

section 5: modal inventory

5.1 highways and bridges

The Waco Metropolitan Area contains 6,870 lane miles of public roadways. Of this amount, the State of Texas maintains 1,786.0 lane miles or 26% of the regional highway system. Municipal Governments or McLennan County maintain 5,084.4 lane miles or 74% of the system. Despite the preponderance of lane miles being maintained by local or county governments, 78% of the daily vehicle miles traveled (VMT) occur on the State Highway system. Of this amount, nearly half of the daily VMT or nearly 40% of the total daily VMT for all of McLennan County occurs on Interstate 35.

Each public roadway within McLennan County is classified under the Highway Functional Classification System based upon how each roadway is utilized. The system is defined in section 5.1.1 which also details how the roadway system in McLennan County is classified.

5.1.1 – functional classification system

The roadway network utilized for the MTP comprises those streets functionally classified in 2010 and those subsequently added to the functionally classified system through new construction. A functionally classified roadway system allows streets to be grouped according to their purpose and function within the transportation network of the urbanized area. Streets within urban areas serve two primary functions: traffic movement or mobility, and accessibility. The functional classification system describes the amount of mobility and land access that facilities possess within the transportation network. The transportation planning process uses functional classification to ensure that development issues are evaluated as a component in the determination of existing and future transportation needs. A summary of the characteristics of each functional class is provided in Table 5.1. Map 5.1 shows the functionally classified roads.

table 5.1 – functional classification characteristics

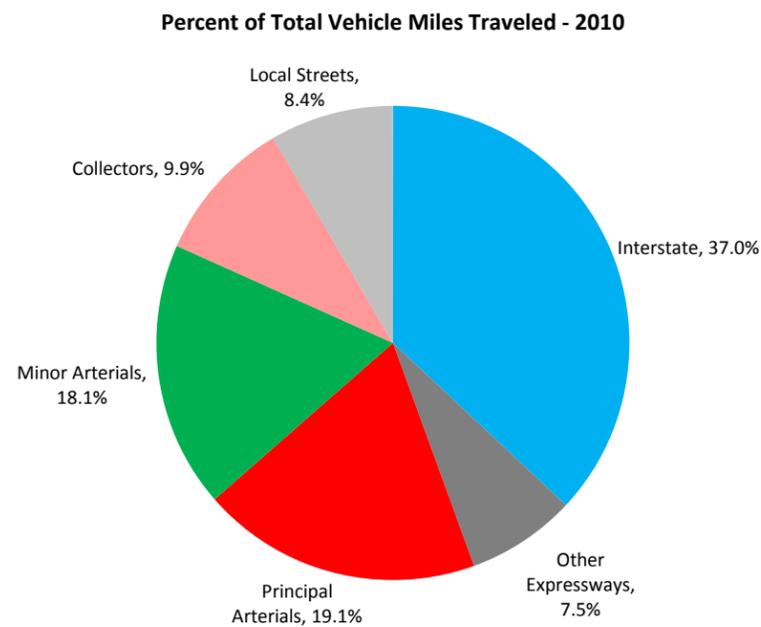
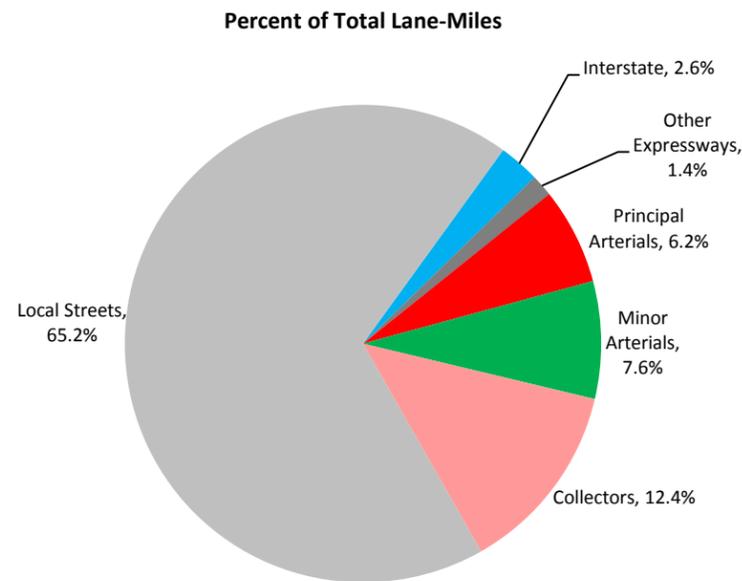
Classification	Level of Mobility	Level of Accessibility	System Relationships
Interstate or Expressways	Connects urban and rural service, connects urban subregions, connects urban areas	No direct land access unless frontage roads are provided. Used for long trips at high speed.	Other Interstates or Expressways, principal arterials.
Principal Arterials	Connects two or more subregions, compliments expressways in high volume corridors	No direct land access except for major traffic generators. Used for medium to long distance trips at moderately high speeds. Access is subordinate to traffic movement.	Expressways, other principal arterials and high volume minor arterials and collectors.
Minor Arterials	Connects adjacent subregions or activity centers within a subregion. Provides intra-community continuity. Ideally does not penetrate into neighborhoods.	Land access restricted to major and minor traffic generators in industrial and commercial uses. Used for moderate to short length trips at moderate speed.	Limited expressway interaction, principal arterials, other minor arterials, or facilities that place more emphasis on land access than higher classifications.
Collectors	Connects neighborhoods and connects land uses with the arterial system.	Unrestricted land access to neighborhoods, commercial or industrial areas. Used for collection and distribution to arterial facilities at moderate to low speeds.	Arterials, other collectors, local streets and private driveways providing direct land access.
Local Streets	Connects facilities within neighborhoods, or land uses within transportation facilities.	Unrestricted land access. Used for collection and distribution to collector facilities at low speeds.	Collectors, other local facilities and private driveways providing direct land access.

