

HUNT COUNTY THOROUGHFARE PLAN

Adopted January 11, 2022



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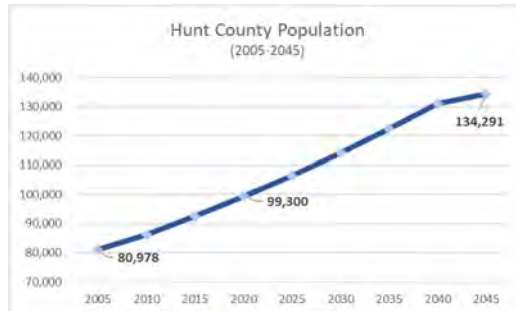
EXECUTIVE SUMMARY

PLAN PURPOSE

Since Hunt County adopted its last countywide thoroughfare plan in 2012, the County has experienced substantial population and employment growth, particularly in the southwestern and western portions of the County.

The impact of this growth will increase demand

for new roadway capacity and magnify other transportation concerns such as regional mobility, congestion, traffic safety, roadway and bridge conditions, goods movement, and the need for complementary transportation systems. Consequently, Hunt County chose to develop a new 2022 Thoroughfare Plan to accommodate forecast increases in travel demand and advance transportation investments within the County.



Source: NCTCOG

PLAN DEVELOPMENT

The work program for plan development was broken down into five main elements.

Plan Input: - involved data collection and compilation, definition of transportation vision, and development of supporting plan goals and objectives.

Thoroughfare Plan Development: - included development, analysis, and assessment of the thoroughfare network; development of network connections, functional classifications, and corridors; review and development of design standards; Plan development and supporting documentation.

Agency Coordination: - liaising with NCTCOG, TxDOT, adjacent counties, county municipalities, and key stakeholders on issues and needs as well as overall plan development.

Thoroughfare Plan Public Input and Hearings: - the creation of a public involvement process that included a combination of in-person and virtual committee meetings with key stakeholders, Town Hall meetings with the general public, and an online public survey with over 600 participants.



OBSERVATIONS

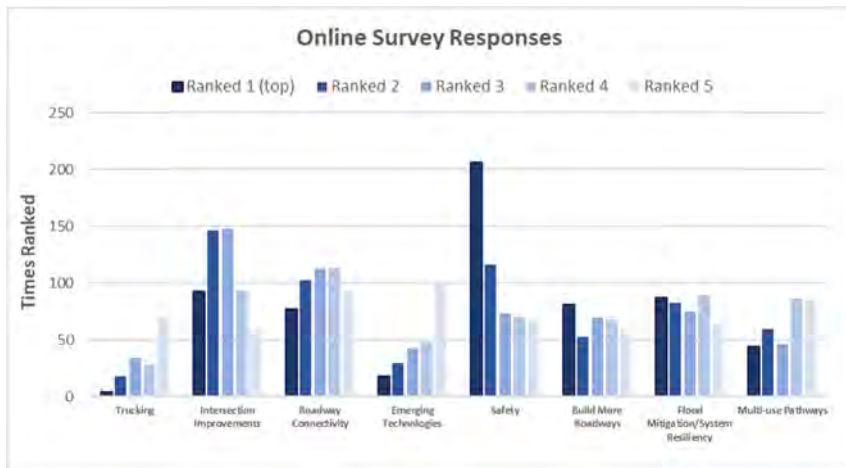
Demographics:

population and employment growth will continue beyond 2045, with most of the growth occurring in the western and southwestern areas of the County. The population as a whole is quickly shifting towards an overall younger demographic composed of persons born in the 1980's or later.



Travel Behavior:

residents rely on the automobile for transportation; over 90 percent of commuters prefer to travel using the automobile with the vast majority of households having a least one or two vehicles. Average trip lengths vary, with most workers have commuting times less than 35 minutes, although some commuters have trips longer than an hour. Most residents travel outside the county to work; much of the Hunt County workforce comes in from surrounding counties.



Resident Preferences: - the online survey revealed an ongoing preference for automobile travel and rideshare services. Participants also indicated a strong preference for remote work / telecommuting. Most respondents listed roadway safety as their top concern.

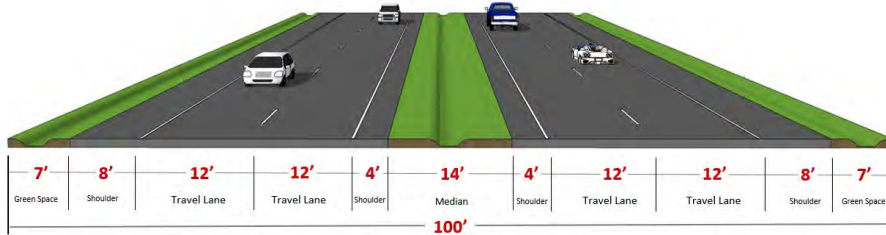
Travel Demand: - traffic largely depends on major highways and IH-30 to move within the county; travel is focused on western and southwestern commuter travel to work destinations in the Dallas-Fort Worth Metroplex.

Vehicle Crashes: - vehicle crashes have risen slightly since 2010, with most accidents occurring on the TxDOT roadway network, mostly along IH-30 and SH 34 in Greenville. Accident rates are generally below the state crash rates for all functional roadway classes.

Roadway Network: - the existing roadway network generally has sufficient capacity to meet current demand, although arterial classes are forecast to have congestion issues by 2045. The primary issue is connectivity; a lack of intra-county arterial connections requires transportation to be constrained along existing corridors, creating congestion. This is most prevalent in the western and southwestern areas of the County.

ROADWAY DESIGN STANDARDS

Existing roadway design standards were collected from Hunt County, county municipalities, and adjacent counties and reviewed for consistency. Updated design standards focused on rural sections, with urban cross sections recommended only where drainage permits curb and gutter or where they would be consistent with adjacent land uses and/or roadway sections.



Rural Major Arterial – 4 Lane, 100' ROW, 12' Lanes w/ 14' Median

PLAN RECOMMENDATIONS

Recommendations were created to address identified issues and needs from key stakeholders, forecast growth, observed traveler behavior and traffic conditions, network connectivity, and financial constraints. A listing of key short-term and medium-term projects and corridor studies is listed on the right, along with a map of the final recommended Thoroughfare Plan on the next page. Additional recommendations are listed in the Prioritization, Recommendations, & Funding Strategies chapter of the Thoroughfare Plan.

Existing Short-Term Projects

ID	Roadway	From	To	Improvement
E1	FM 1570	IH-30	SH 34	Widen from 2 to 4 lane divided arterial
E2	FM 1570	IH-30	SH 66	Widen from 2 to 4 lane divided arterial
E3	FM 2642	FM 35	SH 66	Widen from 2 to 4 lane divided urban arterial w/ sidewalks
E4	SH 276	West of FM 36	SH 34	Construct new 4 lane facility with continuous left turn lanes
E5	IH 30	FM 2642	FM 1570	Widen to a 6 lane freeway
E6	IH 30	FM 1570	Hunt C/L	Widen to a 6 lane freeway
E7	FM 1903 / FM 36	IH-30	SH 66	Widen to to a 5 lane arterial

New Short Term Projects

ID	Roadway	From	To	Improvement
N1	CR 2730	US 380	SH 66	Complete as a 2 lane rural arterial
N2	FM 6	Hunt C/L	FM 36	Complete as 6 lane rural principal arterial
N3	FM 1903	IH-30	SH 34	Complete as 4 lane urban arterial
N4	FM 1565	SH 66	SH 276	Complete as 4 lane urban arterial
N5	FM 36	FM 1903	SH 276	Complete as a 2-4 lane rural arterial
N6	CR 2512 / 2514 / 2596 / 2264 / 3504	CR 2511	FM 2101	Complete as a 2 lane rural arterial
N7	FM 513	SH 24	US 69	Complete as a 2 lane rural arterial
N8	CR 2648	IH-30	CR 2658	Complete as a 2 lane urban / rural arterial

Medium Term Projects

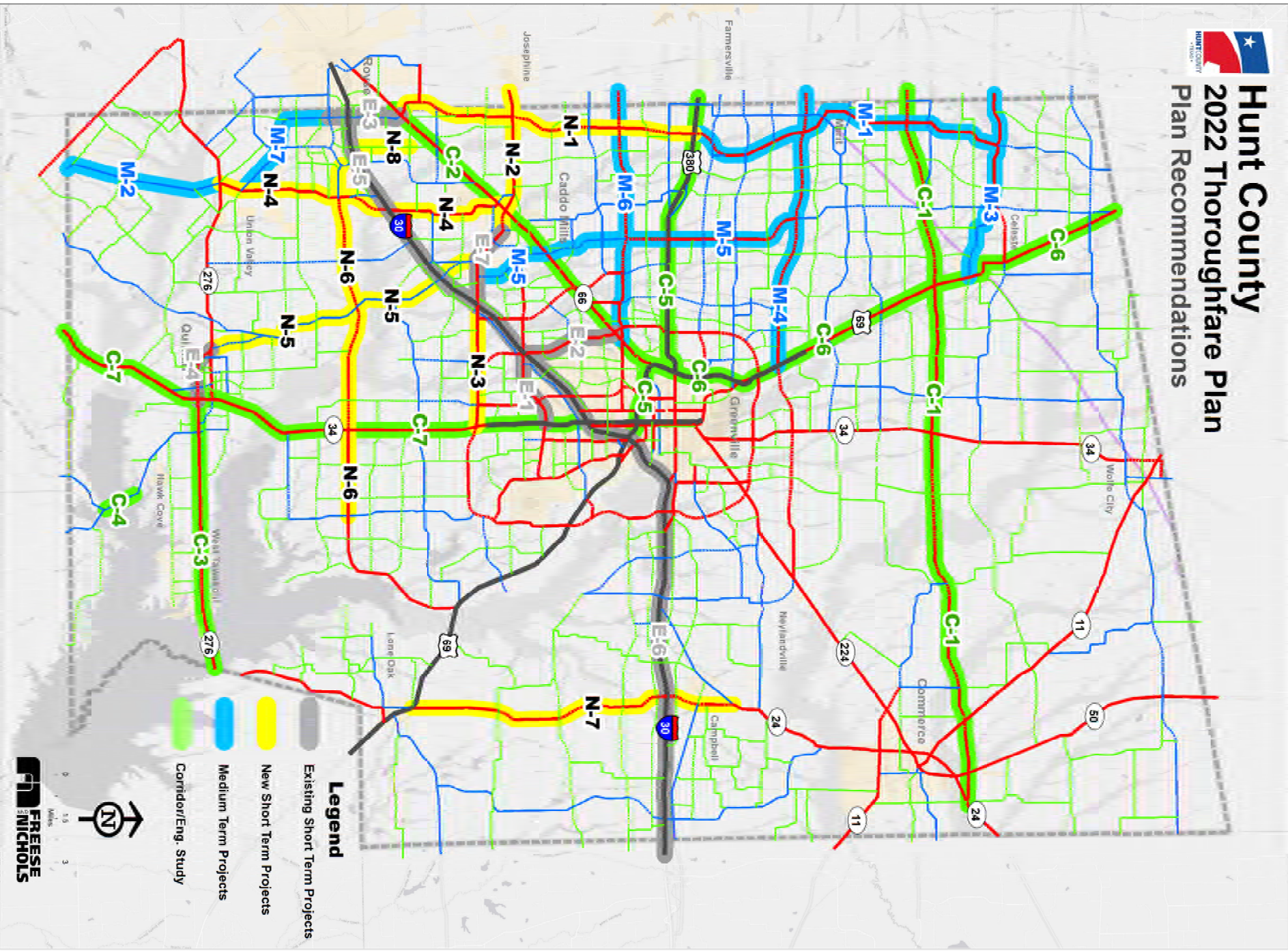
ID	Roadway	From	To	Improvement
M1	FM 36	FM 1562	US 380	Complete as a 2 lane rural arterial
M2	FM 1565	SH 276	Hunt C/L	Complete as a 4 lane rural arterial
M3	FM 1562	Hunt C/L	US 69	Complete as a 4 lane rural arterial
M4	FM 1569 / CR 1071	Hunt C/L	US 69	Complete as a 2 lane rural arterial
M5	FM 903	FM 1569	FM 1903	Complete as a 2 lane rural arterial
M6	CR 696 / 2727 / 2152 / 2148 / FM 3211	Hunt C/L	SH 66	Complete as a 2 lane rural - 4 lane urban arterial
M7	FM 35	FM 2642	FM 1565	Complete as a 2 to 4 lane rural arterial

Corridor Studies

ID	Roadway	From	To	Type	Status
C1	CR 1096 / 1040 / 4518 / 4508 / 4509 / 8089	Hunt C/L	SH 24 in Commerce	Corridor Study	Proposed
C2	SH 66	Hunt C/L	US 69	Corridor Study	Current
C3	SH 276	SH 34	Hunt C/L	Corridor Study	Proposed
C4	FM 751	Shawnee Lane	FM 429	Engineering Study (Flooding)	Proposed
C5	US 380 / US 69	Hunt C/L	IH-30	Corridor Study	Proposed
C6	US 69	US 380	Hunt C/L	Corridor Study	Proposed
C7	SH 34	IH-30	CR 2312	Feasibility Study	Current

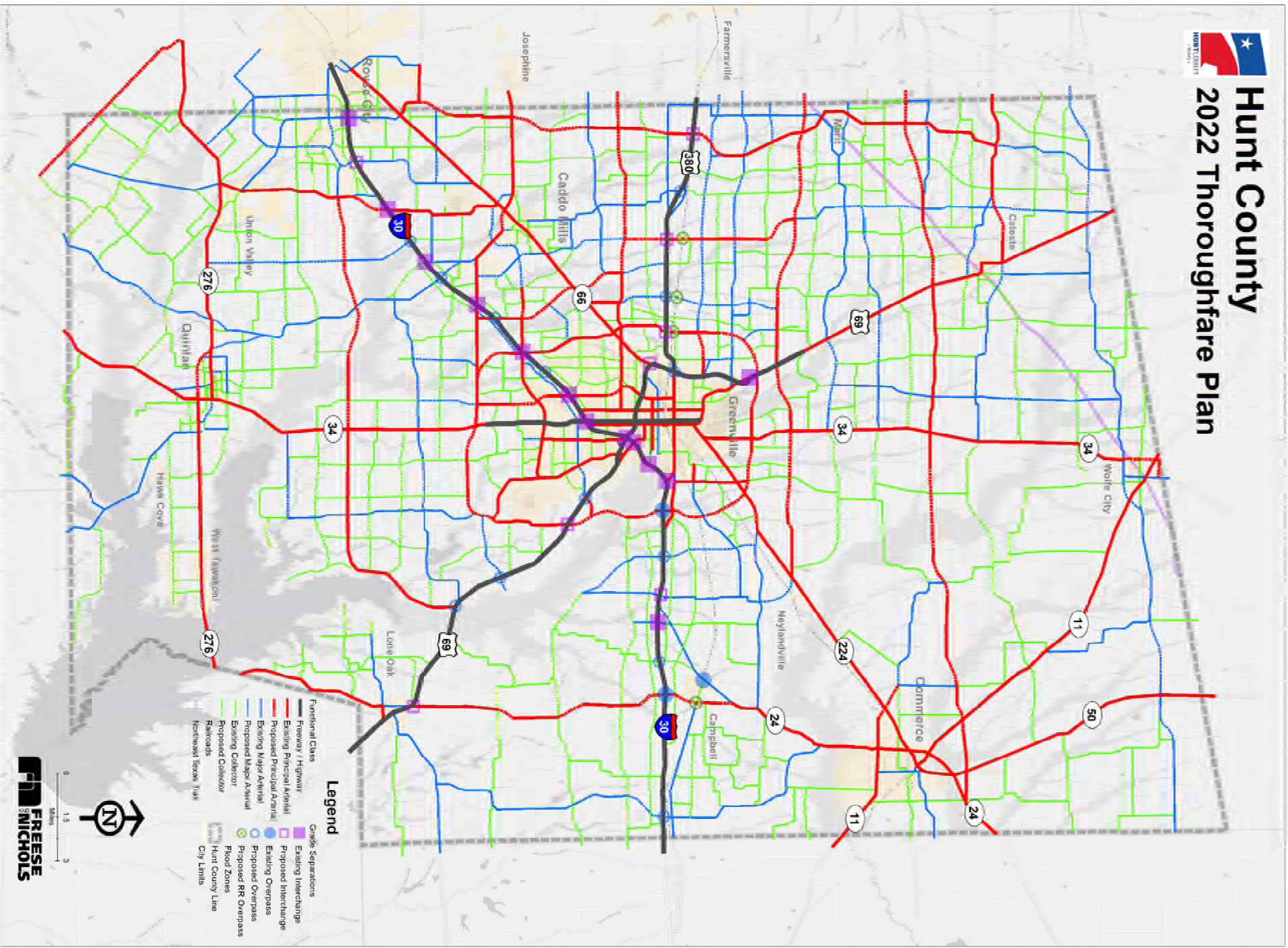


Hunt County 2022 Thoroughfare Plan Plan Recommendations





Hunt County 2022 Thoroughfare Plan



FREESSE & NICHOLS

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INTRODUCTION

Developing transportation networks to accommodate future growth can be challenging for any community. Creating plans to accommodate future growth requires understanding what factors can be reasonably predicted within specific time periods.

Texas counties face unique pressures in planning for transportation. Recent changes in legislation limit municipal annexations and place a greater burden on counties for roadway network development. Reductions in funding from traditional sources, changing social preferences, and the emergence of new transportation technologies necessitate the development of thoroughfare plans that create safe, connected, and cost-effective transportation networks to support and sustain long-term growth.

PLAN PURPOSE

Thoroughfare plans seek to map out the future of a transportation network. They act as a statement of public policy, set goals and objectives, and identify the general location, alignment, design, and right-of-way needs for the orderly development of its roadway system.

The 2022 Hunt County Thoroughfare Plan will create a robust and flexible framework to manage long-term growth and development. It aims to ensure that future roadway development supports continued rapid growth within Hunt County and enhances the quality of life for all its residents.



UNDERSTANDING THOROUGHFARE PLANNING

While there is substantial variation between thoroughfare plans, including those from municipalities within the County, all plans share several key attributes:

A POLICY DOCUMENT

A key function of all thoroughfare plans is to set policies for orderly development of the roadway network that emphasizes network connections, optimizes roadway capacity, and reflects the preferences of the community. All thoroughfare plans identify the general location and type of facilities required to support future growth, and provide long-term solutions to shape and direct that growth.

LONG-RANGE IN SCOPE

All thoroughfare plans are focused on addressing long-range transportation needs to manage forecast growth. The planning horizon for implementation is typically 20 years or more.

A [Thoroughfare] Plan is a statement of intention, not a guarantee of action.

Source: 2016 Montgomery County Thoroughfare Plan, HGAC.

FOCUSED ON RIGHT-OF-WAY PRESERVATION

A key component of a thoroughfare plan is to create a mechanism to preserve roadway right-of-way (ROW) for future roadways so that an effective and efficient roadway network can be developed over time to support growth as it occurs and prevent expensive land acquisition for roadways in the future. This is pivotal in more rural counties because while Texas counties do not have the legal authority to regulate land use,

they are able to designate and secure ROW for roadways through the development process.

DEFINES ROADWAY FUNCTIONAL CLASSIFICATION

All thoroughfare plans include a discussion of proposed roadway functional classifications and recommended design cross-sections for the study area.

THOROUGHFARE PLAN MAP

A visual representation of future roadway recommendations, usually limited to arterials and collector roadways, is a critical plan element. The map identifies and integrates existing municipal thoroughfare plans within the study area to produce a clear and consistent vision for the development of the County roadway network.

A LIVING DOCUMENT

Roadway recommendations outlined in thoroughfare plans are not final. The plan itself is subject to constant revision and amendment and is typically updated every 5 to 7 years. Updates consider and attempt to accommodate the changing growth patterns of the County. As such, the thoroughfare plan acts as a “living document”.

UNDERSTANDING PROPOSED ALIGNMENTS

The roadway alignments outlined in the plan may be revised several times before a final alignment is approved, designed, and implemented. Such revisions happen for a variety of reasons, such as for environmental considerations; engineering design; compatibility with surrounding developments; future potential development; available funding; or in response to stakeholder/public comments.

PLAN BACKGROUND

Since Hunt County adopted its last countywide thoroughfare plan in 2012, the County has experienced substantial population and employment growth, particularly in the southwestern and western portions of the County. Increases in suburban-style single-family housing and commercial development in these areas have produced significant demands upon the transportation network. This demand will continue as these types of developments, along with several large-scale projects, are expected to continue being constructed well into the future.

The impact of this growth will increase demand for new roadway capacity and magnify other transportation concerns such as traffic safety, roadway and bridge conditions, goods movement, and the need for complementary transportation systems.

Due to concerns over the impact of forecast growth, Hunt County chose in November of 2020 to revise its 2012 Thoroughfare Plan and develop a new 2022 Thoroughfare Plan for the advancement of transportation investments within the County. Through coordination of county, federal, state, municipal, and other agency planning initiatives, this Plan will serve as the basis to guide decision making in the implementation of mobility and transportation investments within the County.

The development of the Plan is rooted in an established vision and goals for long-term mobility, evaluation of current transportation programming, identification of system needs, and culminates with thoroughfare planning recommendations to advance the orderly implementation of long-term transportation improvements.

VISION, GOALS, AND OBJECTIVES

The vision, goals, and objectives of the 2022 Hunt County Thoroughfare Plan support the desires and aspirations of its residents for its transportation system. The overall vision of the Plan is broad in nature and supports the general desires for the

Specific
Measurable
Achievable
Relevant
Time-Oriented

future of Hunt County. Plan goals are developed from the vision and set the framework from which specific thoroughfare improvements can be achieved.

Defined objectives will be SMART - Specific, Measurable, Achievable, Realistic, and Timely and will be used to assess and identify transportation improvements.

VISION STATEMENT

Hunt County will feature a system of thoroughfares and corridors that promotes multi-modal mobility, connectivity, and safety; maintains and improves our existing infrastructure; supports future growth; and leverages economic benefit to sustain its long-term viability in a fiscally responsible manner. Together, these ideals will help promote Hunt County as a special place to live.



Figure 1: Vision Statement and Goals

- ❖ Consider incorporating development planning initiatives into the thoroughfare plan update process.
- ❖ Roadway network development should not be developed in ways that exclude other transportation options or create obstacles to their development.
- ❖ Proposed transportation plans, policies, programs, and projects should be equitable for all Hunt County residents.
- ❖ Continue partnerships between local governments and federal and state agencies to facilitate implementation of regionally significant projects.

Objective: Maintain a functionally classified thoroughfare network that will provide for efficient and effective flow of traffic throughout the County.

- ❖ Maintain a robust thoroughfare network and planning process to ensure efficient connections between freeways, arterials, collectors, and local roadways.
- ❖ Develop roadway design standards to ensure sustainable roadways that provide seamless connectivity.

Objective: Improve roadway safety and system security.

- ❖ Identify and assess critical and high accident intersections to help prioritize recommendations to reduce collisions along County-maintained roadways.
- ❖ Identify best practices for roadway design to ensure consistency and improve safety in rural areas.
- ❖ Many existing roadways currently provide access to rural properties. Establish regulations that reduce residential drive cuts directly onto thoroughfares.

GOAL 1: MOBILITY & SAFETY

Provide a transportation system that will effectively serve the existing and projected travel needs of Hunt County in a safe and efficient manner.

Objective: Develop a coordinated, efficient, and unified thoroughfare network that considers the concerns of all system users and jurisdictions within the County.

- ❖ Incorporate existing city and county plans into the new 2022 Hunt County Thoroughfare Plan.
- ❖ Ensure that the Plan efficiently develops thoroughfare capacities based on projected demographic growth and travel demand.
- ❖ Coordinate planning activities with adjacent counties, and supporting agencies, to promote effective connections to regional networks within and beyond Hunt County.

- ❖ Excessively wide thoroughfares should be discouraged where they transect with other modes of transport, especially pedestrian and bicycle paths.
- ❖ Consider facilities, such as roundabouts or other innovative intersection designs, to promote system resiliency, safety, and affordability.

Objective: Promote integration between transportation and land use development.

- ❖ Evaluate planned developments to identify future alignments within the County and ensure consistency with other planned facilities in adjacent areas.
- ❖ Collaborate with Hunt County ISDs on proposed school locations and assess their potential impact on the transportation system.
- ❖ Promote connectivity between adjacent developments to lessen their impact on thoroughfares.

Objective: Improve the ease of access to residential and commercial destinations within the County.

- ❖ Develop access coordination strategies for specific roadways connecting adjacent residential communities.
- ❖ Develop access management strategies, such as intersection spacing, speed restrictions, and driveway consolidation for specific commercial corridors.

GOAL 2: PRESERVATION AND MAINTENANCE OF EXISTING INFRASTRUCTURE

Maintain and preserve existing transportation infrastructure to provide stability for system capacity, storm water management, congestion levels, and improved roadway safety.

Objective: Preserve rights-of-way and other properties for future transportation and supporting infrastructure investments.

- ❖ Regularly update the 2022 Hunt County Thoroughfare Plan to identify required right-of-way for future transportation projects.
- ❖ Identify existing corridors that may need to be widened and/or upgraded in functional class to accommodate future transportation needs.
- ❖ Identify truck/shipping corridors, industrial zones, and other logistics routes that may need additional right-of-way to accommodate future truck traffic.

Objective: Identify structurally deficient corridors and bridges.

- ❖ Utilize existing pavement and bridge maintenance data to identify deficiencies in the existing network.
- ❖ Coordinate and collaborate with state and local agencies to prioritize improvements.
- ❖ Incorporate rehabilitation of substandard bridges and roads into corridor improvement plans.
- ❖ Implement a uniform pavement management grading system for all county roads and update it every 5 years in a staggered time period.

Objective: Identify future areas of roadway congestion and develop roadway recommendations to accommodate future demand.

- ❖ Leverage the regional travel demand model outputs to identify potential congestion areas and bottlenecks within Hunt County.
- ❖ Identify roadway capacity improvements and connections to reduce the number of lane miles at LOS E and F.

Objective: Identify existing roadways that can be realigned and widened to improve connectivity to major highways and alleviate congestion.

- ❖ Evaluate recommended realignments in the travel demand model to determine their effectiveness on the overall transportation network.

GOAL 3: FISCAL STEWARDSHIP

Optimize the use of Hunt County funds and leverage additional funding for strategic implementation of transportation improvements to maximize public return on investment in transportation infrastructure and operation.

Objective: Optimize the current Hunt County thoroughfare funding strategy that maintains and develops the thoroughfare network in a fiscally responsible manner.

- ❖ Identify and develop flexible and scalable sources of roadway funding.
- ❖ Develop and maintain a robust project selection process for proposed transportation improvements in coordination and collaboration with federal, state, and local partners.
- ❖ Consider a project's long-term financial impact on Hunt County revenues (beyond one pavement cycle); ensure that proposed projects do not burden taxpayers with debt levels that creates disinvestment from other needs and makes system preservation financially unsustainable.

Objective: Identify funding sources to leverage recommended transportation projects and maximize the impact of dollars allocated to transportation improvements in the County.

- ❖ Prioritize and phase transportation investments to maximize the use of available and programmed funds.
- ❖ Continue to identify and pursue private, regional, state, and federal revenue sources for funding multimodal transportation improvements.

- ❖ Pursue and identify innovative funding programs.
- ❖ Continuously educate stakeholders on innovative funding strategies.
- ❖ Promote the continued use of County bond programs to fund future roadway improvements.
- ❖ Partner with regional, state, and federal agencies, such as the North Central Texas Council of Governments (NCTCOG), the Texas Department of Transportation (TxDOT), and the Federal Highways Administration (FHWA), to fund transportation infrastructure improvements within the County.

Objective: Provide transparency and meaningful public awareness, ongoing citizen input, and participation opportunities to implement and update the plan.

- ❖ Provide feedback on the development and implementation of the Plan (even after adoption) to ensure it remains part of future transportation decisions throughout the County.
- ❖ Promote online surveys as an effective and efficient means of soliciting public input.
- ❖ Coordinate a Transportation Forum for Hunt County, where stakeholders can more effectively communicate transportation issues and concerns with County Commissioners and other decision makers.
- ❖ While input from all citizens is valued, place a priority on engaging younger generations in the planning process to ensure that future plans, policies, programs, and projects create flexibility to accommodate the preferences of future generations.

GOAL 4: ENHANCE ECONOMIC VITALITY

Invest in transportation improvements that support the economic vitality of Hunt County.

Objective: Identify transportation improvements for county roads that support the physical and economic vitality of Hunt County.

- ❖ Identify potential corridors for commercial development.
- ❖ Develop phasing plans for improvements along key corridors within Hunt County.
- ❖ Promote projects that support access to the local economy, such as tourism, parks, and other attractions or events within the County.
- ❖ Support strategies that encourage Hunt County residents to live, work, play, and age within their communities.

Objective: Provide for safe and effective freight movement throughout Hunt County, while mitigating any negative impact on residents' quality of life.

- ❖ Identify alternative truck routes through and around communities that avoid negative impacts to residential areas and enter commercial areas via roadways that are appropriately sized to accommodate trucks.
- ❖ Promote efficient and safe truck and rail freight movement throughout the County.
- ❖ Review pavement conditions and overall congestion levels on existing and proposed truck routes.
- ❖ Promote alignments that have benefits for truck traffic, where appropriate.

Objective: Promote integration between transportation and land use development.

- ❖ Leverage transportation investments to enhance land use and economic benefit decisions within the County.
- ❖ Consider backage roads where possible along specified inter-regional corridors to enhance land use/economic benefit to the corridor communities.

Objective: Promote the development of continuous frontage and/or backage roads along major freeways and highways within the County.

- ❖ Monitor segments along major travel corridors and identify those in need of improvement.
- ❖ Consider distributor/collector systems, backage roads, and alternative intersection designs, such as roundabouts, where appropriate.

Objective: Identify and implement policies and programs that support and incentivize development initiatives to encourage public-private partnerships, promote timely implementation of transportation improvements, and reduce overall cost.

- ❖ Continue to support program reporting on project development and issues relative to thoroughfare planning for the Hunt County Commissioners Court.
- ❖ Partner with TxDOT, NCTCOG, and local municipalities to fund the construction and/or enhancement of selected commercial corridors within the County.
- ❖ Increase awareness and monitor opportunities to implement innovative funding strategies for proposed transportation projects.
- ❖ Create incentive programs for developers and other stakeholders that support roadway network development.

OVERVIEW OF THE THOROUGHFARE PLAN DEVELOPMENT PROCESS

The work program for the development of the 2022 Hunt County Thoroughfare Plan update was established by the County through its scope of work as defined in its contract with its consultant, Freese and Nichols. The work program can be broken down into five main elements.

PLAN INPUT

DATA COLLECTION AND COMPILATION

- ❖ Relevant transportation planning documents were collected, including existing thoroughfare plans from TxDOT, NCTCOG, adjacent counties, and cities, towns, and other agencies. This included previous county and city transportation plans, planning and programming for highways and other capital improvement planning documents.

DEVELOPMENT OF PLAN GOALS AND OBJECTIVES

- ❖ A set of broad-based, clearly stated transportation goals and objectives was developed to provide the County with the momentum from which policy actions could be developed to implement the Plan.

THOROUGHFARE PLAN DEVELOPMENT

THOROUGHFARE NETWORK DEVELOPMENT AND ANALYSIS

- ❖ The current Plan was analyzed to determine the effectiveness of the network relative to updated forecast data and transportation trends.

- ❖ Project staff collaborated with Hunt County to document funded and planned improvements or initiatives. These projects were assessed to identify any shortcomings or perceived issues with future mobility and congestion.
- ❖ Recommendations and implementation strategies were developed based on feedback from the County, key stakeholders, and the general public.

TRANSPORTATION NETWORK ASSESSMENT

- ❖ Traffic data and other traffic studies conducted within the last 10 years in Hunt County were reviewed to gain insight into impacts of development on the County roadway network. Special emphasis was placed on significant developments with large-scale population and employment activity.
- ❖ Using NCTCOG's travel demand model, the Hunt County transportation network was analyzed to assess the implications of long-term growth.

THOROUGHFARE PLANNING

- ❖ Using the NCTCOG travel demand model, an assessment of general network needs was conducted. Highway, arterial, as well as selected collector streets were included in the network analysis.

THOROUGHFARE PLAN AND FUNCTIONAL CLASSIFICATION

- ❖ Based upon network assessment and analysis, the existing Hunt County Thoroughfare Plan map and associated functional classifications were updated.

- ❖ Considerations were given to urban and rural functional classification and specific types of classes that may be desired to address adjacent land use context.

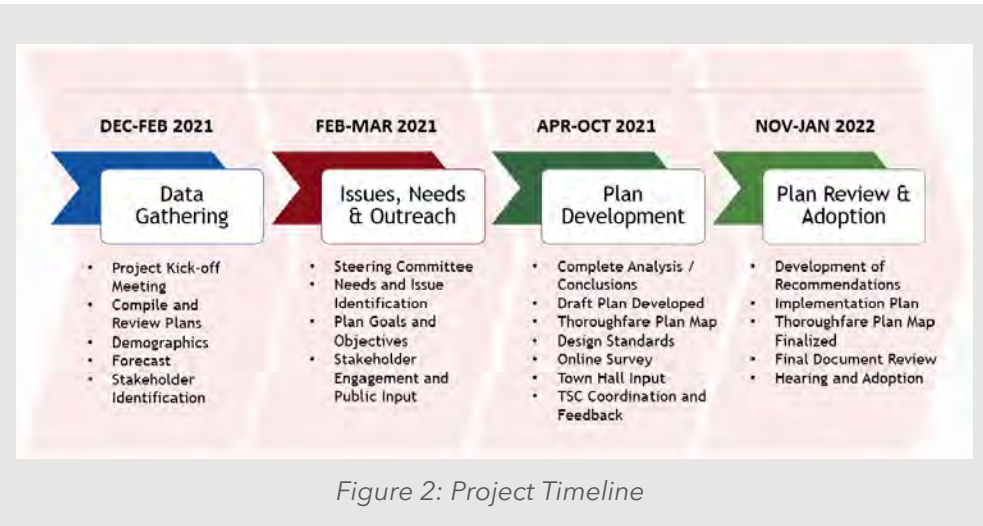
THOROUGHFARE PLAN MAP AND DOCUMENTATION

- ❖ Based on network analysis, a thoroughfare plan map and supporting documentation were developed and presented for review and comment by Hunt County officials and the Hunt County Transportation Steering Committee.
- ❖ A map containing roadway functional classifications, associated lane configurations, required right-of-way, and proposed roadway connections to support future growth was created. Supporting documentation in the Plan document provided additional details and clarifications on the proposed recommendations and the plan development process were also provided.

Detailed descriptions of project coordination and public involvement are listed under the chapter on Stakeholder and Public Involvement.

PROJECT TIMELINE

An overview of the project timeline is listed below in Figure 2.



THOROUGHFARE PLAN PUBLIC INPUT AND HEARINGS

This work element provided opportunities to solicit public feedback on draft Plan recommendations, culminating in a presentation of the final Plan to the Hunt County Commissioners' Court for consideration/adoption. Work tasks in this area included public outreach with stakeholders and the public to gather input on critical issues, needs, and opportunities.

PROJECT MANAGEMENT AND COORDINATION

Tasks under this section focused on project management and project operations planning, task development, project deliverables, contract management, budgets, and scheduling.

HUNT COUNTY AT A GLANCE

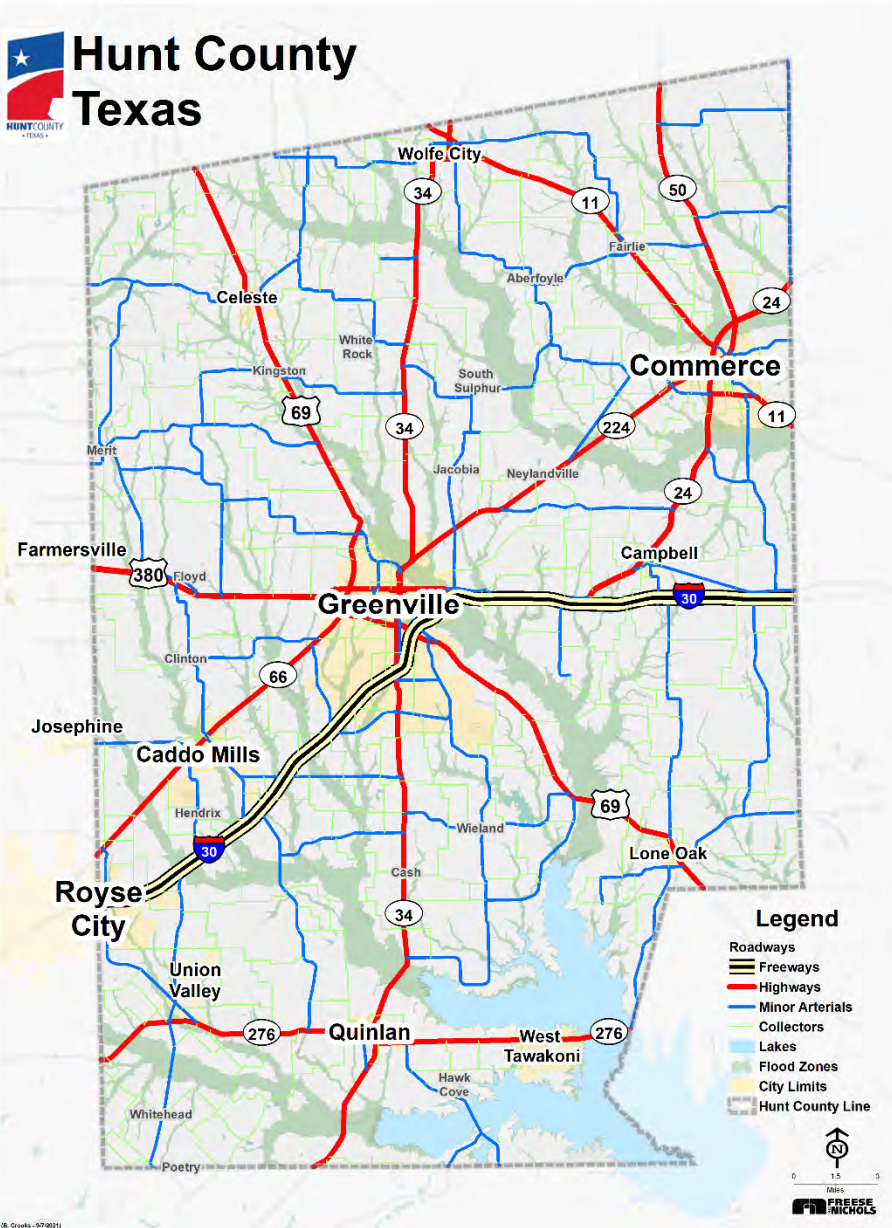


Figure 3: Hunt County Thoroughfare Plan Study Area

Established in 1846, Hunt County is located in the eastern section of the DFW Metroplex and serves as an eastern gateway to the 16-county North Central Texas region.

Hunt County is a rapidly growing area and is known for Audie Murphy, the American Cotton Museum, its universities and colleges, and high-tech employment. People are attracted to Hunt County due to its proximity to Dallas-Fort Worth, its rural lifestyle, and family-friendly environment.

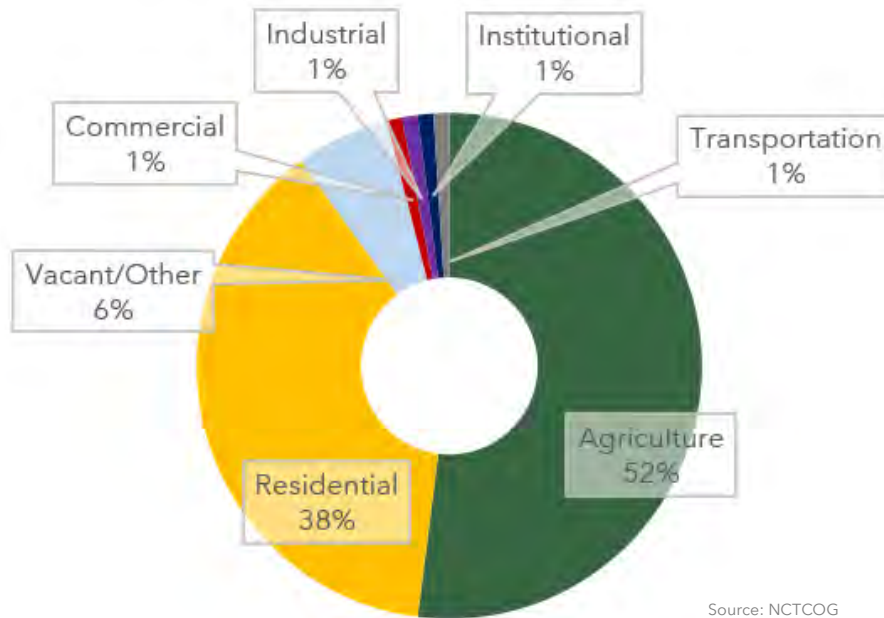
The Hunt County seat is situated in the City of Greenville, located near the junction of US380 and SH34. Table 1 lists cities, towns, and unincorporated communities that are either partially or entirely within Hunt County.

Cities		
Caddo Mills	Greenville	Union Valley
Campbell	Lone Oak	West Tawakoni
Celeste	Quinlan	Wolfe City
Commerce	Royce City	
Towns		
Neylandville	Poetry	
Unincorporated Communities		
Aberfoyle	Hawk Cove	South Sulphur
Cash	Hendrix	Wieland
Clinton	Jacobia	Whitehead
Fairlie	Kingston	White Rock
Floyd	Merit	

Table 1: Cities, Towns, and Unincorporated Communities in or Adjacent to Hunt County

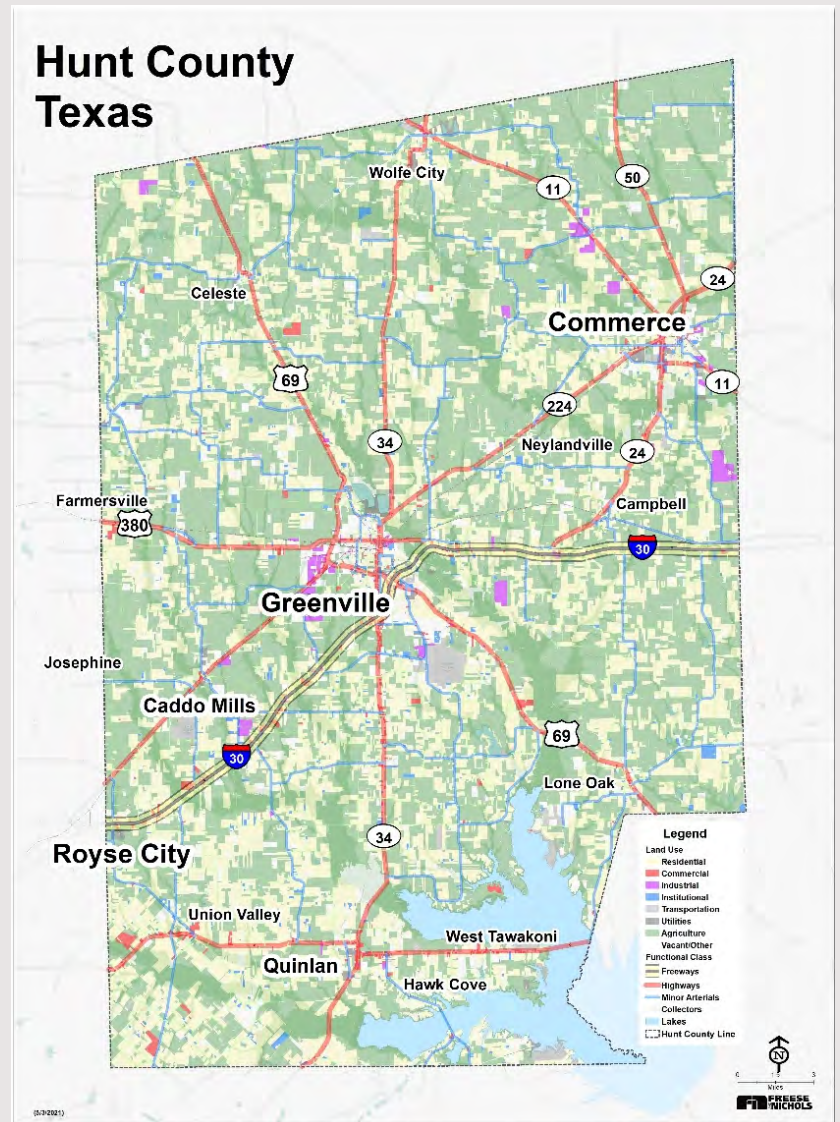
EXISTING LAND USE

Land use in Hunt County is predominantly rural, with large areas of ranchland and agriculture and low-density single family residential. Other land uses represent a small percentage of overall land use.



Source: NCTCOG

Figure 4: Hunt County Land Use by Square Miles



Source: NCTCOG

Figure 5: Hunt County Land Use Map

PREVIOUS PLANNING EFFORTS

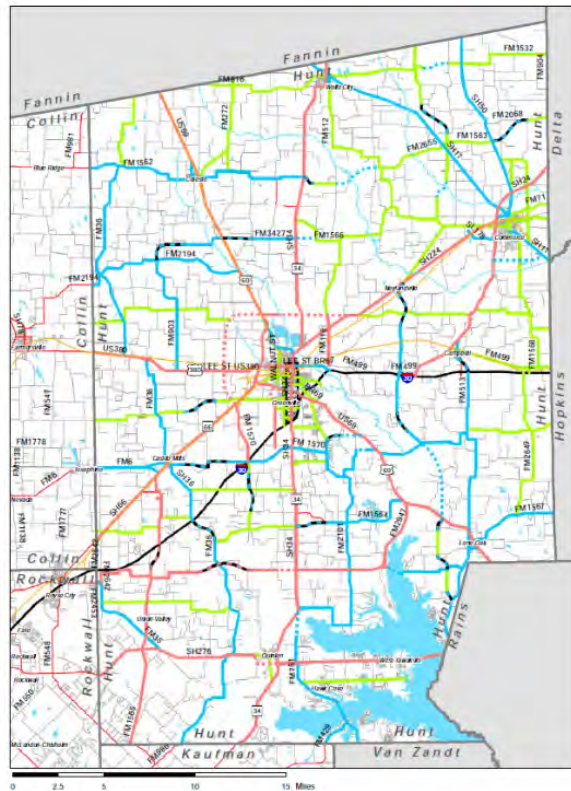
HUNT COUNTY 2012 TRANSPORTATION PLAN

A Hunt County Transportation Plan was completed by NCTCOG in 2012. This Plan was seen as a requirement for Hunt County joining the Metropolitan Planning Organization (MPO) and made the County eligible for Federal transportation funds. The Plan was designed to provide guidance on meeting the transportation needs for a growing population that provides safe, efficient, and affordable transportation while supporting economic development and improving the quality of life.

Hunt County Thoroughfare Plan Recommendations: Major Corridor Development and Realignment



Note: Roadways as shown represent the current year RIS network. New facility locations indicate transportation needs and do not represent specific alignments.



One of the key goals of the Plan was to encourage a shift from a focus on motor vehicle traffic to an integrated approach that accounts for the mobility needs of all residents and to develop a thoroughfare plan for Hunt County that is coordinated with other locally adopted planning documents in Hunt and adjacent counties.

The Plan goals supported the following principles for roadways in Hunt County:

- ❖ That street design should reflect the context of adjacent land uses.
- ❖ That streets should be safe for users at all times of the day.
- ❖ That roadways should be designed for the efficient movement of all modes of transportation.
- ❖ That streets should contribute towards achieving thriving natural/environmental, economic, and social systems.
- ❖ That streets should be designed to accommodate walking and bicycling for all residents.
- ❖ That streets should create a pleasurable environment for all users, especially pedestrians.
- ❖ That streets should enhance adjacent property values and support long-range development strategies.

Figure 6: Hunt County 2012 Thoroughfare Plan Recommendations

The Plan evaluated the existing roadway network by examining regional movements, then intra-county movements, and then local mobility issues. Recommendations included improvements to east-west connections to Collin and Rockwall counties, connections between Greenville, Commerce, and Quinlan, considerations for a countywide loop, establishment of regional corridors to permit through movements, and improved access to rural areas of the County.

Notable observations mentioned in the Plan included:

- ❖ That most of the forecast growth in Hunt County will occur outside of its incorporated areas.
- ❖ That 60 percent of all residential units in Greenville are within 1.5 miles of downtown.
- ❖ That the City of Greenville wants to grow into an economic, regional destination.
- ❖ That there were no funded Veloweb sections in Hunt County.
- ❖ That the City of Greenville is the only municipality within Hunt County that has plans for the development of bicycle and pedestrian facilities.

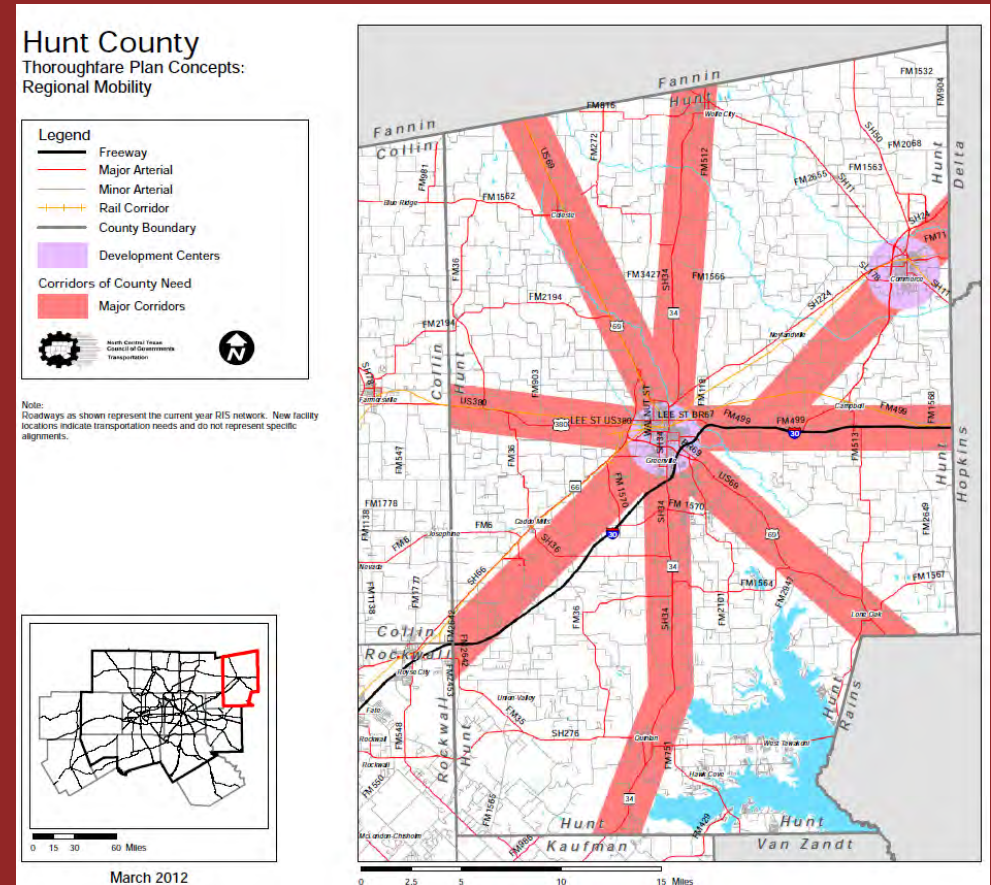


Figure 7: Hunt County 2012 Thoroughfare Plan Concepts

HUNT COUNTY BOND PROGRAM (2020 ANNUAL REPORT)

The mission of the Hunt County Bond Program is to leverage its tax dollars for state and federal transportation funds to solve mobility needs for the next 10 years, while planning for its mobility needs for the next 25 years.

The Hunt County Transportation Bond Program was approved by voters in November 2016 and is overseen by the Hunt County Transportation Steering Committee (TSC). The TSC reports to and makes recommendations to the Hunt County Commissioners Court for its consideration and approval.

