FM 1626 / RM 967
INTERSECTION STUDY

Prepared for:
City of Buda / CAMPO

November 2025

CAMPO
CAPITAL AREA METROPOLITAN PLANNING ORGANIZATION
CENTRAL TEXAS

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EXECUTIVE SUMMARY

Executive Summary

This summarizes the feasibility study for improvements to the FM 1626 / RM 967 intersection in Buda, Texas, including existing/future needs, alternatives screening, high-level costs/impacts, public input, and implementation actions. After screening the universe of alternatives, the study evaluated eight potentially viable concepts, then advanced two ultimate options for detailed review: a Full Displaced Left-Turn (DLT) and a Conventional Diamond Interchange. Near-term "quick win" improvements are identified to relieve delay and address safety concerns while long-term work continues.

The City of Buda and Capital Area Metropolitan Planning Organization (CAMPO) evaluated the FM 1626 / RM 967 intersection to address severe peak-period congestion, safety concerns, and gaps in pedestrian/bicycle connectivity while preserving a path to long-term improvements. The study examined existing and future conditions (to 2050), engaged the public and a multi-agency steering committee, and screened a range of improvement concepts using several evaluation criteria, including mobility, safety/multimodal, cost/constructability, right of way (ROW), environmental, access, and community support.

Study Process

CAMPO and the City of Buda led an intersection improvements feasibility study for FM 1626 / RM 967 to identify multimodal needs and develop a context-sensitive vision. The team inventoried existing geometry, traffic and safety conditions, access and environmental constraints and then used analysis tools (including the Federal Highway Administration's (FHWA) CAP-X tool for initial screening) and public/stakeholder input to develop and refine concepts before advancing recommendations and an implementation roadmap.

Existing & Future Conditions Assessment

The study corridor is signed for 55 mph speeds. However, on an average day, both FM 1626 and RM 967 carry a considerable amount of traffic. In the existing condition during the morning and evening rush hours (peak periods), the intersection does not function reliably. Drivers experience significant delays waiting to pass through the intersection. This results in long backups (queueing) and slow travel speeds that require drivers to wait through multiple traffic signal cycles before passing through the intersection. Additionally, analysis of study corridor crash data shows that the majority of crashes are near the intersections. Many crashes are related to left-turning traffic, which indicates a clear safety need to reduce conflicts and manage access. A substantial number of crashes are also related to one vehicle rear-ending another vehicle, which is typically related to unexpected, sudden reductions in travel speeds common with traffic backups at the intersection. The existing conditions assessment also identified gaps in the existing sidewalk and bicycle network, which prohibit safe and efficient travel for pedestrians and cyclists. The proximity of neighborhoods, schools, and the Buda Sportsplex to the study corridor also reinforce the need for safe and efficient multimodal accommodations. Looking ahead, if no improvements are made, the forecasted regional growth through the year 2050 will further amplify delay, backups, and safety issues at the intersection.

Build Concepts

The study utilized a two-phase process for identifying and evaluating multiple improvement concepts for the intersection. The initial phase was a screening analysis that utilized FHWA's Cap-X tool to evaluate 32 conventional and innovative concepts for the FM 1626 / RM 967 junction. Each concept's estimated traffic capacity was evaluated against the projected 2050 peak hour traffic volumes. Various bicycle and pedestrian improvements were also evaluated based on adjacent land use along with roadway travel speeds and traffic volumes. This phase also sought feedback from stakeholders on appropriate evaluation criteria for analyzing and comparing potentially viable concepts. This initial screening phase indicated that the potentially viable concepts from a traffic perspective included options to improve the conventional intersection with dual lefts and concepts to reconfigure the FM 1626 / RM 967 junction as a quadrant intersection, partial or full displaced left-turn intersection, a center-turn overpass, diverging diamond interchange, or a diamond interchange. Multimodal improvement concepts included the addition of separated paths and trails for bicyclists and pedestrians along with a continuous sidewalk network.

The second phase of the evaluation process analyzed right-of-way footprints, access impacts, and costs associated with each potentially viable concept. A qualitative analysis for impacts to safety, multimodal travel, economic development, community sense of place, and constructability was also performed. All improvement (Build) concepts were evaluated against the alternative to leave the intersection as-is (No-Build). This evaluation showed a consistent pattern. Improving the existing conventional FM 1626 / RM 967 intersection would not provide meaningful congestion relief without other regional network improvements. Overpass and interchange concepts provided the strongest potential for congestion relief, while at-grade innovative intersection concepts delivered meaningful congestion relief with lower project costs. However, each potentially viable concept had varying impacts to right-of-way and property access, which impacted potential future economic development and community sense of place. The results of this evaluation process were shared with the community at stakeholder meetings, presentations to the Buda City Council, and open-house public meetings.

Community Outreach

Engagement emphasized accessibility and equity (materials in English/Spanish, screen-reader compatible), multiple channels (in-person and virtual outreach options), and transparent integration of feedback into decisions; a multi-agency steering committee (City of Buda, CAMPO, Texas Department of Transportation (TxDOT), Capital Area Rural Transportation System (CARTS), Hays County, emergency services, Hays Consolidated Independent School District (CISD)) met at key milestones. Three open houses drew substantial input, with themes favoring safety, simplicity, and familiarity. The public expressed stronger comfort with conventional at-grade upgrades and the conventional diamond interchange; concerns included teenage driver comprehension, property access, and the need for sidewalks/shared-use path continuity.

Recommendations & Implementation

FM 1626 and RM 967 are TxDOT roadways, and their improvements will require additional studies and analysis per TxDOT requirements and the National Environmental Policy Act (NEPA) process. This study recommends two ultimate concepts be considered for further evaluation by TxDOT and/or the city of Buda. This includes the displaced left-turn at-grade intersection concepts and the diamond interchange concept. Conventional dual-left turn upgrades to the existing intersection are best treated as interim relief, while quadrant, center-turn overpass, and diverging diamond interchange concepts are less suitable due to context-specific right of way, access, and user-comprehension constraints.

NEAR-TERM (1 TO 5 YEARS)			
No.	Action Summary	Action Type	Agency Lead
1	Initiate the National Environmental Policy Act (NEPA) process for the FM 1626 / RM 967 intersection improvements	Study	TxDOT *CAMPO Buda Hays Co.
2	RM 967 Feasibility Study to evaluate added capacity and multimodal improvements from Bell Ranch Road to FM 1626	Study	TxDOT *CAMPO Buda
3	Initiate Kyle to South Austin North-South Connections Study to evaluate roadway and transit opportunities for added capacity	Study	*CAMPO Buda and Kyle Hays Co.
4	Design, fund, and construct interim FM 1626/RM 967 intersection improvements, in partnership with Buda a. Extend westbound RM 967 right turn bay at FM 1626 b. Add dual left turns from northbound FM 1626 to westbound RM 967 c. Connect existing sidewalk gaps in the northwest and southwest quadrants d. Connect existing sidewalk gap north of RM 967 and west of FM 1626	Capital	TxDOT Buda Hays Co.
5	Existing sidewalk maintenance to correct deteriorating sections and overgrowth and update striping at crosswalks	Maintenance	Buda (TxDOT Maintenance Agreement)

*CAMPO cannot do subarea or corridor planning work unless a local/agency sponsor (e.g., TxDOT, City of Buda, Hays County) applies for and is awarded funding by the CAMPO Transportation Policy Board. Applications are accepted periodically through an open call for projects period.

MID-TERM (6 TO 10 YEARS)			
No.	Action Summary	Action Type	Agency Lead
6	Secure funding for ultimate intersection and any related thoroughfare improvements	Funding	TxDOT **CAMPO Buda Hays Co.
7	Right-of-way acquisition and utility relocations	Capital	TxDOT Buda Hays Co.
8	Construct shared use path north of RM 967 and west of FM 1626 from Buda Sportsplex Drive to Maybrook Drive	Capital	TxDOT Hays Co.
9	Construct Dodgen Way/Dodgen Trail extensions to Old Black Colony Road extension (west of FM 1626)	Capital	Buda Hays Co.

** Design and/or construction funds are awarded by the CAMPO Transportation Policy Board through periodic project calls. Local/Agency sponsors are responsible for developing and submitting project call applications to CAMPO.

LONG-TERM (10+ YEARS)			
No.	Action Summary	Action Type	Agency Lead
10	Construct ultimate improvements at FM 1626 and RM 967 including roadway, ADA crossings, and remaining sidewalks	Capital	TxDOT
11	Construct planned trail to link Sportsplex Park and Garlic Creek Park; coordinate with FM 1626/RM 967 improvements to allow grade-separated trail crossing at Garlic Creek crossing	Capital	Buda
12	Construct city, county, or transit connections recommended from Kyle to South Austin North-South Connections Study (if approved)	Capital	TBD

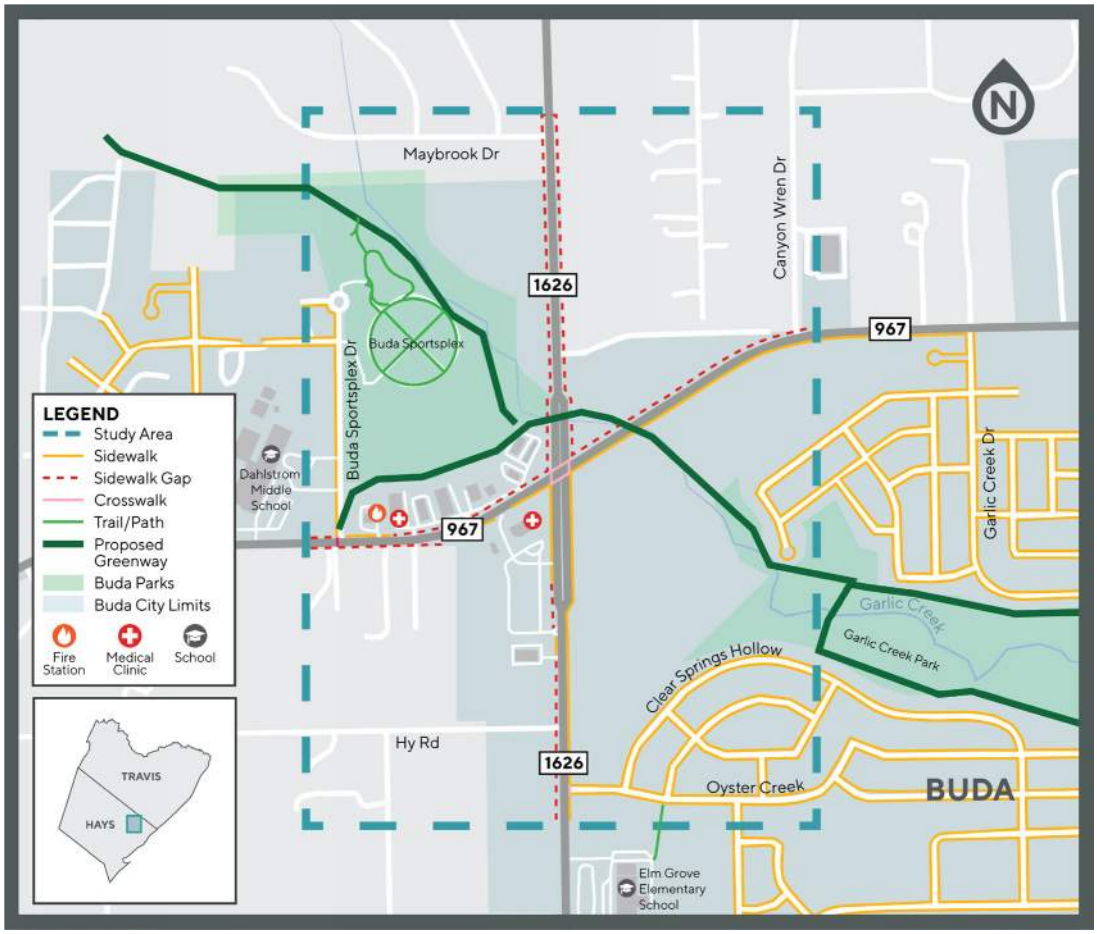
STUDY PROCESS

1

1 Study Process

Introduction

The Capital Area Metropolitan Planning Organization (CAMPO) and the City of Buda conducted an intersection study of FM 1626 and RM 967 in Buda, TX (Hays County). FM 1626 functions as a primary north-south route in eastern Hays County, alongside IH 35, while RM 967 serves as a key east-west corridor in the county. The study identified multimodal transportation needs and developed a context-sensitive transportation vision for the intersection that addresses local and regional goals and needs. The study also provided recommendations for future planning efforts, including an implementation plan for interim and ultimate improvements to the study area.



Study Area Map

Methodology

The intersection study first analyzed the existing roadway configuration, bicycle and pedestrian accommodations, current and projected traffic volumes, crash hotspots, land uses, and environmental features along with needs and concerns identified by stakeholder and public input. The study then utilized analysis tools and public input to help CAMPO and the City of Buda identify and evaluate improvement concepts for the FM 1626/RM 967 intersection. This process resulted in a recommended implementation plan for improving the intersection and adjacent roadways.

Study Goals and Objectives

The study identified goals and objectives based on community feedback, which guided the study by focusing on improvements to safety and mobility for all users, including bicyclists and pedestrians.

Study Goals and Objectives

Identify and recommend solutions to improve safety

- Evaluate and consider crash data, intersection improvements, bicycle and pedestrian travel, and input from the community

Enhance mobility and functionality of the intersection

- Improve traffic operations to create a reliable and consistent network for the movement of people and goods through and within the intersection
- Improve access to adjacent businesses, neighborhoods, and schools

Enhance multimodal movement, operations, and safety

- Consider and plan for transportation needs for multimodal use of the intersection, including improving facilities for bicyclists, pedestrians, and transit

Develop community-supported recommendations for the intersection

- Employ strategies to maximize participation across diverse audiences that reflect the community, including outreach to underreached communities and those with limited English proficiency
- Consider and incorporate feedback from the community in each step of the study development process

COMMUNITY OUTREACH

2

2 Community Outreach

Engagement Plan

The study utilized multiple outreach strategies and activities to ensure community feedback was sought and integrated at each stage of the study. Community engagement emphasized transparency, documentation, and accessible opportunities for public input.

The study successfully leveraged a comprehensive set of tools to ensure broad and meaningful participation, resulting in valuable input from the community. Both online and print communication methods were employed to accommodate different preferences and needs. Study materials and web content were developed with accessibility as a priority and were fully compatible with screen readers and other assistive technologies to provide access for people with disabilities. Additionally, public meeting materials were provided in English and Spanish formats.

Steering Committee Coordination

A steering committee was developed to assist with reviewing recommendations and providing feedback on the overall direction of the study. The steering committee consisted of representatives from:

- CAMPO
- City of Buda
- TxDOT
- CARTS
- Hays County Emergency Services
- Hays Consolidated Independent School District

Three virtual meetings were held at key study milestones:

1. **January 10, 2025 - Steering Committee Meeting #1** presented the results of the existing conditions and needs assessment.
2. **May 2, 2025 – Steering Committee Meeting #2** presented feedback from Public Meeting #1 and provided an update on the alternatives analysis. A summary of capacity improvements and estimated right of way footprints for the potentially viable concepts was provided.
3. **August 1, 2025 – Steering Committee Meeting #3** presented an update on the alternatives analysis, including concepts recommended for further study. Additionally, a draft implementation plan was shared with the group.

Stakeholder Outreach

Stakeholder interviews were requested to engage representatives of nearby businesses, developments, Hays CISD, and TxDOT. At these meetings, information regarding the study was provided and feedback was sought to help guide the study. Meetings were requested with the following 12 entities, and seven meetings were successfully scheduled resulting in valuable input to the study.

- BTM Realty - Developer
- 24 Belly Buda Professional Business Center
- Shoppes at Garlic Greek
- Persimmon Development
- Hays CISD Executive Director Facilities, Construction, & Bond Programs
- Hays CISD Director of Transportation
- Hays CISD Chief Operations Officer
- Elm Grove Elementary
- Dahlstrom Middle School
- Moe & Gene Johnson High School
- Giberson Properties, Inc.
- South Travis/Hays Area Engineer

Buda City Council Presentations

Two briefings were provided to the Buda City Council to apprise them of the study's status and receive their input. Copies of the presentations are included in Appendix A-2.

May 20, 2025 – Buda City Council Briefing #1 introduced the study to the Council, summarized feedback from Open House Public Meeting #1, and provided an overview of the initial concept analysis and evaluation criteria. The study's next steps and overall timeline were also discussed.

August 5, 2025 – Buda City Council Briefing #2 provided an overview of efforts completed since the May Council Briefing. This discussion included a summary of Open House Public Meeting #2 feedback, potentially viable concepts, and the preliminary evaluation results. The study's preliminary recommendations and implementation plan were also provided.

Open House Public Meetings

Three open house events were conducted for the FM 1626 / RM 967 Intersection Study including in-person and virtual opportunities for stakeholder participation. Appendices A-3 through A-5 include each event's summary reports and displays.

Open House #1

The first in-person, open house was held on January 30, 2025 at the City of Buda Welcome Center. A virtual open house and comment period were also held from January 28th to March 7th. The purpose of the open house was to introduce the study, confirm goals and objectives, discuss existing conditions, explore ideas for improving the intersection, and gather community input to evaluate the feasibility of concepts.

