City of Denton

Citywide Parking Assessment

July 2025

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FEHR & PEERS

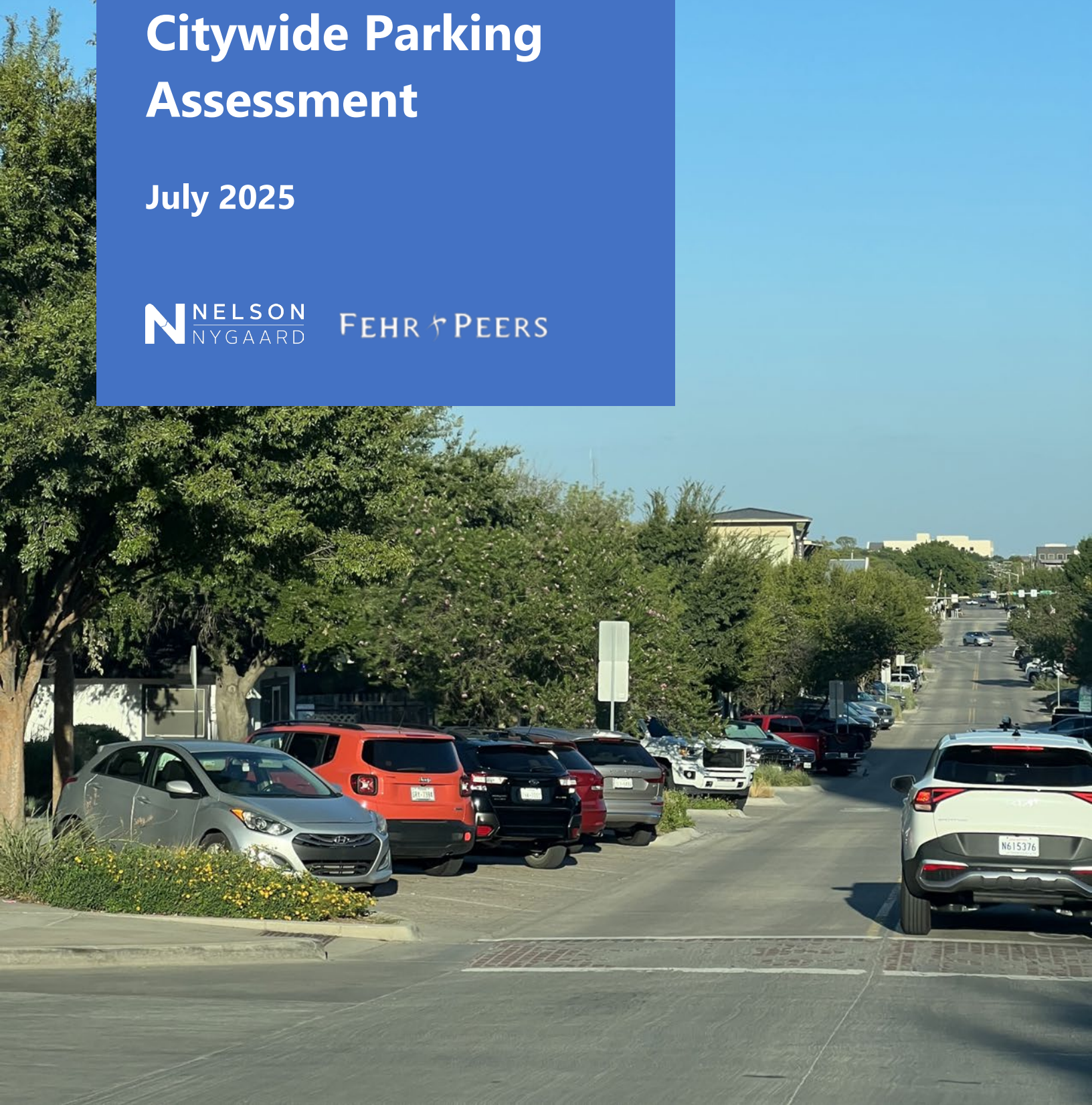


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EXECUTIVE SUMMARY

Context and Purpose

The City of Denton initiated this comprehensive Citywide Parking Assessment to align its parking infrastructure and policies with related Downtown and Citywide Mobility Plan goals: enhancing parking management, system effectiveness, multimodal options, and innovation. The study is a strategic response to citywide development, population growth, and a changing transportation network, particularly around high-demand hubs like University of North Texas (UNT), Texas Women's University (TWU), and Downtown Denton.

Summary of Key Findings and Analysis

1. Organizational Fragmentation and Management

- Parking responsibilities are dispersed across several departments, leading to inconsistent enforcement, operations, and planning.
- There is no central management or parking enterprise fund to streamline and finance system-wide improvements.

2. Enforcement and Operations

- Current enforcement is reactive and under-resourced (2 Public Safety Officer's, low prioritization).
- Lack of technology and tracking prevents data-driven decision-making and undermines compliance.
- Community complaints (935 in 2023) highlight abandoned vehicles and spillover near university campuses as recurring challenges.

3. Campus Area Impacts

- UNT and TWU campuses experience student spillover parking in nearby neighborhoods.
- UNT and TWU staff and students seek more efficient alternatives, such as park-and-ride and enhanced signage.
- Strategize for better use of UNT Parking Garage by the UNT students.

4. Travel Patterns and Behavior

- GPS mobility data revealed that most trips to high-demand areas are under five miles, indicating strong potential for non-driving solutions.
- Short median occupancy times (<2 hours) suggest current parking time limits are insufficient and may be better managed with permit programs and curbside management.
- A clear distinction should be made regarding how premium/reserved parking is handled compared to regular parking.

Strategic Recommendations and Best Practices

1. Consolidate Parking Oversight

- Create a centralized Parking Division within Transportation Services.
- Appoint a dedicated Parking Manager and 2 FTE Technicians to coordinate all operations, planning, enforcement, and community engagement.

2. Reorganize and Expand Enforcement Staffing

- Transition parking enforcement from Police to Transportation Services.
- Establish a customer-friendly ambassador-style enforcement program modeled after Memphis' Blue Suede Brigade.

3. Deploy Technology-Driven Solutions

- Invest in Parking enforcement technologies such as License Plate Recognition (LPR), parking apps, and real-time space availability systems.
- Modernize citation enforcement and tracking through digital platforms and consider outsourcing citation recovery.
- Example: San Marcos, TX implemented cloud-based enforcement with ALPR, increasing efficiency and compliance.

4. Establish Parking Districts and Permit Programs

- Launch tailored parking districts (Downtown, UNT, TWU) with paid parking, shared agreements, and time restrictions.

- Implement Residential Parking Permit (RPP) programs in spillover-prone neighborhoods.
- Example: Houston and Austin use RPPs to protect residential access and manage demand.

5. Plan for Long-Term Financial Sustainability

- Create an enterprise-based Parking Fund integrating all parking-related revenues to fund infrastructure, staffing, and innovation.
- Ensure reinvestment into district-level mobility improvements.
- Example: Columbia, MO operates a self-sustaining Parking Utility.

6. Redesign Curbspace and Improve Information Access

- Develop a Curb Management Plan starting Downtown, addressing loading zones, rideshare, and delivery activity.
- Launch a city-branded parking information portal, with mobile compatibility and live updates.
- Example: Dallas adopted a curbside policy using dynamic signage and digital tools.

7. Modernize Development Code and Incentives

- Implement a Parking Regulation Waiver program tied to Transportation Demand Management (TDM) strategies (e.g., bike facilities, Denton County Transportation Authority (DCTA) passes).
- Reduce parking minimums in select districts, especially where transit and pedestrian infrastructure are improving.
- Encourage private sector participation through a future Transportation Management Association (TMA).
- Example: Austin has eliminated parking minimums citywide; Lubbock and Frisco utilize incentive-based reductions.

Action Plan and Implementation Priorities

High Priority (0–2 years):

- Appoint Parking Manager and consolidate responsibilities
- Launch enforcement and citation technology upgrades.
- Implement Residential Parking Permit (RPP) programs near UNT and TWU.
- Modernize curbspace and loading zone regulations.

- Establish a dedicated Parking Fund, and reinvest a portion of the revenue in multimodal planning.

Medium Priority (2–4 years):

- Develop parking districts.
- Expand university shuttle integration with DCTA.
- Launch downtown EV shuttle/circulator during the peak periods to mitigate increased parking demand and future supply challenges.
- Launch Bus Rapid Transit as an alternative mode for access to major city areas.
- Hire additional parking staff as program scales.
- Formalize Mobility committee oversight and public engagement.

Low Priority (3+ years):

- Monitor development activity, approved parking reductions and waivers and review the potential to eliminate parking minimums citywide.
- Launch and scale a Transportation Management Association

All strategies are outlined in Chapter 6: Action Plan, including prioritization, relative costs index, and geographic focus.

Conclusion and Strategic Outlook

The City of Denton has the opportunity to transform its fragmented parking system into a cohesive, data-driven, and community-focused mobility framework. With targeted investments in technology, policy reform, inter-agency coordination, and public communication, Denton can shift parking from a constraint to a mobility asset.

Key success factors will include leadership alignment, resource allocation, transparent communication with residents, and incremental, flexible implementation. This report positions Denton to not just meet current demand—but to lead as a model mid-size city managing parking as a cornerstone of urban mobility.

1 INTRODUCTION

Through the 2022 Mobility Plan, the City of Denton has made clear its vision of a multimodal city that relies on a diversified mobility network, robust transit system, and safe and efficient movement of people and goods. The four key themes outlined in the Mobility Plan are:

- Prioritize safe travel.
- Deliver an effective network for travel.
- Facilitate alternative travel opportunities.
- Leverage innovation.

