allow staging in freight-focused areas if not already allowed by signage.

- Add/allow two truck parking locations in the corridor; one around IH 30 and one around SH 360. They should include at least 25 long/short-term spaces.

For more detail, see the Analysis Section of this Report. South Dallas (IH 45 and IH 20)

The next Corridor of Concern is the area where IH 45 and IH 20 meet in the South Dallas area. The general boundaries of the corridor are IH 342 in the west, Loop 12 on the north side, Belt Line Road in Wilmer to the south, and the Trinity River on the east side. The focus point of the corridor is along both IH 45 and IH 20.

Corridor Needs

Long-Term Parking – The corridor has existing truck parking. However, the analysis has shown that it will need more in the future, especially near the UPRR intermodal facility.

Short-Term Parking – While not as a significant issue as the IH 30/SH 360 Corridor, parking is still needed in the area near the UPRR facility.

Recommendations

- Open the weigh station on IH 45 to truck parking when not in use
- Clearly define where drivers can and cannot park in freight-focused areas using signage and ordinances
- Allow staging in freight-focused areas
- Increase parking near the existing Love Truck Stop at Fulghum Road and IH 45, with at least 50 long/short-term spaces

For more detail, see the Analysis Section of this Report.

IH 35W (North of Downtown Fort Worth)

The IH 35W Corridor of Concern is the portion of IH 35W north of IH 820 in Ft. Worth and south of IH35 in Denton. The focus point of the corridor is along IH 35W between SH 114 and SH 170.

Corridor Needs

Long-Term Parking – The corridor has only one location for long-term parking and it is full most of the day. The corridor is long and will continue to have new freight developments built that will create the need for more parking.

Short-Term Parking – Short-Term parking is a concern along this corridor in the Alliance area. The lack of parking causes drivers to search for parking and sometimes results in parking illegally due to the need for Hours of Service breaks. The Alliance area is in great need of short-term parking.

Recommendations

- Add additional truck parking locations north of the existing Pilot location at SH 170 and IH 35W with at least 50 long/short-term spaces or work with the existing private industry to expand their parking availability.
- Clearly define where drivers can and cannot park in freight-focused areas using signage and ordinances.
- Allow staging in freight-focused areas if not already allowed by sign.
- Require new freight developments in Corridor to have on site short-term parking for drivers.

For more detail, see the Analysis Section of this Report.

Dallas and Framers Branch (IH 35E and IH 635)

The North Dallas Corridor of Concern is the portion of IH 35E and IH 635 in the North Dallas Area. The boundaries on IH 35E at Loop 12 in the south and Belt Line Road in the north. For IH 635 the boundaries are the President George Bush Turnpike (PGBT) in the west and Josey Lane in the east.

Corridor Needs

Long-Term Parking – With no existing long-term parking along the corridor there is an enormous demand for it.

Short-Term Parking – Short-Term parking is an issue along this corridor as well. The Carrollton ordinance limits the short-term parking in that portion of the corridor.

Recommendations

- Add a truck parking location to the Corridor with at least 50 long/short-term spaces.
- Clearly define where drivers can and cannot park in freight-focused areas using signage and ordinances.
- Allow staging in freight-focused areas if not already allowed by sign, especially in Carrollton.
- Require new freight developments in the Corridor to have on site short-term parking for drivers.

For more detail, see the Analysis Section of this Report.

Garland and Mesquite (IH 635)

The Garland and Mesquite Corridor of Concern is the portion of IH 635 north of SH 352 in Mesquite and south of Skillman Road in Dallas. The focus points of the corridor are located along IH 635 just north of IH 30 and near US 80.

Corridor Needs

Long-Term Parking – The corridor does not have any long-term parking availability to help the many drivers going to and through the corridor every day.

Short-Term Parking – Short-Term parking is an issue any time there are ordinances that do not allow trucks to park or stage at any time in freight-oriented developments, as in Mesquite. There needs to be additional short-term parking developed in this corridor and freight centers are encouraged to review their property use and allow for short-term truck staging/parking.

Recommendations

- Add two truck parking locations to this Corridor; one to the north and one to the south. Both locations should provide at least 50 long/short-term spaces.
- Clearly define where drivers can and cannot park in freight-focused areas through ordinances and signage.
- Allow staging in freight-focused areas if not already allowed by signage, especially in Mesquite, where it is not currently allowed.
- Require new freight developments in this Corridor to provide on-site short-term truck parking for these drivers.

For more detail, see the Analysis Section of this Report.

Parker County (IH 20 and IH 30)

The final Corridor of Concern is in Parker County because of the TxDOT safety rest area needs, addressed earlier in the Recommendations Section.

For a summary of the recommendations for the Corridors of Concern, see Appendix 5.

4.5 Next Steps

There are several steps that need to be taken upon completion of the study.

- 1. Continue Updating Data Sets** – Several data sets have been established, created, and augmented for this study. It is important to keep them current for future use.

These data sets include:

- Truck Stop Database
- Travel Time Maps
- Ordinances
- Heavily Used Freight Corridor Data Sets

- 2. Establish Public-Private Partnerships** – Utilize the recommendations in the Public-Private Partnership section to develop truck parking locations around the region.

3. **Modify Truck Parking Ordinances** – Work with cities to modify truck parking ordinances that meet the needs of the city and freight carriers within their jurisdiction. If a freight facility, such as a distribution center or parcel facility, does not provide on-site or nearby truck parking, cities could pass an ordinance to require this type of parking for existing and all future freight facilities.
4. **Coordinate with TxDOT** – The results of the study found that an effort needs to be made to work with TxDOT on statewide solutions for regional rest areas.
5. **Update the Metropolitan Transportation Plan (MTP)** – The Project or Program recommendations will need to be included in the next MTP update.

Report Summary

The Regional Truck Parking Study was conducted to determine the adequacy of both short- and long-term truck parking in locations or corridors where parking needs are not being met and to recommend viable solutions to help mitigate regional truck parking issues.

The study assessed the overnight and temporary truck parking needs in the North Central Texas region. The study included a review of existing information from previous truck parking studies, data collection, and driver surveys. This information was analyzed and led to key findings about the region's need for additional truck parking and specific areas with more critical truck parking priorities; the Corridors of Concern. Recommendations were developed to provide guidance to address these findings.

Truck parking availability in the Dallas-Fort Worth area is inadequate, at best. As e-Commerce projections continue to rise, there is little doubt that freight movements will rise accordingly. Actionable recommendations are included in this *Truck Parking Study* to provide local, regional, and state agencies, along with private entities, verifiable data and opportunities to improve truck parking infrastructure and enable the truck driver to comply with federally-mandated regulations, to improve safety on our roadways, and enhance regional economic development.

APPENDIX 1 - COMPLETE TRUCK PARKING INVENTORY

The following table is a comprehensive list of truck parking available in the North Central Texas region. It includes the location, the number of truck parking spaces, and what is available at that location.

Truck Parking Locations	County	City	Number of Dedicated Parking Spaces	Highway	Highway Exit	Overnight Parking	Fuel Center	Driver Amenities	Type	Technology
Drivers Travelmart #401	Collin	Anna	50	75	48	Yes	Yes	Yes	Travel Center	
Love's #299	Collin	Anna	50	75	48	Yes	Yes	Yes	Travel Center	
Flying J Travel Plaza #477	Collin	Anna	100	75	48	Yes	Yes	Yes	Travel Center	
Wal-Mart Supercenter	Collin	McKinney	0	75	N/A	Yes	No	Yes	Store	
Wal-Mart Supercenter	Collin	Plano	0	75	32	Yes	No	Yes	Store	
Harlow's Exxon	Collin	Anna	5	121	N/A	No	Yes	Yes	Fuel	
QuikTrip	Collin	McKinney	8	75	N/A	Yes	Yes	Yes	Fuel	
Dallas South Travel Center	Dallas	Dallas	136	20	472	Yes	Yes	Yes	Travel Center	
Flying J Travel Plaza #726	Dallas	Dallas	150	20	472	Yes	Yes	Yes	Travel Center	IdleAir as of 6/24/13 www.idleair.com
Payless-Fuel Travel Center (Exxon)	Dallas	Dallas	90	20	470	Yes	Yes	Yes	Travel Center	IdleAir as of 6/24/13 www.idleair.com

Truck Parking Locations	County	City	Number of Dedicated Parking Spaces	Highway	Highway Exit	Overnight Parking	Fuel Center	Driver Amenities	Type	Technology
Pilot Travel Center #433	Dallas	Dallas	150	20	470	Yes	Yes	Yes	Travel Center	
Big D Travel Center	Dallas	Irving	100	12	N/A	Yes	Yes	Yes	Travel Center	
County Line Truck Stop	Dallas	Sunnyvale	20	80	N/A	Yes	Yes	Yes	Fuel	
Knox Super Stop	Dallas	Dallas	25	35	430	No	Yes	Yes	Fuel	
Love's #294	Dallas	Dallas	30	20	466	Yes	Yes	Yes	Travel Center	
Marlow's Fuel Center	Dallas	Dallas	15	20	479	Yes	Yes	Yes	Travel Center	
Valero #2875	Dallas	Seagoville	15	175	N/A	No	Yes	Yes	Fuel	
Shell	Dallas	Wilmer	60	45	270	No	Yes	Yes	Fuel	
Wal-Mart Supercenter	Dallas	Balch Springs	0	635	2	Yes	No	Yes	Store	
Wal-Mart Supercenter	Dallas	Carrollton	0	35	446	Yes	No	Yes	Store	
Quick Fuel	Dallas	Garland	0	41	N/A	No	Yes	No	Fuel	
Wal-Mart Supercenter	Dallas	Garland	0	190	N/A	Yes	No	Yes	Store	
Exxon, I-30 Truck Stop	Dallas	Garland	0	30	61	No	Yes	Yes	Fuel	
Tetco (Chevron)	Dallas	Garland	4	635	15	No	Yes	Yes	Fuel	
Wal-Mart Supercenter	Dallas	Irving	0	183	N/A	Yes	No	Yes	Store	
QuikTrip #973	Dallas	Hutchins	25	45	273	Yes	Yes	Yes	Travel Center	