30+ in-person attendees

118 surveys submitted

70% of commenters drive on FM 1626 / RM 967 daily

80% live on or use FM 1626 / RM 967 to get home

Over 60% use nearby parks, trails, sidewalks, and Buda sports complex less often than weekly

Common Themes from Survey Responses

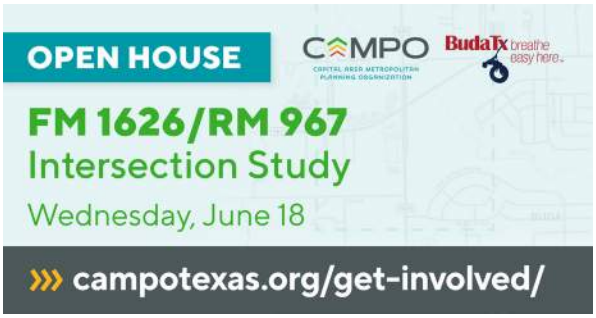
The biggest concern of commenters was traffic congestion followed by safety. Common themes from comments submitted with the survey are summarized below.

- **Severe Traffic Congestion –** The intersection experiences heavy delays, especially during school and rush hours. Short signal times, merging conflicts, and high turning volumes cause backups in all directions.
- **Safety Concerns –** Frequent red-light running, dangerous merges, and unsafe driveway access points create hazardous conditions. Many users report near misses, crashes, and difficulties for pedestrians and cyclists.
- **Infrastructure Improvements Needed –** Additional lanes, extended turn lanes, overpasses, and better traffic signal timing was suggested to alleviate congestion.
- **School Traffic –** The schools significantly contribute to peak-hour congestion. Some suggest an alternative route or expanded road capacity to manage school traffic.
- **Pedestrian & Bicycle Safety –**The intersection is not pedestrian-or bike-friendly. Recommendations included a pedestrian bridge or improved crosswalks.

Open House #2

The second in-person, open house was held on June 18, 2025 at the Buda City Hall Multi-Purpose Room. A virtual open house and comment period was also held from June 16th to July 16th.

The purpose of the open house was to share updates on the study and gather input on eight potentially viable intersection concepts and design considerations.



12 in-person attendees and 4 written comments

639 comments submitted through virtual website

88% of commenters live in Buda neighborhoods along FM 1626 / RM 967

73% heard about the open house through social media

Common Themes from Survey Responses

The open house survey requested feedback on the eight potential intersection concepts Common themes from the submitted comments are summarized below.

- **Priority on Safety and Simplicity –** Commenters expressed concern regarding the high number of teenage drivers and confusion of navigating innovative concepts.
  - » Higher comfort level with conventional at-grade intersection improvements or the conventional diamond interchange.
  - » Displaced left-turn concepts and diverging diamond interchange concepts were considered confusing.
  - » Quadrant concepts considered over-complicated and ineffective.
  - » The center-turn overpass' elevated ramps would be a concern for teenage drivers, and it would not address long-term traffic needs.
  - » Ensure that safe pedestrian and bicycle routes are provided.
- **Need for Additional Lanes –** In addition to improving the intersection, many comments expressed a need to widen RM 967 and FM 1626.
- **FM 1626 Overpass at RM 967 –** Many commenters felt an overpass may be needed to remove FM 1626 through traffic from the RM 967 intersection.

Open House #3

The third in-person, open house was held on August 14, 2025 at the at the City of Buda Welcome Center. A virtual open house and comment period was also held from August 11th to September 10th.

The purpose of the open house was to share updates on the study, present summary results of the evaluation matrix, provide layouts for two potentially viable concepts (diamond interchange and full displaced left-turn intersection), share the recommended implementation plan, and receive public feedback.

20 in-person attendees
2 written comments
15 comments on the layouts

103 comments submitted through virtual website

Majority of commenters live in Buda, followed by Kyle Manchaca, and San Marcos

Notifications provided on CAMPO and Buda websites, social media, media outreach, phone calls, and emails

Common Themes from Survey Responses

The open house survey requested feedback on two conceptual layouts that were presented and any additional comments. Common themes from the submitted comments are summarized below.

- **Displaced left Turn**
  - » Some found the concept confusing to navigate. There were requests for visualizations illustrating how the concept works and access patterns.
  - » Some felt that left turn traffic would benefit. However, there were mixed opinions regarding if the concept provided long-term benefits to through traffic.
  - » Survey Responses: 41% felt the concept meets study goals and objectives, 25% were neutral, and 34% did not feel the concept meets study goals and objectives.
- **Diamond Interchange**
  - » Clear signage helps people understand the diamond interchange. Many expected it to improve safety and mobility as drivers get used to it.
  - » Some users felt the concept's simplicity was a benefit. However, some expressed concern regarding construction impacts.
  - » Survey Responses: 68% felt the concept meets study goals and objectives, 16% were neutral, and 16% did not feel the concept meets study goals and objectives.
- **Users Additional Input**
  - » Several commenters expressed frustration that traffic congestion and delay is rapidly increasing. Many requested interim or short-term improvements as a long-term solution is being developed.

EXISTING AND FUTURE CONDITIONS ASSESSMENT

3

3 Existing and Future Conditions Assessment

The Existing and Future Conditions Assessment aims to create a baseline for the study area's current conditions and to estimate how traffic conditions and demographic changes will impact the study area over the next 25 years.

The assessment details the corridor's current physical and operational characteristics, along with the environmental constraints affecting the area. It also identifies existing deficiencies in the corridor, with a focus on roadway and intersection geometry, access management, and bicycle and pedestrian infrastructure.

Review of Existing Studies

To better understand the FM 1626 / RM 967 intersection's needs and nearby planned improvements, the study team evaluated the following existing studies and plans overlapping the study area.

The cross-cutting implications from these studies resulted in the following guidance for evaluating improvements at the FM 1626 / RM 967 intersection.

- **Intersection Capacity & Safety –** Improve turn lanes, channelization, and access management to relieve congestion and reduce crashes.
- **Multimodal/ADA Focus –** Provided continuous sidewalks, protected crossings, and bike accommodations consistent with city and regional plans.
- **Drainage –** Roadway conveyance and outfall upgrades should be aligned with the Buda's Capital Improvement Plan.
- **Land Use/Character –** Improvement concepts should maintain and enhance aesthetics and character of the study area in alignment with Buda's vision.
- **Regional Coordination –** Improvement concepts should take into account the planned regional transportation network and preserve future right of way where warranted.

Additional details regarding the content of these studies and plans is provided in Appendix B.

Documents Reviewed

City of Buda Plans and Studies

- Unified Development Code
- Strategic Plan (2026 Vision / 2026 Roadmap)
- Transportation Mobility Master Plan
- Comprehensive Plan
- Capital Improvement Plan
- Transit Development Plan
- Drainage Master Plan Phase 2

CAMPO Plans and Studies

- 2045 and 2050 Regional Transportation Plan
- Regional Arterial Concept Inventory

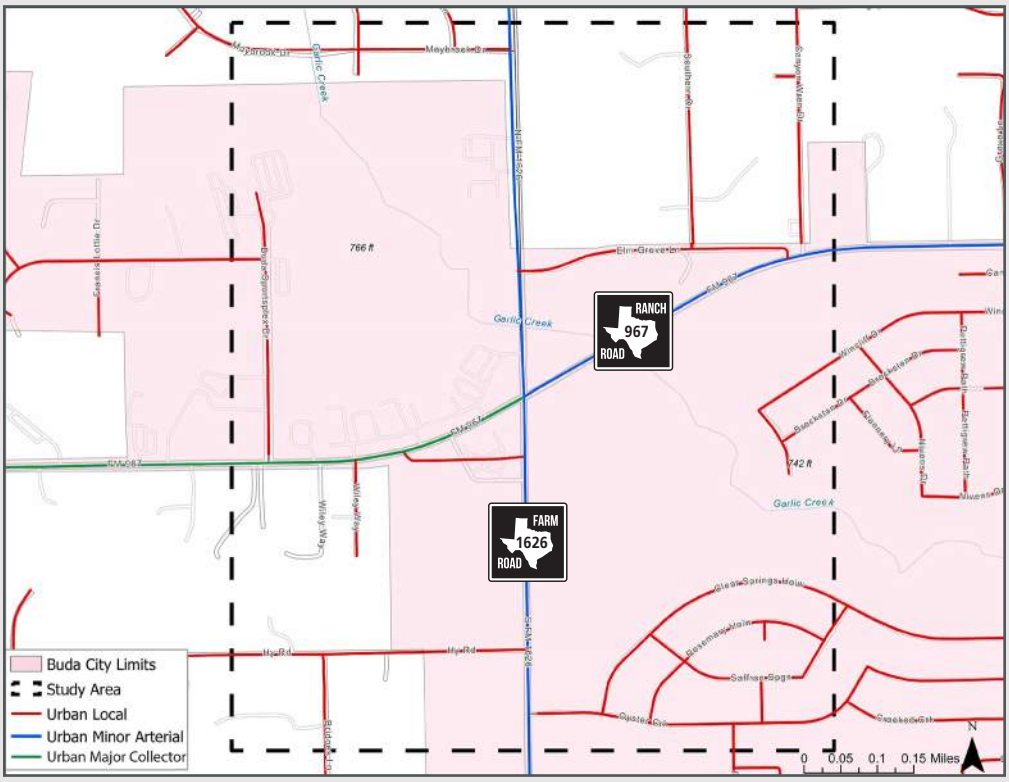
Hays County

- Hays County Transportation Plan (2021 Update)

Physical Characteristics

Network & Functional Class

Within the study area, FM 1626 and RM 967 east of FM 1626 are TxDOT on-system roadways classified as urban minor arterials. RM 967 west of FM 1626 is a TxDOT on-system roadway classified as a major collector. The surrounding and intersecting streets are classified as urban local streets.

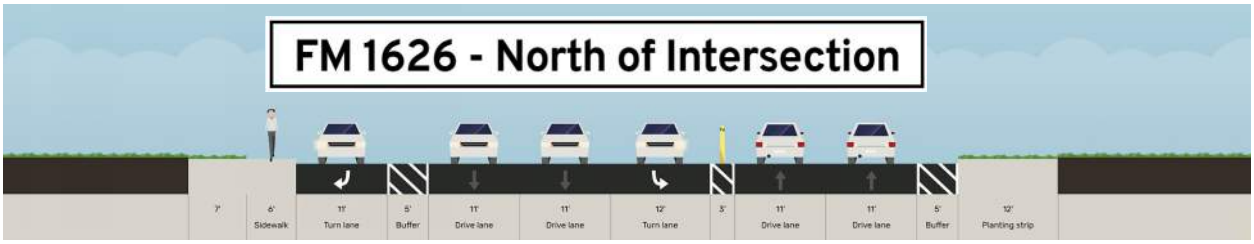


Roadway Network

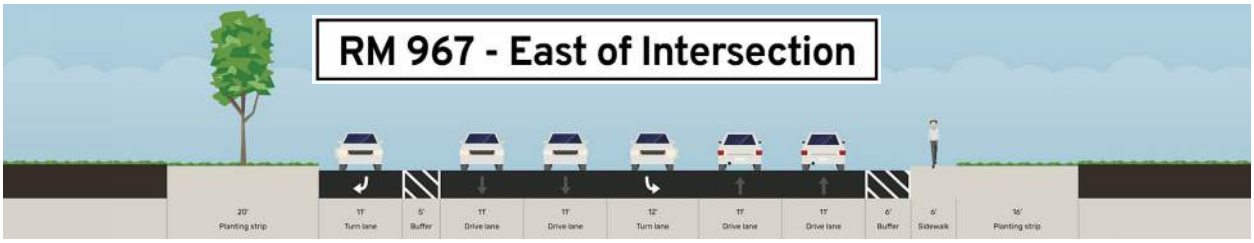
Existing Cross Sections (at/near the Intersection)

Within the study area, existing FM 1626 is typically a four-lane roadway with a continuous center left-turn lane. South of RM 967, a portion of FM 1626 includes a center raised median. FM 1626 typically has 5-foot wide outside shoulders, which are also used for bike accommodations.

North of the RM 967 intersection, FM 1626 includes a right of way width of 105 feet. In general, there are two travel lanes in each direction, a single left-turn lane, and a single right-turn lane. Instead of a raised median, a 3-foot bollard buffer separates the southbound and northbound lanes. A 6-foot sidewalk is provided along the western side of FM 1626.



East of the FM 1626 intersection, RM 967 features a 120-foot-wide right of way. In general, there are two travel lanes in each direction, a single left-turn lane, and a single right-turn lane. Outside shoulders also accommodate bikes.



Approximately 240 feet east and 390 feet west of the intersection, RM 967 transitions to single travel lanes in both directions and the right of way width narrows to between 70 and 80 feet wide.

Driveways

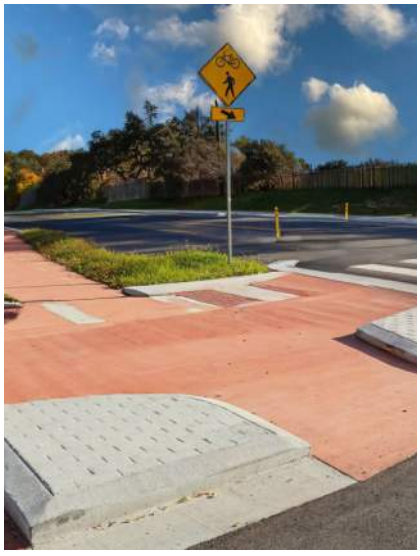
The study area includes 14 commercial driveways and 5 residential driveways. Both FM 1626 and RM 967 are 55 mph corridors, and multiple driveways do not meet current TxDOT spacing guidance for 55 mph facilities (450–500 ft). These spacing guidelines are intended to provide safe ingress/egress at driveway locations.

Existing Signage

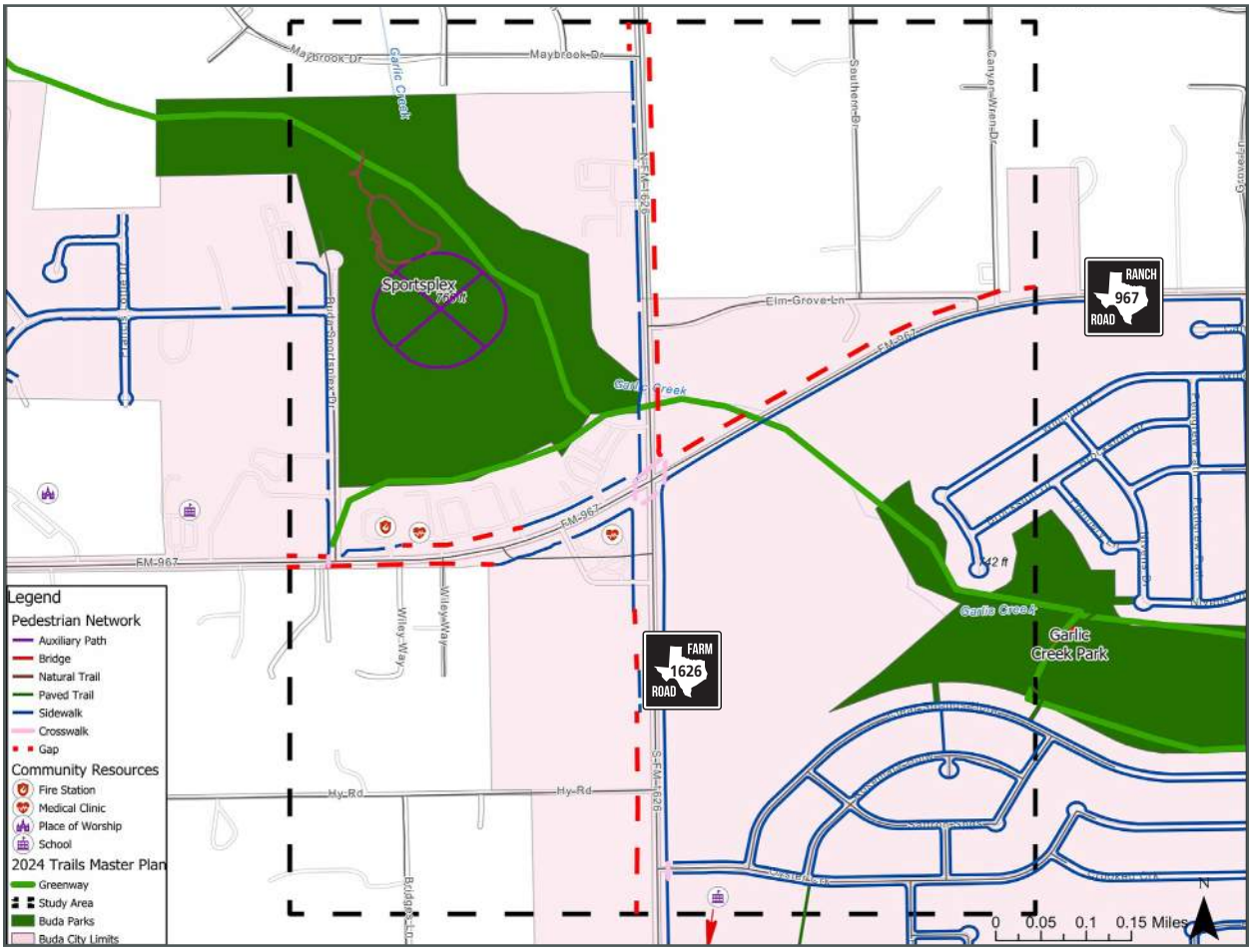
An inventory of existing signage reveals there are 40 signs within the study area to direct drivers. The existing signage provides information regarding a variety of key priorities like vehicle movement, pedestrian safety, and speed management. Overall, while the current signage provides a solid foundation for traffic control and safety, strategic adjustments can ensure full compliance with current guidelines and support safer, more efficient traffic flow for vehicles, pedestrians and bicyclists.