A right-sized parking policy not only complements this mobility vision and theme but is necessary to make the vision a reality. The effective regulation and management of parking has long been one of the most critical and challenging aspects of urban mobility planning, however, one that can uniquely deliver community-serving improvements, including better and more equitable access to goods, services, and social connection; sustainable growth and economic development; and affordable housing and economic opportunity.

Denton is a changing city with a mix of long-standing assets and new areas of regional interest. From destinations like the University of North Texas and Texas Woman's University, the downtown square, the Downtown Denton Transit Center, Quakertown Park, Rayzor Ranch, Discovery Park, and the City's growing commercial districts, Denton's diverse assets have a variety of parking policy needs.

With the City of Denton completing both a comprehensive study of Downtown Parking as well as an update to the City's former Downtown Master Plan, now referred as the Design Downtown Denton Plan, there is a parallel need to review the Citywide parking system as a whole as it relates to parking policies and regulations, enforcement practices, planning and engineering standards, and loading zones.

The strategies included in this report are intended to lay the foundation for sound parking management and operational practices that are appropriate for Denton. The strategies set the context for a changing, growing, and thriving City and include strategies to be implemented both in the short-term and long-term. All recommendations are presented at a strategic level and staff assessment of each element prior to implementation will be critical. They include items not parking-specific, such as transit, bicycle, and pedestrian environment improvements, as all of these have an impact on parking behavior. To summarize, this report is about more than parking: it establishes a framework for a strong transportation backbone that supports a wider set of community goals.

The report is a summary of five individual technical memorandums, which are included as Appendices, with this report prioritizing the recommended actions and strategies. The report is organized as follows:

- **Existing Conditions** – Summary of the existing City organization from a parking perspective and key findings of existing and current planning efforts including regional and national best practices. (Appendices A and B)
- **Conditions Assessment** – Review of the complaints and requests received by the City regarding parking, and a summary of the current Downtown Denton Parking Study. (Appendix C)
- **Travel Trends** - A summary of the commuting and travel patterns within the City, and nondriving mode conditions and trends. (Appendix D)
- **Recommended Strategies** – An extensive overview of viable policies and investments for parking operations and management that could both streamline the City's parking program and provide an enhanced experience for the parking user and overall Denton community. (Appendices E and F)
- **Action Plan** - The Action Plan is a roadmap that supports the recommended strategies with implementation considerations and relative costs indicated for each action with an associated prioritization.

2 EXISTING CONDITIONS

To build an understanding of the Citywide parking context, a review of the existing parking program including review of existing plans, parking policies and regulations, non-driving trends and departmental management and responsibilities was undertaken to build upon our understanding of the study context.

City Organization

The City of Denton is organized into a multitude of departments across five (5) main disciplines:

- **Administration & Operations**
- **Community & Quality of Life**
- **Public Safety**
- **Utilities**
- **Development & Infrastructure**

Of the City departments, there are many that play a role in the operations, management and enforcement of parking across the City, all of which can influence both the day-to-day parking operations and the long-term planning. A summary of how the City's organization impacts parking management can be found below.

Meetings with various City functional area stakeholders took place between June 21st and July 9th, 2024, to gain a clearer understanding of parking issues in Denton. The project team met with representatives from seven City functional areas and from two of Denton's universities.

The seven City functional areas included:

- Community Services
- Development Services and Planning
- Denton Police Department
- Streets Division
- Transportation Services
- Legal Department
- Economic Development

The two universities involved in the Study's stakeholder engagement were:

- Texas Woman's University
- University of North Texas

The engagement meetings involved discussion regarding their experience with the parking, transportation, and administrative systems in Denton. Stakeholders were asked guiding questions about how they interact with parking in the City and what they view as challenges and opportunities related to parking. Each participant was asked about their operations, particularly about the City parking and transportation policies and programs they utilize, and how those may help or hinder their activities. Stakeholders shared their goals for the study and provided insight from their functional areas' perspective into the opportunities for improvement for the City's parking and transportation system.

Parking Management in the City

Several Departments within the City organization play a role in the parking operations, which has led to a rather divided program across all facets of the system including enforcement, operations, maintenance, management and planning.

Enforcement

On-street parking enforcement currently resides within the Traffic Division of the Police Department, where enforcement activities are undertaken on an as needed basis based upon community complaints and through the Engage Denton app. The Police Department uses the Public Safety Officers (PSO's) for enforcement activities with only two (2) PSO's are on-staff with parking enforcement as only one of their responsibilities.

For off-street enforcement involving vehicles, Community Improvement Services addresses those violations such as parking on unimproved surfaces, vehicles blocking sidewalks, junk vehicles and illegal storage.

Operations & Maintenance

Parking operations are managed through the Transportation Services Division, within the Development Services Department, which incorporates traffic engineering and traffic operations. The Division oversees regulatory signage and pavement markings. Parking lot maintenance associated with city facilities is directly overseen by the Facilities Management Department. Without a specific Parking Fund, resources are limited both in terms of financing and staffing for a fully robust maintenance program.

Planning

The Development Services Department is the lead agency in the planning of off-street and on-street parking resources. Through the enforcement of the Denton Development Code, the

Department regulates the provision of off-street parking and the utilization of on-street space for parking. Parking regulations within the Denton Development Code are regularly reviewed and updated as appropriate, most recently in September 2022, when non-conforming site features were updated, as well as specific changes to some land-use requirements.

Management

Overall, the City lacks a central management role for parking. With multiple departments having separate and often distinct roles within the parking program, there is not one department that oversees the program Citywide, or has a focus on parking as part of their responsibilities

Previous/Current Studies

As part of this study, previous Downtown parking-related studies completed in Denton were reviewed to understand the existing context of parking supply and demand and to document past City efforts to examine and address parking utilization. These studies are listed below and detailed in Appendix A.

Figure 1 Previous Denton Plans

Study	Key Parking Element
Downtown Denton Parking Study, 2024	- Collected inventory and utilization data. - Recommended near-, mid- and long-term strategies as part of a parking management toolbox.
Denton Mobility Plan, 2022	- The Plan provides a detailed overview of the City's existing bicycle, pedestrian, and transit infrastructure. While Denton has made progress in developing a multimodal transportation network, the City still sees mobility challenges, which include connectivity gaps, safety concerns, and accessibility barriers.
Accessible Parking Spaces on the Square, 2022	- City staff reviewed existing accessible parking spaces available surrounding Denton Square to assess Public Rights-of-Way Accessibility Guidelines (PROWAG) standards.
Public and Private Parking Downtown Denton, 2018	- Public and private parking in Downtown Denton was studied by City staff. The study included outreach to the business community in Denton. At that time, there were a number of issues impacting parking in Downtown including employee parking, proximity of customer parking, and the frequency and duration of construction projects impacting parking.

Downtown Implementation Plan, 2010	- A parking assessment was conducted for the Downtown Implementation Plan (DTIP) in 2010. Field surveys, photographic interpretation and personal interviews were used to define Downtown parking conditions, resulting in an understanding of both real and perceived parking problems. The findings resulted in recommendations which address both current and potential future Downtown parking situations.
City of Denton Downtown Master Plan, 2001	- A parking study was conducted as part of the Plan to measure the quantity and location of parking in Downtown and examine how spaces were being used.

North Central Texas Council of Governments Studies

As part of its Parking Management Program, the North Central Texas Council of Governments (NCTCOG) studied and centralized local parking studies across the region to identify common themes and provide governments with examples of challenges and recommendations for their systems. Some similar cities' parking studies are summarized in Appendix A to provide points of reference for other cities in the region facing similar challenges to Denton.

A common theme across all these parking studies is the identification of sufficient overall parking supply paired with localized shortages in high-demand areas during peak times. Because these studies focus on Downtown parking, it is important to note that many of the areas of focus for this study are not covered. Other relevant peer cities are covered in the State of Practice Analysis in Appendix B.

Many of these studies have direct parallels to Denton, particularly Downtown, and could be seen as local best practices. Each study highlights the need for better utilization of existing parking resources through strategies such as improved signage and wayfinding to guide visitors to available spaces, enforcement of time limits to encourage turnover, and formalization of shared parking agreements to maximize the utility of private or underutilized lots.

The studies also emphasize the importance of addressing future growth and peak event demands through proactive planning, including structured parking solutions and enhanced public awareness of parking options.

3 CONDITIONS ASSESSMENT

The City receives numerous complaints and requests from residents and businesses regarding a variety of parking issues and concerns through the City's Engage Denton system. Review of that database is summarized below along with analysis of the impacts related to parking on the residential streets adjacent to the campuses of the University of North Texas (UNT) and Texas Woman's University (TWU). Further details are available in Appendix C.

Review of Complaints

Data provided by the City from 2023 reveals that there were 935 vehicle complaints reported to City Departments through the Engage Denton system. All complaints received can be categorized into the following areas:

1. Abandoned Vehicle (Vehicles that are parked on the dirt or grass, over the sidewalk, or considered junk or inoperable are violations and considered abandoned, if not removed)
2. Blocking Access (including accessibility/ADA related complaints)
3. Community Improvement Services (CIS) Complaint
4. Loading Zone
5. Parking Violation
6. Storing in Right-of-Way (ROW)
7. Miscellaneous (i.e., unclear complaints, incomplete. etc.)

The most reported category of complaints was abandoned vehicles, which made up about 52% of all vehicle complaints in 2023. The next highest reported categories were Storing in ROW (21%) and Blocking Access (12%). Below are maps displaying the geographic locations of the 2023 complaints with heat maps highlighting the densest areas for complaints. Figure 2 displays the complaints received Citywide while Figure 3 displays vehicle complaints reported in the Downtown area of Denton.