Truck Parking Locations	County	City	Number of Dedicated Parking Spaces	Highway	Highway Exit	Overnight Parking	Fuel Center	Driver Amenities	Type	Technology
Loves' Travel Stop #331	Dallas	Hutchins	110	45	272	Yes	Yes	Yes	Travel Center	
Weigh Station	Dallas	Hutchins	0	45	273	No	No	No	Weigh Station	
Wal-Mart Supercenter	Dallas	Lancaster	0	35	415	Yes	No	Yes	Store	
Wal-Mart Supercenter	Dallas	Mesquite	0	80	N/A	Yes	No	Yes	Store	
Seagoville Food Market	Dallas	Seagoville	0	175	N/A	No	Yes	Yes	Fuel	
QuikTrip #970	Dallas	Dallas	0	12	N/A	No	Yes	Yes	Fuel	
Friendly's	Dallas	Dallas	0	35E	435	No	Yes	Yes	Fuel	
Dallas Super Truck Wash	Dallas	Dallas	0	20	470	No	No	No	Truck Wash	
Travel Center #104	Denton	Denton	180	35	471	Yes	Yes	Yes	Travel Center	
Sunpower Travel Plaza	Denton	Denton	120	35	471	Yes	Yes	Yes	Travel Center	
Loves #217	Denton	Sanger	28	35	473	Yes	Yes	Yes	Travel Center	
Conoco Fuel Stop	Denton	Denton	8	35	469	No	Yes	Yes	Fuel	
Howdy Doody #14	Denton	Denton	6	35	471	No	Yes	Yes	Fuel	
Wal-Mart Supercenter	Denton	Denton	0	35	471	Yes	No	Yes	Store	
QuikTrip Store #912	Denton	Denton	5	35	469	No	Yes	Yes	Fuel	

Truck Parking Locations	County	City	Number of Dedicated Parking Spaces	Highway	Highway Exit	Overnight Parking	Fuel Center	Driver Amenities	Type	Technology
Wal-Mart Supercenter	Denton	Lewisville	0	35	453	Yes	No	Yes	Store	
Wal-Mart Supercenter	Denton	The Colony	0	121	N/A	Yes	No	Yes	Store	
Phillips 66	Denton	Ponder	17	380	N/A	Yes	Yes	Yes	Travel Center	
Golden Express	Denton	Denton	4	35	469	No	Yes	Yes	Fuel	
Knox Fuel Stop	Ellis	Red Oak	30	35	410	No	Yes	Yes	Fuel	
Sunmart #170	Ellis	Palmer	40	45	258	No	Yes	Yes	Fuel	
Exxon Super Stop	Ellis	Palmer	25	45	258	No	Yes	Yes	Fuel	
Love's #628	Ellis	Italy	100	35	386	Yes	Yes	Yes	Travel Center	
Wal-Mart Supercenter	Ellis	Ennis	0	45	251	Yes	No	Yes	Store	
Tiger Mart #44	Ellis	Ennis	10	45	249	Yes	Yes	Yes	Travel Center	
Tiger Mart #32	Ellis	Italy	75	35	386	Yes	Yes	Yes	Travel Center	
Love's Travel Stop #216	Ellis	Midlothian	40	287	N/A	Yes	Yes	Yes	Travel Center	
Wal-Mart Supercenter	Ellis	Waxahachie	0	287	N/A	Yes	No	Yes	Store	
Southbound I-35E	Ellis	Waxahachie	0	35	N/A	Yes	No	No	Rest Stop	
Northbound I-35E	Ellis	Waxahachie	0	35	N/A	Yes	No	No	Rest Stop	

Truck Parking Locations	County	City	Number of Dedicated Parking Spaces	Highway	Highway Exit	Overnight Parking	Fuel Center	Driver Amenities	Type	Technology
QuikTrip	Ellis	Waxahachie	0	35	405	No	Yes	Yes	Fuel	
Tiger Mart #23	Ellis	Ennis	12	287	N/A	Yes	Yes	Yes	Fuel	
Wal-Mart Supercenter	Hood	Granbury	0	377	N/A	Yes	No	Yes	Store	
Texaco Station Cresson	Hood	Cresson	0	377	N/A	No	Yes	Yes	Fuel	
Meyer's Kwik Stop	Hood	Tolar	0	377	N/A	No	Yes	Yes	Fuel	
Mega Truck Stop	Hunt	Caddo Mills	45	30	87	No	Yes	Yes	Fuel	
Valero Fuel Stop #2865	Hunt	Greenville	10	30	94	No	Yes	Yes	Fuel	
Pilot Travel Center	Hunt	Caddo Mills	80	30	87	Yes	Yes	Yes	Travel Center	
Wal-Mart Supercenter	Hunt	Commerce	0	24	N/A	Yes	No	Yes	Store	
Wal-Mart Supercenter	Hunt	Greenville	0	30	93	Yes	No	Yes	Store	
County Quick Mart	Hunt	Caddo Mills	25	380	N/A	No	Yes	Yes	Fuel	
Shell Travel Center	Johnson	Alvarado	50	35	24	Yes	Yes	Yes	Travel Center	
Chevron Alvarado	Johnson	Alvarado	14	67	N/A	No	Yes	Yes	Fuel	
Rest Area I-35W	Johnson	Burleson	0	35	31	Yes	No	Yes	Rest Stop	

Truck Parking Locations	County	City	Number of Dedicated Parking Spaces	Highway	Highway Exit	Overnight Parking	Fuel Center	Driver Amenities	Type	Technology
Rest Stop I-35W	Johnson	Burleson	0	35	31	Yes	No	Yes	Rest Stop	
Wal-Mart Supercenter	Johnson	Burleson	0	174	N/A	Yes	No	Yes	Store	
Wal-Mart Supercenter	Johnson	Cleburne	0	67	N/A	Yes	No	Yes	Store	
Knox Super Stop	Kaufman	Forney	25	80	N/A	Yes	Yes	Yes	Travel Center	
McDonald's Fuel Stop	Kaufman	Terrell	25	20	509	Yes	Yes	Yes	Travel Center	
TA Terrell #233	Kaufman	Terrell	300	20	503	Yes	Yes	Yes	Travel Center	
Valero #2854	Kaufman	Terrell	20	20	501	Yes	Yes	Yes	Travel Center	
Xpress Travel Center	Kaufman	Forney	30	80	N/A	Yes	Yes	Yes	Travel Center	
Wal-Mart Supercenter	Kaufman	Terrell	0	80	N/A	Yes	No	Yes	Store	
Tiger Mart #30	Kaufman	Terrell	20	20	498	No	Yes	Yes	Fuel	
Weight Station	Kaufman	Terrell	0	20	512	No	No	No	Weight Station	
Weight Station	Kaufman	Terrell	0	20	512	No	No	No	Weight Station	
Shell	Parker	Willow Park	0	20	418	No	Yes	Yes	Travel Center	
Love's #273	Parker	Weatherford	38	20	410	Yes	Yes	Yes	Travel Center	

Truck Parking Locations	County	City	Number of Dedicated Parking Spaces	Highway	Highway Exit	Overnight Parking	Fuel Center	Driver Amenities	Type	Technology
Petro Truck Stop #302	Parker	Weatherford	350	20	409	Yes	Yes	Yes	Travel Center	
Pilot Travel Center #206	Parker	Weatherford	90	20	406	Yes	Yes	Yes	Travel Center	
Truck and Travel	Parker	Weatherford	149	20	406	Yes	Yes	Yes	Travel Center	
Wal-Mart Supercenter	Parker	Weatherford	0	20	408	Yes	No	Yes	Store	
Gateway Shell	Parker	Willow Park	0	20	418	No	Yes	Yes	Fuel	
Exxon - Prime Travel Stop	Rockwall	Royse City	25	30	77	Yes	Yes	Yes	Travel Center	
TravelCenters #49	Rockwall	Rockwall	100	30	68	Yes	Yes	Yes	Travel Center	
Love's #283	Rockwall	Rockwall	50	30	70	Yes	Yes	Yes	Travel Center	
Texaco Quick Track #9	Rockwall	Royse City	10	30	77	Yes	Yes	Yes	Travel Center	
Wal-Mart Supercenter	Rockwall	Rockwall	0	30	68	Yes	No	Yes	Store	
Drivers Travelmart #412	Tarrant	Fort Worth	75	35	54	Yes	Yes	Yes	Travel Center	
Pilot Travel Center #434	Tarrant	Fort Worth	185	35	65	Yes	Yes	Yes	Travel Center	IdleAir as of 6/24/13 www.idleair.com
Love's #281	Tarrant	Fort Worth	80	35	40	Yes	Yes	Yes	Travel Center	
Wal-Mart Supercenter	Tarrant	Bedford	0	121	N/A	Yes	No	Yes	Store	