table 5.2 – functional classification lane miles and vmt: 2010

Classification	Lane-Miles	Percent of Total	Daily Vehicle Miles of Travel	Percent of Total
Interstate (Main Lanes Only)	181.3	2.6%	2,851,495*	37.0%
Other Expressways (Main Lanes Only)	98.7	1.4%	575,200*	7.5%
Principal Arterials	428.2	6.2%	1,475,262	19.1%
Minor Arterials	521.8	7.6%	1,398,627	18.1%
Collectors	854.9	12.5%	725,562	9.4%
Frontage Roads	306.2	4.5%	N/A*	N/A
Local Streets	4,479.3	65.2%	651,296	8.4%
Total	6870.4	100.0%	7,677,442	100.0%

*Traffic counts for the Interstate and Expressway Systems include the main lanes and frontage roads added together. Therefore, it is not possible to separate daily VMT between main lanes and frontage roads.

Chart 5.1 – 2010 percentage of lane miles and vehicle miles traveled by functional classification



*Traffic counts for the Interstate and Expressway Systems include the main lanes and frontage roads added together. Therefore, it is not possible to separate daily VMT between main lanes and frontage roads.

5.1.2 – bridges

As of 2012, there were 676 publicly maintain bridges within McLennan County. Of these 431 or 63.7% were maintained by the State of Texas and 245 or 36.3% were maintained by a municipality or McLennan County. In addition to bridges, there are 17 low water crossings within McLennan County. Instead of a bridge being built at these locations over the water feature, the road uses the creek bed for the crossing. Low water crossings are used in locations where traffic volumes are generally low and the creeks are dry most of the time. Low water crossings are not used as extensively as in other parts of Texas due primarily to the amount of rainfall received within McLennan County. Despite the fact that these crossings are usually dry, they do occasionally flood due to excessive rainfall. Section 6.1.4 provides an evaluation of bridge condition between 2007 and 2012.

5.1.3 – highway operations

Traffic operations within the Waco Metropolitan Area are generally controlled through traffic signals or flashing beacons at high volume intersections. Within the region there are 249 traffic signals. The City of Waco operates 198 signals with the remainder operated by the Texas Department of Transportation. As a general rule, the City of Waco operates signals between 6:00 AM and 2:00 AM, 7 days a week. At other times these signals operate in a flashing yellow mode as traffic volumes are low enough to safely permit arterial traffic to continue without stopping. High volume intersections, such as Waco Dr at Valley Mills Dr, are an exception where the signals operate 24 hours per day. Signals operated by the Texas Department of Transportation operate 24 hours per day, 7 days a week. Map 5.2 shows the location of traffic signals within the region.

