

2024 Caldwell County Transportation Plan

CAMPO

CAPITAL AREA METROPOLITAN
PLANNING ORGANIZATION

2024 Caldwell County Transportation Plan

Contents

EXECUTIVE SUMMARY

CHAPTER 1: PROCESS

Introduction	1
Previous Plans and Studies	1
Western Caldwell County Transportation Study	2
2024 Caldwell County Transportation Plan Update	2
Study Process	2
Public Outreach	3
Caldwell County Public Outreach Key Themes	4

CHAPTER 2: EXISTING CONDITIONS

Introduction to Existing Conditions	5
What is an Arterial Road?	5
Caldwell County Existing Arterial Network	7
Existing Network Performance	8
Network Connectivity	10
Network Redundancy	11
Block Dimensions	11
Intersection Density	11
Factors Limiting Connectivity	11
Safety Analysis	13
Traffic Generators	13
Emergency Response	15
Vulnerability	17
Environmental Considerations	19
Context Sensitive Design	19
Caldwell County Growth	21
SH 21 Case Study	21
Western Caldwell County Transportation Study	21
Luling Transportation Study	21
Freight	22

CHAPTER 3: CONCEPT PLAN

RACI Scenario Planning	23
Performance Measures	24
2024 Baseline Network	25
Future No-Build Network	26
Recommended Arterial Network	27
Recommended Arterial Cross-Sections	29
Projecting Costs	32
Recommended Arterial Network Table	33
2013 Candidate Projects	41
Proposed Thoroughfare Network (Consolidated)	41
2013 Candidate Project Improvements	42

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EXECUTIVE SUMMARY

Introduction

The Caldwell County Transportation Plan (Plan) was developed by Capital Area Metropolitan Planning Organization (CAMPO) staff at the request of the Caldwell County Commissioners Court and as part of the Regional Arterials Concept Inventory (RACI). This Plan serves as an update to the 2013 Caldwell County Transportation Plan. The primary focus of this effort was to plan for future growth with mobility choices that are **safe, convenient, reliable, and efficient**. This Plan includes a public outreach component, an analysis of the county's existing conditions, and a concept plan process with recommended improvements over the next 20 years

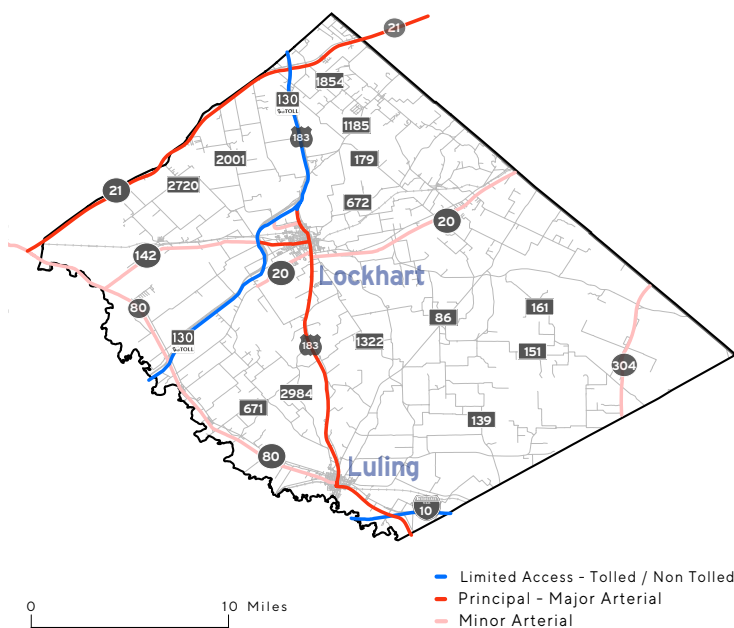
Plan Approach

Public Outreach

The Plan started with public outreach in February 2018 and concluded in June 2019. An overarching goal of the community engagement process was to be inclusive and equitable, reaching the general public to include all people including vulnerable populations. Most responses showed that residents commute primarily to the County's cities and towns and almost all stayed within Caldwell County. Prominent themes from the public outreach responses showed a need to address congestion and traffic volume, as well as improve roadway conditions through maintenance and improve multi-modal facilities. Residents also noted the need to consider environmental features and potential impacts.



Existing Arterial Network



Existing Conditions Analysis

Today, over 1.5 million vehicle miles are traveled each day in Caldwell County, and the arterial system is under-performing because it lacks the necessary connectivity and redundancy for efficient transportation. There are also many environmental constraints that make roadway network expansions infeasible or cost-prohibitive. Most importantly, high crash rates were found on many of the primary transportation routes within the county, including significant portions of US 183 and SH 80. This existing conditions analysis found that focusing on safety improvements for these roadways can provide substantial gains in safety for the county as a whole.

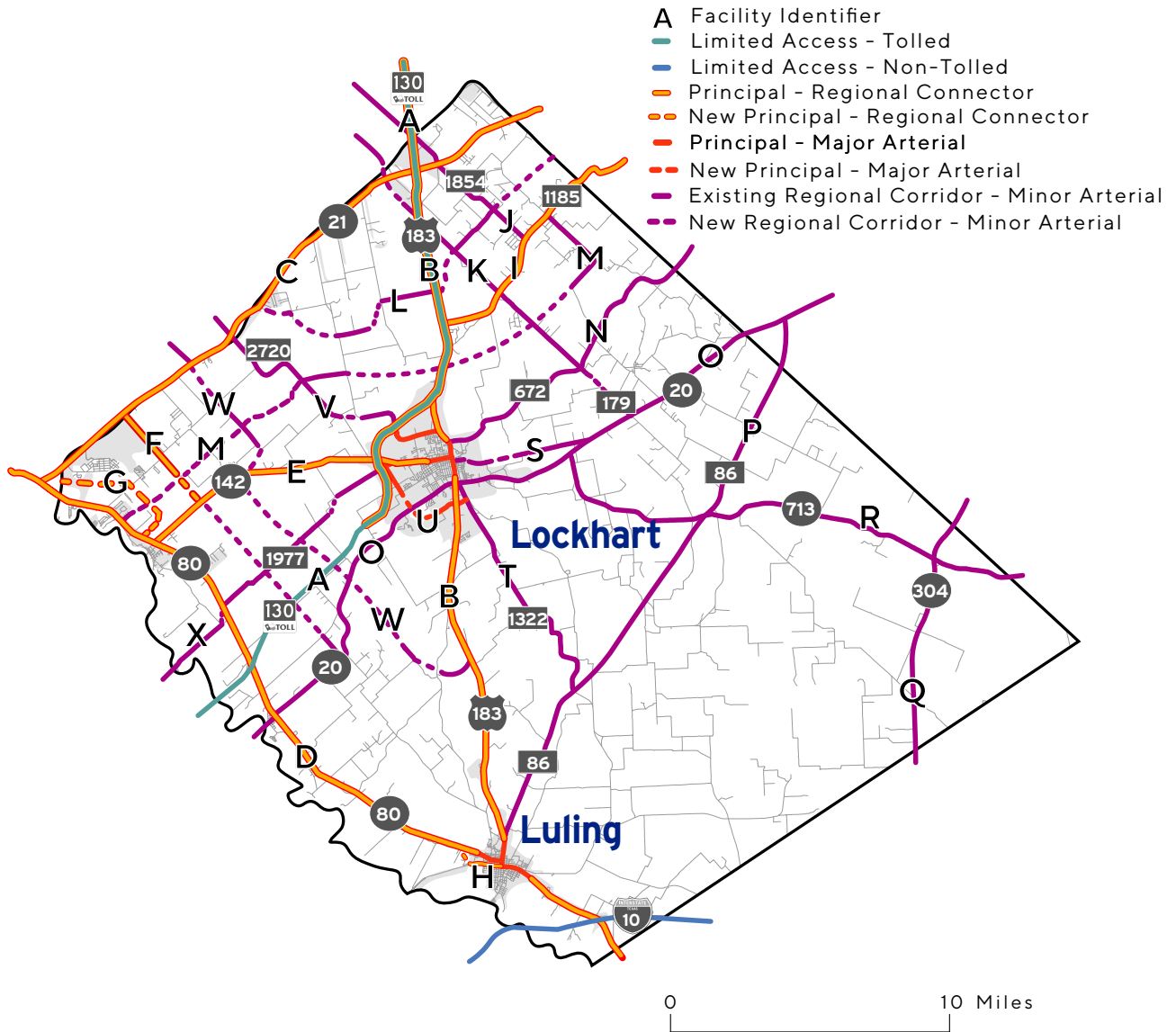


Concept Plan & Recommendations

The Recommended Arterial Network utilizes the Regional Connector Network from the RACI and recommendations from the Luling Transportation Study and the Western Caldwell County Transportation Study. The Recommended Arterial Network includes adding capacity on SH 21, SH 142, SH 80, and US 183; adding a Principal-Regional Corridor from SH 142 to SH 21; upgrading collectors such as SH 20, SH 304, FM 1322, FM 86, and FM 179 to Regional Corridors; and a new alignment for SH 80 through Luling. These upgraded and new arterials will serve and support existing communities and future development in Caldwell County.

It is imperative to note that the lines on the map do not indicate specific alignments. Before beginning construction, an in-depth environmental and engineering review process will have to be conducted for each roadway before construction can begin. It is also important to note that this map does not show functional classification changes for Caldwell County.

Recommended Arterial Network



CHAPTER 1 PROCESS

Introduction

This Plan is an update to the 2013 Caldwell County Transportation Plan (CCTP). Since the implementation of the 2013 CCTP, the Capital Area Metropolitan Planning Organization (CAMPO) created a Regional Arterials Concept Inventory (RACI) that analyzed regional roadway scenarios to help the Capital Area plan for future growth with mobility choices that are **safe, convenient, reliable, and efficient**. This Plan includes recommended improvements and new facilities identified in the RACI for Caldwell County.

2013 Caldwell County Transportation Plan, RACI, and Previous Plans and Studies

The 2013 CCTP was the county's most recent major transportation planning effort. The plan presented a coherent vision for residential and business growth, and recommended transportation investments for a safe, multi-modal, and sustainable transportation network to accommodate the expected growth. The 2013 CCTP also prioritized studying the possibility of extending FM 150 and Yarrington Road with the goal of making east-west travel easier. Through the Western Caldwell County Transportation Study (WCCTS), CAMPO and Caldwell County are currently working together to study the need for and potential solutions to make travel easier in this area.

In 2019, CAMPO and Caldwell County studied downtown Luling to address increased traffic congestion. The Luling Transportation Study assessed current and future transportation needs within Luling, including the potential viability of a relief route.

Like the RACI, the 2013 CCTP, and Luling Transportation Study, this Plan focuses on improving the highest performing roadways within the county. These primarily include US 183, SH 130, SH 21, and SH 80. Each of these roadways provide for longer distance trips within the county and to destination outside of the county, such as to job centers in Hays, Travis, and Bastrop Counties.

Overall, the considerations of the RACI and the past transportation planning work in Caldwell County align. Improving safety, enhancing multi-modal travel, supporting economic development goals, making investments to manage current and future growth trends, and protecting environmental assets are key goals of all planning efforts.

2013 CALDWELL COUNTY TRANSPORTATION PLAN OBJECTIVES

- Improve transportation safety
- Consider all modes of transportation in the planning process
- Support economic development
- Preserve and protect the environment
- Identify and characterize the current and future needs of the county

REGIONAL ARTERIALS CONCEPT INVENTORY OBJECTIVES

- Improve safety for all arterial users
- Improve network efficiency and flexibility to reduce travel times and distance
- Plan for growth more effectively
- Design multi-modally to provide more choices to move people and goods
- Protect and preserve the environment
- Foster a system that promotes prosperity and vitality

Western Caldwell County Transportation Study

The Western Caldwell County Transportation Study (WCCTS) was conducted by CAMPO in partnership with Caldwell County. The purpose of the study was to evaluate regional mobility and facilitate system connectivity between major roadway facilities including IH 35 and SH 130 in the western portion of the county. The study evaluated current and future conditions including traffic patterns, economic development, environmental conditions, and demographic forecasts. Based on this analysis, potential roadway alignment alternatives were developed and evaluated through a rigorous set of criteria and several rounds of public involvement. The study process recommended the improvement of SH 142 between SH 130 and SH 80 and to provide a new roadway connection between SH 142 south of Maxwell to SH 21 utilizing new location and the existing CR 238 (William Pettus Road) alignment. The study will conclude with preliminary engineering, design, and environmental clearance of the recommended alternatives to be furthered in the development process by Caldwell County.

2024 Caldwell County Transportation Plan Update

The 2024 Caldwell County Transportation Plan Update is built from the recommendations of the 2013 Caldwell County Transportation Plan, the RACI, and other local planning efforts within the county, as described above. Although the local plans produced by municipal and county governments exhibit a greater emphasis on local roads, the RACI prioritized regional mobility. The two plans work together to provide a comprehensive vision for the county's future roadway network. Integrating and building on these differences, this Plan serves as a key update to the 2013 planning effort and as a guide to future transportation planning in Caldwell County.



Multi-modal



Growth



Equity
Health
Economy



Safety



Mobility



Environment

Study Process



CAMPO worked closely with the Regional Arterials Steering Committee to guide the study process through regular meetings and presentations. Representatives from Caldwell County served on the Regional Arterials Steering Committee. Extensive outreach was conducted with local government officials and the public through a series of meetings. The study team then conducted comprehensive analyses which ultimately resulted in recommendations to improve the function of the Capital Area's arterial network.

Public Outreach

Public outreach commenced in February 2018 and concluded in June 2019. Early outreach focused on sharing background information on the study and gathering input on existing conditions, needs, and priorities. Later outreach focused on gathering public feedback. An overarching goal of the community engagement process was to be inclusive and equitable, reaching the general public including vulnerable populations such as low-income, minority, those with limited English proficiency, seniors, zero-car households, and people with disabilities. All meeting materials and input opportunities were available on the project webpage. Those that could not attend meetings in person were also offered the opportunity to view meeting materials through an Online Open House, to take a survey online, and to provide comments via email.

In total, 36 Caldwell County responses were collected from residents living in six of the seven county zip codes. When asked about residents' commute destination, the most popular destination was Luling, followed by San Marcos. Residents of Caldwell County noted a need to address congestion and traffic volume, as well as improve roadway conditions through maintenance. Residents also expressed a preference to improve multi-modal facilities, such as transit and bicycle accommodations, and noted the need to consider environmental features and potential impacts.