In addition to funding a corridor study for SH 66 (from US 69 in Greenville to FM 2642 in Royse City), the Bond program is funding the design phase for the following six major capital improvement projects:

- ❖ FM 1570 (North) Greenville, four lanes from IH-30 to SH 66.
- ❖ FM 1570 (South) Greenville, four lanes from IH-30 to SH 34.
- ❖ FM 2642, Royse City, four lanes from FM 35 to SH 66.
- ❖ SH 36, Caddo Mills, four lanes from FM 1903 to Joshua Street and four lanes from IH-30 to FM 36.
- ❖ Reconstruction of SH 24 and SH 11 in Commerce.
- ❖ SH 34, Greenville, five-lanes from IH-30 to FM 1903 and, Quinlan, five-lanes from SH 276 to Main Street.

Construction for the FM 2642, FM 1570 South, and SH 24/SH 11 Commerce projects are currently funded by TxDOT through construction, with the remainder projects to be “shovel ready” when additional funding becomes available.



Figure 8: Hunt County Bond Program Project Prioritization

QUINLAN 2020 COMPREHENSIVE PLAN

The City of Quinlan only recently developed its first comprehensive plan. Its vision is to create a small-town community that provides for its citizens and businesses a safe environment, with quality housing, schools, infrastructure, retail, and employment opportunities. The goals of the Plan were to provide an appropriate balance of land uses to ensure a desirable community, strengthen Quinlan's economy, and develop quality roads, infrastructure, and services to all its residents.

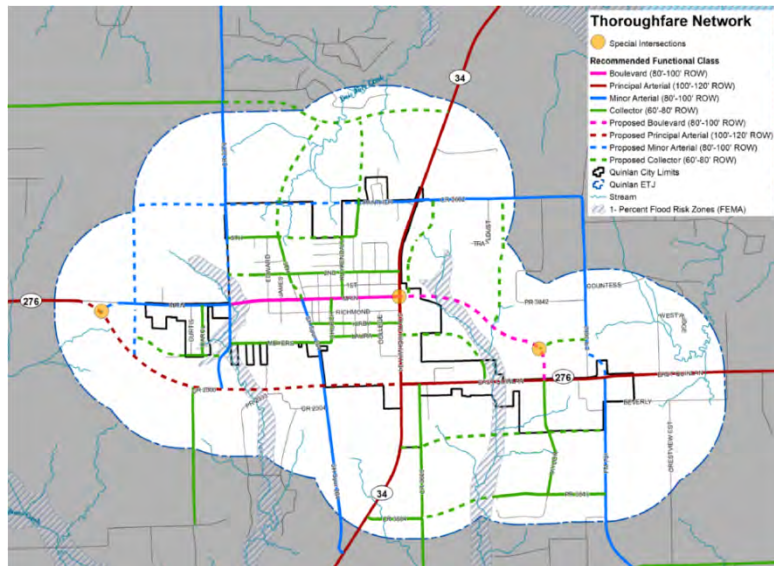


Figure 9: The Quinlan 2020 Thoroughfare Network

The Plan identified several key transportation issues facing the City:

- ❖ There was concern that the SH 276 bypass will reduce traffic along Main Street which may stymie future development.

- ❖ That the lack of curb and gutter on roadways prevents expansion of the sidewalk network and pedestrian activity throughout the City.
- ❖ That the streets are narrow and in poor condition.
- ❖ That SH 276 and SH 34 are the only primary routes with limited secondary alternatives that prevent connectivity to other communities.
- ❖ That offset intersections further inhibit circulation and connectivity.

Based on these and other observations, the Plan recommended that the City develop thoroughfare design standards to ensure consistency and quality throughout its roadway network; that Main Street be established as a boulevard to enhance the visibility of Downtown; that new connections be developed to improve local access and circulation and stimulate growth; that sidewalks be incorporated into the local roadway network; and that construction of the proposed SH 276 bypass proceed. The Plan also encouraged the City to consider other enhancements such as roundabouts, increased landscaping, additional signage, and gateway features.

Proposed improvements include widening SH 34 and SH 276 to a principal arterial, widening Main Street to a 4-lane boulevard, as well as upgrading numerous local roadways from local roadways to 2-lane minor arterials.

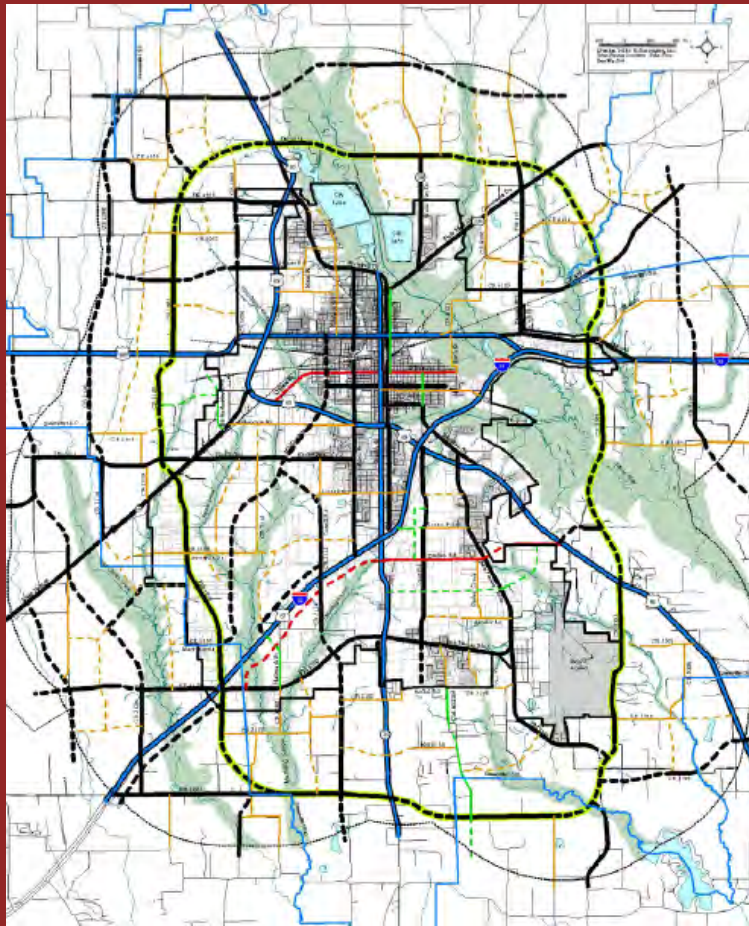


Figure 10: Greenville Thoroughfare Plan Network

GREENVILLE COMPREHENSIVE PLAN 2025 (2004)

The 2004 Greenville Comprehensive Plan is a long-range planning tool that is intended to be used by City staff, decision-makers, and citizens to guide the growth and physical development of the community for ten years, twenty years or even longer. It is the community's vision and is a long-range statement of public policy.

Updated in 2004, the Greenville Comprehensive Plan's primary focus were to accomplish the following:

- ❖ Efficient delivery of public services.
- ❖ Coordination of public and private investment.
- ❖ Minimization of potential conflicts between land uses
- ❖ Management of growth in an orderly manner
- ❖ Cost-effective public investments
- ❖ A rational and reasonable basis for making decisions about the community.

This Plan specifically reviewed proposed land uses and transportation networks versus existing conditions to make specific recommendations. Included in this Plan was the implementation of a circumferential loop around the City, consisting of FM 1570, FM 1903, and a combination of other county roads.

The Greenville Comprehensive Plan set out a detailed set of 14 goals and associated objectives. For transportation, the goal was to provide and efficient, safe, and connective transportation system that is coordinated with existing needs and with plans for future growth; this system should be economical and responsive to adjacent land uses.

Recommendations outlined in the Plan included:

- ❖ Completion of a complete loop around the City using existing right-of-way whenever possible.
- ❖ Extensions to Hogne Road, Wellington Street, Ablowich Street, CR 3033, CR 3101, and Trader Road.
- ❖ A new connection to Wesley Street to US 69.
- ❖ Widening of US 69 from FM 1570 to the ETJ line.
- ❖ Ensuring that the City is involved in any discussions or decisions related to IH-30.
- ❖ Coordinating thoroughfare planning efforts with regional transportation agencies.

Note that the project team coordinated with Greenville City staff to include recommended thoroughfares and design standards from the upcoming Greenville Comprehensive Plan and incorporated them into the 2022 Hunt County Thoroughfare Plan.

WEST GREENVILLE SMALL AREA PLAN (2011)

The Greenville Board of Development conducted a 13-month Small Area Planning Study (SAP) in western Greenville to determine the City's future planning efforts in regard to land use and transportation. The SAP built upon existing planning efforts to provide direction for future development and prioritized implementation actions.

One of the conclusions was that Greenville needs a variety of planning choices that blends both traditional land use and transportation planning with mixed-use, multi-modal options and form-based codes. Implementation of the Plan is expected to occur over the next 30 years. The SAP focused on three key areas - land use, transportation and pedestrian circulation, and the IH-30 corridor. There were four phases to the study - the data gathering and visioning phase, the analysis phase, and the recommendation phase.

During the public involvement process, the following comments pertinent to transportation were recorded:

- ❖ Limited tax base
- ❖ Large population works in Greenville but lives elsewhere.
- ❖ Autos dominate community.
- ❖ Limited pedestrian connections
- ❖ Limit existing sprawl
- ❖ Preference for walkable neighborhoods
- ❖ Desire for multi-modal transportation options
- ❖ Improvements to IH-30 and US 380
- ❖ All roads lead to Greenville
- ❖ US 69 is a NAFTA Corridor

- ❖ Preference for non-traditional development practices
- ❖ Avoid strip mall style development

In the transportation section of the report, several key principles were recognized:

- ❖ Area and regional connectivity should be facilitated through key corridors.
- ❖ The roadway network should interconnect with other existing streets to provide linkage with other important areas of the City.
- ❖ The Plan should support economic development and growth opportunities along IH-30 and within the planning area.
- ❖ The roadway network should serve as a framework through which internal circulation between neighborhoods, core area assets, and special districts can be achieved.
- ❖ Transportation options, as an alternative to vehicular travel, should be provided to area residents and include pedestrian, bikeway, and transit options.

The Plan noted that traffic operations overall ran at an acceptable level of service, except SH 34 both north and south of IH-30. The SAP notes that the existing development along IH-30 lacks continuity and a sense of place. The SAP recommends that future IH-30 corridor development consider backage roads for north-south connections to future developments.

The Plan for the area was based on several key principles:

- ❖ That the roadway network should connect with existing streets and provide linkages with other areas of the City.

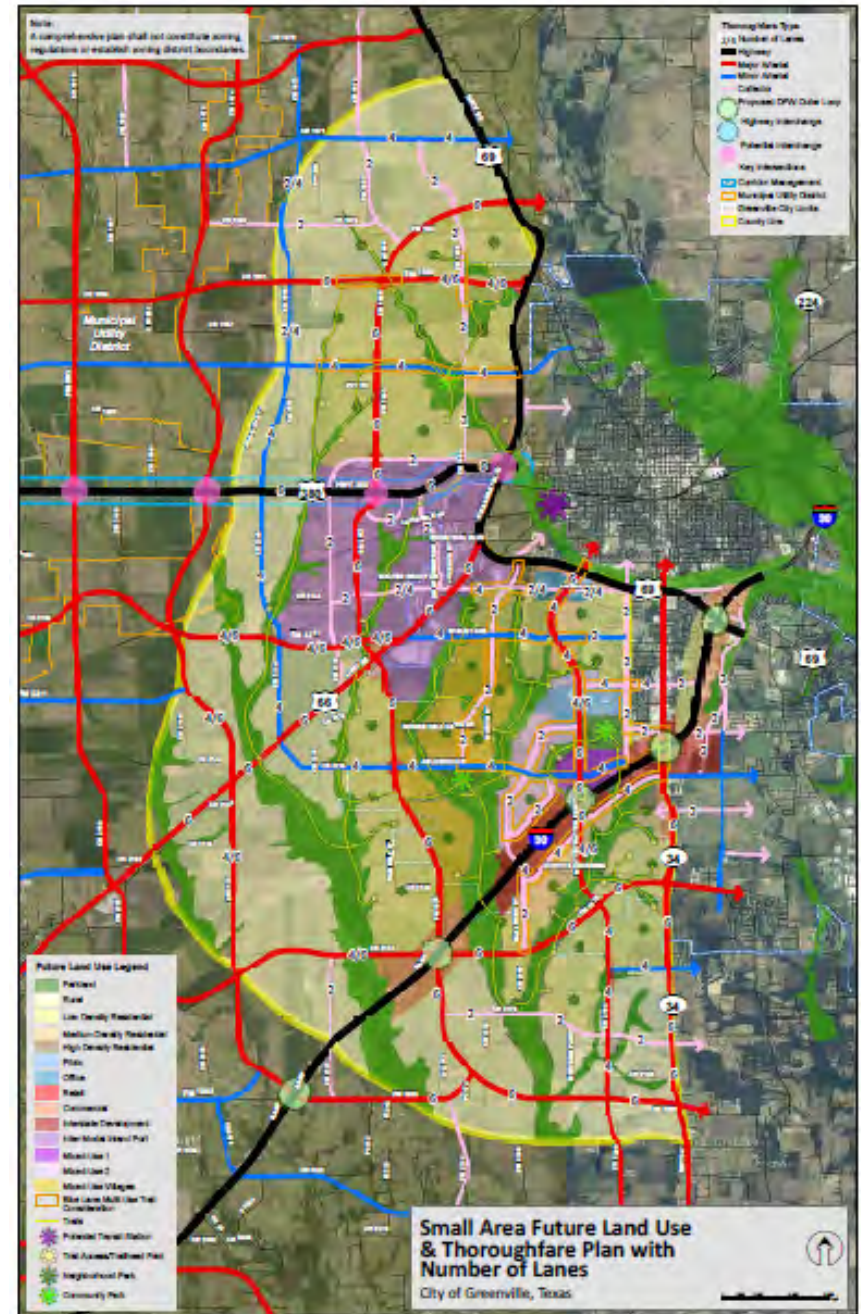


Figure 11: Greenville Small Area Plan

- ❖ That the Plan should support economic development opportunities along IH-30 and within the SAP study area.
- ❖ That the roadway network should serve as a framework through which internal circulation between neighborhoods, core area assets, and special districts can be achieved.
- ❖ That transportation options, as an alternative to vehicular travel, should be provided to area residents and include pedestrian, bikeway, and transit options.

Roadway recommendations laid out preferred roadway cross-sections, interchanges, and a network of major and minor arterial streets to serve new development within the SAP study area. Pedestrian and bike connections focus on a trail system and a network of on-street multi-use trails designed to link neighborhoods and parks.

GREENVILLE SMART GROWTH COMMITTEE

The City of Greenville has formed a committee to promote Smart Growth Principles. The City has embraced Smart Growth and this planning process included the review and consideration of incorporating Greenville’s Smart Growth Principles at a planning level. The City of Greenville supports the following concepts of Smart Growth Principles:

- ❖ Create a range of housing opportunities and choices.
- ❖ Create walkable neighborhoods.
- ❖ Encourage community and stakeholder collaboration.
- ❖ Foster distinctive, attractive communities with a strong sense of place
- ❖ Make development decisions predictable, fair, and cost-effective.
- ❖ Mix land uses.
- ❖ Preserve open space, farmland, natural beauty, and critical environmental areas.
- ❖ Provide a variety of transportation choices.
- ❖ Strengthen and direct development towards existing communities.
- ❖ Take advantage of compact building design.

ROYSE CITY 2030 | THE ROYSE CITY COMPREHENSIVE PLAN (2017)

Royse City has seen increased migration from Dallas County, especially along IH-30 and was looking for solutions on how to maintain its small town feel while accommodating new residents and businesses. Updated from 2001, the Royse City Comprehensive Plan is based on four guiding principles: an Engaged Community, Resource Stewardship, Fiscal Responsibility, and Livable design.

Under its goal of mobility, the Plan stated the following policies for transportation.

- ❖ Multimodal Mobility: Minimize traffic and the demand for travel lanes by creating a viable, functional multimodal transportation network.
- ❖ Safe and Connected Pedestrian/Bicyclist Network: Build and maintain a mobility network for pedestrians and bicyclists that is safe, functional, comfortable, and well connected.
- ❖ Accessible Transportation for Everyone: Provide access to public transit, walking and biking trails for people of all ages and physical abilities.
- ❖ Traffic Congestion and Transportation Demand: Utilize technology, innovative concepts, and transportation demand management strategies to reduce traffic demand and improve the safety and efficiency of the roadway network.
- ❖ Flexible Roadways and Corridors: Design and utilize roadway corridors with minimal investment to

accommodate mobility needs and adjacent land uses as they evolve over time.

- ❖ Improve Regional Connectivity: Collaborate with neighboring partners to improve the mobility network in the region.

The Plan listed as one of its top action items a plan for routing SH 66 around the downtown, or the development of a slow speed couplet on Main and Church Streets.



Figure 12: Royse City 2030 Identity Statement and Guiding Principles

THE COLLIN COUNTY MOBILITY PLAN 2014 UPDATE

The Collin County Mobility Plan (CCMP) was last updated in 2011 and, due to continued growth, required a major revision in 2014. The CCMP is the officially adopted Plan that identifies the transportation needs of the County and acts as a guide for all transportation system improvements, including highways, county roads, transit services, and pedestrian and bike networks. It provides the County with a framework to determine which transportation choices are best suited to maintain a high-level quality of life in Collin County.

The goals of the Plan were to:

- ❖ Maintain the existing transportation infrastructure through the implementation of maintenance and rehabilitation programs.
- ❖ Build new elements of the system to serve increased travel demand.
- ❖ Reduce congestion to improve traffic flow.
- ❖ Enhance the economic competitiveness of Collin County.
- ❖ Ensure that the CCMP and the thoroughfare and transit plans are updated regularly.

The CCMP recommends a set of revised geometric design standards and classification for roadways, the extension of rail or bus rapid transit further north and east into Collin County.

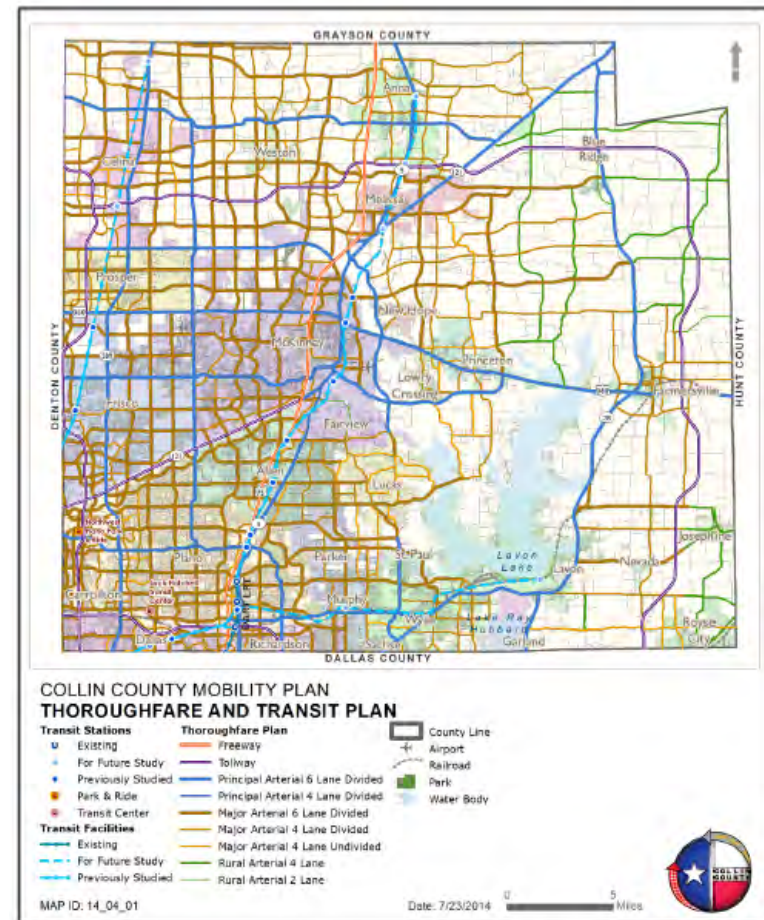


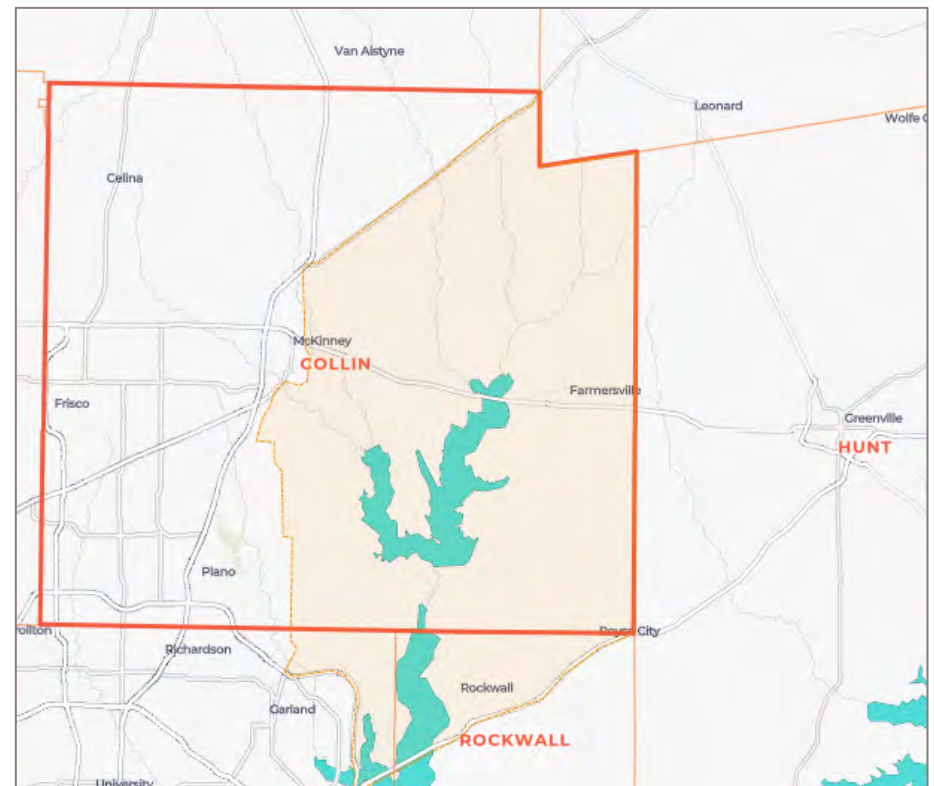
Figure 13: Collin County Mobility Plan

Recommended roadway improvements included widenings along the Dallas North Tollway, President George Bush Turnpike, Sam Rayburn Tollway/SH 121, Coit Road, Alma Road, Parker Road, Custer Road, SH 5, and US 380.

The CCMP also recommends additional study on US 380, west of Airport Road in McKinney; SH 78, between Wylie and Lavon; and Preston Road/SH 289, from the south county line to US 380.

COLLIN COUNTY FUTURE MOBILITY STUDY (2021)

Collin County has experienced continued rapid growth and is conducting a review of its network in the eastern and southeastern areas of the County to determine future transportation needs. This study includes a review of existing and future travel conditions and a comprehensive outreach program. This study is expected to be completed by the end of 2022.



Source: www.ccfuturemobility.com

Figure 14: Collin County Future Mobility Study Area

KAUFMAN COUNTY TRANSPORTATION PLAN (2016)

Kaufman County continues to receive strong growth from Dallas County and required an update to its transportation plan to provide mobility solutions. The Plan serves as a guide for addressing long-range transportation needs and provides investment strategies to accommodate continued growth. Because the Plan guides the preservation of rights-of-way needed for the development of long-range transportation improvements, it has far-reaching implications on the growth and development of urban and rural areas.

The goals and objectives were developed in collaboration with Kaufman County and are based on four main goals, with the primary tenet of improving mobility for all users. These four main goals are to:

- ❖ Enhance economic vitality by providing a seamless and efficient connectivity to support development.
- ❖ Maintain and preserve existing infrastructure; preserve communities by maintaining streets, utilities, and other infrastructure facilities.
- ❖ Promote fiscal stewardship by prioritizing investments that maximize benefits across multiple user groups in a way that is fiscally and environmentally responsible.
- ❖ Create a special place to live by creating a network that blends seamlessly with the character of communities within the County.

During the development of the Plan, stakeholders identified primary transportation issues and needs. These included the need for improved north-south and east-west connectivity,

increasingly congested corridors in northwestern Kaufman County, and the presence of dangerous intersections and curves within the roadway network.

Proposed improvements include the construction of a north-south connector, a southern connector that links SH 34 to the north-south connector, the relocation of SH 34 between the cities of Terrell and Kaufman, the extension of FM 986 north of the cities of Terrell and Forney, the realignment of FM 1392, and the FM 148 bypass east of Crandall.



Figure 15: The Kaufman County Thoroughfare Plan

ROCKWALL COUNTY THOROUGHFARE PLAN (2018)

The purpose of the Rockwall County Thoroughfare Plan was to establish a framework for the long-term development of its transportation system and preserve rights-of-way for future network development. The Plan identified five key goals: mobility; preservation and maintenance of the existing infrastructure; creating a special place to live; fiscal stewardship; and enhancing the economy.

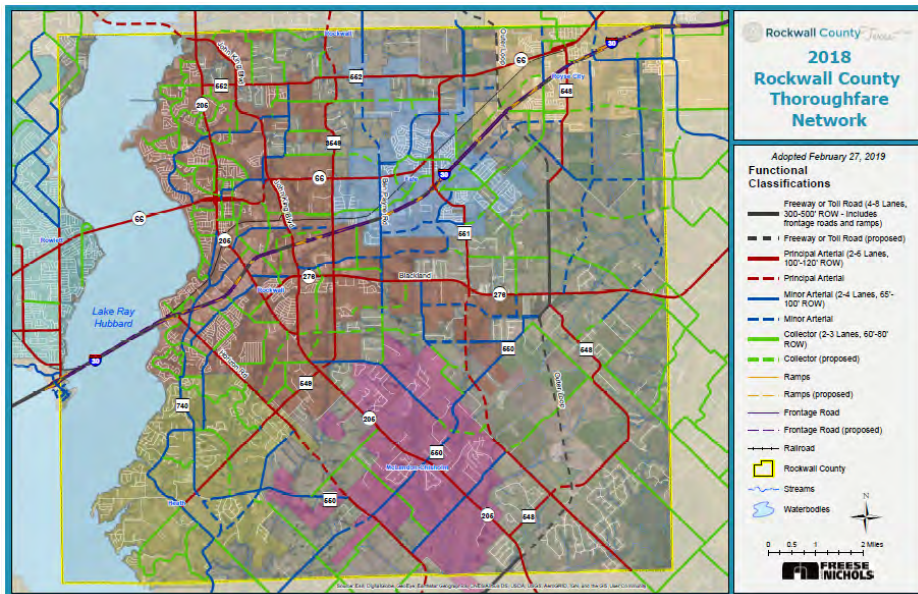


Figure 16: Rockwall County Thoroughfare Plan

A review of existing network conditions revealed that while the current network serves the county's needs, there is limited east-west and north-south mobility, few quality access points into the County, and a sparse roadway network in the southeastern sector of the County. After a review of existing conditions and revisions to the 2045 network, the following network improvements were recommended:

Road	Limits	Functional Classification	Lanes
Ben Payne	CD Boren to FM 552	Minor Arterial	4
CD Boren Pkwy	FM 552 to SH 66	Minor Arterial	2
Cornelius Extension	FM 549 to Ben Payne	Collector	2
Discovery Blvd	Williamsburg Pkwy to Data Dr	Minor Arterial	4
FM 551 Extension	Edwards Rd to SH 276	Minor Arterial	4
Outer Loop Extension	IH 30 Interchange to Kaufman County Outer Loop Alignment	Highway	
FM 1139 Extension	FM 551 Extension to FM 550	Collector	2
FM 740 Extension	FM 549 to Rabbit Ridge Ext	Minor Arterial	4
Rabbit Ridge Extension	King Street to FM 550	Minor Arterial	4
Horizon Rd Extension	Rabbit Ridge Ct to FM 550	Minor Arterial	4
John King Extension	SH 205 Horizon Rd	Major Arterial	4
John King Bridge	SH 205 to Troy Rd	Major Arterial	4
FM 549 Extension	Horizon Rd to FM 1139	Minor Arterial	4
Gettysburg Blvd Extension (West)	Rochelle Rd to Williamsburg Ext	Minor Arterial	4

Table 2: Network Recommendations

Additional policy recommendations included regular plan updates, revisions to the County subdivision regulations, development of a county road pavement index, coordination with adjacent counties on the development of an outer loop, and regular assessment of network roadways and bridges.

SH 34 FEASIBILITY STUDY

TxDOT conducted a study of SH 34, from IH-30 in Greenville, south to CR 2312 at the Hunt/Kaufman County line to evaluate roadway congestion and identify potential mobility and safety improvements. Proposed improvements included intersection improvements, rehabilitation of existing bridges, and widening the roadway to a five-lane facility (except for the southernmost section which would be four lanes) with two lanes in each direction and a center two-way left turn lane (TWLTL). The total cost was expected to be approximately \$149 million.

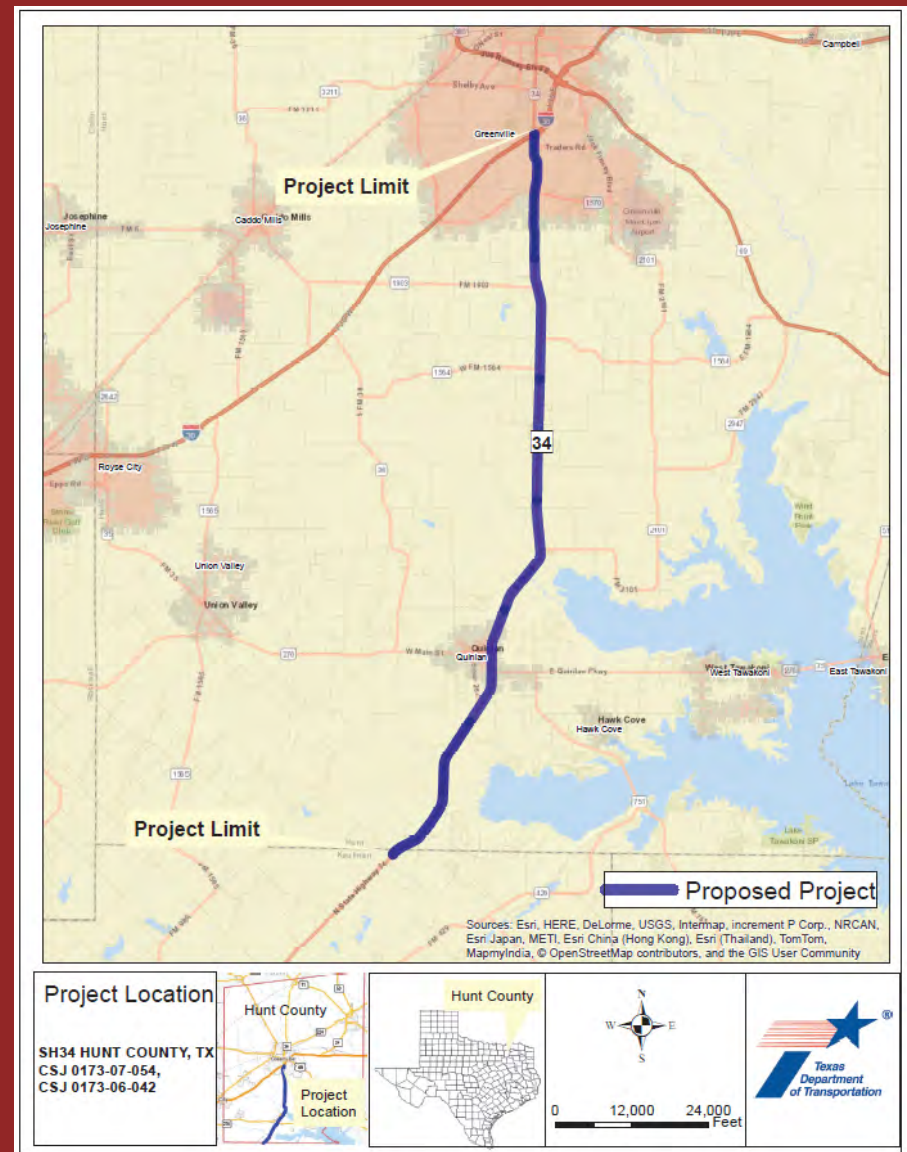


Figure 17: SH 34 Feasibility Study

DEMOGRAPHICS

POPULATION

Hunt County is expected to have sustained continuous population growth for the next 50 years. The overall population in Hunt County is forecast to grow by almost 65 percent, from 80,978 people in 2005 to 134,291 people by 2045, with an annual growth rate of approximately 1.3 percent (Figure 18).

Projections by the Texas Water Development Board are even more optimistic, Table 3 shows a growth of over 260 percent from 104,894 in 2020 to almost 380,000 by 2070 an increase of 262 percent, with an annual growth rate of 2.6 percent.

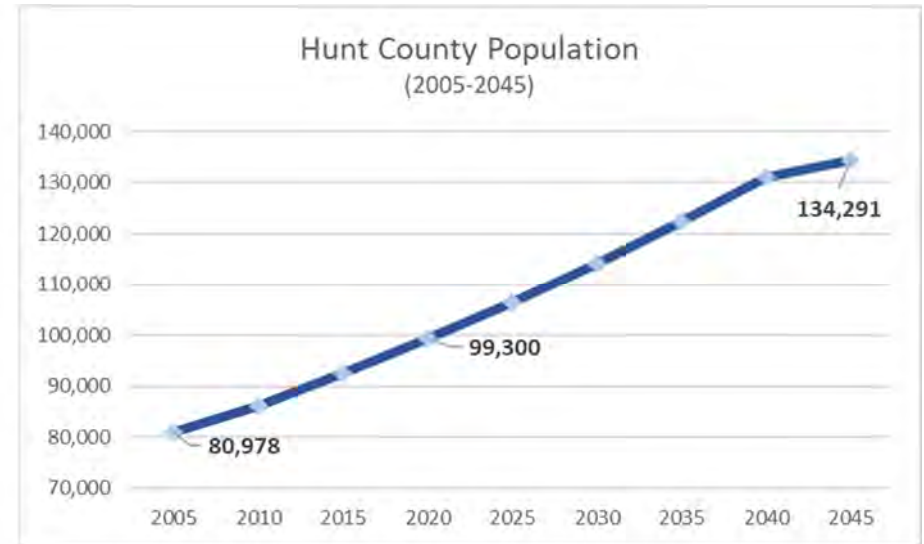
City	2020	2030	2040	2050	2060	2070	Growth Rate
CADDO MILLS	1,710	2,214	2,898	3,843	5,190	7,147	2.9
CAMPBELL	777	965	1,221	1,574	2,077	2,809	2.6
COMMERCE	8,883	9,975	11,456	13,502	16,416	20,651	1.7
GREEVILLE	28,700	32,964	38,749	46,738	58,120	74,659	1.9
LONE OAK	749	954	1,232	1,617	2,165	2,962	2.8
QUINLAN	1,441	1,505	1,591	1,711	1,882	2,130	0.8
ROYSE CITY	10,864	15,452	23,572	45,737	80,973	91,316	4.3
WEST TAWAKONI	1,800	2,104	2,516	3,086	3,898	5,078	2.1
HUNT COUNTY	104,894	130,351	164,886	212,575	280,518	379,250	2.6

Source: Texas Development Water Board

Table 3: Hunt County Population Growth Forecast

Population growth is forecast to remain strong in all cities in Hunt County, with Royse City showing the greatest increase and highest growth rate (4.3 percent). Based on current trends and

forecasts, Royse City¹ will surpass Greenville as the largest city in Hunt County by 2050.



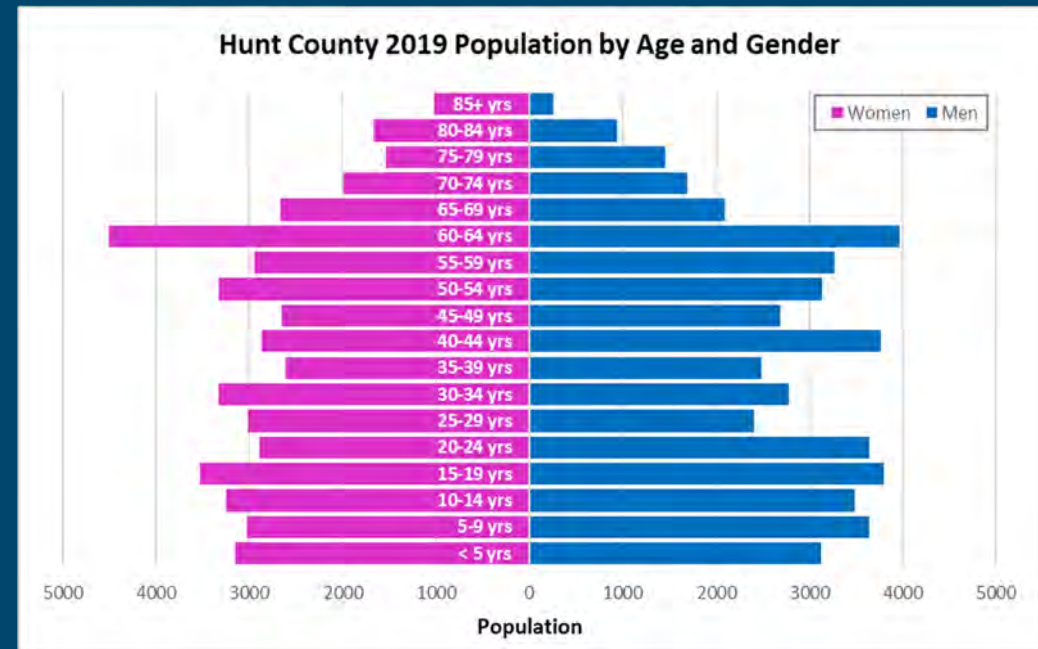
Source: NCTCOG

Figure 18: Hunt County Population Forecast

Figure 20 shows that growth is projected to be mostly concentrated west of US 69 and in the southwest areas of the County, including Caddo Mills, with limited growth in the north and east. Population growth in western Hunt County and in the Quinlan-West Tawakoni area is expected to continue to remain strong. Growth in and around Royse City and south of Greenville will also remain at high levels.

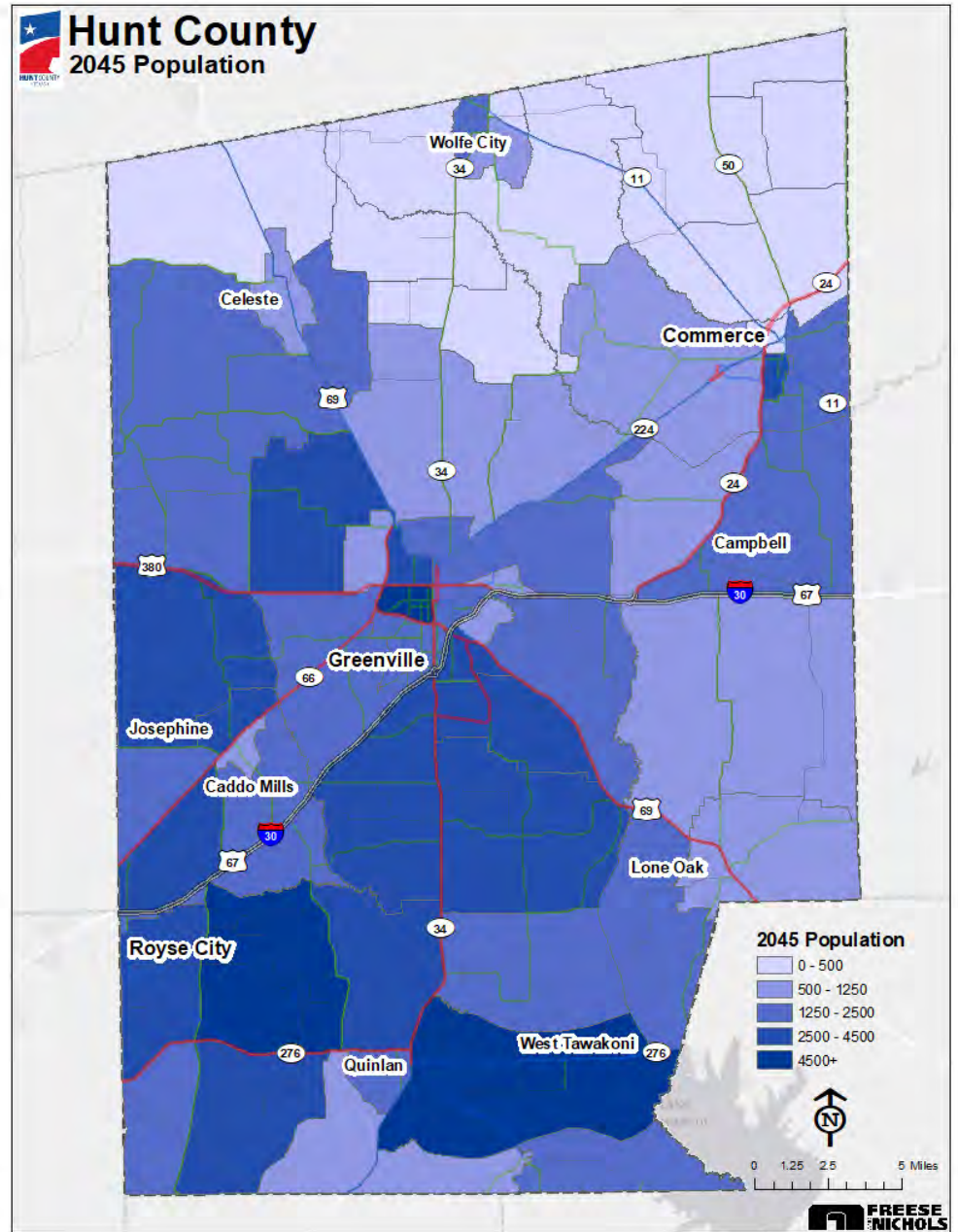
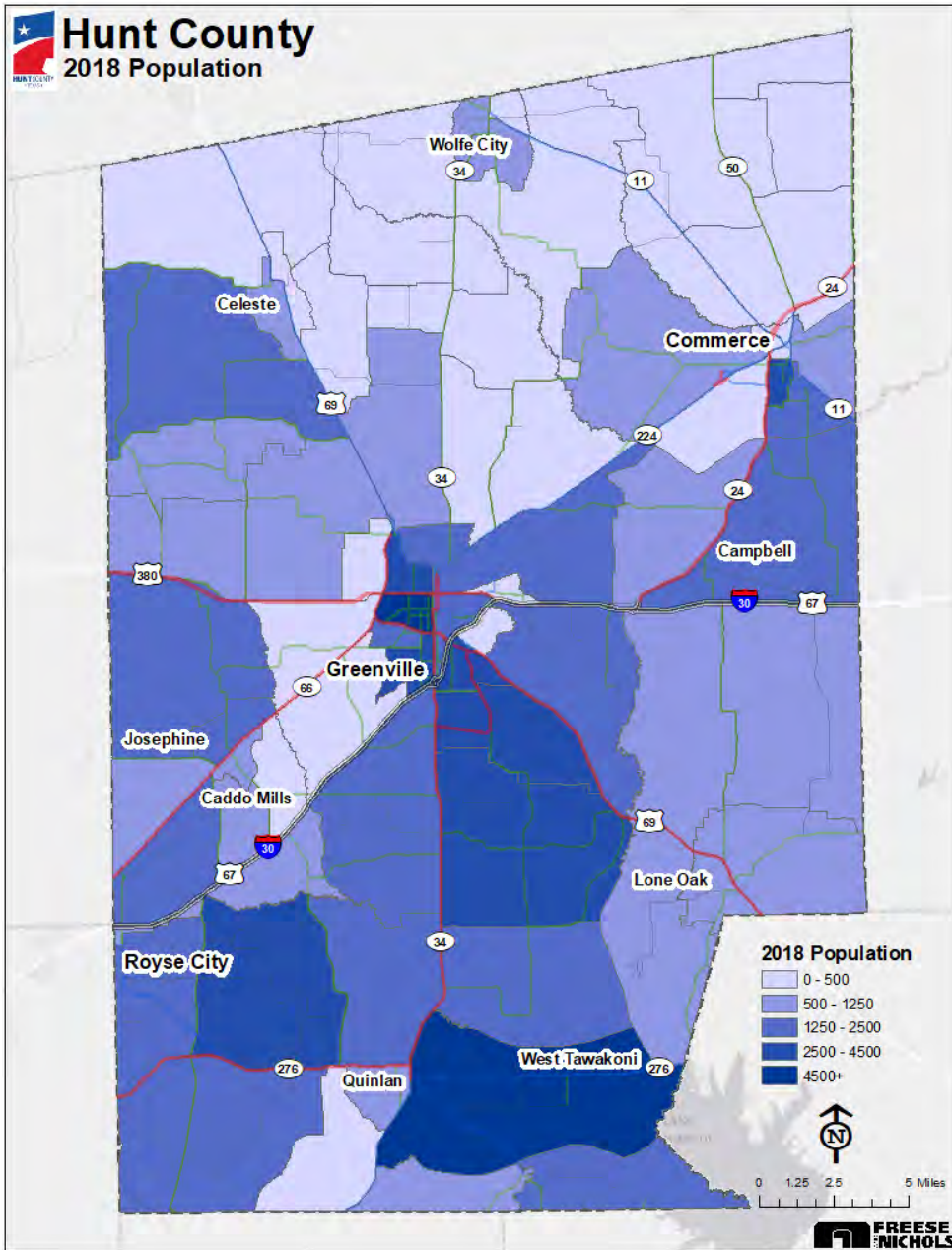
¹ Royse City is located within Hunt, Collin, and Rockwall counties.

Population by age remains relatively evenly split between males and females until the later years, when the female population becomes more dominant. As shown in Figure 19, the largest population cohorts are those less than 20 years, 40-44 years, and 50-64 years. These groupings suggest that younger population groups will become more dominant over the next 20 years as the population ages. The consequence of these changes will be a need to change plans, policies, and projects that are more reflective of their preferences and needs.



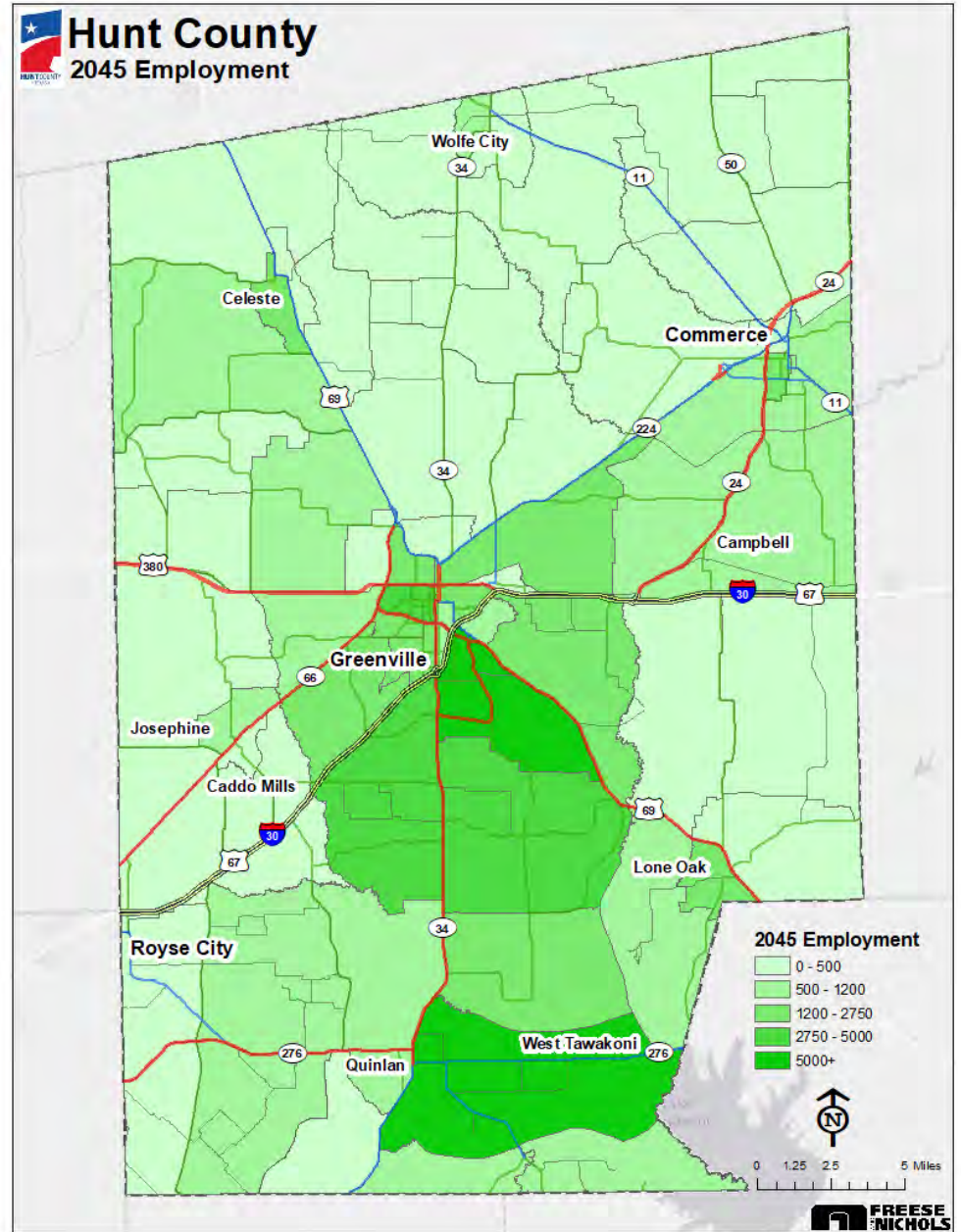
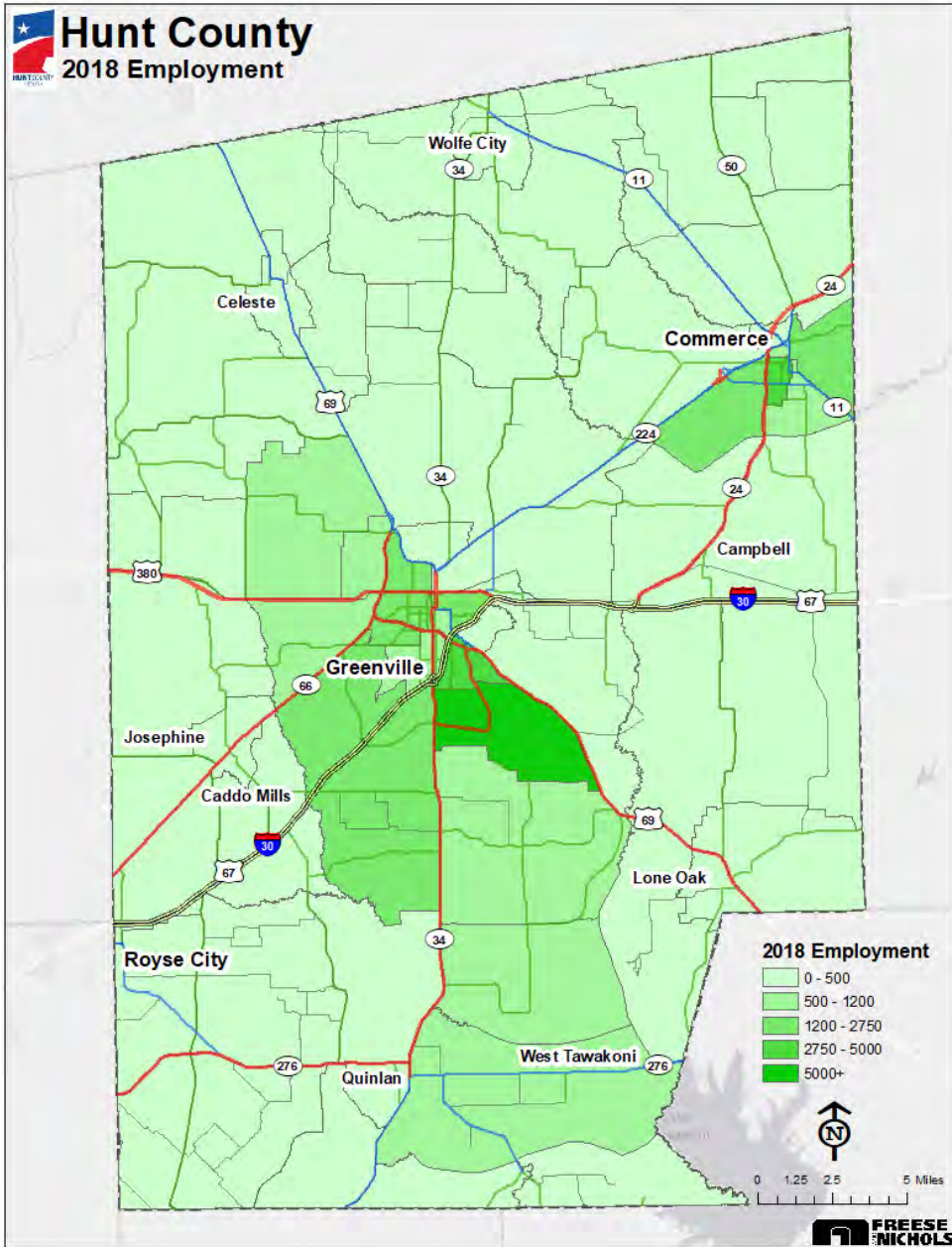
Source: 2019 American Community Survey

Figure 19: Hunt County 2019 Population by Age and Gender



Source: NCTCOG

Figure 20: Population Growth Forecast Maps



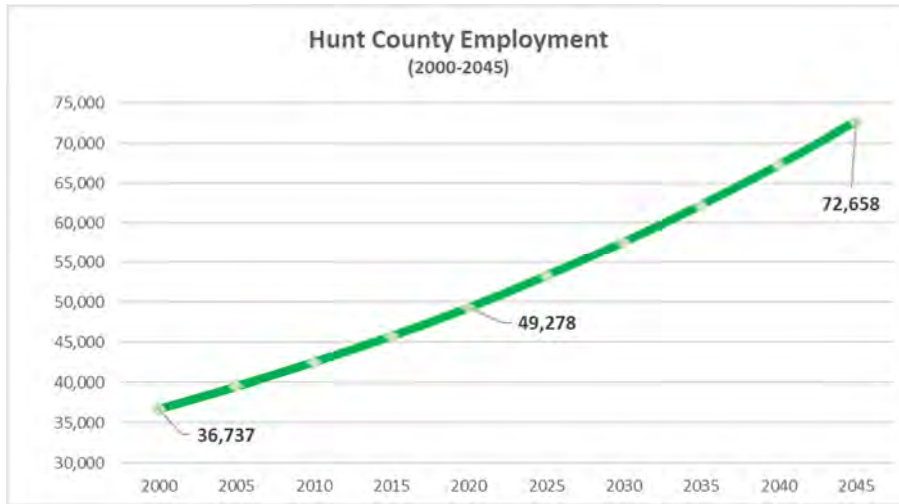
Source: NCTCOG

Figure 21: Employment Growth Forecast Maps

EMPLOYMENT

Projections indicate that employment growth will remain strong until at least 2045. As Figure 22 shows, forecasts show an annual growth rate of 1.5 percent from 26,737 jobs in 2000 to 72,658 jobs by 2045 - an overall increase of almost 98 percent.