Most signals within the region are controlled by loop detectors located within the pavement to detect vehicles. Both the City of Waco and TxDOT have implemented infrared camera detectors in certain corridors which have the advantage of better detecting motorcycles and not requiring adjustments after seal coats or pavement rehabilitation.

Signals along some major corridors have been timed in order to permit vehicles to travel a consistent speed with minimal stoppages. These corridors are generally high volume corridors with

numerous signals within a short distance and timing adjustments have proven to significantly improve corridor travel times.

intelligent transportation systems

The Texas Department of Transportation, in cooperation with the Waco MPO, McLennan County and cities within the region, has developed a regional architecture for intelligent transportation systems. The main implementation of ITS within the Waco region to date has been associated with the reconstruction and widening of IH-35. During the construction phase, TxDOT has installed several dynamic message signs in both directions providing real-time travel time information to motorists. When construction requires lane closures, TxDOT has also implemented advance warning systems to alert motorists of stopped or slowed traffic several miles in advance in an effort to reduce the number of backup related crashes.

Of a more permanent status, TxDOT has installed cameras and dynamic message signs at several locations within the region as construction phases are completed. Map 5.3 identifies the location of this infrastructure along the Interstate.



The Texas Department of Transportation is in the process of installing dynamic message signs along IH-35 as part of the interstate reconstruction project. This sign is located between Elm Mott and Ross providing northbound motorists real-time traffic information.

5.2 – public transportation

Public transportation within the Waco Urbanized Area is characterized by two types of service: fixed routes providing regularly scheduled service on published routes and demand

response where individual riders who cannot utilize the fixed route service are provided door to door service. These services are provided for the segment of the population that does not have access to an automobile or who have a physical disability which limits their mobility.

5.2.1 – urban services

Fixed route service is provided by the City of Waco owned Waco Transit System which is operated under management contract with RATP / McDonald Transit. Waco Transit presently operates an active fleet of 22 revenue vehicles. This fleet consists of thirteen 35-passenger coaches, six 12-passenger vans, and three rubber-tired trolleys. All revenue vehicles are wheelchair lift equipped. In addition, each of the 35 passenger coaches are equipped with bicycle racks on the front of the vehicle capable of accommodating 2 bicycles.

Waco Transit operates bus, van, and trolley services. The bus service operates with nine fixed bus routes throughout the City of Waco (See Map 5.4). Eight of the routes operate under a hub and spoke system with routes originating from the Intermodal Transit Center in Downtown Waco and radiating out to various parts of Waco. Route 6 is the exception and it circulates along the SH 6 / West Loop 340 corridor. Each route operates with a one hour headway. All routes generally operate between 6:00 AM and 7:00 PM Monday through Saturday. Waco Transit does not operate on Sundays.



Waco Transit operates 13 of the 35 passenger buses similar to the one pictured on 9 fixed routes within the Waco Urbanized Area.

One-way fares are \$1.50 for adults, \$1 for students ages 6 through 18 and \$0.50 for person over age 65 and persons with a mobility impairment. Daily passes are \$3 and permit the passholder to ride an unlimited number of times for the duration of the calendar day. Monthly passes are \$40 for adults and \$30 for students and permit the passholder to ride an unlimited number of times for 31 days after the first use.

Demand response van service under the Americans with Disabilities Act began in Waco in 1993. This service provides door-to-door service for those unable to use the fixed route service due to some type of ambulatory difficulty. Persons using this service must qualify based on several criteria as defined by the Federal Transit Administration. In addition, only persons residing within the designated ADA service area qualify to use the service (identified on Map 5.4). Patronage on the van service has increased from 250 in the first month of operation in January 1993 to current ridership of approximately 2,600 persons per month. A continuing increase in demand for the service per month is anticipated for the foreseeable future. The fare for the van service is \$6 per round trip.



Each bus utilized for the urban fixed route system is compliant with the requirements for the Americans with Disabilities Act and is able to accommodate wheelchair access.

Waco Transit also provides service to the Baylor University campus during the Fall and Spring semesters. Rubber-tired trolleys circulate along 4 routes through the campus providing access between remote parking areas and off-campus housing to the central portion

of the campus. This service also connects to the Fixed Route service via Route 9 – South Terrace. Additional connections may be made via Route 9 at the Intermodal Transit Center. This service is free of charge to all riders with operating costs provided by Baylor University.