Public Outreach Responses by Zip Code

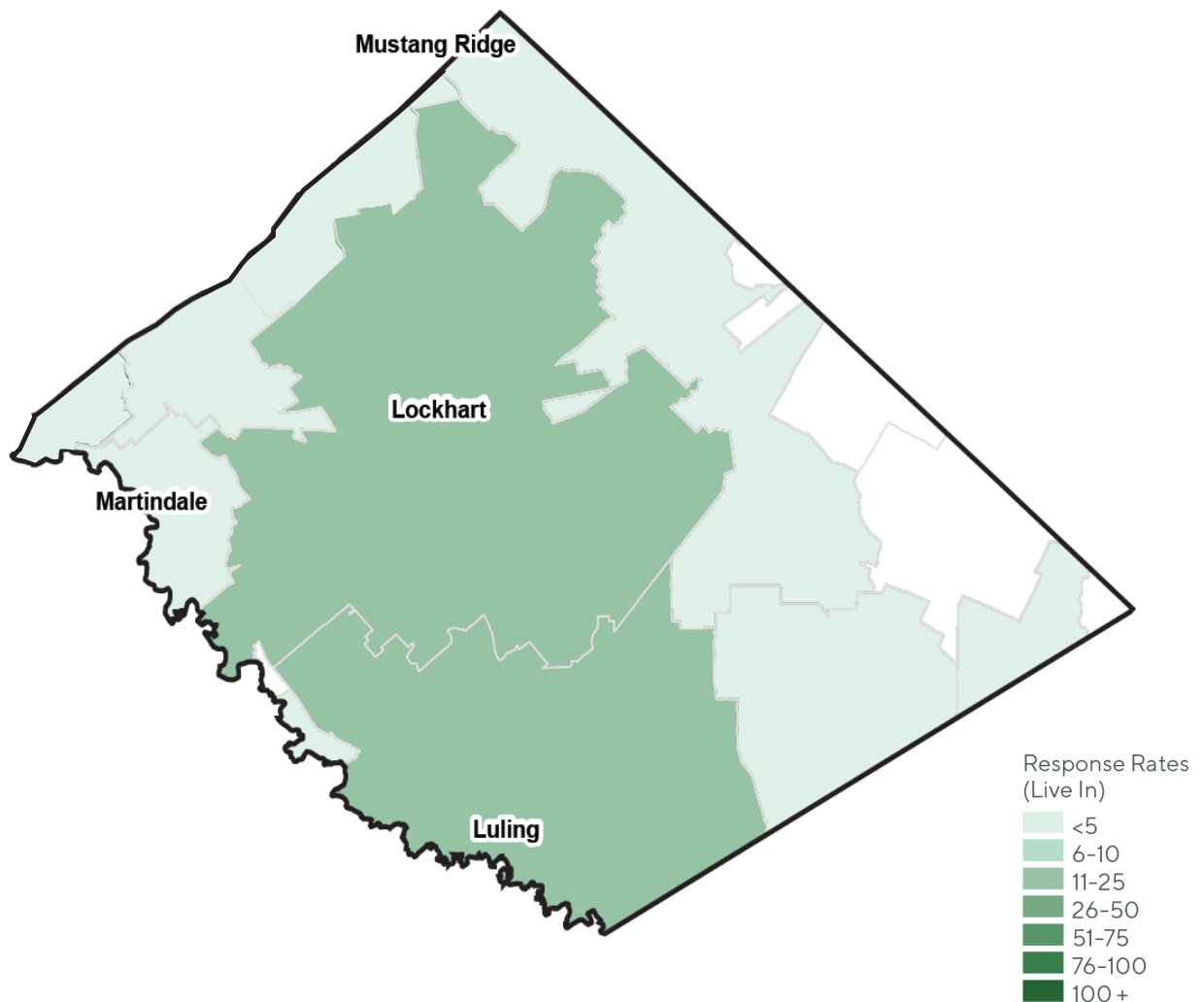


Figure 1.1

Caldwell County Public Outreach Key Themes

- Grade separations to bypass railroad crossings
- Intersection and signal enhancements
- Support for commuter and freight traffic
- Flooding and drainage concerns
- Coordinate with neighboring counties and MPOs



CHAPTER 2

EXISTING CONDITIONS

Introduction to Existing Conditions

This chapter provides the “big picture” of how the existing arterial roadway network impacts the way Caldwell County residents live, work, play, and identifies the county’s needs to improve access to desired job markets, services, and recreational opportunities.

What is an Arterial Road?

This study uses Texas Department of Transportation (TxDOT) and Federal Highway Administration (FHWA) definitions of functional roadway classifications as a starting point for further discussions about roadway function, classification, and design. Figure 2.1 illustrates FHWA’s functional classifications. However, the 2013 Caldwell County Transportation Plan functional classification system differs from those of TxDOT and FHWA, so the roadways were reviewed and grouped in a way that was up to be consistent with FHWA’s system.

The U.S. Department of Transportation (USDOT) and FHWA support state and local governments in the design, construction, and maintenance of the nation’s highway system. TxDOT defines off-system roadways as any roadway not designated on the State Highway System and not maintained by TxDOT. Conversely, on-system roadways are designated on the State Highway System and maintained by TxDOT. Maintenance of off-system roadways is the responsibility of the local jurisdiction in which the road is located. CAMPO may partner to fund improvements to many of the on-system arterials and high functioning off-system roads with local governments. On-system and off-system roads can be further classified by functional classification which groups roadways into classes based on traffic characteristics and the types of service they provide.

FHWA Classification Table	
Interstate	Interstates are the highest level of roadway and designed for long-distance travel offering limited access.
Freeway	These roads have directional travel lanes and are separated by some type of physical barriers. Access is purely controlled by interchanges and on- and off-ramps to maximize their mobility function.
Tollroad	Roadways (either public or private) where passengers pay a usage fee to use the roadway.
Expressway	Roadways with directional travel lanes that are typically separated with controlled access to maximize mobility.
Principal Arterials	Roads serve major centers and provide a high level of mobility, but abutting land uses can be served directly.
Minor Arterials	Provide service for trips of moderate length and offer connectivity to the higher arterial system.
Collector	Gather traffic from local roads and funnel users to the arterial network.
Local	Classified by default of all used roads other than arterials and collectors. Designed to minimize through traffic and are often used at the very beginning or end of a trip.

Figure 2.1

For the purposes of this study, CAMPO defined an arterial as a road that connects to limited access roadways (freeways), local streets, and destinations. Arterials are smaller than a major access controlled roadway such as IH 35, but larger than a local neighborhood street. Not unlike the rest of the Capital Area, Caldwell County arterials are used frequently to commute between home, work, and school. TxDOT and FHWA definitions of functional classifications were used as a baseline for evaluating and redefining these classification using regional context, as shown in Figure 2.2.



Grouping-up process - Deferred to TxDOT Classification Table

2013 Caldwell County Transportation Plan	TxDOT	CAMPO Regional Functional Classification
Toll	Toll	Limited Access (Non-tolled/tolled)
Interstate Freeway / Expressway	Interstate Freeway / Expressway	
Principal Arterial	Principal Arterial	Principal Arterial Major Arterial Regional Connector
Minor Arterial	Minor Arterial	Minor Arterial
Collector County Roads	Major collector Minor Collector	Collector
Local	Local	Local

Figure 2.2

Caldwell County Existing Arterial Network

The Caldwell County existing arterial network map highlights arterials using CAMPO's RACI functional classification system, which include existing principal, minor, and limited access arterials. Principal arterials in Caldwell County consist of US 183 and SH 21. Minor arterials consists of FM 2001, US 80, and FM 20 from Lockhart to Bastrop County. SH 142 is a minor arterial beginning at US 80 in Martindale and then turns into a principal arterial at the US 130 junction before reaching its terminus at US 183 in Lockhart. US 130 is a limited access arterial that connects Caldwell County with Guadalupe and Travis Counties. IH 10 connects Caldwell County to Guadalupe and Gonzales County.

Existing Arterial Network

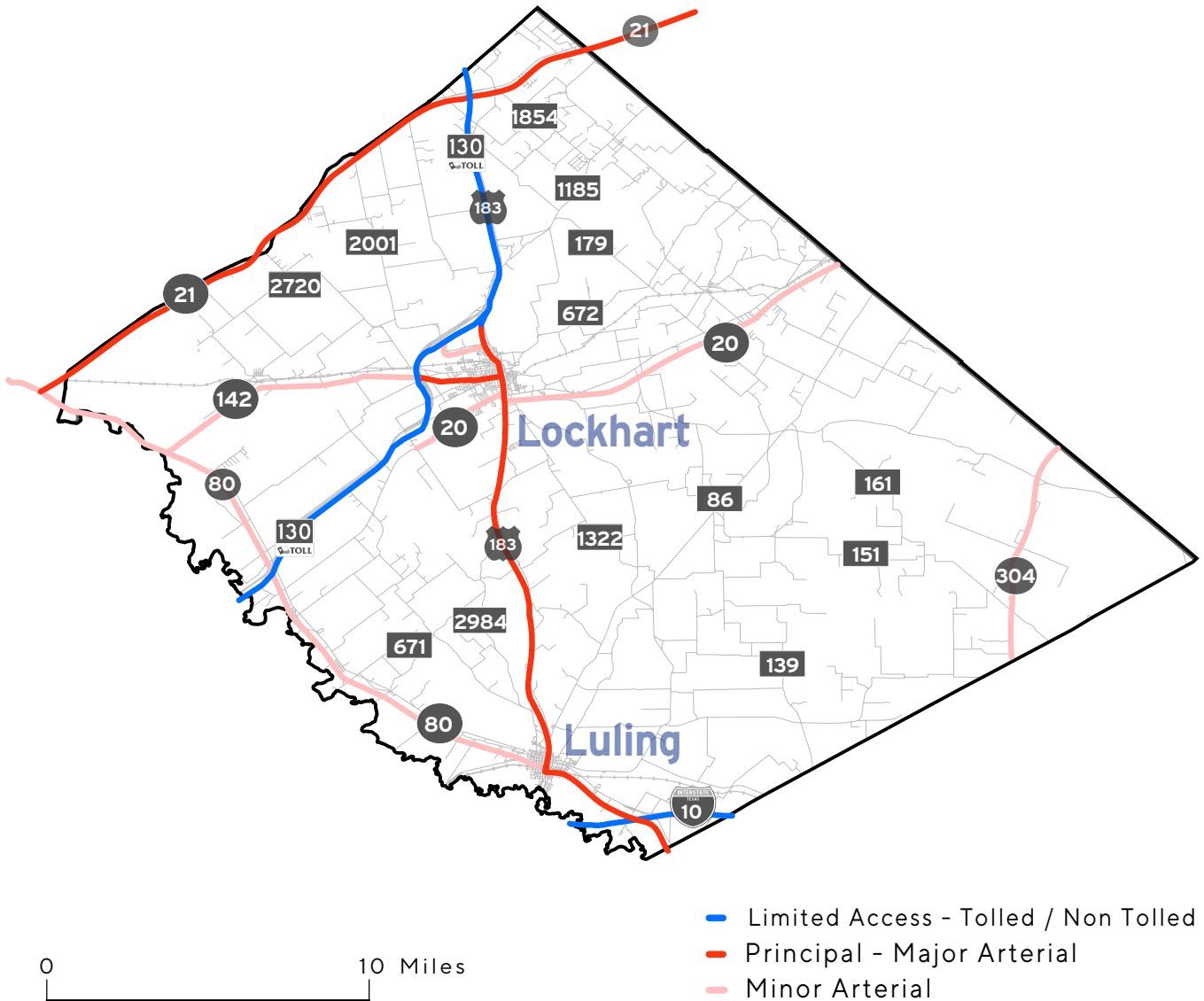


Figure 2.3

Existing Network Performance

Caldwell County residents work and play in different cities across the Capital Area and depend heavily on the arterial network during their commutes. The existing network and its performance is directly related to the interaction between the available supply (roadways) and demand from people. Demand can be described as the number of roadway users, their origins and destinations, and how they traverse the roadway (car, bike, transit, etc.). Supply can be described as the amount and the type of roadways, i.e. miles of bike lanes, lane miles of roadways for automobiles and transit. Performance is a measure of the relationship between supply and demand. Roadway performance can suffer when demand is greater than supply. The root cause is often due to the fact that the supply is not appropriate for the demand, there is a lack of additional choices in the wider network, or the function of the road conflicts with how it has been designed to balance access and mobility concerns.

Travel times of people are impacted by both supply and the access to facilities, whether it be roadways, bicycle lanes, or pedestrian facilities. Figure 2.4 summarizes how supply of different facilities impacts overall mobility in the region. The majority of centerline miles in Caldwell County are classified as **Local Roads (37%)**.

Type	Percent of Centerline Miles by CAMPO Regional Classification Type ¹						
	Bastrop	Burnet	Caldwell	Hays	Travis	Williamson	CAMPO Region
Limited Access Route	3%	0%	1%	6%	10%	4%	6%
Tolled Limited Access Route	0%	0%	8%	0%	7%	5%	5%
Expressway/Regional Connector	21%	12%	17%	17%	29%	25%	23%
Minor Arterial	20%	8%	26%	25%	17%	29%	21%
Collector	14%	30%	11%	14%	2%	2%	8%
Local	42%	50%	37%	38%	35%	35%	37%
Total Network Miles	497	386	433	649	1,979	1,502	5,446

Figure 2.4

Vehicle miles traveled (VMT) represents the demand on the regional roadway network. Today, over **1.5 million** vehicle miles are traveled each day in Caldwell County (approximately **3%** of the entire Capital Area).

Vehicle Miles Traveled by County ¹		
County	VMT	% VMT
Bastrop	2,301,000	4%
Burnet	2,258,000	4%
Caldwell	1,676,000	3%
Hays	7,251,000	12%
Travis	30,273,000	53%
Williamson	13,733,000	24%
Total	57,492,000	100%

Figure 2.5

¹ 2021 baseline represents the current transportation network performance

2024 Caldwell County Transportation Plan

Vehicle Hours Traveled by County ¹		
County	VHT	% VHT
Bastrop	45,000	3%
Burnet	51,000	4%
Caldwell	32,000	2%
Hays	161,000	12%
Travis	796,000	58%
Williamson	296,000	21%
Total	1,381,000	100%

Figure 2.6

Vehicle hours traveled (VHT) represents the time spent on the network each day. Caldwell County drivers spend over **30,000 hours** a day traveling within the county (approximately **2%** of vehicle hours traveled within the entire region).