Pedestrian/Bike Facilities

Within the study area, there are approximately two miles of existing sidewalks along FM 1626 and RM 967. There is also a planned trail to link Sportsplex Park and Garlic Creek Park, which are on opposite sides of RM 1626 and RM 967. However, significant gaps exist in pedestrian mobility, and some existing sidewalks exhibit signs of deterioration. The absence of ADA compliant crossings at driveways and intersections also poses a challenge for pedestrian safety.



The study area contains important community resources, including medical clinics, a place of worship, a fire station, schools, and parks. These resources are essential for residents and visitors alike. Ensuring there is adequate pedestrian access to these facilities is vital for the community's overall mobility and health. The following map on page 3-5 illustrates existing pedestrian facilities and community resources in the area.

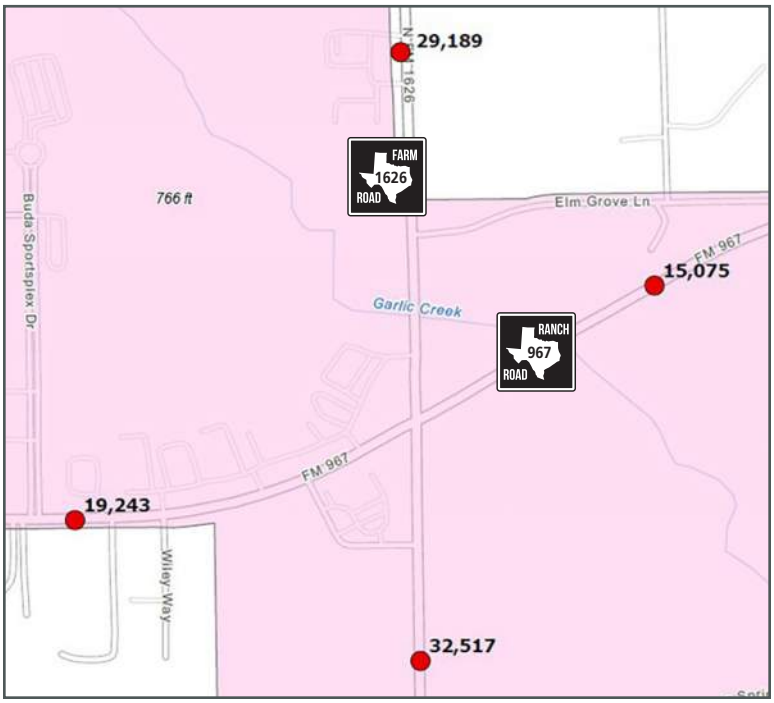


Active Transportation Map

Operational Characteristics

Volumes (AADT)

The Annual Average Daily Traffic (AADT) data from 2023 for the FM 1626 / RM 967 intersection study was obtained from TxDOT's Traffic Count Database System (TCDS). The traffic counts range from 32,517 vehicles per day along the southern portion of FM 1626 to 15,075 vehicles per day along the eastern portion of RM 967. This data indicates that FM 1626 is a crucial route for regional traffic movement with AADTs on par with some of the region's busiest arterials.



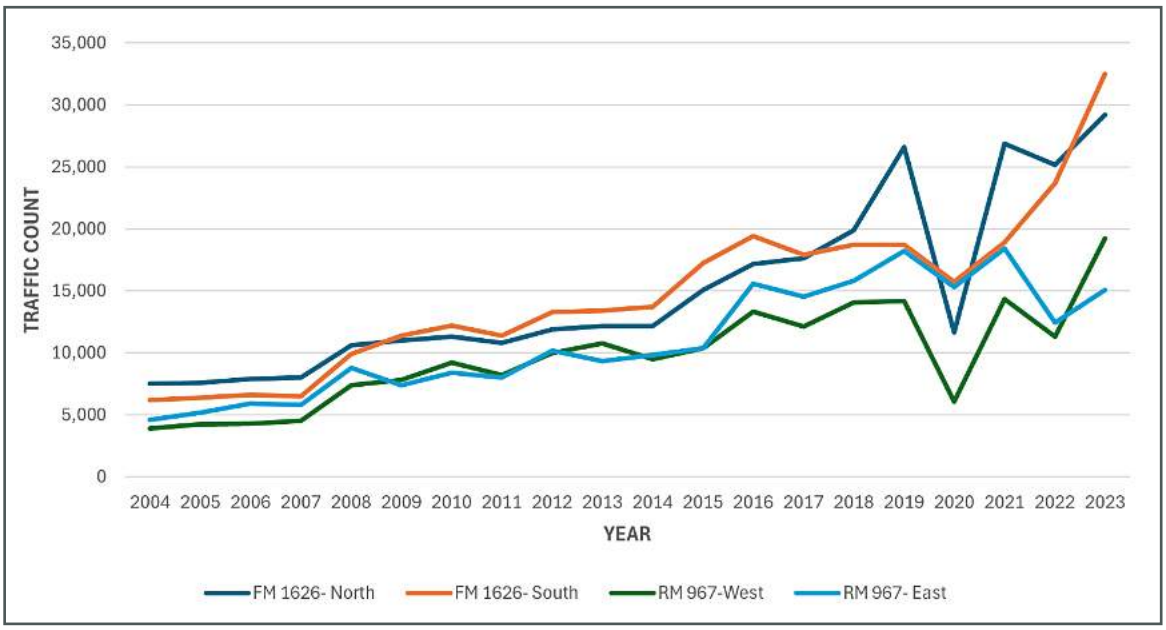
Annual Average Daily Traffic (AADT) Map

Source: TxDOT Traffic Count Database System, 2023 data

Growth & Forecasts

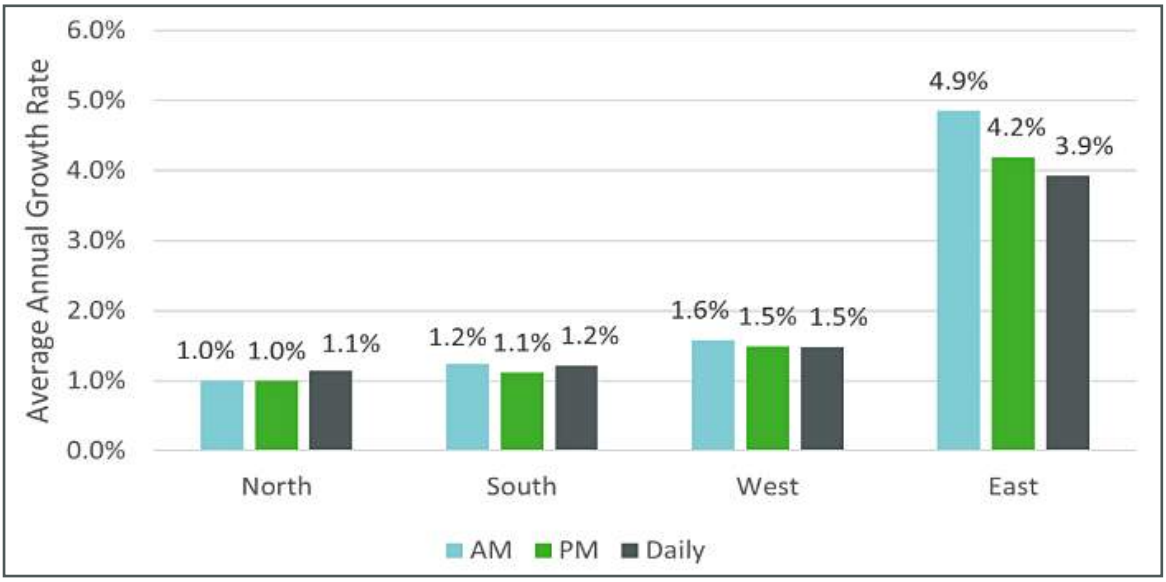
Between 2004 and 2023, FM 1626 and RM 967 experienced an average annual traffic growth rate of 7.9%. After a dip in 2020 due to the pandemic, traffic rebounded beyond pre-pandemic levels.

Annual Average Daily Traffic on FM 1626 and RM 967 - Years 2004 to 2023



Year 2050 traffic projections were taken from the CAMPO 2050 Regional Transportation Plan model, which combines historical data, roadway capacity, and planned developments. The model forecasts modest traffic growth at the intersection. However, since FM 1626 and RM 967 are already over capacity, the model may underestimate future volumes, assuming travelers will divert to alternate routes when roads are congested. FM 1626 is expected to exceed 50,000 vehicles per day by 2050 despite the modest growth predicted by CAMPO's model.

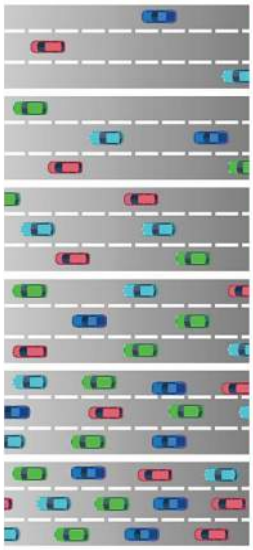
Yearly (2020 to 2050) Projected Traffic Growth by FM 1626/RM 967 Intersection Leg



Existing Intersection Operations

An operational analysis to determine the existing intersection level of service (LOS) was conducted for the study area intersections using traffic counts collected on August 20, 2024. LOS is a measure that evaluates a driver's experience on the road and at intersections. Most urban planning efforts set the desired operation of a signalized intersection as LOS D or better, to ensure an acceptable operating service for facility users.

Level of Service (LOS) Defined



A	**Free Flow** – Low traffic volumes with no delays
B	**Stable Flow** – Speed restricted by travel conditions, minor delays
C	**Less Stable Flow** – Speeds and maneuverability closely controlled because of higher traffic volumes
D	**Congestion** – Speeds considerably affected. High density traffic restricts maneuverability and volumes are near capacity
E	**Heavy Congestion** – Low speeds, considerable delay, and traffic volumes at or slightly over capacity
F	**Gridlock** – Very low speeds, traffic volumes exceed capacity, and long delays with stop-and-go traffic

The existing (year 2024) FM 1626/ RM 967 intersection LOS for the AM and PM peak hours is illustrated in the table below. Overall, most traffic movements are LOS E or F, indicating the existing intersection is over capacity. The adjacent signalized intersections of RM 967 at Buda Sportsplex and FM 1626 at Oyster Creek should generally operate at LOS C or better overall based on traffic volumes. However, the reality is that operation of these intersections can be disrupted from backups attributed to congestion at the FM 1626 / RM 967 intersection. Additional details regarding the existing LOS analysis is provided in Appendix C.

Existing Intersection Level of Service (LOS)

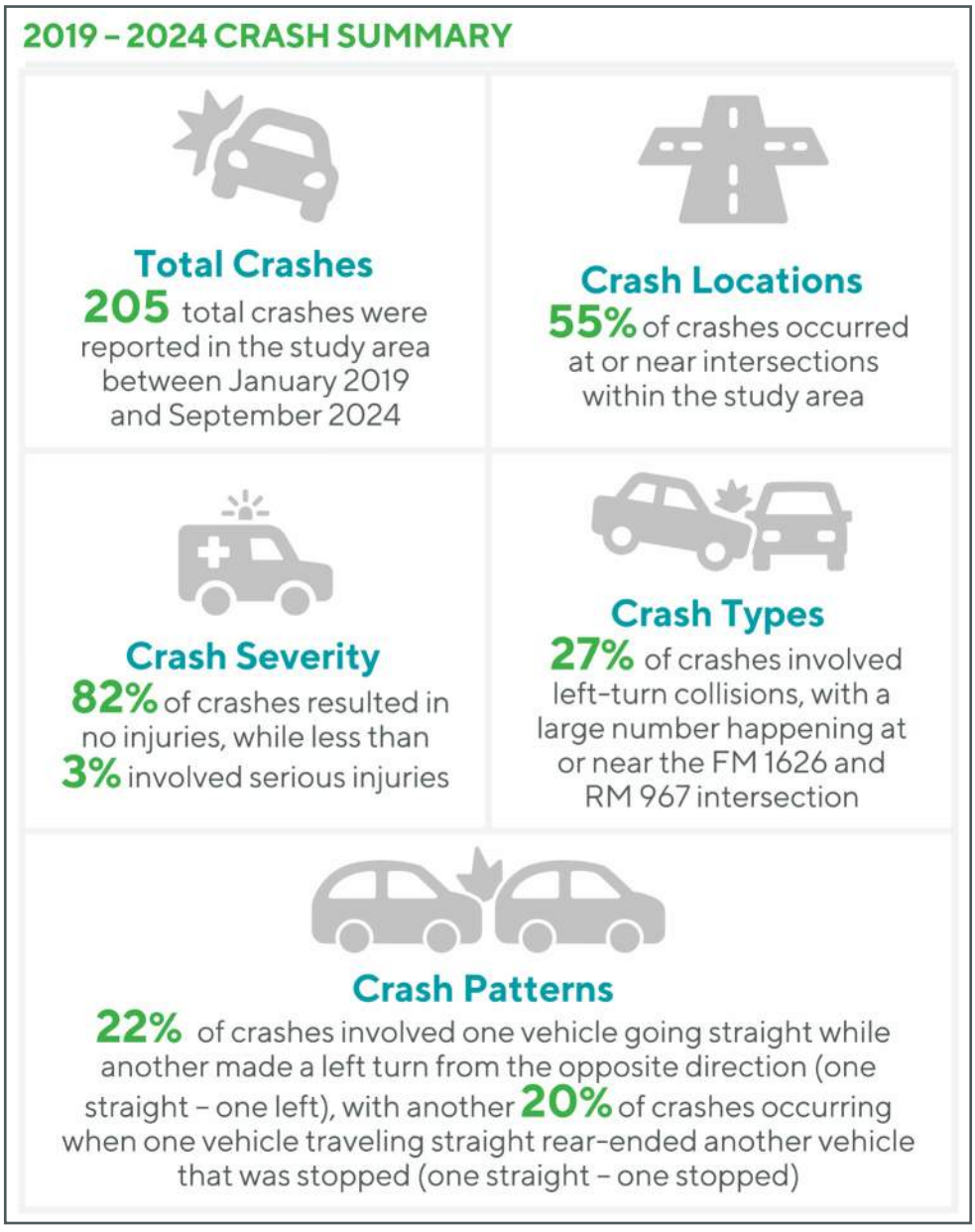
Intersection	AM LOS	PM LOS
FM 1626 at RM 967	E	F
FM 1626 at Oyster Creek	C	B
RM 967 at Buda Sportsplex	B	B

The study also evaluated how projected traffic growth out to the year 2050 would impact the existing intersection configuration at FM 1626 and RM 967. This is referred to as the No-Build alternative. The analysis shows that the AM LOS will worsen to LOS F, and the delay experienced in PM LOS F will continue to worsen. **If the intersection is not improved, it is anticipated the average intersection delay will more than double in the AM peak hour and increase by more than 40% in the PM peak hour**. Additionally, the backup from queuing will continue to worsen, impacting access to driveways and the operations of the adjacent intersections.

Safety Analysis

From 2019 to 2024, 205 crashes occurred in the FM 1626 / RM 967 intersection study area, mostly at or near intersections, especially the FM 1626 and FM 967 junction. Most crashes caused no injuries, but some involved minor or serious injuries, highlighting the need for safety improvements. Crashes peaked in 2019, dropped in 2020 due to the pandemic, then increased again as traffic returned.

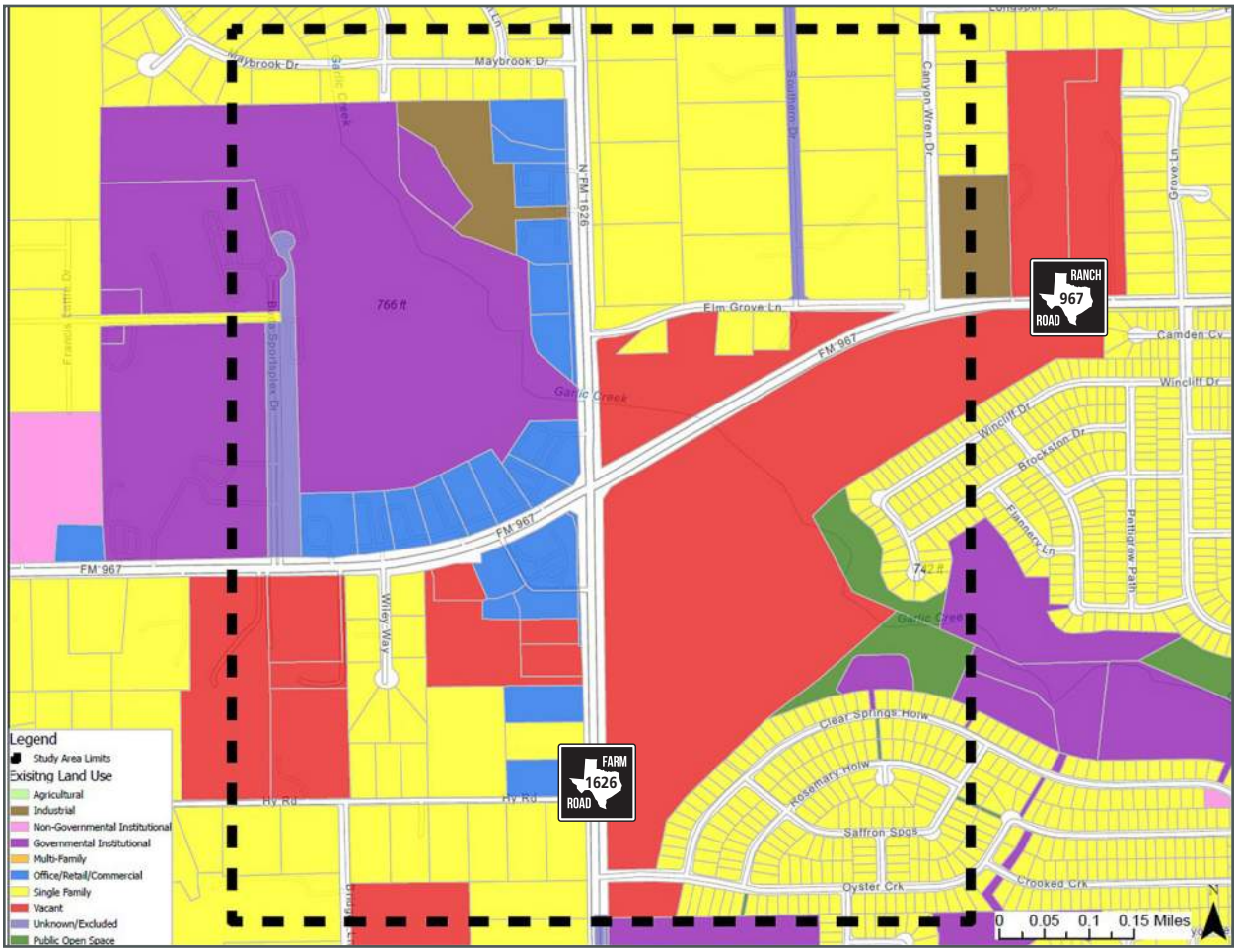
Speed limits along FM 1626 and RM 967 are mostly 55 mph, with reductions to 40-50 mph on some curves and 35 mph in school zones. The main causes of crashes were driver inattention (32%), failure to yield (23%), and speed control issues (10%), indicating speed is less of a concern. The analysis indicates that intersections are high-risk areas needing targeted interventions for improved channelization and access management. Additional details regarding the study's safety analysis are provided in Appendix C.