Waco Transit's office and maintenance facility is located adjacent to the Intermodal Transit Center at 301 South 8th Street in downtown Waco. The facility contains all of Waco Transit's office, bus repair, fueling, cleaning, and bus parking operations.

Waco Transit also operates 2 special services: the Downtown Area Shuttle (DASH) and the LINK. The DASH operates between Downtown Waco and the Baylor University campus during the Fall and Spring semesters. The service is free to patrons with the costs paid by several downtown merchants and Baylor University. The LINK service circulates 3 times daily between Downtown Waco, the town of Marlin and then to Sanderson Farms located southeast of the TSTC campus. The LINK also provides limited late night service for employees of Sanderson Farms who work past the normal operational hours of Waco Transit. The LINK fare is the same as the fixed route fare. Sanderson Farms and the Texas Workforce Commission offsets the remaining costs of the LINK service.

table 5.3 – total boardings: waco transit system: 2012

Fixed Route	Demand Response	Baylor Campus Shuttle	Special Services	Total
617,121	31,252	291,827	119,425-	936,576

5.2.2 – rural and social service public transportation

Funding under the Federal Transit Administration (FTA) section 5310 and 5311 provides capital grants to the state of Texas to help make available mass transportation service that is planned, designed, and carried out to meet the special needs of elderly individuals and individuals with disabilities throughout the state. Funds are available to private non-profit organizations and other public for-profit entities that certify to the governor that there are no existing non-profit corporations or associations in their area that already provide transportation service. Local stakeholder forums or committees plan and design the service for their local community

and existing rural and/or urban transit service providers operate the service as designed by the committees. These funds are awarded directly to the transit operator who may use the funds for eligible capital expenses including acquiring transportation service from other transportation providers in the local area. Eligible capital expenses include but are not limited to buses, vans, or other paratransit vehicles, radios and communication equipment, vehicle shelters, and wheelchair lifts and restraints. Other options, with the concurrence of TxDOT Public Transportation Division, are lease of equipment, the acquisition of transportation services under a contract lease, and preventive maintenance service or parts associated with preventive maintenance service.

The Heart of Texas Rural Transit District (HOTRTD) utilizes a demand response system to serve Bosque, Hill, Falls, Limestone, Freestone Counties and the rural portions of McLennan County. HOTRTD operates rural transportation services through the use of a subcontractor: LeFleur Transportation. Transportation is provided on a daily basis to and from each rural county to McLennan County with a 24 to 48 hour advance reservation. One-way fares for the rural services are \$3.

In addition to the services provided by HOTCOG, Waco Transit also operates a rural connector between Downtown Waco and the town of Marlin in Falls County called 'The LINK'. This service also stops in the towns of Riesel and Robinson and provides a connection to Sanderson Farms poultry processing plant approximately 5 miles northeast of Bellmead. The link runs 4 loops daily Monday through Friday and costs \$3 daily.

5.2.3 – medicaid transportation

Waco Transit provides non-emergency medical transportation through the Medicaid Title XIX program. Medicaid transportation is provided for trips originating in the six-county Heart of Texas region Monday thru Saturday 8 AM to 6 PM. This region includes the Waco Metropolitan Area. After hour service is also available for return trips.

5.2.4 intercity bus service / taxi and limousine service

Greyhound Bus Lines provides intercity bus service through the Intermodal Transit Center at South 8th Street and Mary Avenue. Approximately 14 buses are dispatched daily from the transit center with the primary destinations of Austin, Dallas, Houston, Laredo,

and San Antonio. Connections to most destinations within the US can be made in Dallas, Houston or San Antonio.

The Waco Metropolitan Area is served by one taxi service: Yellow Cab, which offers 7-day, 24-hour local service with a total of 15 cabs. Nine limousine services serve the Waco Metropolitan Area: A Class Act Limo Service, Cheeves Bros. Limousine Service, Dynasty Limousine, Frankie's First Class Limousines and Sedan Service, Icon Limousine Services, Limousine Ltd., Luxury Limousine of Waco, Signature Limousines, and Waco Streak Limousine. Another service, the Waco Streak provides service between the Waco Urbanized Area and the Dallas / Fort Worth International Airport. Four daily round trips are made and the service is only to provide access to DFW Airport. No other taxi services are available within the region.