VMT and VHT by Functional Class in Caldwell County ¹		
Functional Class	VMT	VHT
Limited Access	133,000	2,000
Regional Arterial	811,000	17,000
Minor Arterial	309,000	6,000
Collector	40,626	990
Toll Facilities	274,000	3,000
Other	110,000	2,000
Total	1,676,000	32,000

Figure 2.7

Almost **50%** of the VMT in Caldwell County occurs on Regional Arterials, while more than **70%** of VHT is on the county-wide arterial network.



¹ 2021 baseline represents the current transportation network performance

Network Connectivity

The structure of the roadway network plays a significant role in determining the effectiveness of travel and impacts the form and function of communities. Ideally, and in congruence with the goals and vision of the Plan, arterials should contribute to a well-connected, efficient network that provides safe, direct, redundant, and convenient access for multiple modes of transportation (including motorized and non-motorized modes). Arterials can and should provide a wide range of travel opportunities with varying speeds, using a broad set of cross-sections, for different travel purposes and various context zones (urban, suburban, rural). Today Caldwell County's arterials are under-performing and lack the necessary connectivity and redundancy for efficient transportation. Due to a variety of constraints, additional demand is put on the limited access roadways. As the arterial network is improved, volume can be shifted to take the load off the limited access corridors.

This Plan evaluates the existing arterial network and assesses the existing policies to achieve these goals mentioned above. Building upon a solid understanding of current conditions, the Concept Plan acts as a guide for future network development and provides tools to reach the vision for the arterial network.

Connectivity is key, as no single roadway can provide utility without connecting to other roadways. Today, limited access roadways do not have sufficient arterial support as they carry the brunt of the volume and demand in the Capital Area. A better connected road network can reduce VMT and VHT by providing more direct routes between origins and destinations, while a lack of connectivity often causes circuitous and indirect trips.

A better connected road network improves VMT by providing more direct routes between origins and destinations

Road networks that lack connectivity often cause circuitous, indirect trips.



Network Redundancy

Redundancy is a key feature of a connected network because it provides alternative routing to destinations that may be needed due to construction, extreme congestion, or roadway incidents. It is extremely important to emergency response services, but it is often overlooked in network planning and design that tends to focus on corridor improvements. There are very few communities in the Capital Area that specifically reference network redundancy or include alternative routing, except when requiring a minimum of two access points to new subdivisions. This is a holdover of traditional subdivision planning that has occurred in the past 50 years.

Block Dimensions

Block dimensions (block length, face, or size), intersection density, street density, connected node ratios, the connectivity index (CI), grid pattern, and pedestrian route directness provide different ways to measure connectivity and redundancy in a network.^{2,3} Further definition and methodology for evaluating these variables are provided in greater detail in the RACI.

Intersection Density

The Caldwell County Intersection Density Map, Figure 2.8, illustrates where intersection density is greatest. Generally, intersection density is greatest within urban areas. The analysis identifies Lockhart and Luling with the highest intersection densities in the county. Block lengths within Lockhart and Luling range from 300 to 500 feet with a distribution of approximately 12 intersections per mile.

Factors Limiting Connectivity

Various factors can limit the connectivity of a transportation network, including geographic barriers (e.g. water features like rivers and lakes); man-made barriers (e.g. railroads, roadway viaducts, and other existing infrastructure); ROW constraints in developed or protected areas; and safety hazards (turns or slopes that limit motorists' line of sight). Railroad crossings in Lockhart and Luling limit connectivity more than any other factor.



² Victoria Transportation Institute Online Encyclopedia. Roadway Connectivity, 2010. Accessed at <https://bit.ly/23p81Si>

³ Metro (2004), Street Connectivity: An Evaluation of Case Studies in the Portland Region.

Intersection Density

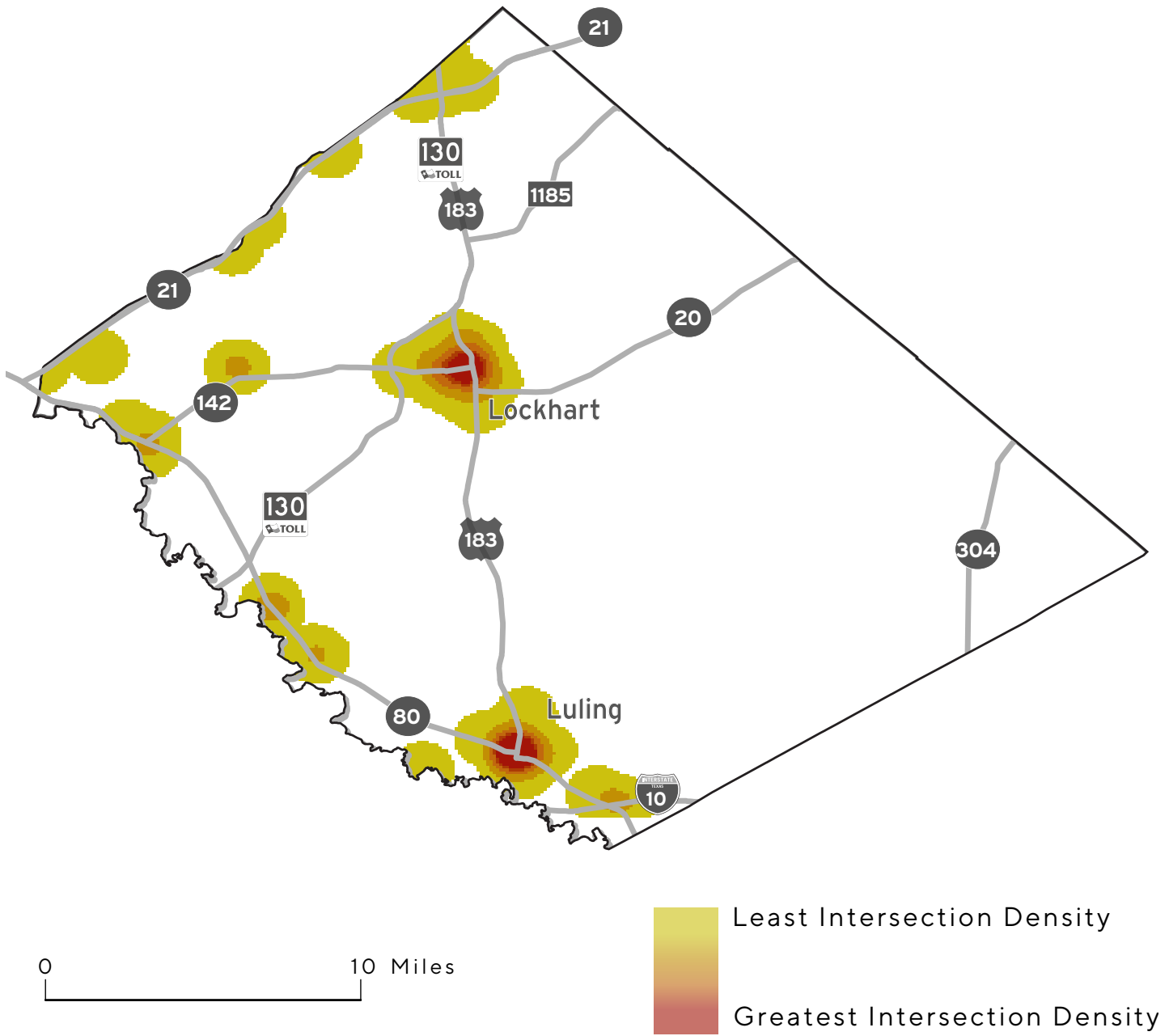


Figure 2.8

Safety Analysis and Traffic Generators

The Crash Rates and Dangerous Corridors Map, Figure 2.9, identifies roadway segments that experienced more than two times the statewide average crash rate for the same period (years 2014 – 2016) as defined by TxDOT’s statewide crash statistics reports.⁴ In addition to the crash rate analysis, CAMPO worked with municipalities and residents as part of the outreach process for the CAMPO Regional Active Transportation Plan to identify corridors that are perceived to be dangerous, particularly related to pedestrian and bicycle concerns. Better management of access to driveways, as well as collector and local roads, along these arterials is a key factor to improve safety since many rural roads have faster moving traffic and blind curves.

Traffic generators like, employment centers and commercial districts, dictate why and where people travel. In Caldwell County, traffic generators are most prominent near the Cities of Lockhart and Luling. When prioritizing roadway improvements, an understanding of where traffic generators are and where they may be in the future can help to appropriately accommodate the county’s growth and lead to a more efficient use of resources.

SH 80 to the west near Hays County and to the east in Luling and near Gonzales County has the highest crash rates of any major roadway in Caldwell County. Input from local government representatives suggested the need for intersection and signal enhancements along SH 80 and SH 21. Local feedback also identified the need for grade separations to bypass railroad intersections. Depending on where users are traveling to/from, they may encounter two to three railroad crossings during a single trip in Caldwell County



⁴ Texas Motor Vehicle Crash Statistics. TxDOT, 2016. Accessed at <https://bit.ly/2YZ6CCj>

Crash Rate and Dangerous Corridors

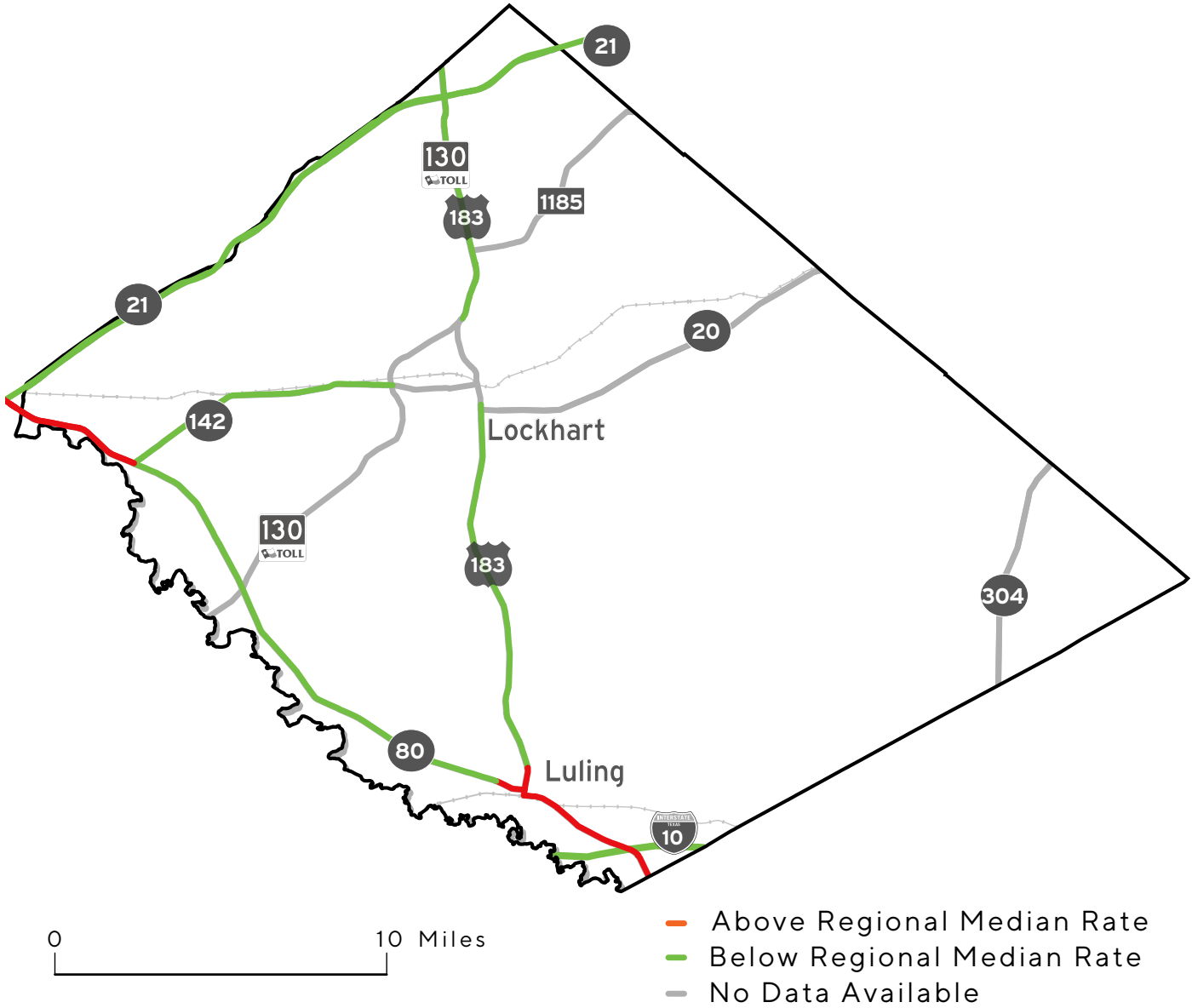


Figure 2.9

Emergency Response

Travel time and network performance are vital to the safety and well-being of residents, as they are significant performance indicators for emergency response times. The Caldwell County average emergency response-time service goal for Emergency Medical Services (EMS) is 14 minutes without traffic delays. As indicated in Figure 2.11, there are several areas of Caldwell County where response times are longer than the identified goal. These areas have inadequate response times due to poor road connectivity, barriers like railroads, and traffic congestion, especially on arterials.

Caldwell County’s most populous towns, Lockhart and Luling, have adequate emergency response times; nonetheless, enhanced network connectivity can improve travel times and reduce the size of the emergency response challenge zones for the rural parts of the county. However, new arterials and increased capacity may not always be the most effective ways to serve these areas. Additional emergency response infrastructure could also help close the gaps.

Local codes and ordinances can also help create a more connected network and improve emergency management. Figure 2.10 outlines the share of communities within the Capital Area that have enacted specific redundancy or emergency management policies. Within Caldwell County, none of the local jurisdictions have emergency management plans in place.