Constraints

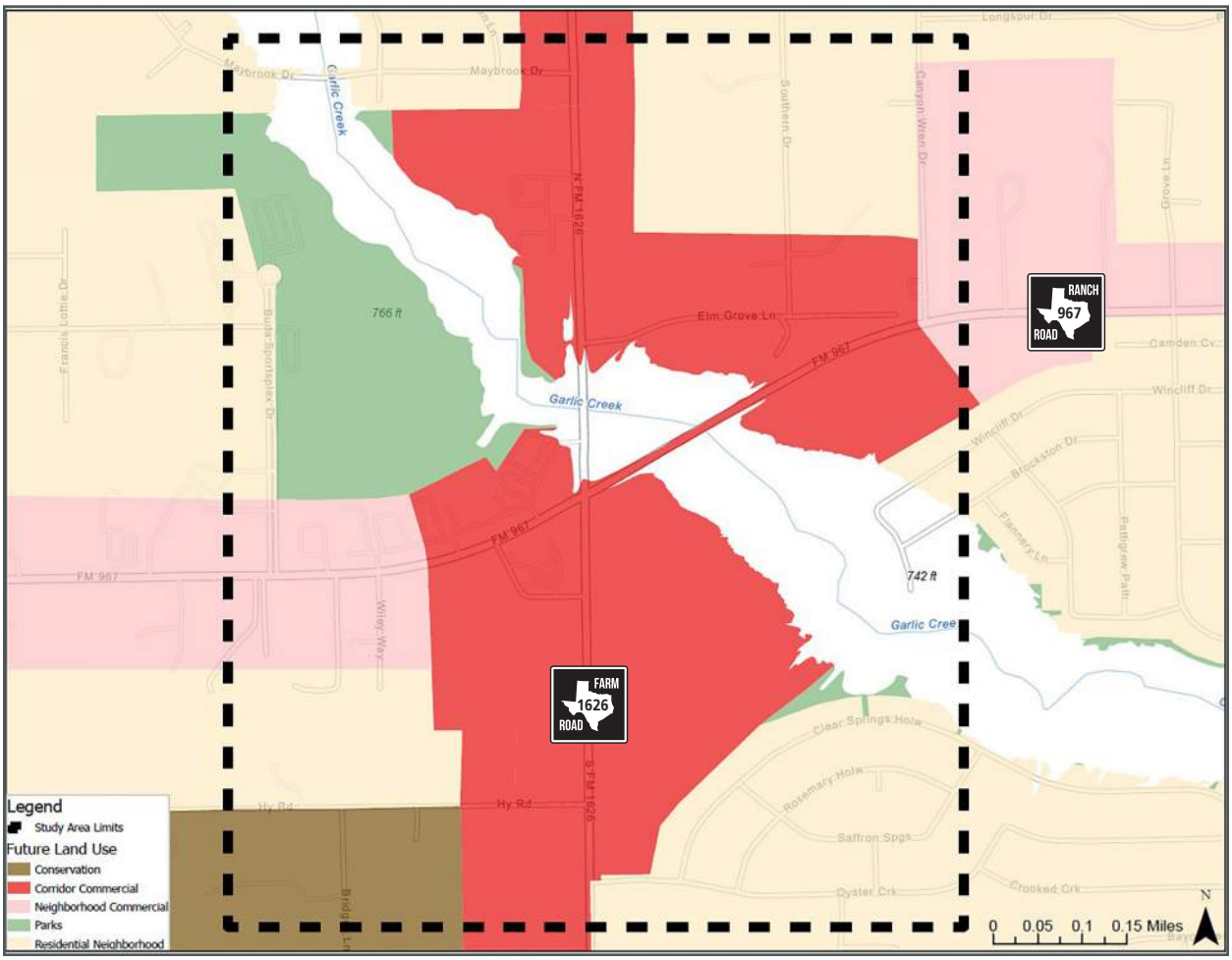
Land Use (Existing & Future)

The existing land uses in the FM 1626 / RM 967 intersection study area are primarily comprised of floodplains and single-family residential land, each making up 36% of the area. Governmental, institutional, park uses account for 12%, office/retail/ commercial uses are 7%, vacant land 6%, and unknown or excluded areas (mostly public right of way) 3%. This land use distribution is based on data from the City of Buda and is visually detailed in the figure below.



Existing Land Use Map

Future land use in the FM 1626 / RM 967 study area anticipates most land remaining suburban, with 33% designated for residential neighborhoods. Commercial development is expected to increase significantly, comprising 42% of the land, while conservation areas will cover 5%, preserving green spaces near natural features. Neighborhood commercial uses will make up 9%, supporting local businesses within residential areas. Parks are projected to occupy 11% of the area. These future land use distributions are illustrated in the figure below.

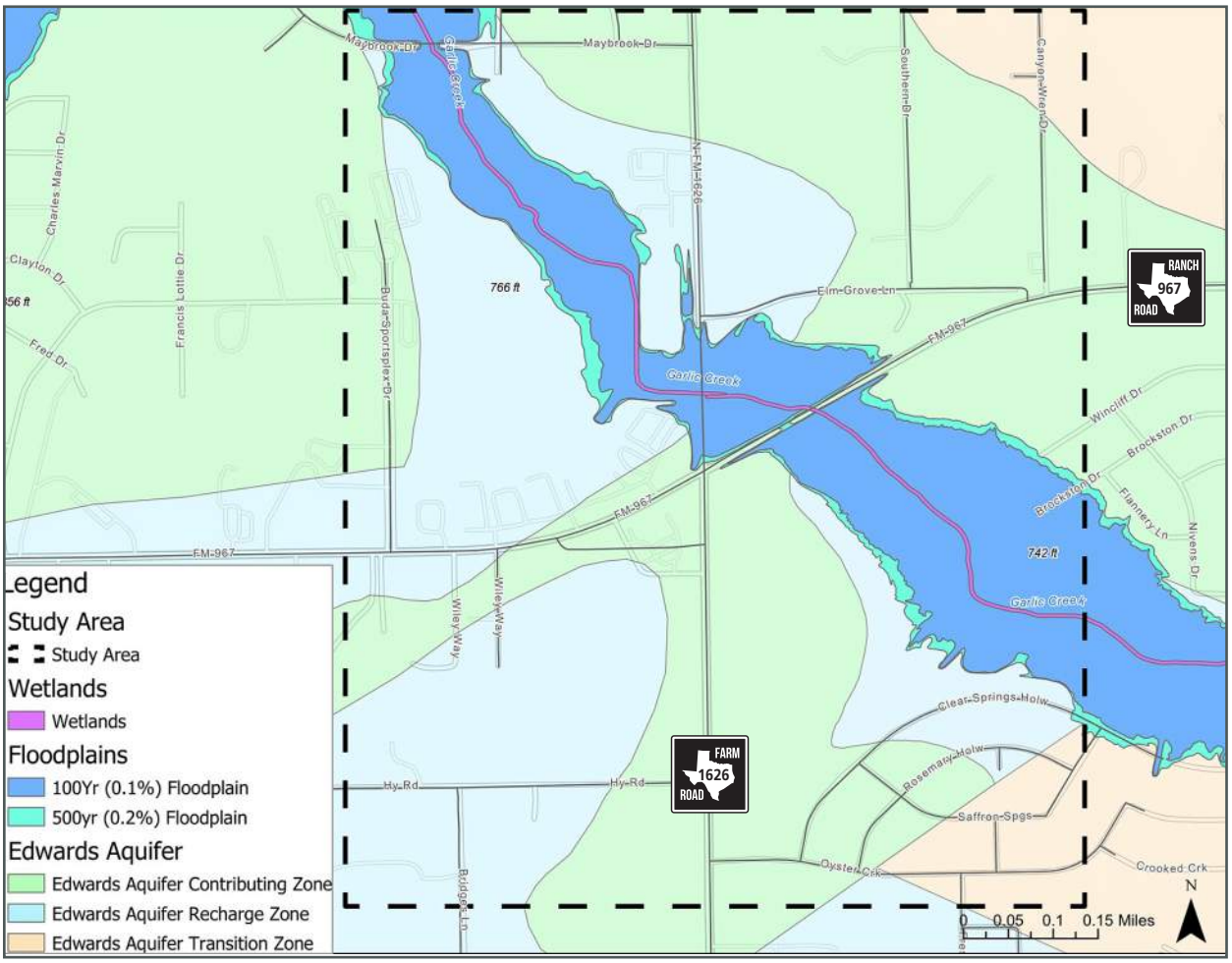


Future Land Use Map

Environmental Constraints

The environmental constraints analysis for the study area examined factors like parks, water features, wetlands, floodplains, historic resources, and public utilities. Wetlands, classified as riverine, are located along Garlic Creek. Floodplains include 100 and 500-year zones near the intersection, requiring regulatory compliance and possibly raising roadways above flood levels during future work. Additionally, widening of the intersection resulting in fill in the floodplain will require mitigation areas for excavation to ensure 100-year floodplain elevations are not impacted.

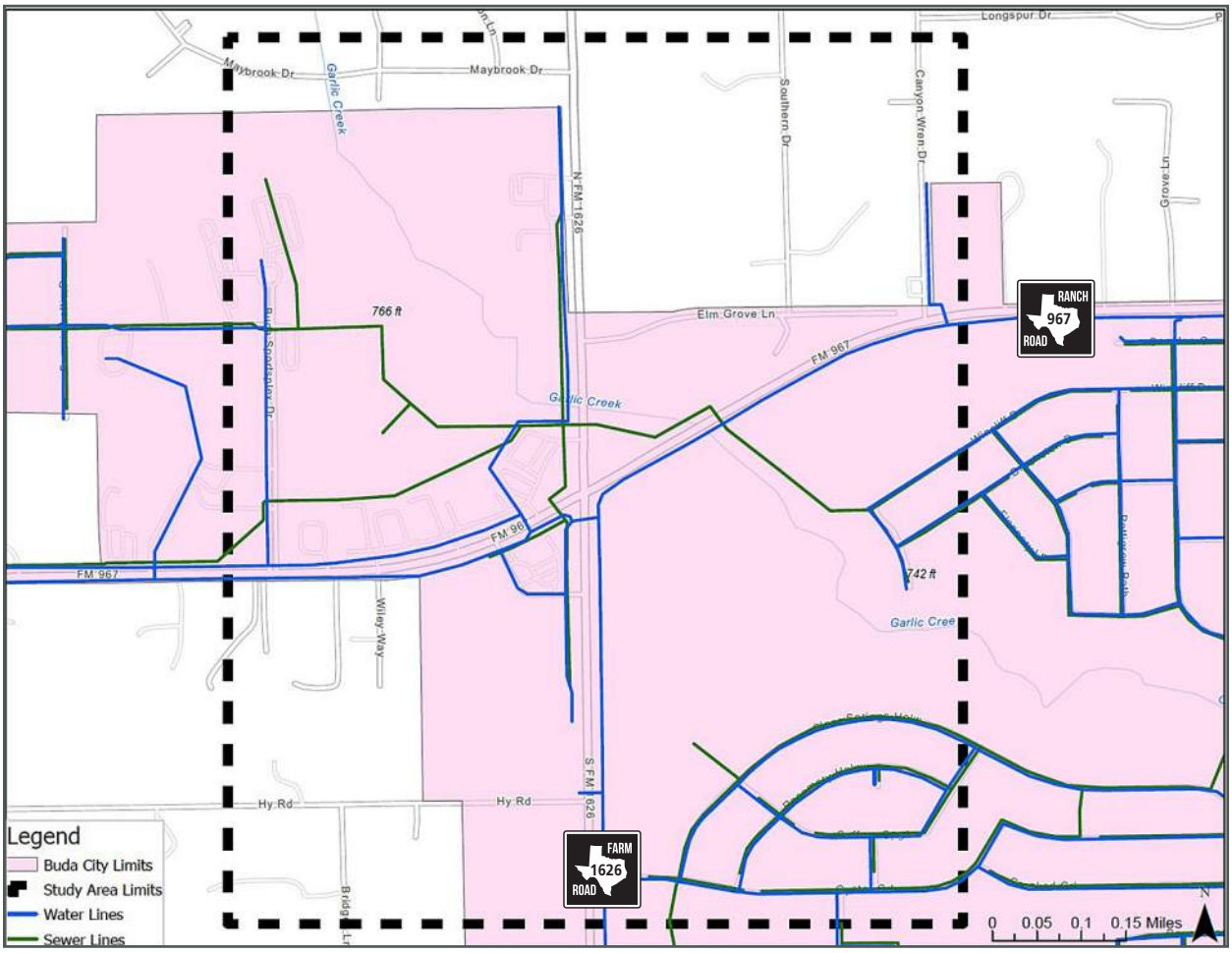
The area lies within Edwards Aquifer zones—Contributing and Recharge Zones—which regulate development and impervious surface limits to protect water quality. The Contributing Zone allows some runoff, while the Recharge Zone, covering the intersection, has stricter rules to maintain natural infiltration. These environmental factors will influence roadway design, emphasizing the need for pervious surfaces and stormwater management to protect the aquifer.



Environmental Resources Map

Public Utilities

GIS data from the City of Buda shows water and wastewater utilities are spread throughout the study area, mostly within public right of way and land. These utilities currently do not pose major obstacles to intersection improvements, but any roadway redesign will require utility adjustments that could increase construction costs.



Public Utilities Map

Study Area Needs Assessment

The study identified existing deficiencies in the study area related to roadway and intersection design, signal timing, access management, and pedestrian mobility.

Roadway Geometry

The study area lacks effective control of mid-block left turns and crossing maneuvers, particularly on RM 967, which currently has two travel lanes each way, a continuous two-way left-turn lane, and right-turn lanes at the FM 1626 intersection. According to TxDOT guidelines, raised medians are recommended for urban streets with four or more lanes to improve safety and traffic flow by restricting mid-block turns and providing pedestrian refuge. FM 1626 has a limited stretch of raised median south of RM 967, with no raised median to the north. The traffic volumes on FM 1626 and RM 967 warrant a raised median where four lanes or more are provided.

Existing FM 1626 Looking North at RM 967

Existing RM 967 Looking Easterly at FM 1626

Curb and gutter infrastructure is missing on portions of RM 967. These structures are essential for managing stormwater, preventing erosion, enhancing safety, preserving pavement integrity, and improving pedestrian safety by clearly defining road edges.

Intersection Design & Signal Timing

The FM 1626 / RM 967 intersection has design and signal timing deficiencies that reduce roadway efficiency. The intersection cannot adequately handle turning and through movements, causing congestion, conflicts, and safety risks for vehicles and pedestrians. Specific issues include:

- The AM northbound FM 1626 left-turn movement has high traffic demand and the single left-turn bay is not sufficient for this movement.
- The AM northbound FM 1626 and PM southbound FM 1626 through movements have very high traffic demand exceeding the capacity of the existing intersection.
- The four through lanes on RM 967 quickly merge to two total through lanes on either side of FM 1626, impacting operations.
- Addressing these issues with geometric improvements and optimized signal timing is crucial to enhance safety, functionality, and traffic flow for all users.

Aerial View of FM 1626 / RM 967 Intersection

Access Management

The study area suffers from poor access management and a high density of driveways, especially along the western part of RM 967, leading to inefficient and unsafe roadway operations. The current driveway spacing does not meet TxDOT standards, contributing to numerous non-intersection crashes and reducing traffic flow capacity. To improve conditions, access management strategies are recommended, such as driveway consolidation, left-turn access restrictions, increased spacing between driveways, and local access road planning to reduce conflicts, enhance traffic flow, increase safety, and optimize roadway functionality.

Bicycle and Pedestrian Mobility

The study area has major deficiencies in sidewalk and bicycle infrastructure, including gaps in sidewalks that force pedestrians into unsafe areas and a lack of dedicated or separated bike facilities, putting bicyclists at risk by sharing roads with vehicles on roads signed as 55 mph. These issues hinder safe, efficient movement and discourage active transportation. Data shows that about 7% of local trips are made by walking or biking, while 93% are by car, contributing to congestion and traffic volumes that exceed roadway capacity. There is an urgent need to improve sidewalk connectivity and to enhance accessibility and create a more pedestrian-friendly environment.