Figure 21 shows that much of this growth is expected to occur in the south and west of Greenville. Areas in the northern and eastern parts of Hunt County are not expected to receive large increases in employment at this time.



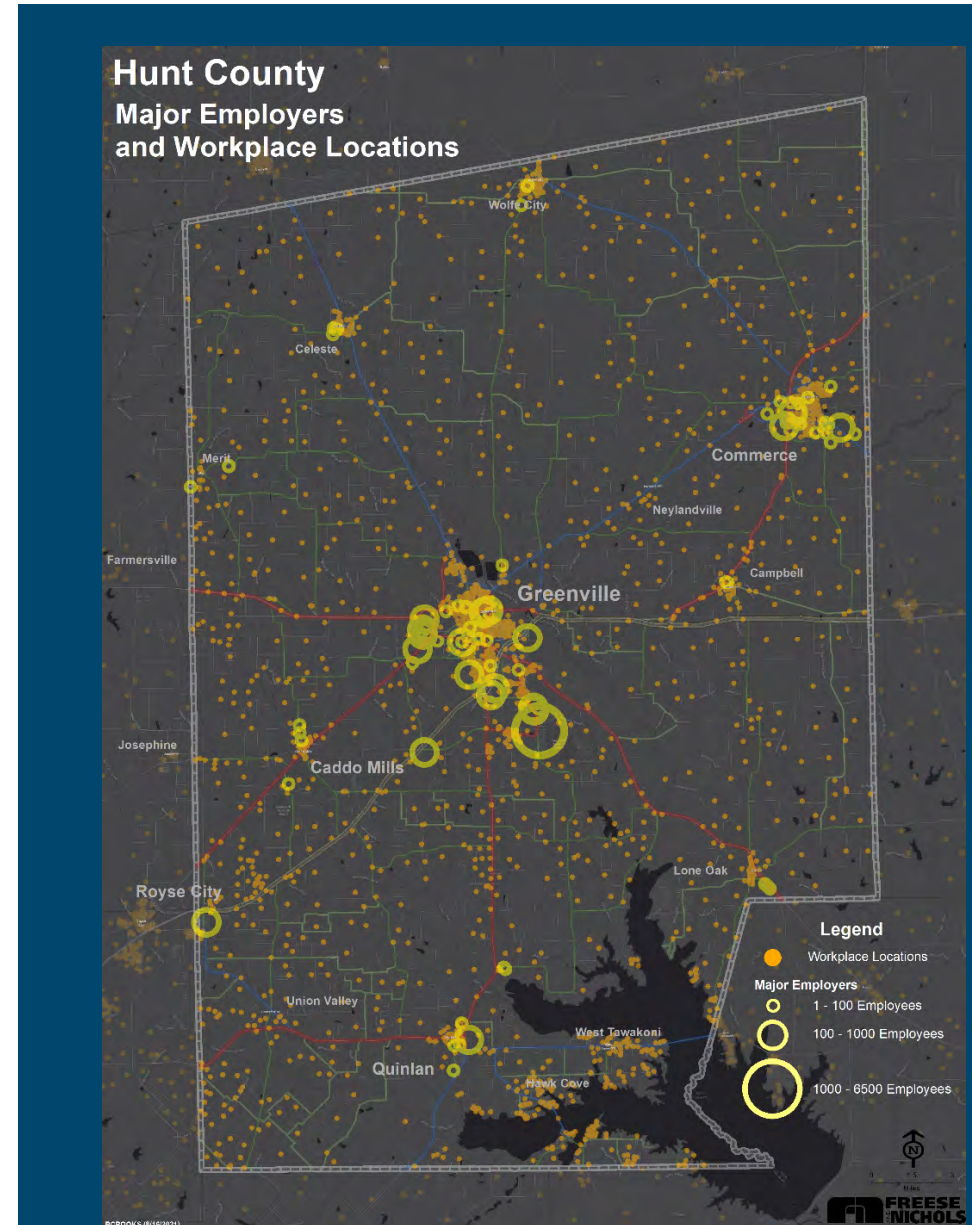
Source: NCTCOG
Figure 22: Employment Growth in Hunt County

MAJOR EMPLOYERS AND WORKPLACE LOCATIONS

As Figure 23 illustrates, most employers are located in cities and urban areas of Hunt County.

The largest employers are L3 Technologies, Texas A&M University-Commerce, and the Hunt County Regional Medical Center. Other major employers include local school districts,

municipalities, and various professional, retail, and manufacturing businesses.



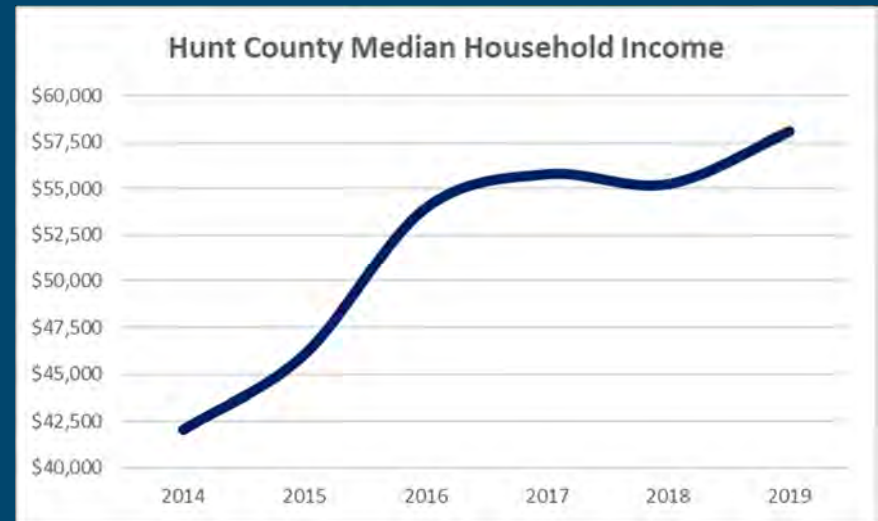
Source: NCTCOG and US Census

Figure 23: Major Employers and Workplace Locations in Hunt County

HOUSEHOLD INCOME

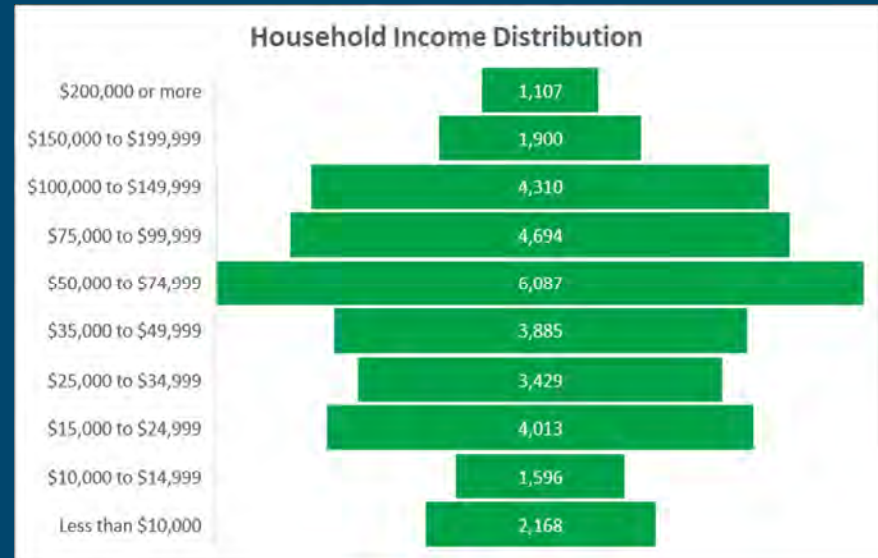
Incomes strongly correlate to trip activity and auto use; the higher the household income, the greater likelihood of more trips and more trips by auto. As shown in Figure 24, median household incomes have risen, from just over \$42K per household in 2014 to over \$58K per household in 2019, a 38 percent increase in just 6 years.

Figure 25 shows income distribution per household is highest at the \$50-\$70K range, indicating the presence of large numbers of households with moderate incomes. Note that while many households have moderate to high income levels, there are also numerous households with low incomes, indicating the potential need for transportation services for those on limited incomes.



Source: American Community Survey

Figure 24: Recent Historical Trend of Median Household Income

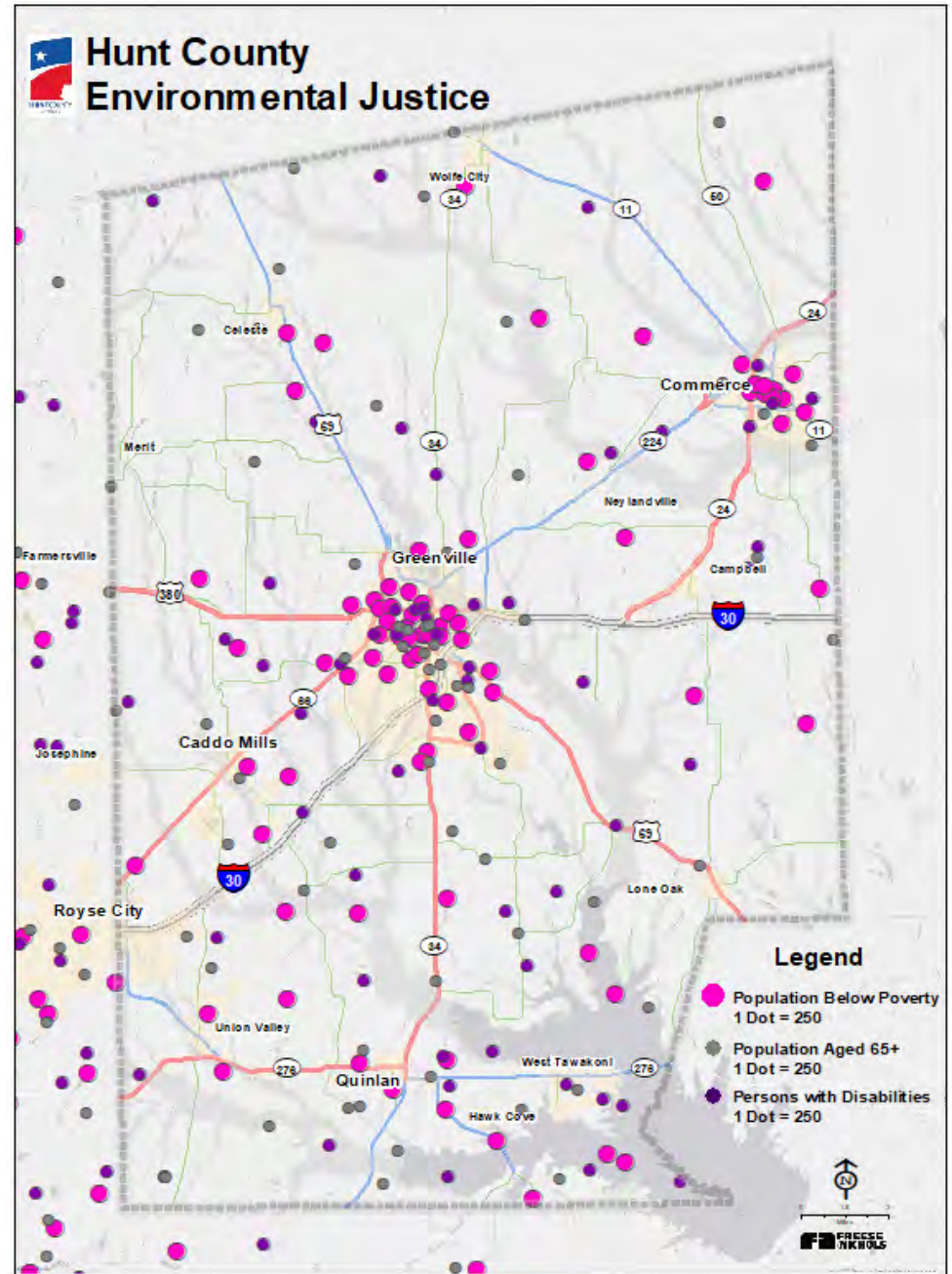


Source: 2019 American Community Survey

Figure 25: Distribution of Household Income

ENVIRONMENTAL JUSTICE

Proposed projects and recommendations must be equitably distributed to include, and not discriminate against, disadvantaged persons. The U.S. Government has identified environmental justice as a major concern and has developed extensive guidance on addressing the adverse impacts of development on identified low income and minority populations. As shown in Figure 26, low income, disabled, and seniors (persons aged 65+ years) are concentrated in Greenville and Commerce, with other groupings spread throughout the County. Note that many of these concentrations do not overlap, suggesting that many of these locations may either be low income, disabled, or senior, but not necessarily a combination of them.



Source: NCTCOG

Figure 26: Environmental Justice Population Concentrations in Hunt County

TRAVEL BEHAVIOR

HUNT COUNTY TRANSPORTATION PROFILE

Understanding traveler behavior is key to developing solutions to mobility needs and thoroughfare plan development. As shown in Figure 27, commute times for Hunt County residents vary, with most workers having commuting times less than 35 minutes. Around 20 percent of all workers have commutes over an hour, with 5 percent having over 90-minute commutes. Travel by residents in Hunt County is heavily auto oriented; over 90 percent of all commuters travel by car. Even so, there are also small but substantial numbers of households with no vehicles that are reliant on other transportation modes and services for mobility in Hunt County.

Education relates strongly to income level which in turn relates to the number of trips per household; the greater the household education, the greatest likelihood that more trips will be generated. The population in Hunt County is generally well educated, with over 50 percent having a college education.

A review of population by generation indicates that younger generations, Generation Z and Millennials, make up the largest segment of the population in Hunt County. These groups have shown to exhibit changing preferences for transportation. Therefore, decisions regarding the future of transportation in the region should reflect this shift in demographic composition.

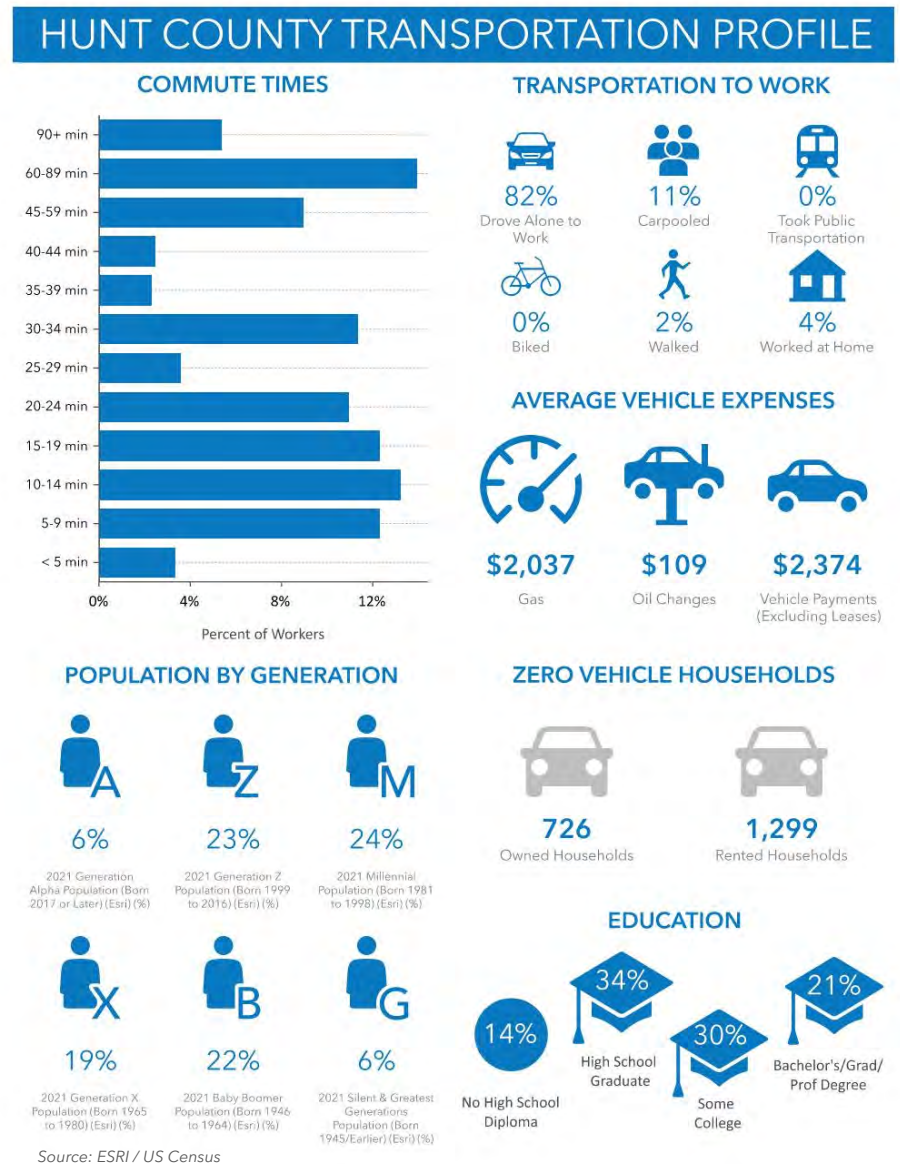


Figure 27: Hunt County Transportation Profile

COMMUTER BEHAVIOR

Commuters from Hunt County that travel to jobs within the DFW Metroplex follow set travel patterns. As illustrated in Figure 29, most commuters either travel into Hunt County or leave the County for work, with only a small percentage of workers living and working within the County. Greenville remains the top work destination for workers in Hunt County.

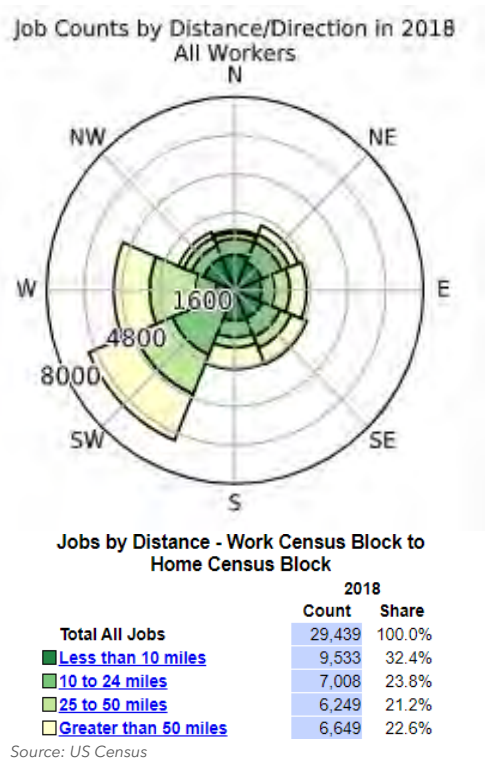
Among those who leave Hunt County to work, most travel is to the west and southwest toward the core of the Metroplex (as shown in Figure 28). It also shows many commuters that travel greater than 50 miles to work destinations.



Source: US Census

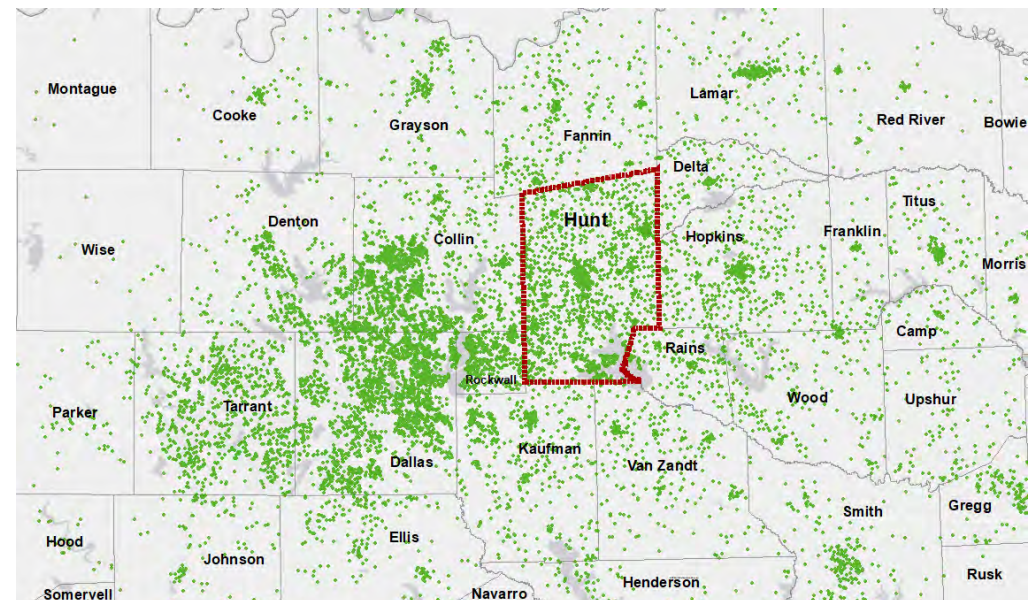
Figure 29: Hunt County Commuter Flows

Figure 30 illustrates the overall commute trip destinations within the DFW Metroplex and beyond. This shows that Hunt County residents travel long distances to jobs in Dallas, Tarrant, and Collin counties, and additional destinations to the south and east such as Kaufman, Hopkins, Lamar, Rains, Van Zandt, Titus, and Smith counties.



Source: US Census

Figure 28: Commute Directionality



Source: US Census

Figure 30: Commute Trip Destinations of Hunt County Residents

EVALUATING TRAVEL DEMAND

OBSERVED TRAFFIC VOLUMES

Understanding how traffic flows into and out of Hunt County is key to understanding priority areas for improvement. Using the latest available NCTCOG daily traffic count data, traffic flows at major entry points into Hunt County were analyzed.

These flows were aggregated by geographic entry point and are summarized below. Figure 31 illustrates the set screenlines, observed counts, and traffic count locations.

Area	EB	WB	NB	SB	Total
North			N/A	N/A	10,282
Northeast	6,508	6,214	N/A	N/A	12,722
East	14,962	15,480			30,442
Southeast	N/A	N/A	N/A	N/A	15,120
South			N/A	N/A	14,445
Southwest	44,672*	29,813*	N/A	N/A	74,485
West	7,488	7,224			14,712
Northwest	N/A	N/A	N/A	N/A	1,925
Total	N/A	N/A	N/A	N/A	174,133

*Estimate

Table 4: Screenline Summary Table

As Table 4 reveals, the greatest traffic flows are in the southwest, with 74,485 vehicles. This is consistent with commuter flow activity presented in the previous section. The northwest had the lowest amount of vehicle activity with 1,925 vehicles per day. East traffic flows were more than double the daily traffic in the west, and southern traffic flows were slightly higher than those in the north.

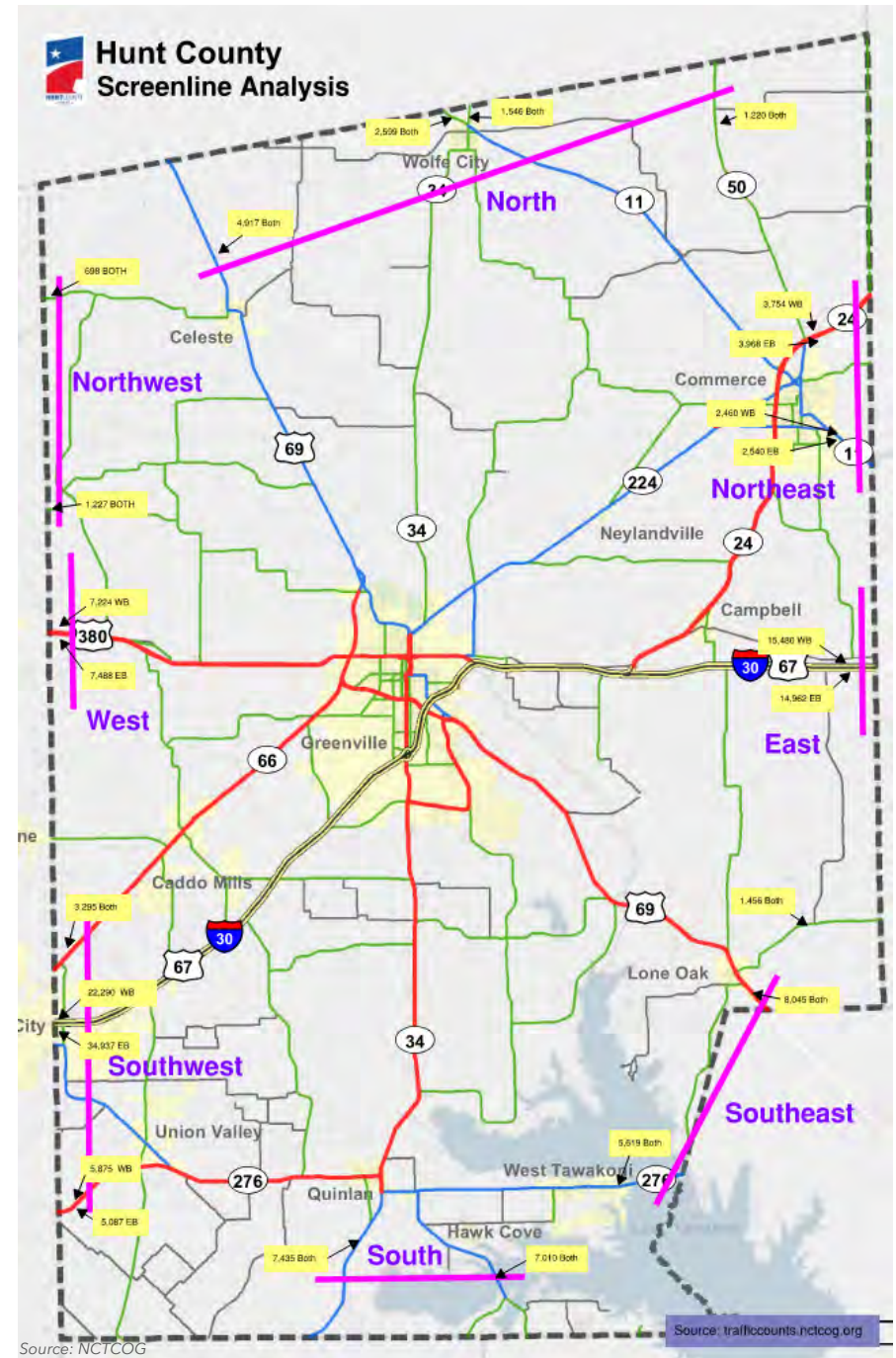


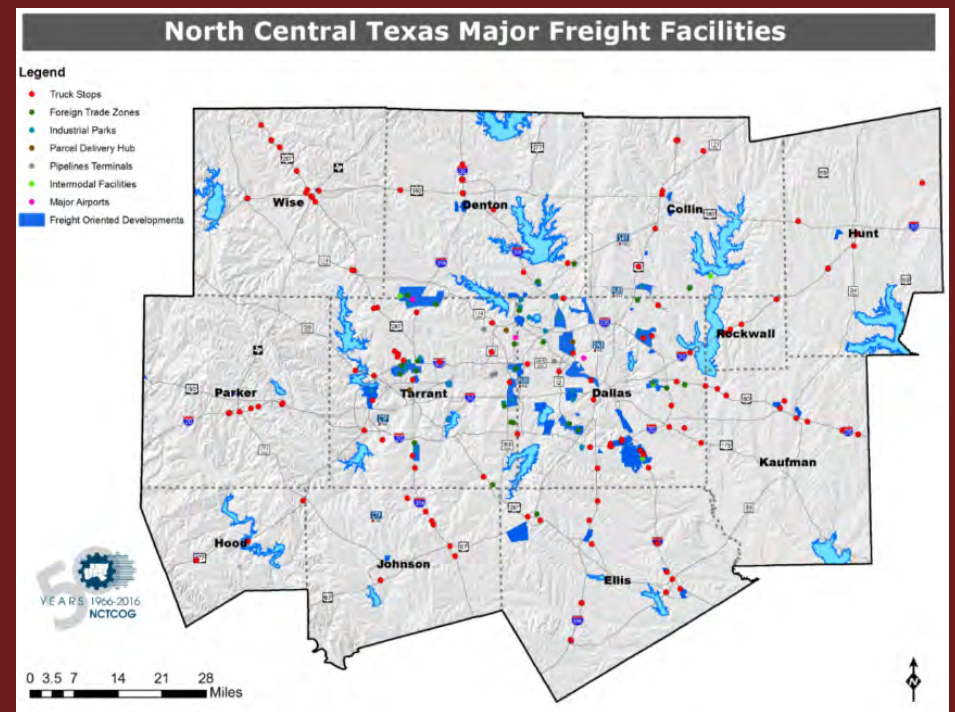
Figure 31: Hunt County Screenline Analysis

TRUCKING

Trucking and intermodal freight play a major role in the overall economy of both Hunt County and the larger region. Interstate 30 is a strategic intermodal corridor for the nation and has the highest truck volumes in the County in both 2018 and projected for 2045 (see Figure 33). Forecast growth in freight traffic will mean that trucks will become more prevalent on SH 34, SH 276, SH 224, SH 24, and US 69. This will make improving major roadways in Hunt County increasingly important to ensure freight mobility and overall roadway safety. Additional interchanges and/or interchange improvements along IH-30 may be necessary to accommodate forecast increases in truck traffic.

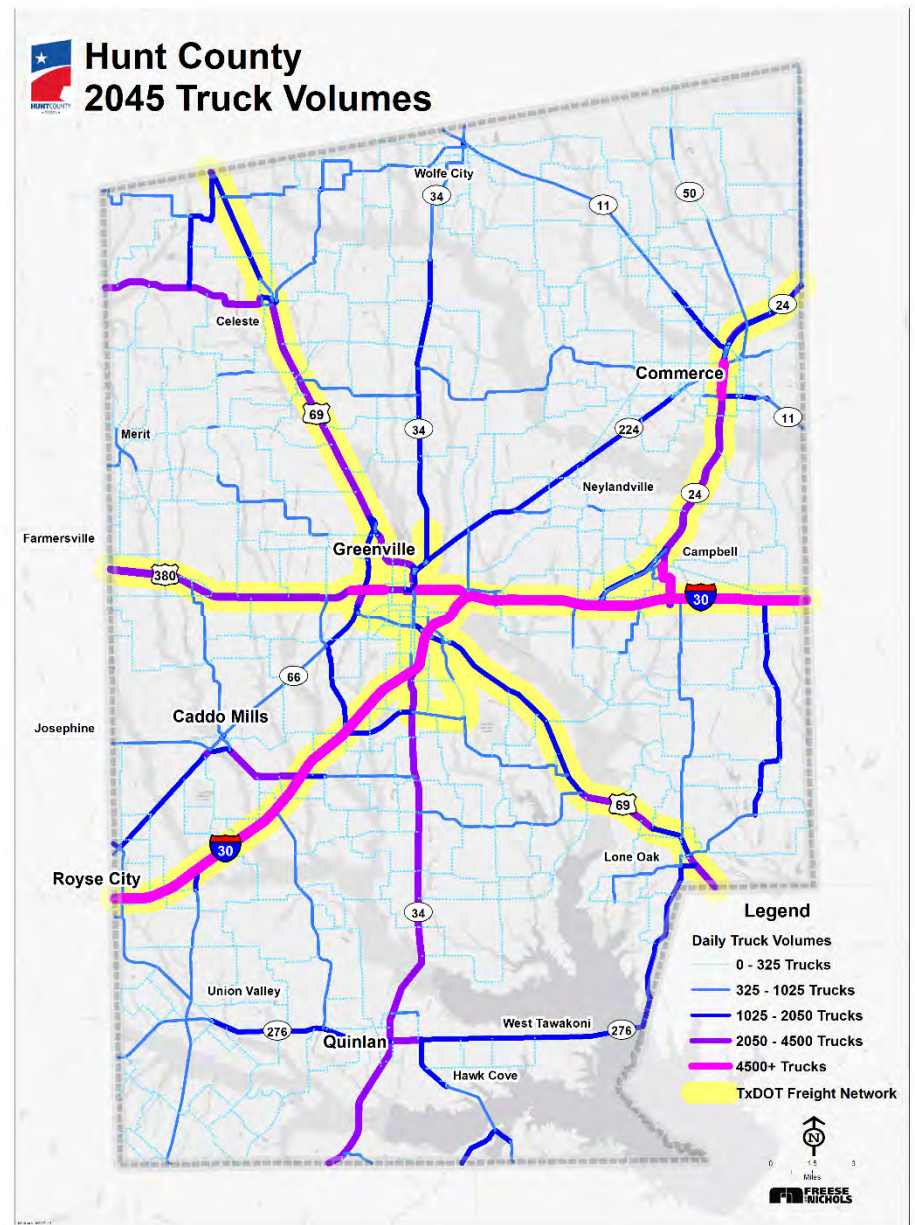
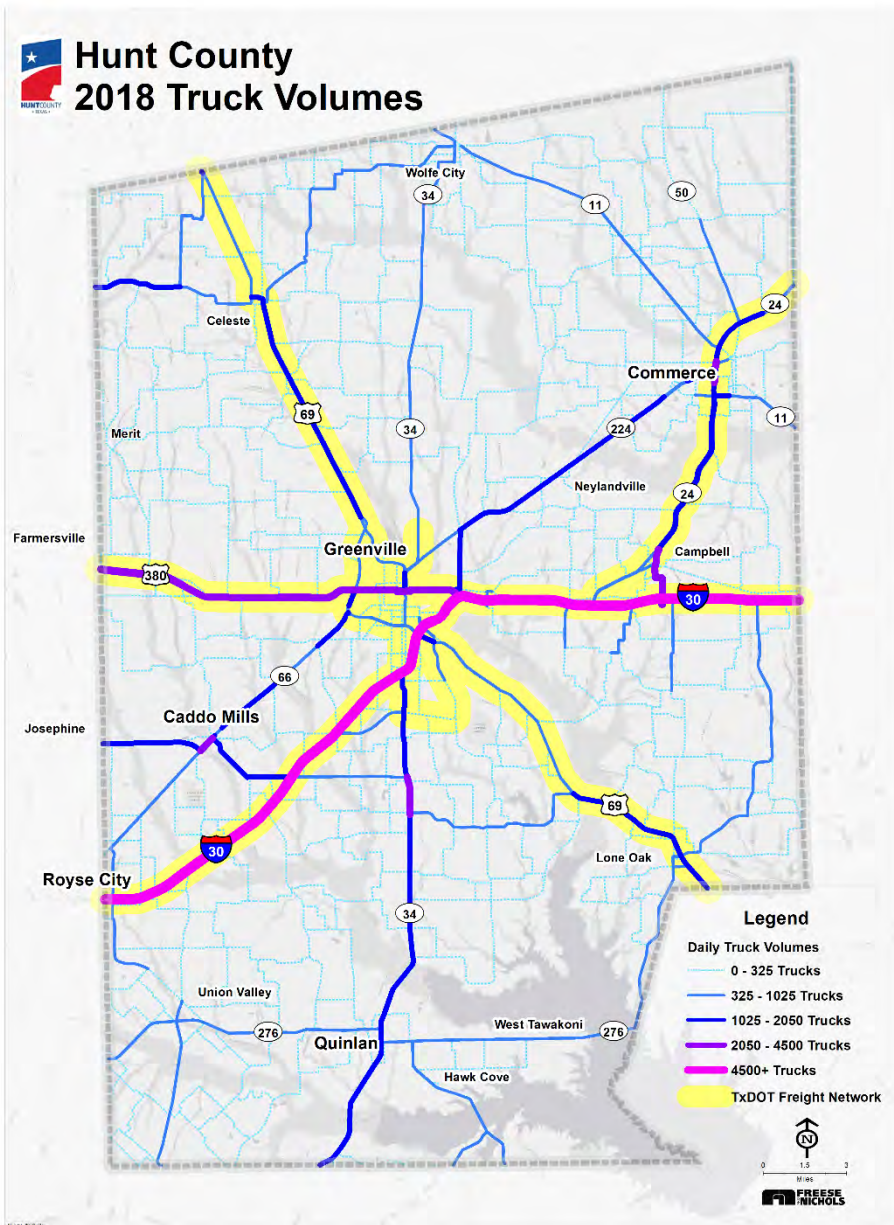
The NCTCOG freight facilities map in Figure 32 shows limited freight facilities in the County. Hunt County may wish to consider promoting the construction of additional truck stops and other facilities to support freight operations along IH-30 in the future.

Stakeholder input noted that truck operations along US 69 in Celeste and SH 24 at IH-30 are becoming increasingly hazardous due to high trucking activity and recommend safety improvements at these locations to reduce accidents.



Source: NCTCOG

Figure 32: Major Freight Facilities in North Central Texas



Source: NCTCOG

Figure 33: Hunt County Truck Volume Forecast

LEVEL OF SERVICE

Level-of-Service (LOS) is a performance measure used to evaluate the function and flow of traffic through a roadway network. LOS is a measure of congestion expressed as the volume to capacity ratio of a roadway. Volumes represent an estimated number of vehicles observed on a road segment, while capacity is the maximum number of vehicles a roadway was designed to accommodate within that segment.

Traffic operational performance is based on a LOS scale from A through F, with A referring to free flow traffic conditions and F representing severely congested facilities. The closer a roadway's volumes are to equaling or exceeding their capacity, the lower the level-of-service (D-F); lower volumes and volumes further below the roadway's capacity exhibit a higher level-of-service (A-C).

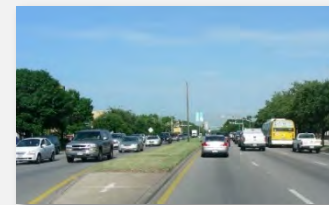
Most cities design for operational conditions resulting in LOS C and D during peak hours. Economically, LOS C or D roadways are ideal for pedestrian activity. In some cases, optimization of LOS may be constrained due to right-of-way or environmental factors. A description of the operational conditions is listed in Figure 34.

Note that the use of level of service as a measure to review congestion has come under criticism by urban and transportation professionals recently, with some agencies abandoning its use altogether. While LOS still provides context for congestion, and its use for evaluating transportation networks may be viewed with less weight than other measures, such as VMT.

LOS A, B, C: Traffic flow in this category moves at or above the posted speed limit. Travel time in this category is not hindered as a result of congestion because traffic volumes are much less than the actual capacity.



LOS D-E: This category is slightly more congested than LOS ABC; however, traffic volumes are beginning to reach their capacity of the thoroughfare. Traffic usually moves along at an efficient rate and posted speeds may not be fully reached.



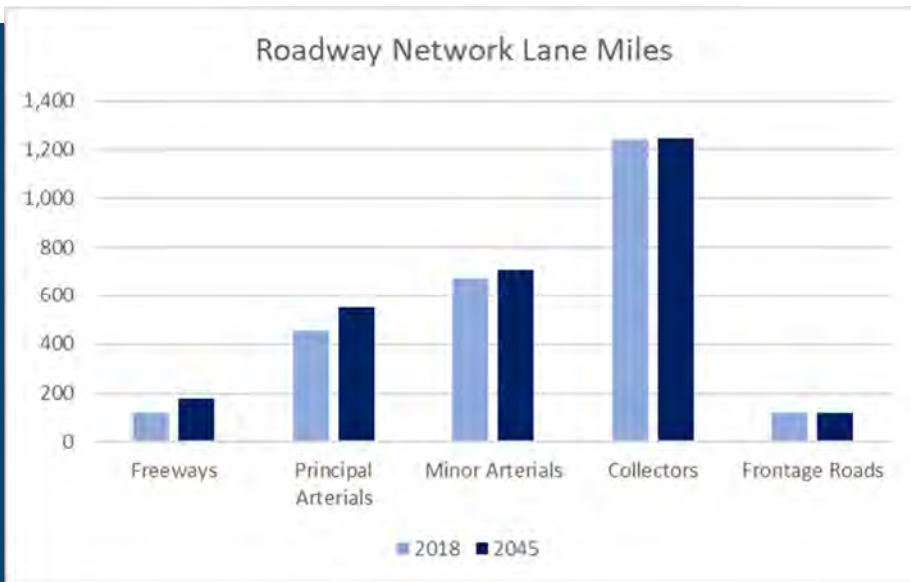
LOS F: Congestion is apparent in this level-of-service category. Traffic flow is irregular, and speed varies. The posted speed limit is rarely, if ever, achieved in this category. In more congested corridors, traffic can be at a mere standstill with limited progression during peak hours.



Figure 34: Typical Level of Service Operational Conditions

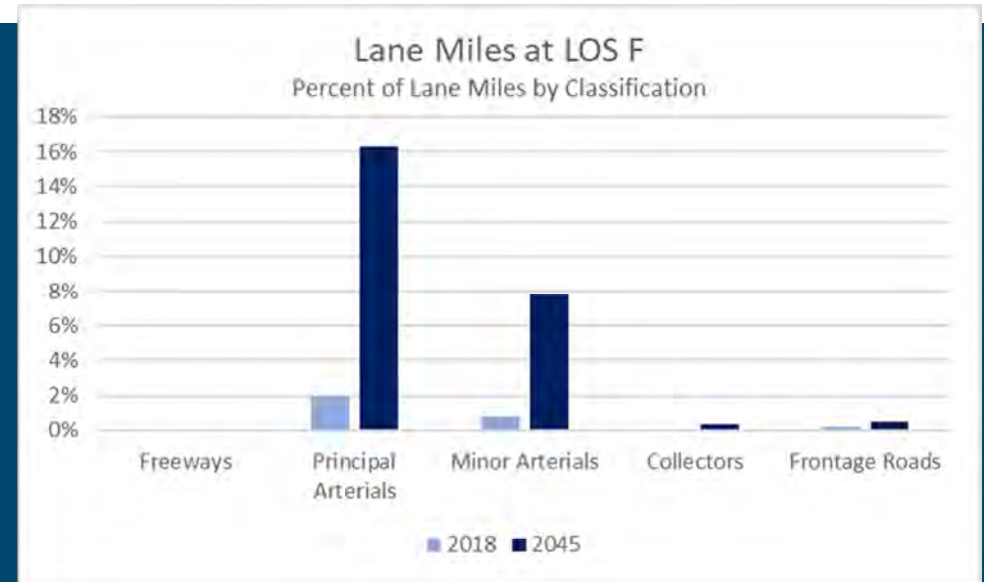
As shown in Figure 35, roadway capacity increases are programmed mostly along freeways and major arterials. However, as shown in Figure 36, increases in roadway level of service F (high levels of congestion) are forecast to occur primarily on the arterial network. However, these increases are expected to remain a relatively small percentage of the total roadway lane miles for each classification. Freeways, frontage roads, and collector roadways are expected to have only nominal lane miles at LOS F.

As illustrated in Figure 35, forecasts show an increase in congestion, or a reduction in levels of service, spreading across Hunt County in the future. In 2018, congestion is limited to sections of SH 66, SH 34, SH 224 and US 69. By 2045 congestion will potentially have spread and become more severe throughout Hunt County, expanding to include sections of US 380, SH 276, and Farm to Market (FM) roads around Merit, Celeste, Caddo Mills, Union Valley, and Quinlan.



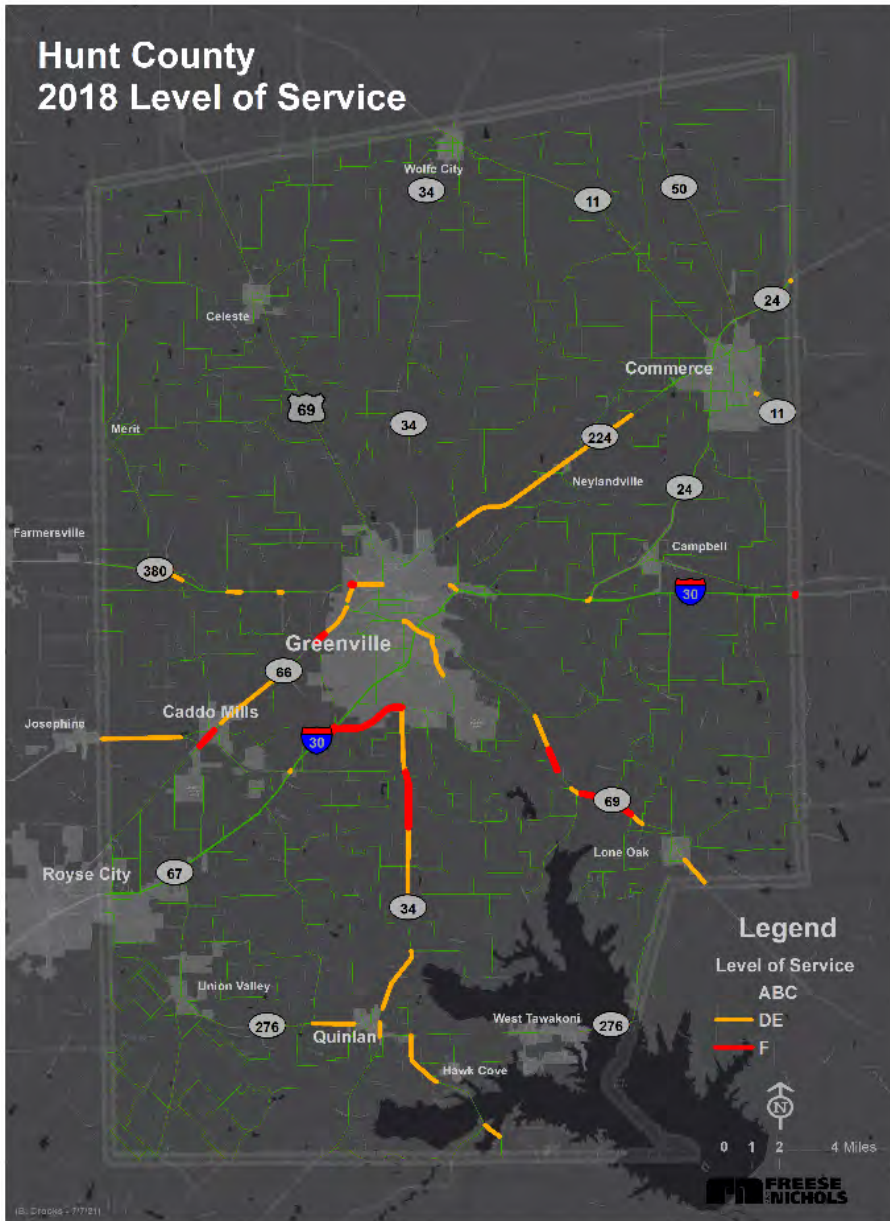
Source: NCTCOG

Figure 35: Expected Increases in Roadway Capacity in Hunt County



Source: NCTCOG

Figure 36: Forecast Lane Miles at LOS F in Hunt County



Source: NCTCOG

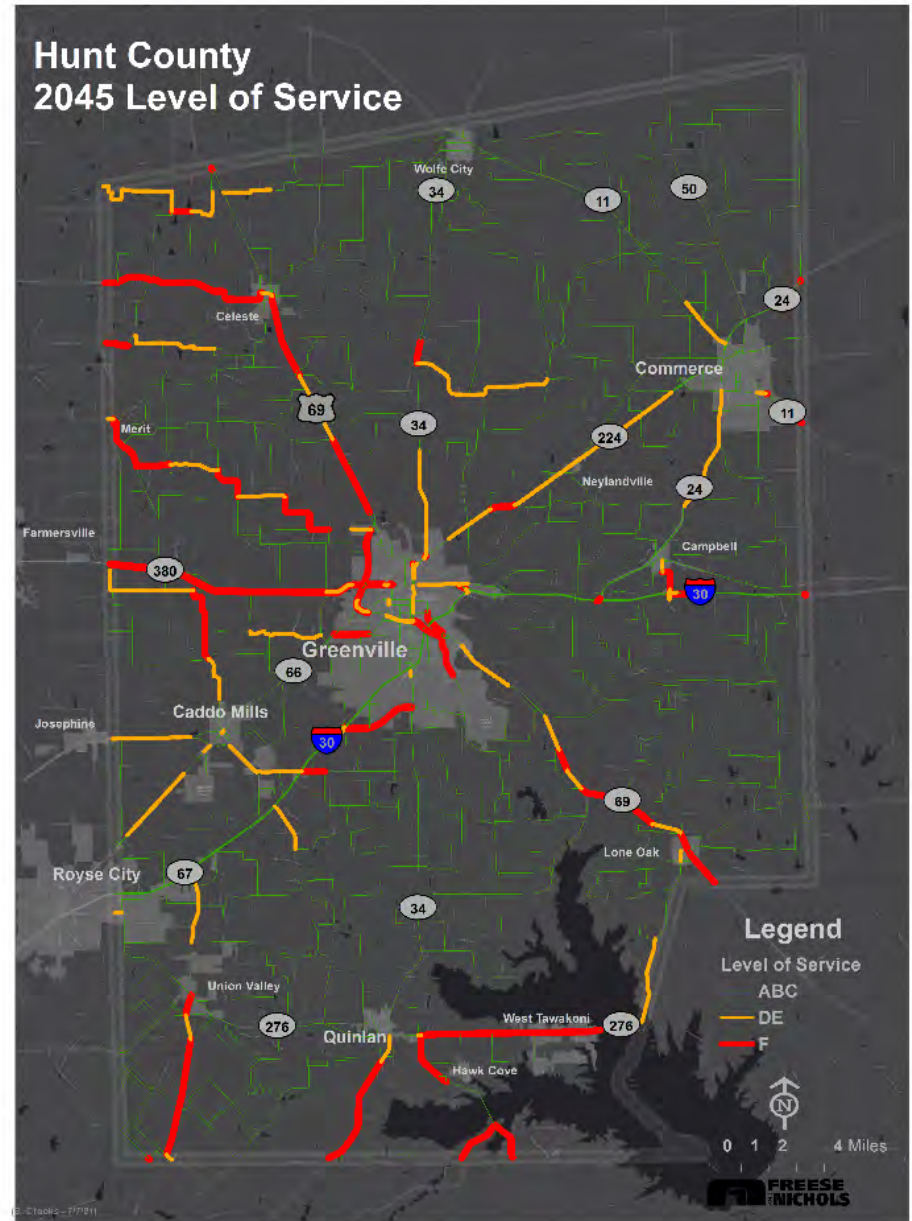


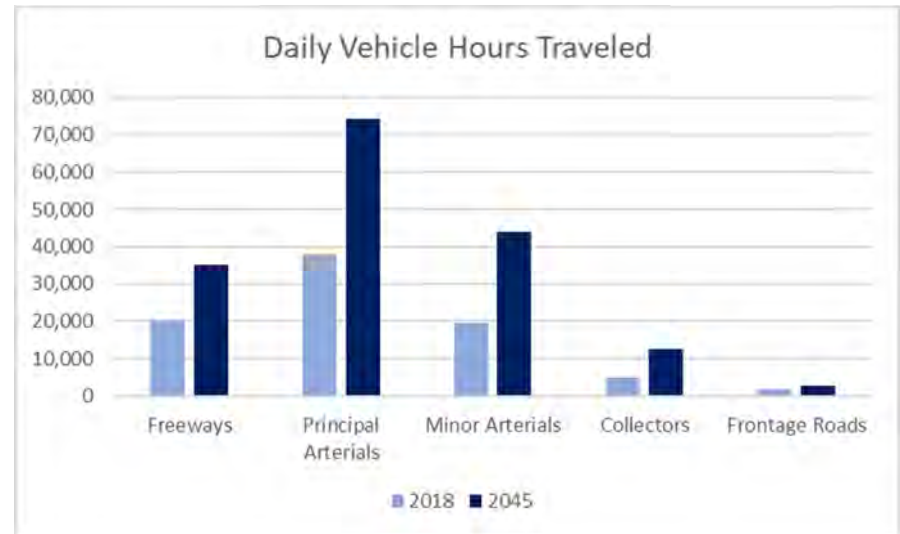
Figure 37: Hunt County Level of Service Forecast

VEHICLE HOURS OF TRAVEL

Vehicle hours of travel (VHT) is a performance measure used to evaluate how much time is spent by travelers on network roadways. VHT per (vehicle) trip is projected to rise from 16.7 minutes in 2018 to 19.8 minutes in 2045 - an increase of 3.1 minutes, or 18.6 percent.