Truck Parking Locations	County	City	Number of Dedicated Parking Spaces	Highway	Highway Exit	Overnight Parking	Fuel Center	Driver Amenities	Type	Technology
QuikTrip Travel Center	Tarrant	Fort Worth	45	35	42	Yes	Yes	Yes	Travel Center	
Wal-Mart Supercenter	Tarrant	North Richland Hills	0	820	20	Yes	No	Yes	Store	
Total Fuel Stop #4528	Tarrant	Saginaw	2	287	N/A	No	Yes	Yes	Fuel	
Wal-Mart Supercenter	Tarrant	Fort Worth	0	20	432	Yes	No	Yes	Store	
Quick Fuel #5301	Tarrant	Grand Prairie	4	360	N/A	No	Yes	Yes	Fuel	
Wal-Mart Supercenter	Tarrant	Grand Prairie	0	20	454	Yes	No	Yes	Store	
Wal-Mart Supercenter	Tarrant	Grapevine	0	114	N/A	Yes	No	Yes	Store	
Wal-Mart Supercenter	Tarrant	Lake Worth	0	820	10	Yes	No	Yes	Store	
Wal-Mart Supercenter	Tarrant	Mansfield	0	287	N/A	Yes	No	Yes	Store	
Wal-Mart Supercenter	Tarrant	Westworth Village	0	183	N/A	Yes	No	Yes	Store	
Circle K #6343	Tarrant	Benbrook	0	20	429	No	Yes	Yes	Fuel	
Dixiemart Valero	Tarrant	Fort Worth	0	199	N/A	No	Yes	Yes	Fuel	
Corner Store	Tarrant	Saginaw	0	820	15	No	Yes	Yes	Fuel	
Saginaw Gas House	Tarrant	Saginaw	0	287	N/A	No	Yes	Yes	Fuel	
Texas Travel Plaza	Tarrant	Haslet	16	81	N/A	Yes	Yes	Yes	Fuel	
Corner Store	Tarrant	Fort Worth	8	820	15	Yes	Yes	Yes	Fuel	

Truck Parking Locations	County	City	Number of Dedicated Parking Spaces	Highway	Highway Exit	Overnight Parking	Fuel Center	Driver Amenities	Type	Technology
Tiger Mart	Tarrant	Fort Worth	20	81	N/A	Yes	Yes	Yes	Fuel	
Golden Express # A67	Wise	Alvord	75	81	N/A	No	Yes	Yes	Fuel	
Navigator Travel Center	Wise	Alvord	30	287	N/A	Yes	Yes	Yes	Travel Center	
Diamond W Deli	Wise	Bridgeport	20	380	N/A	Yes	Yes	Yes	Travel Center	
Bridgeport Truck Stop	Wise	Bridgeport	50	380	N/A	No	Yes	Yes	Fuel	
Decatur Shell Truck Stop	Wise	Decatur	50	380	N/A	Yes	Yes	Yes	Travel Center	
Wal-Mart Supercenter	Wise	Decatur	0	81	N/A	Yes	No	Yes	Store	
Kathy's Shell	Wise	Decatur	50	287	730	No	Yes	Yes	Fuel	
Rest Area US 287	Wise	Decatur	0	287	N/A	Yes	No	No	Rest Stop	
Quick Al's Truck Stop	Wise	Decatur	0	287	N/A	Yes	Yes	Yes	Fuel	
Allsup's	Wise	Decatur	10	81	N/A	No	Yes	Yes	Fuel	
Big Z Travel Plaza	Wise	Rhome	4	81	N/A	No	Yes	Yes	Fuel	
Love's Travel Stop #380	Wise	Rhome	71	114	N/A	Yes	Yes	Yes	Travel Center	
N & Out Convenience Store	Wise	Alvord	10	81	N/A	No	Yes	Yes	Fuel	
Alvord Express	Wise	Alvord	0	81	N/A	No	Yes	Yes	Fuel	

APPENDIX 2 - LOCAL TRUCK PARKING ORDINANCES

The following table identifies each truck parking ordinance, by city, in the North Central Texas region.

City	County	Ordinance Section		Overview
Addison	Dallas	Sec. 78.175	Overnight parking of trucks and buses with more than 3/4 ton rated capacity within certain zones prohibited	No truck parking overnight, or between the hours of midnight and 6:00 a.m. in residential areas
Benbrook	Tarrant	Sec. 10.16.140	Parking of trucks, buses, trailers, semi-trailers, etc., on city streets	It is unlawful for the driver or owner of any bus, truck, van, truck-tractor or any other type of self-propelled trackless conveyance, other than a recreational vehicle, which is more than twenty feet in length from bumper tip to bumper tip, more than seven feet in width at its widest point, or more than seven feet in height at its highest point, to park the same, permit the same, to be parked or stand on any street in the city for a period exceeding eight hours
Argyle	Denton	Sec 12.03.004	Parking of trucks, trailers, or recreational vehicles for longer than 12 hours	Vehicles greater than 20 feet in length may not be parked on a public street within city limits for more than 12 hours
Arlington	Tarrant	Sec. 7.01	Parking vehicles	No truck parking in residential areas
Bridgeport	Wise	Sec 12.404	Parking of trucks and trailers	No vehicle over 12,000 pounds can be parked overnight in areas not zoned commercial or industrial or within 200 feet of any residence not located on a designated truck route. Deliveries allowed
Carrollton	Dallas	Sec. 72.11	Parking of trucks and other commercial vehicles	No parking vehicles over one ton capacity of any street, alley, public place within the city

City	County	Ordinance Section	Overview	
Cedar Hill	Dallas	Sec. 11.130	Parking, standing or storing of vehicles in commercial, industrial or retail districts	It shall be unlawful for any person or owner to allow to park, stand or store any truck-tractor, trailer, semi-trailer, bus, oversized commercial vehicle or commercial motor vehicle upon any public right-of-way, street, alley, parkway, vacant or undeveloped lot/land or public place within any area zoned as either commercial, local retail, industrial or industrial park, or planned development districts according to the Zoning Ordinance of the City of Cedar Hill
Cleburne	Johnson	Sec. 72.13	Residential Parking Restrictions	No parking on streets or public place within or adjacent to residential area. No parking that impedes the flow of traffic
Cross Roads	Denton	Sec 12.09.005	Parking of commercial vehicles	No parking that impedes the flow of traffic
Dallas	Dallas	Sec. 11.28.80	Parking of Commercial Vehicles	A person commits an offense if he stops, parks, or stands a truck-tractor, road tractor, trailer, semitrailer, pole trailer, bus, or any commercial motor vehicle upon a public street, alley, parkway, boulevard, or public place
Dallas	Dallas	Sec. 11.28.81	Parking of vehicles with capacity or more than one and one-half tons in certain districts	A person commits an offense if he stops, parks, or stands a truck-tractor, road tractor, semitrailer, bus, trailer, or truck with a rated capacity in excess of one and one-half tons, according to the manufacturer's classification, upon property within a residential area. This subsection shall not apply to the parking or standing of a vehicle for the purpose of expeditiously loading or unloading passengers, freight, or merchandise
DeSoto	Dallas	Sec 12.606	Truck-Trailer, Trailers and Commercial Vehicles	No parking on streets, except for deliveries No truck parking in areas zoned single family or multifamily dwelling
Edgecliff Village	Tarrant	Sec 12.04.014	Commercial vehicles	No commercial vehicles can be parked on any street except for loading and unloading and parking in designated areas Off-street parking may be permitted in the "front yard" of a business, but must be an all-weather surface
Edgecliff Village	Tarrant	Sec 12.04.015	Oversized vehicles or trailers in residential areas	No parking in any area zoned as residential or multifamily, unless loading/unloading

City	County	Ordinance Section	Overview
Eules	Tarrant	Sec. 82-86	Truck parking No truck shall be parked in any residential area, provided, however, a truck shall be permitted to park in a residential area only for the time necessary for loading, unloading or the delivery of goods, wares and merchandise
Farmers Branch	Dallas	Sec. 82.221	Parking in residential areas No truck or trailer parking in residential areas
Fort Worth	Tarrant	Sec. 22.162.1	Parking of oversize commercial vehicles unlawful on private property It is unlawful to park any oversized commercial vehicle, with a gross weight of at least 15,000 pounds (or any vehicle designed to carry more than 15 passengers) on any residentially zoned property
Fort Worth	Tarrant	Sec. 22.162.2	Parking of large and oversize vehicles on streets It is unlawful for the driver, owner, or operator of an oversized commercial vehicle to park or permit to be parked, stand, or remain motionless on public street zoned residential or any street not zoned residential for more than 2 hours
Glenn Heights	Dallas	Sec 2.16.003	Parking of trucks, trailers or vehicles in residential areas No trucks may park or stand in residentially zoned areas
Grand Prairie	Dallas	Sec. 2.25.57	Trucks and RV in certain districts or areas No truck parking with 3 or more axles and/or over 1 1/2 tons in street, alley, parkway, or public place within or adjacent to residential zone
Grapevine	Tarrant	Sec. 6.23.71	Parking of trailers and commercial and oversized vehicles on city streets No commercial vehicle parking in the city except for unloading passengers, freight or merchandise
Greenville	Hunt	Sec 18.03.009	Limitation of parking of trucks, tractors, trailers or recreational vehicles No trucks greater than 20 feet shall park in areas zoned SF-1, SF-2, SF-3, or SFA unless delivering goods or services
Haltom City	Tarrant	Sec. 3.90.82	Parking of commercial vehicles prohibited generally, exceptions No trucks or trailers parked on the street unless for utility or construction purposes
Highland Park	Dallas	Sec 12.08.002	Parking or standing on street No parking at any time except for deliveries
Highland Village	Denton	Sec 20.05.003	Recreational vehicles, trailers, boats and commercial vehicles Parking permits must be obtained--only 4 parking permits per year can be issued per household. Each permit is good for 3 days