5.3 – bicycle and pedestrian

5.3.1 – bicycle facilities

Despite the presence of three institutions of higher education within the Waco Metropolitan Area, bicycling is not a significant mode of transportation for commuting purposes. According to the 2010 Census, 0.3 percent of all workers over age 16 use a bicycle as their primary mode of travel to school or work. The majority of these users resided either within or in close proximity to Baylor University. Map 5.5 shows the census tracts within the Waco metropolitan area with the highest percentage of bicycle or pedestrian commuters.

A lack of bicycle facilities within the region contributes largely to the lack of use. Current off street facilities include the Lake Waco Dam, the Brazos Riverwalk, and the Cotton Belt Trail. The Brazos Riverwalk consists of a multipurpose trail between Cameron Park and the Baylor University Ferrell Center on the south side of the river and a multipurpose trail extending from Brazos Park East to the suspension bridge in downtown. The Lake Waco Dam stretches approximately 3.2 miles across the north end of the Lake.

In 2013 the city finished the Cotton Belt Trail project which added 2.37 miles of multipurpose trail in the far south west portion of town.

Also, the river trail consists of an unimproved trail through Cameron Park along the Brazos and Bosque Rivers which connects McLennan Community College to the Brazos Riverwalk. This unpaved facility becomes unusable during heavy rainfall.

Waco also has approximately 6.5 miles of on street bike lanes. These bike lanes reside along:

- 4th St from Jefferson St to Baylor Univeristy
- 5th St from Jefferson St to Bagby Ave
- Washington Ave between University Parks Dr and 5th St
- Park Lake Dr between 19th St and Lake Shore Dr
- Panther Way between Woodgate Rd and Ritchie Rd
- Dutton Ave from 5th St to Baylor St
- Orchard Ln from University Parks to Bus 77/ SH 6

Several barriers exist which limit bicycle movement from one-side of town to the other. The main barriers are IH-35, the Brazos River, Valley Mills Drive and Lake Waco. Each of these barriers serve to limit bicycle trips from one side to the other as a result of either a lack of facilities crossing the feature, such as the case of Lake Waco, or the facilities crossing the feature being uncomfortable for bicycle usage. Map 5.6 identifies the existing bicycle and multi-purpose bike / ped facilities.

In addition to a lack of facilities, bicycle parking outside of the Baylor University Campus is virtually non-existent. Currently four public bicycle parking facilities reside within the Waco Metropolitan Area at the Waco Transit Intermodal Center, and three public racks in downtown Waco. Waco Transit provides bicycle racks on all fixed route buses.

bicycle suitability

Since dedicated non-recreational bicycle facilities are rare, the MPO staff evaluated the existing arterial and collector network for bicycle suitability. The staff scored each facility based upon an estimated level of comfort for a novice rider. The scoring system is modified

from a system first developed by the US Department of Transportation. Table 5.4 identifies the criteria used in scoring bicycle suitability and Table 5.5 identifies the scores used to define the levels of comfort for novice bicyclists.

table 5.4 – bicycle suitability criteria

Criteria	Add / Subtract from Beginning	Score
Beginning Score	n/a	3.67
Presence of 15' Curb Lane	Subtract	Speed Score*
Curb Lane Width	Subtract	Width x Speed Score
Curb Lane Volume	Subtract	Volume x 0.002
Other Lane Volume	Subtract	Volume x 0.004
Per Hour Truck Volumes	Add	< 10 = 0 10 to 19 = 0.1 20 to 29 = 0.2 30 to 59 = 0.3 60 to 119 = 0.4 >120 = 0.5
Speed Limits**	Add	Posted Speed x 0.22
Presence of On-Street Parking	Add	0.506
Parking Type	Add	Parallel = 0.2 Angle = 0.6
Rural / Residential / Undeveloped Land Use	Add	0.264
Driveway & Street Intersections per Mile	Add	<20 = 0 >20 = 0.1 every 10/mi
Railroad Crossing	Add	0.2
Steep Slope	Add	0.3

*Speed Score: Less than 50 mph = 0.966, 51 to 55 mph = 0.8, 56 to 60 mph = 0.6, Greater than 60 mph = 0.4.