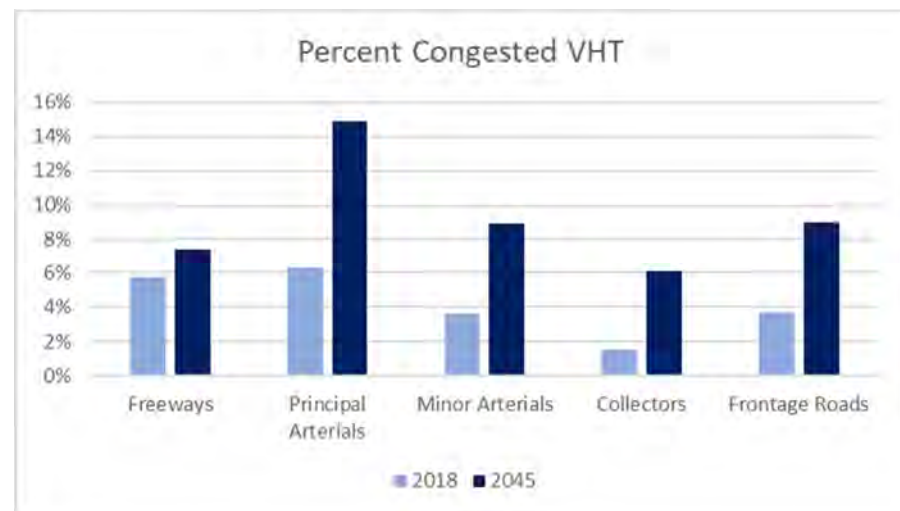
An analysis of VHT by location (see Figure 40) shows that in 2018 most VHT occurred on IH-30, SH 34, SH 66, SH 224, SH 276, SH 11, US 69, and US 380. VHT is forecast to spread throughout Hunt County by 2045 with increases on SH 34 and SH 276 while decreasing on IH-30 in the east. This spread of VHT is supported by previous observations on the spread of roadways at LOS D, E, or F across Hunt County from 2018 to 2045 (see Figure 37). As shown in Figure 38, these increases in VHT occur across all roadway classes, with the greatest increases in principal and minor arterials.

However, not all of this spread of VHT is due to congestion. As shown in Figure 39, while VHT along congested roadways does increase for all roadway classes, it still represents only a fraction of overall roadway VHT for each class.



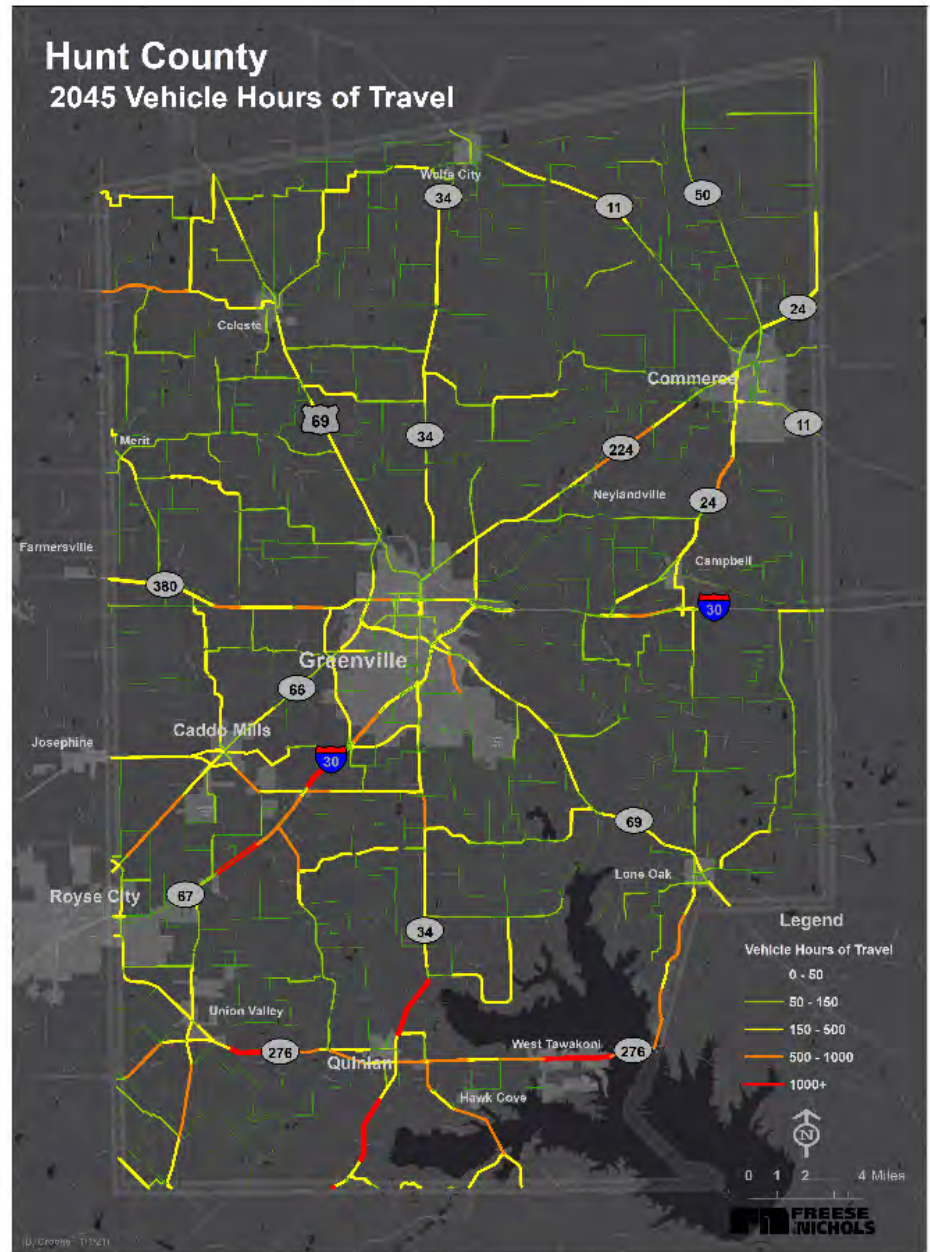
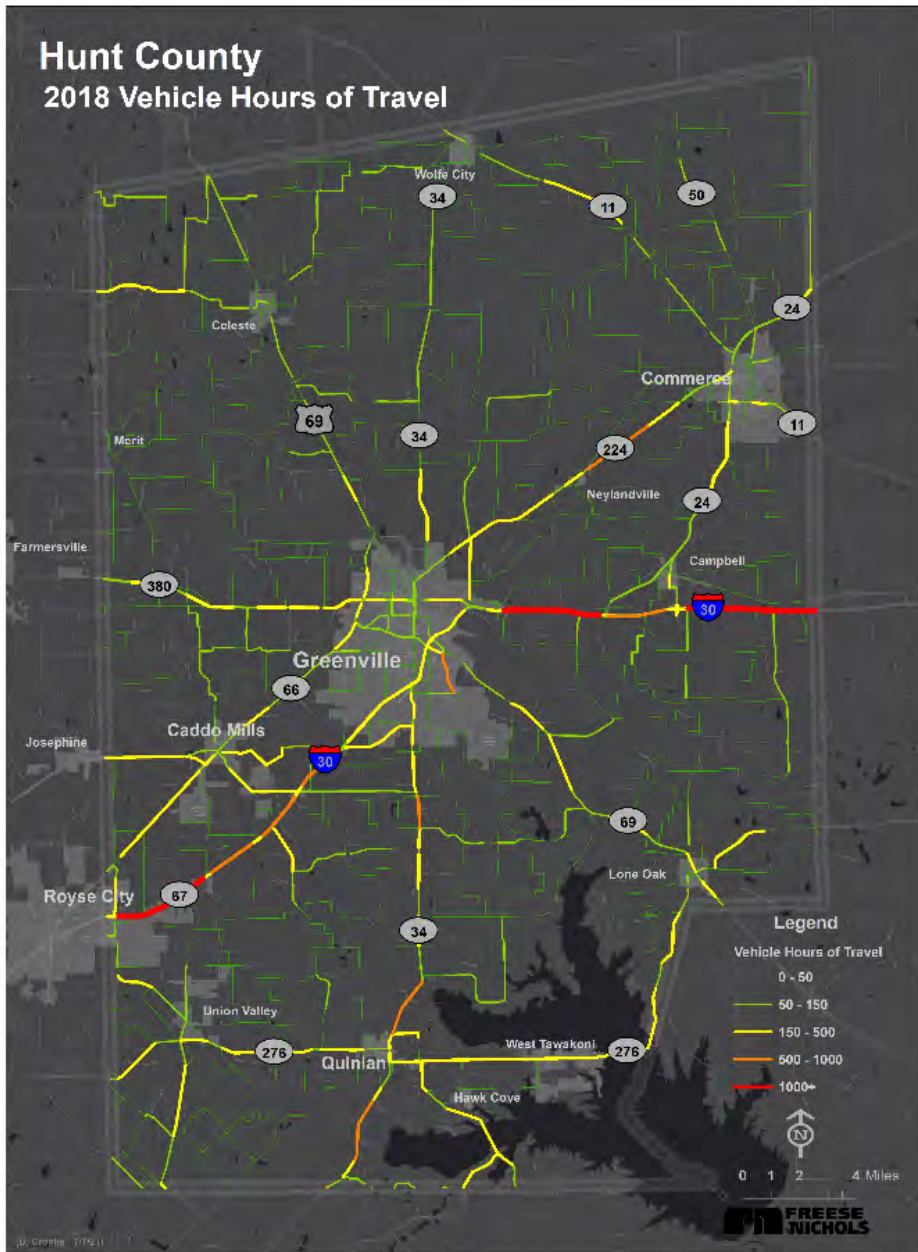
Source: NCTCOG

Figure 38: Forecasted Daily Vehicle Hours Traveled in Hunt County



Source: NCTCOG

Figure 39: Forecasted Congested Vehicle Hours Traveled



Source: NCTCOG

Figure 40: Hunt County VHT Forecast

VEHICLE MILES OF TRAVEL

Vehicle miles of travel (VMT) is a performance measure used to assess travel demand by evaluating total vehicle activity across the roadway network. VMT per (vehicle) trip is forecast to rise slightly from 15.16 miles in 2018 to 16.6 miles in 2045 - an increase of almost 10 percent.

Figure 41 shows growth in VMT from 2018 to 2045 across all roadway functional classes. This reveals that the greatest projected growth in VMT will be along freeways, principal arterials, and minor arterials.

As shown in Figure 42, VMT spreads across that network from IH-30, SH 34, SH 276, SH 224, and SH 24 in 2018 to most major thoroughfares by 2045. This spread of travel demand across the County is consistent with observed trends in LOS and VHT.

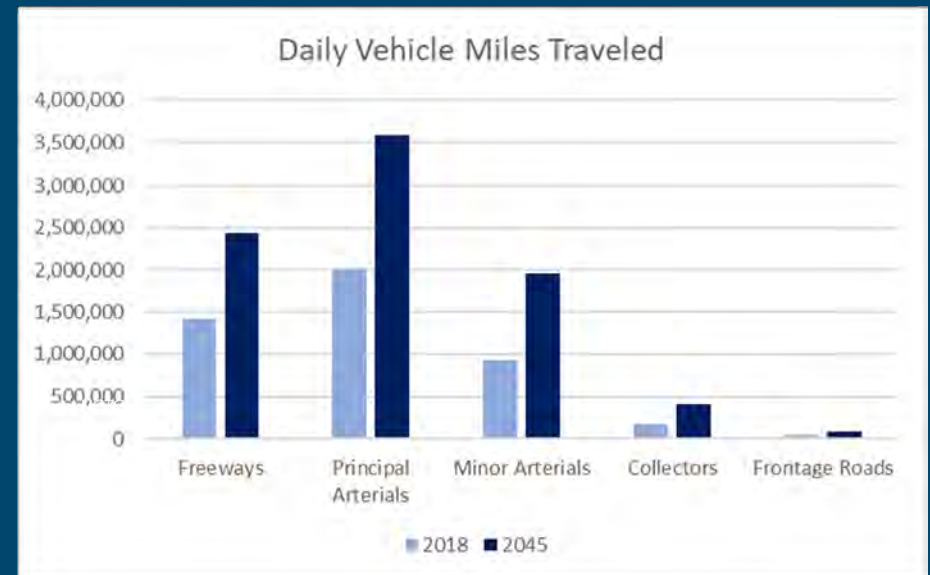
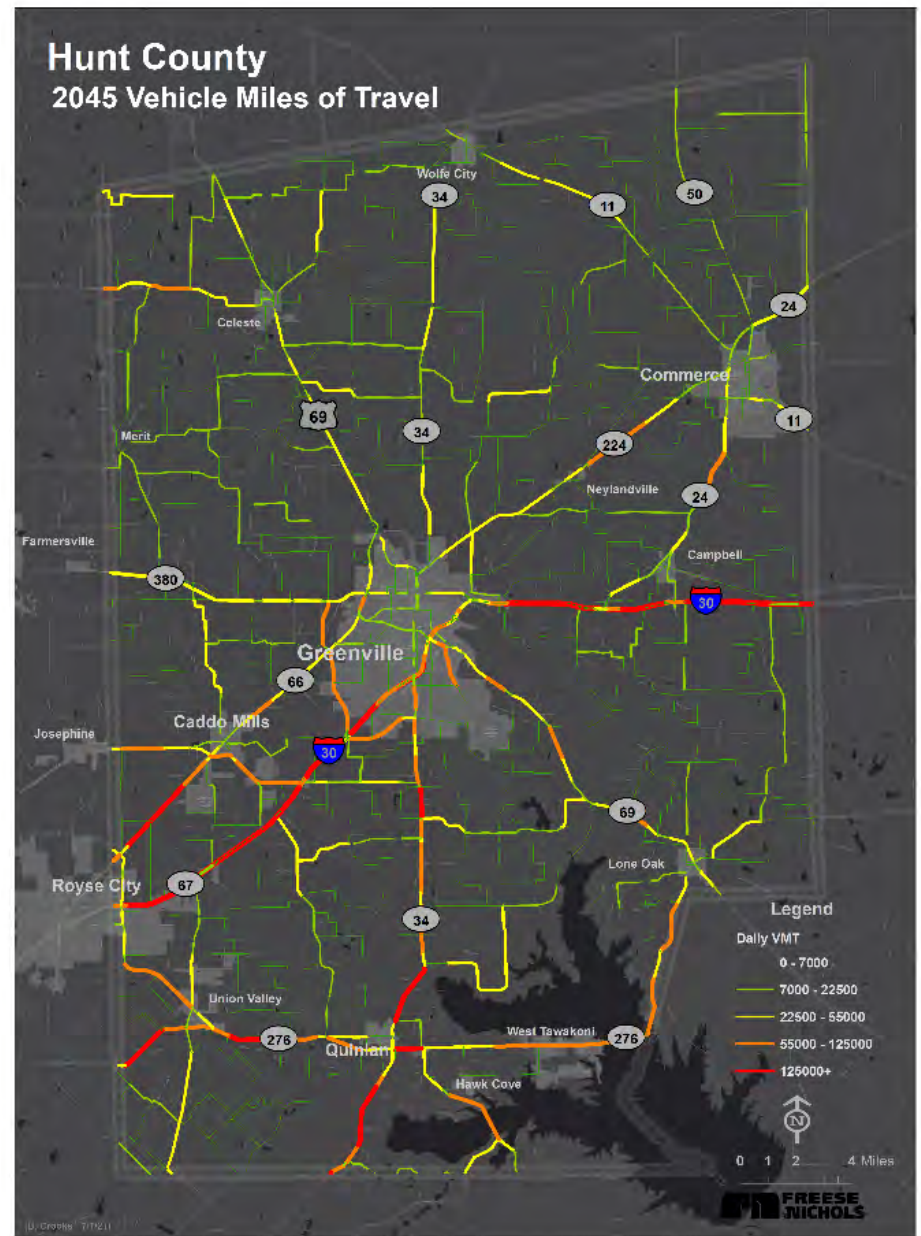
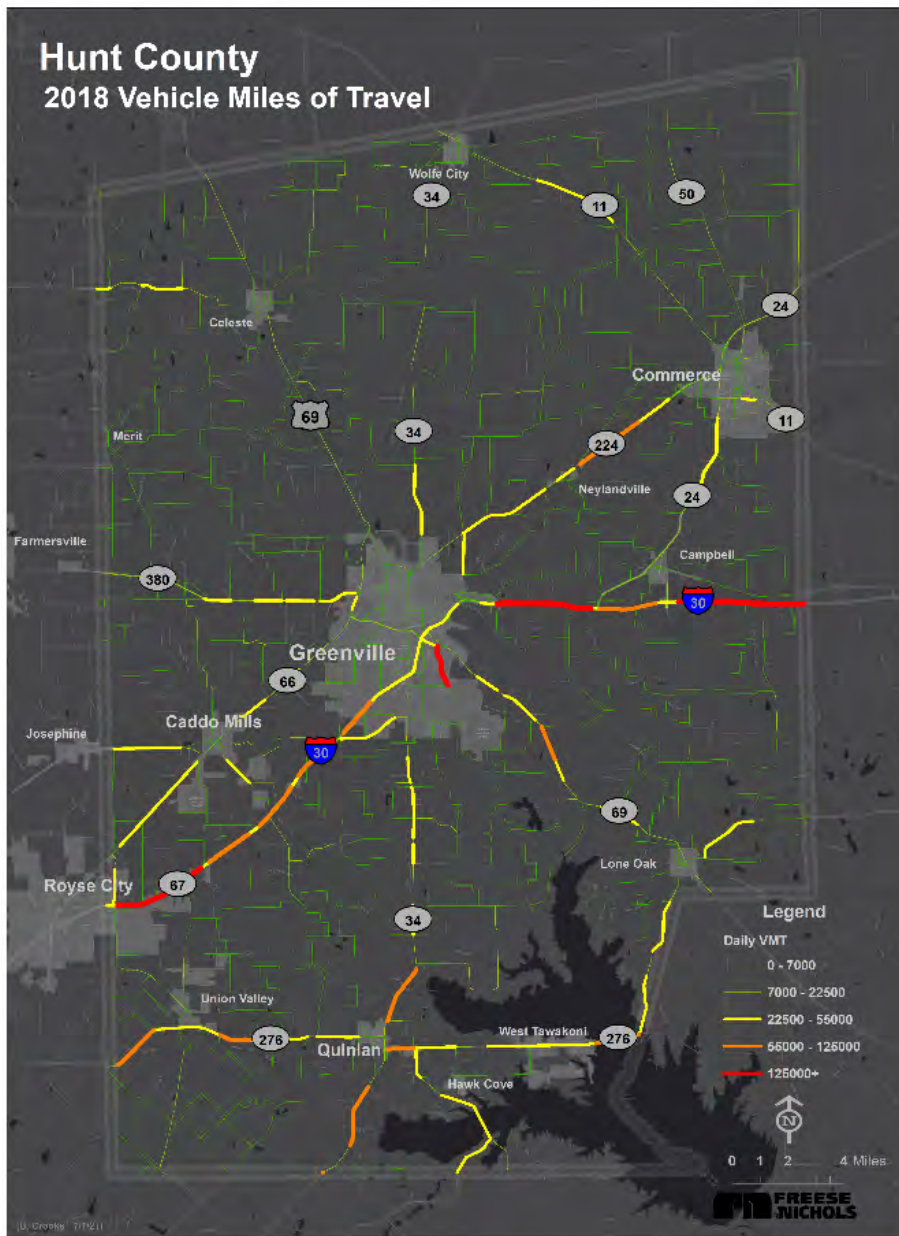


Figure 41: Forecasted Daily Vehicle Miles Traveled in Hunt County



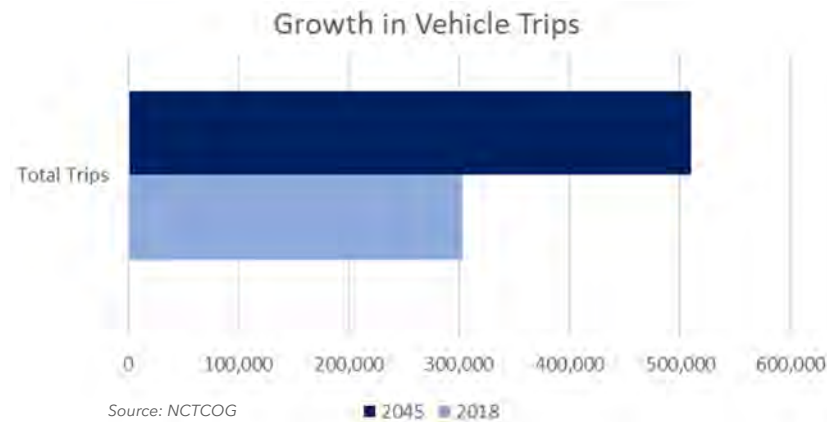
Source: NCTCOG

Figure 42: Hunt County VMT Forecast

VEHICLE TRIPS

Much of this growth and spread of travel demand can be attributed to the forecast growth in vehicle trips throughout Hunt County from 2018 to 2045. As shown in Figure 43, the total number of vehicle trips is expected to jump from 300,000 trips in 2018 to over 500,000 trips in 2045.

Forecast data also shows that while trips will increase, so will average trip lengths, rising from 16.8 miles in 2018 to 19.4 miles in 2045. Average trips per person is expected to rise by around 13 percent, from 3.3 trips to 3.7 trips by 2045.



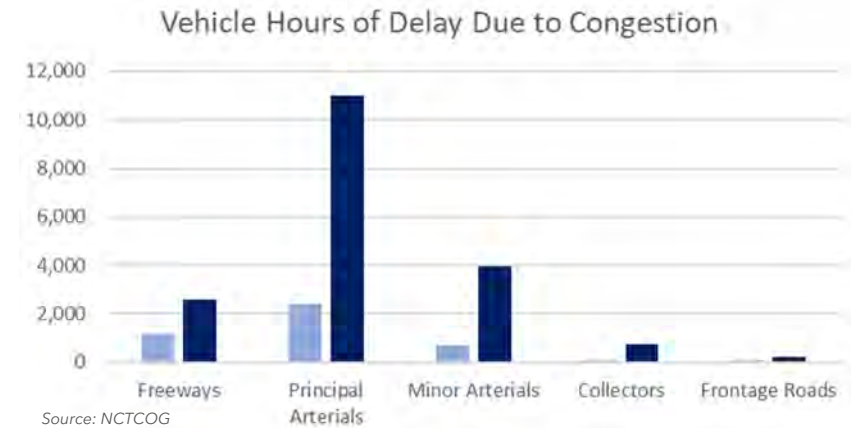
Source: NCTCOG

Figure 43: Forecasted Growth in Total Vehicle Trips

VEHICLE HOURS OF DELAY

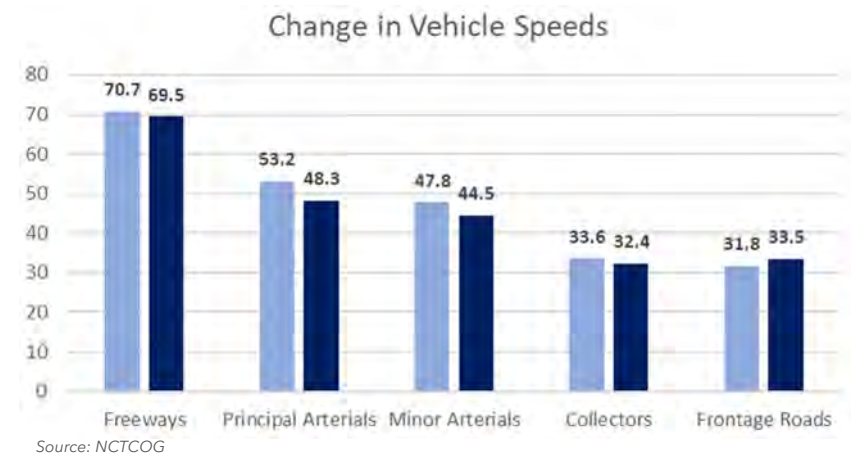
Other forecast data provides additional insight into roadway congestion in Hunt County. As shown in Figure 44, vehicle hours of delay due to congestion is forecast to rise across all roadway classes from 2018 to 2045, with the largest increase in delay occurring on principal arterials. In total, in 2018 the average resident spent 2.8 minutes per day in congestion. In 2045, this figure will rise to over 8.1 minutes per day or up to 49 hours per

year. This means that each resident could potentially spend over 2 days per year in congested traffic by 2045. However, this rise in congestion is expected to have only a moderate impact in vehicle speeds. As Figure 45 illustrates, most roadway classes will only experience a slight drop in speeds by 2045.



Source: NCTCOG

Figure 44: Forecasted Vehicle Hours of Delay due to Congestion



Source: NCTCOG

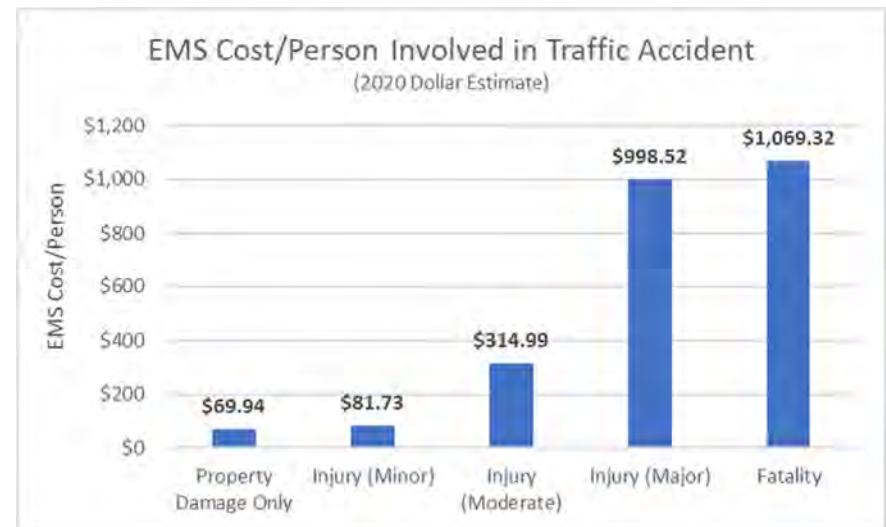
Figure 45: Forecasted Change in Vehicle Speeds

OVERVIEW OF TRAFFIC ACCIDENTS IN HUNT COUNTY

The cost of accidents imposes substantial costs on the community and its residents. The National Highway Transportation Safety Administration calculated the total costs of motor vehicle crashes to society and estimated the average EMS (emergency medical service) cost per person involved at \$96 (2020 dollars); as shown in Figure 46, the more serious the injury, the higher the EMS cost.

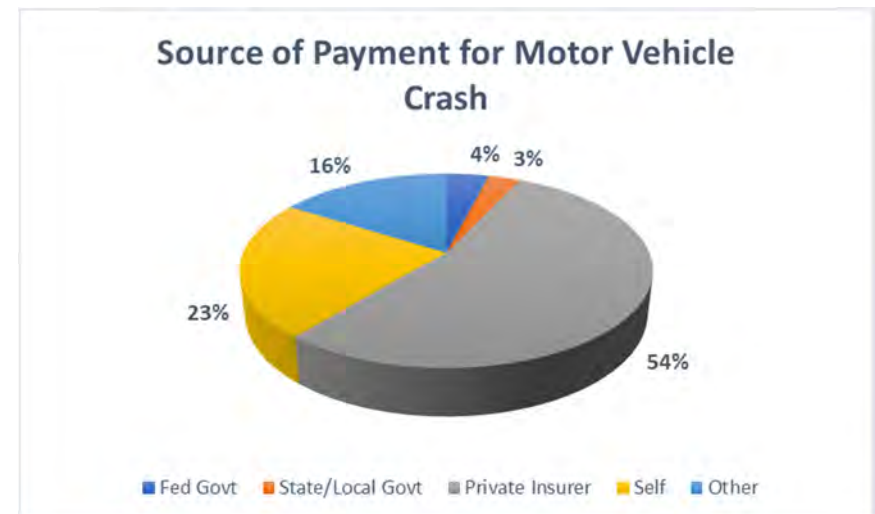
The average total cost for motor vehicle accidents is much higher. According to the Centers for Disease Control, the average cost to society for a fatal accident is almost \$1.5 million dollars while injury accidents cost on average just over \$220,000.

While insurance companies and the persons involved do absorb the majority of these costs, much of these costs are paid indirectly by the community as a whole through higher insurance premiums, increased property taxes and income taxes, as well as other additional fees. While local residents may not be directly involved in these accidents, their communities end up paying for them indirectly.



Source: NHTSA

Figure 46: Cost Per Person Involved in a Traffic Accident



Source: NHTSA

Figure 47: Source of Payments for Motor Vehicle Crashes

LOCATIONS OF ACCIDENTS IN HUNT COUNTY

An analysis of traffic accidents from 2010 through 2019 was conducted using the TxDOT Crash Records Information System (CRIS). A detailed analysis of the data for Hunt County revealed that most crashes in Hunt County occur along IH-30 and US and Texas Highways. As shown in Figure 48 and 49, these facilities have noticeably higher accidents than all other types of roadways in the County. Note that county roads had the least number of accidents.

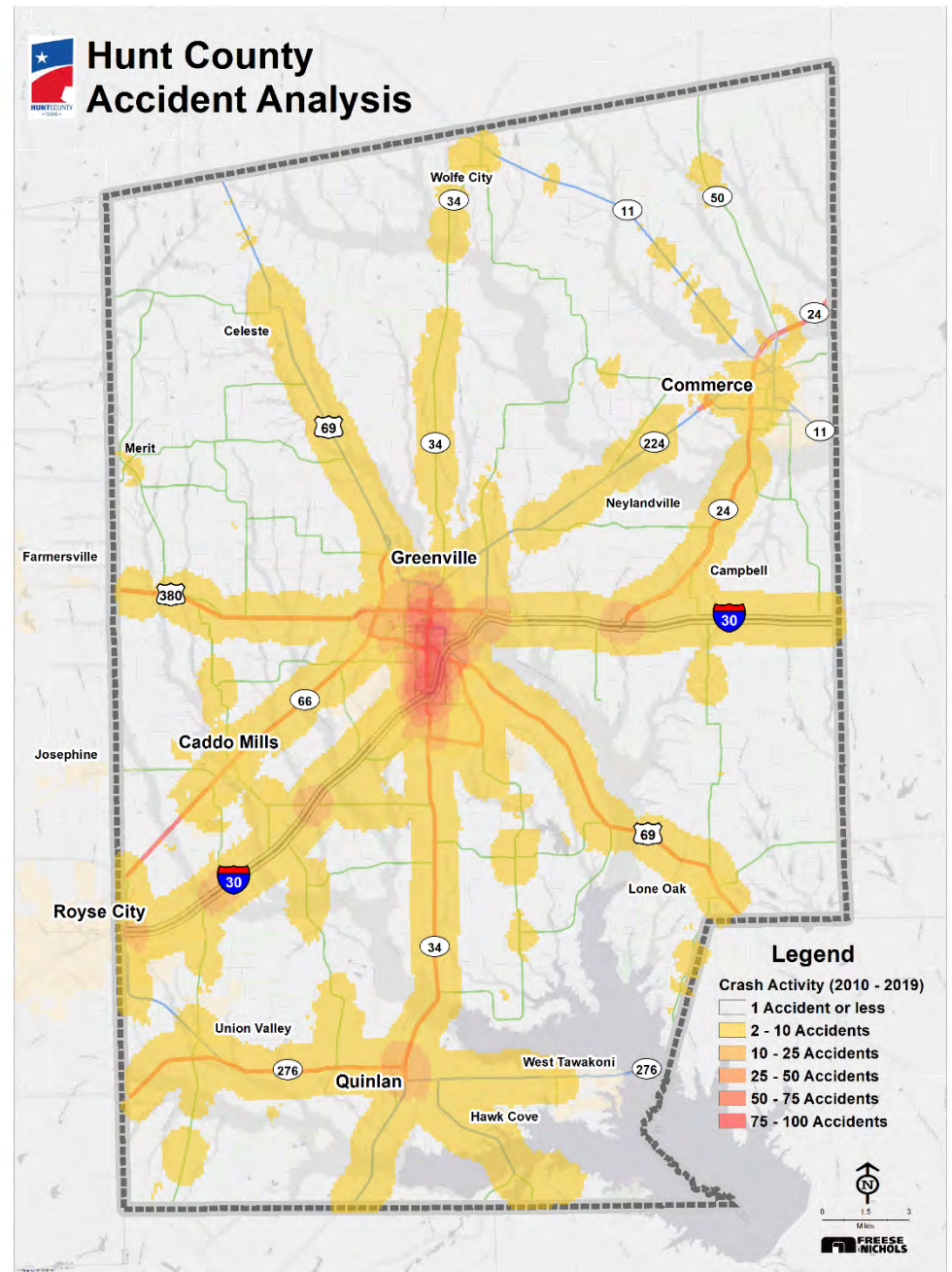
Specific road segments with high crash rates were identified during the accident analysis. The top accident locations included: SH 34 / Wesley Street, from south of BUS380 to IH-30 in Greenville, SH34 through Quinlan, the interchange on IH-30 at SH 24 and the interchanges on IH-30 at Spur 302 / Lee Street, FM 1570, FM 1903, FM 36, FM 1565, and FM 2642.

With some exceptions, most high crash locations are confined to urban areas in Greenville and Quinlan and interchanges along IH-30.



Source: TxDOT CRIS

Figure 48: Crash Location by Roadway Classification



Source: TxDOT CRIS

Figure 49: Hunt County Accident Analysis

CRASHES BY DAY OF WEEK AND TIME

An examination of crashes by day of week in Figure 50 reveals that Fridays have the highest number of crashes, with Sundays having the lowest total. Note that crashes slowly increase throughout the work week.

As shown in Figure 51, crashes during the day follow the AM and PM peak periods of traffic, with the majority of accidents occurring late morning until 8pm at night. Early mornings and late evenings show the lowest number of accidents.

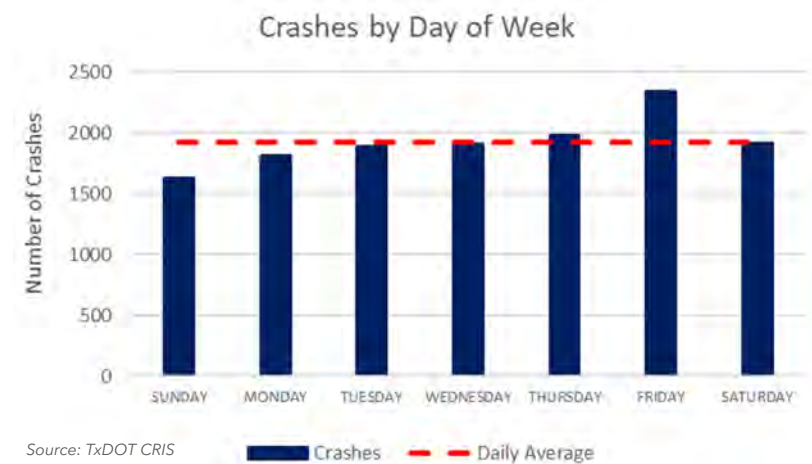


Figure 50: Crashes by Day or Week

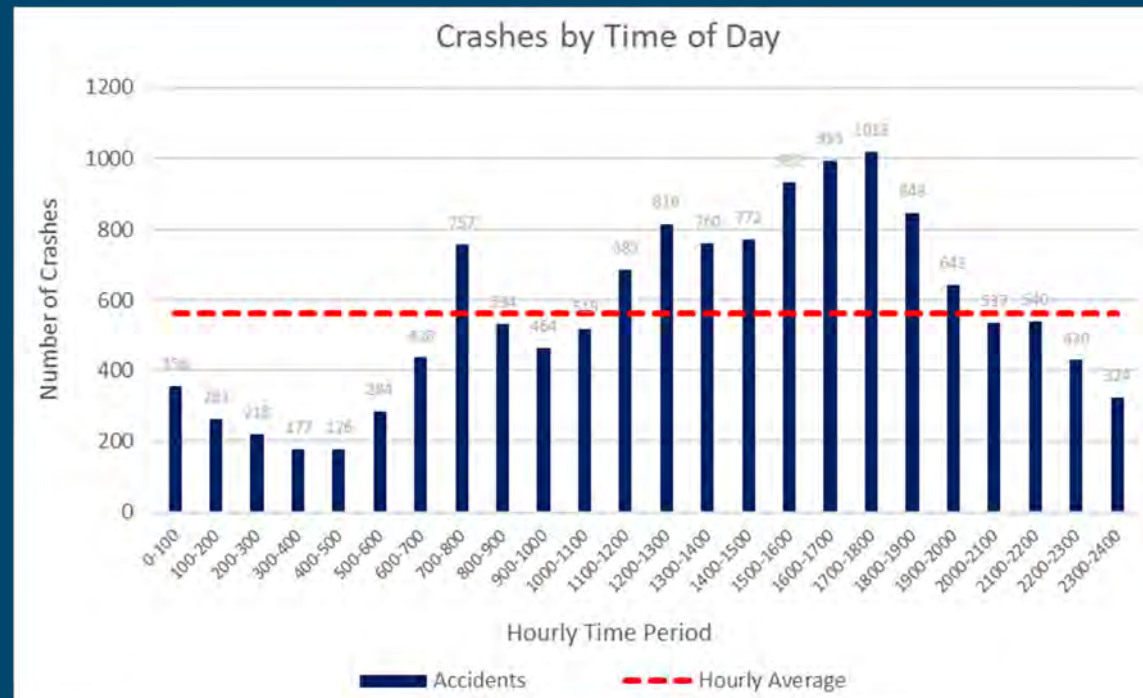


Figure 51: Crashes by Time of Day

SEVERITY OF INJURY

Figure 52 shows the chance of being injured or killed if involved in an accident in Hunt County. The graph reveals that auto drivers and passengers have a far less chance being hurt or killed than all other modes. The high probability of being injured or killed as a pedestrian or cyclist is consistent with other areas in Texas. However, as shown in Figure 53, most persons involved in accidents in Hunt County are uninjured (76 percent), while less than 1 percent of accidents are fatal.

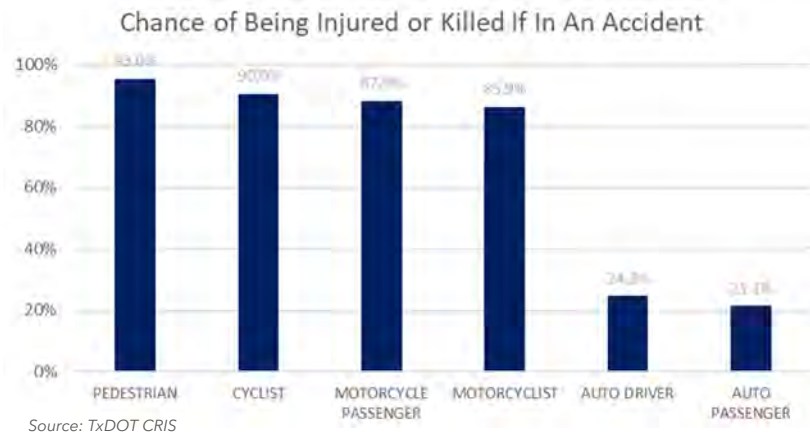


Figure 52: Likelihood of Injury

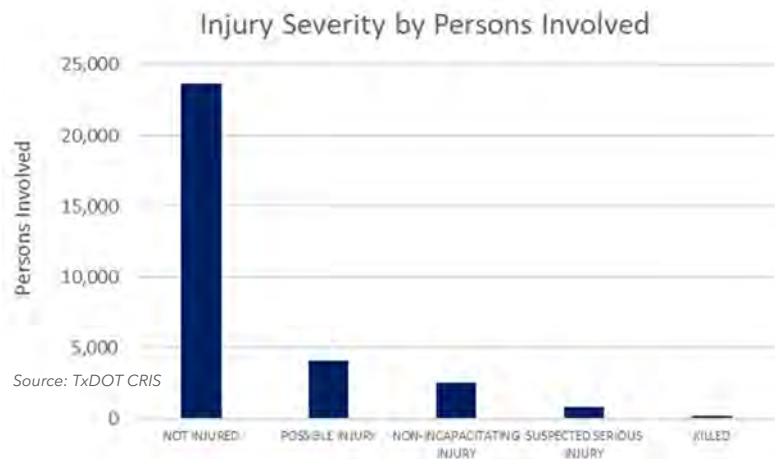
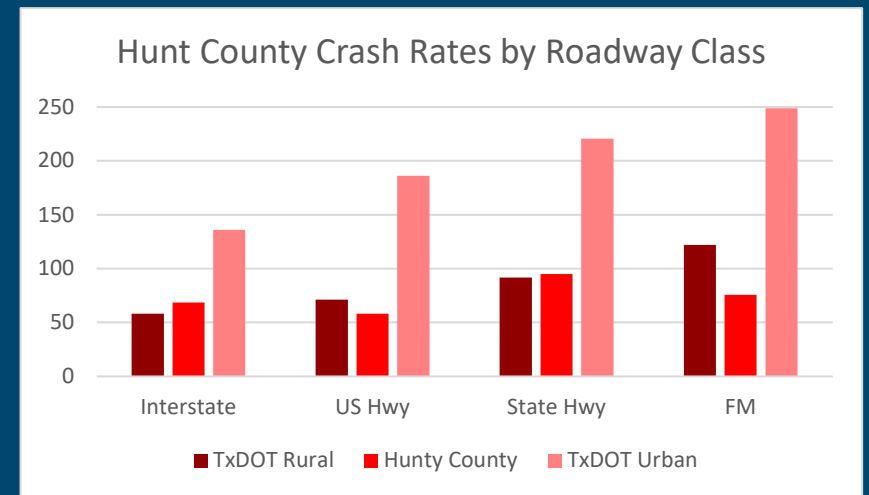


Figure 53: Injury Severity by Persons Involved

CRASH RATES

As shown in Figure 54 below, the crash rates in Hunt County are well below crash rates in urban areas. In rural areas, crash rates are slightly higher for Interstate and State Highways and below for US Highways and FM Roadways. Since most of Hunt County is still rural, it is reasonable to assume that crash rates will be well below urban rates and slightly higher than rural rates for select facilities that pass through its urban areas. For additional information on traffic accidents in Hunt County, please refer to Appendix A.



Source: TxDOT

Figure 54: Crash Rates by Roadway Class

STAKEHOLDER & PUBLIC INVOLVEMENT

Stakeholder input is one of the most important elements of the thoroughfare planning process; it provides a mechanism for gathering information and opinions on issues and gives stakeholders and the general public “ownership” of the Plan.

STEERING COMMITTEE MEETINGS

The Hunt County Transportation Steering Committee is comprised of Hunt County Commissioners, TxDOT, city officials, and other County leaders, and makes recommendations on transportation to the Hunt County Commissioners Court for their consideration and approval.

The first Transportation Steering Committee meeting for the 2022 Hunt County Thoroughfare Plan was held on January 15th, 2021, at the Fletcher Warren Civic Center in Greenville, Texas. The purpose of the meeting was to introduce the study, its purpose, and the development process. The study team also presented a review of existing conditions and identified issues and needs overview and received initial feedback from the Committee.

The second Project Steering Committee was held on May 27th at the Commissioners Courtroom in Greenville, Texas. The meeting agenda included a presentation on the development of the first draft of the Plan and to receive initial comments. The Committee noted several changes including:

- Removal of the CR 3602 extension to SH 34 north of Quinlan.
- A lengthy discussion on the proposed interchanges on IH-30 in Royse City, with a consensus that Royse City and TxDOT will work with NCTCOG to resolve any outstanding issues.
- The extension of Lions Lair Road to FM 1570 in Greenville.
- Changes to the proposed roadway network in Caddo Mills.

The project team met with Caddo Mills on June 7th to go over their concerns and update the roadway network to support ongoing growth.

The final plan and presentation was presented to the TSC on December 8th and received approval.

ONLINE SURVEY

The project team also developed an online survey to provide more opportunities for all residents to participate in the public involvement process as well as accommodating apprehension on attending public meetings due to COVID-19. This online survey was developed using MetroQuest software and was open to participants from May 10th to June 6th, 2021.



KEY FINDINGS

The survey had favorable participation with approximately 616 respondents, with the majority responding to the survey from May 13th to May 18th. Most participants were either employed (74 percent) or over the age of 65 (14 percent). Figure 55 illustrates the coverage of respondents within Hunt County, which reveals balanced participation throughout the County.

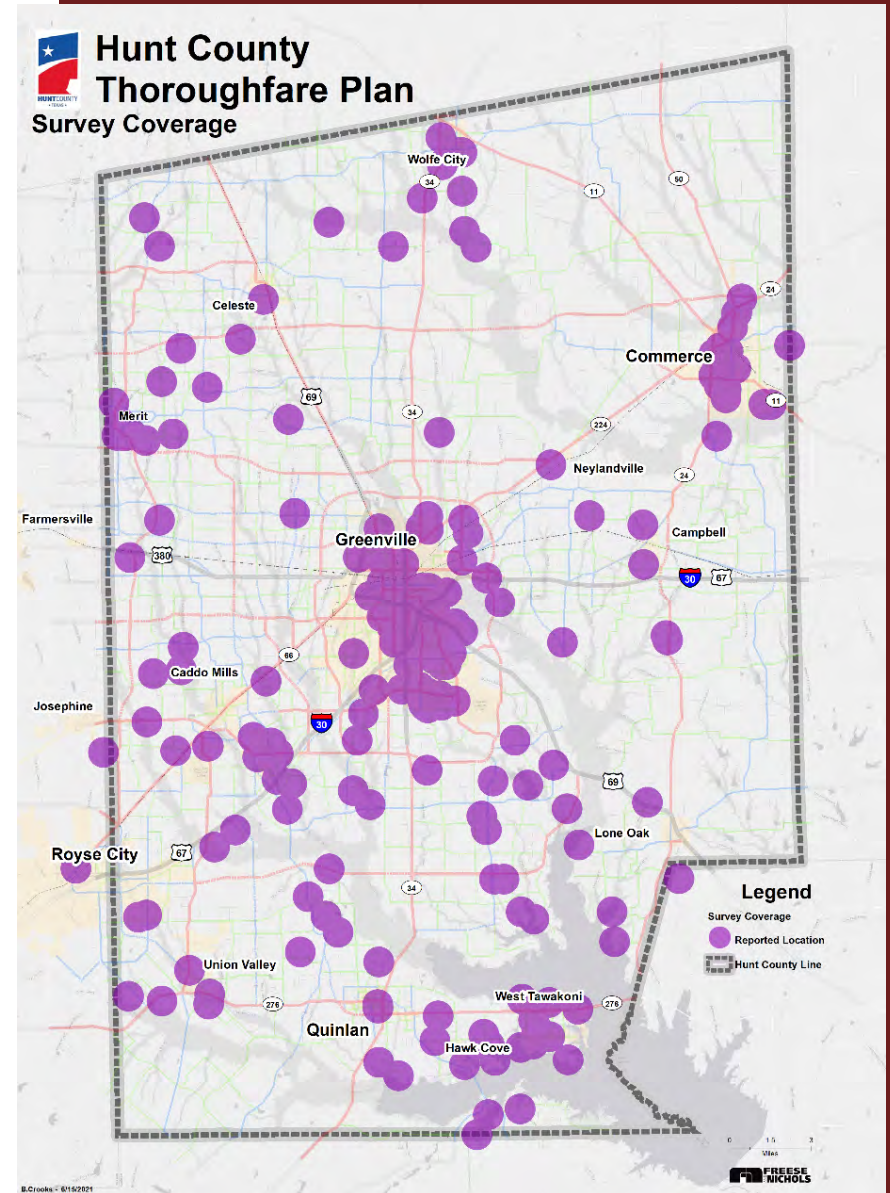


Figure 55: Survey Coverage

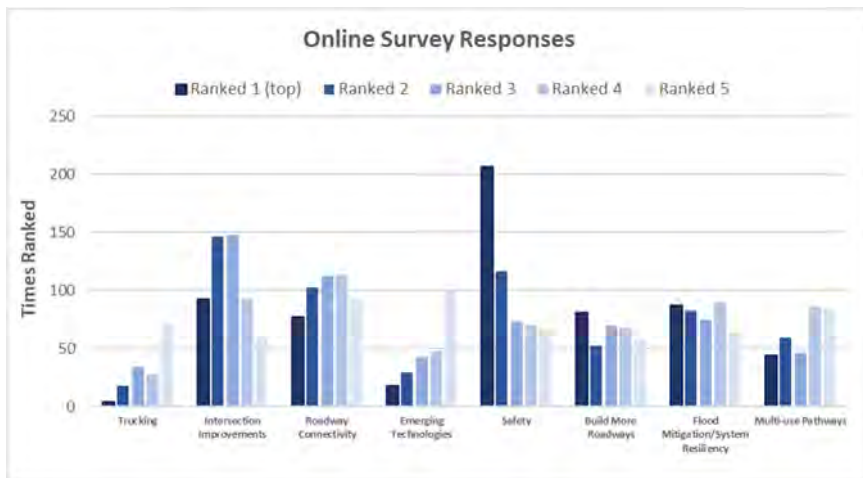


Figure 56: Priorities Ranked by Online Survey Respondents

Survey results in Figure 56 revealed that most respondents listed Safety as their top concern and Emerging Technologies as their least concern.