Redundancy/Emergency Management Policy Summary		
Policy		Number of Communities’ Codes/Ordinances with Related Policy
1	Requires More Than One Subdivision Access Point	13 of 24
2	Has Evacuation Route Policy	5 of 24

Figure 2.10

Emergency Response

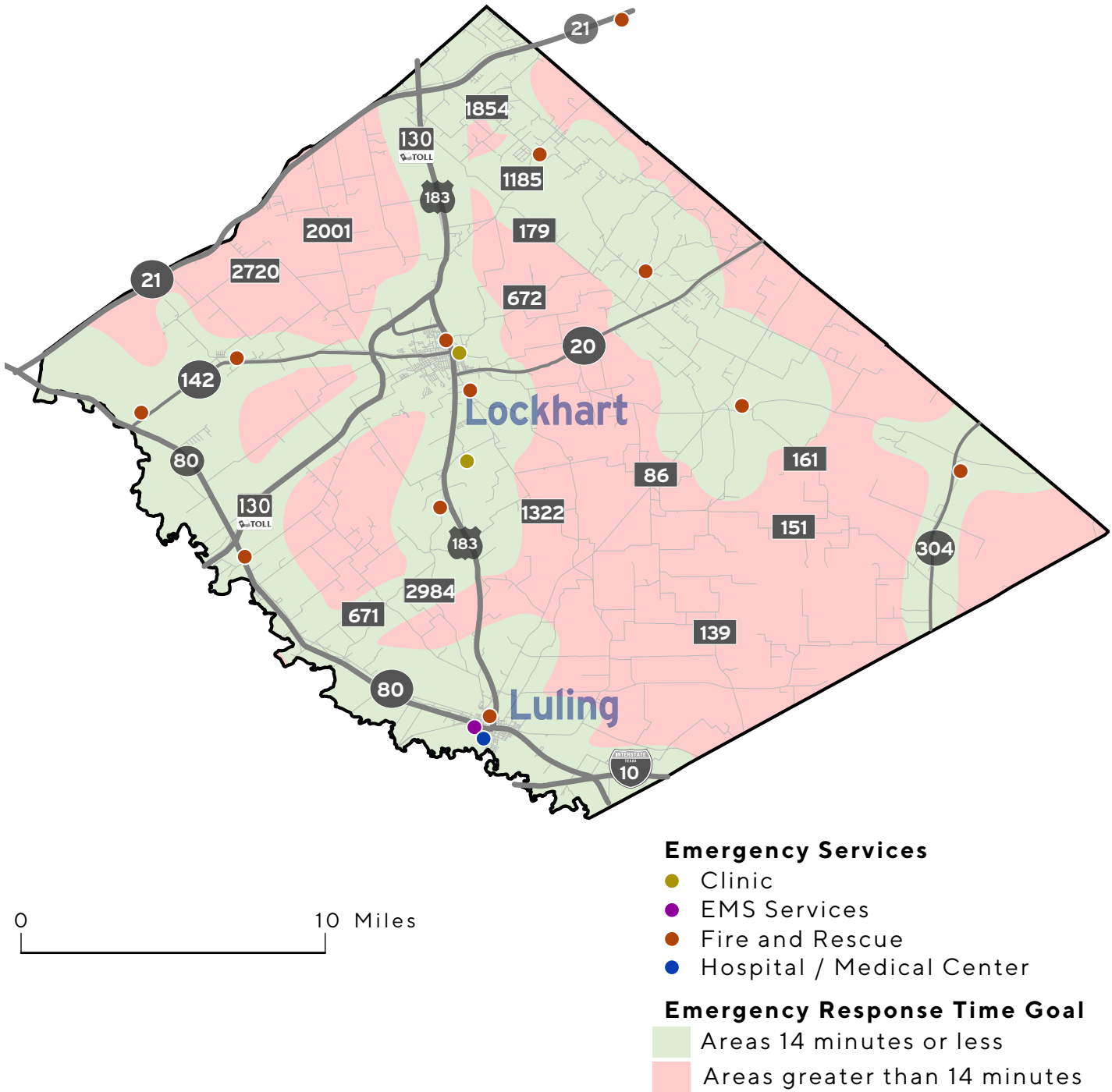


Figure 2.11

Vulnerability

Consideration of vulnerable populations is another significant aspect of CAMPO's work. A portion of the Capital Area's population is considered vulnerable which includes the traditional characteristics from Title VI/ Environmental Justice definitions established by the Federal Highway Administration (FHWA). Title VI of the Civil Rights Act and Executive Order 12898 (Environmental Justice) are laws that forbid discrimination based on race, color, national origin, and minority/low income status. CAMPO expands on these characteristics to include others such as school-aged children, seniors, and persons with disabilities. People considered vulnerable can require special consideration with regards to transportation. Whether it's transportation to and from medical appointments, shopping, work, or emergency evacuations, many of these people rely on public transportation systems, which are less accessible in rural areas. Many may use transportation provided by non-profit organizations, senior services, or city agencies. Seniors with disabilities who have low incomes represent a particularly vulnerable group.

Those who may require transportation assistance include:

- Individuals who cannot independently get to a transit stop,
- Individuals who live independently and require transportation from their location,
- Individuals who live in a group setting (e.g., group home, assisted living center) that require transportation directly from their location,
- Individuals in acute care/in-patient facilities,
- Individuals with disabilities, and
- Individuals with limited English proficiency.

Caldwell County has a moderate number of vulnerable populations as compared to the rest of the Capital Area. Vulnerable populations tend to be clustered in the more developed areas of the county, as is shown in Figure 2.12. Not all of these groups require the same considerations in the planning process, but a well-connected, multi-modal network that facilitates inter-modal activities can make a significant difference in improving the quality of life for vulnerable populations.

Vulnerability

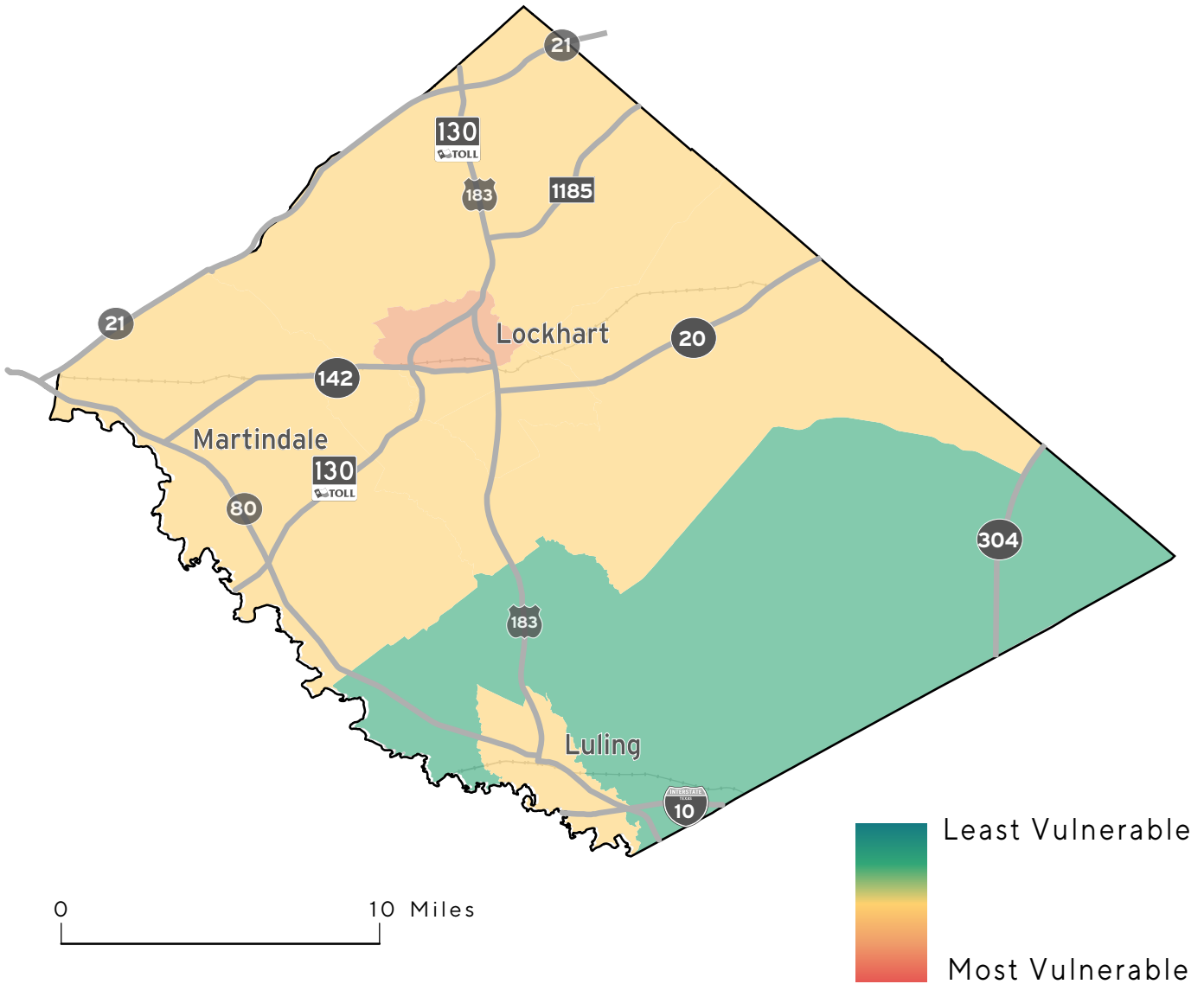


Figure 2.12

Environmental Considerations

Protecting and preserving the environment is one of the six identified goals of the RACI and for this Plan. Careful and thoughtful consideration should be given to sensitive and/or limited environmental resources within Caldwell County. If new or improved roadways are to impact environmentally sensitive areas such as floodplains, karst features, and prime farmland, additional consideration for applying relevant context sensitive solutions will be necessary.

The Soil Plasticity Map, shown in Figure 2.13, is particularly helpful for transportation planning as soil plasticity contributes to the overall life-cycle cost for developments and transportation infrastructure. Soils, particularly clay soils, contract and expand causing damage to infrastructure like road beds. Any extreme may add life-cycle costs or require additional engineering techniques. Caldwell County contains a gradient of plasticity soil levels with medium and low plasticity soils most common on the eastern parts of the county and high plasticity soils found in the western areas.

Context Sensitive Design

Context Sensitive Design (CSD) incorporates stakeholder input and local environmental characteristics into the design and development of roadway corridors. Given the aforementioned environmental considerations, CAMPO uses CSD tools to help achieve its goal of fostering a system that promotes prosperity and vitality for all communities across the region. CSD goes beyond a traditional “one size fits all” roadway design approach, and instead tailors solutions to meet the needs and desires of affected stakeholders and fit the specific environments in which they are being constructed. CAMPO recognizes that each community is unique and CSD helps align roadway design with evolving road and community characteristics.



Soil Plasticity

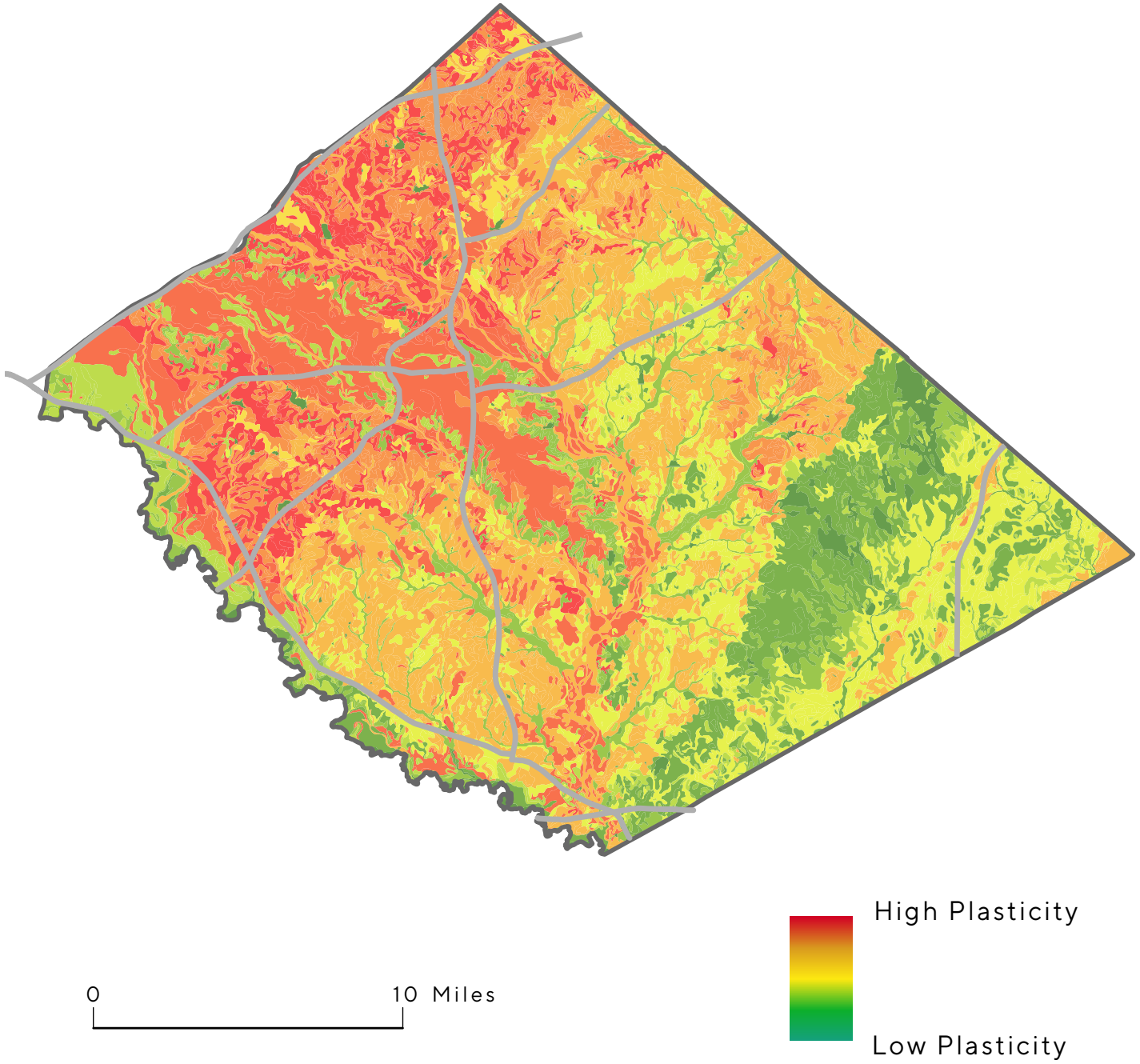


Figure 2.13

2024 Caldwell County Transportation Plan

Caldwell County Growth

Historically, Caldwell County's more rural pattern of land use has been supported by a network of local, county, farm-to-market, and arterial roadways that have satisfied county residents' transportation needs. As this pattern changes and demand from development in both the county's historic developed centers and areas bordering high-growth corridors in neighboring counties grows, there will be increased need for new connections. In 2020, Caldwell County had a population of 45,883 and is projected to increase its population by 127% to 104,000 people by 2045. Developers have either platted or proposed approximately 20,000 single family homes, 30 acres of mixed-use, plus commercial and industrial jobs along the western edge of Caldwell County. A strong and connected arterial network facilitates local economic development, especially freight transportation, in each of the county's developed areas.