Figure 2 Parking Related Complaints Citywide, 2023

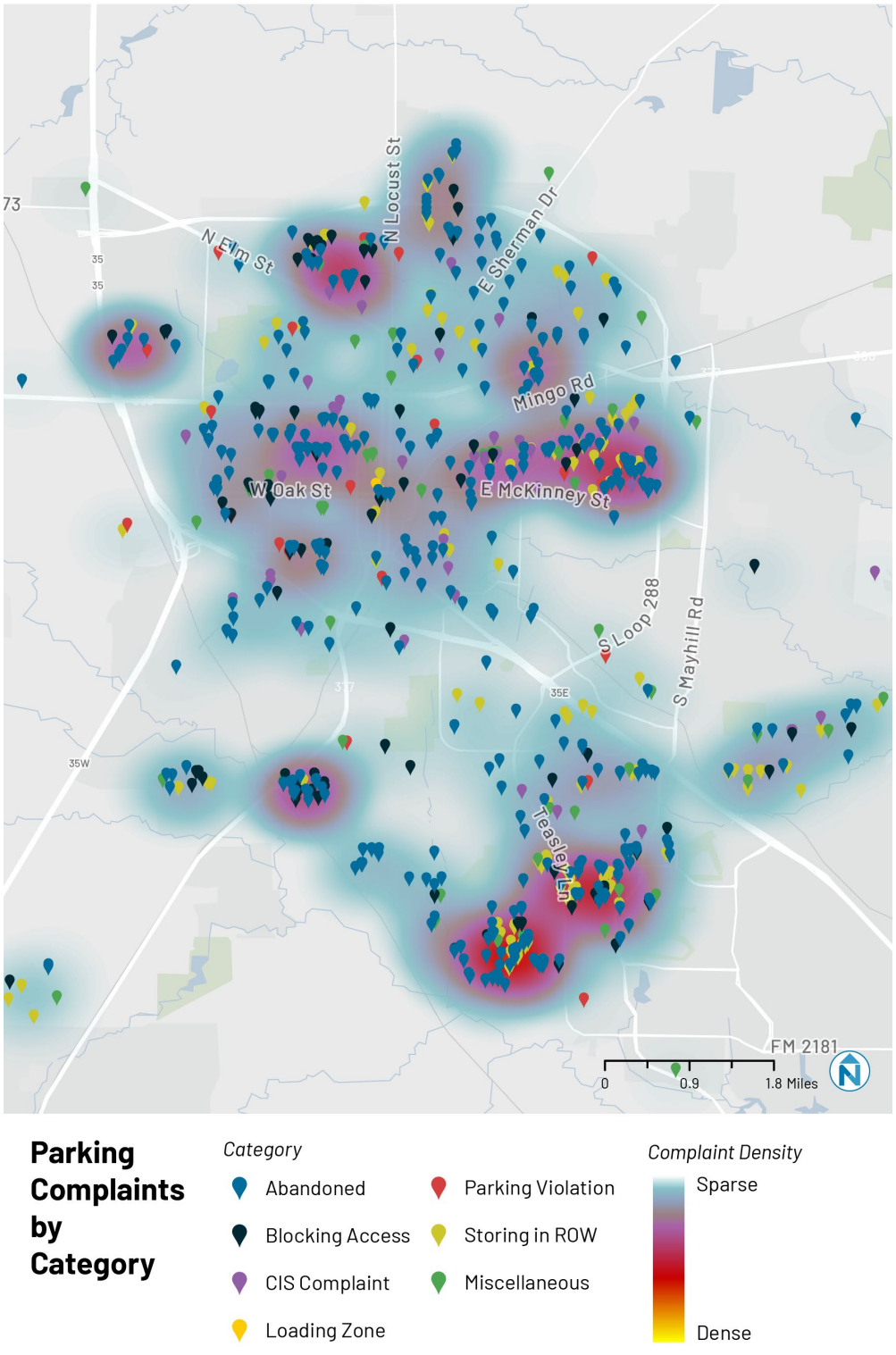
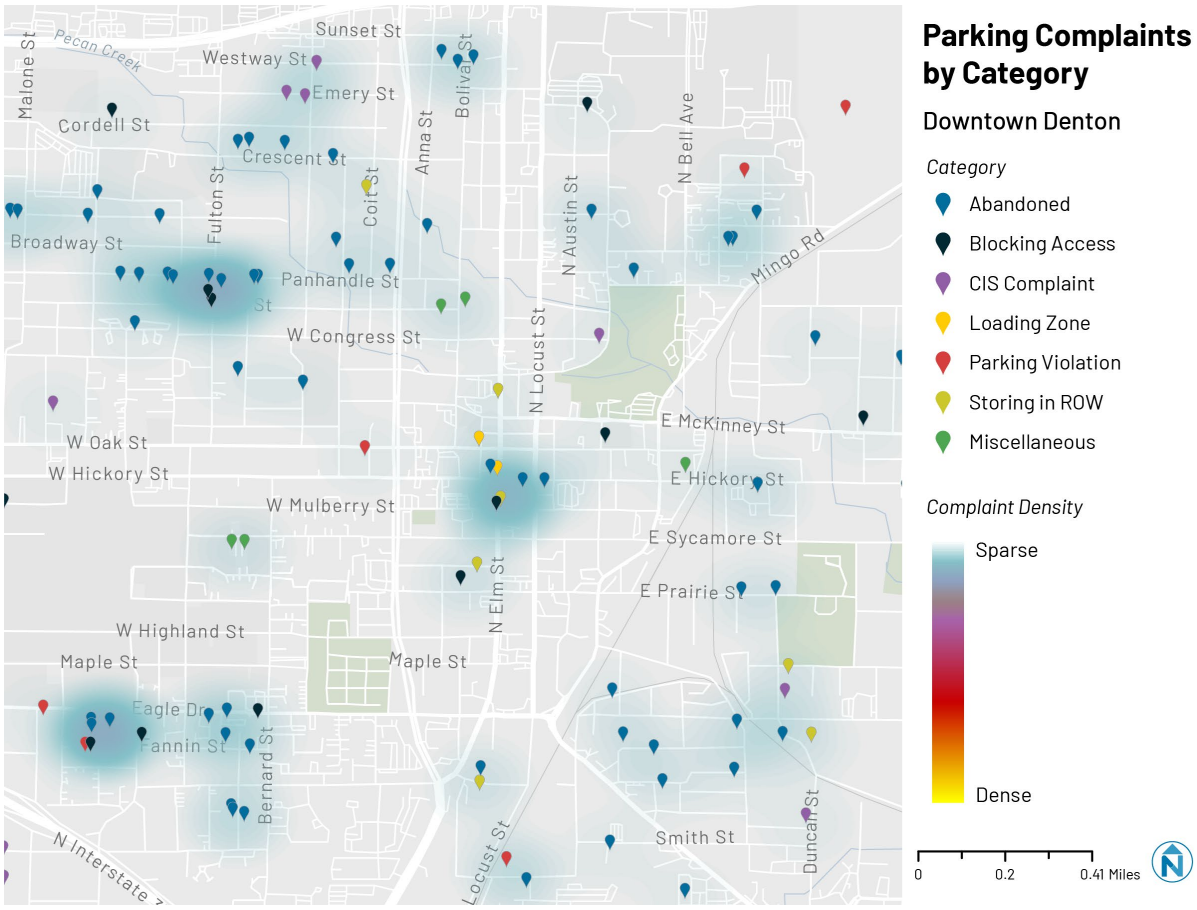


Figure 3 Parking Related Complaints Downtown, 2023



Review of Campus Parking Spillover Impacts

The parking utilization of the campus communities of Denton's two universities, University of North Texas (UNT) and Texas Woman's University (TWU), presents challenges for both City and Campus staff in addressing the impact campus community members have on Denton streets and parking supply. Campus community members, primarily students, have weekly schedules that concentrate parking demand and utilization in certain campus areas, which can create spillover onto City streets for extended periods of time. Over the course of 2023, the City received 93 and 43 complaints in the area of UNT and TWU, respectively, through the Engage Denton system.

Most parking challenges occur on Hickory and Oak Streets, which border the northern extents of the campus, serving as high parking demand areas for students and was

highlighted by Campus staff. The use of these streets presents a complicated issue to address, as these are not university streets and UNT cannot enforce parking activities. UNT staff highlighted that while they have never received a neighborhood complaint from community members regarding disruptive student parking, congested parking in campus areas and resulting spillover cause concern for students. UNT staff notes the main complaint received from students is a perceived lack of parking, however staff also noted these complaints are more about limited convenient parking on campus and demand for spaces in areas directly adjacent to the buildings where students attend their classes. Historical discussions with City and UNT staff to resolve spillover and overall student parking challenges have included a reliable park and ride system, which would ostensibly be successful with students, license plate recognition (LPR) technology to monitor campus and campus adjacent parking, and creating partnerships with different Denton entities to centralize communication and address issues more promptly.

TWU faces similar spillover issues to UNT, with most spillover occurring along Austin Street to the west of the campus. With only about 2,300 students of the 12,000 total TWU students living on campus and 40% percent of the student body utilizing non-drive alone modes, there is a significant number of driving commuters that vie for the university's 3,000 spaces when class is in session. Tuesdays and Thursdays produce the highest demand during the week. While overall parking demand has not returned to pre-COVID levels, the newest university master plan shows that with proposed campus growth, it may push demand back to those levels. However, a proposed increase to accommodate 25% of students residing on campus, may negate the increased demand for commuter parking. Several additional opportunities present themselves for resolving TWU's parking situation such as LPR technology, the implementation of ParkMobile for on campus parking, better signage for parking information, and ordinances that promote better traffic flow in campus areas. Currently TWU does implement strategies to assist students in parking, such as setback markings on Oakland Street, College Street, and Texas Street, which help students avoid citations.