Respondents showed a strong preference for strategies that support trucking in Hunt County. Safety was the primary concern for most respondents for intersection improvements.

Thoroughfare design was considered the most important strategy for Roadway Connectivity, followed closely by building within our means and utilizing existing roadways. For Emerging Technologies, survey participants favored supporting technological change and regularly reviewing new technologies.

The vast majority of survey respondents would regularly choose driving over all other options if they had a choice. Approximately 15 percent of participants would choose rideshare services if they could use an HOV lane. Upon return to work from COVID-19, the majority of workers (53 to 62 percent) plan to work remotely for most of the week; less than 17 percent of workers plan to return to a normal 5-day work week.

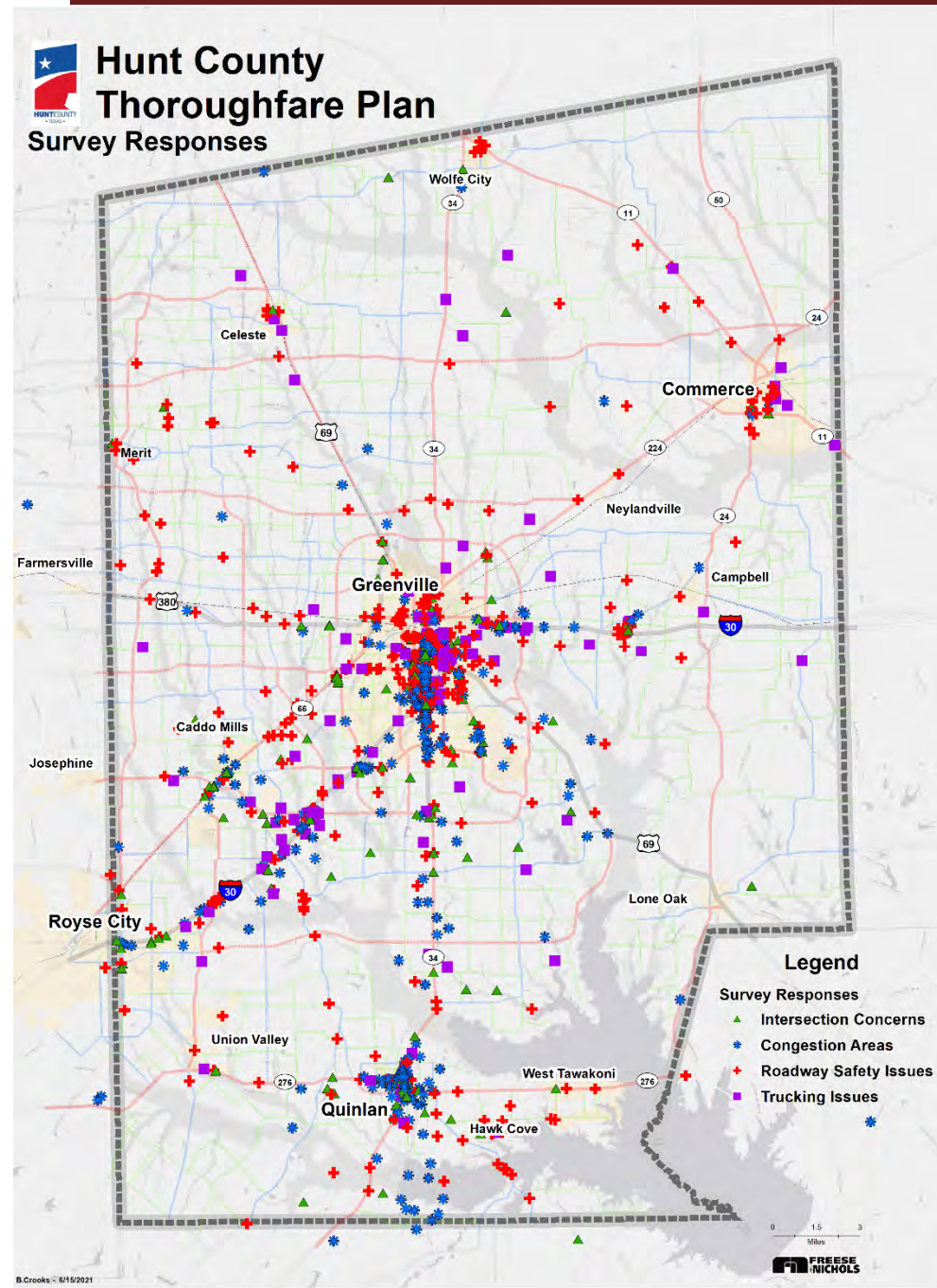


Figure 57: Survey Responses

Survey participants were also asked to identify areas where they had concerns over safety, congestion, trucking, and intersections. Figure 57 illustrates their responses.

STAKEHOLDER INTERVIEWS (FEBRUARY 24-25 AND MARCH 10)

Stakeholder interviews were held at the Fletcher Warren Civic Center in Greenville and were aimed at gathering initial input and defining key issues and needs issues facing Hunt County. Attendees included the Hunt County Commissioners Court, city officials, school district officials, Fannin County, Collin County, and TxDOT Paris District Staff. The project team met virtually with NCTCOG staff on March 10th. A summary of the meeting notes is provided in Appendix B.

TOWN HALL MEETINGS (JULY 20 AND JULY 22)

In coordination with Hunt County staff, two Town Hall meetings were conducted at the Fletcher Warren Civic Center on July 20th and at Kathryn Griffis Elementary School on July 22nd. Attendance for both events totaled just under 60 persons, including approximately 15 staff and County officials. The first meeting on July 20th had approximately 24 attendees and had an even split of employed and retirees, while the meeting on July 22nd had over 30 attendees with few retirees. The meeting presentations and agendas were identical; the study background and purpose were presented, along with key findings and the latest draft of the Plan was presented for public comment. Attendees were broken out into groups to gain additional comments. Overall input from attendees was limited

and all respondents expressed approval of the Plan and proposed improvements. Comments obtained from attendees are presented in Appendix C.

COMMISSIONERS COURT REVIEW (OCTOBER 14)

As part of the ongoing collaborative effort to develop the Hunt County Thoroughfare Plan, final drafts of the Thoroughfare Plan map and report were presented to Judge Stovall and the County Commissioners at the Hunt County Courthouse on Thursday, October 15th, 2021. An overview of the plan and its major project and policy recommendations were presented, and the project team received feedback.

Specific changes included: adding in the Northeast Texas Trail into the Thoroughfare Plan map; the addition of a rural collector roadway design standard; extending CR 1093 across FM 1562 to CR 1145 as a minor arterial to the Hunt County line; extending CR 4108 across SH 224 to CR 4310; retention of the SH 24 connection to IH-30 as a westbound entrance ramp; and removal of the minor arterial across CR 2101 to CR 2101 and redesignation of CR 2101 east of SH 34 as a collector.

COMMISSIONERS COURT APPROVAL (JANUARY 14, 2022)

The 2022 Hunt County Thoroughfare Plan was presented to the Commissioners Court in a public meeting on January 14, 2022 and received approval.

DESIGN STANDARDS

FUNCTIONAL STREET CLASSIFICATION

The functional classification of streets is used to identify the hierarchy, function, and dimensions of a roadway. Streets and highways are grouped into classes based on facility characteristics, such as geometric design, speed, traffic capacity, and access to adjacent lands. Functions range from providing mobility for through traffic and major traffic flows to providing access to specific properties. The roadway functional class allows travelers ease of access to origins and destination through a combination of streets. Functional classes can be updated over time if surrounding land uses change significantly. A facility may move up in hierarchy as the surrounding area becomes denser and additional cars are drawn to the area. Population and land use densification may also decrease the functional class of a roadway as the area becomes more walkable. The network in Hunt County varies in functional classes, with a mixture of freeways, highways, arterials, collectors, and local roads.

Effective development of a clearly defined functional classification system (and design standards) leads to an optimized roadway network as demonstrated in Figure 58. Major advantages include preservation of residential neighborhoods, long-term stability in land use patterns and value of commercial properties, fewer traffic accidents, and a

decreased proportion of urban land devoted to streets. In areas developed in accordance with functional circulation concepts, approximately 20 percent of the urban land is devoted to streets, including arterials, while in a typical gridiron system, 30 percent or more can be obligated to streets.

Most large cities in Texas incorporate a traditional functional classification system to organize roadway types within their jurisdiction. This system provides key information and standards for each roadway type to assist citizens and developers in understanding the types of roadways that are planned for the region's transportation system and how those roadways may be designed.

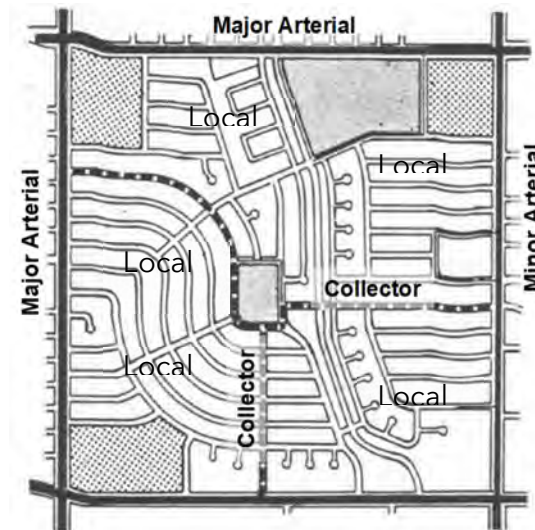


Figure 58: Typical Suburban Roadway Classification

The 2022 Hunt County Thoroughfare Plan consists of all major roadways in Hunt County categorized by their functional classification. This classification sets the required right-of-way to be acquired or preserved to accommodate future traffic demand in the region. Typical functional classification of thoroughfares includes freeways and frontage roads, major and minor arterials, collectors, and local roadways.

FREEWAYS, HIGHWAYS, AND FRONTAGE ROADS

Decisions on the development of regional, statewide, and national freeways and highways that traverse through Hunt County are often conducted by outside agencies and thus limit the ability of the County to influence their development. However, the impact of these facilities on the mobility and needs in the County are essential to consider when evaluating and planning the transportation network.

Hunt County is currently serviced by one major interstate freeway, IH-30, which provides regional access to Dallas-Fort Worth metroplex to the west and national and international access to the east. US 69 and SH 34 are the major highways that provide north-south mobility, while US 380 provides



connections to McKinney, Frisco, US 75, and IH-35 to the west. SH 276 serves as a major east-west corridor in southern Hunt County.

Frontage roads are also significant as they provide important

access and congestion relief adjacent to limited-access freeways. Access to these roads is essential for the success of businesses that front these roads. Currently, IH-30 has a mix of one-way and two-way frontage roads in Hunt County. TxDOT is reconstructing these roadways as continuous one-way frontage roads as part of its expansion of IH-30 roadway capacity in Hunt County.

ARTERIALS

Arterials focus on moving regional traffic across longer distances within the County. Next to freeways, these types of thoroughfares typically carry the highest amounts of traffic and have the highest operating speeds.

MAJOR ARTERIALS

Major arterials are designed to allow large volumes of traffic to operate at a high level of mobility. A major arterial is designed for longer distance trips and provides access to major activity centers and adjacent cities. There should be a limited number of driveways directly accessing major arterials and should only connect to other major arterials or freeways. Typically, on-street parking is not allowed on major arterial roadways.

State Highway 34 and Traders Road (Greenville), FM 1570, FM 205, and Culver Street (Commerce) are examples of major arterials.





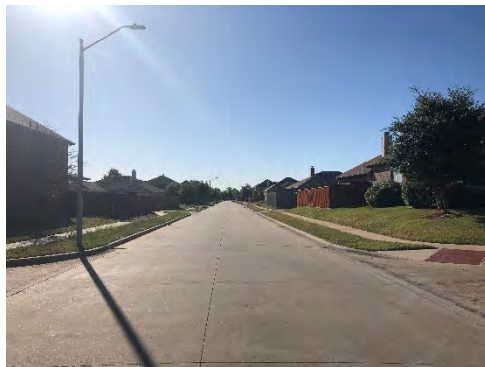
MINOR ARTERIALS

Minor arterials connect traffic from collectors to primary arterials. They are designed to accommodate moderate traffic volumes at relatively low speeds, and often extend to a larger geographic area. If

right-of-way and/or level-of-service are adequate, minor arterials may accommodate on-street parking. Park Street (Commerce), FM 2642 (Royse City), and FM 264 (Quinlan) are examples of minor arterials.

COLLECTORS

Roadways designated as collectors are designed for short trips and low speeds. They serve primarily to connect trips to higher functional class facilities and on moving traffic between neighborhoods and different areas within the County. These types of thoroughfares carry moderate volumes of traffic and have lower speeds to accommodate access to adjacent properties. The number of lanes can range from two (2) to four (4) depending on the current or future demands and potential development. Center turn lanes may be incorporated on major collectors; raised medians are rarely found on these



types of streets. Sometimes collectors are broken down into major and minor collectors. Major collectors provide higher levels of mobility, handle more traffic, and have fewer driveways and intersections than minor collectors. FM 2526 (Royse City) and Colony Drive (Greenville) are examples of collectors.

LOCAL STREETS

Local streets are typically not designated on a thoroughfare plan as they do not require right-of-way dedication. As new development occurs, local streets are typically preserved and built by the developer. Once the development is complete, the city or county takes over maintenance and ownership of the right-of-way.

Local streets are focused on providing access to homes in residential neighborhoods where speeds are less than 30 miles per hour (mph), and traffic volumes are the lowest. In most cases lane striping is not implemented, and on-street parking is permitted, depending on the surrounding uses and building types.



FUNCTIONAL CLASSIFICATION, LAND ACCESS, AND MODE OF TRANSPORT

As illustrated in Figure 59, roadway classification, land access, and mode of transport (mobility) are highly inter-related. Local streets focus more on access to adjacent land uses and are more amenable to alternative forms of transportation, such as transit, bicycling, and pedestrians. Priority for mobility over land use access occurs as functional classes transition from local roads to collectors and arterials. At the top end of mobility are freeways and tollways, which are exclusively focused on mobility, do not support cycling or pedestrian activity, and only support express types of transit services.

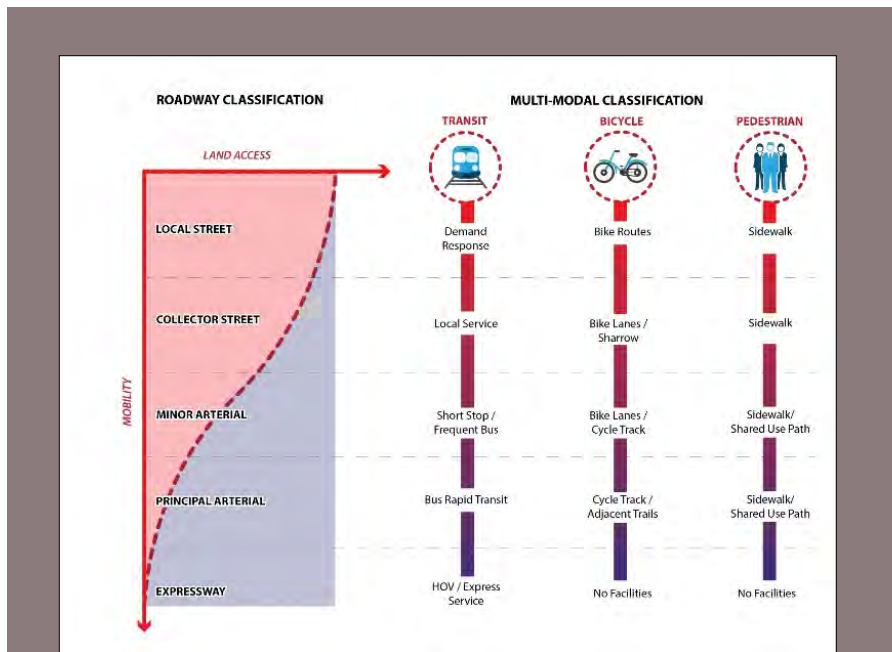


Figure 59: Roadway Classification, Land Access, and Mode Utilization

TYPICAL ROADWAY CHARACTERISTICS BY FUNCTIONAL CLASSIFICATION

All functional classes have general characteristics, such as spacing, capacity, speed, required right-of-way, and specific design criteria to delineate how each facility should be utilized. Table 5 below sets out typical characteristics for each functional class of roadway.

Attributes	Freeway	Major Arterial	Minor Arterial	Collector	Local
Roadway Spacing	2-10 miles	1-2 miles	0.25-1 mile	0.1-0.25 miles	200-500 ft
Facility Length	15+ miles	5-15 miles	1-5 miles	0.25-1 mile	<0.25 mile
Volume (vehicles/day)	100,000+	35,000-80,000	10,000-35,000	1,000-10,000	<1,000
Right-of-Way (ft)	300-500	100-120	70-100	60-70	50-60
Number of Lanes	Main + Frontage Roads	4 to 6	3 to 5	2 to 4	2
Median	Yes	Typical	Optional	Not Typical	No
Speed Limit	55-75	35-55	30-45	25-35	30 Max.

Table 5: Typical Roadway Classification Characteristics

GENERAL GUIDANCE ON FUNCTIONAL CLASSIFICATION

While functional classification does have defined engineering design standards, there is a degree of flexibility in assigning functional classifications due to overlap between class characteristics. Guidance on classification on roadways should generally adhere to the following:

1. Determine if the purpose of the roadway will be used to serve as access to adjacent land uses or more for the mobility of thru traffic.
2. Consideration of functional class should address the needs of adjacent land uses and compatibility with the adjacent environment.
3. Evaluate existing roadway characteristics, such as existing or proposed right-of-way, number of lanes, observed and forecast traffic volumes, the presence of medians or two-way left turn lanes (TWLTL), the presence of on-street parking, roadway drainage, and length of the roadway segment in question. In rural areas, the presence of farm vehicle and equestrian activities should also be considered. Speed characteristics should be examined based on observed speeds, congested speeds, and/or desired speeds for the facility.
4. Confirm that the operating characteristics of the facility are consistent with the desired functional classification. A change of a roadway from its set functional class may require a re-evaluation of the classification, assignment of the roadway to another class, or the creation of an entirely new functional class.

DESIGN STANDARDS

THOROUGHFARE DESIGN STANDARDS

Versatility is a strength in any policy document because it gives policymakers flexibility to address unforeseen issues that may arise during the implementation phase. To provide flexibility in the Plan, thoroughfare design standards were developed to accommodate a variety of land uses adjacent to both urban and rural rights-of-way including potential future developments. The various design controls, criteria, and elements presented in this section shall be used to design each roadway to accommodate the expected traffic volume and provide consistency in traffic operations.

There are established roadway design standards utilized by communities across the United States; these standards are based upon decades of research and field experience. Guidelines for these revised design standards came from a variety of sources, including:

- The recently adopted Hunt County Subdivision Regulations and Engineering Design Standards.
- American Association of State Highway and Transportation Officials (AASHTO), [A Policy on Geometric Design of Highways and Streets](#), latest edition.
- Transportation Research Board, [Highway Capacity Manual](#), latest edition.
- Texas Manual on Uniform Traffic Control Devices, latest edition.

DESIGN CRITERIA

SIDEWALKS

Sidewalks are installed on public right-of-way in the parkway or easement and must have a maximum 2% cross-slope toward the street and a minimum of 1% cross slope to facilitate drainage. New sidewalks should be a minimum of 5 feet in width and the longitudinal grade along the sidewalk should not exceed 5% unless the grade of the adjacent roadway requires otherwise. All new sidewalks should be accessible by persons with mobility impairments, in compliance with the Americans with Disabilities Act. Pedestrian crossings of streets should be provided with accessible ramps, where possible. Crosswalks should be marked across arterial streets.

LANE WIDTHS

Driving lane widths are generally to be 11 to 12 feet. For higher speed, higher capacity principal arterial roadways, 12-foot-wide travel lanes are preferred.

RIGHT-OF-WAY (R.O.W.) WIDTH

Right-of-way width is generally determined by the pavement section required to perform the function and carry the traffic for which the thoroughfare is designed to accommodate, plus provisions beyond the pavement for sidewalks, utility locations, drainage, and safety areas.

MEDIANS

The width of medians will vary based on right-of-way limitations, future roadway expansion, and other such factors. The general practice is to use 16-foot-wide raised medians in urban areas. This permits the construction of 12-foot left-turn lanes for

channelization, while leaving 4 feet for buffer between oncoming traffic. In rural areas, medians may be delineated and used for drainage purposes.

PARKWAYS

Parkways are the area between the edge of the roadway and the edge of the street right of way and in urban areas cover a wide range of widths with minimums of approximately 8 feet. Parkway can contribute to the capacity and efficiency of a roadway by providing a clear zone for needed roadway edge utilities and provisions. Sidewalks and utilities are typically situated within the parkway of a thoroughfare, usually with at least a 4-foot-wide buffer between the sidewalk and back of curb.

CURRENT DESIGN STANDARDS

Previous design standards for the Hunt County, cities within Hunt County, and those of adjacent counties (Collin, Rockwall, and Kaufman) were evaluated to ensure consistency of the revised design standards (see Tables 6 thru 15). Note that the thoroughfare design standards differ significantly from each other - some standards are quite detailed and specific, whilst others are more basic.

2020 HUNT COUNTY ENGINEERING STANDARDS MANUAL

ROADWAY CLASS	AREA TYPE	LANES	ROW	SPEED	MEDIAN
Major Arterial	Rural	4	100	35-45	No
Minor Arterial	Rural	2	80	30-35	No
Collector	Rural	2	60	30-35	No
Local (Residential)	Rural	2	60	15-25	No
	Urban	2	50	15-25	No

Table 6: Hunt County Engineering Standards

2021 GREENVILLE THOROUGHFARE PLAN

ROADWAY CLASS	LANES	MEDIAN	PAVEMENT WIDTH	ROW	SIDEWALK	SPEED
PRINCIPAL ARTERIAL	6	YES				
MAJOR ARTERIAL	4	NO	49'	110'	4-6'	55
MINOR ARTERIAL	4	NO	49'	90'	4-6'	45
COMMERCIAL COLLECTOR	3	NO	49'	70'	4-6'	45
RESIDENTIAL COLLECTOR	2	NO	41'	60'	4-6'	40
MINOR OR LOCAL	2	NO	31'	50'	-	35

Table 7: Greenville Thoroughfare Plan Standards

2019 GREENVILLE STANDARD DESIGN MANUAL

TYPE	ROW	PAVEMENT WIDTH	LANES
THOROUGHFARE "A"	110'	49'	4
THOROUGHFARE "B"	90'	49'	4
COMMERCIAL (COLLECTOR)	70'	49'	3
RETAIL (COLLECTOR)	70'	49'	3
RESIDENTIAL (COLLECTOR)	60'	41'	2
MINOR OR LOCAL	50'	31'	2
RESIDENTIAL	50'	31'	2
NON-RESIDENTIAL	60'	41'	2

Table 8: Greenville Design Manual Standards

TXDOT FUNCTIONAL CLASSIFICATION FOR THE CITY OF QUINLAN (QUINLAN 2020 COMPREHENSIVE PLAN)

ROADWAY CLASS	LANES	ROW (IN FEET)
Principal Arterial	2	60-150
Minor Arterial	2	80-120
Collector	2	40-100
Local	2	30-40

Table 9: Quinlan Comprehensive Plan Classification Standards

2018 ROYSE CITY THOROUGHFARE PLAN

ROADWAY CLASS	LANES	MEDIAN	ROW
PRINCIPAL ARTERIAL	6	YES	120'-140'
MINOR ARTERIAL	5	TWLTL	100'
MINOR ARTERIAL	4	No	100'
COLLECTOR	4	No	80'
COLLECTOR	3	No	80'
COLLECTOR	2	No	80'
LOCAL STREET	2	No	53'-70'

Table 10: Royse City Thoroughfare Plan Standards

2016 KAUFMAN COUNTY THOROUGHFARE PLAN

Roadway Class	Area Type	Lanes	ROW	Pavement Width	Design Speed	Median
Freeway/Highways		4-8	400'-500'			Yes
Principal Arterial	Rural	2	100-120'	40	35-55	No
	Urban	2	100-120'	40	35-45	No
	Rural	4	100-120'	'2@36'	35-55	Yes
	Urban	4	100-120'	'2@24'	35-45	Yes
	Rural	6	100-120'	2@48'	45-55	Yes
	Urban	6	100-120'	2@36'	45-55	Yes
Minor Arterial	Rural	2	65'-100'	40	30-35	No
	Urban	2	65'-100'	24	30-35	No
	Rural	3	65'-100'	56	30-35	No
	Urban	3	65'-100'	40	30-35	No
	Rural	4	65'-100'	2@36'	30-35	Yes
	Urban	4	65'-100'	2@24'	30-35	Yes
	Rural	4	65'-100'	64	30-35	No
Collector	Urban	4	65'-100'	48	30-35	No
	Rural	2	60'	32	30-35	No
	Urban	2	60'	24	30-35	No
	Rural	3	80'	48	30-35	No
	Urban	3	80'	40	30-35	No

*The number of lanes on a roadway do not need to be increased to meet thoroughfare standards until warranted by traffic or development.

**Pavement width for rural sections includes shoulder width.

Table 11: Kaufman County Thoroughfare Plan Standards

2019 ROCKWALL THOROUGHFARE PLAN

Functional Classification	Area Type	Lanes	ROW	Pavement Width	Design Speed	Median
Freeway / Highway		4-6	400'-500'			Yes
Principal Arterial AA	Rural	4	120'	'2@36'	45-55	Yes
	Urban	4	120'	'2@24'	45-55	Yes
	Rural	6	140'	2@48'	45-55	Yes
	Urban	6	140'	2@36'	45-55	Yes
Major Arterial A	Rural	4	120'	'2@36'	35-45	Yes
	Urban	4	120'	2@24'	35-45	Yes
	Rural	6	120'	2@48'	45-55	Yes
	Urban	6	120'	2@48'	45-55	Yes
Minor Arterial B	Rural	3	100'	48	30-35	No
	Urban	3	100'	36	30-35	No
	Rural	4	120'	56	30-35	No
	Urban	4	120'	48	30-35	No
Collector C	Rural	2	80'	32	30-35	No
	Urban	2	80'	24	30-35	No
	Rural	3	100'	44	30-35	No
	Urban	3	100'	36	30-35	No

*Lane additions are recommended for implementation until warranted by development or congestion.

Table 12: Rockwall Thoroughfare Plan Standards

2014 COLLIN COUNTY THOROUGHFARE PLAN

Class	Divided / Undivided	Lanes	ROW	Speed
Principal Arterial	Divided	6 @ 12'	120'	40-50
Principal Arterial	Divided	4 @ 12'	100'	40-50
Principal Arterial	Undivided	4 @ 12'	70'	40-50
Major Arterial	Divided	6 @ 12'	120'	40-50
Major Arterial	Divided	4 @ 12'	100'	35-45
Major Arterial	Undivided	4 @ 12'	70'	35-45
Rural Arterial	-	4 @ 12'	100'	55-65
Rural Arterial	-	2 @ 12'	90'	55-65

Table 13: Collin County Thoroughfare Plan Standards

2017 DELTA COUNTY SUBDIVISION REGULATIONS

Class	Lane	ROW	Pavement Width
Local	2	60'	21'
Collector	2	60'	28'
Arterial	2-4	50'-100'	30'+
Local			30-40

Table 14: Delta County Subdivision Regulation Roadway Standards

2015 FANNIN COUNTY SUBDIVISION REGULATIONS

Class	Lane	ROW	Pavement Width
Local	2	60'	21'
Collector	2	60'	28'
Arterial	2-4	50'-100'	30'+

Table 15: Fannin County Subdivision Regulation Roadway Standards

RECOMMENDED DESIGN STANDARDS

Building off existing design standards and in consultation with key stakeholders, design standards were revised and are shown in Tables 16 and 17 on the following page. Illustrated cross-sections of each classification are also presented on the following pages in Figures 60 to 68. These design standards provide consistency with existing roadway design guidelines in adjacent cities and counties, provide options for multi-modal elements, and more flexibility in developing Hunt County thoroughfares.

While 6-lane principal urban arterials and 4-lane urban arterials are listed in the revised Plan, they are not expected to be a significant portion of the roadway network. They are included to provide opportunities to support intensive urban and commercial development within the County as well as continuity between existing and proposed facilities. Proposed 2-lane arterials are expected to be an interim roadway class, transitioning to a 4-lane or 6-lane divided arterial as development and travel demand dictate.

Note that the determination of the applicability of urban or rural roadway design sections and classifications will be at the discretion of Hunt County, with a general preference for rural design sections. A primary condition will be the condition of handling stormwater / drainage and its continuation to existing and/or connectivity to formalized drainage systems. Other factors may include the presence of adjacent urban design sections, location of the roadway within local ETJs, and interlocal agreement obligations.

Roadway Class	Area Type	Lanes	Min ROW (feet)	Roadway Pavement (feet)	‡ Median (feet) (Flush/Raised)	Shoulders (feet) (Inside / Outside)	Sidewalk (feet)	Design Speed (mph)	On Street Parking
Principal Arterial	Rural	6	120'	2 @ 36'	16'/20'	4-8'/8-10'	Optional	45	No
‡ Arterials	Rural	4 (major)	100'	2 @ 24'	14'/16'	4-8'/8-10'	Optional	45	No
		2 (minor)	100'	24'	No	8-10'	Optional	40	*Optional
Collectors	Rural	2	80'	24'	No	6-8'	Optional	35	*Optional
Local Roads	Rural	2	60'	28'	No	4'	Optional	35	*Optional

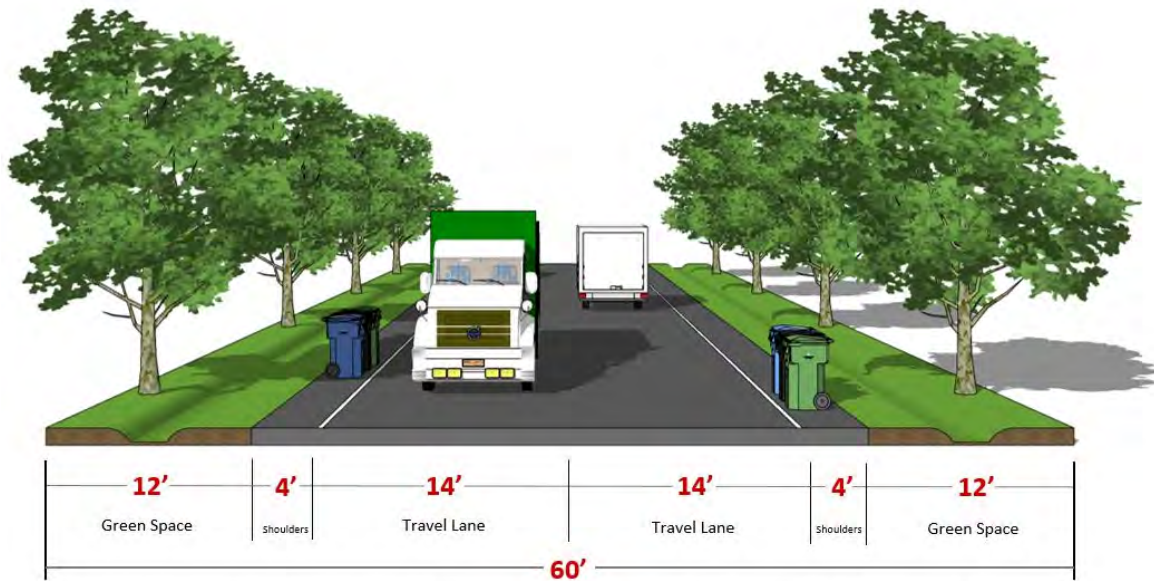
* Parking on shoulders may be permitted. † Medians may include left turn bays at intersections and openings for local access. ‡ Note that the assumption is that minor arterials will be upgraded to major arterials as justified by travel demand.

Table 16: Proposed Hunt County Rural Thoroughfare Design Standards

Roadway Class	Area Type	Lanes	Min ROW (feet)	Roadway Pavement (feet)	‡ Median (feet) (Flush/Raised)	Shoulders (feet) (Inside / Outside)	Sidewalk (feet)	Design Speed (mph)	On Street Parking
Principal Arterial	Urban	6	120'	2 @ 36'	16'/20'	-	Buffered Pathway	45	No
Major Arterials	Urban	4	100'	2 @ 24'	14'/16'	-	6-8'	45	No
Collectors	Urban	4	80'	48'	No	-	5-6'	35	Optional
Local Roads	Urban	2	60'	28'	No	-	5'	30	Yes

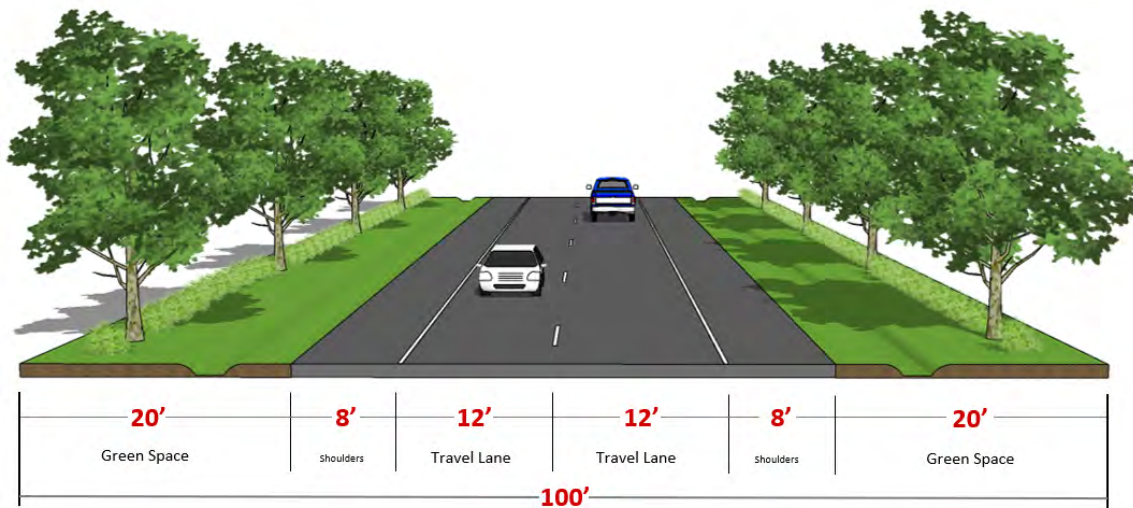
‡ Medians may include left turn bays at intersections and openings for local access.

Table 17: Proposed Hunt County Urban Thoroughfare Design Standards



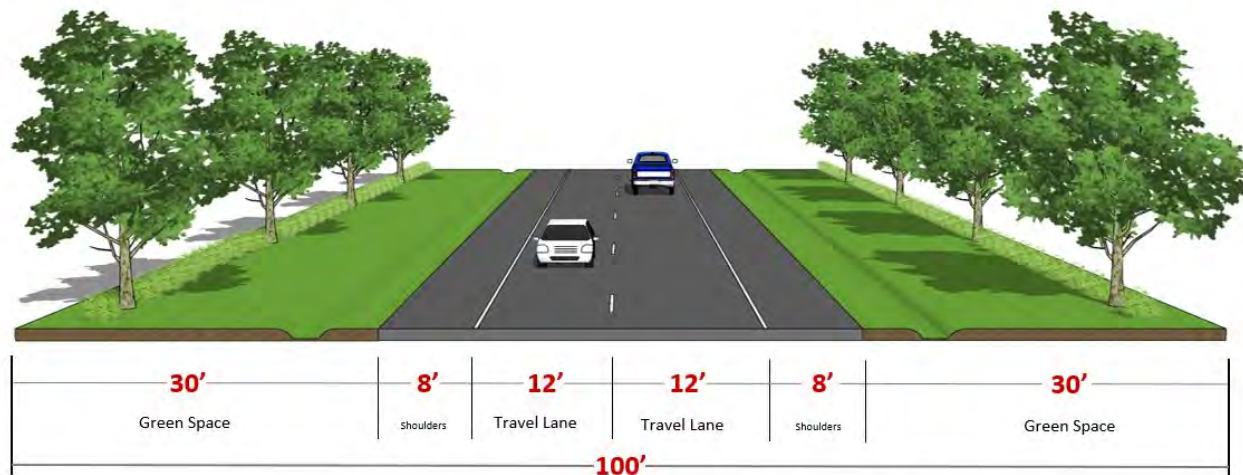
Local Rural Roadway – 2 Lane, 60' ROW, 14' Lanes

Figure 60: Recommended Section - Local (Rural)



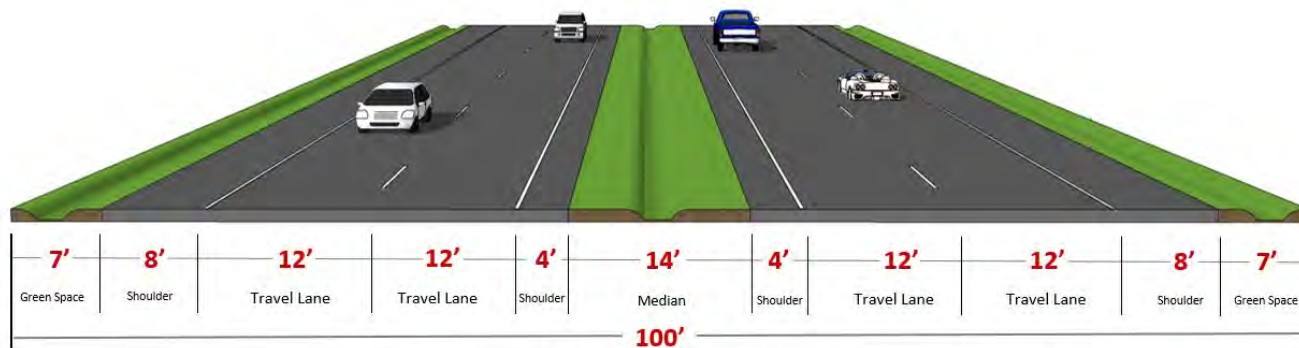
Rural Collector – 2 Lane, 80' ROW, 12' Lanes

Figure 61: Recommended Section - Collector (Rural)



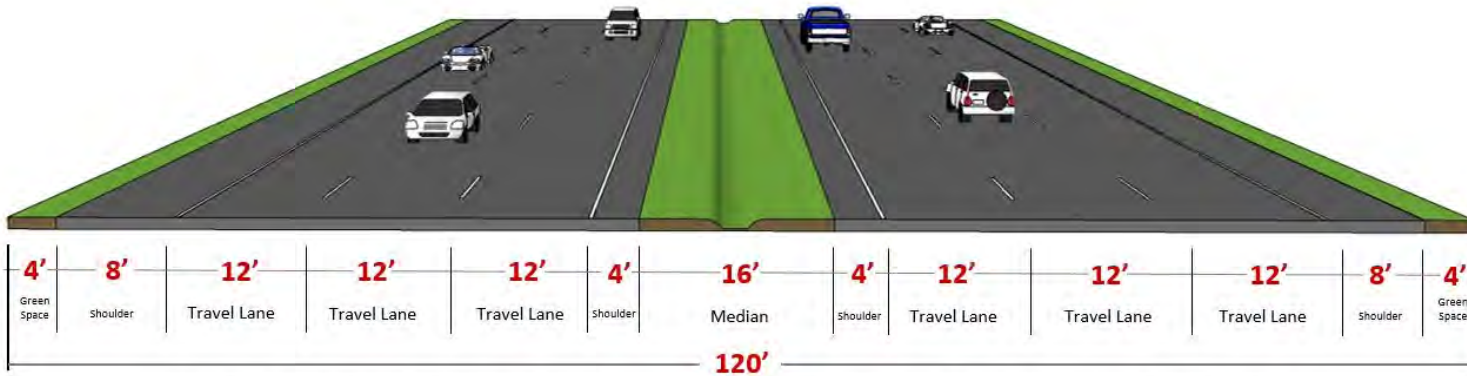
Rural Minor Arterial – 2 Lane, 100' ROW, 12' Lanes

Figure 62: Recommended Section - Minor Arterial (Rural)



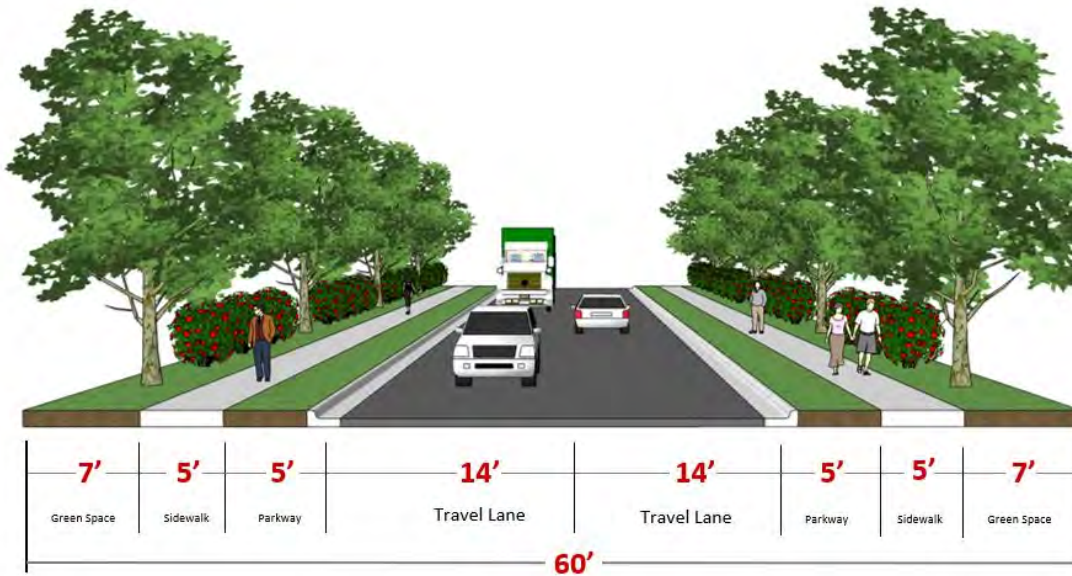
Rural Major Arterial – 4 Lane, 100' ROW, 12' Lanes w/ 14' Median

Figure 63: Recommended Section - Major Arterial (Rural)



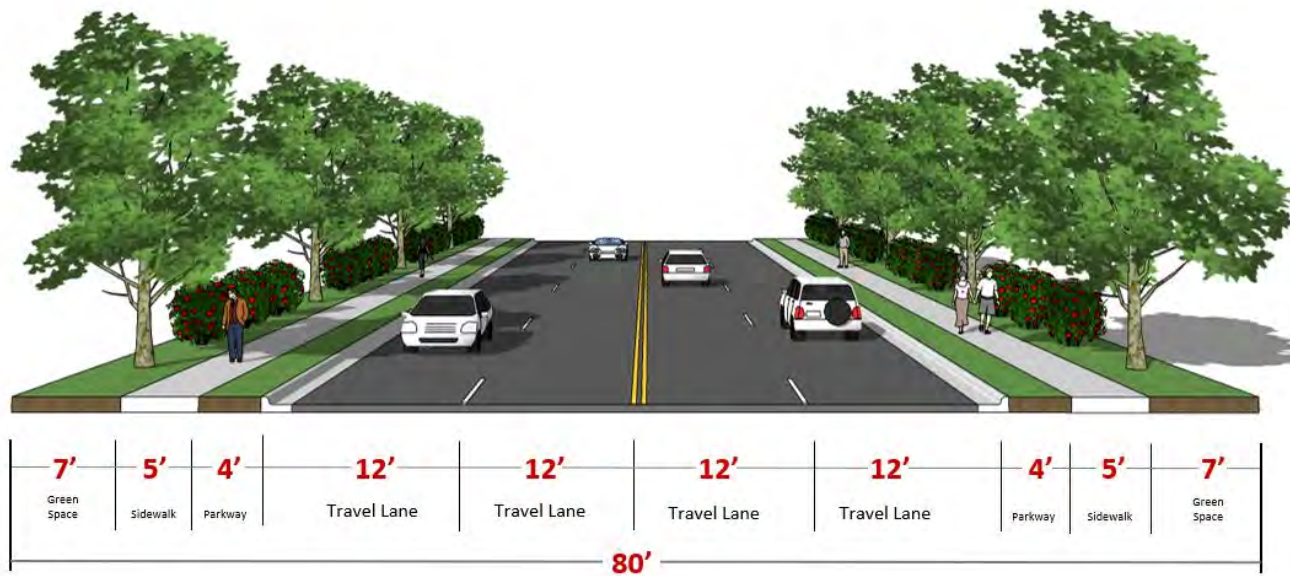
Rural Principal Arterial – 6 Lanes, 120' ROW, 12' Lanes w/ 16' Median

Figure 64: Recommended Section - Principal Arterial (Rural)



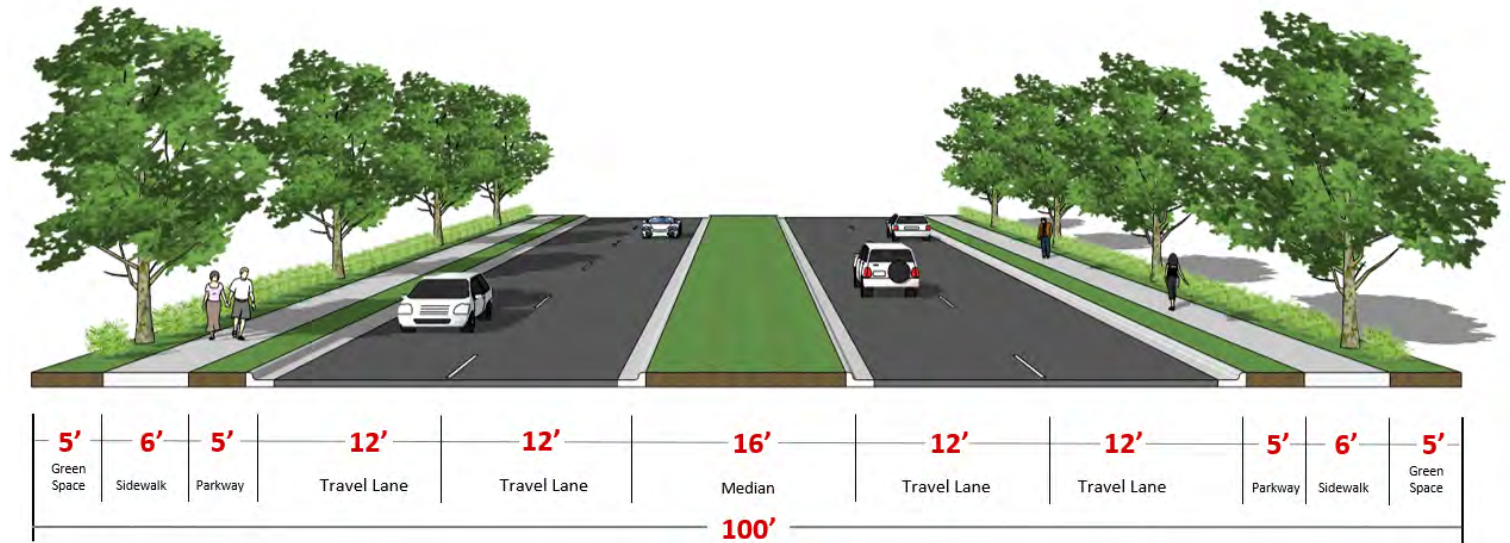
Urban Local Roadway – 2 Lane, 60' ROW, 14' Lanes

Figure 65: Recommended Section - Local (Urban)



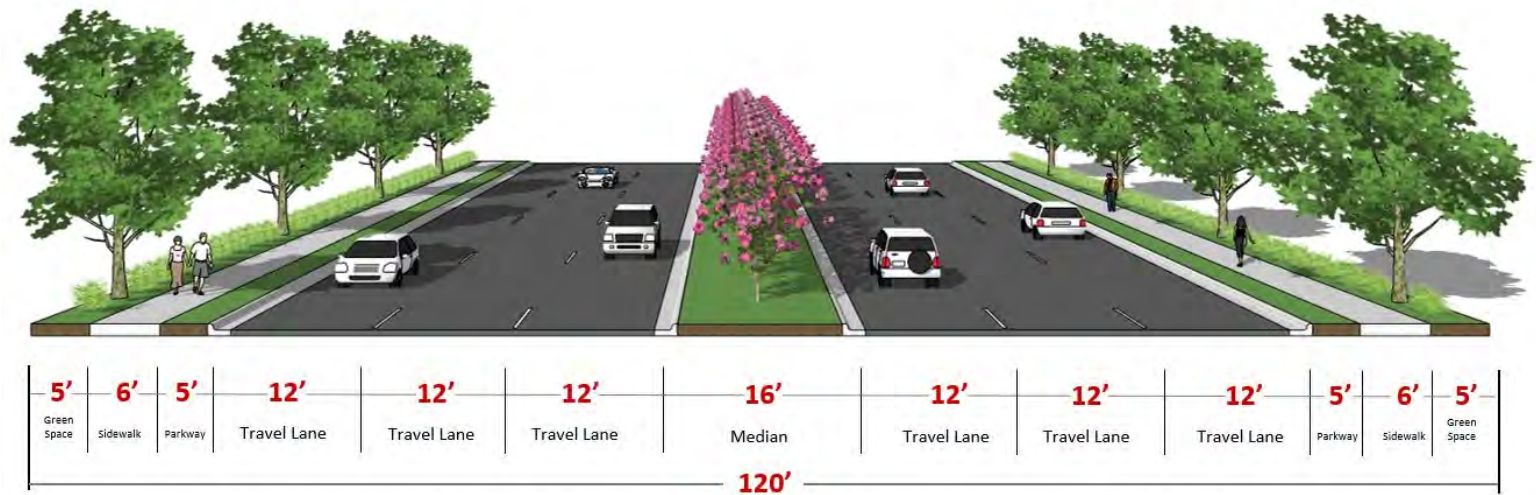
Urban Collector – 4 Lane, 80' ROW, 12' Lanes

Figure 66: Recommended Section - Collector (Urban)



Urban Major Arterial – 4 Lane, 100' ROW, 12' Lanes w/ 16' Median

Figure 67: Recommended Section - Major Arterial (Urban)



Urban Principal Arterial – 6 Lanes, 120' ROW, 12' Lanes w/ 16' Median

Figure 68: Recommended Section - Principal Arterial (Urban)

The ability for the roadway network to operate effectively relies on the ability of intersections to efficiently process traffic. Operational conditions typically break down when insufficient turn-lane capacity is available to remove turn movements from the traffic stream. To ensure the ability to provide channelized turn movements, such as a second left-turn or right-turn lane, provision for additional ROW should be provided at key major and minor arterial intersections as illustrated in Figures 69 and 70 on the following pages. To determine the exact dimensional requirements of specific intersections, a traffic analysis should be conducted at the time of facility implementation.

As currently defined, divided roadways can accommodate a separate left-turn lane. By adding an extra 22 feet of ROW, a second left-turn and separate right-turn bay can be added as needed to an intersection. Travel lanes of 11' provide sufficient roadway width for turn movements.

Table 18 identifies necessary distances by roadway class for storage and transition requirements. The distances identified allow for minimum turn-lane storage and lane transitions. In high intensity development areas, a traffic analysis should be conducted to determine appropriate intersection requirements.