SH 21 Case Study

SH 21 from SH 80 to Arnold Avenue was chosen as a test case corridor in the RACI because due to anticipated growth along the corridor; population is anticipated to grow by a factor of 4, and traffic volumes are forecasted to increase by 20% to 45,000 vehicles per day by 2040. The roadway is considered a principal arterial and is recommended to be improved from its current 4-lane undivided cross section to a 6-lane divided cross section, as shown in Figure 3.6. Safety and mobility enhancements along this corridor could potentially accelerate nearby planned residential developments along the corridor by improving access to SH 80 and IH 35. If the 122 acres of the undeveloped property transitions to residential lots comparable in size to the surrounding neighborhoods over the next 20 years, this could result in over 650 new residential units and over \$150.0 million in new taxable value.

Western Caldwell County Transportation Study

The Western Caldwell County Transportation Study (WCCTS) was conducted by CAMPO in partnership with Caldwell County. The purpose of the study was to evaluate regional mobility and facilitate system connectivity between major roadway facilities including IH 35 and SH 130 in the western portion of the county. The study evaluated current and future conditions including traffic patterns, economic development, environmental conditions, and demographic forecasts. Based on this analysis, potential roadway alignment alternatives were developed and evaluated through a rigorous set of criteria and several rounds of public involvement. The study process recommended the improvement of SH 142 between SH 130 and SH 80 and to provide a new roadway connection between SH 142 south of Maxwell to SH 21 utilizing new location and the existing CR 238 (William Pettus Road) alignment. The study will conclude with preliminary engineering, design, and environmental clearance of the recommended alternatives to be furthered in the development process by Caldwell County.

Luling Transportation Study

In 2018 CAMPO worked closely with Caldwell County, the city of Luling, and TxDOT to address congestion and mobility issues around the city of Luling. The Luling Transportation Study assessed current and future transportation needs within Luling, including the potential viability of a relief route. The study considered factors including safety, mobility benefits, environmental suitability, and community character and recommended constructing a new roadway alignment to directly connect Austin Street (SH 80) to Pierce Street (US 90) with an overpass over Davis Street and the Union Pacific Railroad tracks. With these improvements, heavy truck traffic entering and leaving Luling on SH 80 west would avoid congestion and safety issues associated with the existing at-grade rail crossings.

Freight

The Texas Freight Mobility Plan analyzed potential 2045 freight demand and showed overall statewide tonnage is expected to nearly double between 2016 and 2045. Several roadways in the Capital Area experience a Level of Service (LOS) F, a standard measurement for peak-period roadway performance, in existing conditions (2016) as well as 2045. This means that demand is exceeding the ability to serve roadway users and results in significant delays and congestion. Because the mining and construction industry account for a large number of jobs in Caldwell County, freight mobility and connectivity are essential to the county's economic vitality. The TxDOT Texas Highway Freight Network in Caldwell County includes IH 10, SH 21, SH 130, SH 80, and sections of US 90 and SH 142.⁵



⁵ TxDOT Texas Highway Freight Network. TxDOT, 2020. Accessed at bit.ly/3lyrINF

CHAPTER 3 CONCEPT PLAN

RACI Scenario Planning

The Caldwell County Concept Plan is a product of the RACI scenario planning methods, built upon the CAMPO 2040 Regional Travel Demand Model. The scenario planning networks were developed in coordination with the RACI Steering Committee to show how varying improvements to the arterial network would benefit regional connectivity. These networks and the eventual results of the scenario planning exercise were presented to stakeholders throughout the Capital Area. For any given year, the model quantifies the vehicular demand for roadways and provides resulting travel times based on that demand. Specific details related to the development of the Capital Area Concept Plan can be found in Chapter 4 of the RACI.

Model networks were analyzed in the RACI to evaluate varying suites of transportation improvement packages for Caldwell County. The first network, Future No-Build, represents the region's current roadways with the projected 2040 population. This Future No-Build network provides a look into the future performance of roadways if no improvements are made to the network despite population growth over the next 20 years. Network A, as it was identified in the RACI, is a network where only the region's most significant arterials are improved, and new major arterials are added to eliminate gaps within the regional connections. Network B was developed to qualitatively illustrate how facilities could increase person throughput by utilizing lane management techniques like high-occupancy vehicle (HOV) lanes. The Combined Concept Network, Network C, builds upon the arterial network developed in Network A with more emphasis placed on increasing the number and connectivity of minor arterials throughout the region. Network D, also known as the Regional and Supporting Connections Network, added supporting minor arterial improvements that provide the greatest contribution to the top tier roadways in Caldwell County. The overall results of the RACI model network analysis illustrate how network performance will worsen as Caldwell County grows if no network changes are made. However, the results show that strategic investments can have a substantial positive impact to the regional network. The network results can be found in Chapter 4 of the RACI.

The results of this scenario planning exercise specific to Caldwell County can be found in Figure 3.1, including the Regional Connector Network, which forms the arterial network recommended by this Plan.

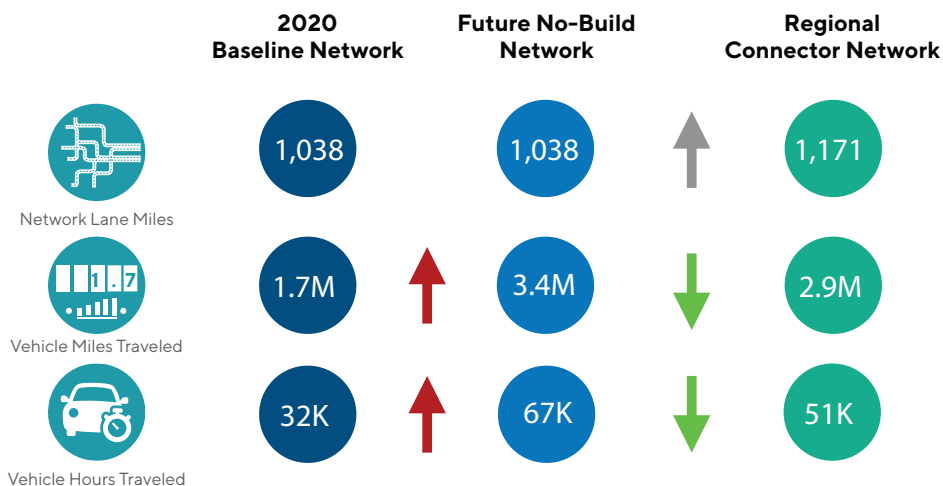


Figure 3.1

Performance Measures



Coding improvements include digitizing the existing, planned, and desired roadway connections into the regional model network and assigning attributes such as number of lanes and functional class based on the proposed improvement. The Travel Demand Model provides performance metrics which are used to evaluate and compare scenarios. The performance metrics are described below:

Centerline Mileage – the sum of the length of each roadway in the region. Increasing centerline mileage is equivalent to adding new roadways to the region’s current network.

Network Lane Mileage – the sum of the length of each roadway multiplied by the number of lanes within each segment of roadway. Increasing lane mileage is equivalent to adding new roadways and/or widening existing roadways. Adding lane mileage increases roadway capacity.

Vehicle Miles of Travel (VMT) – represents vehicular demand. VMT is calculated by multiplying the number of vehicles on a roadway segment by the length of that segment. VMT can be calculated for individual roadways or for the entire regional roadway network.

Vehicle to Capacity Ratio (V/C) – represents how “full” a roadway is. By dividing demand (VMT) by the capacity (lane miles) the result is the V/C ratio. A V/C under .85 means the roadway is operating at or near free-flow conditions. A V/C ratio of .85 to 1 means that a roadway segment is operating near or at full capacity. A V/C ratio above 1 means the roadway segment is operating over capacity.

Vehicle Hours of Travel (VHT) – the amount of time vehicles are on the roadways. VHT is calculated by multiplying the number of vehicles on a roadway by the travel time of the roadway. VHT typically decreases when improvements are made. When VHT is decreased, network speed is increased.

AM and PM Peak – time period during the morning (6:00am – 9:00am) and afternoon (3:30pm – 6:30pm) commute to and from work. The AM and PM peak are periods of the day where traffic demand is at its highest point.

V/C ratio Ranges	
V/C Ratio	Description
0.0 - 0.85	Roadway operating at 85% of its capacity or less; free-flow traffic to slow traffic
0.85 - 1.0	Roadway operating between 85% and 100% of its capacity; stop and go
1.0 - 1.5	Roadway operating between 100% and 150% over capacity; congested
1.5 - >1.5	Roadway operating at over 150% of its capacity; “parking-lot” traffic

Figure 3.2

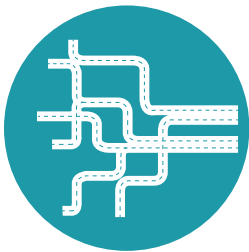
2024 Caldwell County Transportation Plan

2024 Baseline Network

The Baseline Network includes the current roadway network and roadway improvements contained in the Transportation Improvement Program (TIP). Roadway improvements within the TIP are funded for construction and will be completed in the next 3-5 years.

Caldwell County contains approximately 8% of the total lane mileage within the Capital Area and serves approximately 4% of the total demand, accounting for 3% of the total VHT within the region. The Baseline Network model results are shown below.

2024 Baseline Network performance measures



Network Lane Mileage 1,038



VMT 1,676,000

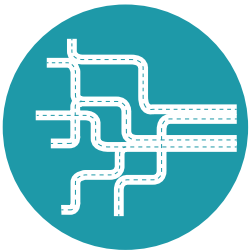


VHT 32,000

Future No-Build Network

The Future No-Build Network differs from the Baseline Network in that the population and employment are based on the 2040 adopted demographic forecast found in CAMPO’s 2040 Transportation Demand Model. This network assumes a doubling of the region’s current population and no additional roadway improvements. This type of scenario is often referred to as a “Do-nothing” scenario and is used to compare the impacts of improvements made in other scenarios. The key takeaway for this network’s analysis is that as lane miles remain constant, roadway demand is expected to increase by 102% by 2040. The Future No-Build Network model results are shown below.

Future No-Build Network performance measures



Network Lane Mileage 1,038



VMT 3,393,000



VHT 67,000

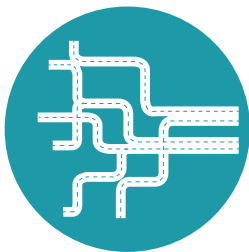
Recommended Arterial Network

The Recommended Arterial Network utilizes the Regional Connector Network from the RACI and recommendations from the Luling Transportation Study and the Western Caldwell County Transportation Study. The Recommended Arterial Network includes adding capacity on SH 21, SH 142, SH 80, and US 183; adding a Principal-Regional Corridor from SH 142 to SH 21; upgrading collectors such as SH 20, SH 304, FM 1322, FM 86, and FM 179 to Regional Corridors; and a new alignment for SH 80 through Luling. These upgraded and new arterials will serve and support existing communities and future development in Caldwell County. Figure 3.3 showcases the improvements that form the Recommended Arterial Network. Figures 3.4 to 3.11 shows examples of what these roads could look like. Figure 3.12 provides a full list of the Recommended Arterial Network improvements.

It is imperative to note that the lines on the map do not indicate specific alignments. Before beginning construction, an in-depth environmental and engineering review process will have to be conducted for each roadway before construction can begin. It is also important to note that this map does not show functional classification changes for Caldwell County.

The Recommended Arterial Network model results are shown below. Compared to the Future No-Build Scenario, the improvements from this network result in a reduction of approximately 531,000 VMT and roughly 16,000 VHT.