City	County	Ordinance Section	Overview
Hubbard	Hill	Sec 12.05.005	Parking of commercial vehicles No overnight parking, 2 hour limit or in a designated overnight parking lot
Hudson Oaks	Parker	Sec 12.04.010	Parking Trucks cannot park or stand on public property, including any street or highway, public park, public parking lot, public right-of-way, public easement or other public property in the city
Hurst	Tarrant	Sec. 24.125	Trucks on Parking lots No truck parking in any parking lot between 9pm-5am
Keller	Tarrant	Sec. 18.320	Parking on public streets Trucks over GVWR of 11,000 lbs. shall not be parked on public streets unless an emergency
Lewisville	Denton	Sec. 4.15.133	Parking buses, recreational vehicles, trailers, etc. on public streets No Semitrailer parking on a public street within the city
Little Elm	Denton	Sec. 5.98.102	Parking of oversized vehicles or commercial motor vehicles No oversized or commercial vehicles parked on the street
Mesquite	Dallas	Sec. 2.9.167	Parking of commercial/oversized vehicles prohibited—Public streets, alleys, etc. No oversized or commercial vehicles parked on the street
Mineral Wells	Parker	Sec. 6.86.153	Parking of commercial trailers on private property in residential or mobile home districts prohibited Trailers over 35 ft. in length in residential areas not allowed
Mineral Wells	Parker	Sec. 6.86.154	Parking of certain vehicles prohibited on public property in residential or mobile home districts; penalty No trucks or trailers in excess of 16 feet or over 12,500 pounds allowed to park in residential districts.
North Richland Hills	Tarrant	Sec. 54.176	Truck, truck tractor and trailer parking restrictions No truck parking or storing on any parking lot, street, playground, vacant lot, public or private school, church premises or residential property in the city, other than for a bona fide pickup or delivery on such property or in conjunction with a legally permitted business lawfully conducted on such property

City	County	Ordinance Section	Overview	
Richardson	Dallas	Sec. 4.22.145	Parking for storage; overnight parking; exceptions	No person shall stop, stand or park any motor vehicle, truck, truck-tractor, trailer, semitrailer, pole trailer or any combination thereof on any street during the hours from sundown to sunup, except temporarily disabled vehicles which are protected by flares or other approved signal devices
Saginaw	Tarrant	Sec. 3.94.62	Parking of certain vehicles prohibited on certain streets	Prohibits parking of trucks and trailers on any street
Southlake	Tarrant	Sec. 2.18.178	Restricted Parking	A person commits an offense if he parks, or permits to park a truck in excess of one and one-half tons according to manufacturer's classification or any truck-tractor, tractor, trailer-rig, trailer or bus on a street located in a residential area except for the time necessary for loading, unloading or the delivery of goods, wares and merchandise

APPENDIX 3 - DRIVER SURVEY

1. What is the most important factor in choosing overnight parking locations?
(1 - Highest, 3 - Lowest)

Safety
Convenience
Cost

2. What amenities are most important at a truck stop? (1 - Highest, 4 - Lowest)

Food
Showers
Security
Electrification

3. Where in the DFW area would you like to see additional overnight parking?

4. What is the most important factor in choosing short-term parking? (1 - Highest, 3 - Lowest)

Safety
Convenience
Cost

5. What amenities are most important at short-term parking locations? (1 - Highest, 3 - Lowest)

Food Choices
Restrooms
Shopping Choices

6. Where in the DFW area would you like to see additional short-term parking?

7. Please list regional distribution centers and drop off/pick up locations with consistent high wait times. Please be specific (i.e. Name, Location)

8. Please list regional distribution centers and drop off/pick up locations where parking is an issue. Please be specific (I.E Name, Location)

9. Where are first/last mile access problems? What are the issues (i.e. Turning Radius, Intersection Geometry, etc.)?

10. Please provide any additional comments or suggestions here.

APPENDIX 4 - CORRIDORS OF CONCERN MATRIX

The following table identifies the Corridors of Concern and illustrates the applied criteria.

Corridors	Matrix Score	Location Boundaries	FODs and Major Freight Facilities	Lack of Existing Truck Parking Locations	Local Truck Parking Ordinances and Land Use Issues	Travel Times and Hours of Service Issues	Heavily Traveled Freight Corridors	Driver Surveys and Stakeholder Outreach
Great Southwest Area (IH 30 and SH 360)	Yes - 6/6	East to West: From SH 161 to IH 820 North to South: From SH 183 to SH 303	Yes DFW Airport, Great Southwest Industrial Park, GM Assembly Plant and other FODs	Yes Only one truck stop in corridor	Yes Significant residential development and parking ordinances	Yes Corridor centrally located so travel time across the region can be significant	Yes IH 30 was identified as heavily traveled	Yes Identified as an area needing both long- and short-term parking
South Dallas (IH 45 and IH 20)	Yes - 5/6	East to West: Trinity River to SH 342 North to South: Loop 12 to Belt Line Road in Wilmer	Yes Trinity Inland Port of Dallas and UPRR Intermodal Facility	No Seven major truck stops in corridor	Yes Significant residential development and parking ordinances	Yes Located on the southeast edge of the region so travel time across region can be significant	Yes Both IH 20 and IH 45 were identified as heavily traveled	Yes Identified as an area needing both long- and short-term parking

Corridors	Matrix Score	Location Boundaries	FODs and Major Freight Facilities	Lack of Existing Truck Parking Locations	Local Truck Parking Ordinances and Land Use Issues	Travel Times and Hours of Service Issues	Heavily Traveled Freight Corridors	Driver Surveys and Stakeholder Outreach
North of Downtown Fort Worth (IH 35W)	Yes - 6/6	North to South: IH 35 to IH 820	Yes Alliance area, BNSF Intermodal Facility, and Ft. Worth Alliance Airport	Yes Only 1 truck stop in corridor	Yes Ft Worth residential parking ordinances and Argyle parking time limits	Yes Located on the northwest edge of the region and travel time across region can be significant	Yes IH 30 was identified as heavily traveled	Yes Identified as an area needing both long- and short-term parking
Dallas and Farmers Branch (IH 35E and IH 635)	Yes - 6/6	East to West: Josey Lane to President George Bush Turnpike (PGBT) North to South: Belt Line Road to Loop 12	Yes There several FODs in this corridor	Yes No truck stops in the corridor	Yes Carrollton has a one ton capacity limit on public street parking	Yes One of the most congested interchanges in the region Significant travel time to and from this area	Yes Both IH 35E and IH 635 were identified as heavily traveled	Yes Identified as an area needing both long- and short-term parking
Garland and Mesquite (IH 30 and IH 635)	Yes - 6/6	North to South: Skillman Road to SH 352	Yes UPRR Intermodal Facility Northgate Business Park and other FODs	Yes Only 2 truck stops with no long- term parking	Yes Significant residential development in the corridor	Yes Located on the eastern side of the region Significant travel time to and from this area	Yes IH 635 was identified as heavily traveled	Yes Identified as an area needing both long- and short-term parking

Corridors	Matrix Score	Location Boundaries	FODs and Major Freight Facilities	Lack of Existing Truck Parking Locations	Local Truck Parking Ordinances and Land Use Issues	Travel Times and Hours of Service Issues	Heavily Traveled Freight Corridors	Driver Surveys and Stakeholder Outreach
West Tarrant County (IH 20 and IH 30)	No - 3/6	East to West: IH 820 to Parker County Line	No Corridor is largely rural	Yes Only 1 truck stop in corridor	Yes Ft Worth residential parking ordinances	Yes Located on the northwest edge of the region and travel time across region can be significant	Yes Both IH 20 and IH 30 were identified as heavily traveled	No Was not identified in the survey
Parker County (IH 20 and IH 30)	Yes Reasons explained in report Page 47	Parker County	No Corridor is largely rural	No There are 6 major truck stops in corridor	Yes Significant residential development in the corridor	No Travel time is good through this corridor	Yes Both IH 20 and IH 30 were identified as heavily traveled	Yes Identified as an area needing both long- and short-term parking

Appendix 5 - Corridors of Concern Recommendations Summary

The following table includes specific recommendations for these Corridors of Concern.

Corridors	Location Boundaries	Recommendations			
Great Southwest Area (IH 30 and SH 360)	<p>East to West: From SH 161 to IH 820</p> <p>North to South: From SH 183 to SH 303</p>	Encourage cities to allow short-term parking in unused or abandoned lots	Clearly define where drivers can and cannot park in freight focused areas using signage and ordinances	Allow on-street parking in freight focused areas if not already allowed by signage	Add 2 truck stops in the Corridor, 1 on IH 30 and 1 on SH 360 to include at least 25 short- and long-term spaces
South Dallas (IH 45 and IH 20)	<p>East to West: Trinity River to SH 342</p> <p>North to South: Loop 12 to Belt Line Road in Wilmer</p>	Open the weigh station on IH 45 to truck parking when not in use	Clearly define where drivers can and cannot in park in freight focused areas using signage and ordinances	Allow on-street parking in freight focused areas if not already allowed by signage	Increase parking at existing Love’s Truck Stop at Fulgum Road and IH 45 or add a new truck stop near there with at least 50 short- and long-term term spaces
North of Downtown Fort Worth (IH 35W)	<p>North to South: IH 35 to IH 820</p>	Add additional truck stop north of existing Pilots at SH 170 and IH 35W with at least 50 long/short term spaces	Clearly define where drivers can and cannot in park in freight focused areas using signage and ordinances	Allow on-street parking in freight focused areas if not already allowed by signage	Require new freight developments in Corridor to have on-site short-term parking for drivers
Dallas and Farmers Branch (IH 35E and IH 635)	<p>East to West: Josey Lane to President George Bush Turnpike</p> <p>North to South: Belt Line Road to Loop 12</p>	Add a truck stop to the Corridor with at least 50 long/short term spaces (locating a site will be an issue)	Clearly define where drivers can and cannot in park in freight focused areas using signage and ordinances	Allow on-street parking in freight focused areas if not already allowed by signage, especially in Carrollton	Require new freight developments in Corridor to have on-site short-term parking for drivers