ALTERNATIVES AND CONCEPTS

4

4 Alternatives and Concepts

Methodology and Evaluation Criteria

The study's concept development process followed a structured approach to identify, assess, and refine potential solutions aimed at improving traffic flow and safety, enhancing multimodal accessibility, supporting economic development, and creating a sense of place.

Building on the analysis of existing and anticipated future conditions, initial concepts were crafted encompassing various strategies and alternatives to meet the study's goals and improve the user experience throughout the study area. The study team identified and evaluated concepts using the process at right.

Throughout this process, the results were shared with project stakeholders, the steering committee, Buda City Council, and the public at the open house meetings. Based on input from both the public and Council, the concepts were refined. The resulting recommendations include a range of measures such as interim and ultimate infrastructure improvements and recommendations for additional studies to evaluate improvements outside this study's scope and limits.

1. **Establish evaluation criteria based on stakeholder feedback**
2. **Identify Universe of Alternatives for improving mobility and user safety**
3. **Perform a screening analysis to identify potentially viable concepts**
4. **Refine potentially viable concepts and analyze using the evaluation criteria**
5. **Identify Recommendations to carry forward**

No-Build Alternative

All proposed improvement concepts are compared to the No-Build or "do nothing" alternative. The No-Build alternative assumes the intersection and multimodal accommodations remain as-is, aside from routine maintenance. With long-range forecasts showing FM 1626 traffic exceeding 50,000 vehicles per day by the year 2050, intersection delay is anticipated to increase 77% in the peak hours. No safety enhancements would be implemented, and crash rates are anticipated to increase as congestion worsens. Discontinuous/aging sidewalks, ADA non-compliance, limited marked crossings, and undesirable bike accommodations would remain, limiting safe travel options for bicyclists and pedestrians to community destinations.

Overall, while the No-Build avoids capital costs and potential right of way needs from adjacent properties, it fails to meet the study's goals and objectives. However, it does serve as an analytical baseline for comparing potential improvement concepts.

Universe of Alternative Concepts

The study team first identified and evaluated numerous ideas and concepts related to improving mobility and safety. This initial "universe of concepts" is summarized below.

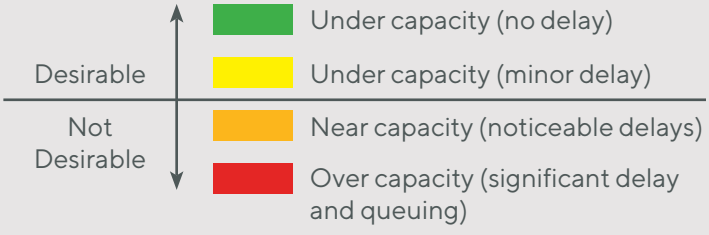
Intersection Operational and Safety Improvement Concepts

Federal Highway Administration's (FHWA) Capacity Analysis for Planning of Junctions (CAP-X) tool was used to evaluate conventional and innovative intersections and interchange configurations at the FM 1626 and RM 967 junction. CAP-X is a cost-effective, sketch-planning tool that allows for the early identification of effective conceptual designs prior to conducting more demanding traffic simulations.

CAP-X can evaluate 32 different concepts to provide a planning assessment comparing the concepts estimated traffic capacity to the year 2050 peak hour traffic volumes. A volume to capacity (V/C) ratio of 1 or higher indicates the concept is at or over capacity, resulting in significant congestion. The table to the right summarizes the V/C ratio results for concepts that are most applicable to the FM 1626 / RM 967 junction.

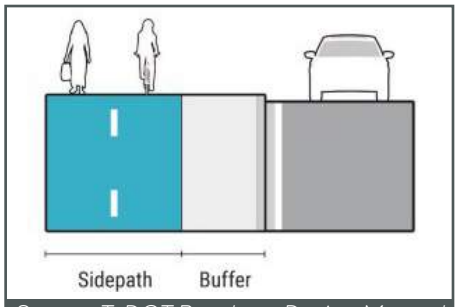
CAP-X Year 2050 Volume to Capacity Results

Alternative Concepts		AM Year 2050	PM (V/C Ratio)
Proposed Intersection			
Conventional Traffic Signal (w/Dual LT)		0.83	1.09
Quadrant Roadway	S-W	0.71	0.78
	N-E	0.96	0.72
	S-E	0.79	0.80
	N-W	0.82	0.77
Partial Displaced Left Turn (on FM 1626)		0.74	0.79
Displaced Left Turn (FM 1626 & RM 967)		0.63	0.66
Signalized RCUT (on FM 1626)		1.31	1.53
Median U-Turn (on RM 967)		0.87	1.04
Partial Median U-Turn (on RM 967)		0.87	1.07
Bowtie (Circulators on RM 967)		0.86	1.07
Split Intersection (FM 1626 split)		0.77	0.86
Proposed Grade Separated Intersections			
Echelon (Grade Separated)		0.63	0.66
Center Turn Overpass (Grade Separated)		0.63	0.70
Roundabouts			
2 x 2 (two lanes NS / two lanes EW)		3.39	3.80
Proposed Interchanges (FM 1626 Overpass (RM 967			
Diamond Interchange		0.55	0.66
Displaced Left Turn Interchange		0.52	0.38
Contraflow Left Interchange		0.69	0.70
Diverging Diamond Interchange		0.54	0.47
Single Point Urban Interchange		0.71	0.59
Single Point w/Roundabout Interchange		0.90	0.84



Pedestrian and Bicycle Improvement Concepts

The evaluation of all improvement concepts includes maintaining the outside roadway shoulders through the intersection for on-street bicycle traffic. However, the traffic volumes and 55-mph traffic on FM 1626 and RM 967 are not ideal for utilizing shoulders as bike accommodations. The addition of a parallel, off-street shared-use path is recommended to provide bicyclists with a safer option. The universe of alternatives also evaluated providing continuous pedestrian accommodations on both sides of FM 1626 and RM 967, providing ADA crossings at all intersections, and providing pedestrian refuge islands for intersection crossings.



Source: TxDOT Roadway Design Manual

Shared Use Sidepath

Potentially Viable Concepts

Based on the CAP-X analysis and considerations for stakeholder feedback, concept footprints, and access impacts, the following were identified as potentially viable concepts.

- Conventional intersection with dual left-turn lanes
- Quadrant intersection with a connector in the southwest quadrant
- Quadrant intersection with connectors in the northeast and southwest quadrants
- Partial displaced left-turn intersection (on FM 1626)
- Fully displaced left-turn intersection (on FM 1626 and RM 967)
- Center-turn overpass intersection
- Diamond interchange with FM 1626 overpassing RM 967
- Diverging Diamond interchange with FM 1626 overpassing RM 967

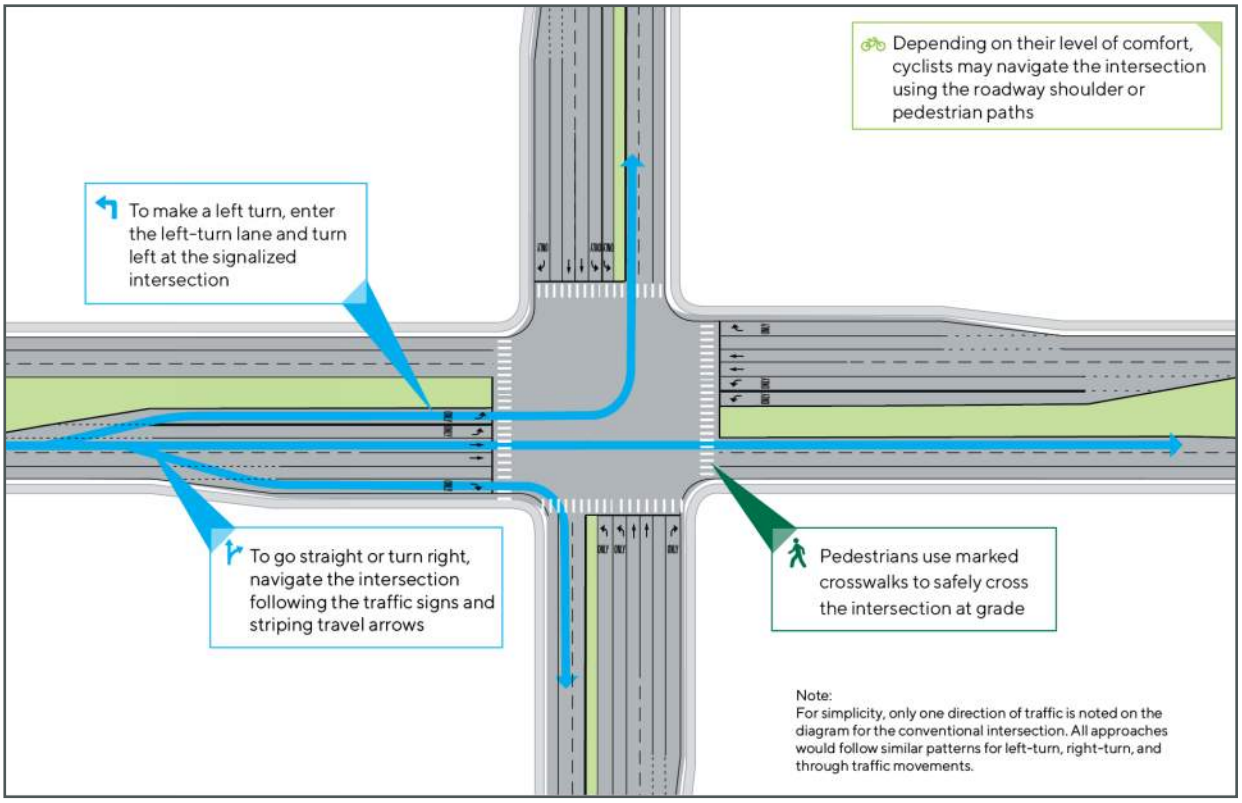
Additionally, the study recommended evaluating the following multimodal improvements as part of each potentially viable intersection concept.

- Shared-use path west of FM 1626 and north of RM 967, connecting to the Sportsplex
- Reconstruction would include accommodations at Garlic Creek for the planned trail between Buda Sportsplex and Garlic Creek Park
- Within reconstruction limits, provide continuous sidewalks and connect to adjacent existing sidewalks where feasible
- Provide marked ADA crossings at all approach legs of the FM 1626 / RM 967 intersection with median/island pedestrian refuge
- Reconstruct driveways to provide ADA compliant crossings

Preliminary right of way footprints (see Appendix D) and probable cost estimates were developed for each potentially viable concept for the FM 1626 / RM 967 junction (including multimodal improvements). This effort is qualitatively reflected in the evaluation matrix in Chapter 5, and quantitative values are provided in Appendix F. Diagrams were created for potentially viable concepts to share with the public at Open House Public Meeting #2. This information is provided below to summarize how each potentially viable concept works along with potential benefits and drawbacks.

Conventional Traffic Signal
(Improved Dual Left-Turn Lanes)

Common Uses – Used at busy intersections to manage high traffic volumes and improve turn movements.



Potential Benefits

- Minor traffic flow improvements in the morning rush hour
- Familiar and easily understood by drivers while accommodating multimodal travel and adding shared-use path for bicyclists and pedestrians
- Standard construction phasing and duration with moderate total project cost

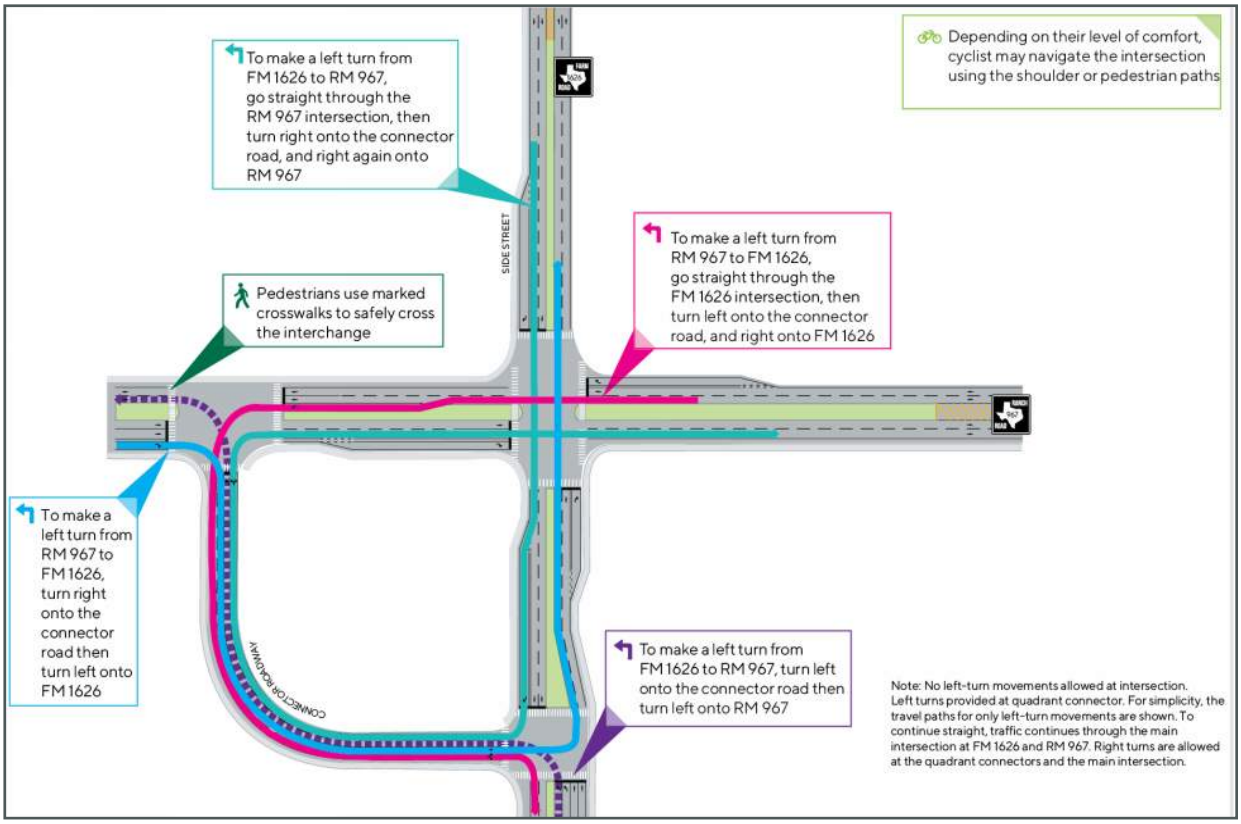
Potential Drawbacks

- No reduction in crashes or major improvements to traffic flow in the afternoon rush hour
- Requires additional right of way with moderate impacts to properties, driveways, and environment
- Longer pedestrian crossings

Example of a Conventional Intersection with Well-marked ADA Crossings

Quadrant Roadway
(Southwest Connector)

Common Uses – Used at intersections with a high-volume of through and left-turn movements. Improves traffic flow by redirecting left-turning traffic to a secondary intersection and connector road to the southwest rather than at the main intersection.



Potential Benefits

- Improves traffic flow, especially during morning rush hour
- Enhances safety with raised medians, shorter pedestrian crossings and fewer vehicle conflict points
- Accommodates multimodal travel and adds shared-use paths and safer crossings
- Standard construction phasing and duration with moderate project costs

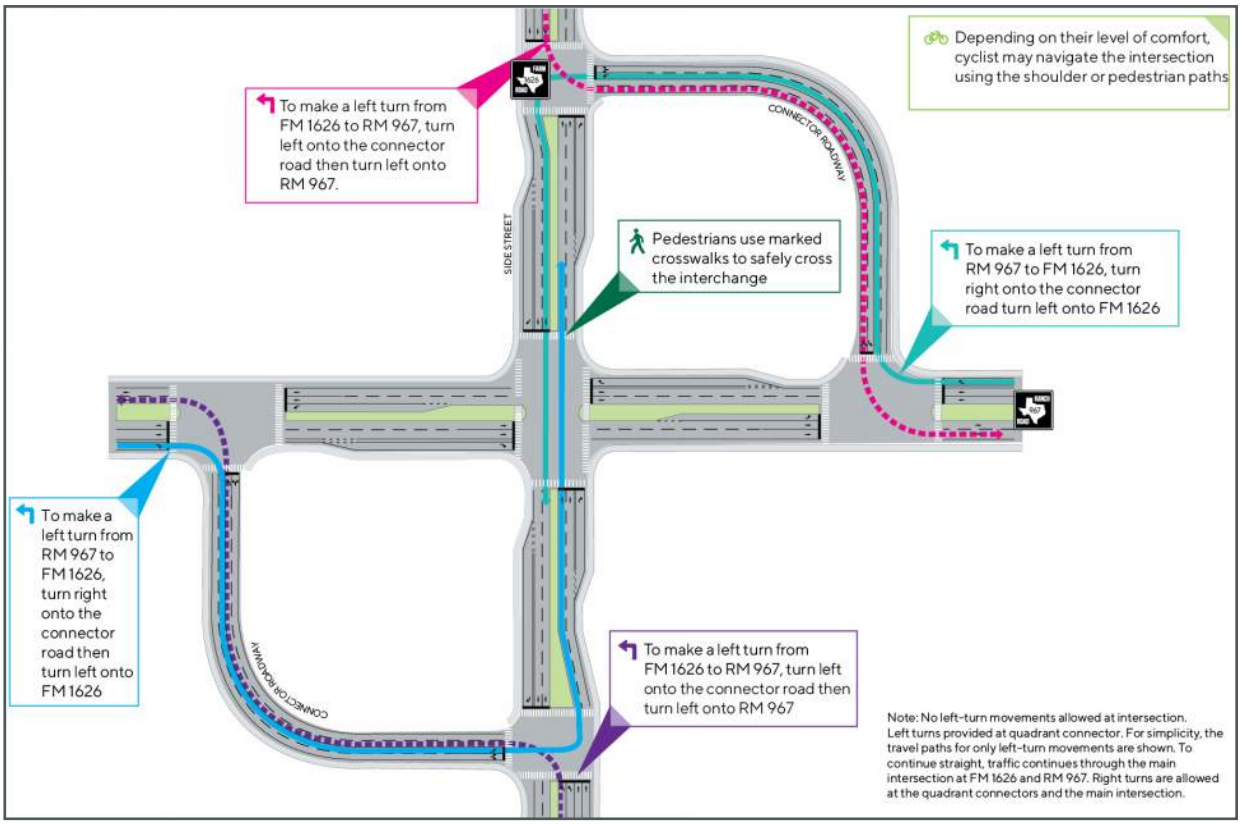
Potential Drawbacks

- Requires additional right of way with high impacts to properties and driveways and minor environmental impacts
- Relocation of left-turns movements can be confusing to unfamiliar drivers

State Route 4 at State Route 4 Bypass / Ross Road, Fairfield, OH

Quadrant Roadway
(Southwest and Northeast Connectors)

Common Uses – Similar to the Quadrant Roadway (Southwest), this concept is used at intersections with a high-volume of through and left-turn movements. Improves traffic flow by redirecting left-turning traffic to one of two secondary intersections and connector roads, either to the southwest or to the northeast, rather than at the main intersection.