Recommended Arterial Network performance measures



Network Lane Mileage 1,171



VMT 2,862,00



VHT 51,000

Recommended Arterial Network

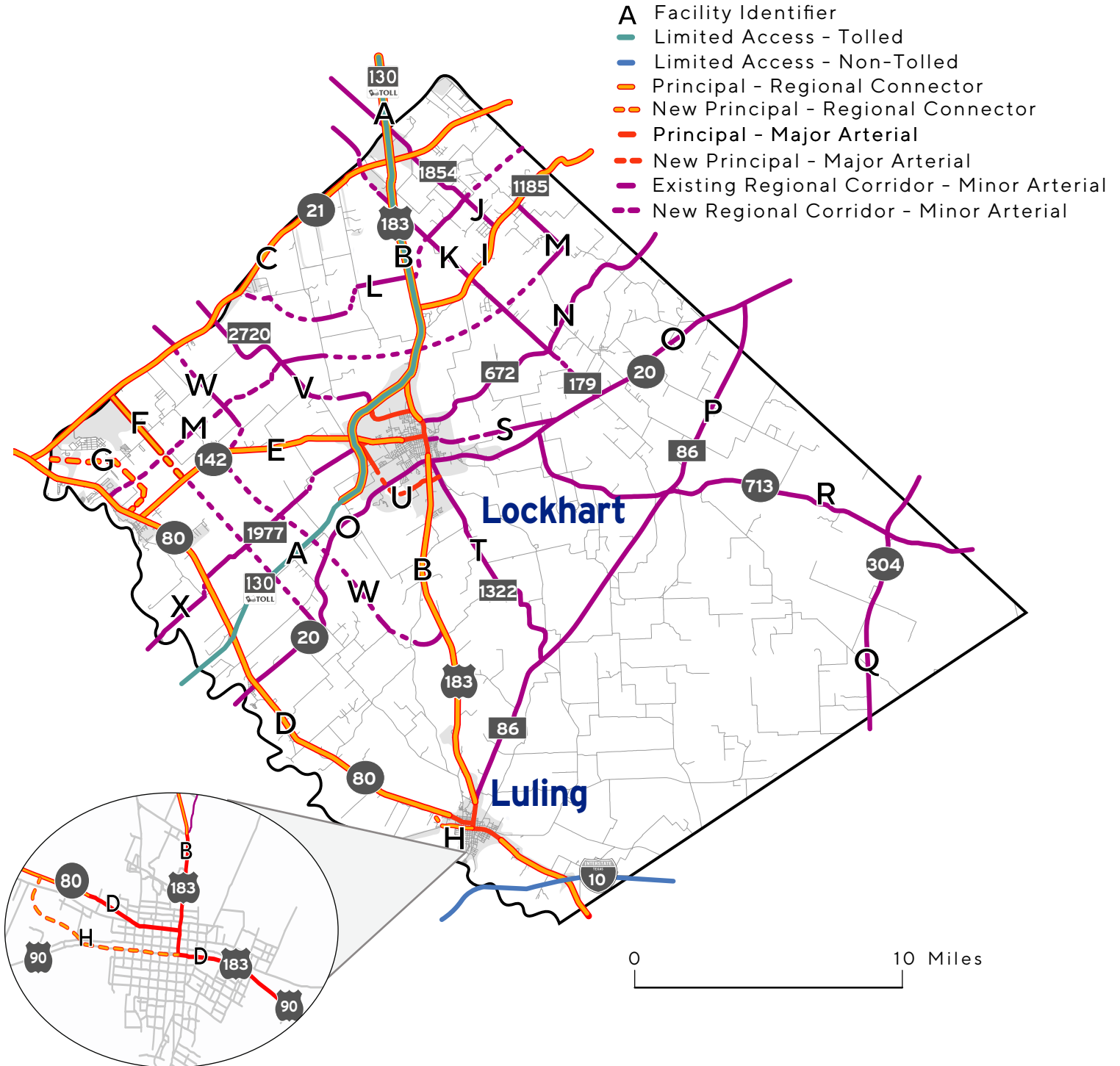


Figure 3.3

Recommended Arterial Network Cross-Sections

While roadway design will ultimately be determined through future studies, the following cross-sections (Figures 3.4 to 3.11) can help visualize how the improved roadways found in the recommended network may function. The RACI offers a comprehensive set of cross-sections in the Pattern Book, starting on page 292.

Limited Access

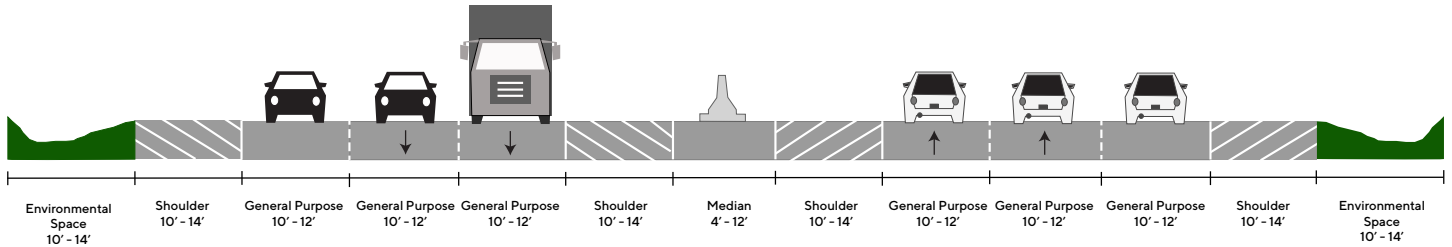


Figure 3.4

ROW: 120' - 175'

Principal - Regional Connector 4-Lane Divided with Shoulder

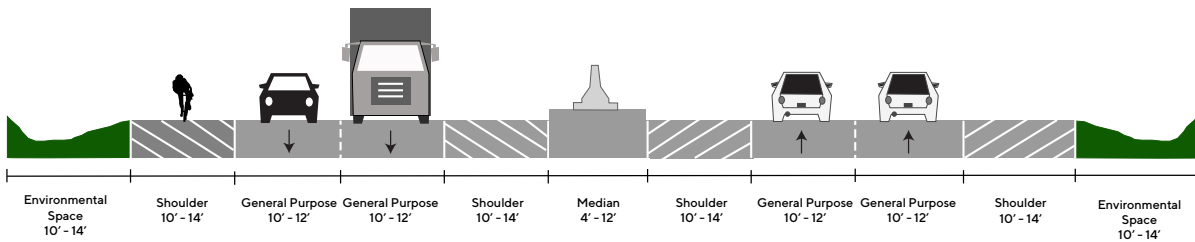


Figure 3.5

ROW: 90' - 150'

Principal - Major Arterial 4-Lane Divided

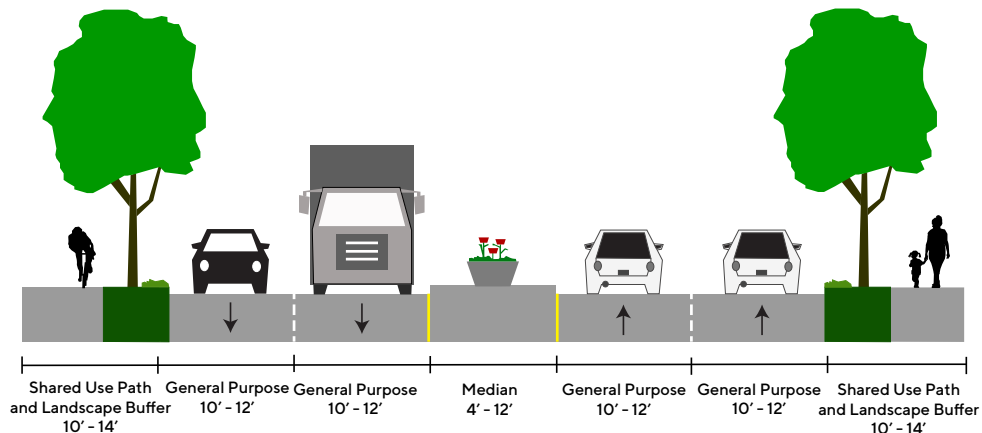


Figure 3.6

ROW: 75' - 100'

Regional Corridor - Minor Arterial 3-Lane Undivided

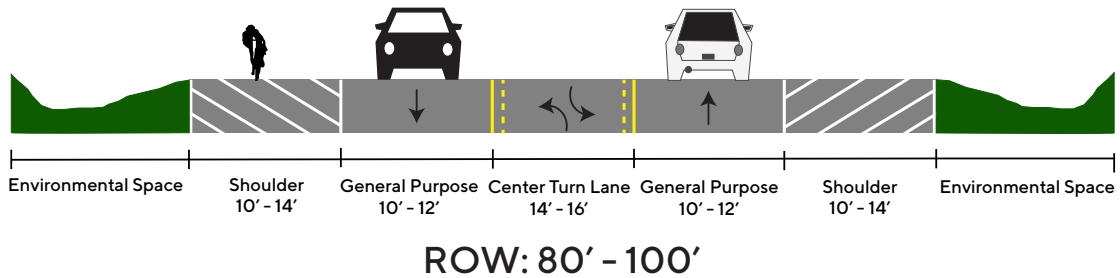


Figure 3.7

Principal - Regional Connector 4-Lane Divided with Shared-Use Path

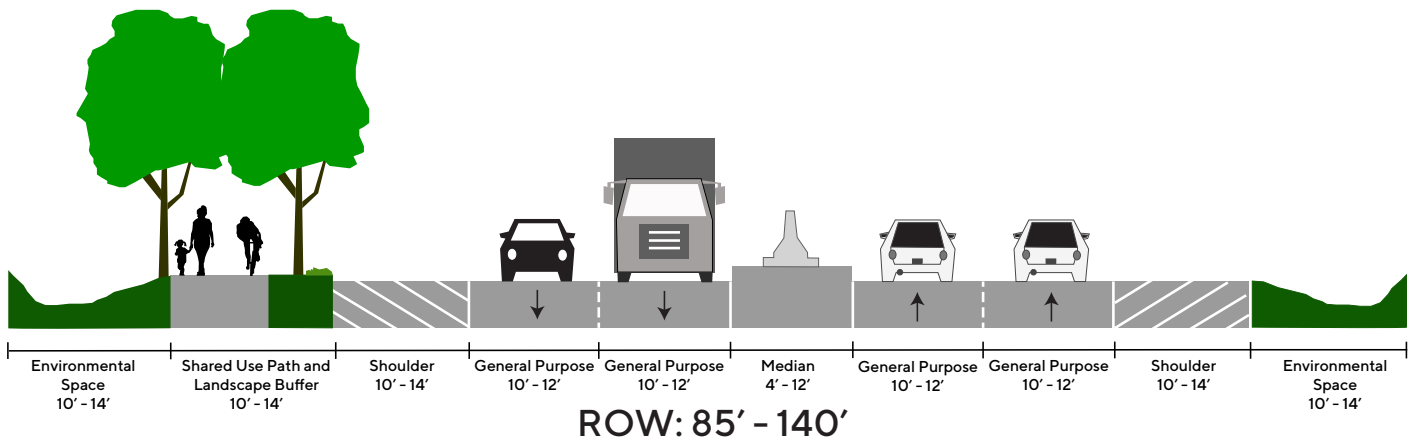


Figure 3.8

Regional Corridor - Minor Arterial 4-Lane Divided

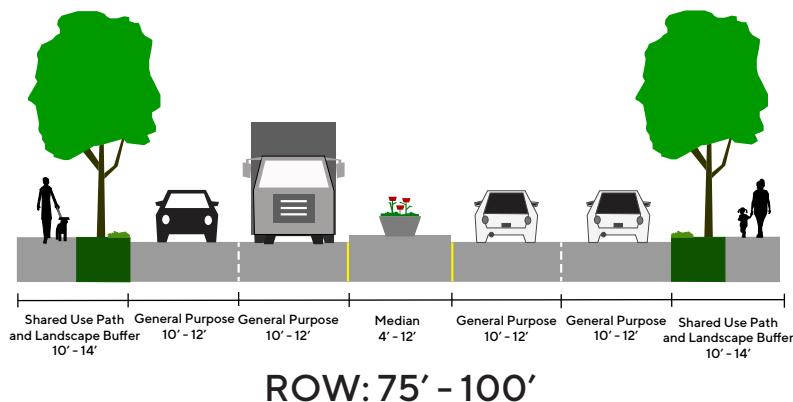


Figure 3.9

Regional Corridor - Minor Arterial 2-Lane Undivided

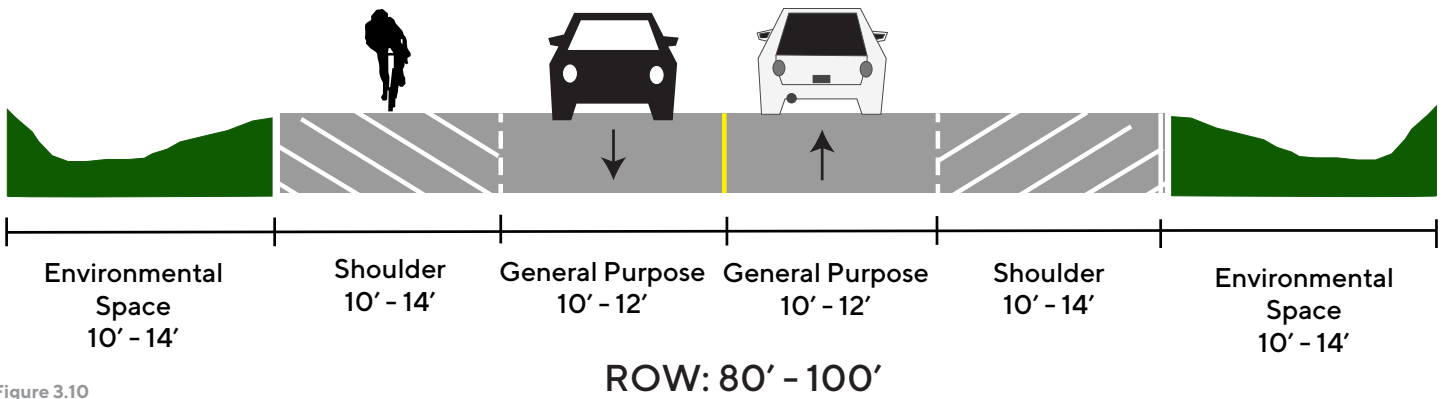


Figure 3.10

Regional Corridor - Minor Arterial 4-Lane Undivided

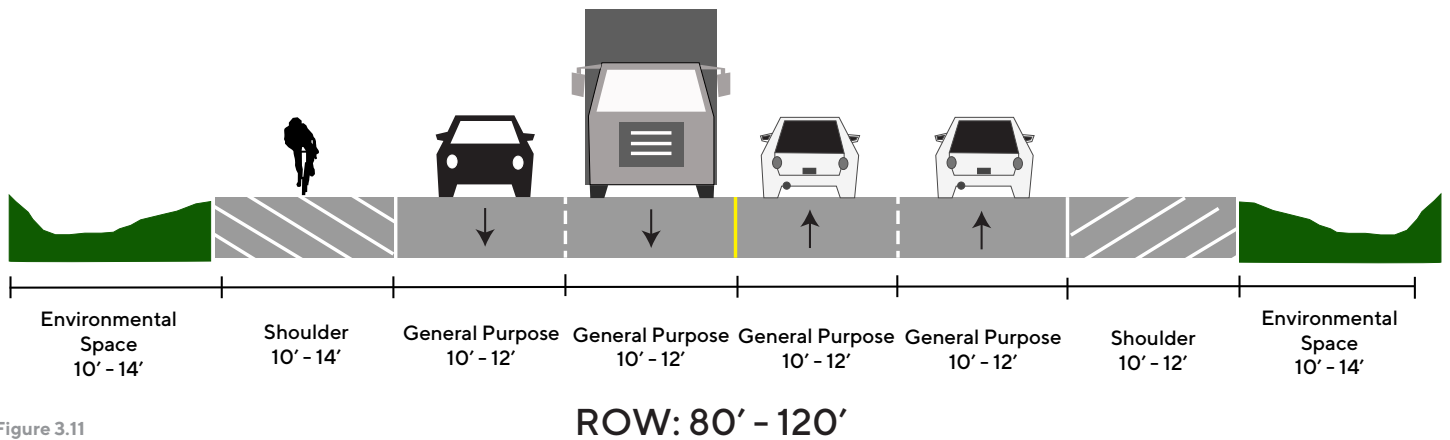


Figure 3.11

Projecting Costs

While this Plan does not offer preliminary or anticipated costs for the recommended network, the RACI presented a preliminary programmatic cost analysis based upon comparable, planned project cost improvements in 2019 dollars. The programmatic costs are based upon additional lane miles in each functional classification beyond what is in the existing and committed network. The lengths utilized represent general corridor locations.