Roadway	Major Arterial	Minor Arterial	Major Collector	Minor Collector
Major Arterial	350'	350'	300'	260'
Minor Arterial	300'	300'	260'	260'

Table 18: Intersection ROW Requirements

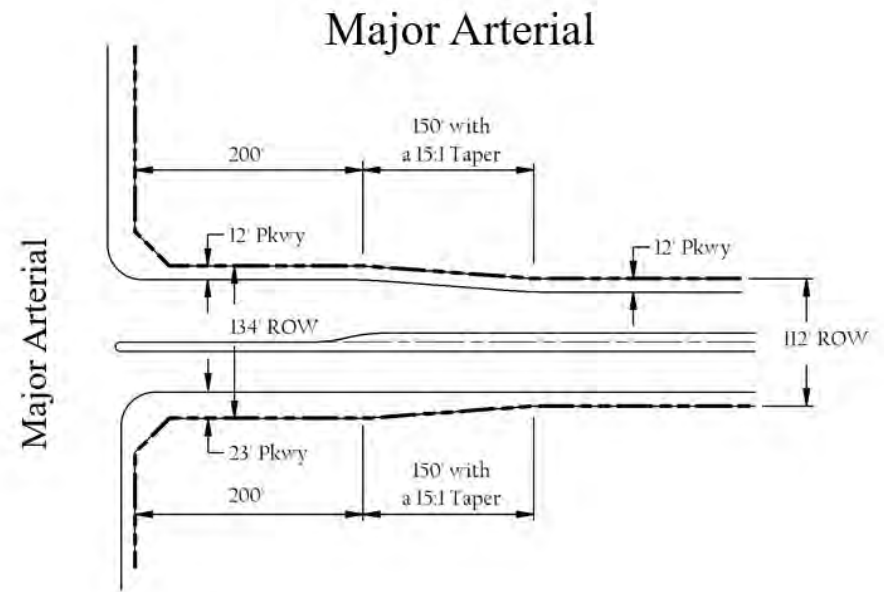


Figure 69: ROW Requirements of Intersections Along Major Arterials

OTHER DESIGN ELEMENTS

ROUNDBABOUTS

Roundabouts are a type of intersection characterized by a generally circular shape, yield control on entry, and geometric features that create a low-speed environment through the intersection. Modern roundabouts (Figure 71) have been demonstrated to provide a number of safety, operational, and other benefits when compared to other types of intersections. On projects that construct new or improved intersections on collector or minor arterial roadways, the modern roundabout should be examined as a cost-effective alternative to all-way stops or traffic signal control.

It is recommended that Hunt County consider innovative intersection design, including roundabouts, on internal roadways in new residential developments as opportunities arise, where there are serious intersection safety issues, or there is a preference by the community for an alternative intersection design.

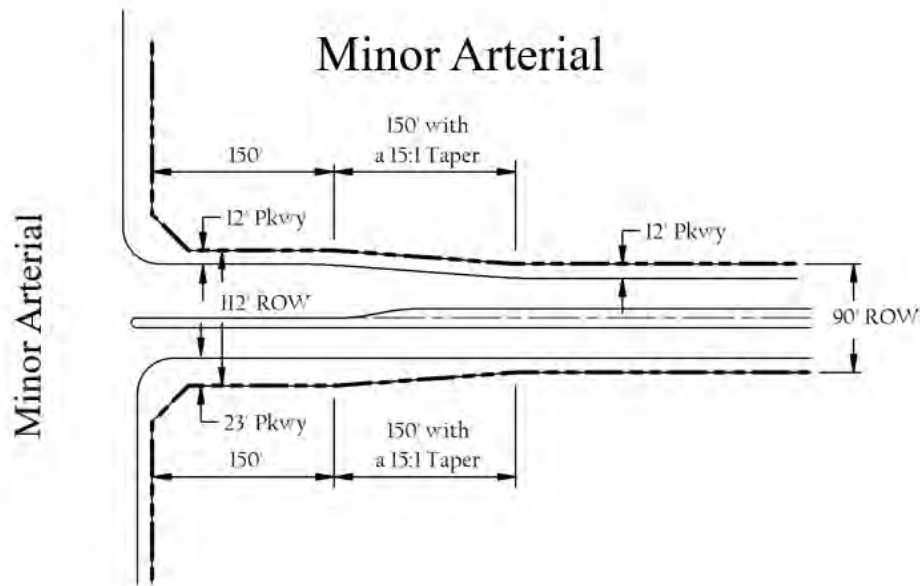


Figure 70: ROW Requirements of Intersections Along Minor Arterials



Source: FHWA

Figure 71: Illustration of Roundabout Element

For more information on roundabouts, please refer to the FHWA information guide at:

<https://www.fhwa.dot.gov/publications/research/safety/00067/00067.pdf>

ACCESS MANAGEMENT

The FHWA defines access management as “the process that provides access to land development while simultaneously preserving the flow of traffic on the surrounding system in terms of safety, capacity, and speed.” In more general terms, access management is a set of strategies designed to optimize land use access using a variety of treatments to improve turning movements and enhance roadway safety. These and other types of programs are becoming more preferable to the construction of additional lanes to improve roadway capacity as roadway costs escalate and available funds become more limited.

The benefits of access management are that it has the potential to reduce roadway congestion and travel times, increase traffic safety, reduce development costs, enhance access to adjacent properties, and improve coordination between land use and transportation network development.

Along SH 66, SH 34, and SH 269 there are numerous businesses that have shared drives and/or numerous openings onto arterial streets, providing opportunities for access management. A brief discussion of asset management improvements are presented on the following pages.

TWO WAY LEFT TURN LANES²

Continuous two-way left turn lanes (TWLTL) are a common access management treatment when combined with driveway consolidation and corner clearance. TWLTLs provide a separate lane within the ROW for left turning vehicles to enhance property access and are considered when existing driveways do not meet spacing criteria.

These treatments function well when:

- Traffic levels are moderate (10,000 to 24,000 vehicles per day).
- Percentage of turning volumes is high.
- Density of commercial driveways is low to moderate.
- Number of driveways per block or mile is high.
- The land use does not produce many turning movements per hour.

Conversely, TWLTLs do not function well once traffic rises above 24,000 vehicles per day and are less effective in situations where commercial driveway densities are high, and driveways are closely spaced. It is recommended to consider raised medians instead of TWLTLs if daily traffic exceeds 20,000 for 4-lane streets or 17,500 for 2-lane streets. It is also recommended that TWLTLs have a width of at least 12 feet, with a suggested minimum of 14 feet if possible.

² Source: 2007 Corpus Christi Access Management Plan

RAISED MEDIANS WITH CHANNELIZED TURN LANES

Raised medians are intended to improve the safety of the roadway by eliminating the number of conflict points along the roadway, and in doing so improve the traffic flow along the corridor. Based on numerous studies form across the nation, the TxDOT Access Management Manual concludes that “roadways with a non-traversable (raised) median have an average crash rate about 30 percent less than roadways with a TWLTL”. TxDOT is converting flush medians to raised medians on roadways throughout Texas, especially those that have transitioned from rural to urban development densities with associated increases in traffic volume.

Placement of median turn lanes must consider several factors. Left turns should directly feed a strategic driveway with cross access to adjacent development parking areas. In certain circumstances, it may be prudent to provide as many center left turn locations as possible to facilitate U-turns between major intersections.

DRIVEWAY CONSOLIDATION

Managing the access points that bring traffic to and from adjacent developments requires negotiation with property owners regarding an amenity that had been previously granted them by the city and/or TxDOT. Often the closing of one or more driveways along the roadway frontage can allow for more parking on the site. However, the layout of some smaller sites relies on the provided driveways to make the on-site circulation and/or parking provisions functional.

Potential treatments should be developed in conjunction with property owners to determine the overall benefit. Such benefits can include the potential to add more parking spaces, reducing the potential for driveway collisions and the number of on-site conflict points for traffic circulation. Figure 72 provides an example of driveway consolidation.



Figure 72: Driveway Consolidation in Frisco, TX

DRIVEWAY SPACING AND LOCATION STANDARDS

Research by the National Cooperative Highway Research Program has shown a direct relationship between the number of driveways per mile and the propensity for crashes along the roadway (see Figure 73). Driveway spacing and offset from intersection standards should be established by local ordinance and/or site design guidelines. Such a measure helps control the access provided when properties develop and would eventually bring the corridor toward a better balance of throughput and local access. The establishment of the ordinance or site design guidelines would also help to classify existing driveways that are non-compliant and help to establish a list of desired driveway closures for future prioritization.

ROAD DIETS

The reduction of a travel lane for the purpose of reallocating the space to non-travel uses is called a "road diet". Road diet conversion may involve a staged implementation, installed incrementally as adjacent development transitions from an auto-oriented nature to a denser and more pedestrian oriented or human-scale environment.

To complement the road diet treatment and enhance the pedestrian nature of the corridor, sidewalks should also be developed to connect adjacent neighborhoods. Figure 74 illustrates the impact of a road diet on a roadway. It is recommended that the Hunt County continuously evaluate its roadway network for potential opportunities for road diets.

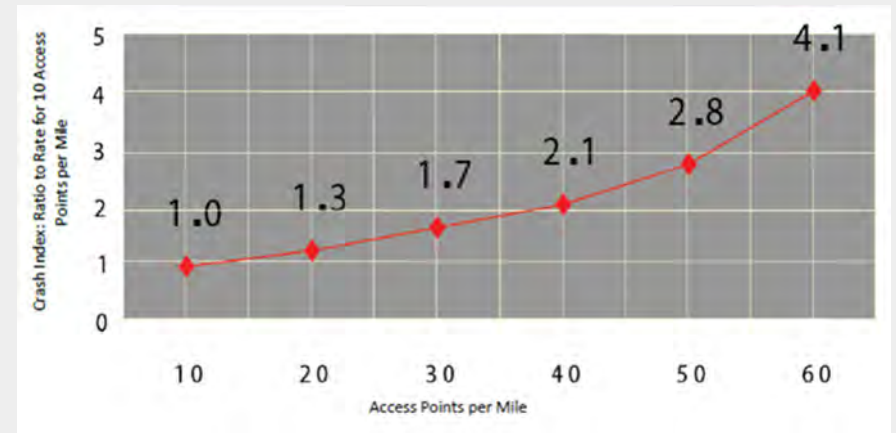


Figure 73: Relationship Between Number of Access Points and Traffic Accidents

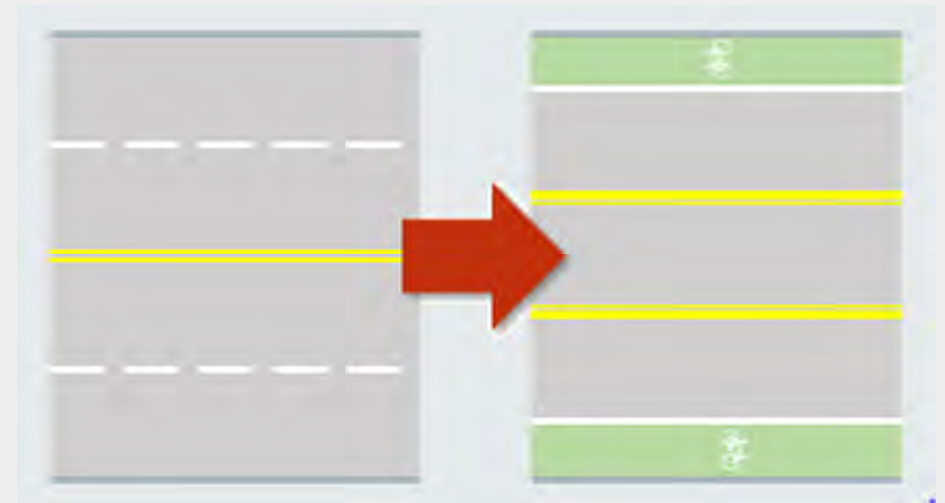


Figure 74: Example of a Road Diet

TRAFFIC IMPACT ANALYSIS³

The purpose of a traffic impact analysis (TIA) is to assess the effects of a specific development activity on the existing and planned thoroughfare system. Development activity may include: subdivision of land, preliminary site plans and plats, driveway permits, certificates of occupancy, and thoroughfare plan amendments. Impact analysis methodology involves evaluating the design level of service, trip generation rates, potential trip reductions, and the impact of proposed developments on both existing and future traffic conditions. Specific data used for TIAs includes:

- Site location information and density of development
- Existing and proposed/projected zoning, site development, traffic volumes, trip generation, traffic signals and roundabouts
- Thoroughfare systems
- Net change in trip generation
- Trip distribution and traffic assignment
- Intersection and roadway level of service
- Proposed mitigation (if needed)

The benefits of such an analysis could be applied to the development review process and used to have developers finance upgrades of roadways when adjacent developments require such an improvement. A guide for the methodological

approach and application of Traffic Impact Analysis in Hunt County is presented in Appendix D.

CONTEXT SENSITIVE DESIGN

All thoroughfare designs should support context sensitive design and expand beyond the typically auto-centric mobility purposes of the roadway to accommodate the scale and design of the surrounding community and support connectivity at a human-scale with the inclusion of bicycle, pedestrian, and transit modes.

³ Sourced from the Frisco Engineering Design Standards Manual.

THOROUGHFARE PLAN DEVELOPMENT

BARRIERS TO DEVELOPMENT

When developing a thoroughfare network, the built and natural environment often dictate where thoroughfares can be built at the least cost to the user. Figure 75 reveals known barriers to roadway development in Hunt County. The most significant barrier to roadway development in the County is floodplains, rivers, and lakes. These features are most prevalent in southern and northeastern areas of Hunt County and pose significant challenges that may require more costly solutions.

Railroads are another notable barrier to network development as new crossings require the consent of railroad ownership which can be extremely difficult to obtain. Other barriers, such as parks, civic buildings, and residences also pose barriers but are usually easier to accommodate through changes in roadway alignment, design, and/or negotiations with landowners.

Hunt County is crossed by several major utility easements. Two major national petroleum pipelines, the Explorer and Magellan pipelines, cross through the County and intersect at a terminal on FM 36 north of IH-30. Several major transmission lines also traverse the County, including Fannin County Electric Corporation, ONCOR, and Farmers Electric. Together, the combined easements of these operations pose potential barriers to the development of the thoroughfare network in Hunt County.

ISSUES AND NEEDS

Input from key stakeholders and general public highlighted several key issues and needs for Hunt County. During Plan development, additional comments were collected and combined with existing comments from key stakeholder meetings and are illustrated in Figure 76. These comments were further evaluated during the thoroughfare development process for verification and to determine priority areas.

As stated throughout the plan development process, flooding remains a significant issue in Hunt County, with many roadways impassable during high rainfall events. This impacts overall mobility throughout the County and specifically affects school bus routes and student attendance around Quinlan and West Tawakoni. Another key issue stated throughout the process was concerns regarding trucking movement around the interchange between SH 24 and IH-30 as well as truck activity along US 69 through Celeste. Potential growth pressures on roadway networks around Caddo Mills, Quinlan/West Tawakoni, and roadways connecting to Bois D'Arc Lake and Lake Ralph Hall in Fannin County (SH 11 and SH 50) were also noted. The need for improved north-south and east-west connectivity in western Hunt County and improved connections from Commerce to SH 34 was also mentioned.



Hunt County Barriers

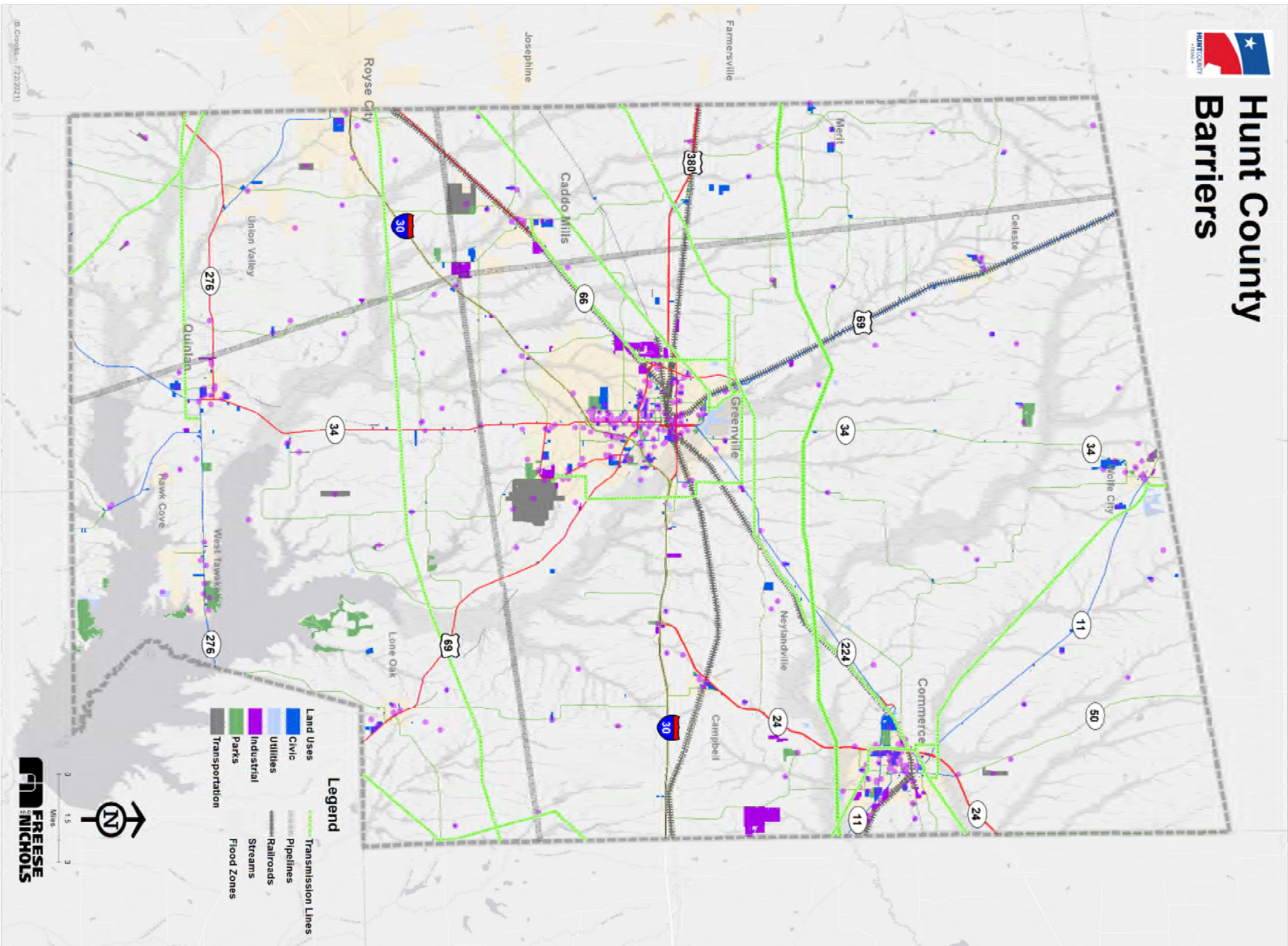


Figure 75: Barriers to Roadway Development



Hunt County Issues and Needs

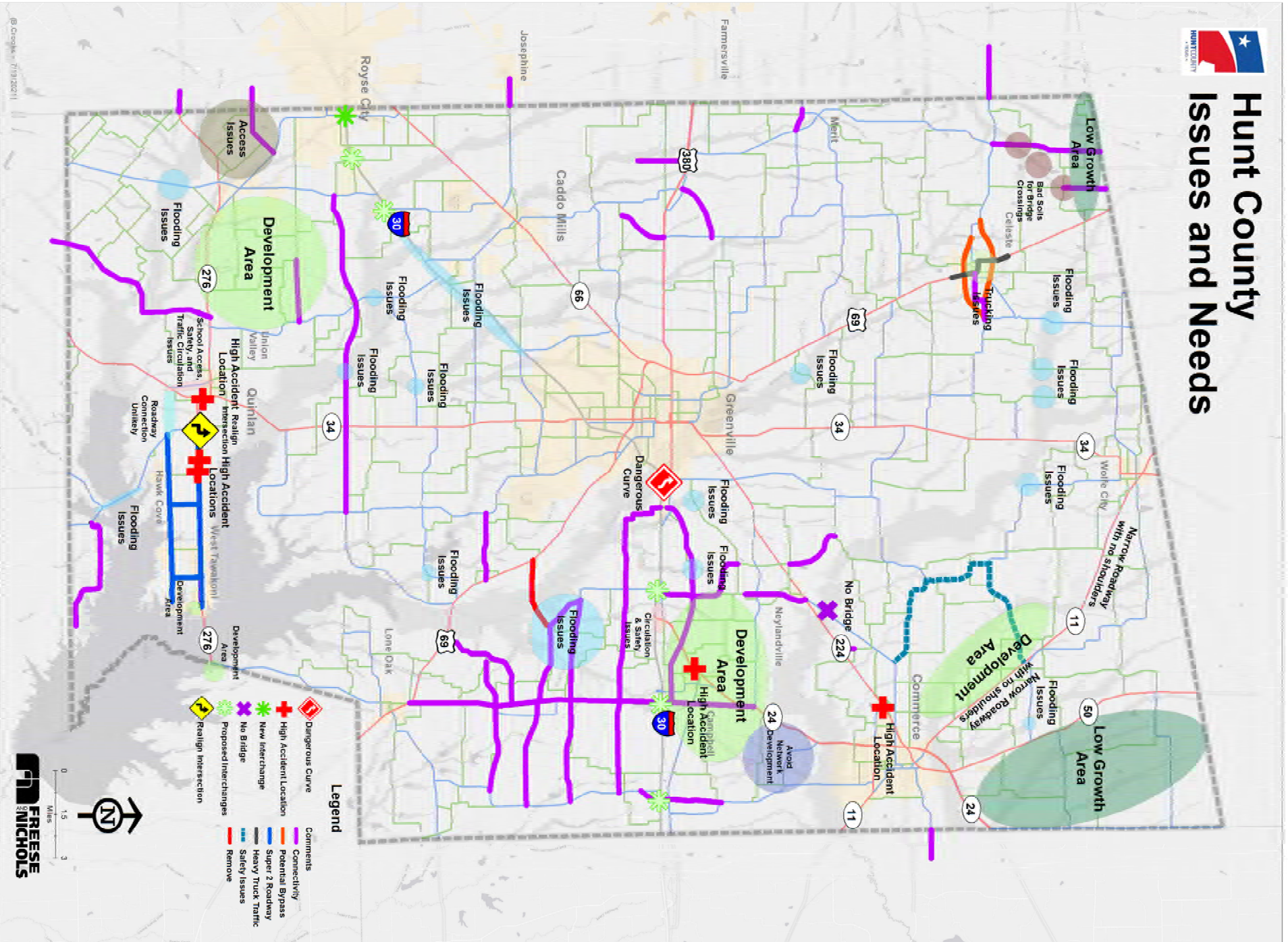


Figure 76: Identified Throughfare-Related Issues and Needs

CONNECTIVITY

Improving overall mobility through logical roadway connections is integral to the long-term viability of the County roadway network. The current and proposed future networks were evaluated for gaps in connectivity. The analysis indicated that potential east-west and north-south connections were required in order to keep overall mobility levels at acceptable levels. Figure 77 illustrates future connectivity requirements.

Key mobility corridors in Hunt County include:

- IH-30
- US 380, US 69
- SH 34, SH 24, SH 224, SH 66, SH 276, SH 11, SH 50
- FM 751, FM 513, FM 1562, FM 1570, FM 1903, FM 6, FM 36, FM 1565, FM 2649, FM 1568, FM 816, FM 1563, FM 1532, FM 1562, FM 1737, FM 1564
- CR 1148, CR 1137, CR 1010, CR 4904, CR 2596, CR 2514, CR 2512, CR 2264, CR 1040, CR 4507, CR 4506, CR 4611, CR 1193, CR 1071, CR 4310, CR 1123, CR 2748, CR 2730, CR 2606, CR 2668, CR 2656, CR 1093, CR 1091, CR 2154, CR 2134, CR 2132, CR 4108

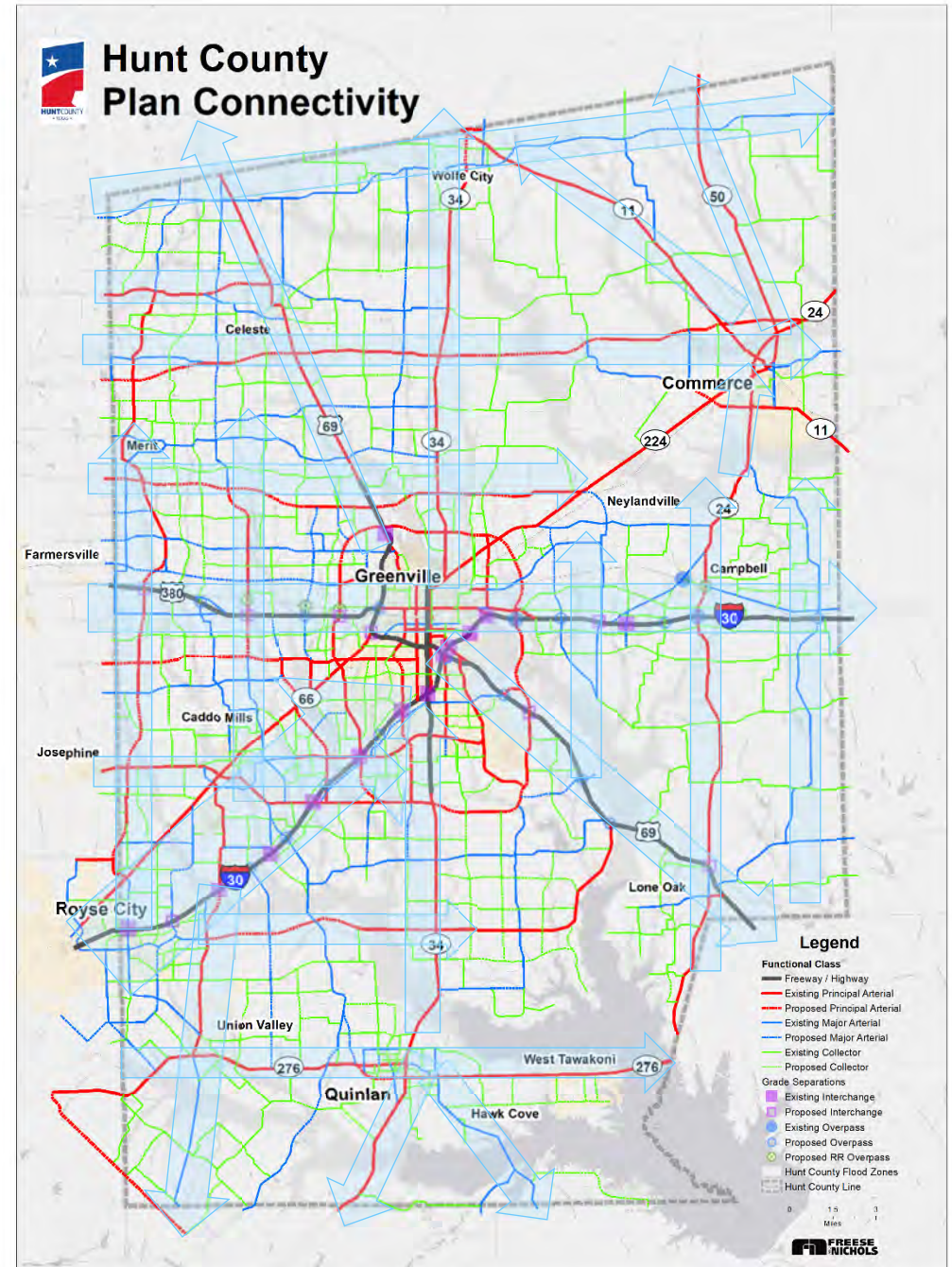


Figure 77: Hunt County Key Mobility Corridors

CURRENT PROJECTS

As part of the development process, current roadway projects were identified. As shown in Figure 78, the roadway network in Hunt County is constantly being improved and upgraded. Major roadway improvements include additional lanes and one-way frontage roads along IH-30, the expansion of FM 2642 in Royse City, FM 1903 / FM 36 from IH-30 to FM 6 in Caddo Mills, FM 1570 in Greenville, and a new bypass on SH 276 in Quinlan.

TxDOT is also planning to reconstruct interchanges along IH-30 at FM 1565, FM 36, FM 1903, and FM 1570; construct a new interchange at CR 2511; reconstruct SH 24 and SH 11 in Commerce; and construct a new turnaround lane at Monty Stratton Parkway in Greenville.

Major studies are in various stages of completion on SH 66 and SH 34. There are also numerous safety and maintenance projects scheduled throughout the County.

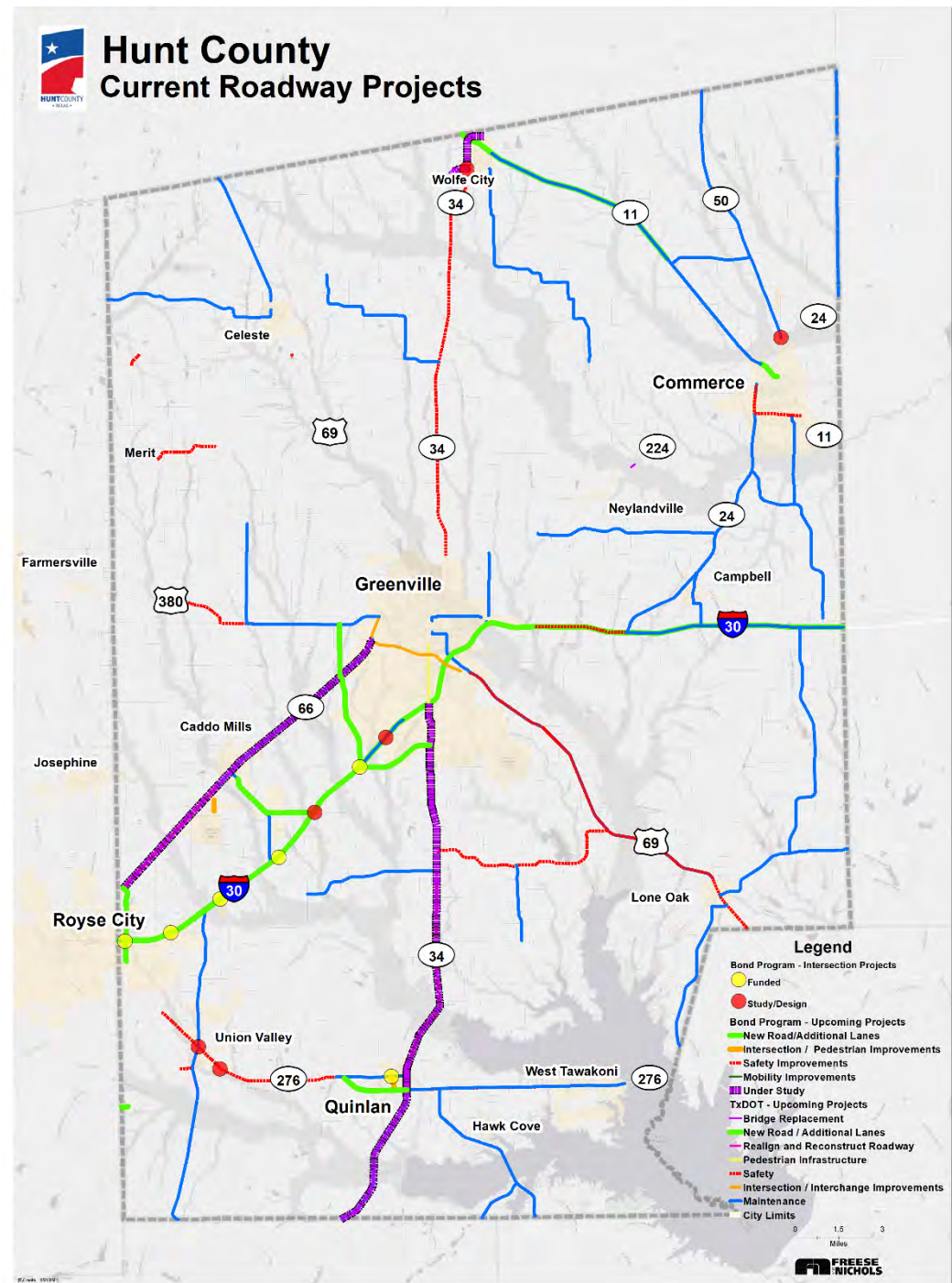


Figure 78: Current Roadway Projects in Hunt County

EXISTING THOROUGHFARE PLANS

As shown in Figure 79, Hunt County has numerous thoroughfare plans already in place. During plan development, these thoroughfare plans were incorporated into the new Plan, with emphasis on preserving the needs of local communities while enhancing connections between city and county thoroughfare

plans to create a contiguous roadway network throughout the County with seamless network connections to adjacent counties. This included improving connections to Collin County along the western boundary as well as expanding the network across the northern areas and enhancing the existing network in the south. These connections were reviewed by key stakeholders and communicated to the general public during town hall meetings.

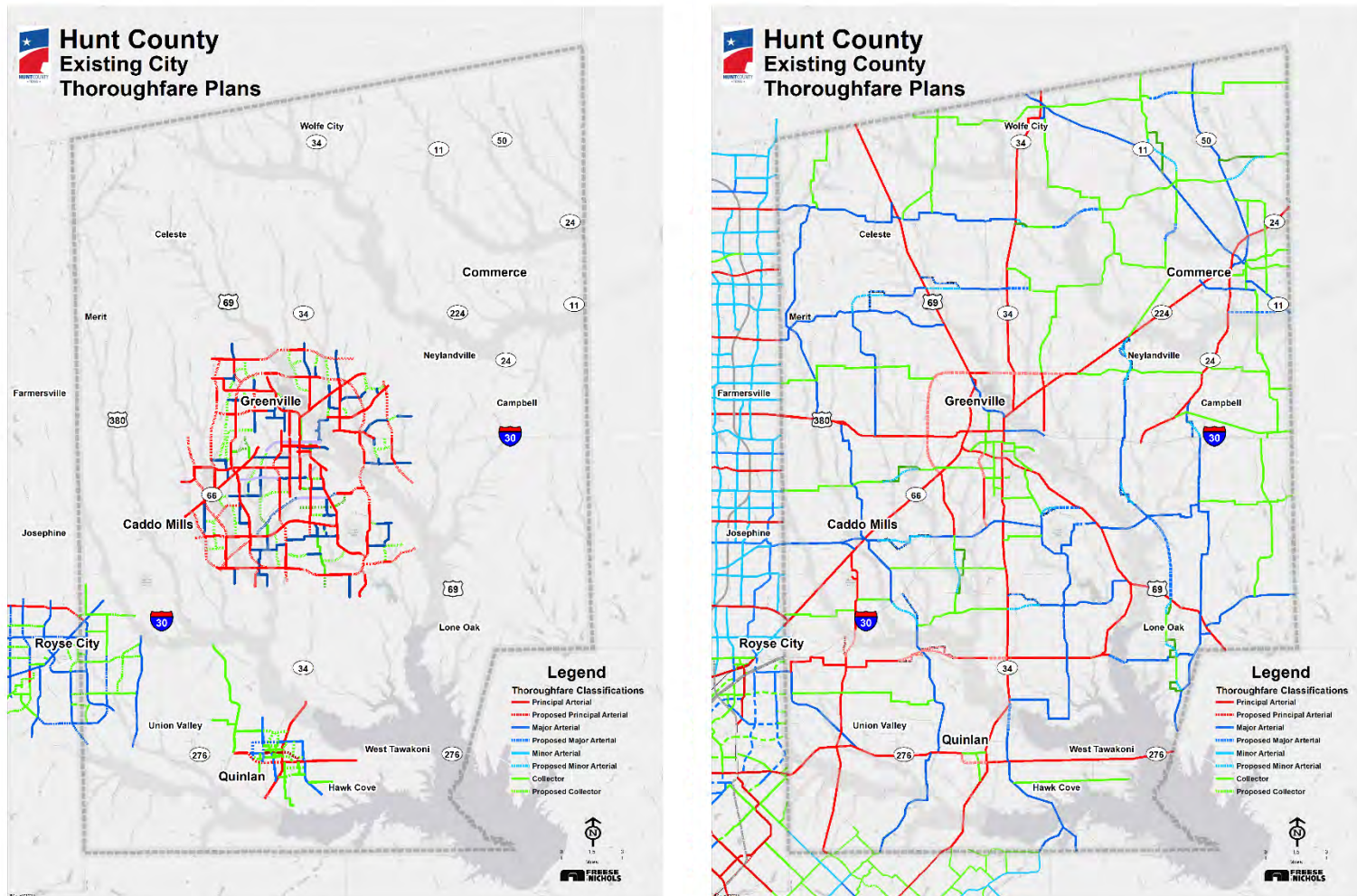


Figure 79: Existing County and City Thoroughfare Plans

THOROUGHFARE PLAN UPDATE

Based upon demographic forecasts, traffic projections, identified needs, issues, and barriers, evaluation of existing plans and projects, and through a comprehensive consultation with key stakeholders and the general public, a revised Plan was developed. The plan development process attempted to use existing ROW, bridges, and overpasses as much as possible and provide sufficient network to accommodate forecast growth.

The 2022 Hunt County Thoroughfare Plan provides a guide for the Hunt County Judge and Commissioners to develop their future roadway network. Key improvements in this Plan include enhanced connectivity to proposed roadways in Collin County, new east-west connections in the north and improved north-south connections across the County. Attention was paid to accommodate proposed growth in Royse City and Caddo Mills as well as connections to proposed thoroughfares in Greenville.

The Plan acknowledges the importance of trucking and freight operations within Hunt County and has specifically designed improvements and connections along eastern IH-30 north and south to improve truck flows. Additional recommendations to improve truck safety are listed in the following chapter.

One notable deletion from the previous Plan was a connection to Lone Oak across Lake Tawakoni. Key updates are shown in Figure 80, with a copy of the 2022 Thoroughfare Plan shown on the next page in Figure 81.

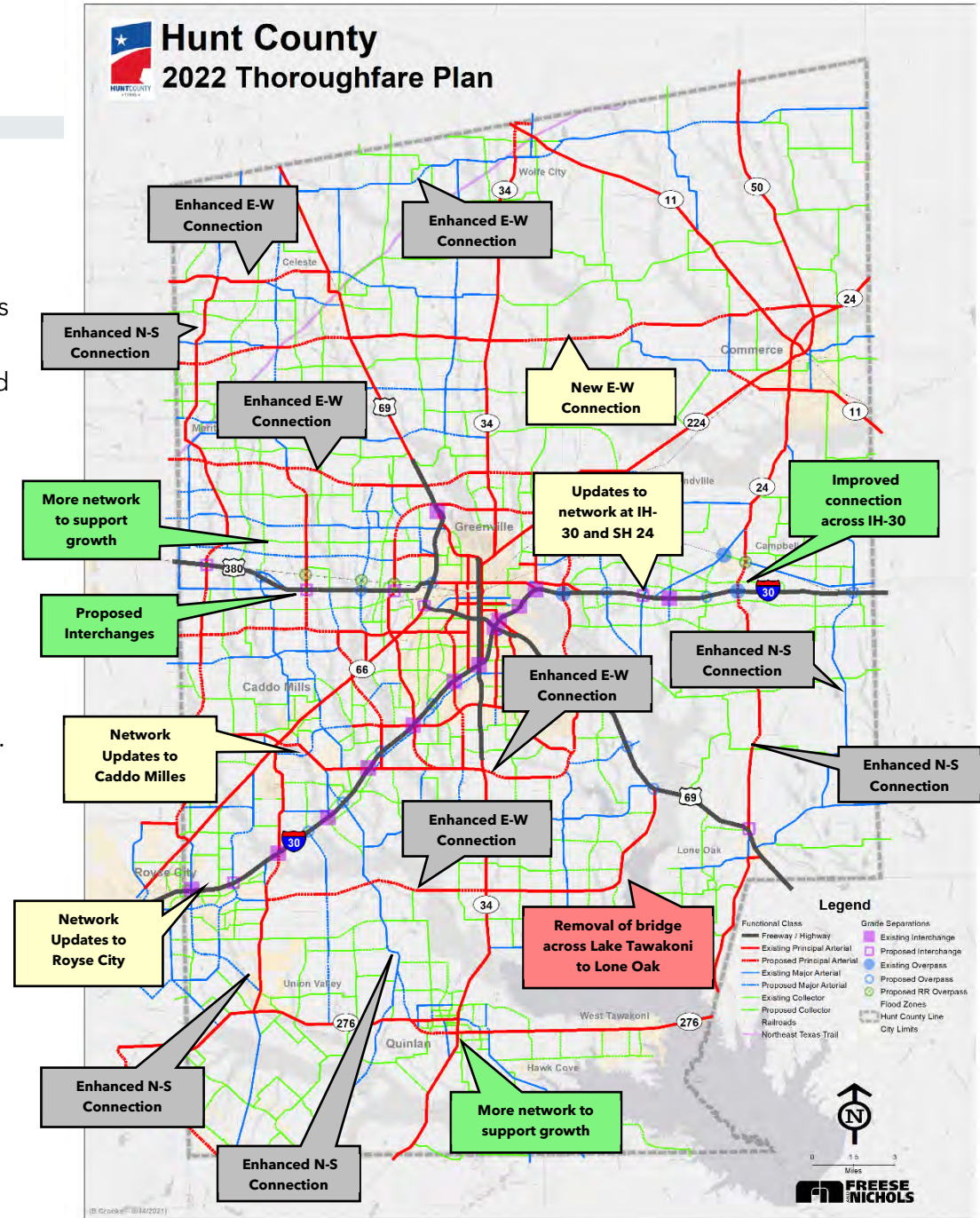


Figure 80: 2022 Hunt County Thoroughfare Plan Key Updates



Hunt County 2022 Thoroughfare Plan

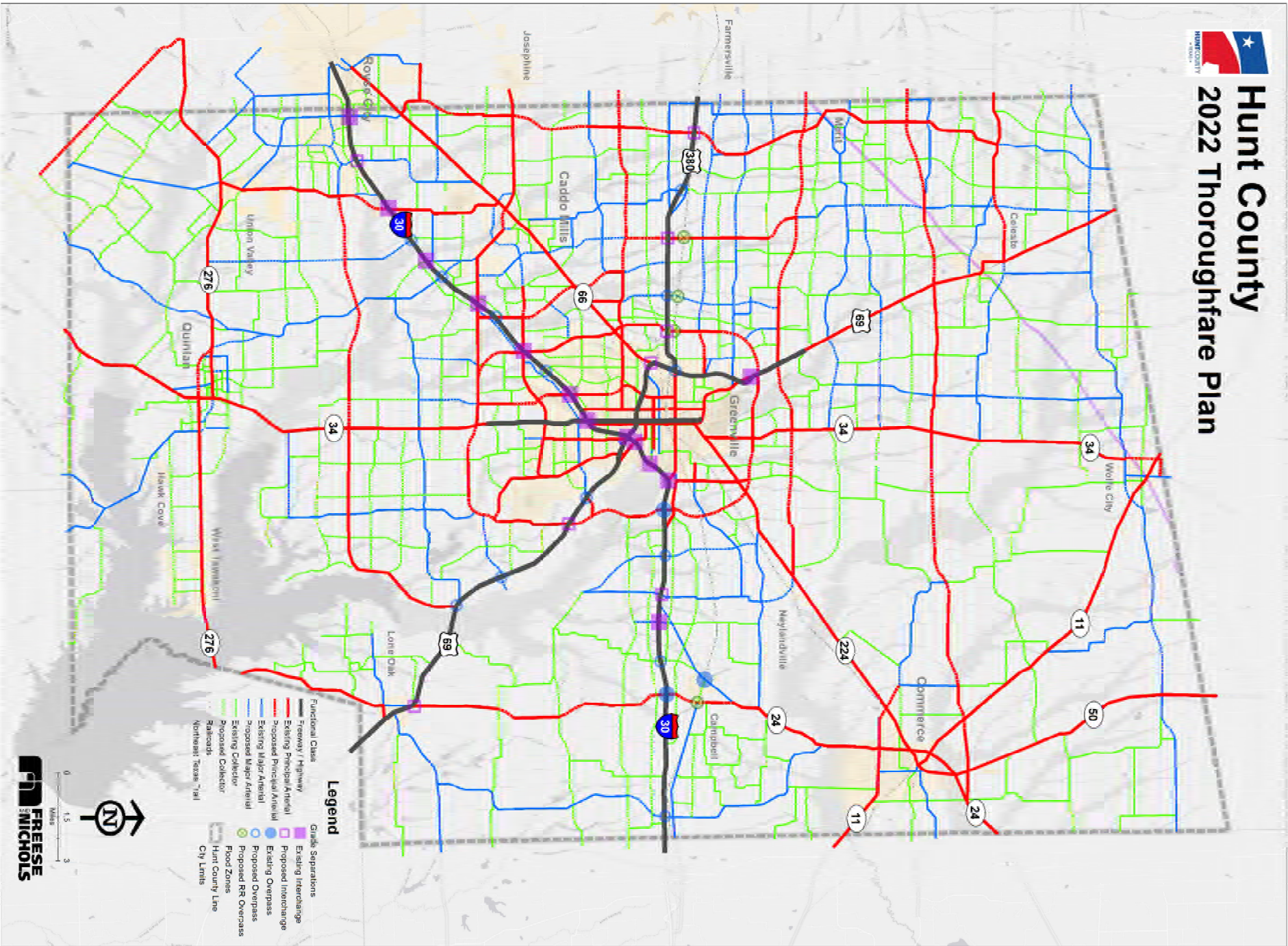


Figure 81: The 2022 Hunt County Thoroughfare Plan

NETWORK COVERAGE

An evaluation of the proposed thoroughfare was conducted to assess how well the network would satisfy mobility based on roadway coverage. Principal arterials by themselves provide extensive network coverage within Hunt County. Minor arterials provide good coverage west of US 69 to satisfy forecast population and employment growth, while providing coverage along key travel corridors to the east. Collectors provide supporting coverage throughout the County. When all the roadway class coverages are combined, they provide comprehensive network coverage throughout the County except in those areas with forecast low growth and/or areas in or adjacent to floodplains, rivers, and lakes.

Figure 82 shows the components of the thoroughfare network and their coverage broken out by functional classification.

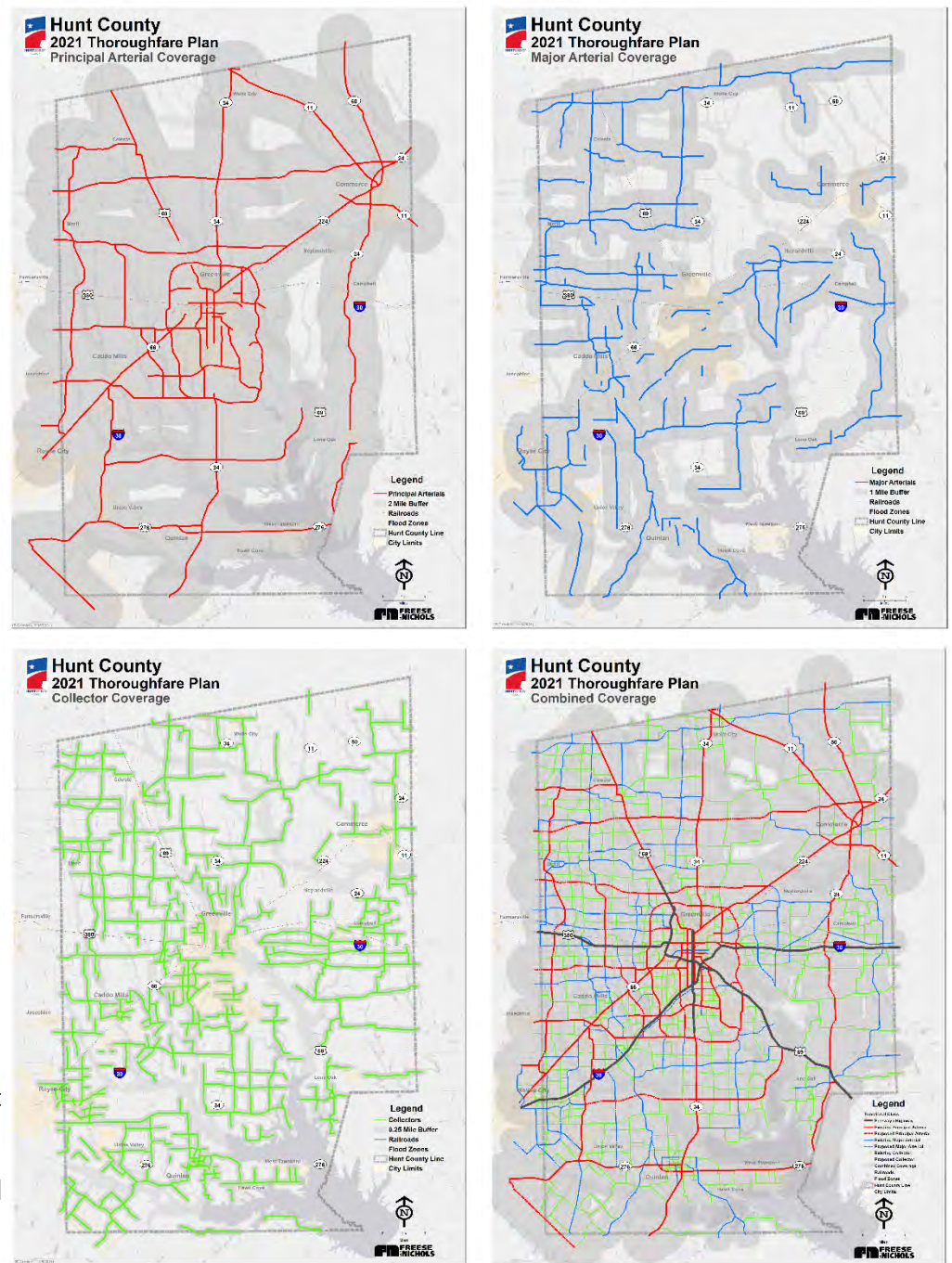


Figure 82: Thoroughfare Plan Network Coverage by Functional Classification

ASSET MANAGEMENT

While expanding the roadway network is key to providing mobility in the future, maintaining the existing roadway network is also essential in maintaining acceptable mobility levels and preventing unnecessary roadway expenditures by ensuring that roadways are kept in acceptable condition.

Asset management came about in the 1990's (GASB34 legislation; Governmental Accounting Standards Board) from the general public's wish for more government accountability, increasing demands on the transportation network, declining transportation funds, increasing construction costs, technological advances, and a deteriorating national roadway infrastructure. Transportation professionals and stakeholders determined that they needed to improve management of roadways to reduce life-cycle costs and improve transparency to the public on transportation investment decisions.

In its simplest form, Asset Management is a process designed to reduce roadway and bridge life-cycle costs while maintaining an acceptable level of risk and quality of service. Asset Management provides data-based solutions to justify capital investments and ensures cost-effective and sustainable levels of roadway network performance.

While, Hunt County currently has no asset management plan in place, TxDOT maintains a pavement management system for the on-system network in Hunt County. Figure 83 shows TxDOT on-system pavement conditions in Hunt County.