Corridors	Location Boundaries	Recommendations			
Garland and Mequite (IH 30 and IH 635)	North to South: Skillman Road to SH 352	Add 2 truck stops to the Corridor, 1 to the north and 1 to the south, with at least 50 long/short term spaces each	Clearly define where drivers can and cannot park in freight focused areas using signage and ordinances	Allow on-street parking in freight focused areas if not already allowed by signage, especially in Mesquite, where it is not currently allowed	Require new freight developments in Corridor to have on-site short-term parking for drivers

APPENDIX 6 - REFERENCES

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https://www.transportation.gov/sites/dot.gov/files/docs/TIGER%202015%20Project%20Fact%20Sheets_0.pdf

Regional Truck Parking Information and Management System

<http://www.fdot.gov/traffic/Newsletters/2016/2016-May.pdf>

APPENDIX 7 - FIGURES

Figure 1-1: Metropolitan Planning Area

Regional Truck Parking Study – MPA

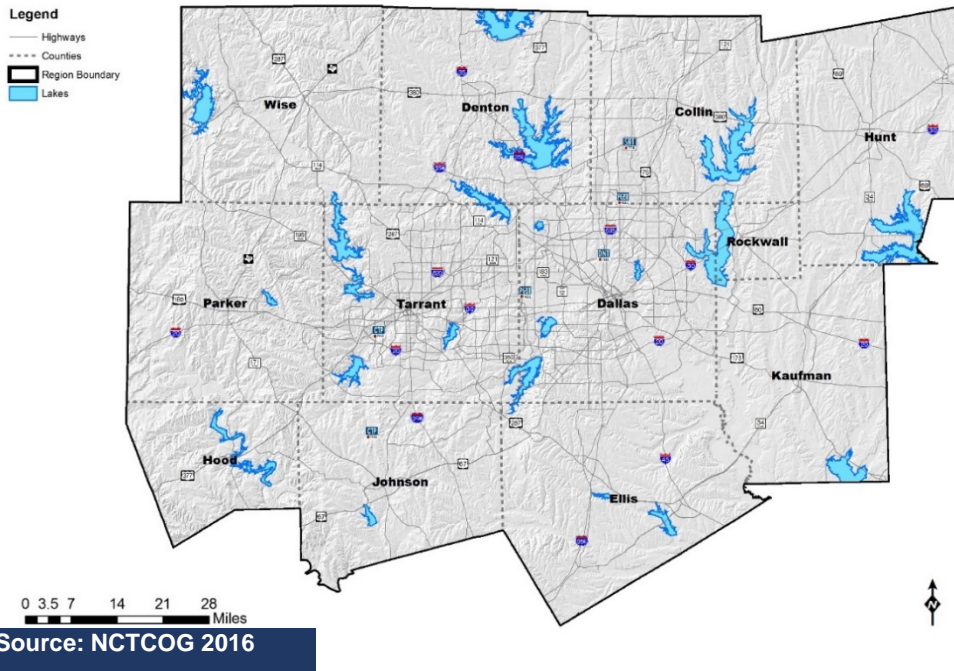


Figure 2-1: Regional Freight Facilities

North Central Texas Major Freight Facilities

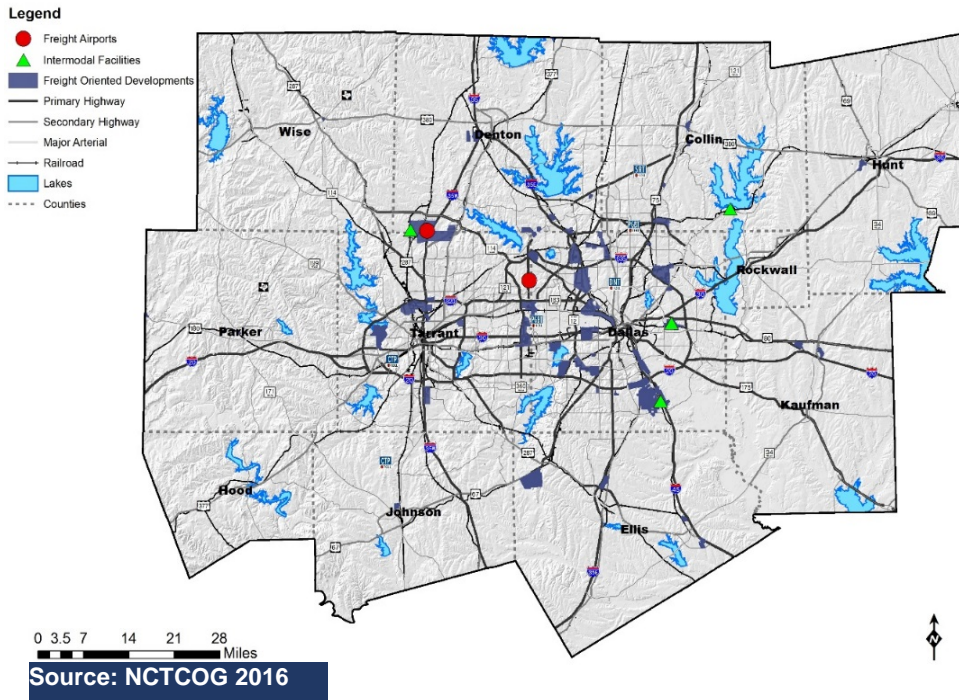


Figure 2-2: TxDOT Rest Area Study

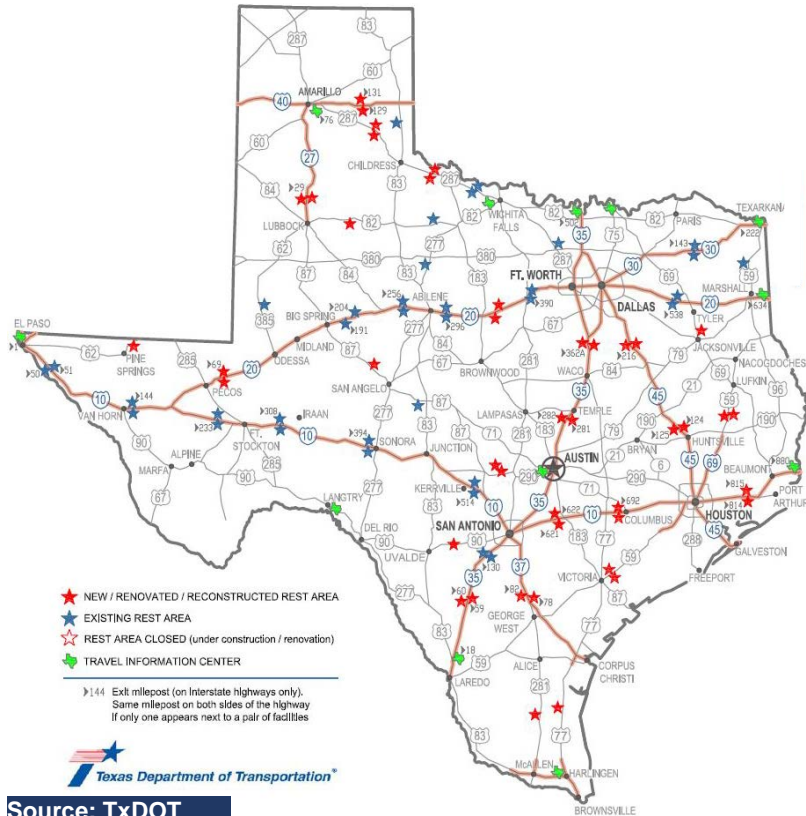


Figure 2-3: Regional Truck Stops

North Central Texas Truck Stops

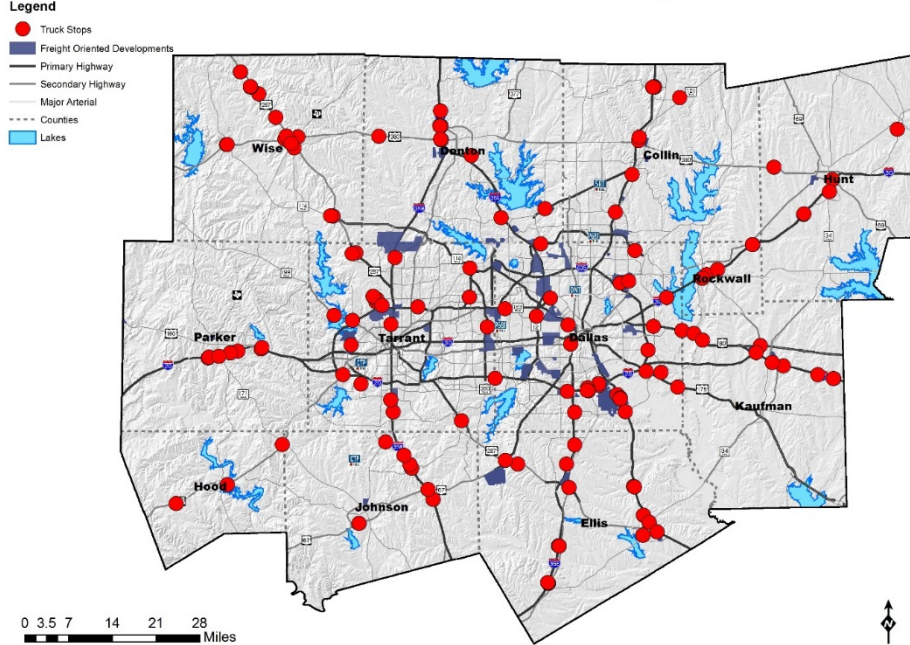


Figure 2-4: Regional Overnight Parking

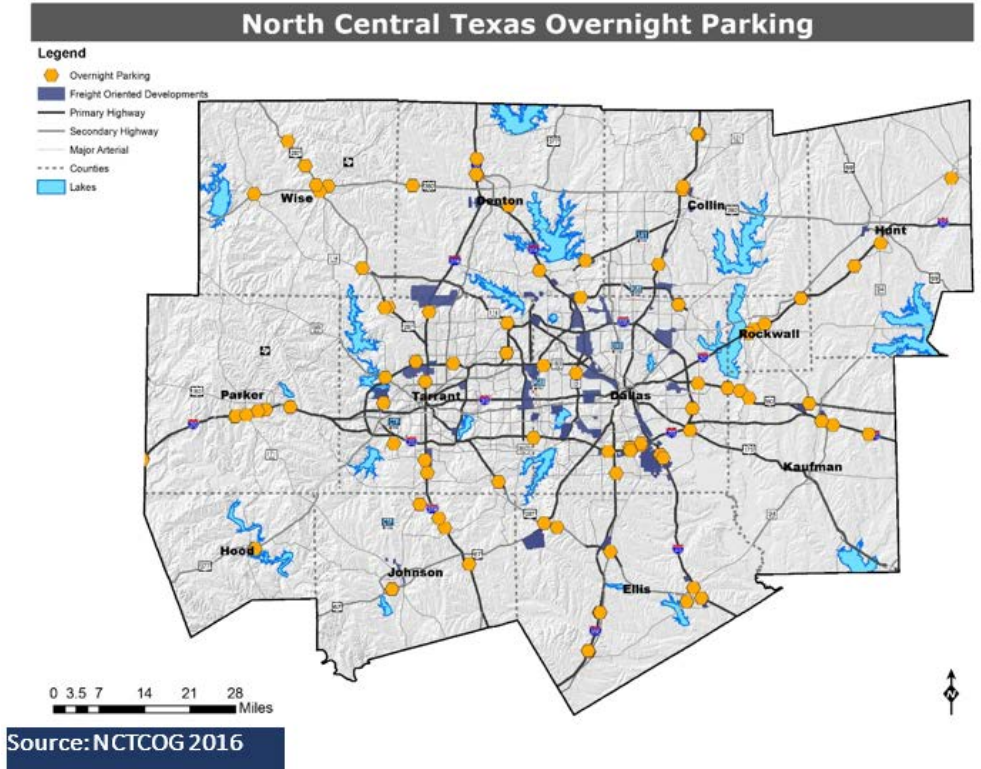


Figure 2-5: Regional Fuel Centers

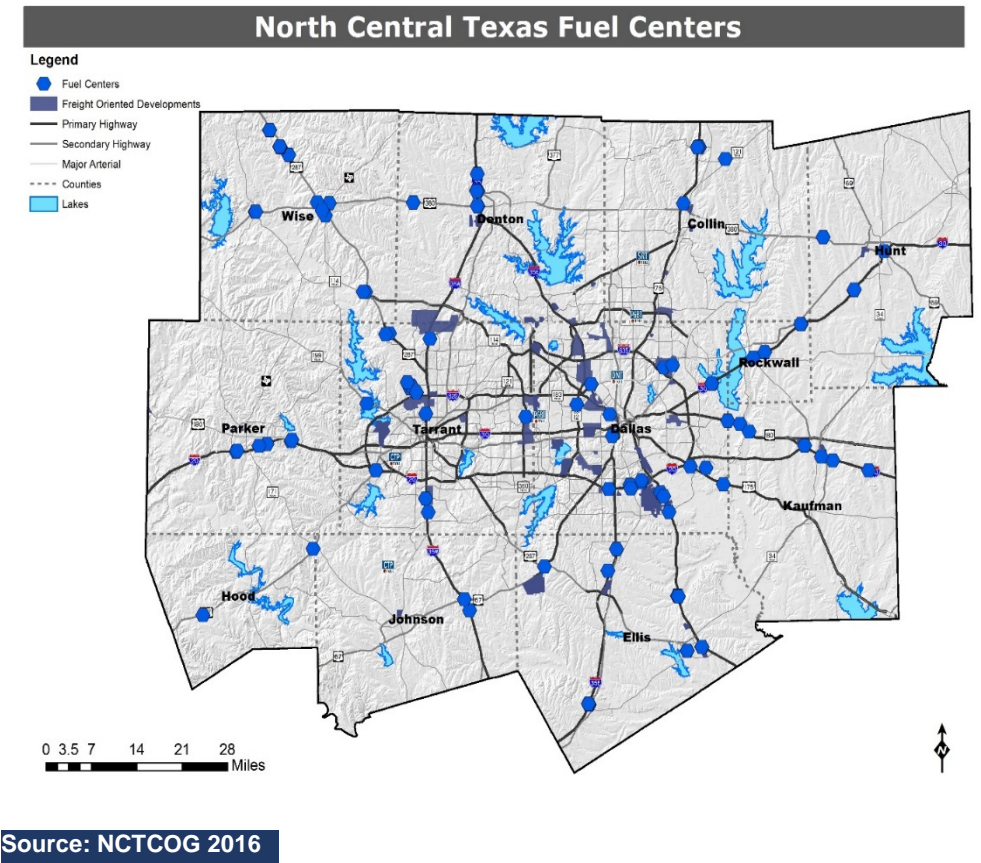
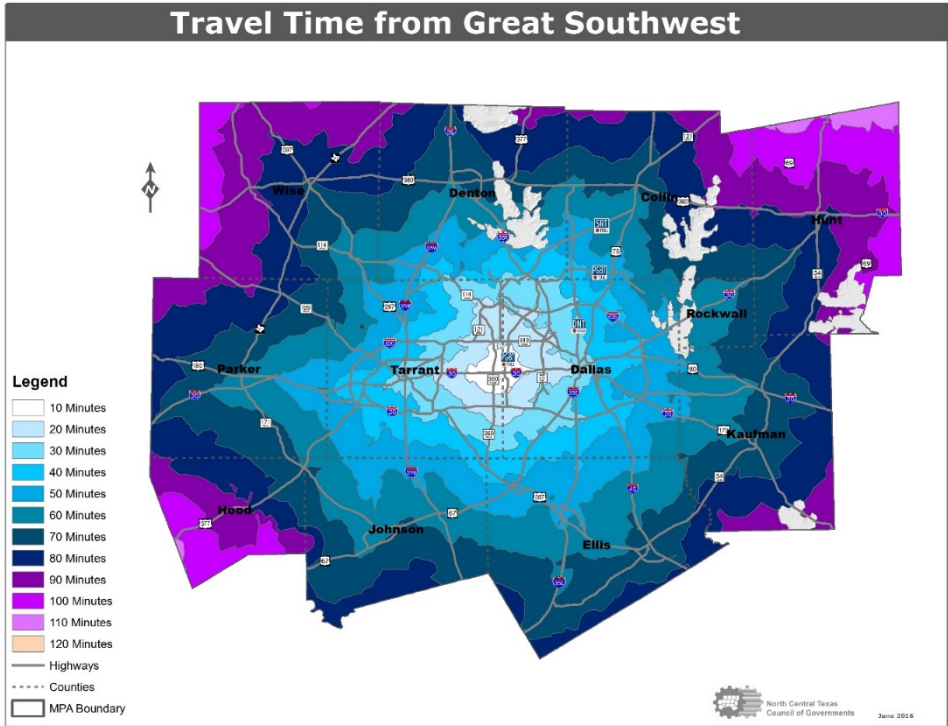
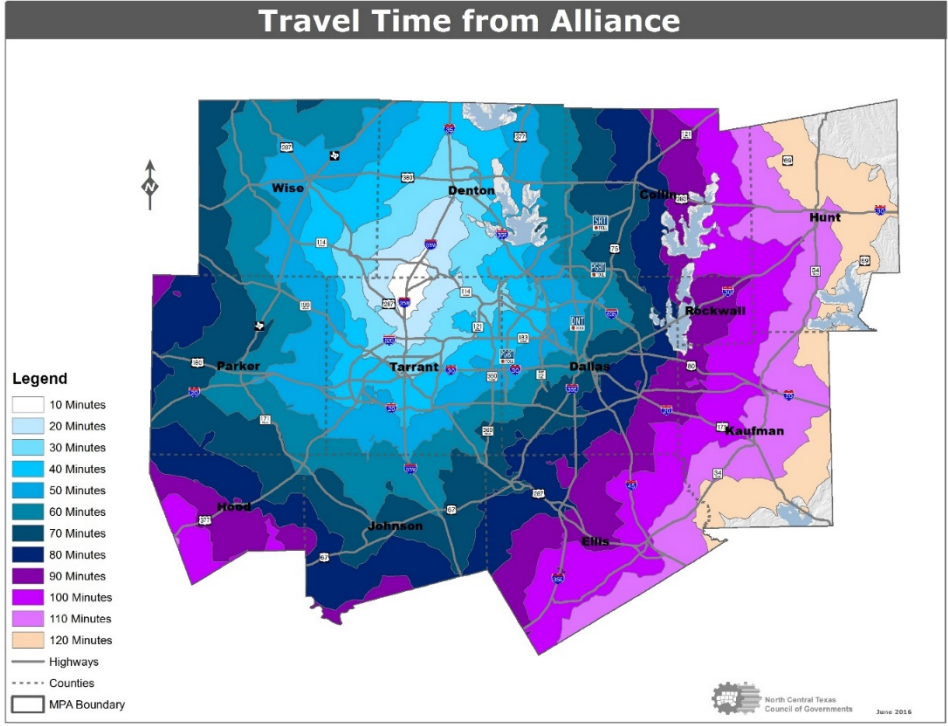