Figure 4 and Figure 5 show the vehicle complaints reported in the UNT and TWU campus areas, respectively.

Figure 4 Parking Related Complaints, University of North Texas Campus Area, 2023

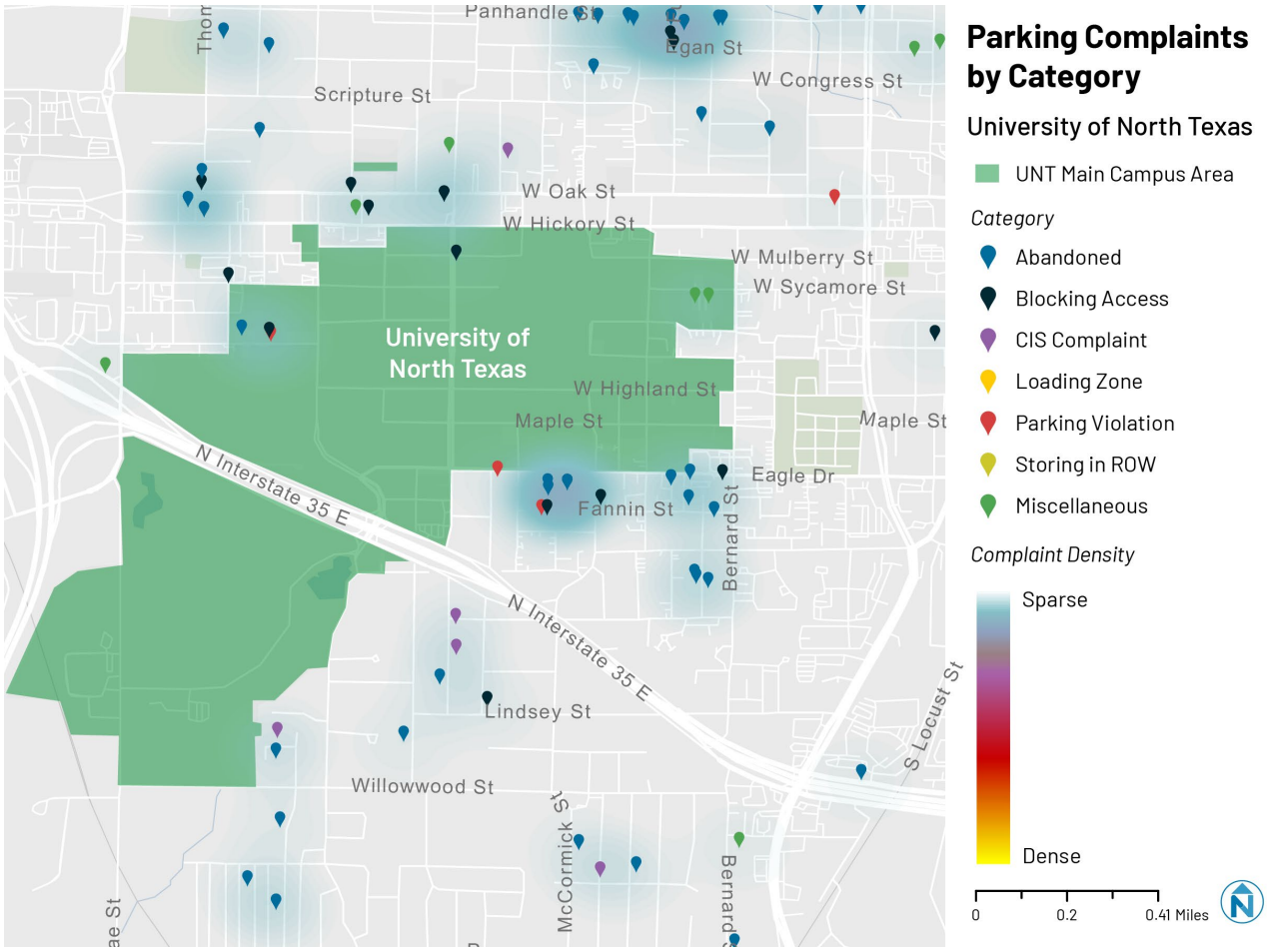
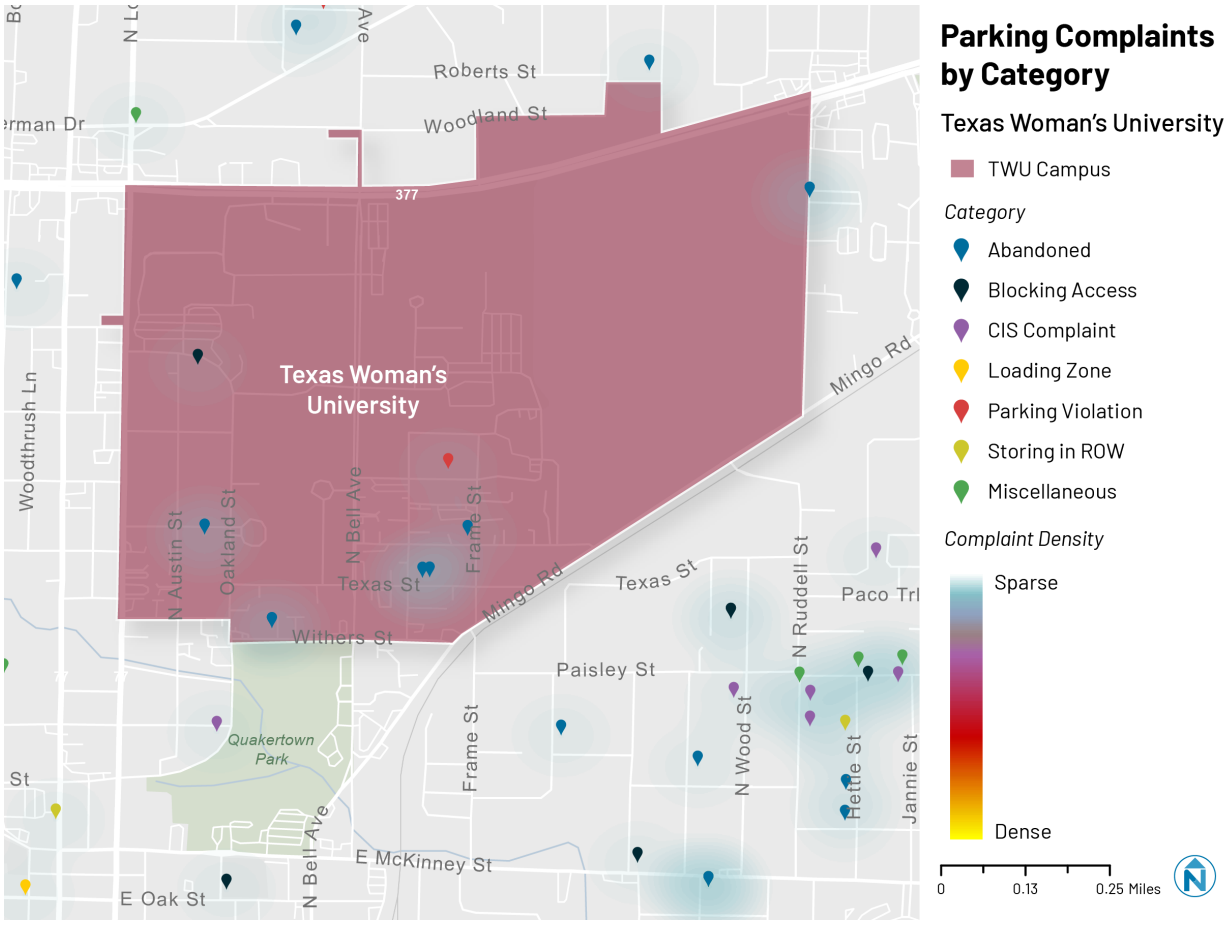


Figure 5 Parking Related Complaints, Texas Women's University Campus Area, 2023



4 TRAVEL TRENDS ANALYSIS

To study the travel behavior in Denton, a few areas were selected where trip activity is relatively higher. Fehr & Peers extracted data for a period from January 1st through August 31st in 2024. The raw observed data was analyzed to better understand travel patterns by trip origins and destinations, travel distance, trips between key areas in Denton, dwell times and arrivals by time of day. These areas, or zones, were evaluated to identify potential applications of parking management strategies such as enforcement, parking time limits, and parking permit zones. Additional details regarding the travel trends analysis can be found in Appendix D.