Potential Benefits

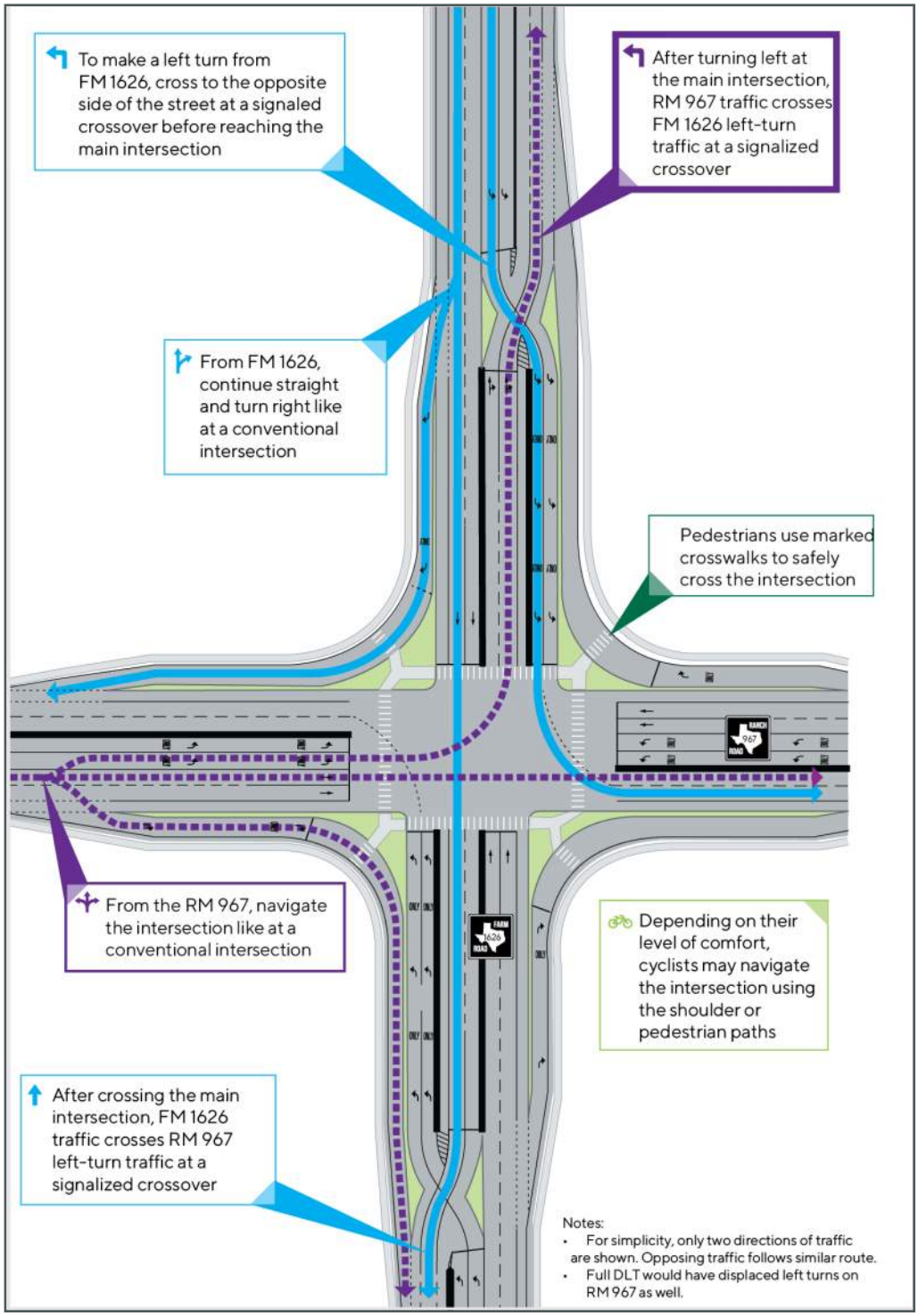
- Improves traffic flow in both morning and afternoon rush hour
- Accommodates multimodal travel, adds shared-use paths, and provides shorter, safer crossings
- Providing two connector roads minimizes distance left-turn traffic is rerouted

Potential Drawbacks

- Requires additional right of way with high impacts to properties and driveways and moderate environmental impacts
- Relocation of left-turn movements can be confusing to unfamiliar drivers
- Higher total project cost, but would include standard construction phasing and duration

Displaced Left Turn
(on FM 1626 / RM 967)

Common Uses – Used at intersections with moderate to heavy traffic volumes in all directions and heavy left-turn movements to improve traffic flow and reduce delay by allowing for simultaneous movement of left-turns and opposing through movements.



Displaced Left Turn (continued)

Potential Benefits

- Improves traffic flow in both morning and afternoon rush hour
- Reduces crash potential by up to 24%
- Accommodates multimodal travel and adds shared-use paths for pedestrians and cyclists

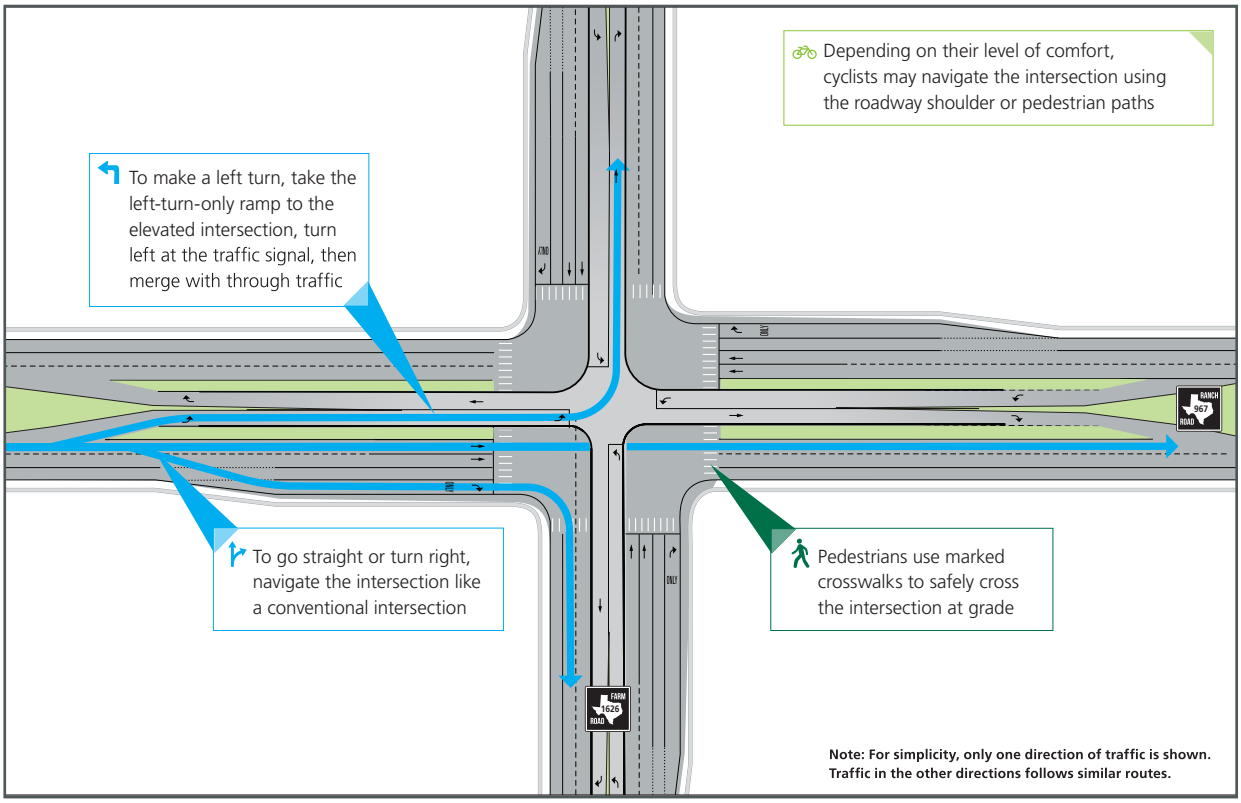
Potential Drawbacks

- Would require additional right of way with higher impacts to properties and driveways
- Higher impacts within Edwards Aquifer
- Recharge Zone, floodplain, and wetlands
- Complex construction phasing and longer duration with higher total project cost

Ronald Regan Boulevard and Whitestone Boulevard, Cedar Park

Center Turn Overpass

Common Uses – Used at intersections where the major and cross street have similar left-turn traffic volumes to improve traffic flow and safety by separating left-turns from through traffic with a bridge.



Potential Benefits

- Improves traffic flow during morning and afternoon rush hour
- Reduces vehicle conflict points by up to 25%
- Accommodates multimodal travel, adds shared-use paths, and eliminates conflicts with left-turn traffic

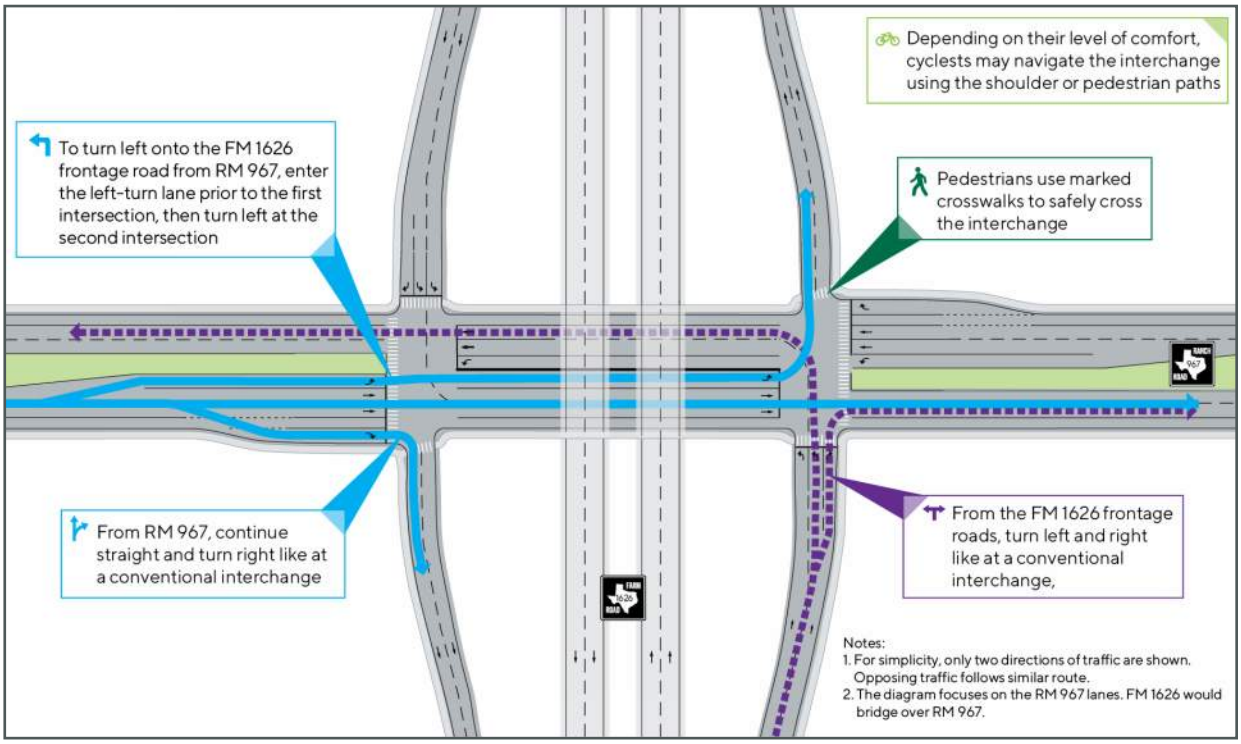
Potential Drawbacks

- Requires additional right of way with major impacts to property access and moderate environmental concerns
- Complex construction phasing and longer duration with higher total project cost
- Center turn overpass creates visual barrier across FM 1626 and RM 967 that may not be desirable to adjacent development

3D Visualization provided by Virginia DOT

Diamond Interchange

Common Uses – Traditional interchange that is often used where a major highway or arterial with a high-volume of through traffic crosses over a secondary cross street to improve traffic flow and safety.



Potential Benefits

- Familiar and easily understood by drivers
- Significantly improves traffic flow during morning and afternoon rush hour
- Provides safety improvements by allowing the FM 1626 high-volume through traffic to overpass RM 967
- Accommodates multimodal travel, adds shared-use paths, and provides shorter crossings at the at-grade intersections

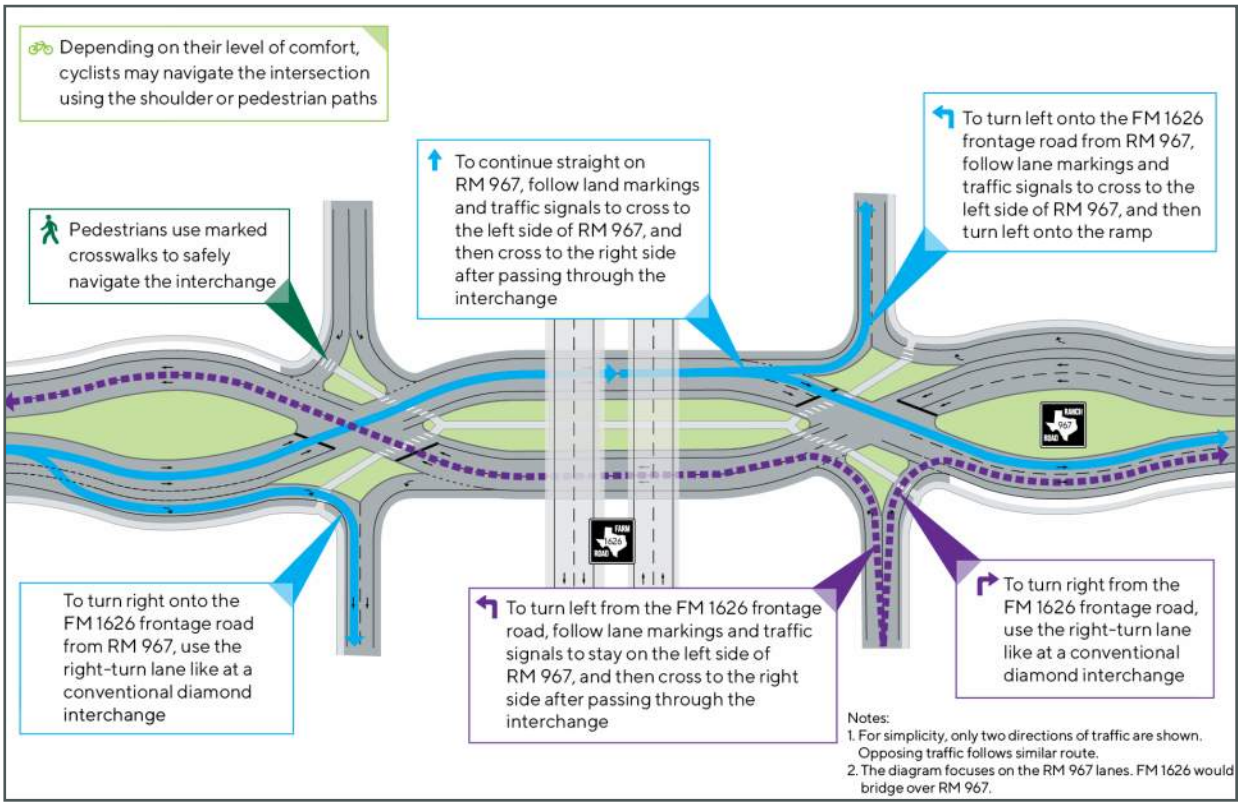
Potential Drawbacks

- Complex construction phasing and longer duration with higher total project cost
- Requires additional right of way with moderate impacts to properties and higher environmental impacts and concerns
- The overpass creates a visual barrier across FM 1626 that may not be desirable to adjacent development

Wurzbach Parkway and Thousand Oaks Drive, San Antonio, TX

Diverging Diamond Interchange

Common Uses - Uses Innovative interchange used at intersections with heavy left-turn movements to improve traffic flow and reduce delays by allowing for simultaneous movement of left-turns and opposing through movements.