Figure 2-6: Travel Time from Great Southwest



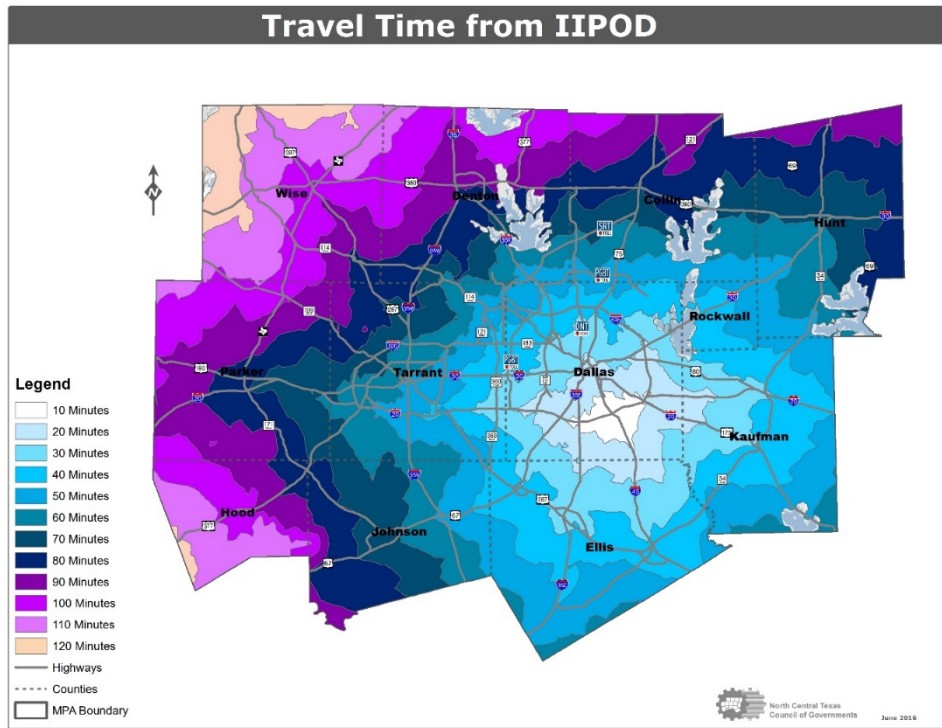
Source: NCTCOG 2016

Figure 2-7: Travel Time from Alliance



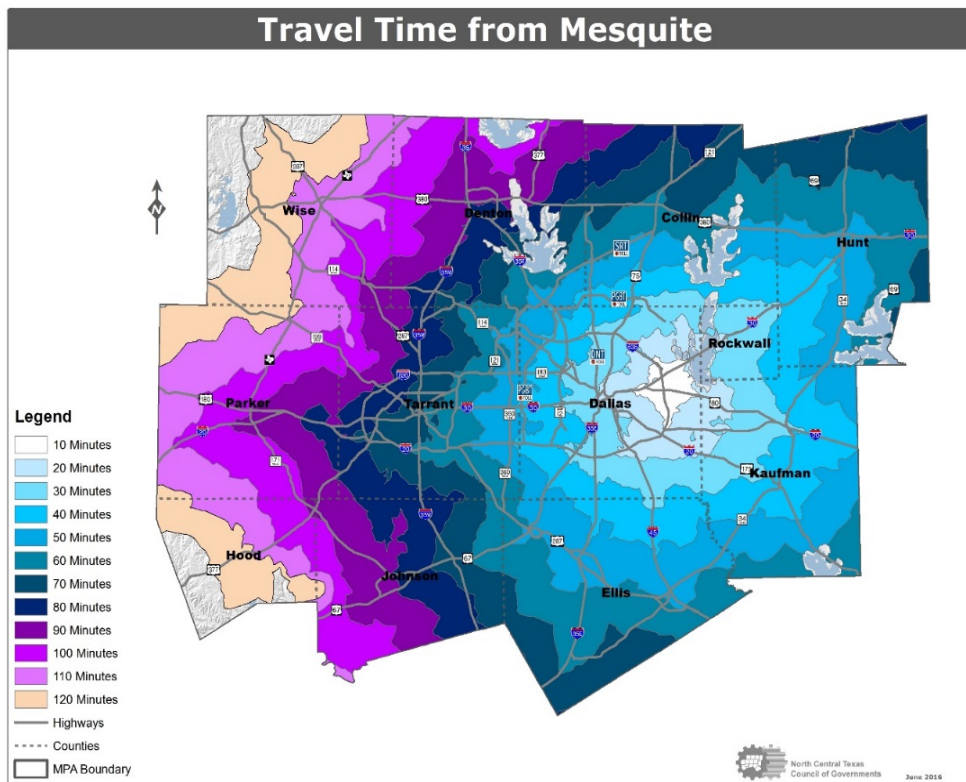
Source: NCTCOG 2016

Figure 2-8: Travel Time from IIPOD



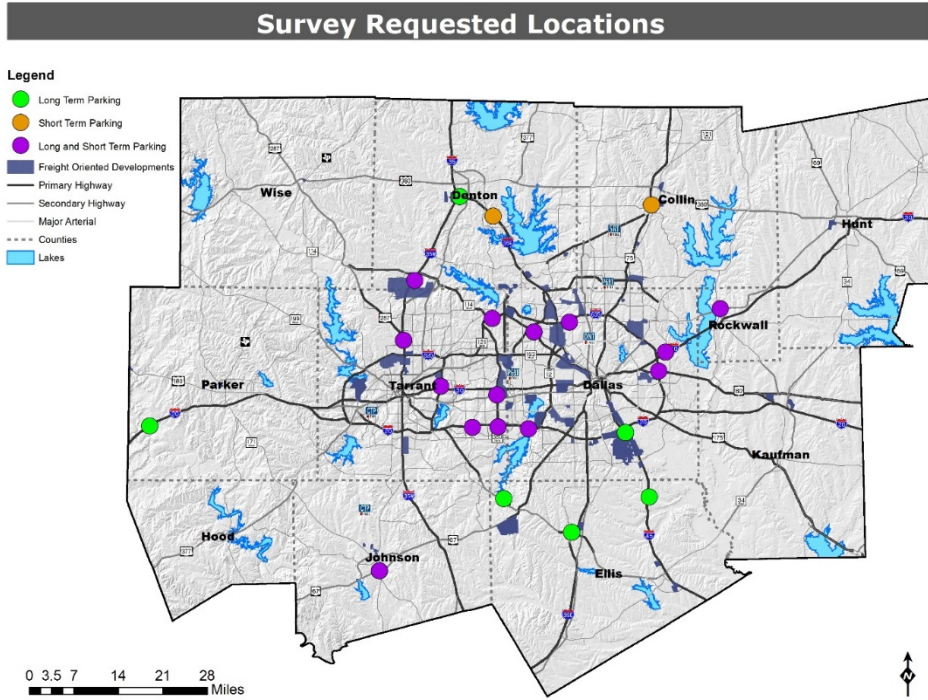
Source: NCTCOG 2016

Figure 2-9: Travel Time from Mesquite



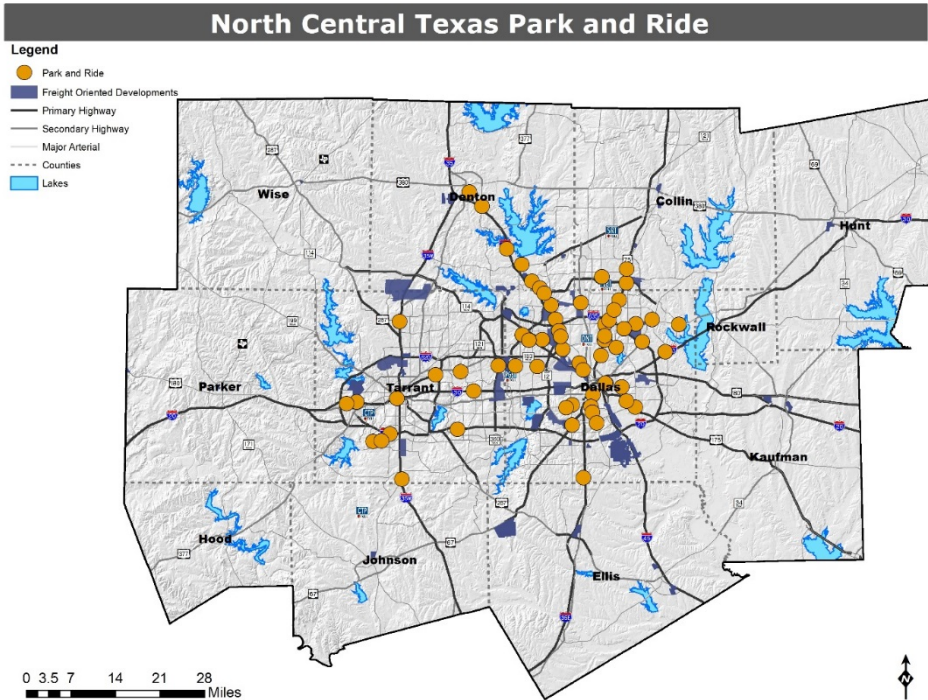
Source: NCTCOG 2016

Figure 3-1: Survey Requested Parking Locations



Source: NCTCOG 2016

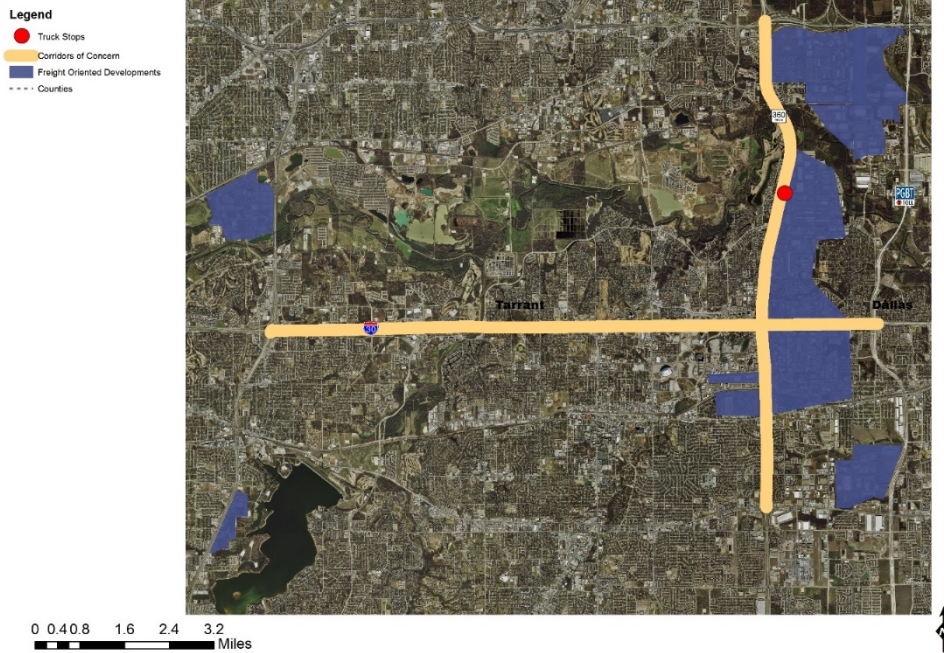
Figure 3-2: Park-and-Ride Facilities



Source: NCTCOG 2016

Figure 3-3: IH 30/ SH 360 (Great Southwest Area)

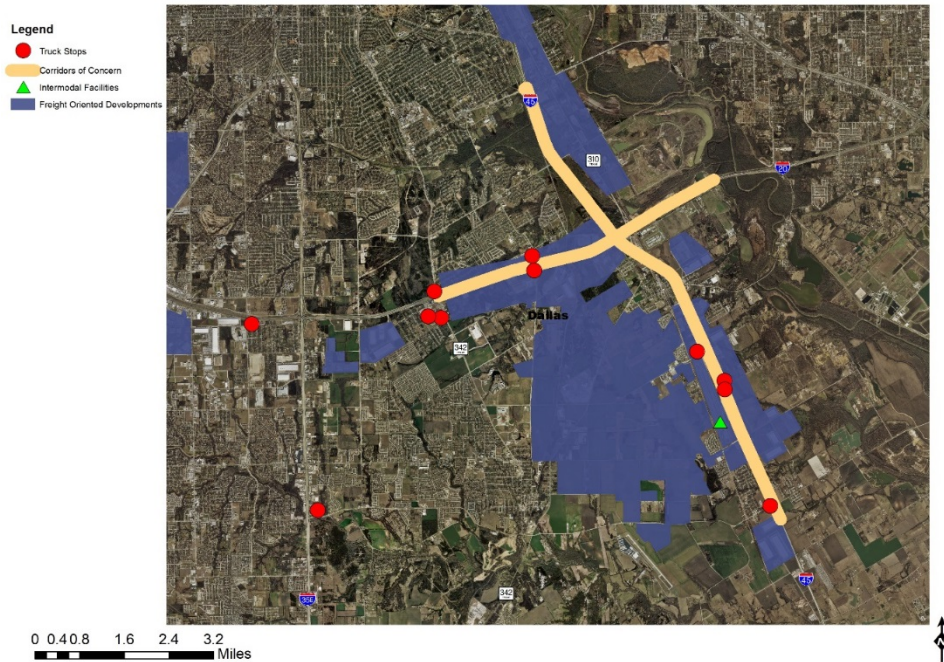
Corridor of Concern: IH 30/SH 360



Source: NCTCOG 2016

Figure 3-4: South Dallas (IH 45 and IH 20)

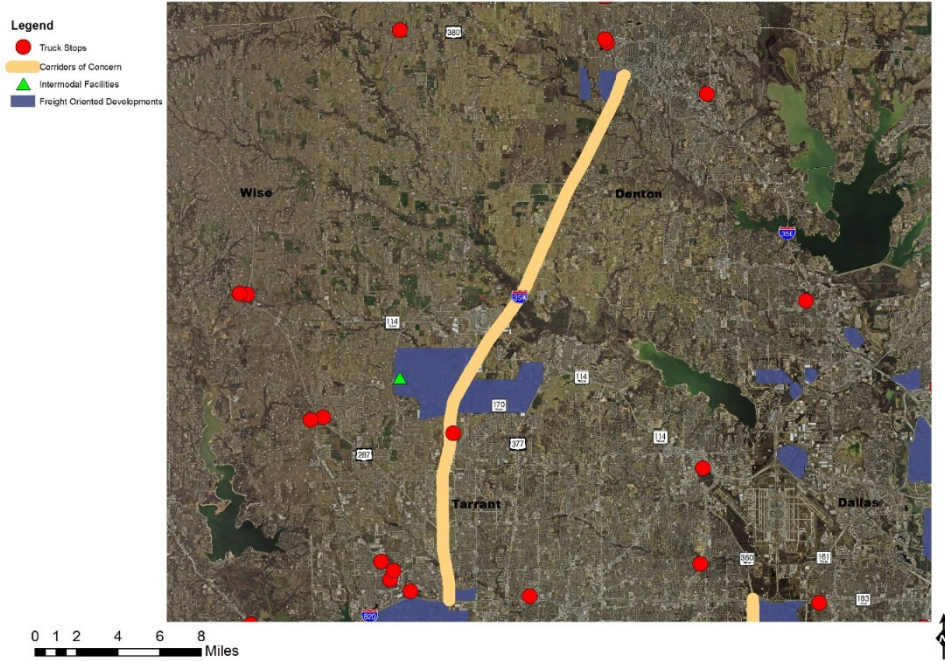