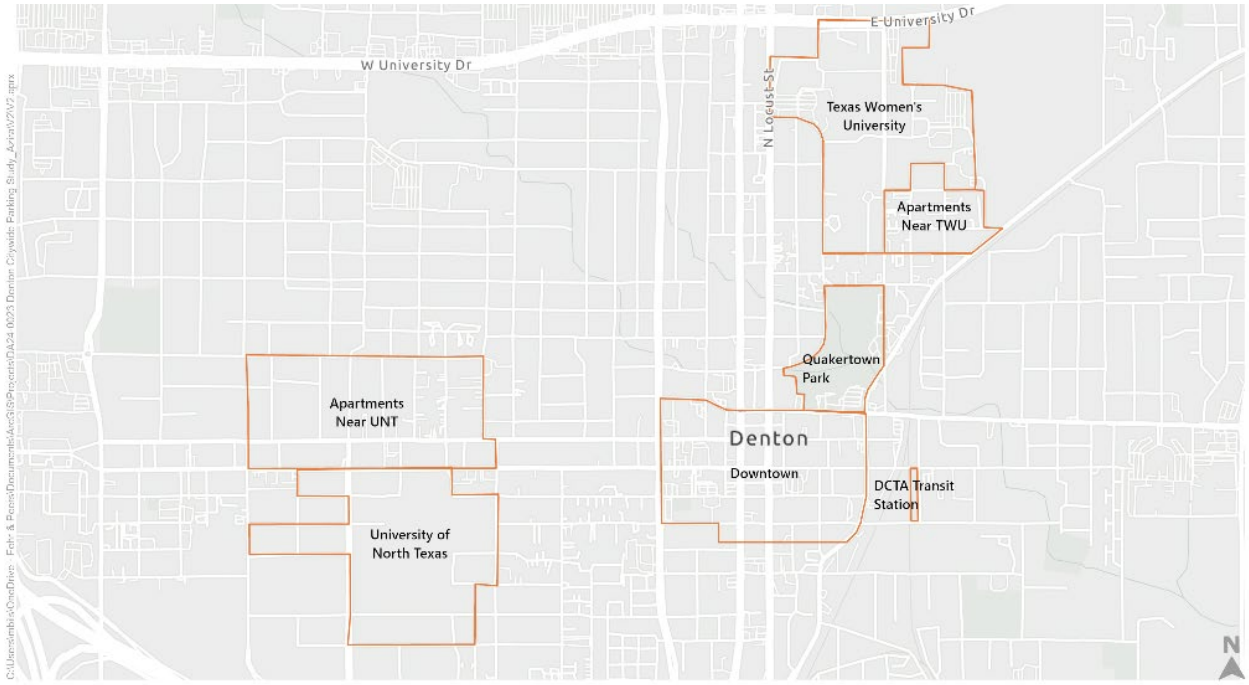
For this analysis, mobile GPS data was obtained and provided by Azira. Azira collects Consumer Behavior Data, which consists of geo or spatial data obtained from smartphone users who voluntarily share their locations through mobile apps. Azira anonymizes this data and provides it to consultants and government agencies. The data helps them understand travel behaviors and markets. The devices used by Azira track location-based information, documenting trip trajectories for trips that start or end in specific zones during a particular period. Importantly, Azira's data includes not only vehicle trips but also walking or biking trips.

By analyzing trip origins, destinations, and connecting them with time-of-day and day-of-week patterns, along with associated demographic information, we can gain insights into existing travel behaviors. These insights can help the City of Denton improve their parking management program and better support the needs of their residents and visitors.

Seven zones were chosen based on reviews by City staff and the project team. These zones were selected because they are assumed to be significant activity generators, offering insights into areas with high traffic. Zones created for the analysis are shown below in Figure 6 and include:

- Apartments near TWU
- Apartments near UNT
- DCTA Transit Station
- Downtown
- Quakertown Park
- Texas Women's University (TWU)
- University of North Texas (UNT)

Figure 6 Study Zones for Travel Behavior Analysis



Trip Distance to Understand Mode Choice

Median trip lengths within each zone are identified by reviewing trip origin and destination locations for each trip. Trip length is an indicator of how far people travel to/from a particular area within the city. Downtown draws over 50% of its visitors from trips over five miles, second only to the DCTA Transit Station. Zones with shorter trip distances, which may be able to benefit from enhanced pedestrian, bicycle, and transit facilities, include the apartments near TWU, UNT, and Quakertown Park, each drawing 65% or more of their respective trips from within five miles.

Dwell Time

For the purposes of this assessment, dwell time refers to the duration between a vehicle leaving its origin and arriving at its destination. When analyzing dwell times, we find that longer durations (8+ hours) are typically linked to overnight residential trips and employment or student-related journeys. All study zones, except for the two residential zones (Apartments Near UNT and Apartments Near TWU, refer to Figure 6), had a median dwell time of less than two hours.

Given the relatively short dwell times in these high-demand zones, relying solely on time limits may not effectively reduce parking demand or enhance turnover. The creation of Residential Parking Permit districts would enable residents of streets to petition for permit status to deter the use of parking by students attending classes at adjacent university campuses. Additionally, introducing five-to-fifteen-minute parking spaces in commercial areas could be beneficial for quick pick-up and drop-off activities.

In response to concerns raised during the study of public parking on residential streets near the UNT and Downtown, an evaluation of dwell times was conducted. The purpose was to assess the potential benefits of implementing Residential Parking Permit (RPP) zones in the area. These zones restrict parking in residential areas to those with a valid permit.

For RPP zones to be effective, they would need enforcement and monitoring to minimize parking violations in these neighborhoods. Additionally, ensuring sufficient curb parking availability for residents would be crucial.

To study RPP zones, zoning classification and dwell time were overlayed, and the analysis revealed significant differences in dwell times between residential and commercial areas. In the zone directly north of the UNT, residential areas exhibited a median dwell time of over five hours. In contrast, the adjacent commercial area had dwell times of less than one hour. Based on this pattern, other residential areas within a ½-mile radius of UNT were identified as potential candidates for RPP zones.

Trip Destinations

Figure 7 illustrates trip destination density for trips originating or ending in each zone previously mentioned. Trip density serves as a measure of activity generators, and locations with higher trip destination density are likely to experience greater parking demand. High trip density locations may benefit from more robust parking regulations, such as time limits or fees, along with regular enforcement rounds to ensure compliance. Additionally, these areas are well-suited for transit stops, bicycle parking, pedestrian facilities, and other infrastructure supporting alternative modes of transportation.

Figure 7 Trip Density within Denton

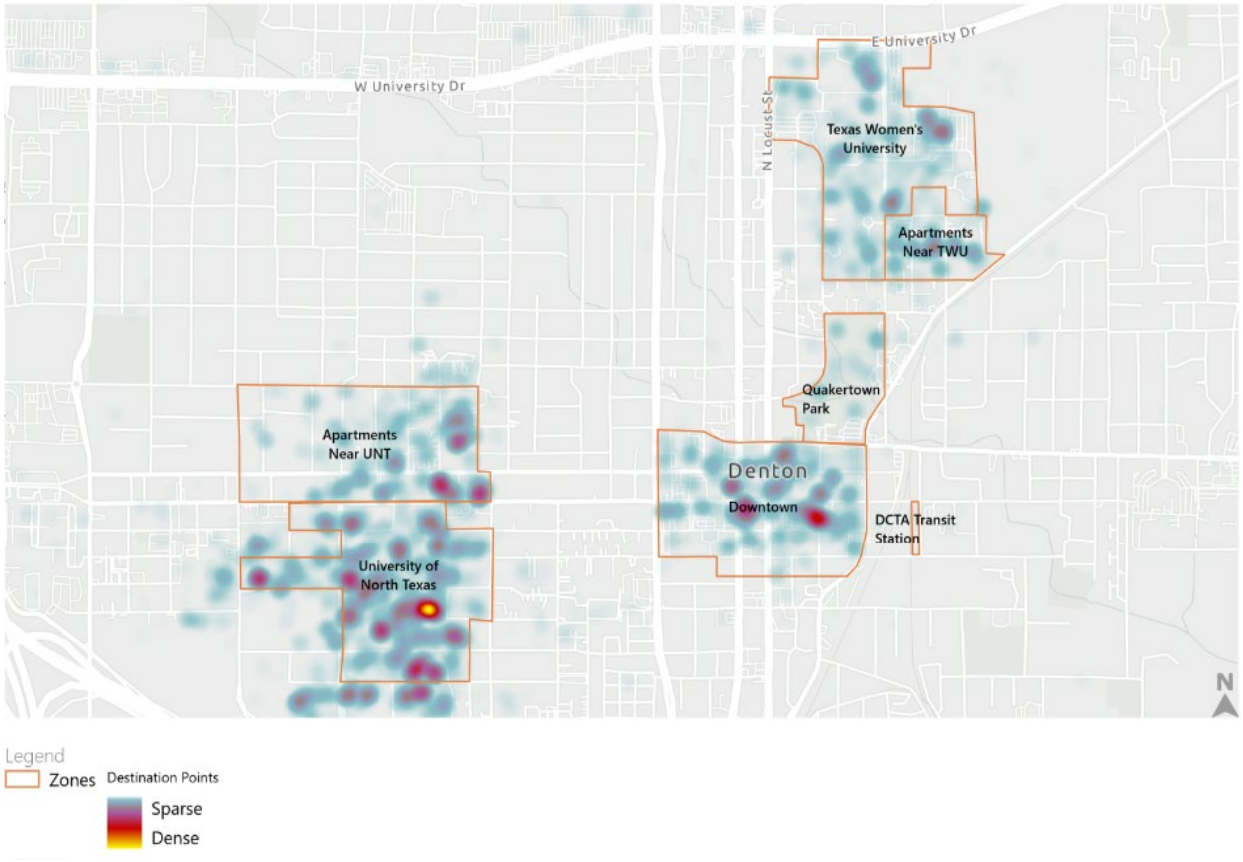
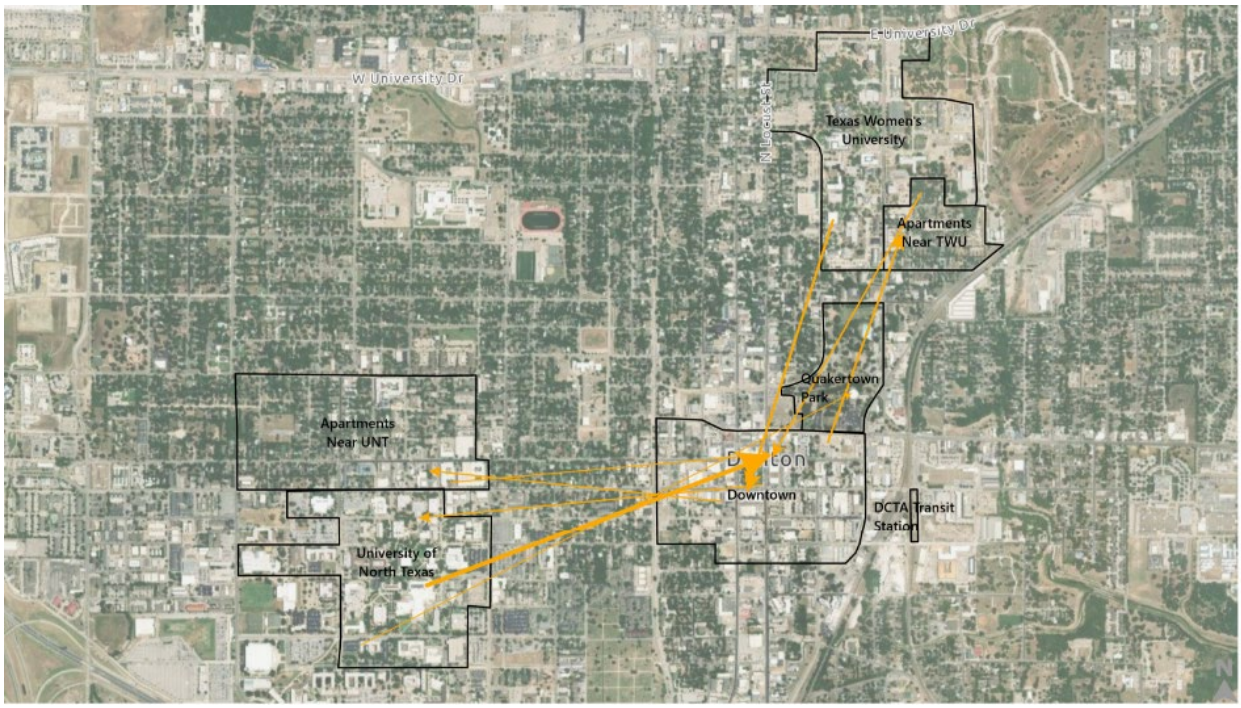