To develop a preliminary programming cost, research was conducted to collect costs from similar projects on a cost per lane mile basis. The Williamson County Corridor Program, TxDOT's Mobility35 program, and various national publications from DOT's (Arkansas DOT, Utah DOT, Oklahoma DOT) were reviewed and used to develop costs per additional lane mile for each of our three major categories: Regional Connector, Major Arterial, and Minor Arterial. The Williamson County Corridor and Mobility35 Programs were utilized to create the base case per category and used the national publications to verify the numbers that were developed. Programmatic costs evaluated ranged from roughly \$1 million to \$7 million per lane mile depending on project complexity. Based upon these numbers a cost per lane mile was developed for each roadway classification. All comparable costs include only construction costs.

The per additional lane mile cost developed for the three categories is: Limited Access Facilities - \$2,500,000/lane mile, other Regional Connectors and Major Arterials - \$2,000,000/lane mile, and Minor Arterials - \$1,900,000/lane mile. These per lane mile costs represent an average across the total study. In general, these costs include standard improvements including pavement and base materials, drainage improvements, basic pedestrian accommodations, basic vegetation and stabilization, basic retaining walls, safety treatments (guardrail, barrier, etc.), and other ancillary improvements.

Due to the high-level nature of these costs, an additional 30% contingency was added to each segment. This contingency accounts for unforeseen project costs as well as additional project costs such as Traffic Management Systems (digital message signs, traffic counters, communications cables, etc.), aesthetic treatments, and more robust bicycle and pedestrian improvements. An additional 20% was added to the total cost to account for project development, engineering, and construction engineering and inspection costs.

Additional detail and a listing of the preliminary programming costs developed for the RACI starts on page 162 of the RACI report.

Facility (Facility Identifier)	From	To	Current - 2018			Future - 2045		
			Design Type	Functional Classification	Number of Lanes	Design Type	Functional Classification	Number of Lanes
SH 130 (A)	Travis County Line	SH 130 / US 183 Interchange	Divided	Limited Access	4	Divided	Limited Access	4
	SH 130 / US 183 Interchange	Guadalupe County Line	Divided	Limited Access	4	Divided	Limited Access	4
US 183 (B)	Travis County Line	SH 130 / US 183 Interchange	Divided	Principal Arterial	4	Divided	Principal - Regional Connector	6
	SH 130 / US 183 Interchange	Commerce St N	Undivided	Principal Arterial	4	Undivided	Principal - Regional Connector	4
	Commerce St N	Commerce St S	Undivided	Principal Arterial	4	Undivided	Principal - Major Arterial	4
	Commerce St S	FM 2984/ FM 86	Undivided	Principal Arterial	4	Undivided	Principal - Regional Connector	4
	FM 2984/ FM 86	Elm Ave	Undivided	Principal Arterial	4	Undivided	Principal - Major Arterial	4
	Elm Ave	4,600' north of IH 10	Undivided	Principal Arterial	4	Undivided	Principal - Regional Connector	4
	4,600' north of IH 10	1,500' south of IH 10	Divided	Principal Arterial	4	Divided	Principal - Regional Connector	4
	1,500' south of IH 10	Gonzales County Line	Undivided	Principal Arterial	4	Undivided	Principal - Regional Connector	4
SH 21 (C)	Bastrop County Line	2,500' North of SH 130	Undivided	Principal Arterial	2	Undivided	Principal - Regional Connector	4
	2,500' North of SH 130	2,500' South of SH 130	Divided	Principal Arterial	4	Divided	Principal - Regional Connector	4
	2,500' South of SH 130	Hays County Line	Undivided	Principal Arterial	3	Undivided	Principal - Regional Connector	4

2024 Caldwell County Transportation Plan

Facility (Facility Identifier)	From	To	Current - 2018			Future - 2045		
			Design Type	Functional Classification	Number of Lanes	Design Type	Functional Classification	Number of Lanes
SH 80 (D)	Hays County Line	FM 110	Undivided	Minor Arterial	5	Divided	Principal - Regional Connector	4
	FM 110	FM 1979	Undivided	Minor Arterial	2	Divided	Principal - Regional Connector	4
	FM 1979	State Park Rd	Undivided	Minor Arterial	2	Divided	Principal - Regional Connector	4
	State Park Rd	New Facility (H)	Undivided	Minor Arterial	2	Divided	Principal - Regional Connector	4
	New Facility (H)	US 183	Undivided	Minor Arterial	2	Undivided	Principal - Major Arterial	4
SH 142 (E)	US 183	San Jacinto Street	Undivided	Principal Arterial	2	Undivided	Principal - Major Arterial	4
	San Jacinto Street	SH 130	Undivided	Principal Arterial	2	Undivided	Principal - Regional Connector	4
	SH 130	SH 80	Undivided	Minor Arterial	2	Undivided	Principal - Regional Connector	4
CR 238/ New Facility/ Seals Creed Rd (F)	SH 21	UPRR Tracks	Undivided	Local Road	2	Undivided	Principal - Regional Connector	4
	UPRR Tracks	SH 142	New Facility	New Facility	New Facility	New Facility	Principal - Regional Connector	4
	SH 142	Political Road	New Facility	New Facility	New Facility	New Facility	Minor Arterial	2
	Political Road	FM 20	Undivided	Local Road	2	Undivided	Minor Arterial	2

Figure 3.12

2024 Caldwell County Transportation Plan

Facility (Facility Identifier)	From	To	Current - 2018			Future - 2045		
			Design Type	Functional Classification	Number of Lanes	Design Type	Functional Classification	Number of Lanes
New Facility (G)	Hays County Line	SH 80	New Facility	New Facility	New Facility	Undivided	Principal - Regional Connector	4
Luling Relief Route (H)	SH 80	US 90	New Facility	New Facility	New Facility	Undivided	Principal - Regional Connector	4
	New Facility	US 183	Undivided	Major Collector	2	Undivided	Principal - Regional Connector	4
FM 1185 (I)	Bastrop County Line	Lytton Ln	Undivided	Local Road	2	Undivided	Principal - Regional Connector	4
	Lytton Ln	SH 130	Undivided	Major Collector	2	Undivided	Principal - Regional Connector	4
FM 1854 (J)	SH 130	SH 21	Undivided	Local Road	2	Undivided	Minor Arterial	2
	SH 21	FM 1185	Undivided	Major Collector	2	Undivided	Minor Arterial	2

Figure 3.12

Facility (Facility Identifier)	From	To	Current - 2018			Future - 2045		
			Design Type	Functional Classification	Number of Lanes	Design Type	Functional Classification	Number of Lanes
New Facility/ CR 179 (K)	Travis County Line	SH 21	Undivided	Local Road	2	Undivided	Minor Arterial	2
	SH 21	Briar Patch Road	New Facility	New Facility	New Facility	Undivided	Minor Arterial	2
	Briar Patch Road	New Facility	Undivided	Local Road	2	Undivided	Minor Arterial	2
	Homannville Trail	Homannville Trail	New Facility	New Facility	New Facility	Undivided	Minor Arterial	2
	New Facility	FM 1185	Undivided	Local Road	2	Undivided	Minor Arterial	2
	FM 1185	Barth Road	New Facility	New Facility	New Facility	Undivided	Minor Arterial	2
	New Facility	Romberg Road	Undivided	Local Road	2	Undivided	Minor Arterial	2
	Romberg Road	Tumbleweed Trail	New Facility	New Facility	New Facility	Undivided	Minor Arterial	2
	New Facility	SH 20	Undivided	Local Road	2	Undivided	Minor Arterial	2

Figure 3.12

2024 Caldwell County Transportation Plan

Facility (Facility Identifier)	From	To	Current - 2018			Future - 2045		
			Design Type	Functional Classification	Number of Lanes	Design Type	Functional Classification	Number of Lanes
New Facility/ Homannville Trail/ Schuelke Rd/ Elm Creek Rd (L)	Bastrop County Line	FM1854	New Facility	New Facility	New Facility	Undivided	Minor Arterial	2
	FM 1854	Homannville Trail	Undivided	Local Road	2	Undivided	Minor Arterial	2
	Homannville Trail	US 183	New Facility	New Facility	New Facility	Undivided	Minor Arterial	2
	US 183	Rolling Ridge Rd	Undivided	Local Road	2	Undivided	Minor Arterial	2
	Rolling Ridge Rd	Elm Creek Rd	New Facility	New Facility	New Facility	Undivided	Minor Arterial	2
	New Facility	FM 2001	Undivided	Local Road	2	Undivided	Minor Arterial	2
	FM 2001	SH 21	New Facility	New Facility	New Facility	Undivided	Minor Arterial	2
FM 1854/ Bobwhite Rd/ New Facility (M)	Lytton Ln	New Facility	Undivided	Major Collector	2	Undivided	Minor Arterial	2
	FM 1854	Bobwhite Rd	New Facility	New Facility	New Facility	Undivided	Minor Arterial	2
	New Facility	FM 2720	Undivided	Local Road	2	Undivided	Minor Arterial	2
	FM 2720	SH 80	New Facility	New Facility	New Facility	Undivided	Minor Arterial	2

Figure 3.12

Facility (Facility Identifier)	From	To	Current - 2018			Future - 2045		
			Design Type	Functional Classification	Number of Lanes	Design Type	Functional Classification	Number of Lanes
FM 672 (N)	Bastrop County Line	FM 1854	Undivided	Minor Collector	2	Undivided	Minor Arterial	2
	FM 1854	US 183	Undivided	Major Collector	2	Undivided	Minor Arterial	2
FM 20 (O)	Bastrop County Line	US 183	Undivided	Minor Arterial	2	Undivided	Minor Arterial	2
	US 183	Park Road 2037	Undivided	Minor Arterial	2	Undivided	Minor Arterial	2
	Park Road 2037	SH 80	Undivided	Major Collector	2	Undivided	Minor Arterial	2
FM 86 (P)	Bastrop County Line	US 183	Undivided	Major Collector	2	Undivided	Minor Arterial	2
SH 304 (Q)	Bastrop County Line	Gonzales County Line	Undivided	Major Collector	2	Undivided	Minor Arterial	2
FM 713 (R)	Bastrop County Line	SH 304	Undivided	Minor Collector	2	Undivided	Minor Arterial	2
	SH 304	FM 20	Undivided	Major Collector	2	Undivided	Minor Arterial	2
Old Kelley Rd/ Lovers Ln/ E Live Oak/ New Facility (S)	FM 20	New Facility	Undivided	Local Road	2	Undivided	Minor Arterial	2
	Old Kelley Rd	Lovers Ln	New Facility	New Facility	New Facility	Undivided	Minor Arterial	2
	New Facility	New Facility	Undivided	Local Road	2	Undivided	Minor Arterial	2
	Lovers Ln	E Live Oak St	New Facility	New Facility	New Facility	Undivided	Minor Arterial	2
	New Facility	Trinity St	Undivided	Minor Collector	2	Undivided	Minor Arterial	2
	E Live Oak St	Brazos St	Undivided	Major Collector	2	Undivided	Minor Arterial	2

2024 Caldwell County Transportation Plan

Facility (Facility Identifier)	From	To	Current - 2018			Future - 2045		
			Design Type	Functional Classification	Number of Lanes	Design Type	Functional Classification	Number of Lanes
FM 1322 (T)	FM 20	FM 86	Undivided	Major Collector	2	Undivided	Minor Arterial	2
City Line Road/ New Facility/ MLK Jr Industrial Blvd (U)	SH 142	Clear Fork St	Undivided	Major Collector	2	Undivided	Principal - Major Arterial	2
	Clear Fork St	W MLK Jr Industrial Blvd	New Facility	New Facility	New Facility	Undivided	Principal - Major Arterial	2
	New Facility	US 183	Undivided	Local Road	2	Undivided	Principal - Major Arterial	2
	US 183	FM 1322	Undivided	Major Collector	2	Undivided	Principal - Major Arterial	2
FM 2720 (V)	SH 21	County View Rd	Undivided	Minor Collector	2	Undivided	Minor Arterial	2
	County View Rd	FM 2001	New Facility	New Facility	New Facility	Undivided	Minor Arterial	2
	New Facility	SH 130	Undivided	Major Collector	2	Undivided	Minor Arterial	2
	SH 130	US 183	Undivided	Minor Arterial	2	Undivided	Principal - Major Arterial	2

Figure 3.12

Facility (Facility Identifier)	From	To	Current - 2018			Future - 2045		
			Design Type	Functional Classification	Number of Lanes	Design Type	Functional Classification	Number of Lanes
Misty Ln/ Westfork Rd/ Mineral Springs Rd/ New Facility (W)	SH 21	Farmers Rd	New Facility	New Facility	New Facility	Undivided	Minor Arterial	2
	Farmers Rd	New Facility	Undivided	Local Road	2	Undivided	Minor Arterial	2
	Misty Lane	Westfork Road	New Facility	New Facility	New Facility	Undivided	Minor Arterial	2
	New Facility	Westfork Road	Undivided	Local Road	2	Undivided	Minor Arterial	2
	Westfork Road	W Fork Rd	New Facility	New Facility	New Facility	Undivided	Minor Arterial	2
	New Facility	Mineral Springs Road	Undivided	Local Road	2	Undivided	Minor Arterial	2
	Mineral Springs Road	Mineral Springs Road	New Facility	New Facility	New Facility	Undivided	Minor Arterial	2
	New Facility	US 183	Undivided	Local Road	2	Undivided	Minor Arterial	2
CR 108/ CR 107/ New Facility/ FM 1977 (X)	SH 142	SH 130	Undivided	Minor Collector	2	Undivided	Principal - Major Arterial	2
	SH 130	SH 80	Undivided	Local Road	2	Undivided	Minor Arterial	2
	CR 107	FM 1977	New Facility	New Facility	New Facility	Undivided	Minor Arterial	2
	New Facility	Guadalupe County Line	Undivided	Minor Collector	2	Undivided	Minor Arterial	2

Figure 3.12

2013 Candidate Projects

The Candidate Project list presented in the 2013 Plan provides a complimentary set of roadway improvements to those presented in this Plan. They are presented here to show how they support this Plan’s Recommended Network and to highlight the congruity between the two planning efforts. A map depicting both the Candidate Projects and the Recommended Network is shown in Figure 3.10. Please note that in some cases, Candidate Projects overlap with corridors in the Recommended Network. Figure 3.11 provides a full list of the 2013 Candidate Projects.