Corridor of Concern: South Dallas (IH 45 and IH 20)



Source: NCTCOG 2016

Figure 3-5: IH 35W (North of Downtown Fort Worth)

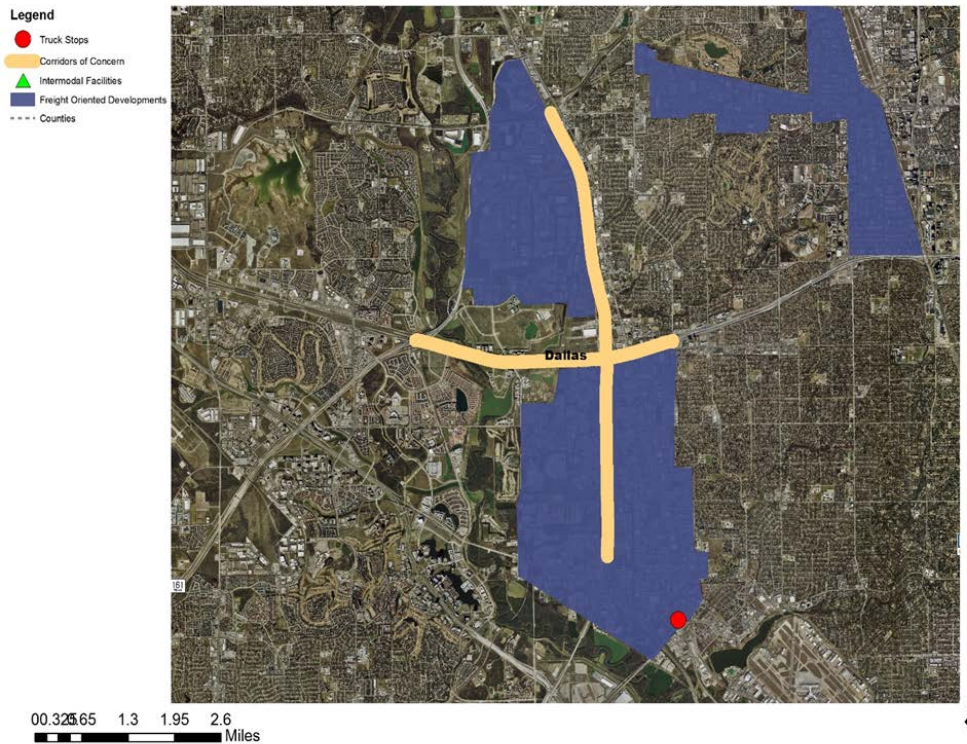
Corridor of Concern: IH 35W (North of Downtown Fort Worth)



Source: NCTCOG 2016

Figure 3-6: Dallas and Framers Branch (IH 35E and IH 635)

Corridor of Concern: Dallas and Framers Branch (IH 35E and IH 635)



Source: NCTCOG 2016

Figure 3-7: Garland and Mesquite (IH 635)

Corridor of Concern: Garland and Mesquite (IH 635)

- Truck Stops
- Corridors of Concern
- ▲ Intermodal Facilities
- Freight Oriented Developments



Source: NCTCOG 2016

Figure 3-8: Parker County (IH 20 and IH 30)

Corridor of Concern: Parker County (IH 20 and IH 30)

- Truck Stops
- Corridors of Concern
- ▲ Intermodal Facilities
- Freight Oriented Developments
- - - Counties



Source: NCTCOG 2016