Figure 8 shows common trip pairs from the data gathered for the study. The plot shows many trips either originating or ending near the Square. Origin and destination points shown on the map represent a 500-foot radius, meaning that locations are not exact, but represent approximately where trips are commonly made from one area to another. These pairs could represent areas where increased micromobility options or micro transit would be in high demand.

Figure 8 Common Trips



In summary, the utilization of mobile GPS data complements traditional parking data by providing insights into travel behavior. By analyzing trip distance, dwell times, and trip destination density within a specific zone or district in Denton, parking management recommendations can match the demands of different districts within the City.

5 RECOMMENDATIONS, STRATEGIES AND BEST PRACTICES

To provide greater clarity and efficiency across Denton's parking system, the City can leverage existing assets and informal practices already in place, while also planning with the future in mind. An efficient and flexible parking system – one that addresses operations, management and planning will be imperative as the City of Denton continues to grow and pressures on the City's mobility system, which includes parking, increase. Through the existing conditions review, analysis of parking-related complaints, Denton-based travel trends and stakeholder engagement, there were a wide range of challenges identified into the following four (4) categories:

- Parking Enforcement
- Parking Operations & Maintenance
- Parking Management
- Development and Code Regulations

Specific recommendations and strategies are grouped within the four (4) categories each identifying the existing challenge, implementation description, prioritization, relative cost index and a best practice example. Prioritization is provided as high, medium and low with high being identified as being completed within 2 years, medium between 2-4 years and low as and when funds being available or when prior actions are implemented. Relative costs identify a level of investment required for implementation. Recommendations marked as low relative cost represent the lowest cost actions, those that can be carried out by current staff or at minimal cost. Medium and High-cost recommendations represent increases in investment (added labor or capital improvement) required to carry out those actions. Many of the medium and high-cost elements could be scaled over time based on the number of staff hired at the outset and subsequently increased as the program evolves.

Parking Enforcement

Expand Parking Technology Options

Challenge: Existing parking wayfinding and space availability are limited in Downtown Denton, leading to a perception of a lack of parking and/or an under-utilization of available parking areas**.**

Description: Upgrades in technology can enhance customer and visitor parking experiences, particularly Downtown. Tools like real-time parking space availability and online mapping can turn smartphones and street signage into personalized wayfinding maps. These upgrades allow for more efficient use of personnel and simplify the evaluations and monitoring of parking utilization. Convenient parking technology has shown improvements in traffic congestion by reducing the need to "circle the block" and provides choice in parking fees relative to the proximity of the parking space.

Parking technology systems from various vendors enable the establishment of on-street zone system, off-street lots, parking apps and paid parking when and if demand requires pricing, such as within Downtown.

While additional staff would enable more detailed coverage of the City's parking assets, license plate recognition (LPR) technology, similar to that utilized by the Police Department, would provide for coverage efficiency, real-time data, reliability and transparency. LPR is a system that uses cameras to automatically read and verify vehicle license plates, primarily used for parking enforcement and management. It provides a more efficient and accurate way to track vehicles in parking areas, compared to traditional methods relying on physical permits or manual checks.

Priority: Phased implementation

Low (Citywide) Medium (Downtown and University Neighborhoods)

Relative Cost: Medium - High (based on phasing)

Best Practice: City of San Marcos

The City of San Marcos, Texas, has implemented advanced parking enforcement technology to improve efficiency, accuracy, and compliance in managing its parking system. In 2018, the city adopted a cloud-based parking management system developed by NuPark, a Texas-based company specializing in smart parking solutions. This system integrates Automatic License Plate Recognition (ALPR) technology to streamline enforcement and optimize the city's parking resources. Parking enforcement officers use vehicles equipped with cameras and software that automatically scan and recognize license plates of parked vehicles, enabling them to detect violations such as expired permits, overstayed time limits, or

unauthorized parking instantly. The system eliminates the need for manual ticketing and ensures faster, more accurate enforcement.

Additionally, the cloud-based platform allows real-time data access for enforcement officers and city officials, enabling remote monitoring of parking utilization, violations, and trends to make data-driven policy decisions. The system also supports digital permitting, allowing residents and visitors to purchase and manage their parking permits online without the need for physical decals or paper passes. Mobile payment app integration further enhances convenience for users. Using data-driven insights has allowed City staff in San Marcos to optimize traffic flow, determine high-demand parking areas, and adjust policies accordingly.

The impact of this technology has been significant, leading to a reduction in parking violations, enhanced revenue collection through more efficient fine enforcement, and better overall user experience. The large college student population of San Marcos, not unlike that of Denton's, has meant that managing parking requires a dynamic approach.

Enforcement Oversight

Challenge: Within the City, parking enforcement is managed by the City's Police Department, but the Transportation Services Division, within the Development Services Department has the ability to better utilize enforcement data to manage and plan parking options, programs and facilities to address parking needs.

Description: Currently, parking enforcement is managed by the City's Police Department. While this organizational structure may be functional, the Police Department must prioritize their resources to achieve their wide-ranging mission of making Denton a "safe, sustainable, and livable city for everyone, by keeping victims safe and holding offenders accountable." Since parking violations are more often related to driver confusion, tardiness, and frustration rather than criminal activity, enforcement may be better managed as part of the Transportation Services Division within the Development Services Department. Furthermore, Transportation Services may be able to use enforcement data and other resources to better plan for smarter parking options, better wayfinding, improved access, and supporting mode-shift.

Therefore, it is recommended that the City explore transferring enforcement to the Transportation Services Division within the Development Services Department, considering the following:

- Financial impacts of enforcement staffing & technology needs
- Additional budgetary needs
- Citation Processing
- Development of a Parking Enforcement Business Plan

- Operations
- Phased Technology Deployment
- Reporting
- Education & Community Engagement
- Coordination with Citywide mobility goals

Priority: High

Relative Cost: Low

Best Practice: Nashville Department of Transportation

The Traffic and Parking Section of Nashville Department of Transportation (NDOT) includes the Parking Management Group and the Traffic Operations Group responsible for ensuring safe and efficient transportation and parking products to Davidson County.

The Parking Management Group created in 2021 manages parking resources that provide access for businesses and visitors within Nashville and Davidson County. Duties include enforcement of parking meter restrictions and parking regulations; installation and maintenance of parking meters; management of Metro-owned parking garages; and fulfilling parking permit requests.

Within the Central Business District (CBD) parking is enforced 24 hours -per -day, whereas in all other areas of the City enforcement takes place between 6 a.m. and 12 a.m. The Parking Enforcement Group currently employs 33 officers through a combination of contracted staff and Metro employees, with the goal of the all staff being direct metro employees within the next five years.

Prior to 2021, parking enforcement had limited resources with only five officers active during business hours and limited oversight of the parking program elements such as valet permits, loading zones, and general use of the curb space.

Enhanced Citation Enforcement

Challenge: Parking citations issued by the City's Police Department are not tracked with limited monitoring of why and where violations occur and if they are resolved. Unresolved parking citations are not enforced leading to continued non-compliance of the City's parking regulations.