Potential Benefits

- Significantly improves traffic flow during morning and afternoon rush hour
- Reduces crash potential by up to 72%
- Accommodates multimodal travel, adds shared-use paths, and provides shorter crossings at the at-grade intersections

Potential Drawbacks

- Complex construction phasing and longer duration with higher total project cost
- Requires additional right of way with major impacts to property access and higher environmental concerns
- The overpass creates a visual barrier across FM 1626 that may not be desirable to adjacent development
- Multimodal crossings at intersections are circuitous

Slaughter Lane and MoPac Expressway, Austin, TX

Concept Traffic Studies

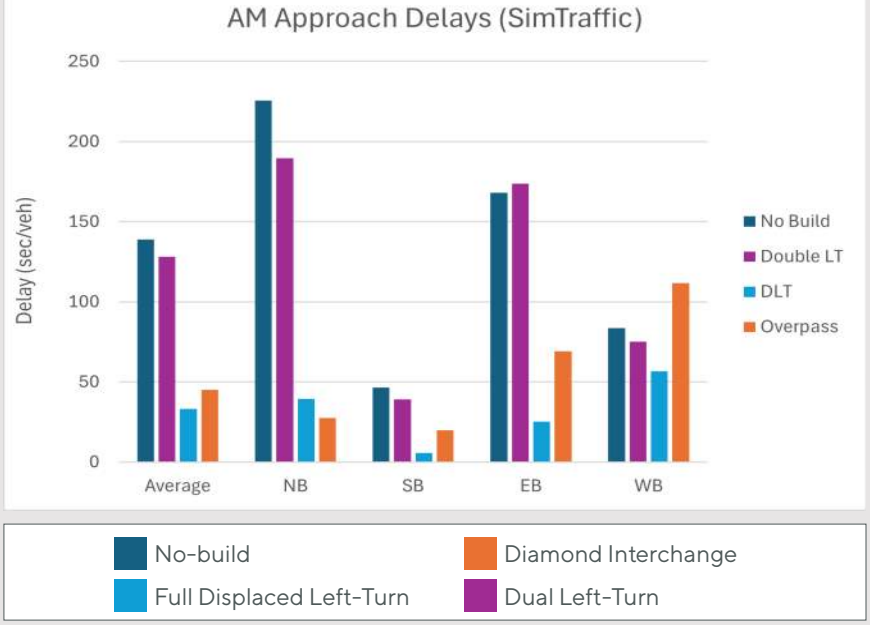
Through the community engagement process, the following observations were made.

- The quadrant concepts were not well received, and the dual-connector concept would have substantial right of way and access impacts to the southwest quadrant.
- The center-turn overpass concept has spacing issues with the left-turn ramp access to Buda Sportsplex Drive, and it has higher access impacts to adjacent properties.
- Stakeholders supported the diverging diamond interchange's safety and operational benefits. However, the concept prevents at-grade FM 1626 frontage road through movements at the RM 967 intersection, impacting access to adjacent properties.

Based on the evaluation of the potentially viable concepts, the study team performed additional traffic studies comparing the operations of the No-Build alternative, adding dual left-turns to the existing intersection, full displaced left-turn intersection, and the diamond interchange.

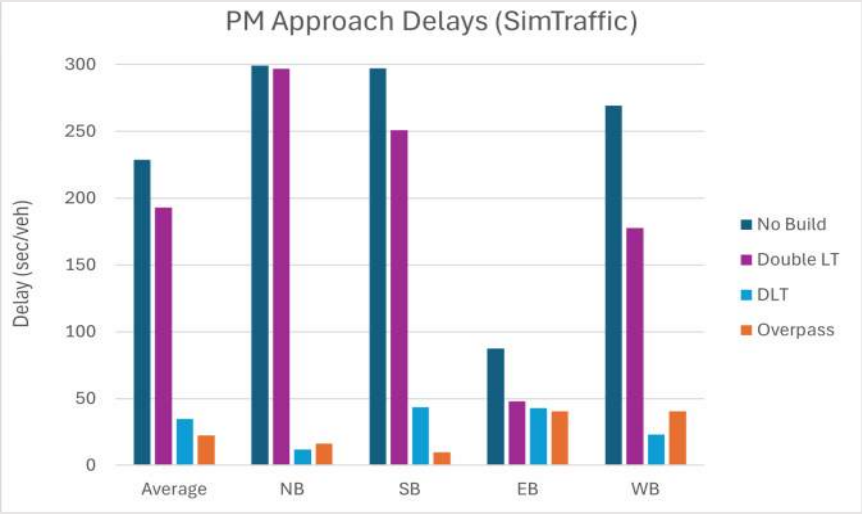
Year 2050 AM Peak Hour Intersection Operational Assessment:

The displaced left-turns concept has the lowest total intersection delay per vehicle, but the diamond interchange has the most operational benefit to the peak direction on northbound FM 1626.



Year 2050 PM Peak Hour Intersection Operational Assessment:

The diamond interchange concept has the lowest total intersection delay followed by the displaced left-turn concept. The diamond interchange concept has the most operational benefit to the peak direction on southbound FM 1626.



Traffic Analysis Summary

The diamond interchange concept was the most effective in reducing congestion by removing northbound and southbound FM 1626 through traffic from the intersection. It was anticipated to reduce total delay for all FM 1626 traffic (not just intersection traffic) by more than 75% in the AM peak hour and 90% in the PM peak hour.

The displaced left-turn intersection was a lower-cost, at-grade concept that also provided substantial reductions in congestion. However, it has a larger right of way footprint compared to the diamond interchange and presented access challenges. For pedestrians and bike users, it resulted in longer and more complex crossing paths compared to the diamond interchange concept.

The conventional dual left-turns concept offered minimal benefit for year 2050 traffic. As traffic volumes increase, backups from the through movements blocked access to the left-turn bays, minimizing the operational benefit of adding dual left-turns. This concept would likely better serve as a near team, interim improvement to the existing intersection.

The No-Build alternative verifies that choosing not to pursue improvements result in gridlock for the study area.

SH 45 Extension Model Test Scenario

Based on the Hays County SH 45 Gap Study recommendations, CAMPO performed a sensitivity analysis test scenario to assess the traffic impact of extending SH 45 between FM 1626 and IH 35. The scenario included two non-tolled mainlanes in each direction, full interchanges at FM 1626 and Marathon Road, and a fully directional interchange at IH 35. CAMPO's 2050 base model was used for the analysis including the expected construction of Marathon Road connecting RM 967 to Lakewood Drive.

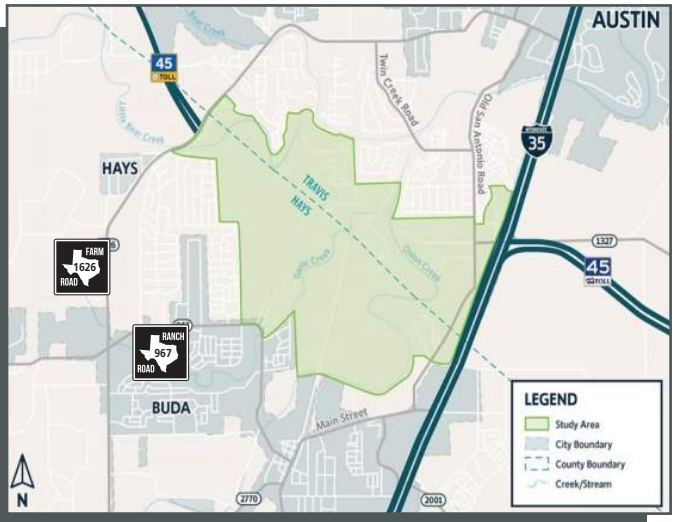


Image Source: SH 45 Gap Study (Hays County)

Traffic volumes for the AM and PM peak periods were compared between the base and test scenarios at the FM 1626 / RM 967 intersection. Results showed a roughly 20% reduction in approach volumes during the AM peak, with notable decreases on westbound RM 967, attributed to drivers accessing MoPac and IH 35 via the new Marathon Road interchange. During the PM peak, total intersection volumes increased slightly by 4%, with notable increases on westbound RM 967. Eastbound RM 967 volumes decreased by about 20%. The PM increase is linked to southbound IH 35 drivers using the new SH 45 connection to divert onto parallel arterials to avoid congestion south of the SH 45 interchange.

These findings indicate that while the SH 45 extension could reduce traffic volumes during the AM peak, PM peak volumes at the FM 1626 / RM 967 intersection would likely to remain high, suggesting persistent congestion challenges in the PM period. It is not anticipated that a potential SH 45 extension would substantially increase or decrease traffic congestion at the FM 1626 / RM 967 intersection.

RECOMMENDATIONS AND IMPLEMENTATION

5

5 Recommendations and Implementation

Evaluation of Potentially Viable Concepts

For the evaluation of concepts, stakeholder identified critical criteria that were considered along with the ability of the concept to meet the study's goals and objectives.

Evaluation Criteria

Mobility

- **Traffic Flow Benefit:** Measures how much the design reduces congestion and improves traffic movement.

Safety & Multimodal Travel

- **Safety Impact:** Looks at how well the design improves safety and reduces the risk of crashes based on available research data.
- **Effect on Multimodal Connection**: Evaluates whether the design supports people walking and biking with safe, connected facilities.

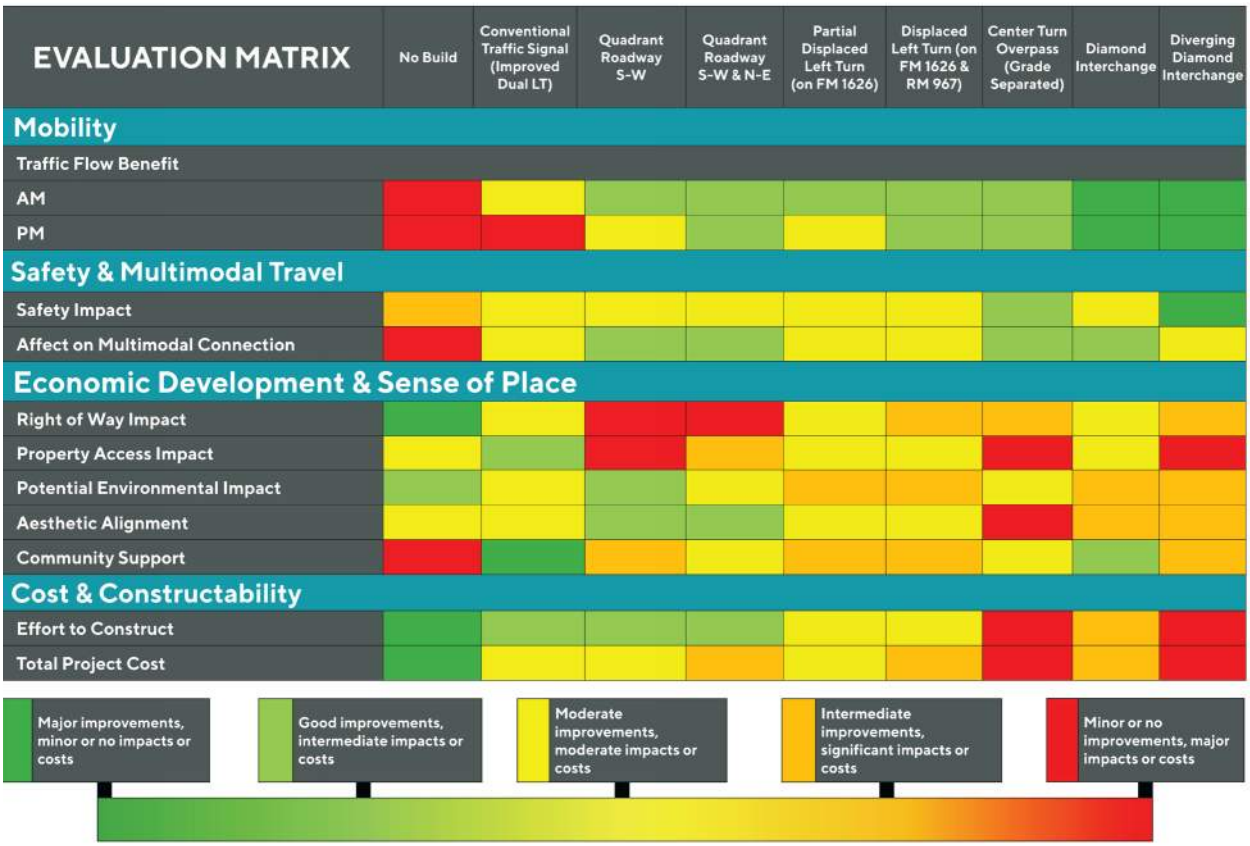
Cost & Constructability

- **Effort to Construct:** Estimates construction complexity, traffic shifts, and duration.
- **Total Project Cost:** Estimates how much the project would cost to build, from low to very high investment levels.

Economic Development & Sense of Place

- **Right of Way Impact:** Considers how much new land (outside the existing roadway right of way) would be needed for construction.
- **Property Access Impact:** Reviews how the design affects access to homes, businesses, and driveways (including rerouting of traffic).
- **Potential Environmental Impact:** Assesses potential effects on sensitive areas like floodplains, wetlands, and protected lands.
- **Aesthetic Alignment:** Looks at opportunities to improve the visual appeal and character of the corridor.
- **Community Support:** Reflects the level of public and stakeholder support or concerns shared during outreach.

A qualitative evaluation of the potentially viable build concepts and the No-Build alternative is included below in the following evaluation matrix. Additional evaluation matrix data including quantitative values for anticipated right of way needs and project costs is included in Appendix F.



The evaluation matrix shows a consistent pattern: grade separated (overpass) concepts deliver the strongest congestion relief, while at-grade innovative concepts offer meaningful gains at lower cost and footprint. Key points regarding the evaluation of each potentially viable build concept are summarized below.

- While the **No-Build alternative** avoids right of way needs and capital costs, it does not deliver any safety, mobility, or multimodal improvements. Congestion will continue to worsen, and a No-Build alternative is not supported by the community.
- The **improved conventional intersection with dual left-turns** received significant community support. However, it does not provide adequate capacity for anticipated 2050 traffic. It is a more viable alternative as an interim improvement to widen the existing intersection until funding is secured for an ultimate fix.
- The **quadrant concepts** were not well received, and the dual-connector concept would have substantial right of way and access impacts to the southwest quadrant.
- The **displaced left-turn (DLT) concepts** shift left-turn conflicts upstream of the main intersection, which allows for a roadway's left turns and through movements to pass through the FM 1626/RM 967 intersection at the same time. The concept has a proven history of improving safety and reducing crashes, and both DLT options provide meaningful congestion relief while minimizing right of way needs and costs.

- The **center-turn overpass** concept has safety issues due to the left-turn ramp spacing to Buda Sportsplex Drive, and it has higher access impacts to adjacent properties.
- The **diamond interchange** rates very high for AM/PM mobility, improves safety by removing the main crossing conflict, and provides safe and efficient multimodal accommodations and crossings. Tradeoffs include higher construction effort, larger right of way footprint, and visual impacts from the overpass. However, due to familiarity, it benefits from strong public acceptance.
- Stakeholders supported the safety and operational benefits related to the **diverging diamond interchange**. However, the concept prevents at-grade FM 1626 frontage road through movements at the RM 967 intersection, impacting access to adjacent properties. It also has one of the largest right of way footprints of all concepts.

Recommended for further evaluation as an ultimate concept by TxDOT or others.

Recommendations

Within the study area, both FM 1626 and RM 967 are TxDOT on-system roadways. Ultimately, any improvements to these corridors would need additional studies and public involvement that adhere to the requirements of TxDOT and the National Environmental Policy Act (NEPA). Additionally, the study identified potential improvements to city and/or county facilities outside the study area that could have a positive impact to mitigating congestion within the FM 1626/ RM 967 study area. Therefore, this feasibility study's outreach and evaluation process resulted in recommendations for capital improvements and additional studies needed to improve mobility, safety, and support economic development within the study area.

Interim Intersection Improvements

As noted in Chapter 4, conventional intersection improvements are not a good ultimate "fix" for the FM 1626/RM 967 intersection because they do nothing to address the largest traffic movements through the intersection, which is the northbound through (AM peak) and southbound through (PM peak). As the region and traffic continues to grow, eventually backups from the through movements will block access to the left turn lanes, mitigating the typical effectiveness of a dual left turn lane. Maintaining a conventional intersection as the ultimate improvement would also require widening FM 1626 to a six-lane section.

However, interim improvements to widen the existing roadways and provide dual left turn lanes from northbound FM 1626 to westbound RM 967 and to extend the westbound RM 967 right turn lane are good, lower cost interim improvements for near-term relief. Additionally, as part of this effort, it is recommended that TxDOT or others connect the gap in the existing sidewalks located in the northwest and southwest quadrants to provide pedestrians along RM 967 an accessible path to the marked crosswalk.

Ultimate Concepts Recommended for Further Consideration by TxDOT

FM 1626 and RM 967 are TxDOT on-system roadways, and any improvements to these corridors would need additional study phases and public involvement that adhere to TxDOT's requirements and the federal NEPA process. The FM 1626 / RM 967 Study was developed to help define the need to initiate the TxDOT project delivery process. TxDOT's required process for a large project such as reconstruction the FM 1626 / RM 967 intersection is outlined on the following page.

TxDOT Process for Project Delivery

IDENTIFY A NEED

Needs are identified through a variety of sources at the local, state, or federal level. This step represents the first opportunity for public input into a potential new project. TxDOT also monitors highway system performance to support need identification.

ASSESS NEED

TxDOT conducts analyses related to safety, congestion, and other needs. An initial project concept and preliminary funding strategy are developed.

ADVANCED PLANNING

For large, complex, and new-location projects, TxDOT conducts planning studies to explore project design alternatives prior to performing more detailed, expensive analyses. Public involvement is essential.