**Facilities with posted speed limits of 70 mph were automatically given a comfort level of "Not Recommended."

table 5.5 – bicycle comfort level score

Score	Comfort Level
Less than 2.5	Easy
2.51 to 5.00	Moderate
5.01 to 10.00	Difficult
Greater than 10.00	Not Recommended

Map 5.7 shows the bicycle suitability scores for the Waco Urbanized Area. Scores outside of the urbanized area were generally either 'Easy' if the posted speed limit was below 70 mph or 'Not Recommended' if above 70 mph. State law prohibits the use of IH-35 main lanes and other expressways by bicycles. Frontage road use, although permitted, is generally discouraged due to the high number of merging movements, speed and significant number of driveway access points.

Section 8 identifies recommended bicycle projects for the Waco region. Corridors identified as 'Easy' were recommended as bicycle routes requiring only signage and minimal other improvements. Corridors identified as either 'Moderate' or 'Difficult' were recommended as either requiring a combination of striped bicycle lanes, curb lane widening or the elimination of on-street parking.

5.3.2 – pedestrian facilities

Walking, as a mode choice, to work or school is used significantly more often than bicycling within the Waco Metropolitan Area. Even so, only 1 out of 40 commuters use this mode as their preference. As a general rule, this mode is used primarily by persons residing in close proximity to either Downtown Waco or Baylor University. These areas have a more complete sidewalk network and basic services are in closer proximity to residential areas.

Areas developed prior to 1950, such as Downtown Waco and the Baylor University campus, contain most of the pedestrian facilities. Beyond these areas the sidewalk network is scattered and basic services are generally well beyond 0.25 miles from residential areas. Surveys indicate that most people will not walk if a trip distance exceeds 0.25 miles. The City of Waco has adopted an ordinance requiring the construction of sidewalks for new commercial development or reconstruction of certain developments

depending upon specific criteria. New residential developments are also required to install sidewalks along collector streets either identified by the City's sidewalk plan or by the Department of Traffic Services. Although this has served to increase the coverage of sidewalks beyond Downtown Waco and Baylor, the network remains patchy at best. To date, only the City of Hewitt has identified pedestrian facilities in a formally adopted plan. None of the facilities identified in the Hewitt Comprehensive Plan have been constructed as of the publication of the MTP. This lack of sidewalk facilities is dramatically shown on map 5.8. This map shows the percent of public right of way within each traffic analysis zone that have sidewalks on at least one side of the roadway. With the exception of zones within the immediate vicinity of Downtown Waco and Baylor University, nearly all zones within McLennan County have fewer than half of public roads meeting this criterion.

The other deficiency for sidewalk infrastructure is that even where they exist, many sidewalks are in poor to very poor condition. In 2013, 2 out of 5 miles of sidewalk, or 43%, could not accommodate a wheelchair either due to poor physical condition or inadequate width or both. Recent requirements by the City of Waco requiring the construction of new sidewalks or reconstruction of existing sidewalks along certain corridors for new or expanded developments have helped reduce this percentage, however, significant progress remains. Map 5.9 identifies the percent of the existing sidewalk facilities in good condition by traffic analysis zone within the Waco Metropolitan Area.

5.4 – rail

5.4.1 – freight rail

Two railroad companies serve the Waco Metropolitan Area: Union Pacific Corporation and the Burlington Northern Santa Fe Corporation (BNSF). Union Pacific has two primary lines through Waco. One line provides freight service between Fort Worth and Temple. The other line provides freight service from the Bellmead Yards south through Bryan / College Station and represents a primary UP service between Dallas / Fort Worth and Houston. BNSF has trackage rights on the UP line between Temple and the Bellmead yards. The remaining lines are spurs providing freight service to individual industries within McLennan County. BNSF provides freight service connections to Temple and Fort Worth

through Moody, McGregor and Crawford. The BNSF line is an important connection between the Port of Houston and Fort Worth for the company.