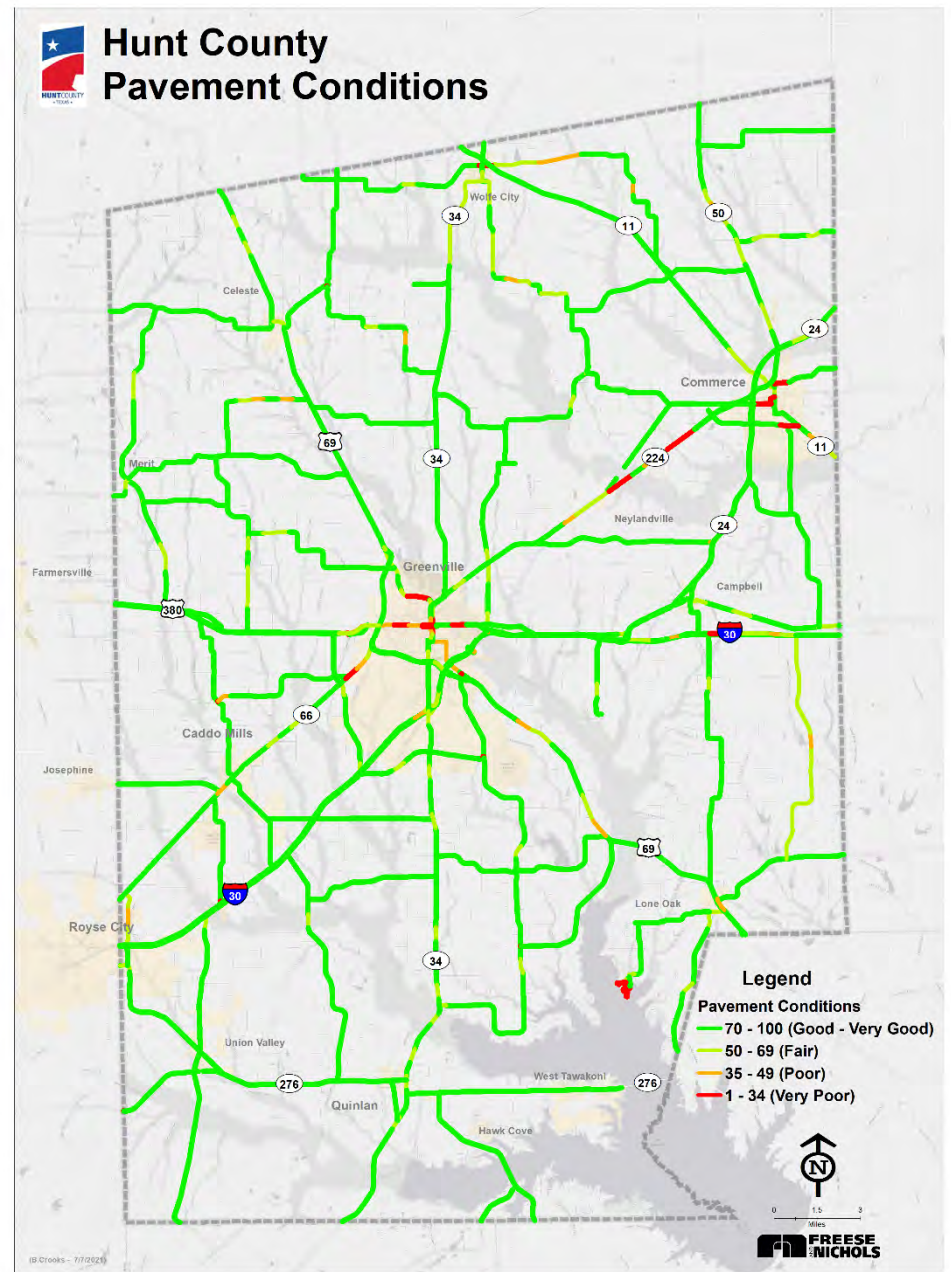


Figure 83: Hunt County Pavement Conditions

PRIORITIZATION, RECOMMENDATIONS, & FUNDING STRATEGIES

PROJECT IMPLEMENTATION PROCESS

Figure 84 summarizes the process for moving a project from the planning and discovery phase to construction. It is important to note that once funded, all projects must be submitted to NCTCOG's Metropolitan Transportation Plan (MTP) and Transportation Improvement Program (TIP) in order to receive potential supplementary funding. Depending on the funding source (typically federal or state funds), and/or whether the project is located on an on-system facility, projects will also be subject to the environmental review process, where the environmental impacts of a project are gauged and mitigated through an Environmental Assessment and/or Environmental Impact Statement. Projects with local or non-federal or non-state funds and not located on state facilities may only require Categorical Exclusion documentation.

Right-of-way can be acquired at any time during the implementation phase but should be started as early as possible in the project's life cycle to ensure timely completion of the project. This is particularly important in the implementation of the thoroughfare network as the functional classification recommendations in the Plan may require right-of-way acquisition along existing and recommended roadway alignments.

PROJECT TIMING

Timing for projects recommended for the 2022 Hunt County Thoroughfare Plan are based on project connectivity, identified growth areas, and project knowledge. Short-range projects include projects recommended for the one to ten (1-10) year term, medium term projects recommended for the ten to twenty (10-20) year term, and long-term projects envisioned for the 20-plus year time horizon. Note that only short and medium terms projects are listed. Action on recommended projects may include full construction, project phasing, planning, design, and engineering, or only right-of-way acquisition.

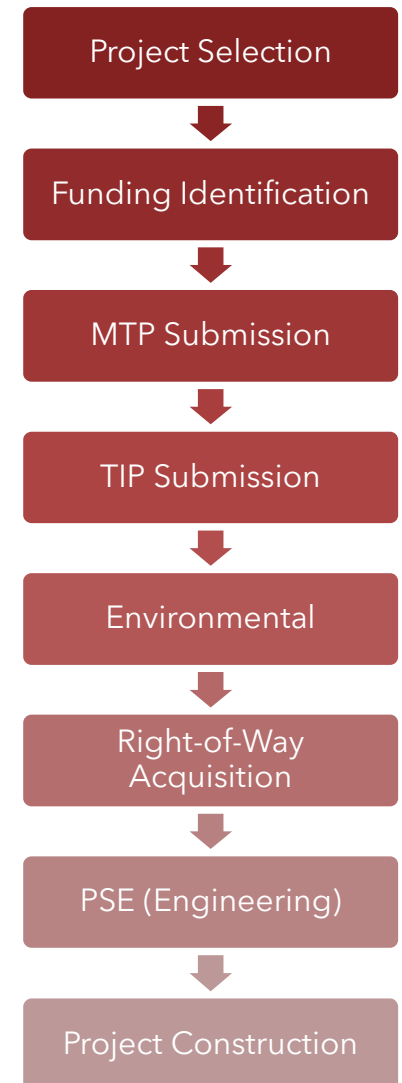


Figure 84: Project Implementation Process

SHORT TERM PROJECTS

Short term projects are considered those which would provide the greatest immediate benefit to support existing development, economic growth, reduce congestion, or redistribute travel demand. Most of these projects provide connections between existing roadway segments to create new connections for traffic distribution within Hunt County.

Short-term projects are broken down into those which are already under design and construction (existing short-term projects) and those recommended under the new Plan (new short-term projects). Table 19 and Figure 85 show these short-term projects.

MEDIUM TERM PROJECTS

Medium term projects are usually thought of as those which are set up to accommodate growth projected out beyond the next 10 years, or those roadways whose construction is dependent on development patterns or economic initiatives that are under discussion but have yet to be fully realized. Table 19 and Figure 85 reveal these medium-term projects identified in the 2022 Hunt County Thoroughfare Plan.

LONG TERM PROJECTS

These projects are considered to be visionary beyond the 20-year time horizon and subject to considerable revision as future regional, county, and local thoroughfare plans are developed over time. The 2022 Hunt County Thoroughfare Plan is representative of the final design of the network considering all long-term projects at buildout. A listing of long-term projects is presented in Appendix E.

Existing Short-Term Projects				
ID	Roadway	From	To	Improvement
E1	FM 1570	IH-30	SH 34	Widen from 2 to 4 lane divided arterial
E2	FM 1570	IH-30	SH 66	Widen from 2 to 4 lane divided arterial
E3	FM 2642	FM 35	SH 66	Widen from 2 to 4 lane divided urban arterial w/ sidewalks
E4	SH 276	West of FM 36	SH 34	Construct new 4 lane facility with continuous left turn lanes
E5	IH 30	FM 2642	FM 1570	Widen to a 6 lane freeway
E6	IH 30	FM 1570	Hunt C/L	Widen to a 6 lane freeway
E7	FM 1903 / FM 36	IH-30	SH 66	Widen to to a 5 lane arterial
New Short Term Projects				
ID	Roadway	From	To	Improvement
N1	CR 2730	US 380	SH 66	Complete as a 2 lane rural arterial
N2	FM 6	Hunt C/L	FM 36	Complete as 6 lane rural principal arterial
N3	FM 1903	IH-30	SH 34	Complete as 4 lane urban arterial
N4	FM 1565	SH 66	SH 276	Complete as 4 lane urban arterial
N5	FM 36	FM 1903	SH 276	Complete as a 2-4 lane rural arterial
N6	CR 2512 / 2514 / 2596 / 2264 / 3504	CR 2511	FM 2101	Complete as a 2 lane rural arterial
N7	FM 513	SH 24	US 69	Complete as a 2 lane rural arterial
N8	CR 2648	IH-30	CR 2658	Complete as a 2 lane urban / rural arterial
Medium Term Projects				
ID	Roadway	From	To	Improvement
M1	FM 36	FM 1562	US 380	Complete as a 2 lane rural arterial
M2	FM 1565	SH 276	Hunt C/L	Complete as a 4 lane rural arterial
M3	FM 1562	Hunt C/L	US 69	Complete as a 4 lane rural arterial
M4	FM 1569 / CR 1071	Hunt C/L	US 69	Complete as a 2 lane rural arterial
M5	FM 903	FM 1569	FM 1903	Complete as a 2 lane rural arterial
M6	CR 696 / 2727 / 2152 / 2148 / FM 3211	Hunt C/L	SH 66	Complete as a 2 lane rural - 4 lane urban arterial
M7	FM 35	FM 2642	FM 1565	Complete as a 2 to 4 lane rural arterial

Table 19: Short- and Medium-Term Hunt County Projects

CORRIDOR STUDIES

The 2022 Hunt County Thoroughfare Plan also provides a short list of recommended corridors for further study. Such activity would require coordination and cooperation with TxDOT and/or NCTCOG as well as local governments and other key stakeholders. Of particular interest is FM 751 across Lake Tawakoni. Key stakeholders have mentioned that this connection experiences significant flooding and causes significant mobility issues during high rainfall events. Additional study is needed to determine the severity and frequency of these events, evaluation of possible solutions, identification of funding sources, and project prioritization. A list of all proposed studies is listed in Table 20 and illustrated in Figure 85 on the next page.

Corridor Studies

ID	Roadway	From	To	Type	Status
C1	CR 1096 / 1040 / 4518 / 4508 / 4509 / 8089	Hunt C/L	SH 24 in Commerce	Corridor Study	Proposed
C2	SH 66	Hunt C/L	US 69	Corridor Study	Current
C3	SH 276	SH 34	Hunt C/L	Corridor Study	Proposed
C4	FM 751	Shawnee Lane	FM 429	Engineering Study (Flooding)	Proposed
C5	US 380 / US 69	Hunt C/L	IH-30	Corridor Study	Proposed
C6	US 69	US 380	Hunt C/L	Corridor Study	Proposed
C7	SH 34	IH-30	CR 2312	Feasibility Study	Current

Table 20: Hunt County Corridor Studies

Hunt County
2022 Thoroughfare Plan
Plan Recommendations

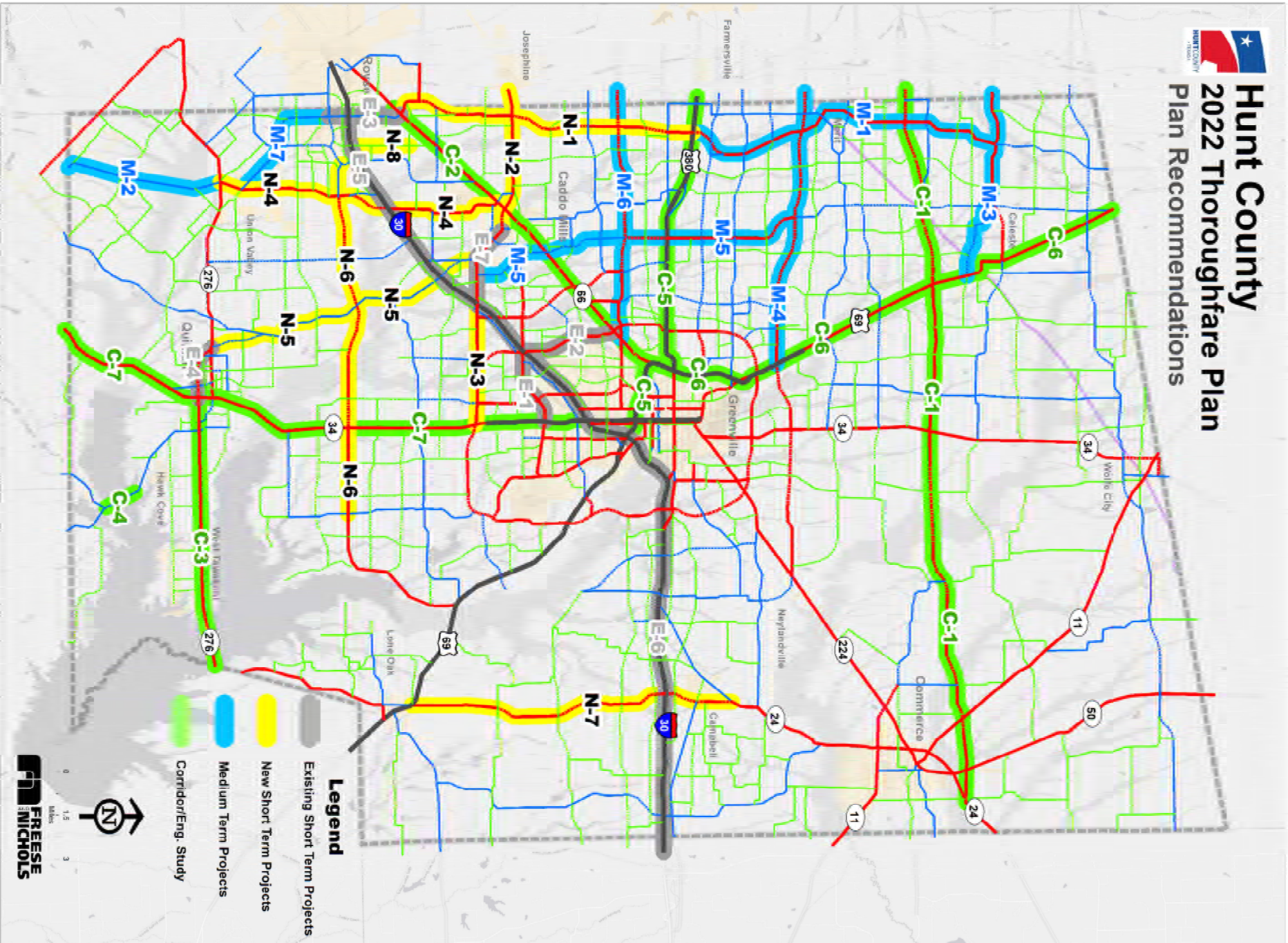


Figure 85: Recommended Plan Projects and Corridor Studies

PROJECT PHASING

While the Plan and proposed recommendations provide solutions to long-term mobility needs, these projects are not expected to be built initially to their full design. Thoroughfare development typically occurs in phases, initially starting out as a simple two-lane roadway culminating in its final design once the surrounding area has land uses that generate sufficient traffic to justify buildout capacity. Figure 86 is an example of a typical evolution of a thoroughfare over time in a developing urban area.

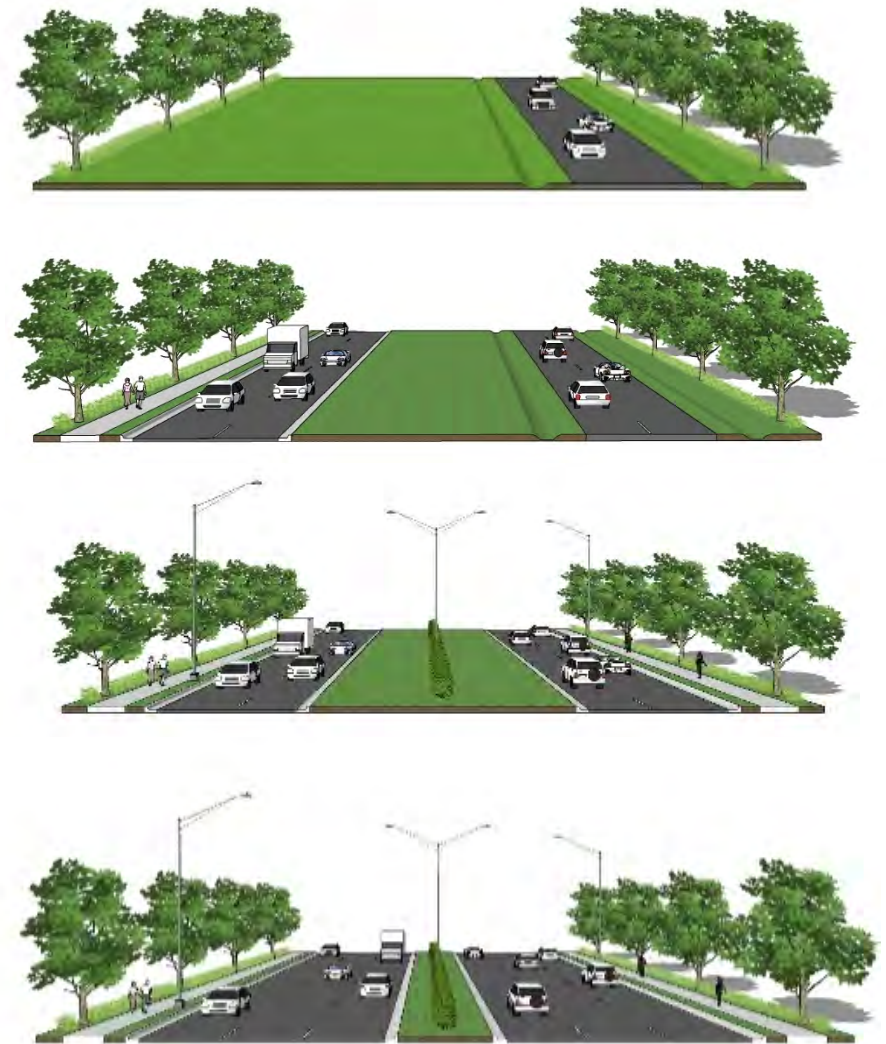


Figure 86: Typical Rural to Urban Thoroughfare Evolution

GRADE SEPARATIONS

The Plan also evaluated grade separations in for the short, medium, and long-term time horizons. Short-term grade separations are those considered essential to support recommended short-term roadway projects. Medium term projects support either medium-term projects or network areas where additional roadway development is expected to occur beyond the 10-year time horizon. Long-term grade separations are those to be considered beyond the 20-year time horizon. Since all of these grade separations occur on the TxDOT on-system roadway network, TxDOT will determine the development of these projects and their final design.

Railroad grade separations are considered in the final design to support network buildout at each location; initial construction may consider at-grade crossing or go directly to a full grade separation depending on funding, railroad negotiations, pace of development, intermodal traffic, and environmental considerations.

A listing of all existing and recommended grade separations is listed in Table 21 and illustrated in Figure 87.

Existing Grade Separation Projects				
ID	Roadway	Location	Details	Time Horizon
ES-1	IH 30	AT FM 1570	RECONSTRUCT INTERCHANGE	SHORT TERM
ES-2	IH 30	WEST OF FM 1903	RECONSTRUCT OVERPASS AND APPROACHES	SHORT TERM
ES-3	IH 30	SOUTH OF FM 36 TO NORTH OF FM 36	RECONSTRUCT OVERPASS	SHORT TERM
ES-4	IH 30	SOUTH OF FM 1565 TO NORTH OF FM 1565	RECONSTRUCT OVERPASS	SHORT TERM
ES-5	IH 30	BETWEEN CR 2646 AND CR 2511	CONSTRUCT NEW INTERCHANGE	SHORT TERM
New Proposed Grade Separation Projects				
ID	Roadway	Location	Details	Time Horizon
NS-1	US 380	CR 2748	CONSTRUCT NEW INTERCHANGE	SHORT TERM
NS-2	US 380	FM 36	CONSTRUCT OVERPASS	LONG TERM
NS-3	US 380	FM 903	CONSTRUCT NEW INTERCHANGE	MEDIUM TERM
NS-4	US 380	New Arterial	CONSTRUCT OVERPASS	LONG TERM
NS-5	US 380	CR 1063	CONSTRUCT NEW INTERCHANGE	MEDIUM TERM
NS-6	US 380	US 69	CONSTRUCT OVERPASS	LONG TERM
NS-7	SH 66	US 69	CONSTRUCT NEW INTERCHANGE	LONG TERM
NS-8	IH 30	CR 3103	CONSTRUCT OVERPASS	LONG TERM
NS-9	IH 30	CR 4108	CONSTRUCT NEW INTERCHANGE	MEDIUM TERM
NS-10	IH 30	CR 3106	CONSTRUCT OVERPASS	LONG TERM
NS-11	IH 30	FM 1568	CONSTRUCT OVERPASS	LONG TERM
NS-12	IH 30	B/W FM 1565 and FM 36	CONSTRUCT OVERPASS	LONG TERM
NS-13	IH 30	North of FM 36	CONSTRUCT OVERPASS	SHORT TERM
NS-14	IH 30	CR 2134	CONSTRUCT OVERPASS	LONG TERM
NS-15	IH 30	North of FM 1570	CONSTRUCT OVERPASS	LONG TERM
NS-16	US 69	CR 3301	CONSTRUCT OVERPASS	LONG TERM
NS-17	US 69	CR 3303	CONSTRUCT NEW INTERCHANGE	LONG TERM
NS-18	US 69	Near Mallard Drive	CONSTRUCT OVERPASS	LONG TERM
NS-19	US 69	FM 2947	CONSTRUCT OVERPASS	LONG TERM
NS-20	US 69	FM 513	CONSTRUCT NEW INTERCHANGE	LONG TERM
New Railroad Grade Separations				
ID	Roadway	Location	Details	Time Horizon
RR-1	FM 903	KCS RR NORTH OF US 380	CONSTRUCT RR OVERPASS	MEDIUM TERM
RR-2	New Arterial	KCS RR NORTH OF US 380	CONSTRUCT RR OVERPASS	LONG TERM
RR-3	CR 1063	KCS RR NORTH OF US 380	CONSTRUCT OVERPASS	LONG TERM
RR-4	CR 4125	KCS RR NORTH OF IH 30	CONSTRUCT RR OVERPASS	MEDIUM TERM

Table 21: Grade Separation Projects



Hunt County 2022 Thoroughfare Plan Plan Recommendations Grade Separations

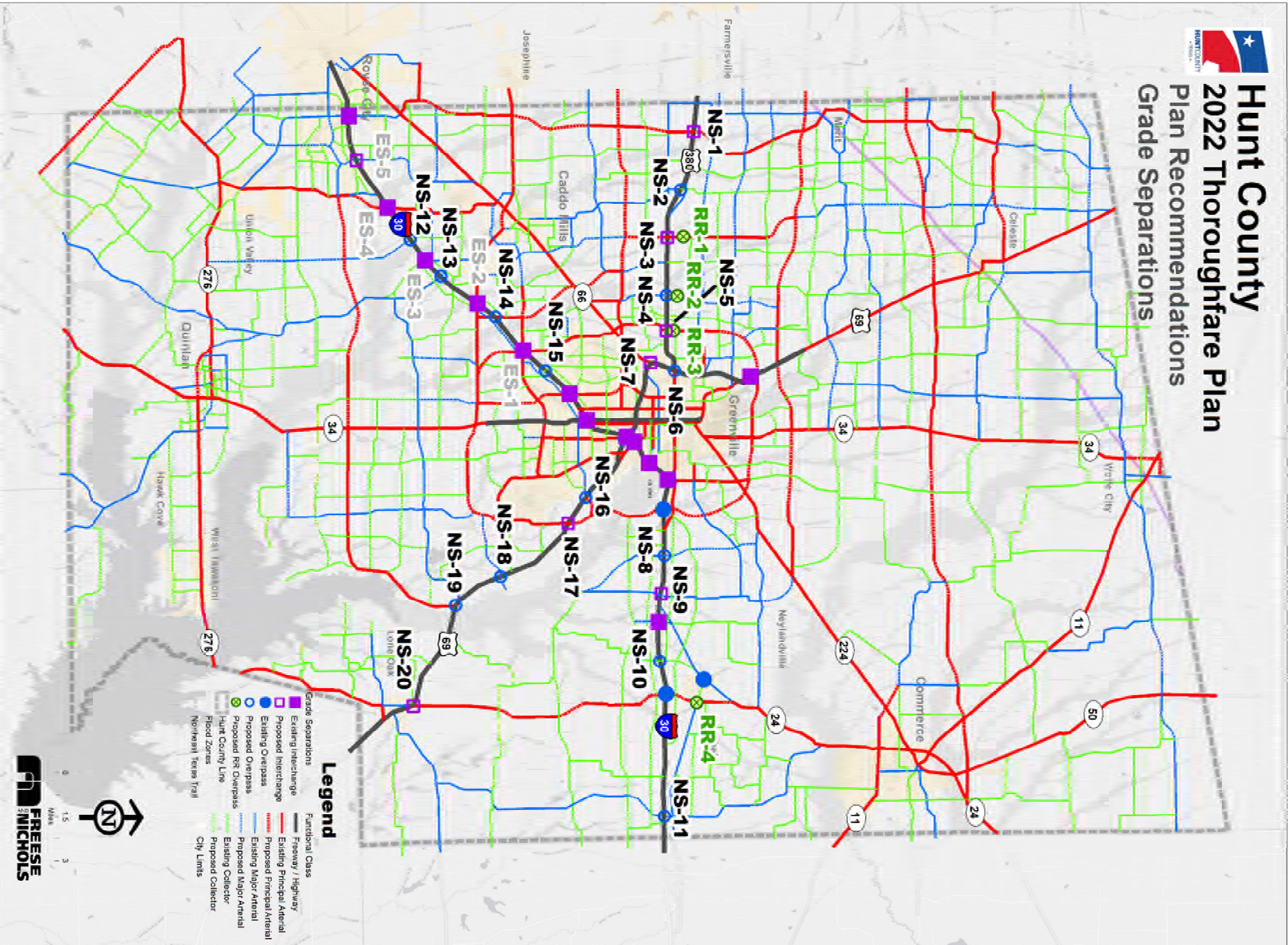


Figure 87: Grade Separation Project Recommendations

PLAN RECOMMENDATIONS

In addition to specific project and corridor recommendations, a review of demographics, traveler behavior, input from key stakeholders, and public responses from the online survey has led to conclusions which support the following policy recommendations, most of which are at low cost to Hunt County.

WHAT	WHY	WHO	WHEN	COST
Administration of the 2022 Hunt County Thoroughfare Plan	Thoroughfare plans require constant administration to keep the plan map and design standards up to date and accommodate new developments and policies in Hunt County. This is standard practice for all thoroughfare plans.	Hunt County, consultants.	Immediate	Low
Incorporate the 2022 Hunt County Thoroughfare Plan into the NCTCOG Regional Mobility Plan 2022 Update	Incorporation of the Hunt County Thoroughfare into the NCTCOG Mobility Plan 2022 Update will allow further assessment and prioritization of proposed roadway projects and ensure that mobility priorities for Hunt County are identified and presented at the regional level. Such activity should include re-evaluation of the travel demand model, including the size of existing network traffic analysis zones (TAZs) and location of centroid connectors.	Hunt County, NCTCOG.	Immediate	Low
Develop a freight and intermodal plan for Hunt County	There is currently no mobility plan for trucks and rail freight and no identification of preferred truck and hazmat routes within Hunt County.	Hunt County in coordination with TxDOT and key stakeholders, including NCTCOG.	Immediate	Low
Coordination of Roadway Improvements and Connectivity	Need to coordinate IH-30 improvements and overall connectivity with TxDOT and adjacent counties.	Hunt County, TxDOT, NCTCOG, and Fannin Delta, Hopkins, Van Zandt, Kaufman, Rockwall, and Collin Counties.	Immediate	Low
Celeste Bypass Study	There is a stated concern by key stakeholders on the safety of the general public due to heavy truck travel through Celeste. Evaluation of potential bypasses and other measures to reduce truck travel through the center of town and reduce truck accidents is a priority. This is supported by the general preference of the public to focus on safety improvements. Reduction in truck speeds may be considered as an interim measure.	Hunt County, City of Celeste, TxDOT.	Immediate	Low

WHAT	WHY	WHO	WHEN	COST
Flooding/Resiliency Review	Numerous stakeholders have identified flooding as a major concern at several locations within Hunt County. While the Plan has noted these areas on its Issues and Needs and Plan Recommendations maps, further work is required to determine the severity and frequency of flooding, potential improvements, and available funding sources.	TxDOT, NCTCOG, Hunt County.	Immediate	Low
Pavement Assessment	Key to keeping roadway networks in a good state of repair is having detailed information on pavement conditions. While TxDOT maintains an extensive inventory of its roadway network conditions, Hunt County has yet to develop a system for its own network. Various private agencies offer service to develop these systems. This system could be phased over time. The cost savings by having this system in place could be significant.	Hunt County, NCTCOG, consultant.	Immediate	Low
Regional Shuttle Study and Mobility Hub	Both the new 2022 Hunt County Thoroughfare Plan and the 2012 Hunt County Transportation Plan strongly support the creation of a permanent regional shuttle to connect residents to the DFW commuter rail network. This would provide mobility options for residents traveling into the DFW Metroplex from Hunt County (which has been shown to be one of the primary commuter flows). Service could be provided by an existing agency or a private transport service. Development of a multimodal mobility hub to support the service should also be considered.	DART, NCTCOG, Hunt County	1-5 years	Low
Hunt County Transit Study	While the environmental justice analysis has shown large areas of low-income population in need of transportation alternatives, there is currently limited public transportation service within Hunt County. It is recommended that a rural and paratransit study be conducted to assess the state of current service, identify target service populations, and create service solutions to improve access and service.	Hunt County, SCRPT, TxDOT, NCTCOG, other identified providers.	Medium	Low
Bike/Ped/Micro-Mobility Study	Currently there are few options to travel around Hunt County apart from the private automobile. Efforts should be made to identify opportunities to support initiatives in developing areas that promote increase choices for transportation. The study would identify potential areas and improvements as well as potential funding sources including public/private partnerships.	Hunt County, NCTCOG, Greenville, Royse City, Caddo Mills, Quinlan, Commerce, and key stakeholders.	1-5 years	Low
Support Remote Work Initiatives	A review of traveler behavior showed that at least 4 percent of people worked from home in Hunt County. Observations from the online survey showed strong preferences for remote work by the general public. Efforts should be made by Hunt County to increase its knowledge of remote work and other future technologies, identify opportunities to improve wireless network coverage within Hunt County, promote the construction of home offices in new housing, and support other initiatives to reduce travel demand and improve roadway safety.	Hunt County, NCTCOG.	1-2 years	Low

WHAT	WHY	WHO	WHEN	COST
Consideration of Vertical Air Rights Along County Thoroughfares	Emerging technologies offer potentially huge changes in how we travel in the future. The recent use of drone technology and the possible future implementation of air taxis in the near future requires the consideration of establishing vertical air rights along County thoroughfares to establish a basic framework to accommodate these types of services.	NCTCOG, Hunt County.	1-5 years	Low
Create a Dedicated Funding Source for Bicycle / Pedestrian Improvements	During the study, it was observed that many small communities do not have the funds to expand or maintain their existing bicycle and pedestrian networks. This is especially important to ensure safe travel to schools for children. It is recommended that Hunt County consider setting aside transportation funds to help these small communities and support safe routes to school.	NCTCOG, Hunt County	1-5 years	Low
Strengthen Traffic Impact Analysis as Part of the Development Review Process	Many developments that come to the County leverage the ability to use roadway networks free of congestion (today) without an eye towards impacts 1, 5, or 10 years in the future. Appendix D provides a sample guideline for traffic impact analysis.	Hunt County	Immediate	Low
Innovative Intersection Design	Innovative intersection designs are becoming more prevalent in new developments for both aesthetic and operational efficiencies. Public input from the online survey showed a preference for safety and intersection improvements. It is recommended that Hunt County consider innovative intersection design, including roundabouts, on internal roadways in new residential developments as opportunities arise, where there are serious intersection safety issues, or a preference by the community for an alternative design.	Hunt County, Municipalities	Immediate	Low
Commuter Rail Study	Hunt County already has substantial railroad ROW available for commuter rail service. Efforts should be taken to determine when and where demand will be sufficient for commuter rail service, preserve and/or acquire ROW for commuter rail, and establish a supporting regional bus service to build demand for potential commuter service. Planning initiatives should be undertaken to leverage the existing NETEX and/or other potential rail corridors within Hunt County.	NCTCOG, Hunt County, FTA (Define a champion and organize a multi-county strategic committee)	1-5 years	Low

Table 22: Thoroughfare Plan Policy Recommendations

RECOMMENDED FUNDING STRATEGIES

Several potential funding sources have been identified for the implementation of recommended transportation improvements in Hunt County.

IMPLEMENTATION MATRIX

The funding and implementation matrix were developed to identify potential funding sources for Plan recommendations. For this section of the document, the matrix was broken into five (5) categories:

- ❖ Roadway Construction
- ❖ Roadway Rehabilitation
- ❖ Intersection Improvements
- ❖ Miscellaneous
- ❖ County Bond Program

ROADWAY CONSTRUCTION

Roadway construction funding sources, such as Category 12: Strategic Priority Funds, are geared towards new road roadway construction, roadway realignments, and interchange construction. Table 23 provides a list of funding sources that can be used to roadway fund construction. Category 12 Funds, specifically, are obligated to projects that promote economic development and improve interstate connectivity. Eligible projects include additional lanes and new roadways, grade separations, interchanges, bottleneck removal, and safety improvements. These funding sources would be instrumental in the construction of recommended major mobility projects.

Roadway Construction		
Recommendation	Problem Addressed	Potential Funding Source(s)
Street Construction	Improved Access Capacity Improvement Congestion Relief Economic Development	Category 12: Strategic Priority Funds Category 4E: Rural Mobility/Rehabilitation Category 11: Texas Mobility Fund Category 8B: Texas FM Road Expansion Proposition 7 Funds
Frontage Road Construction	Congestion Relief Economic Development Capacity Improvement	Category 12: Strategic Priority Funds Category 11 Proposition 7 Funds
Roadway Realignment	Safety Improved Traffic Flow Congestion Relief	Category 12 Category 4E Category 11 Proposition 7 Funds
Interchange Construction	Capacity Improvement Congestion Relief	Category 12 Category 11 Proposition 7 Funds

Table 23: Potential Funding Sources for Roadway Construction

ROADWAY REHABILITATION

Roadway rehabilitation projects include investments in transportation improvements that increase capacity, improve safety, or facilitate economic development. It includes enhancements such as grade separations, roadway resurfacing, lane additions, and right-of-way acquisitions. Funding options for roadway rehabilitation include but are not limited to Category 4F: Rehabilitation in Urban and Rural Areas. Category 4F funds are geared towards the rehabilitation of on-system roadways that are functionally classified higher than minor collectors. Table 24 provides a list of funding sources that could be used to fund roadway rehabilitation improvements.

Roadway Rehabilitation		
Recommendation	Problem Addressed	Potential Funding Source(s)
Grade Separation	Congestions Relief Safety	CMAQ Category 2: Metro Corridor Funds Category 11 Texas Mobility Fund
Lane Addition	Congestion Relief Improved Capacity	STP-MM Category 12: Strategic Priority Funds Category 11 Texas Mobility Fund
Roadway Widening	Congestion Relief Improved Capacity Accommodates wider vehicles	STP-MM Category 12 Category 4F Category 3C Category 11 Texas Mobility Fund
Narrower Lanes	Traffic Calming Safety	Category 11 Category 4E
Right-of-Way Acquisition	ROW for future Road Expansion	Category 2 Category 4E Proposition 7 Funds
HOV Lane	Congestion Relief Capacity Improvement	Texas Mobility Fund
Road Dieting	Traffic Calming Safety Economic Development	Category 11 Category 4E

Table 24: Potential Funding Sources for Roadway Rehabilitation

INTERSECTION IMPROVEMENTS

Intersection improvement funds are geared towards intersections safety improvement and access management projects that improve the overall flow of traffic within a corridor. Intersection improvements include traffic signalization, intersection lighting, roundabouts, turn lanes, and intersection geometry improvements. Intersection improvement funding sources include but are not limited to Category 10A Traffic Control Devices and Category 4E: Rural Mobility/Rehabilitation. Category 10A funds can be used for the installation or rehabilitation of traffic signals and intersection lighting on on-system roadways. Category 4E funds can be used in rural unincorporated areas or cities with populations below 5,000. Eligible projects include right and left turn lanes, intersection geometry improvements, and roundabouts. Table 25 includes a list of funding sources that can be used to fund intersection improvements.

MISCELLANEOUS PROJECTS

Miscellaneous improvements range from bridge construction to pedestrian amenities and traffic impact assessments. Some of the eligible funding sources for these improvements include the Statewide Transportation Enhancement Program (STEP) funds. STEP funds are available for non-traditional transportation projects such as bike and pedestrian initiatives, landscaping, and special studies. Although federally funded, these funds are not restricted to on-system facilities. Table 26 on the following page provides a list of funding options available for miscellaneous projects.

COUNTY BOND PROGRAM

One key funding stream which can cover all forms of transportation improvements is a county bond program. Hunt County, consistent with its 2012 Transportation Plan, has had much recent success leveraging bond program funds for approximately \$190 million in TxDOT roadway and interchange projects along IH-30, resulting in significant improvements in network development and mobility.

Intersection Improvements		
Recommendation	Problem Addressed	Potential Funding Source(s)
Traffic Signalization	Congestion Relief Safety	CMAQ Category 10A: Traffic Control Devices category 10B: Rehab of Traffic Management Systems Category 11
Intersection Geometry Improvements	Safety Congestions Relief Capacity Improvement Accommodates Wider Vehicles	CMAQ Category 4E Category 11
Intersection Lighting	Safety	Category 12 CMAQ Category 11
Left and Right Turn Lanes	Safety Congestions Relief Capacity Improvement	CMAQ Category 11 Category 4E
Round-A-Bout	Congestion Relief Capacity Improvement Safety Traffic Calming	CMAQ STEP Funds Category 11 Category 4E

Table 25: Potential Funding Sources for Intersection Improvements

Miscellaneous		
Recommendation	Problem Addressed	Potential Funding Source(s)
Bridge Construction/ Reconstruction	Safety Capacity Improvement Accommodate Wider Vehicles	Category 6A: On System Bridge Program Category 6B: Off System Bridge Program Category 11
Street Lighting	Safety Economic Development	CMAQ STEP Funds Category 11
Railroad Grade Separation Repair/ Construction	Congestion Relief Safety	Category 4G: Railroad Grade Separation Category 11
Pedestrian Amenities/ Landscaping	Traffic Calming Safety Economic Development Beautification	CMAQ STEP Funds Green Ribbon Funds Category 11
Transit Expansion	Transit Needs Multimodal Connectivity	CMAQ STEP Funds Category 11
Traffic Impact Assessment	Congestion Relief Traffic Calming Safety Improved Access	CMAQ Regional Toll Revenue
Miscellaneous	Safety Congestion Relief Capacity Improvement	Category 4F: Category 4E Category 3C: NHS Rehabilitation Category 8A: Rehabilitation of FM Roads Category 11 Texas Mobility Fund

Table 26: Potential Funding Sources for Miscellaneous Transportation Projects

AGENCY COORDINATION AND PUBLIC CONSULTATION

Agency coordination is essential in the implementation of transportation projects. Different agencies and jurisdictions must communicate to ensure more seamless connectivity. Successful implementation of the 2022 Hunt County Thoroughfare Plan will require constant and transparent communication between TxDOT, NCTCOG, cities in Hunt County, and Collin, Fannin, Rockwall, Kaufman, Delta, Hopkins, Rains, Van Zandt, and Dallas counties.

Public participation is key to Plan implementation and all recommendations presented in this Plan need to be vetted in consultation with the public prior to implementation.

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APPENDICES

Appendix A Additional Crash Analysis Data

Appendix B Stakeholder Meeting Notes

Appendix C Town Hall Meetings

Appendix D Traffic Impact Analysis Guidelines

Appendix E Long Term Project Listing

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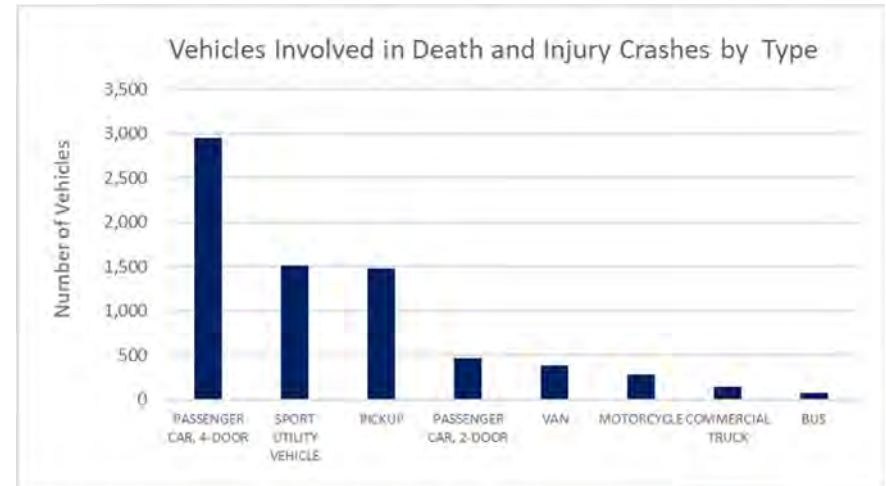
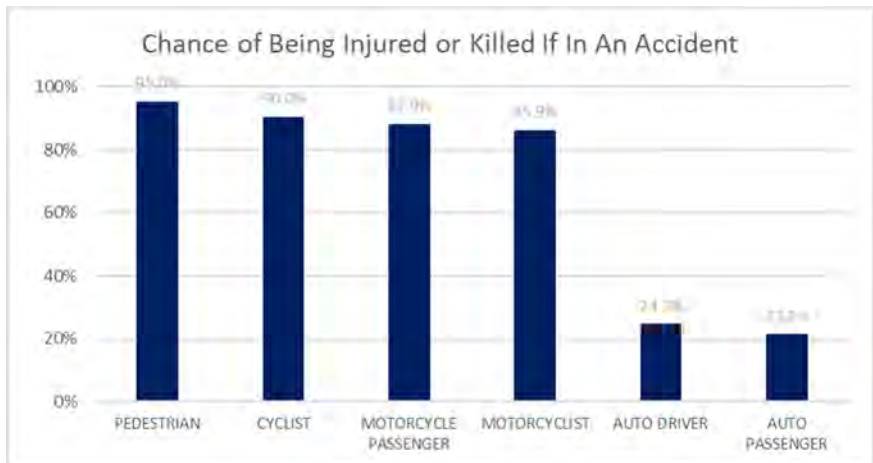
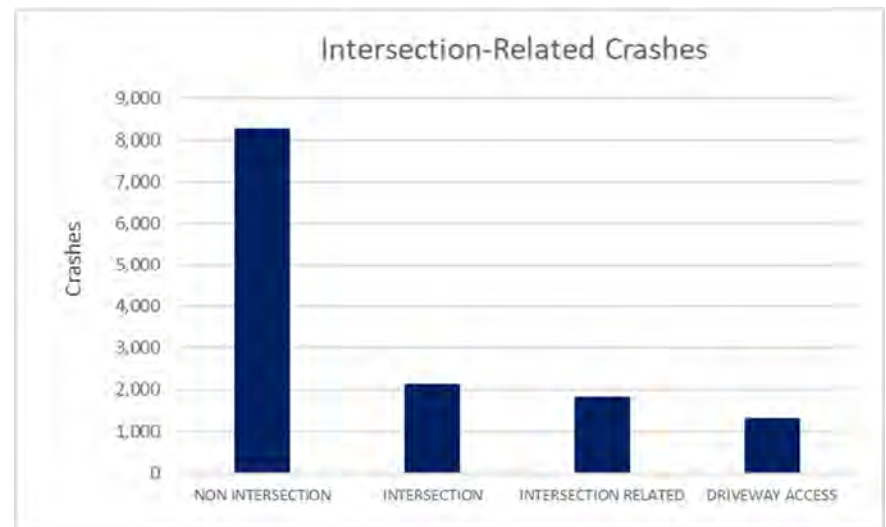
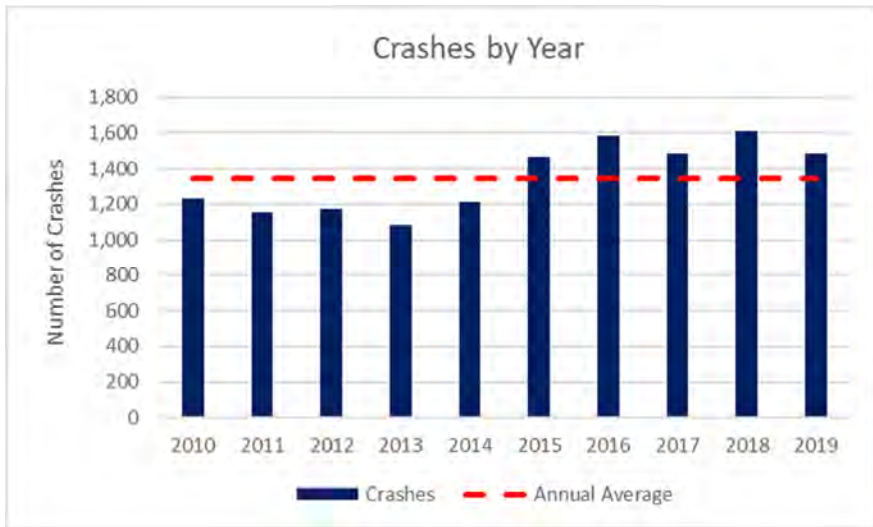
APPENDIX A

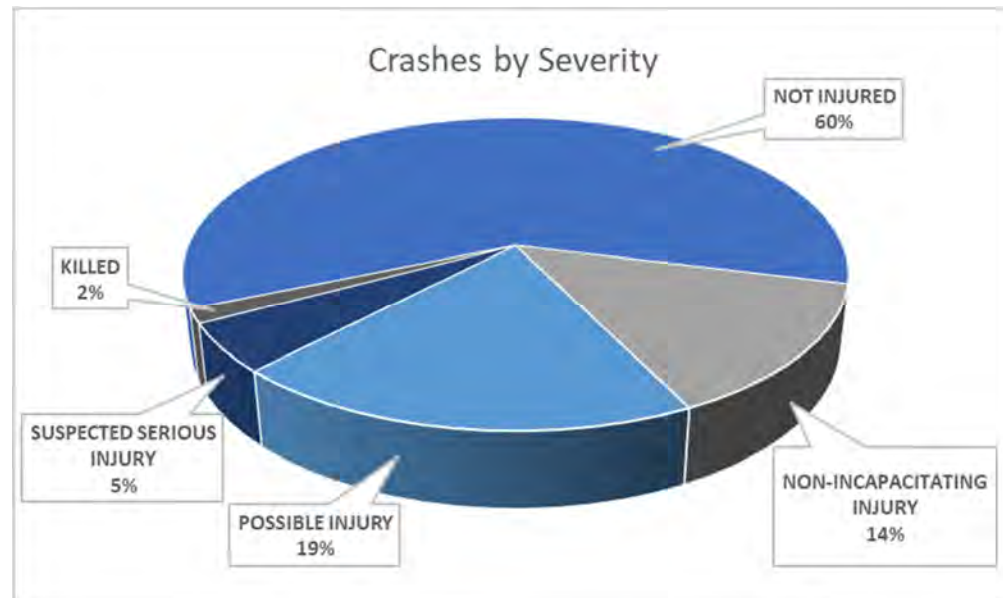
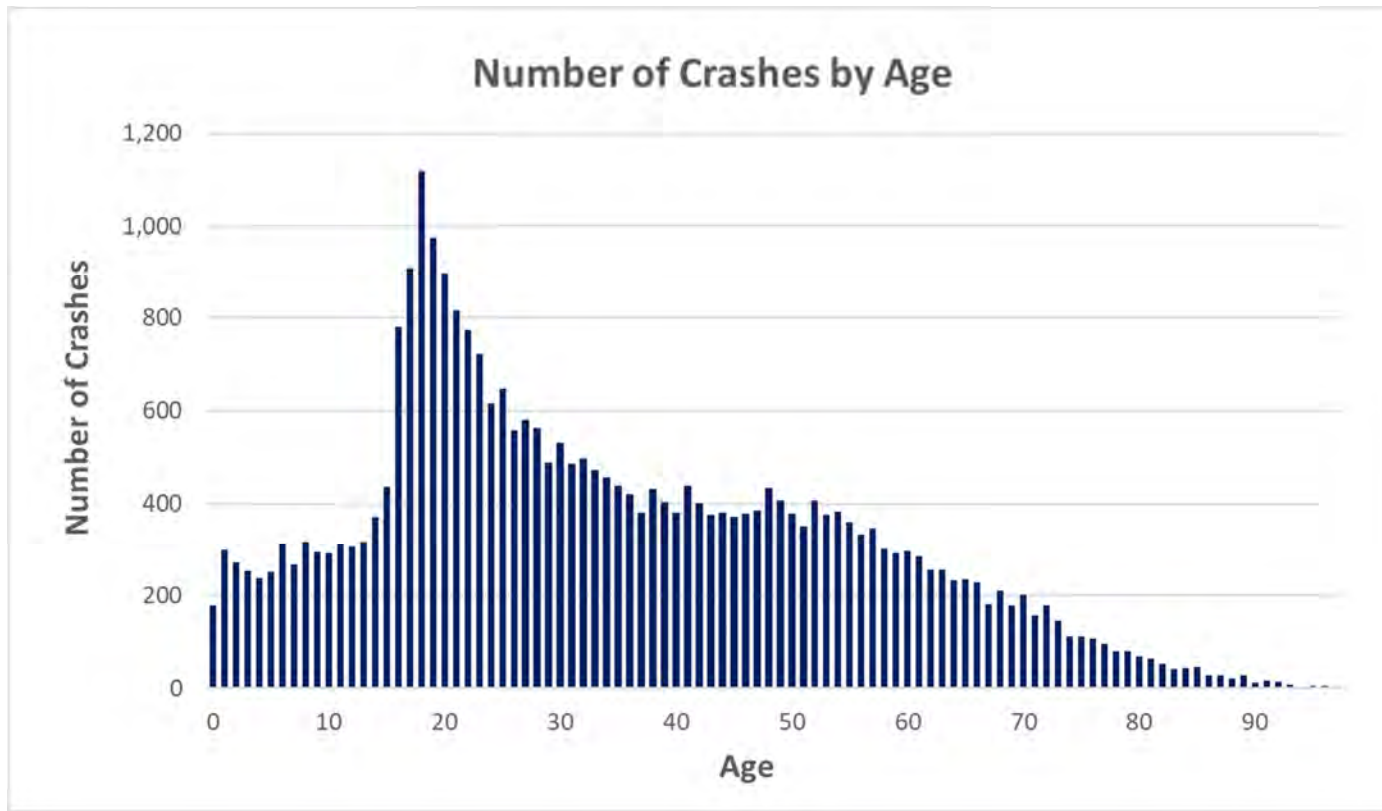
ADDITIONAL CRASH DATA

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Appendix A

Additional Crash Analysis Data





APPENDIX B

KEY STAKEHOLDER MEETING NOTES

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APPENDIX B

MEETING NOTES FROM FEBRUARY 24-25TH AND MARCH 10TH KEY STAKEHOLDER MEETINGS

Interviewer: E. Haas

February 24th

9:00am Interview: Hunt County

Biggest Mobility Challenge:

- Precinct #2 Issues - working/enhancing access and circulation once the one-way frontage roads are complete. Key areas off SH24/IH30 interchange area, accessibility to new hospital and corridor along IH-30 between Royce City (FM1565) and Greenville (Monty Stratton).
- Commissioner Martin against the unit roadway system for O&M (County hires an in-house Engineer to do system-wide maintenance as opposed to individual precincts identifying and implementing O&M issues/needs/improvements).
- Dealing with new small residential subdivisions that connect to county roads (long cul-de-sacs that are up to 4,500' long with no backside connection. Creates multiple access points with no connectivity.
- Connections to Collin County

Key Improvements Needed in next 5-10 years:

- Southwest area network connections and implementation

- East/West connections (FM3211), FM6 to FM1903 connection
- North/South connections west of Brushy Creek floodplain

Best Funding solutions for implementing transportation improvements:

- Continuance of bond program

New Developments/Congestion/Network Development areas:

- DR Horton MUD +/- 540 acres of SF residential
- 1300 ac (3000 dwelling unit residential); needs supporting network
- FM2526 heavy traffic
- Evaluation of connections to IH30 (FM1565 offset); evaluate best option of bridge across Brushy Creek vs. slip ramp to FM1565 south of IH30. Expensive bridge across flood plain vs. interchange improvements.