Proposed Thoroughfare Network (Consolidated)

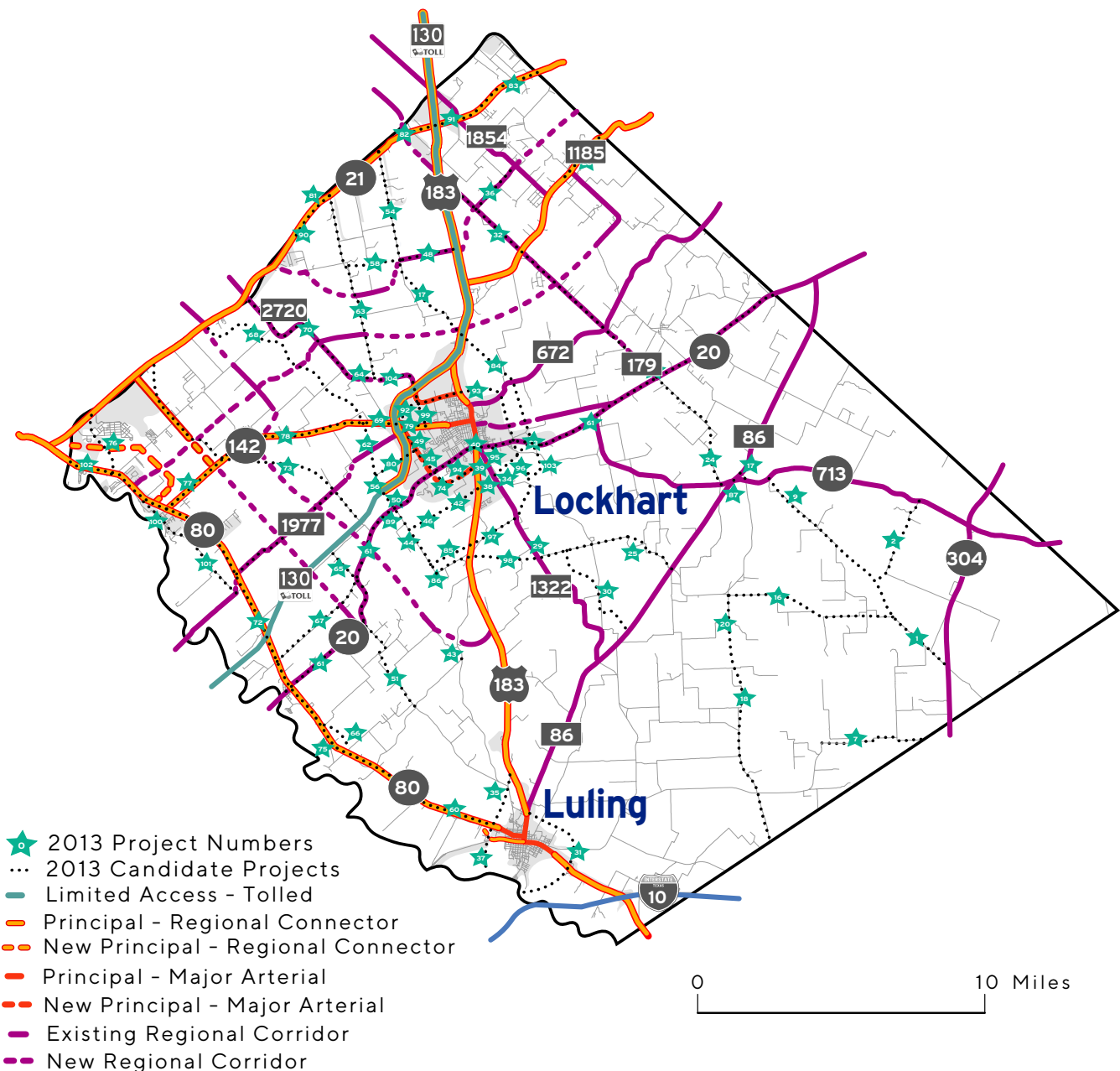


Figure 3.13

2013 Candidate Project Improvements

Facility (Facility Identifier)	From	To	At	Project Description	Project Length
CR 151 (1)	SH 304	proposed Project ID 2	-	Improve and add surface	3.49
New Facility (2)	FM 713 at Pine Gap Road	to Extension of Sandy Fork Road	-	Construct road generally along property lines	3.14
CR 150 (7)	FM 1386	Gonzales County Line (then to SH 304)	-	Realignment of existing road, add surface	3.49
CR 161 (9)	FM 713 to	end of road	intersection of Projects 1 and 2	Reconstruct and extend on new location	5.34
CR 313 (16)	FM 3158 to Red Sand Trail	Red Sand Trail then to Sandy Fork Road	-	Rehab and pave road, realign	5.64
CR 253 (17)	Extend FM 3158 along CR 253	FM 86	-	Rehab pavement	0.32
CR 139 (18)	Gonzales County Line	Pearl Trail	-	Realignment of existing road	5.3
CR 145 (20)	FM 3158	Pearl Trail	-	Pave and extend on new location	3.33
CR 160 (24)	FM 20	FM 713	-	Proposed realignment	4.18
CR 198 (25)	CR 197	FM 86	-	Proposed realignment and add surface	1.88
FM 20 (26)	US 183	Bastrop County Line	-	Widened to 4 lanes and add paved shoulders	11.48
CR 172 (28)	FM 1854 at Lytton Road	Bastrop County Line	-	Upgrade and realignment	5.18
CR 197 (29)	FM 1322	east to Project Map No. 25	-	Upgrade roadway	3.09

Facility (Facility Identifier)	From	To	At	Project Description	Project Length
New Facility (30)			US 183 at Westwood Dr and FM 86	Proposed alternative to FM 1322	6.4
US 183 (31)	Luling East Relief Route Alternative			Proposed 4-lane divided highway	4.66
CR 179/CR 164 (32)	US 183/ SH 130	FM 20		Upgrade and pave road with new at-grade RR crossing	9.92
CR 203 (33)	FM 20	Old McMahan Rd		Upgrade and add surface	0.27
New Facility (34)	CR 203	FM 1322		Proposed new roadway	1.79
CR 309/US 183 (35)	US 183	FM 2984, begin Luling West Relief Route Alternative		Upgrade to 4-lane divided (not the preferred conceptual alternative)	0.86
CR 178 (36)	FM 1854	CR 179		Improve and add surface	1.94
US 183 (37)	Luling West Relief Route Alternative			"Proposed 4-lane divided highway (not preferred conceptual alternative)"	3.65
CR 220 (38)	FM 1322	US 183		Proposed new roadway	1.11
MLK Industrial Blvd (39)	US 183	FM 1322		Add striping and redesignate as FM 1322	0.4
FM 20 (40)			Realign FM 20 at US 183 intersection	Eliminate a traffic signal and improve safety	0.43
CR 643 (42)	US 183	End of CR 213		Upgrade and pave road	1.06
FM 671 (43)			FM 671 / FM 2984	Reconfigure/Reconstruct intersection	0.13

Figure 3.14

Facility (Facility Identifier)	From	To	At	Project Description	Project Length
CR 2125 (44)	FM 20	1.4 miles west of US 183		Surface and construct 2 lanes of ultimate 4 lane section	2.33
City Line Road (45)	Clear Fork Street	FM 20		"Extend City Line Rd from Clear Fork St to FM 20"	0.67
New Facility (46)	CR 213/ Robin Ranch Road	CR 215		"New location connection between CR 215 and CR 213/Robin Ranch Rd"	1.26
New Facility (47)	CR 221	SH 130	Plum Creek U-turn bridge	Proposed new roadway. New location connection between CR 221 and SH 130 at Plum Creek U-turn bridge	2.99
CR 222 (48)	CR 221/ Rolling Ridge Road	SH 130		Upgrade and pave road	2.14
City Line Road (49)	SH 142	Clear Fork Road		Rehab and widen to 4 lanes	1.32
CR 215 (50A)	SH 130	" US 183 (Combines Projects 50, 44, 85)"		Surface and construct 2 lanes of ultimate 4 lane section (Alternative 1)	4.43
CR 215 (50B)	SH 130	" US 183 via Graham Road (Combines Projects 50, 44, 86)"		Surface and construct 2 lanes of ultimate 4 lane section (Alternative 2)	4.74
CR 126/CR 115 (51)	FM 20	FM 671		Improve and realign portions of road	3.44
CR 221/CR 222 (54)	SH 21	Rolling Ridge Rd		Upgrade and pave road	4.02
CR 218 (56)	0.5 mi N of SH 130	SH 130		Upgrade and pave road	0.52
New Facility (58)	FM 2001 at CR 227/ Rocky Road	Schuelke Rd		New roadway connecting FM 2001 to SH 130	1.46
SH 80 (60)	CR 111/ Political Rd	to Luling City Limit		Widen to four lanes	13.36

Facility (Facility Identifier)	From	To	At	Project Description	Project Length
FM 20 (61)	US 183	SH 80		Add paved shoulders	13.36
New Facility (62)	SH 142 near Project 68	CR 218		Proposed new roadway	2.02
FM 2001 (63)			Widen shoulder and realign at SH 21	Realign at SH 21 intersection and widen shoulders	8
CR 235 (64)			FM 2720 and FM 2001	"Realign CR between FM 2720 and FM 2001, possibly redesignate as FM 2720"	0.76
CR 244 (65)	CR 110/ Long Rd.	CR 111/ Political Rd.		Upgrade and pave road	1.21
SH 80 (66)			SH 80 bypass at Prairie Lea	Proposed 4-lane divided highway	1.45
FM 150 Extension (68)	SH 21 to SH 142	SH 142		"Construct 4-lane roadway in phases with participation by developer."	6.89
SH 142 (69)	FM 150 Extension	SH 130		Widen to four lanes	1.55
FM 2720 (70)	Cottonwood Trail	Bobwhite Road		Proposed realignment of curves	1.57
SH 80 (72)	W. Ridge Road	Political Road (CR 111)		Widen to four lanes	4.83
"CR 109 and New Location (73)"	SH 21	SH 130	Black Ankle Road	Proposed 4-lane divided highway	9.65
CR 219 (74)	FM 20 to and along MLK Jr. Industrial Blvd	US 183		Proposed 4-lane arterial to extend City Line Rd south and southeast	1.87
SH 80 (75)			SH 80 at Prairie Lea	Add two-way left-turn lane in Prairie Lea	1.18

Figure 3.14

Facility (Facility Identifier)	From	To	At	Project Description	Project Length
FM 110 (76)	Guadalupe County Line	Hays County Line		Proposed 4-lane divided highway	2.45
SH 142 (77)	SH 80	Yarrington Road Extension		Widen to four lanes	2.89
SH 142 (78)	Yarrington Road Extension	FM 150 Extension		Widen to four lanes	4.03
SH 142 (79)	SH 130	Hummingbird Road		Widen to four lanes	1.15
CR 218 (80)	SH 130, southwest	Project ID 56		Upgrade and pave road	1.28
SH 21 (81)	FM 2001	Hays County Line		Widen to four lanes	1.59
SH 21 (82)	Hays County Line	existing 4-lane section		Widen to four lanes	0.96
SH 21 (83)	East of SH 130	Bastrop County Line		Widen to four lanes	3.43
New Facility (84)	SH 130	FM 20		NE Lockhart bypass. Proposed 4-lane divided highway between	4.77
CR 215 (85)	1.4 miles west of US 183	US 183		Surface and construct 2 lanes of ultimate 4 lane section	1.41
CR 214 (86)	Connect CR 215	US 183 via CR 214		Alternate to Project Map No. 85 (included in Project Map ID 50-B on Existing Roads list)	1.73
FM 86 (87)			FM 86 and FM 713 intersection	Realignment for safety	0.22
FM 20 (89)			FM 20 and Westwood Intersection	Address safety issues/ sight distance problem	0.31

Figure 3.14

Facility (Facility Identifier)	From	To	At	Project Description	Project Length
SH 21 (90)	Hays County Line	to east 3,170 ft.		Add shoulders	0.6
SH 21 (91)	East of SH 130	Bastrop County Line		Add shoulders	4.11
New Facility (92)	FM 2001/ Silent Valley Rd	SH 142 at City Line Road		Proposed new roadway	1.03
New Facility (93)	FM 2001/ US 183 intersection	FM 20		"Proposed 4-lane arterial between US 183 at FM 2001 and FM 20 (NE Lockhart Loop option)"	2.68
San Jacinto Street (94)	FM 20	MLK Jr. Industrial Blvd.		Proposed new roadway	0.61
New Facility (95)	FM 1322 at Lay Rd	FM 20/ Blackjack St		Proposed new roadway	1.03
New Facility (96)	FM 20 and CR 186/ Old Kelley Rd	FM 1322 at Center Point Rd		Proposed new roadway	2.6
New Facility (97)	FM 1322 at Center Point Rd	US 183 and Old Luling Rd		Proposed new roadway	2.01
New Facility (98)	US 183 at Graham Rd	FM 1322 and Young Ln		Proposed new roadway	2.32
Mockingbird Lane (99)	Extend Mockingbird Lane north	Horseshoe Rd		Proposed new roadway	0.77
CR 103 (100)	SH 80 near FM 1984	Main Street		Upgrade two lane road to current standards	2.47
CR 103 (101)	Main Street	FM 1977		Upgrade two lane road to current standard and pave gravel portion	3.4
SH 80 (102)	County Line Road	FM 1979		Widen to 6 lane w/raised median	4.13

Figure 3.14

Facility (Facility Identifier)	From	To	At	Project Description	Project Length
New Facility (103)	From Project 96	Shady Hollow Rd		Proposed new roadway	1.83
FM 2720/FM 2001 (104)	SH 21 along FM 2720	FM 2001 along County View Rd to US 183		Provide 4 lanes as continuation of the proposed Kyle Pkwy Extension in Hays County	8.68
CR 240 / CR 182 (113)	SH 80	CR 179		Upgrade to Undivided Arterial, include safety and operational improvements	16.737867

Figure 3.14