Description: Parking citations within the City are issued by the Police Department and are subsequently filed with the Denton Municipal Court for resolution as civil infractions. Records of where citations are issued are not kept, meaning that the City cannot determine violation "hotspots" or the frequency of violation types. Furthermore, there is not an active program

that follows-up on unpaid citations which is a disincentive for drivers to follow the City's parking regulations and inhibits revenue collection from citations. Better monitoring and tools to ensure compliance with citations could lead to additional investment in the parking program and potentially modify driver behavior. Staffing and management solutions can be performed by public/private partnerships, with many jurisdictions outsourcing citation management to private contractors.

Priority: High

Relative Cost: Low

Best Practice: Various Cities within the State of Texas

Within the State of Texas, there are a number of processes that increase the resolution and payment of outstanding parking citations.

In the City of Laredo, the Municipal Court can place a hold on driver's license renewals until all citations are paid in full.

The City of Fort Worth utilizes booting or impounding of offender's vehicle, with three or more delinquent unpaid parking citations. When a vehicle has been booted or impounded, it will not be released until all fines and fees have been paid or a cash bond has been posted to ensure the appearance of the registered vehicle owner at a boot hearing.

The City of San Antonio parking hearing orders may be enforced by the following:

- Vehicle impoundment if the subject vehicle is found on any public street, public right-of-way, public easement, or city-owned parking facility, or other public property if the vehicle owner has committed three (3) or more offenses in any calendar year.
- Immobilization of the subject vehicle (booting) if found on any public right-of-way, easement, city owned parking facility or other public property.
- Imposition of a $10 fine after 14 days of non-payment.
- Refusing registration of the subject vehicle.

The City of El Paso sends parking citations not paid within 75 days from the date of issuance to the City's collection agency. *In compliance with the Texas Code of Criminal Procedure, Chapter 103, Article 103.0031(b), once the commitment, warrant, or parking citation is placed with the City's collection agency, an additional 30% collection fee will be added to the amount owed on the case.*

Prioritization of Parking Enforcement Staffing

Challenge: Currently parking enforcement is a facet of the City's Police Department with parking enforcement being only a small part of the greater mission of the Department. As a

result, parking enforcement has a low priority, and dedicated staffing would provide the ability to focus on parking matters.

Description:

Hire dedicated enforcement staff to provide more detailed Downtown coverage of parking assets both off-street and on-street with the ability to respond to Citywide parking-related matters. Re-orienting enforcement policies and practices, in conjunction with updating regulations and parking management practices, can help the City reach its parking goals. The enforcement team should be reoriented to support:

- The creation of a customer-oriented parking system.
- Development of sensible and reasonable parking regulations that are easy to understand and easy to manage.
- Modernization and adoption of new parking technologies as a priority; and
- Establishment of a data-driven, flexible parking system that can adapt over time.

Enforcement's role must support a customer-friendly and education-focused policy. Parking enforcement operations should help to ensure and enforce parking availability and broader parking management goals and not be punitive or deter customers and visitors away from destinations in the City.

Enforcement is part of an integrated parking system. The standards and protocols of enforcement staff should be evaluated and better aligned with City goals. Denton should train its parking enforcement officers to be focused on encouraging appropriate parking behavior through friendly assistance and providing directions, as opposed to diligent ticket writing. Providing parking enforcement officers with uniforms that identify them as representatives of the City rather than simply enforcement officers is an important part of creating a department that is seen in a positive light by customers. Furthermore, tracking parking enforcement activities can help identify parking violation hotspots and could help City staff collaborate on strategies to improve conditions. Elements to track could include citation category, locations of citations or warnings, and common behavior or common occurrences, among others.

Parking enforcement should follow a priority hierarchy to be developed by City staff based on the City's goals and parking enforcement needs. Developing a hierarchy of types of violations and locations to be prioritized can help streamline enforcement activities. Some of the prioritization criteria could include:

- Where there are time restrictions on parking (Downtown and near campus areas)
- Where there are user restrictions (visitor, employee, paid, etc.)

- Where poor behaviors may be found (i.e., Downtown sees people parking outside of designated parking spaces)

Continued coordination is essential between the parking enforcement staff and parking management within the City of Denton. Parking enforcement staff should participate in regular meetings with the City to serve as a feedback loop for better management of parking resources. This would include things like identifying areas of confusion to customers, locations where availability is poor, areas where regulations should change, etc. Parking enforcement officers are a vital resource to identify patterns and influence policy.

Priority: Low

Relative Cost: High

Best Practice: Downtown Memphis Commission (DMC) Blue Suede Brigade

The Blue Suede Brigade is the DMC's best-in-class safety and hospitality team. Anchored by 30+ full-time employees, the team is responsible for creating a welcoming environment throughout the entire Central Business Improvement District, including Beale Street, Riverfront, and the Medical District. Using vehicles, bikes and Segways for increased mobility, the team covers all of Downtown and the Medical District.

Brigadiers are trained to provide assistance and information to visitors, workers, residents, and businesses throughout Downtown. In addition, Brigadiers are the supplemental eyes and ears of the business community and the City's law enforcement agencies, including the following services:

- Provide directions and information about activities, attractions, history, development, businesses, and services.
- Monitor compliance with parking, vending, Main Street Mall access, and other civil ordinances.
- Issue city parking citations on Main Street and connecting streets/alleys.
- Offer daily reports on events, activities, contacts made, and assistance provided, as well as maintenance or safety conditions requiring attention.
- Are thoroughly trained in security, radio and patrol procedures, health and safety awareness, history and geography of Downtown, and hospitality and customer service skills.

While Denton maintains its own Downtown Ambassador program – its duties do not include any parking enforcement component. Expanding Denton's program to involve parking could help enhance the program while instituting larger enforcement activity downtown.

Parking Operations & Maintenance

Responsibility & Authority

Challenge: The responsibility for the City's parking operations is spread across an array of City Departments which poses complications to a coherent parking program.

Description: Currently operations related to parking are split between a number of different City departments. Industry best standards recommend consolidating parking operations into a single division and/or department and in the case of the City of Denton, the Transportation Services Division would be the primary candidate for consolidation of parking operations.

Responsibilities of parking operations and maintenance duties include the following amongst others:

- Parking lot maintenance and operations.
- Parking permit system management.
- Parking meter program maintenance and operations (as applicable).
- Parking space rental program (i.e., valet zone, construction zone).
- Parking Information program.
- Electric Vehicle charging stations maintenance and operations.

Along with the responsibilities of parking operations and management, the authority to administer permit programs and curb space programs would also be within the division's purview to administer.

Priority: High

Relative Cost: Low

Best Practice: Austin, Texas

The City of Austin has a Parking Enterprise Division located within the Department of Transportation and Public Works whose goal is to make access to curb space convenient and user-friendly through the regulation of public parking spaces. The Division works to implement the approved Parking Strategy while also managing and operating the following programs:

- District Parking Programs
- Paid Parking and Enforcement
- Commercial Loading Program
- Affordable Parking Program

- Parking Regulations and Tickets
- Residential Permit Parking

Information & User Experience

Challenge: Information pertaining to parking in the City and particularly the Downtown area, is not easily available on the City website. Parking information related to Downtown options as well as other key destinations and for special events should be clearly announced on the City's website with mobile phone compatibility.

Description: An important and critical role the City should play is to become the parking information clearinghouse for the City's residents, visitors, business owners and property owners.

By creating a central repository for all the parking information, the City will be providing an invaluable service and will subsequently build the program's value and reputation in the community. Developing a web-based program with effective and easy to read maps is the primary method of delivering the information and can serve as a tool to provide program updates. Developing a parking system brand is also a best practice amongst the nation's leading parking programs and should parallel overall improvements to the parking system. Branding all aspects of the program (and department) into a unified system makes the program look and feel more proficient.

Downtown Denton regularly sees visitors from all around Texas. Piloting an online parking dashboard in the downtown area that focuses on providing parking information for those who have never visited Denton could be a first action towards pursuing this recommendation.

Priority: High

Relative Cost: Medium

Best Practice: Park Omaha, City of Omaha

Over the past 10 years the City of Omaha has transformed its parking program from an inefficient environment which was doing little to maximize its parking resources, to a high performing program that is self-sufficient and enabling the continued economic vitality of the City.

The City has an interactive map that specifies rates and hours and is gradually updating its user experience to enable gateless transactions at its garages and surface lots with license plate recognition. In addition, Park Omaha, much like the Downtown Memphis Commission, launched a Parking Ambassadors program. Parking Ambassadors can provide assistance with parking guidelines, safety tips, give directions to popular venues and monitor parking lots and garages.



Curbspace Management Plan

Challenge: The curbspace has come under increased pressure from a variety of uses through a typical day and Denton has seen these pressures from food delivery, passenger pickup/dropoff and e-commerce activities. The City does not have a plan to actively manage its curbspace and should start with the Downtown to support its thriving Downtown District.