The main concern of freight rail in McLennan County is the significant number of at-grade rail crossings. As of 2013, there were 93 public at-grade crossings, of which there are 8 crossings with particular concerns. These concerns are primarily: 1.) Traffic greater than 4,000 vehicles per day, 2.) Train speed in excess of 60 mph, and 3.) Crossings that are the primary cross-town access for several towns. Table 5.7 ranks the crossings that are of most significant concern in order of traffic volumes. Map 5.10 shows the location of both freight and passenger rail facilities within McLennan County as well as the at-grade crossings of concern.

table 5.6 – rail line statistics – mclennan county

Line	Company	Daily Trains	Grade Separated Intersections	At Grade Intersections	Proposed Grade Separations*	Percent Grade Separated*
Bellmead to Fort Worth	Union Pacific	24	3	18	0	14.2%
Bellmead to Temple	Union Pacific	14**	10	30	3	25.0%
Bellmead to Hearne	Union Pacific	12	3	14	0	17.6%
Temple to Fort Worth	BNSF	20	1	17	0	5.5%
Waco to Lehigh Cement	Union Pacific	1	3	6	0	33.3%
Lacy-Lakeview to Cargill	Union Pacific	2	2	7	2	22.2%
UP Main Line to M&M Mars	Union Pacific	8	0	1	0	0.0%
	Total	15.8 [†]	22	93	5	23.7%

Source: Federal Railroad Administration

*Does not include proposed grade separations.

**Does not include 8 local trains that run between the Bellmead yards and the Texas Central Industrial Park.

[†]Represents the average number of trains per intersection in McLennan County.

table 5.7 – at-grade railroad crossings with concerns

Crossing	Community	2010 Traffic	Trains	Concern
FM 2063 at UP RR	Hewitt	10,800	14	Traffic with high speed trains
FM 2114 at UP RR	West	4,960	24	Town split by RR
FM 2837 at UP RR	Lorena	4,300	14	Traffic with high speed trains
FM 308 at UP RR	Elm Mott	4,300	24	Traffic with high speed trains
FM 107 at BNSF RR	Moody	3,400	20	Town split by RR
FM 1860 at UP RR	Riesel	2,640	12	Town split by RR
SH 7 at UP RR	Bruceville-Eddy	2,400	14	Traffic with high speed trains
FM 185 at BNSF RR	Crawford	2,000	20	Town split by RR

5.4.2 – passenger rail

Passenger rail service provided by Amtrak stops at McGregor on the BNSF tracks. The station is located approximately 20 minutes west of Downtown Waco in Downtown McGregor near SH 317. The Texas Eagle provides daily service to Dallas / Fort Worth, Austin and San Antonio. Passengers may continue to Chicago on the Texas Eagle via Fort Worth. Three times a week the Texas Eagle continues west from San Antonio to Los Angeles. Connections to New Orleans may be made on the Sunset Limited in San Antonio. Passengers may also continue to Oklahoma City by connecting to the Heartland Flyer in Fort Worth.

table 5.8 – passenger arrivals and departures – mcgregor amtrak depot

2009	2013	Change	Percent Change
4,238	5,209	+971	+22.9%

The McGregor depot is a historic structure dating back to the early 1900s. As such, the depot does not currently meet the standards

of the Americans with Disabilities Act. Correction of this problem has been cited several times as a short-term need. In addition, the depot is owned by the BNSF railroad which also owns the adjacent maintenance facility. As of publication of this document, the BNSF railroad has suggested that they may eventually need to use the space occupied by the depot to expand their maintenance operations. If this option is exercised, Amtrak operations might cease at the McGregor depot.

5.5 – aviation

Four public use airports service the Waco Metropolitan Area, Waco Regional Airport, Texas State Technical College Airport (formerly James Connally Air Force Base), the McGregor Executive Airport and the Valley Mills Municipal Airport. In addition to these there are several small, private landing strips with mostly unimproved surfaces that are available for emergency use.

5.5.1 – waco regional airport (act)

Waco Regional Airport (ACT) is located northwest of downtown Waco with an approximate vehicle travel time of 12 minutes. ACT is a fully certified Federal Aviation Administration airport and has an FAA tower, 24-hour NOAA weather service, and 24-hour fuel service. The tower operates between the hours of 6:00 AM and 12:00 PM. The airport is equipped with two all-weather runways: Runway 1-19 is 7,100 feet in length and 150 feet in width, and lighted with an ILS (Instrument Landing System) approach to Runway 19; runway 14-32 is 5,900 feet in length and 100 feet in width, and lighted with nonprecision approaches to both runway approaches.