ENVIRONMENTAL & DESIGN STUDIES

Many types of projects require preliminary design and examination of environmental and community impacts. For many projects, this stage involves a high level of public engagement.

DESIGN, RIGHT OF WAY, UTILITIES & OTHER PREP

At this stage, the project is fairly well defined and details of project construction are being addressed, including acquiring right of way, moving utilities, and other construction preparation.

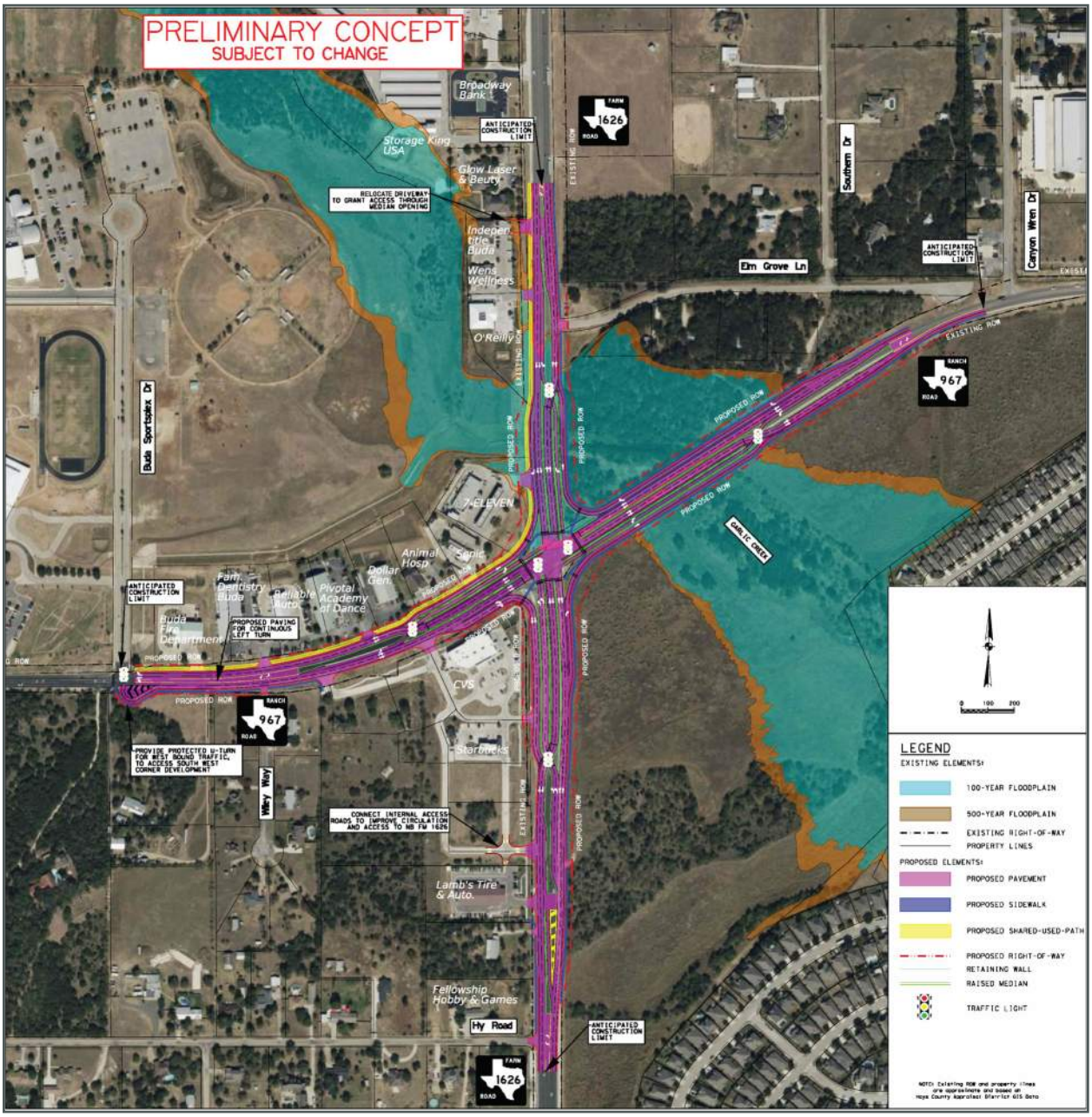
CONSTRUCTION

In order to move forward to construction, a project must be fully designed and have all funding identified. Public information about construction activities is critical to ensure public safety and address construction-related traffic.

Note: Movement from one phase to the next depends on the outcome of the previous phase and availability of funding.

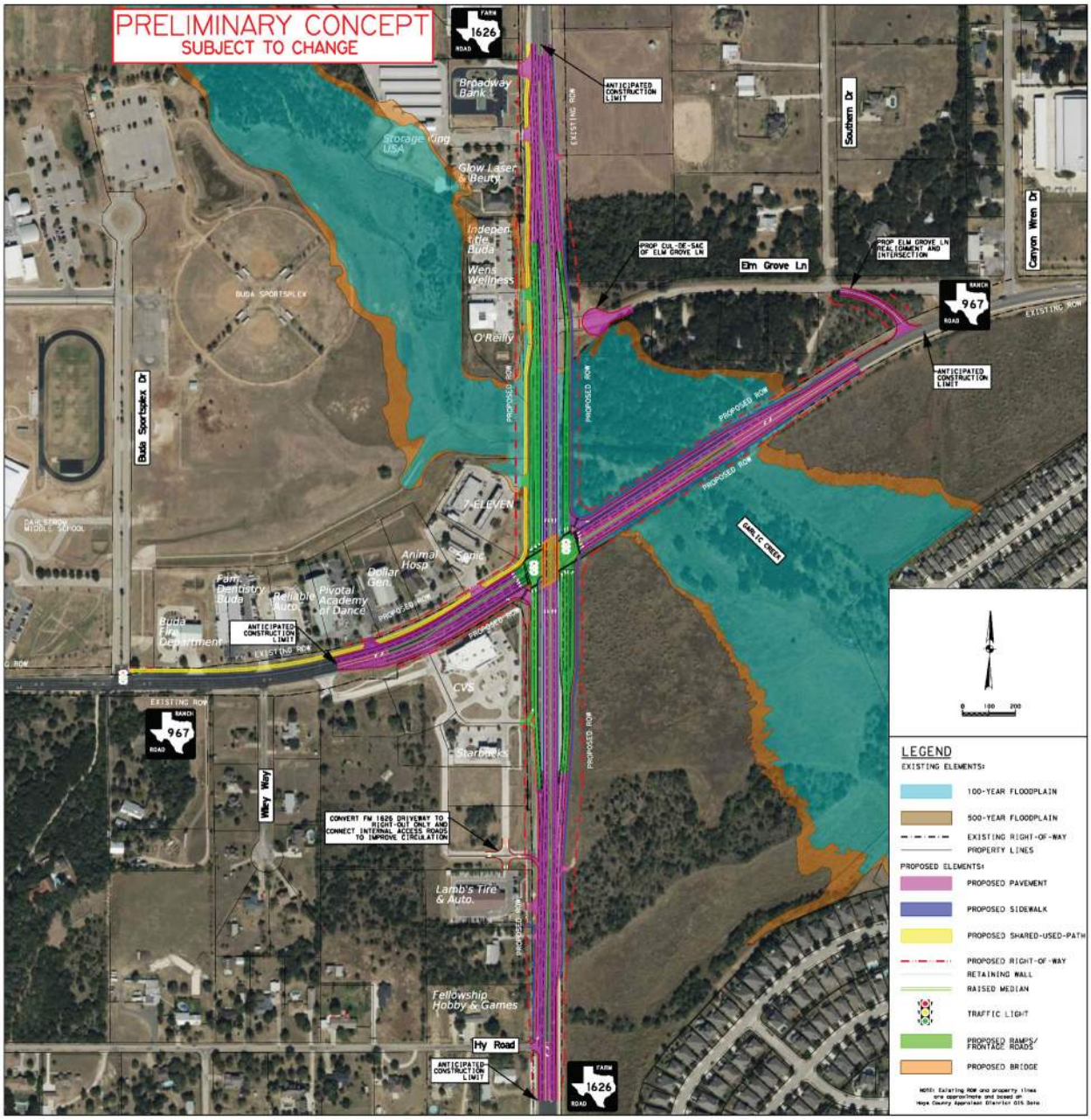
The analysis showed that the displaced left-turn intersection and diamond interchange both provided meaningful operational and safety improvements, and both can be designed to accommodate bicycle and pedestrian facilities. However, the traffic scope of this study was limited to feasibility-oriented tools such as SimTraffic and Synchro. These two concepts and the proximity of the adjacent signalized intersections warrants a more comprehensive traffic simulation (e.g., Vissim). Therefore, the feasibility study recommends that TxDOT further evaluate both options as part of their future study phases and the NEPA process.

Displaced Left Turn Intersection. The fully displaced left turn concept reduces total intersection delay by more than 75% in the AM peak period and the PM peak period (forecasted year 2050 traffic). The concept includes construction of a shared-use path, sidewalks, and ADA crossings at the intersection. Research shows that displaced left-turns can reduce crashes by more than 25% at an intersection, mainly because they reduce conflicts at the main intersection. The study team developed a conceptual layout to share with the public at Open House #3.



Another option for this concept is a partial displaced left-turn intersection where only the left-turns on FM 1626 are displaced. It will not have the capacity of a fully displaced left-turn intersection. However, a partial displaced left-turn will reduce the right of way needs along RM 967, and it will reduce the pedestrian crossing lengths across RM 967. It will also reduce acess impacts on RM 967. It is recommended that TxDOT's future study evaluate this option in Vissim to see if it provides desirable operations while mitigating impacts.

Diamond Interchange. Compared to the existing configuration, the diamond interchange concept reduces total intersection delay by more than 75% in the AM peak period and more than 90% in the PM peak period (forecasted year 2050 traffic). The diamond interchange includes construction of a shared-use path (for bicyclists and pedestrians), sidewalks, and ADA crossings at the at-grade intersection. The diamond interchange overpass improves intersection safety by removing the large FM 1626 through traffic movement from the intersection at RM 967.



Bike & Pedestrian Accommodations

The following bicycle and pedestrian accommodations are recommended for the study area.

- The FM 1626/RM 967 improvements should include accommodations for City of Buda's planned trail along Garlic Creek, connecting the Buda Sportsplex to the Garlic Creek Park. Improvements should allow the planned trail to underpass RM 967 and FM 1626 at the Garlic Creek crossings.
- Construct a shared-use path for bicyclists and pedestrians on the west side of FM 1626 and north side of RM 967, connecting to the Buda Sportsplex. A connection between this shared use path and the Garlic Creek Trail should be provided.
- Within the improvement limits, maintain outside shoulders to ensure bicyclists entering the study area using the existing shoulders can continue through the FM 1626/RM 967 intersection.
- Provide continuous sidewalks along the east side of FM 1626 and west side of FM 1626 south of RM 967. Where it is feasible to maintain existing sidewalks with ultimate roadway improvements, ensure any gaps between existing and proposed sidewalks are connected.
- Provide continuous sidewalks along the south side of RM 967 and north side of RM 967 east of FM 1626. Where it is feasible to maintain existing sidewalks with ultimate roadway improvements, ensure any gaps between existing and proposed sidewalks are connected.
- City of Buda should perform regular maintenance on existing sidewalks to repair cracks and eliminate overgrown vegetation. The City of Buda should coordinate with TxDOT to verify maintenance agreement responsibilities.
- Construct ADA compliant pedestrian crossings at all driveways and at the FM 1626/ RM 967 intersection. Ensure all roadway pedestrian crossings have marked crosswalks and pedestrian actuated signals.
- At the FM 1626/RM 967 intersection, provide pedestrian refuge islands and medians at crossings and design to minimize crossing lengths.
- Provide neighborhood sidewalk connections to bicycle and pedestrian facilities in TxDOT right of way.

Recommended Additional Studies

- TxDOT and others should initiate NEPA process for improving the FM 1626/RM 967 intersection
  - » Utilize the recommendations from this study as a starting point.
  - » Perform alternatives analysis, design schematic, traffic studies (including updated traffic counts and Vissim corridor modeling), and engineering studies
- TxDOT and others should initiate Feasibility Study for RM 967 from Bell Ranch Road to FM 1626
  - » Incorporate multimodal recommendations and account for future intersection with Dodgen Way/Dodgen Trail from the Buda Moves! Transportation Mobility Master Plan.
  - » Evaluate widening RM 967 to four lanes and determine logical western termini for widening.

- City of Buda to update its Capital Improvement Plan to ensure proposed improvements and extensions of Dodgen Trail, Dodgen Way, and Old Black Colony Road west of FM 1626 are constructed by 2035.
- Hays County, City of Buda, and City of Kyle should coordinate with CAMPO on a feasibility study to evaluate concepts for improving north-south connections and overall capacity improvements between Kyle and South Austin.
  - » FM 1626 serves as an alternative route to IH 35 between Kyle and South Austin. A detailed origin-destination study should be performed to better understand where traffic is coming from and going to.
  - » Recommendations and new route alternatives from the Buda Moves! Transportation Mobility Master Plan, Kyle Mobility Plan, and Hays County Transportation Plan should be coordinated from a regional perspective.
  - » TxDOT has no planned capacity improvements to FM 1626. The study should evaluate new alignment routes and new roadway network connections to provide alternative routes to FM 1626 and IH 35.
  - » The study should consider the viability of transit improvements and/or routes along FM 1626 to provide connections between Kyle, Buda, and South Austin.
  - » The study should evaluate if other roadway network and/or transit improvements are implemented, does it alleviate the need for reconstructing and reconfiguring the FM 1626/RM 967 intersection.

Implementation Plan

The Implementation Plan below represents a path forward for tracking and executing the required studies, maintenance projects, and proposed capital improvements needed to improve mobility, safety, and support economic development within the study area.

NEAR-TERM (1 TO 5 YEARS)			
No.	Action Summary	Action Type	Agency Lead
1	Initiate the National Environmental Policy Act (NEPA) process for the FM 1626 / RM 967 intersection improvements	Study	TxDOT *CAMPO Buda Hays Co.
2	RM 967 Feasibility Study to evaluate added capacity and multimodal improvements from Bell Ranch Road to FM 1626	Study	TxDOT *CAMPO Buda
3	Initiate Kyle to South Austin North-South Connections Study to evaluate roadway and transit opportunities for added capacity	Study	*CAMPO Buda and Kyle Hays Co.
4	Design, fund, and construct interim FM 1626/RM 967 intersection improvements, in partnership with Buda a. Extend westbound RM 967 right turn bay at FM 1626 b. Add dual left turns from northbound FM 1626 to westbound RM 967 c. Connect existing sidewalk gaps in the northwest and southwest quadrants d. Connect existing sidewalk gap north of RM 967 and west of FM 1626	Capital	TxDOT Buda Hays Co.
5	Existing sidewalk maintenance to correct deteriorating sections and overgrowth and update striping at crosswalks	Maintenance	Buda (TxDOT Maintenance Agreement)

*CAMPO cannot do subarea or corridor planning work unless a local/agency sponsor (e.g., TxDOT, City of Buda, Hays County) applies for and is awarded funding by the CAMPO Transportation Policy Board. Applications are accepted periodically through an open call for projects period.

MID-TERM (6 TO 10 YEARS)			
No.	Action Summary	Action Type	Agency Lead
6	Secure funding for ultimate intersection and any related thoroughfare improvements	Funding	TxDOT **CAMPO Buda Hays Co.
7	Right-of-way acquisition and utility relocations	Capital	TxDOT Buda Hays Co.
8	Construct shared use path north of RM 967 and west of FM 1626 from Buda Sportsplex Drive to Maybrook Drive	Capital	TxDOT Hays Co.
9	Construct Dodgen Way/Dodgen Trail extensions to Old Black Colony Road extension (west of FM 1626)	Capital	Buda Hays Co.

** Design and/or construction funds are awarded by the CAMPO Transportation Policy Board through periodic project calls. Local/agency sponsors are responsible for developing and submitting project call applications to CAMPO.

LONG-TERM (10+ YEARS)			
No.	Action Summary	Action Type	Agency Lead
10	Construct ultimate improvements at FM 1626 and RM 967 including roadway, ADA crossings, and remaining sidewalks	Capital	TxDOT
11	Construct planned trail to link Sportsplex Park and Garlic Creek Park; coordinate with FM 1626/RM 967 improvements to allow grade-separated trail crossing at Garlic Creek crossing	Capital	Buda
12	Construct city, county, or transit connections recommended from Kyle to South Austin North-South Connections Study (if approved)	Capital	TBD

Study Conclusion

The FM 1627 / RM 967 Intersection Feasibility Study is the first step in a long process to bring much needed improvements to the study area. The study marks an essential step towards realizing the goals and vision established through stakeholder and community engagement. Through analysis and public input, high-level planning concepts were developed and refined to enhance safety and mobility within the study area. The analysis and refinement of these concepts also supported the identification of next steps, recommendations to TxDOT and other agencies future projects, and additional studies needed to develop a comprehensive plan for congestion relief and multimodal expansion within the region.

TxDOT's or others' initiation of the NEPA process for improving FM 1626 and RM 967 will be a significant milestone in progressing the study's recommendations. However, additional roadway and multimodal network studies and improvements are necessary from City of Buda and potentially Hays County. Identification of funding for approved projects will also be a critical future element. Community feedback has noted a desire for immediate interim improvements and to accelerate the construction timeline of the ultimate improvements at the FM 1626/ RM 967 intersection. As this process continues over the coming 10+ years, ongoing public engagement and feedback will remain a vital component.