10:00am Interview: Hunt County

Biggest Mobility Challenge:

- Heaviest traveled roads
 - o Connect FM512 to CR224
 - o Connect FM2736 to CR224
- Bridge out at FM2874; heavy traffic on CR512, need a connection to CR224 on both sides on S. Sulphur River floodplain

- Accessibility to SH34 not direct; circuitous route using FM2874/FM512 (to Wolfe City); CR118 and CR1566 not too good

Key Improvements Needed in next 5-10 years:

- Safety at SH24 interchange with IH30
- Safety at Live Oak St. (Commerce) at SH224

Issue Areas/New Developments/Congestion/Network Development areas:

- Intersection of FM24 at CR50
- W. of CR4400; the need for better access across large landowner properties
- SH71 key access to Hopkins County; circuitous - need to clean-up
- Future growth area: area bound by FM1568, SH24 and IH30

11:00am Interview: Hunt County

- Desires a plan to guide development, control maintenance dollars and preserve residential development

Biggest Mobility Challenges:

- Decisions on development with existing road network; concern that in 5-years eternal development pressure from growing Collin will affect Hunt Co. roads
- Dealing with Walton Development; concerns of traffic to county road network. DR Horton development "leases" on Walton land-> accessibility issues to/from US380 and US69; need to preserve county roads from impact by Walton
 - o Walton want the KCS intermodal yard (Wylie and Collin Co. want to get rid of the yard)
- Need adequate roads for commercial investments and economic development.
- Getting projects "shovel ready"

- Inquired of the process of getting into FM System
- Believes dealing with county level issues (versus individual Precinct issue) is best for county.

Key Improvements Needed in next 5-10 years:

- Safety at SH24 interchange with IH30
- Safety at Live Oak St. (Commerce) at SH224

Issue Areas/New Developments/Congestion/Network Development areas:

- High Point Development near FM1562 and east of FM36

1:00pm Interview: Caddo Mills

Biggest Mobility Challenges:

- Impacts to FM1565 corridor from heavy new residential development
- SH36 connection (across US380) needs to be enhanced
- Feels strongly for the SH6 connection with FM1903
- SH66 could be expanded to 4-lanes without too many problems
- Likes the idea of NETEX or use of the corridor for mobility improvements

Key Improvements Needed in next 5-10 years:

- Caddo Mills Loop (Gilmer Rd)
- TraStone Subdivision and need for connection between SH66 and IH30 along FM2134
- Extend FM2617 to IH30
- Drainage improvements on Caddo Creek
- Prioritize SH 66 and IH30
- Extend FM 2617 to IH30 FR
- Add turn lanes (flare intersection) to FM1565 to address growing residential development (access)
- City would participate in Caddo Mills Loop and FM1565

Best Funding solutions for implementing transportation improvements:

- Continuance of bond program

Issue Areas/Network Development/Needs:

- SH36 between FM1903 and IH30 - 4-lanes
- SH36/FM1903 (from SH66) will be 5-lanes
- Need to connect SH66 with IH30 along FM2134
- Implement Caddo Mills Loop
- Airport area anticipated with heavy growth
- Extend FM2617 to IH30 FR

2:00pm Interview: Hunt County

Biggest Mobility Challenges:

- Need to focus on key corridors
- FM2730/SH6 needs to be straightened out
- Address 2 bridges on FM1570/IH30

Key Safety Concerns:

- FM1570/SH66 intersection; new signalization

Key Improvements Needed in next 5-10 years:

- FM2526; Royce City to SH34 and widen to SH34
- FM2434 needs to be straightened out between (SH276 and FM1565)

Best Funding solutions for implementing transportation improvements:

- New bond for IH30 Corridor and joining intersections
 - o FM2646 exit
 - o No interchange at FM2648; it will be at FM2646 and FM 1565
 - o SH34 (segment further to the east)

Issue Areas/New Development/Network Development/Needs:

- DR Horton Development
- DR Horton MUD
- Lonesome Dove Road/Danny Bill Myers -> DR Horton
- Poetry to be incorporated in May 2021
- Priority widening of lanes for Bear Pin development. Bear Pin to pave a portion of road along development (between FM35 and FM36)
- Rural development and need to retain rural feel
- Upgrade from FM36 to FM986 in Kaufman County
- FM2434 Connection between FM1565-SH276
- N/S connection #2 priority between US380 and SH6
- High Power transmission lines along SH66 between SH36 and FM1570

3:00pm Interview: Hunt County

Biggest Mobility Challenges:

- FM3308 near airport
- Connection of Traders Road at CR3309
- NCTCOG 2012 plan with connection to SH34 (Number 1 Priority)

Priorities:

- Rancho
- CR 3103
- FR to IH30
- Crossing corridors to IH30

February 25th

10:00am Interview: Collin County

- August 20th Administrative Corrections to Collin Co Plan
- Change in Functional Class approach; removed all rural roads; ROW acquisitions for key corridors 120' ROW

- Outer Loop Staged development for implementation; Collin Co. led with "ENV Lite" to meet NEPA standards; ROW of Outer Loop 500'
- Outer Loop 30% schematics (envelop set; setting of horizontal and vertical to be done)
- Southeast Study underway by Burns & McDonald; study may have an impact on outer loop; south of FM6 is "monumented"; will align with outer loop in Rockwall
- US380 by TxDOT in 5 parts within Collin County; 1 EIS and 4 EAs; Freeway 4-lanes + shoulder + 2 frontage road lanes and grade separations; South of Farmersville and North of Princeton and McKinney

11:00am Interview: TxDOT Paris District

Biggest Mobility Challenges:

- IH30 Feasibility Study; segment from Greenville to County Line east
- SH34; potential grade separation at FM1570; otherwise intersection treatments and bridge widenings
- Key Needs in Hunt County: Upgrade IH-30 and US 380 to freeway facility

Key Corridor Concerns/Issues/Needs:

- SH intersection and Safety
- US69 general safety - super 2 project south of Greenville
- Bringing miles to "On-System" is not ideal for TXDOT; will be "give and take" implementation and maintenance
- Northeast Texas Trail; 130 miles and longest Trail in Texas

Best Funding solutions for implementing transportation improvements:

- Likes County strategy of O&M Unit System with conversion to one system vs. 4 precincts; with Co. Engineer and Crews

Interviewer: B. Crooks

February 24th

9am Interview: Hunt County

- Heavy development in Precinct 2
- Expected one-way frontage roads on IH-30 west of Greenville.
- \$50 million bond issue in County to deal with off-system/County roads.
- Huge growth along IH-30 west of Greenville
- FM 2704
- Issues on connectivity with Collin County Thoroughfare Plan
- Extensive growth between IH-30 and US 66
- FM 2526 heavily travelled (needs to be extended east)
- Need better quality roads in the right places.
- Explanation of Unit Road System
 - o One engineer doing all the maintenance.
 - o Now special crews for specific tasks
 - o County expanding this program incrementally.
- FM 1565 extension (flooding issues)
- FM 986 (dead ends at County Line)
- N/S and E/W of floodway (FM 6) and (FM 3211)
- Big constraint on funding is the need to fund a new county jail (Big elephant in the room)

10am Interview: Fannin County

- Expected growth around Wolfe City (Hunt County), Ladonia and Honey Grove (Fannin County)
- Rails to trails facility between Hunt and Fannin County (hike/bike/equestrian trail)

- Believes that growth in Wolfe City will be due to growth in Fannin County along Lake Ralph Hall and Bois d'Arc Lake.
- Expecting extensive development around Lake Ralph Hall with a trail network extending across the bridge and to the east around the lake.
- Expecting massive growth in SW corner of County around Trenton and Leonard.
- Biggest obstacle to this growth is the water supply.
- SH 121 widening to Trenton will further support this growth.

11am Interview: Hunt County

- Used provided maps to details issues and needs which were added into the Issues and Needs map in the final report.

1pm Interview: Caddo Mills

- 1,000+ new homes on FM 1565
- Continued expansion of the airport
- Need better circulation around the new High School
 - o More capacity
 - o Gilmer/FM 36 only one way
 - o Issue already known to County.

1pm Interview: Royse City

- Will send additional GIS files and development information.
- Very concerned about TxDOT's plans for interchanges through Royse City (CR 2648 is preferred by Royse City, while CR 2646 in planned by TxDOT)

- Spent considerable time reviewing maps and attachments provided by Royse City. Refer to maps for additional information.

2pm Interview: City of Greenville

- Has \$50 million to improve roads within City
 - o Streets and residential areas
 - o Full rehabilitation
 - o Excludes TxDOT Roads
- Currently working on Thoroughfare Plan
 - o Provided copy, will send latest electronic draft shortly.

3pm Interview: City of Celeste

- TxDOT initially planned to reconstruct US 69 with CLT through town.
- Believes that TxDOT now plans to bypass US 69?!
- Currently US 69 2-lane undivided facility
- US 69 significantly elevated so much that vehicles actually fall down the embankment onto nearby properties when accidents occur.
- Note that there is very, very heavy truck traffic along both US 69 and FM 272.
- Believe that there is little if any shoulders on US 69 through Celeste
- Lots of 18-wheelers wrecked in downtown Celeste
- Slow but steady growth in house building permits
 - o Mostly outside the City in the County
 - o Usually 8-10 houses/year - this year 26 houses
- Issues with US 69 crossing RR in downtown Celeste
- No current thoroughfare plan
- Note: Judge Stovall mentioned that a study of US 69 including through Celeste is planned through the next bond program.

4pm Interview: Royse City ISD

- School district currently has 7,000 students now
- Will have 11,000 students by 2030
- Need improved access to and from elementary schools
- Need access across FM 2642
- Flooding impairs school buses and makes students late for classes.
- Wooden bridge (SE of Crenshaw Road? in Rockwall County) cannot support buses

February 25th

9:00am Interview: Commerce ISD

- FM 224 - expect more traffic on this facility
- FM 1568 - issues with land use access and truck traffic
 - o Need more direct access to IH-30
- Expected development in and around Commerce Airport
- Lots of potholes on Hwy 50
- Traffic on FM 272 towards Leonard in Fannin County
- Precinct maintenance programs
- Hwy 11 has been redone but still has accidents
- Consistent safety issues with "Rollercoaster Road"
- Inside Commerce
 - o Culver Street - has 4-lane roadway with turning lane
 - Wide cross-section causing access issues.
 - Bond programs will cover part of right-of-way improvements
- ISD student population is expected to double from 1,500 to 3,000 students

10:00am Interview: West Tawakoni

- Current development golf course expansion
- Lots of residential growth in East Tawakoni across the bridge
 - o Initial development over 100 homes
- West Tawakoni - development currently 10 homes annually but projected to double
- Proposed roadway projects
 - o North Shore/Rabbit Cove - possibly extend all the way to SH 34 (highly unlikely)
 - Most likely would end at FM 751
 - Need local traffic access and route parallel to SH 276.
- Need increase in roadway size (super 2) and improvement in condition
- On SH 276, major traffic safety concerns around ballparks.
- Major new development near Anchor Inn Marina and Resort
- For more information, please refer to map.

11:00am Interview: Campbell ISD

- Major traffic and safety issues at SH 24 / IH-30 interchange
 - o Design is substandard
- IH-30 Truck stop near SH 24 considered part of the problem
 - o Trucks pulling u-turns in front of Exxon Station
 - o Major accident location!
- Need light metering at overpass at IH-30/SH 24
- ISD low growth (K-12 has a total of 287 kids)
- For further information, please refer to maps

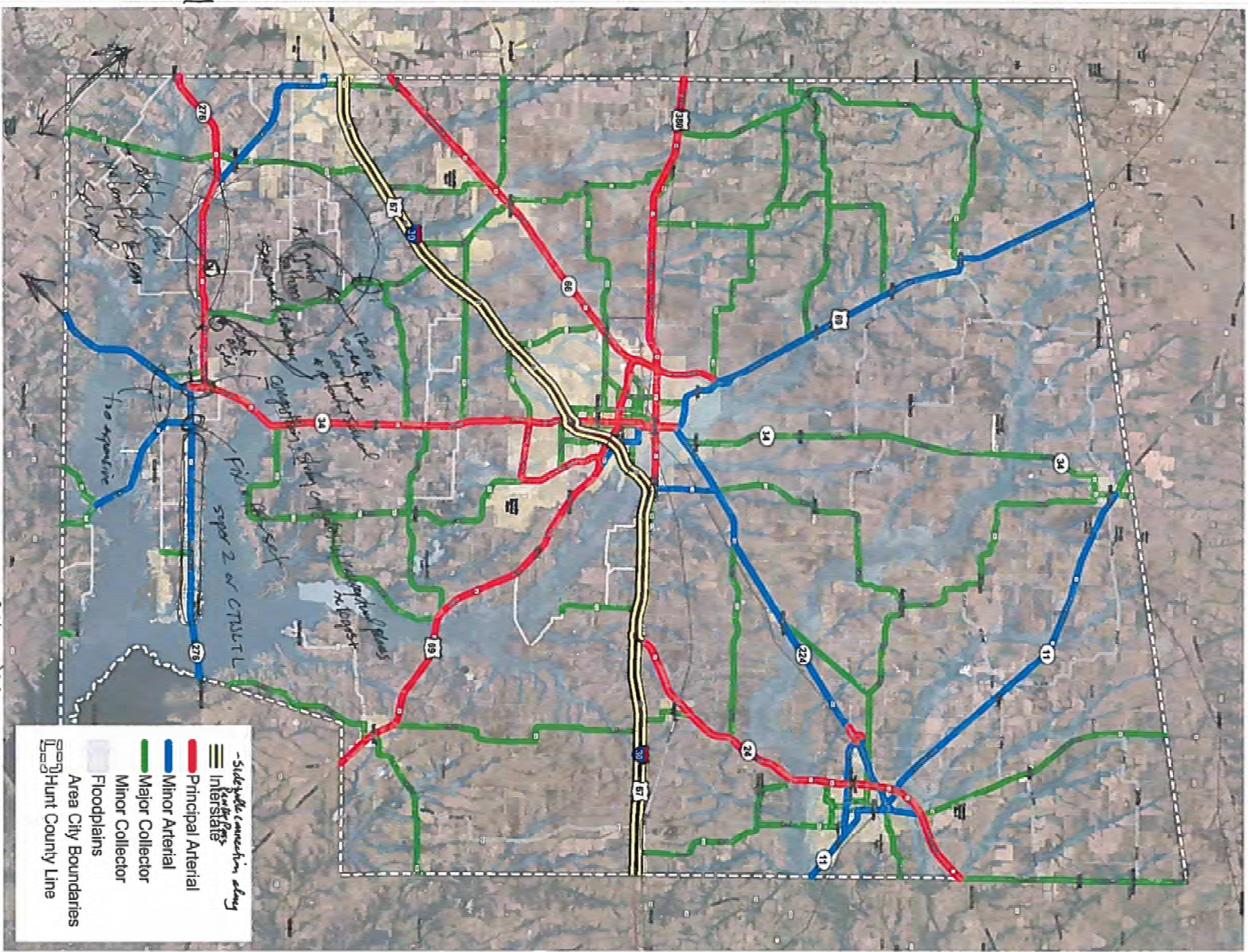
2:00pm Interview: City of Quinlan

- SH 34 extension from Panther Path (red light) through Quinlan Parkway under study
- Remove ditches w/ curb and gutter in downtown Quinlan
- Construct new sidewalks in downtown Quinlan
- Pedestrian sidewalks in downtown Quinlan to Dairy Queen needed.
- Trail from high school to Community Park needed (FM 264)
- Need Panther Path connection to FM 264 for students
- Existing RR ROW from Quinlan to Cash could be repurposed?
- FM 751 bridge floods on a regular basis (several feet over roadway)
 - o Means that school buses have to be diverted to Terrell
- QISD - 2,700 students now
 - o District extends into Kaufman County
 - o In 10 years, they expect a 50-60% increase
 - o In 20 years, they expect a 100% increase
- Access to DC Comm Elementary School
 - o Traffic flow issues
 - o Already have 2 police officers directing traffic
 - o Sidewalks needed along FM 264
- Need connection between Knob Hill Road with FM 751 (intersection is offset)
- Truck traffic across SH 34 from IH-30 to IH-20
- FM 36 flooding, lots of turnaround traffic when it floods - affects school bus routes
- Congestion due to pick-up and drop-offs a big concern for the City at DC Cannon Elementary, Butler Intermediate School and Ford High School.

March 10th

10am Interview: North Central Texas Council of Governments

- New NCTCOG revised local forecast
 - o Draft demographics
 - Down to TAZ level
 - Have control totals
 - o Interim demographic forecasts
 - (FNI) - need V/C ratios for LOS D and E
 - o Want to separate these levels out
 - Dan Lamers
 - o Need access to west
 - Dallas and Rockwall counties
 - Also need good North-South connections within the county
 - Lake crossings to the west an issue
 - Interaction between northern Collin County and east-west access
 - Need good east-west access across/around lakes
 - o Outer Loop
 - Will bring development down to eastern edge of Hunt County
 - o Hunt County pushed for rail access.
 - Not feasible by 2045
 - Propose access to DART/shuttle service to Cottonbelt Line in Plano
 - Need land use structure to support rail in Hunt County
 - o Previous Judge always wanted improved access to Dallas.
 - NCTCOG feels that Hunt County may wish to develop its own economic base
 - o Previous Judge (Horn) and County as a whole wanted more bike/ped
 - L3 employees wanted to bike to work.
 - About safety and transportation options.
 - o Celeste
 - Concerns about truck traffic and accidents in the community
 - NCTCOG suggested a speed study to see what the actual observed speeds are
 - US 69 bypass north-south around Celeste?
 - Put in roundabouts to reduce speeds
 - o SE portion of Hunt County
 - Domination of region by lakes determine what connections are possible.
- Samuel Simmons
 - o SW portion of Hunt County.
 - o Lake Ray Hubbard impacting growth and development.
 - Why depend on an increasingly difficult connections to Dallas?
 - County system improvements
 - Focus on intra-county facilities.
 - Will support economic growth with transportation.



Hunt County Thoroughfare Plan Update

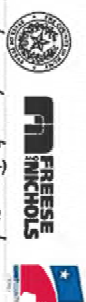
Stakeholder Input Meeting - February 24 & 25, 2021

Bus traffic: emphasis to be put along all RR Road and by-pass routes

SH 34: portions of along Hunt Road, (7515-7528), when Roadway address class boundary, then have to go to Terrell to get to Austin Schools

2700+ development; 10-yr & 50-yr; 20-yr (see of course development)

1500+ development; coming of program to Elcom school (the Green Elcom School; 750+ students) 204 S. H. 615. - concern on drop-off/pick-up traffic



Subdivide - from S. 745

Could align with traffic layout Rd.; off-set between 751/ 750 4/11

o



**Hunt County Thoroughfare Plan
Stakeholder Questionnaire and Input**



2:10 2/25/2020 *Quinlan*

Hunt County is in the process of updating the 2012 Thoroughfare Plan and is seeking agency and stakeholder input to key issues and needs for the development of the county roadway network. This Plan will incorporate other adopted county, municipal, and agency planning initiatives and serve as a framework for the update of the countywide plan. A sampling of other relevant study efforts include: The Hunt County Bond Program, TxDOT IH30 and SH24 planning, adjacent County Thoroughfare Plans (Collin, Rockwall, and Kaufman), NCTCOG Outer Loop and SH78 studies, SH66 Corridor Study, municipal comprehensive plans (Greenville, Royce City, Commerce and Quinlan).

Emphasis will be placed on the county network and its ability to adequately support growth and development over the next twenty years. The updated Thoroughfare Plan will serve to guide decision makers in the long-term implementation of mobility and transportation investments within the county.

Stakeholder Questions:

1. What do you feel are the biggest mobility challenges facing Hunt County today? What do you feel would be the best solution to these problems?

*SH 24 - (Pastor Pass - Quinlan Plan) 4/SSA; remove detours -> C + G
 * Atk transportation support - Old + new detours 2776/34; Denton + 34 to Dairy Queen;
 * sidewalks - multi-part of road
 - High School Walkway (Ford H.S. - Community Park)*

2. How would you generally rate transportation in Hunt County? (Good/Fair/Needs help - why?)

3. What do you feel are key issues or needs for Transportation in the County? (Traffic congestion/delay, traffic signal improvements, roadway maintenance, safety, impact of COVID-19, lack of alternate modes of transportation, transportation financing, impacts to natural or cultural resources, etc.?)

*Peak Hour
 (Traffic congestion/delay, traffic signal improvements, roadway maintenance, safety, impact of COVID-19, lack of alternate modes of transportation, transportation financing, impacts to natural or cultural resources, etc.)*

4. What are your ideas potential solutions to addressing specific transportation issues? (Specific connections, more roadway lanes, improve pavement/bridges, enhance shared-use facilities, etc.)

- Need for sidewalks, improvements for side roads to alleviate traffic congestion

5. Are there any key corridor concerns/needs/issues that currently impact overall connectivity and mobility within the County or to regional destinations?

*→ 716 on Hwy 30 June 2022
 * near school needs
 * Mobile School - Main Street*

* 2 key improvements that would really make
 1. Pastor Pass walk
 2. Denton to 34

* Sidewalk -> Butler - US D Admin Plan
 Nord

The updated Thoroughfare Plan will identify the general location and alignment of a hierarchy of roads as well as contain general design standards for different road types. Other benefits of the plan include:

- Identify near and long-term safety and mobility improvements, and system connectivity,
- Coordination with cities and other agencies on system alignment and needs,
- Transportation improvements programming and potential funding strategies, and
- Serve as a policy document to inform agency, the public, and the development community.

Transportation affects the lives of everyone every day. This initial input is aimed at understanding commuting and network needs, mobility and safety issues, and ideas for improving network connectivity for long-term need by residents of Hunt County. As the county continues to grow, what could be done to better serve the daily commute to/from home, work, shopping and to other destinations within the county?

6. Are there any key road or intersection safety concerns?

- 276/34 - all along strip from Walmart to Denton stop @ 276

7. What do you feel are key improvements needed immediately in the next 5-10 years? Why?

- Notification system/website noticing of closure to Alligator Bottom when closed due to rain

8. Please rank the following in order from highest to lowest priority (1-9) for transportation funding.

Concern	Rank
A - Transportation Safety Initiatives	
B - Roadway Maintenance	
C - Reducing Auto Congestion	
D - Shared-Use Facilities	
E - Traffic Signals	
F - New Mobility Connections	
G - Corridor Preservation	
H - New Technologies	
I - Other Transport Modes	
J - Other (please specify)	

9. What do you think are the best funding solutions for implementing transportation improvements?

** 1195 - Lela Townsend Area Planning Study: Anything to be aware off of.*



APPENDIX C

TOWN HALL MEETINGS

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APPENDIX C

MEETING BOARDS FROM JULY 20TH AND 22ND TOWN HALL MEETINGS IN GREENVILLE AND CADDO MILLS

July 20th Sign In Sheet

Hunt County Thoroughfare Plan

Town Hall Meeting
July 20th, 2021

Name	Please Check the Title That Best Describes You				Email
	Student	Employed	Retired	City Official	
Randy Steen			✓		SABINECREEK@OUTLOOK.COM
Larry Stewart			✓		lcclema@hotmai.com
Dorell Church		✓			churches@zimbapland.com
Phillip C. Meier		✓			Hunt Co. Council
Deborah T. Thomas			✓		deborah.thomas@co.hunt.tx.us
Vanessa Dean					vdean99@hotmail.com
Bruce Kollar		✓			bruce.kollar@hntx.com
Philip Nicole Robinson		✓			pe@robinson.com
Wesley Malone		✓			MALONE@GECNET.COM
Matt Clark		x			mclark@barraza-group.com
Joel Richardson			✓		
Arturo Ramirez			✓		

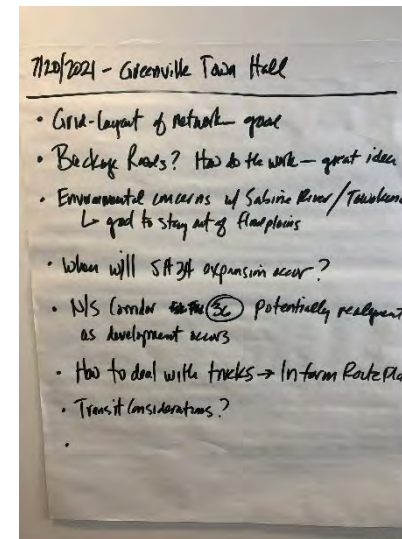
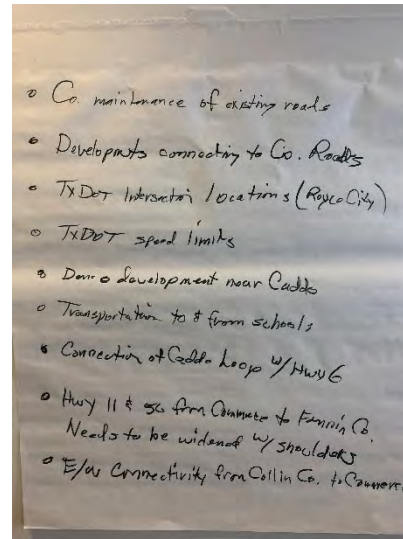
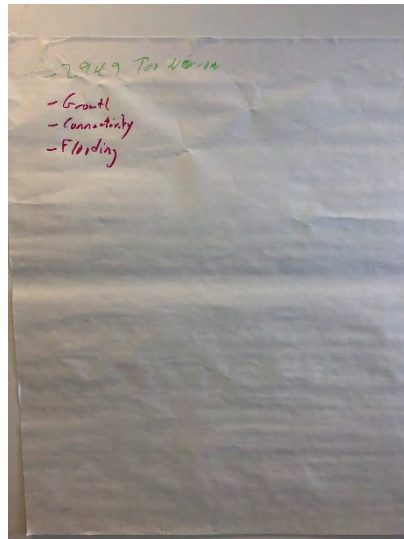
July 22nd Sign In Sheet

Hunt County Thoroughfare Plan

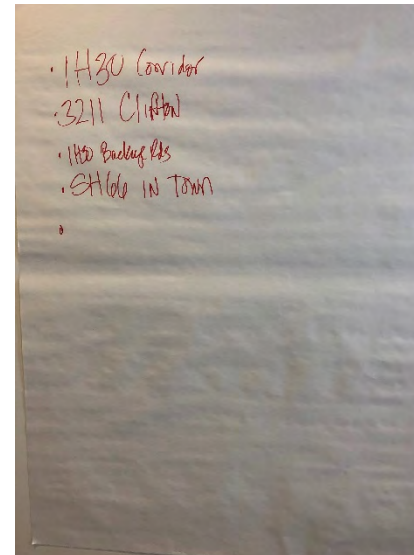
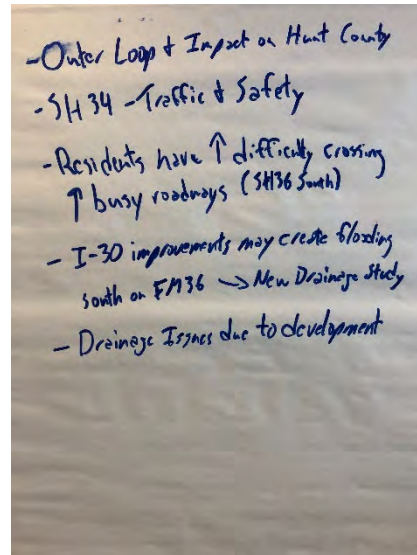
Town Hall Meeting
July 22nd, 2021

Name	Please Check the Title That Best Describes You				Email
	Student	Employed	Retired	City Official	
Josh Anderson		✓			josh-anderson@gmail.com
Charlie Patterson		✓			cpatterson@carroll.com
Shane Larue		✓			countysidedevelopment@gmail.com
Zeb Ardue		✓			
Joe Grimes			✓		JGRIMES1@VERIZON.NET
Annette Kuhn		✓			
Bob Thompson		✓			
Joel Richardson		✓			The properties @ gmail.com
JUSTIN Johnson		✓			justinjohnson0152@gmail.com
Luke Allison					ljallison@cedarhillisd.org
Karen Martin					kenescis2@gmail.com
Terry & Gina Lounds - Thank you		✓			gina.lounds@gmail.com
SONYA & Jerry CLARK		✓	✓		RubyAnn12@verizon.net
HANDY & BETTY BROWN			✓		brown256@verizon.net
DANNY THORN BURG					
Jerry Dick		✓			jdick@rlpatt.com
Rod Watkins		✓			rod2756@gmail.com
MARK HASLETT		✓			NEWS@KETT.ORG
JERRY GAIL DAWSON		✓			JERRYGAILDAWSON@gmail.com
DANNY PAXNE					dpa@kerr.com
Bryan Payne		✓			bryanpayne@rocketmail.com
LARRY RODGERS		✓			lrodgers@raisecity.com
Tarrela Brown-Stanley		✓			Pamjans@mac.com

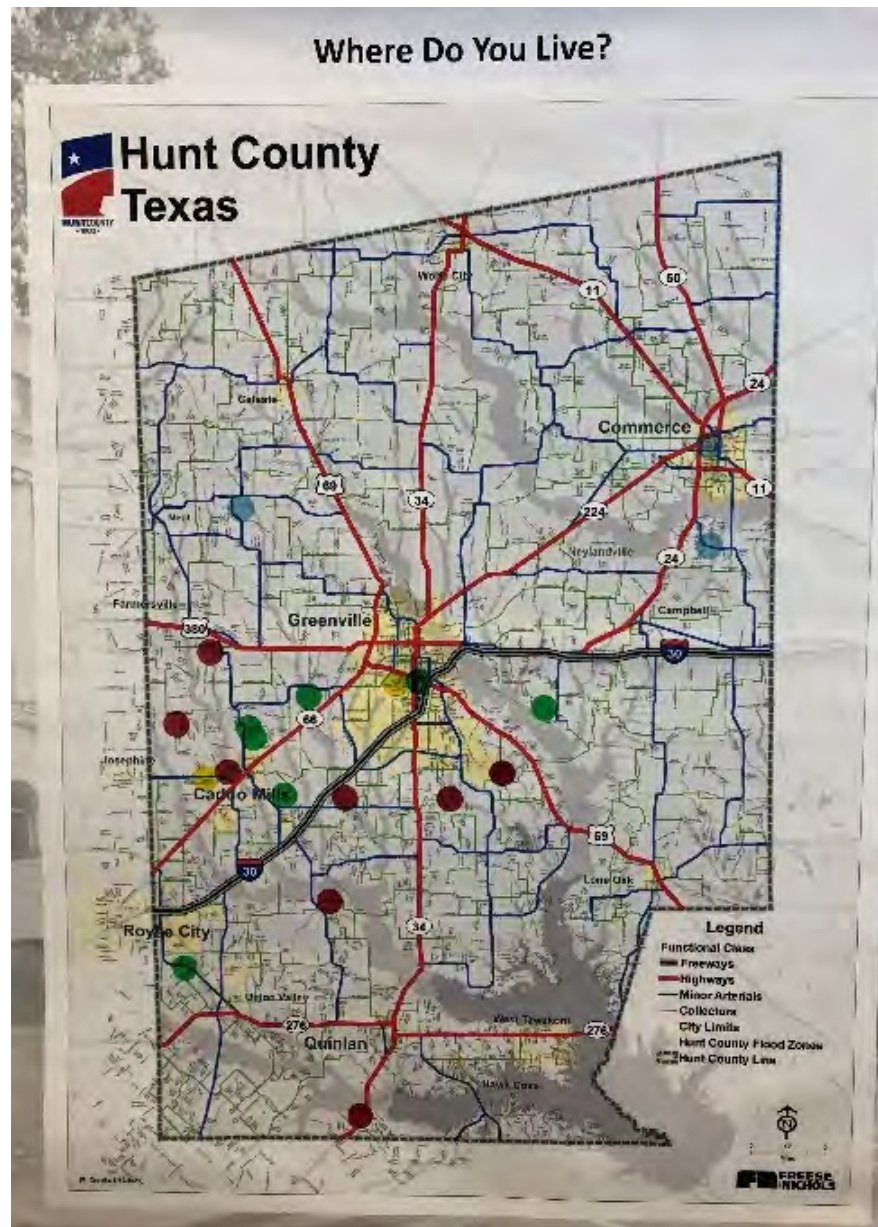
July 20th Meeting Boards



July 22nd Meeting Boards



Where Do You Live? (July 20th and July 22nd)



APPENDIX D

TRAFFIC IMPACT ANALYSIS GUIDELINES

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APPENDIX D

Traffic Impact Analysis

Standards, Methodology, Guidelines, and Format for Hunt County, Texas

The purpose of a Traffic Impact Analysis (TIA) is to assess the effects of specific development activity on the existing and planned thoroughfare system of the County. The following addresses the requirements of the TIA relative to the proposed site.

Responsibility of TIA Preparation and Review

1. A TIA shall be prepared in accordance with the following guidelines. The responsibility for TIA preparation shall rest with the applicant and must be performed by a Professional Engineer (P.E.) licensed in the State of Texas with experience in traffic and transportation engineering. The TIA report must be signed and sealed by the P.E. responsible for the analysis to be considered for review by the County. County staff shall serve primarily in a review and advisory capacity. Prior to the commencement of a TIA, an initial or pre-submission meeting is recommended to review any key parameters and scope of the conduct of study.
2. It shall be the responsibility of the applicant to submit two (2) draft TIA reports. Submittals shall include both hardcopy and electronic (PDF) documents.
3. The County shall review the TIA and provide comments to the applicant. It shall be the responsibility of the applicant to submit two

(2) finalized TIA reports and electronic copies once all review comments have been addressed.

TIA Standards

1. Design Level of Service - The minimum acceptable level of service (LOS) shall be defined as LOS "D" in the peak hour for all critical movements and links. All development impacts on both thoroughfare and intersection operations must be measured against this standard.
2. Trip Generation Resources - The County's standard for trip generation rates for various land use categories shall be those found in the latest edition of *Trip Generation* published by the Institute of Transportation Engineers (ITE) or other published or recognized sources applicable to the region. Alternate trip generation rates may be accepted on a case-by-case basis if the applicant can provide current supporting data substantiating that their development significantly differs from the ITE rates. The County must approve alternative trip generation rates in writing in advance of the TIA submission.
3. Trip Reductions - Trip reductions for passer-by trips and mixed-use developments will be permitted, subject to analytical support provided by the applicant and approval by the County on a case-by-

case basis. Assumptions relative to automobile occupancy, transit mode share, or percentage of daily traffic to occur in the peak hour must be documented and will be considered subject to analytical support provided by the applicant.

4. Study Horizon Years - The TIA must evaluate the impact of the proposed development on both existing traffic conditions and future traffic conditions for the horizon year(s) of; opening date of the project, an intermediate year of a multi-phased project, and build-out year of the site. The "intermediate year" should coincide with a major development stage of the site and/or key improvements to major area roadway improvements. The "build-out" year of the site will consider full completion of the site or 20 years, whichever is the least.

5. Study Area - The study area shall include all thoroughfare, intersections, freeway ramps and driveways serving the site within one (1) mile of the site.

TIA Methodology

1. Site Location/Study Area - A brief description of the size, general features, and location of the site, including a map of the site in relation to the study area and surrounding vicinity.

2. Existing Zoning - A description of the existing zoning for the site and adjacent property, including land area by zoning classification and density by FAR, square footage, number of hotel rooms, and dwelling units (as appropriate);

3. Existing Development - A description of any existing development on the site and adjacent to the site and how it would be affected by the development proposal;

4. Proposed Zoning / Site Development - A description of the proposed zoning/development for the site, including land area by zoning classification and density by FAR, square footage, number of hotel rooms, and dwelling units (as appropriate); identify other adjacent land uses that have similar peaking characteristics as the

proposed land use; identify recently approved or pending land uses within the area;

5. Thoroughfare System - A description and map of existing planned or proposed thoroughfares and traffic signals for horizon year(s) within the study area;

6. Existing Traffic Volumes - Recent traffic counts for existing thoroughfares and major intersections within the study area;

7. Projected Traffic Volumes - Background traffic projections for the planned thoroughfare system within the study area for the horizon year(s);

8. Density of Development - A table displaying the amount of development assumed for existing zoning and/or the proposed development (using gross floor area, as required by the trip generation methodology);

9. Existing Site Trip Generation - A table displaying trip generation rates and total trips generated by land use category for the AM and PM peak hours and on a daily basis, assuming full development and occupancy based on existing zoning (if applicable), and including all appropriate trip reductions (as approved by the Director of Engineering Services);

10. Proposed Site Trip Generation - A table displaying trip generation rates and total trips generated by land use category for the AM and PM peak hours and on a daily basis, assuming full development and occupancy for the proposed development, and including all appropriate trip reductions (as approved by the County);

11. Net Change in Trip Generation (for rezoning cases) - Proposed trip generation minus existing trip generation (if applicable); the net increase in trips to be added to base volumes for the design year;

12. Trip Distribution and Traffic Assignment - Tables and figures of trips generated by the proposed development (or net change in

trips, if applicable) added to the existing and projected volumes, as appropriate, with distribution and assignment assumptions, unless computer modeling has been performed;

13. Level of Service Evaluations – Capacity analyses for weekday AM and PM peak hours of the roadway and peak hour of the site, if different from the roadway, for both existing conditions and horizon year projections for intersections, thoroughfare links, median openings and turn lanes associated with the site, as applicable;

14. Traffic Signal Evaluations – The need for new traffic signals based on warrants and their impact on the performance of the transportation system;

15. Evaluation of Proposed/Necessary Mitigation – Capacity analyses for weekday AM and PM peak hours of the roadway and peak hour of the site, if different from the roadway, for intersections, thoroughfare links, median openings and turn lanes associated with the site under proposed/necessary traffic mitigation measures;

16. Conclusions – Identification of all thoroughfares, driveways, intersections, and individual movements that exceed LOS D or degrade by one or more LOS, the percentage of roadway volume change produced by the proposed development, and any operational problems likely to occur;

17. Recommendations – Proposed impact mitigation measures.

TIA Report Format

The TIA report must be prepared on 8½" x 11" sheets of paper. However, it may contain figures on larger sheets, provided they are folded to this size. All text and map products shall be computer-based and provided in both published format and computer file format (PDF). In addition, all electronic files used as part of the traffic analysis (i.e., Synchro, HCS, Passer II/III, CORSIM, VISSIM, etc.) shall be provided.

The sections of the TIA report should be categorized according to the outline shown below:

Executive Summary

I. Introduction

A. Purpose

B. Methodology

II. Existing And Proposed Land Use

A. Site Location/Study Area

B. Existing Zoning

C. Existing Development

D. Proposed Development

III. Existing And Proposed Transportation System

A. Thoroughfare System

B. Existing Traffic Volumes

C. Projected Traffic Volumes

IV. Site Traffic Characteristics

A. Existing Site Trip Generation (if applicable)

B. Proposed Site Trip Generation

C. Net Change in Trip Generation (if applicable)

D. Trip Distribution and Traffic Assignment

V. Traffic Analysis

A. Level of Service Evaluations

B. Traffic Signal Evaluations

VI. Mitigation

VII. Conclusions

VIII. Recommendations

Appendices

Traffic Impact Mitigation

1. Mitigation of traffic impacts shall be required if the proposed development would cause a facility or traffic movement to exceed LOS D, or where it already exceeds LOS D and the development would contribute five percent (5%) or more of the total traffic during any projected horizon year. If mitigation is required, the applicant must only mitigate the impact of the proposed development and would not be responsible for alleviating any deficiencies in the thoroughfare system that may occur without the proposed development.

2. Acceptable mitigation measures shall include:

- a. Staging of development in order to relate site development to the construction of the required thoroughfare system;
- b. Staging of development so that the site contributes less than five percent (5%) of the total traffic to the affected facility or traffic movement during the projected horizon year;
- c. Off-site improvements, including the provision of right-of-way and/or the participation in funding for needed thoroughfare and intersection improvement projects (including, but not limited to, through lanes, turn lanes or traffic signals); and
- d. On-site improvements, including access controls and site circulation adjustments.

3. Mitigation is not required if it can be shown that the traffic impacts of the project are fully mitigated ten (10) years after the final opening with any improvements that are already programmed to be implemented within five (5) years of the initial opening.

4. Administration of the TIA - Based on the results of the TIA and actions recommended by the County Engineer, the Planning & Zoning Commission and/or the County Council, as appropriate, shall take one or more of the following actions:

1. Approve the zoning or development request, if the project has been determined to have no significant impact or where the impacts can be adequately mitigated;
2. Approve the development request, subject to a phasing plan;
3. Recommend study of the County Thoroughfare Plan to determine amendments required to increase capacity;
4. Deny the zoning or development request, where the impacts cannot be adequately mitigated.

APPENDIX E

LONG TERM PROJECTS LISTING

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Appendix E

Long Term Project Listing

Roadway	From	To	Improvement	TXDOT On-System Network	ETJ	Lanes At Buildout
CR 1139/1135	FM 1562	Hunt/CL	Complete as 2 lane rural arterial	No	No	4
FM 36	CR 1040	FM 1562	Complete as 2 lane rural arterial	Yes	No	6
FM 36	FM 1569	CR 1040	Complete as 2 lane rural arterial	No	No	6
FM36/CR 1123	FM 1569	US 380	Complete as 2 lane rural arterial	No	No	6
CR 2730	US 380	CR 649	Complete as 2 lane rural arterial	No	No	6
CR 2730	CR 649	FM 6	Complete as 2 lane rural arterial	No	No	6
CR 2606	FM 6	SH 66	Complete as 4 lane rural arterial	No	Partial	6
CR 708	Hunt/CL	US 69	Complete as 2 lane rural arterial	No	No	4
FM 816/CR 1010	US 69	SH 34	Complete as 2 lane rural arterial	Partial	No	4
FM 1563/CR 4904	SH 34	SH 50	Complete as 2 lane rural arterial	No	No	4
FM 1532	SH 50	Hunt/CL	Complete as 2 lane rural arterial	Yes	No	4
FM 1562 / CR 1148	Hunt/CL	East of CR 1140	Complete as 4 lane rural arterial	Yes	No	6
CR 1044	US 69	SH 34	Complete as 2 lane rural arterial	No	No	4
New Arterial	Hunt/CL	US 69	Complete as 2 lane rural arterial	No	No	6
CR 1040	US 69	SH 34	Complete as 2 lane rural arterial	No	No	6
CR 4507/CR 4506	SH 34	SH 11	Complete as 2 lane rural arterial	No	No	6
CR 4611	SH 11	SH 24	Complete as 4 lane urban arterial	No	Yes	6
CR 1091 / CR 1093	FM 1562	CR 1040	Complete as 2 lane rural arterial	No	No	4
New Arterial	CR 1040	CR 1193	Complete as 2 lane rural arterial	Partial	No	4
FM 903	CR 1193	US 380	Complete as 2 lane rural arterial	Yes	No	6
New Arterial	US 380	CR 2727	Complete as 2 lane rural arterial	No	No	6
New Arterial	CR 2727	SH 66	Complete as 2 lane rural arterial	No	Yes	4
CR 1089/ CR 1085	SH 66	FM 1903	Complete as 2 lane urban arterial	Partial	Yes	4
FM 3427	US 69	US 69	Complete as 2 lane rural arterial	No	No	4
CR 1126	Hunt/CL	FM 2194	Complete as 2 lane rural arterial	Partial	No	4
FM 2194	West of CR 1105	FM 903	Complete as 2 lane rural arterial	Yes	No	4
FM 2194	FM 903	US 69	Complete as 2 lane rural arterial	Yes	No	4
CR 1034	US 69	SH 34	Complete as 2 lane rural arterial	No	No	4
FM 1569	Hunt/CL	FM 903	Complete as 2 lane rural arterial	Partial	No	6
CR 1193 / CR 1071	FM 903	US 69	Complete as 2 lane rural arterial	No	Partial	6
New Arterial	US 69	SH 34	Complete as 4 lane urban arterial	No	Yes	6
New Arterial/CR 4310	SH 34	SH 224	Complete as 2 lane rural arterial	No	Partial	6
CR 1120	Hunt/CL	FM 36	Complete as 2 lane rural arterial	No	No	4
CR 1116	FM 36	FM 903	Complete as 2 lane rural arterial	No	No	4
CR 1061	FM 903	Greenville ETJ	Complete as 2 lane rural arterial	Partial	Partial	4
CR 1120	Hunt/CL	FM 36	Complete as 2 lane rural arterial	Partial	No	4
CR 1118	FM 36	FM 903	Complete as 2 lane rural arterial	No	No	4
CR 1118	FM 903	Greenville ETJ	Complete as 2 lane rural arterial	No	Yes	4
FM 1562	FM 1562	US 69	Complete as 4 lane rural arterial	Partial	No	4
CR 1023	FM 816	CR 1040	Complete as 2 lane rural arterial	Yes	No	4
CR 1033	CR 1040	CR 1034	Complete as 2 lane rural arterial	No	No	4
CR 1060	CR 1071	US 380	Complete as 2 lane rural arterial	No	Yes	4
CR 649	Hunt/CL	CR 2730	Complete as 2 lane rural arterial	No	No	6
CR 2727	CR 2730	CR 2140	Complete as 2 lane rural arterial	Partial	No	6
CR 2727	CR 2140	FM 3211	Complete as 4 lane urban arterial	Partial	Partial	6
CR 829	Hunt/CL	CR 2730	Complete as 2 lane rural arterial	No	No	4
CR 2720	CR 2730	FM 36	Complete as 2 lane rural arterial	No	No	4
CR 2720	FM 36	FM 3211	Complete as 2 lane rural arterial	Yes	No	4
FM 6	Hunt/CL	CR 2606	Complete as 6 lane rural principal arterial	Yes	No	6
FM 6	CR 2606	SH 66	Complete as 2 lane rural arterial	Yes	Partial	6
FM 6	SH 66	Joshua Street	Complete as 4 lane urban arterial	No	Yes	6
CR 2152	US 380	CR 2727	Complete as 4 lane rural arterial	Yes	No	4
FM 36	CR 2727	Greenville Street	Complete as 4 lane rural arterial	Yes	Yes	4
FM 2158	FM 36	CR 2142	Complete as 2 lane rural arterial	No	No	4
New Arterial	US 380	CR 2727	Complete as 2 lane rural arterial	No	No	4
New Arterial	CR 2727	SH 66	Complete as 2 lane rural arterial	Partial	Yes	6
New Arterial	SH 66	CR 2132	Complete as 2 lane rural arterial	No	Yes	6
New Arterial	CR 2132	FM 1903	Complete as 2 lane rural arterial	No	Yes	6
FM 1565	SH 66	IH-30	Complete as 4 lane urban arterial	Yes	Partial	6
New Arterial	FM 36	SH 66	Complete as 4 lane urban arterial	No	Yes	4
FM 1565 Ext.	SH 66	FM 6	Complete as 4 lane urban arterial	No	Yes	4
Joshua Street	FM 36	Glimmer	Complete as 4 lane urban arterial	Yes	Yes	4
CR 2134	CR 2134	FM 1903	Complete as 4 lane urban arterial	No	Yes	4
CR 2664	SH 66	CR 2617	Complete as 2 lane rural arterial	No	Partial	4
FM 36 Ext.	IH-30	FM 36	Complete as 2 lane rural arterial	Yes	Yes	4
CR 2176 Ext.	FM 1903	FM 1564	Complete as 2 lane rural arterial	No	No	4
New Arterial	FM 1903	FM 1564	Complete as 2 lane rural arterial	No	No	4
CR 2512 / CR 2514	FM 1565	FM 36	Complete as 2 lane rural arterial	Partial	No	6
CR 2264	FM 36	SH 34	Complete as 2 lane rural arterial	Partial	No	6
FM 1565	IH-30	CR 2596	Complete as 4 lane urban arterial	Yes	Yes	6
FM 1565	CR 2596	SH 276	Complete as 4 lane urban arterial	Yes	Yes	6
FM 1565	SH 276	Hunt/CL	Complete as 4 lane rural arterial	Yes	No	4
FM 2453	FM 2591	SH 276	Complete as 2 lane rural arterial	Partial	No	4

Roadway	From	To	Improvement	TxDOT On-System Network	ETJ	Lanes At Buildout
New Arterial	FM 36	SH 276	Complete as 2 lane rural arterial	No	Partial	4
FM 36	FM 36 @ CR 2542	FM 2136	Complete as 2 lane rural arterial	No	No	4
SH 34	SH 276	Hunt/CL	Complete as 6 lane rural principal arterial	Yes	No	6
FM 276	SH 34	Hunt/CL	Complete as 4 lane urban arterial	Yes	Partial	6
FM 751	SH 276	FM 3622	Complete as 4 lane urban arterial	Yes	No	4
FM 429	FM 751	Hunt/CL	Complete as 4 lane rural arterial	Yes	No	4
FM 751	FM 429	Hunt/CL	Complete as 4 lane rural arterial	Yes	No	4
FM 2101	SH 34	FM 2101	Complete as 2 lane rural arterial	No	No	4
FM 513	Hunt/CL	US 69	Complete as 4 lane rural arterial	Yes	No	6
FM 513	US 69	IH-30	Complete as 2 lane rural arterial	Yes	No	6
FM 1567/FM 2649	US 69	IH-30	Complete as 2 lane rural arterial	Yes	No	4
FM 1737	IH-30	CR 3103	Complete as 2 lane rural arterial	Yes	No	4
CR 3103	IH-30	FM 1737	Complete as 2 lane rural arterial	No	Partial	4
New Arterial	FM 2736	IH-30	Complete as 2 lane rural arterial	No	Partial	4
SH 224	SH 11	Greenville Outer Loop	Complete as 4 lane rural arterial	Yes	Partial	6
CR 4108	FM 499	Loop	Complete as 2 lane rural arterial	No	No	4
SH 24 EX.	SH 24	IH-30	Complete as 2 lane rural arterial	No	No	4
New Arterial	IH-30	New Collector	Complete as 2 lane rural arterial	No	No	4
New Arterial	IH-30	SH 24	Complete as 4 lane rural arterial	Partial	No	6
FM 1568 EX.	IH-30	FM 1568	Complete as 2 lane rural arterial	No	No	4
SH 24	FM 2736	SH 11	Complete as 6 lane rural principal arterial	Yes	No	6
SH 11	SH 24	CR 4611	Complete as 4 lane urban arterial	Yes	Yes	6
FM 512 EX.	FM 2874	SH 11	Complete as 2 lane urban arterial	Partial	Yes	4,6
FM 1562	FM 1562	US 69	Complete as 2 lane urban arterial	No	No	6
CR 1121	US 380	FM 36	Complete as 2 lane rural arterial	Partial	No	4
FM 2194	FM 36	West of CR 1105	Complete as 2 lane rural arterial	Yes	No	4
SH 34	FM 1903	FM 2947	Complete as 6 lane rural principal arterial	Yes	Partial	6
SH 34	FM 2947	SH 276	Complete as 6 lane rural principal arterial	Yes	No	6
FM 36	IH-30	CR 2264	Complete as 4 lane rural arterial	Yes	No	4
FM 36	CR 2264	CR 2542	Complete as 2 lane rural arterial	Yes	No	4
FM 2136	SH 276	Hunt/CL	Complete as 2 lane rural arterial	No	No	4
FM 2947	SH 34	US 69	Complete as 2 lane rural arterial	Partial	No	6
FM 2101	FM 1903	CR 3526	Complete as 2 lane rural arterial	Yes	Partial	4
FM 1567	US 69	Hunt/CL	Complete as 2 lane rural arterial	Yes	No	4
FM 71	SH 50	Hunt/CL	Complete as 2 lane rural arterial	Yes	Yes	4
CR 1096	CR 705	CR 1098	Complete as 4 lane rural arterial	No	No	4
CR 698 / CR 2740	US 380	US 380	Complete as 4 lane rural arterial	No	No	4
N FM 36	FM 36	CR 1118	Complete as 4 lane rural arterial	Yes	No	4
New Roadway	CR 1071	US 380	Complete as 2 lane rural arterial	No	ETJ	4
CR 2114	US 380	CR 2727	Complete as 2 lane rural arterial	No	ETJ	4
CR 2172	CR 2727	SH 66	Complete as 2 lane rural arterial	No	No	6
FM 1903	CR 2172	CR 2176	Complete as 4 lane urban arterial	Yes	Partial	6