Commercial air service is currently provided by one carrier: Envoy Air operating as American Eagle between Dallas / Fort Worth International Airport (DFW). Envoy Air operates 5 flights a day Monday through Saturday, then 4 flights to DFW on Sundays. Envoy Air provides connection service at DFW through American Airlines. United Express (previously Colgan Air operating as Continental Express) discontinued service to and from Houston / George Bush Intercontinental Airport in 2011. The reduction in enplanements since 2009 is primarily due to the discontinuation of this service.

table 5.9 – passenger enplanements – waco regional airport

2009	2012	Change	Percent Change
66,089	61,164	-4,925	-7.5%

Currently American Eagle uses 50 passenger Embraer ERJ-135 Regional Jets. The result is a total of 88,400 yearly one-way passenger seat capacity and 250 daily one-way passenger seat capacity Monday through Saturday (daily seat capacity of 200 on Sundays). According to 2012 statistics, commercial aircraft at ACT are operating at an average of 69.2 percent of capacity, compared to the national average of 67.5 percent (Federal Aviation Administration).

For general aviation, ACT is a full service airport providing 24 hour refueling and tiedown services, 18 executive hangars, 50 light aircraft hangars, major airframe and powerplant maintenance and repair services.

table 5.10 – aircraft operations – waco metropolitan area: 2013*

Airport	ID	General Aviation	Military	Commercial	Other	Total
Waco Regional	ACT	24,208	5,409	150	5,230	34,997
TSTC	CNW	35,912	13,985	4	60	49,961

Source: Federal Aviation Administration

*Data for McGregor and Valley Mills Airports were not available.

5.5.2 – texas state technical college airport (cnw)

Texas State Technical College (CNW) currently maintains and operates the former James Connally Air Force Base and provides training facilities at the airport. The airport is located just off of IH-35 approximately 7 miles north of downtown Waco, with an approximate drive time of 12 minutes. The airport has two runways,

1R-19L which is 8,600 feet in length and 200 feet in width, lighted with an ILS approach to Runway 19L. Runway 1L-19R is 6,400 feet in length and 150 feet in width. The airport has a non-federal control tower that operates from 8:00 AM to sunset, Monday through Friday. CNW is home to several aviation related industries, including L-3 Communications, which primarily refurbishes and rewires military aircraft, while also working on some civilian aircraft. There are currently only limited general aviation services at CNW primarily providing refueling services during daylight hours.

Partly due to L-3 as well as the close proximity of Fort Hood, US Army, CNW continues to have a significant number of military operations comprising nearly 28% of the total.

5.5.3 – mcgregor executive airport (pwg) and valley mills municipal airport (9f1)

The McGregor Executive Airport (PWG) provides general aviation service approximately 15 miles west of downtown Waco off of US 84. The airport has two runways: Runway 18-36 is 5,100 feet in length and 100 feet in width with pilot controlled lighting; and runway 4-22 is 3,400 feet in length and 60 feet in width with no runway lighting. The airport does not have a control tower. There are currently no precision approaches for PWG.

PWG is a full service general aviation airport providing 24 hour refueling and tie down services, and major airframe and powerplant maintenance and repair services. UPS currently uses PWG for limited regional air freight service.

The Valley Mills Municipal Airport (9F1) is an unattended field providing general aviation service to the northwestern portion of McLennan County. The airport has two runways: Runway 6-24 is 3,028 feet in length and 40 feet in width and runway 14-32 is 2,788 feet in length and 40 feet in width. Both runways have unimproved surfaces. 9F1 does not provide any general aviation services.

5.5.4 – navigational aids

The FAA maintains two radio aids to navigation within the Waco MPO Area. The Waco VOR (Very high frequency Omni Range) transmitter is located off of FM 2490 approximately 4 miles northeast of the Waco Regional Airport and provides direction and distance information to commercial and military aircraft during

periods of inclement weather. The Waco VOR is monitored by the Fort Worth Flight Service Station to ensure continuous operation. The other radio aid to navigation is the Robinson NDB (Non-Directional Beacon) which provides aircraft direction information to and from the facility. The Robinson NDB is located off of FM 434 south of Loop 340. Map 5.11 shows the various aviation facilities and navigational aids within McLennan County.