Description: Proactively managing the City's curb is a key element of any Citywide Mobility Plan, with the curb increasingly coming under pressure from the growth of curbside pickup, dining, and e-commerce delivery in recent years. Space at the curb can be managed using a variety of tools, including enforcement cameras, dynamic signage, pavement markings, time limits, usage agreements, restricting too many driveways, and charging fees. This wide range of options allow cities to tailor the tool to the specific need or context within a given area instead of relying on a "one size fits all" approach. Thoughtful management of the limited space along the curb can incentivize or disincentivize certain driver behaviors to meet a

range of needs for users. For example, cities around the country have found that adding parking meters in commercial areas can help ensure that vehicles turn over regularly, allowing for greater patronage of the commercial establishments. Bringing order to the City's curb space and parking management system assists in the following:

- Supporting business districts by making it easier for customers to find an available parking space.
- Reducing congestion and conflicts in travel lanes by allocating adequate space and time for a wide range of users wanting access to the curb
- Providing consistency in the application of curb lane management strategies

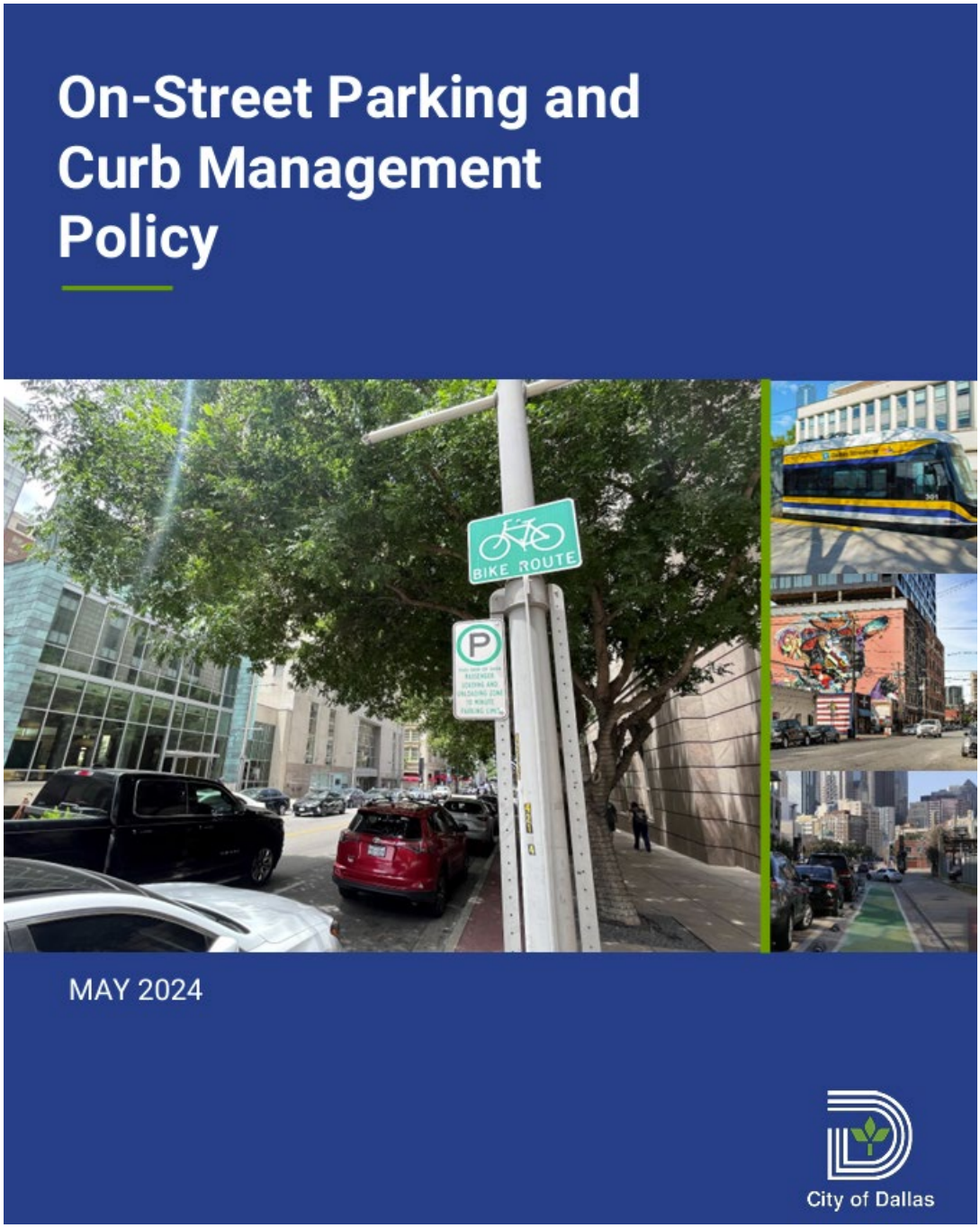
Considering the variety of curbspace needs in Downtown Denton, this recommendation includes beginning with exploring the downtown curbspace and later branching out to a citywide effort.

Priority: High

Relative Cost: Low

Best Practice: City of Dallas, Texas

The Dallas Department of Transportation has modernized the City's paid (metered) parking program and other tools for managing the use of the curb. An "On-Street Parking & Curb Management Policy" has been developed to guide decision-making and inform additional work that will occur over the next several years. The Dallas City Council adopted the policy on May 22, 2024.



Committee Oversight

Challenge: Liaison between the community, City staff and the City Council on parking matters is a key attribute of a proactive approach to a dynamic parking program. The existing

City Mobility Committee does not include parking within its purview but does cover other elements of the City's mobility system.

Description: The existing City of Denton Mobility Committee is an advisory committee consisting of three City Council Members and two Resident Members. The powers and duties of the Mobility Committee include providing information, advice, and recommendations to the City Council which pertain to traffic safety, education, and publicity; ways and means of improving traffic conditions and safety for motor vehicles; ways and means for improving bicycle and pedestrian safety; implementation of traffic control devices; or other matters assigned to the Mobility Committee. The duties of this committee should be expanded to specifically address the City's parking program and provide a direct connection to the City Council, the Transportation Services Division and the community.

Priority: Medium

Relative Cost: Low

Best Practice: City of San Marcos, Texas

The City of San Marcos has an advisory Parking Board that provides recommendations to the City Manager and City Council regarding creation and operation of the City's parking and transportation demand management program. The Board is comprised of seven voting members, and two non-voting City Council members. The City Council appoints all members of the board. When considering appointments to the board, the City Council endeavors to appoint individuals who represent the variety of downtown stakeholders, and who meet the following qualifications:

- One member recommended by the Main Street Advisory Board
- One member recommended by the Downtown Association of San Marcos Board
- Two members who are either a business owner within the Downtown Parking Benefit District, a property owner within the Downtown Parking Benefit District, or a resident within the Downtown Parking Benefit District,
- Three members at large
- Two non-voting City Council members

Staffing

Challenge: With no specific staff assigned to parking management and responsibility spread across departments, a central parking program manager and support staff is needed to adequately provide an enhanced parking program.

Description: Additional staffing will be needed for expanded parking enforcement and consolidation of departmental responsibility related to parking operations along with

identification of a specific Parking Manager. Current staffing levels with the Transportation Services Division and the Police Department would not meet the proposed need.

Priority: Medium (as actions get implemented)

Relative Cost: Medium

Best Practice: Nashville Department of Transportation

The Traffic and Parking Section of Nashville Department of Transportation (NDOT) includes the Parking Management Group covering parking operations and parking enforcement.

The Parking Management Group created in 2021 manages parking resources to access businesses and visitors to Nashville and Davidson County. Duties include enforcement of parking meter restrictions and parking regulations; installation and maintenance of parking meters; management of Metro-owned parking garages; and fulfilling parking permit requests.

Prior to 2021, parking enforcement had limited resources with only five (5) officers active during business hours and limited oversight of the parking program elements such as valet permits, loading zones and general use of the curb space. Within the parking realm, NDOT has 33 parking enforcement officers, maintenance staff, an Operations Manager, a Livability Planner and a Transportation Planning Director.

Parking Districts

Challenge: The City has a number of areas where parking demand exceeds supply at specific times of day and/or during special events, such as in Downtown Denton, in areas around the universities, and in other commercial or entertainment hubs. Implementing district-wide management strategies ensures that parking is utilized effectively, benefiting businesses, residents, and visitors alike.

Description: Effective parking management within designated parking districts can provide a framework to manage parking supply, improve turnover, support local businesses, and enhance multimodal transportation options. Creating separate parking districts (such as Downtown, UNT and TWU) allows for a tailored approach that considers the needs of smaller areas, combined with the ability to improve parking management and enforcement for each district. Tools such as paid parking, shared parking agreements, time limits, and enhanced parking enforcement can ensure that parking resources are used efficiently, while limiting their impact only to areas with defined boundaries. Developing a recurring parking data collection framework can help identify where parking districts are most needed. By strategically managing parking districts, the City can encourage better land use while reducing congestion and vehicle miles traveled.

Priority: Medium

Relative Cost: Medium

Best Practice: The City of Austin has created a process where a Parking and Transportation Management District (PTMD) may be initiated by the Director of the Austin Transportation Department. Additionally, a representative of a business organization, real estate developer or other stakeholder that is located completely or partially within the proposed PTMD may file an application to create a PTMD with the Director.

In order to become a PTMD, an area with paid, on-street parking must add at least 100 new paid, on-street parking spaces and an area without paid, on-street parking must create at least 200 paid, on-street parking spaces. The goal of this requirement is to promote parking turnover and reduce high commuter idle. The PTMD dedicates 51 percent of the public paid parking revenue, less City expenses, to help with mobility improvements within the established district and can include park maintenance, signage, wayfinding and sidewalk improvements.

University Campus Parking Shuttles

Challenge: Surrounding the UNT and TWU campuses there is pressure on residential street parking from students going to class that want to avoid searching for parking on campus or do not want to pay for the Campus parking permits.

Description: In addition to the parking enforcement, operations, maintenance and management strategies recommended within this assessment, the City should encourage the Universities of UNT and TWU to review their campus shuttle programs to further encourage usage of outlying parking facilities and/or shuttles from campus to residential destinations. UNT does provide 12 bus routes through their service agreement with Denton County Transit Authority (DCTA), including an evening ride service called Night Flight. The Transportation Fee students pay is used to support these and other transportation initiatives.

Priority: Medium

Relative Cost: Low (if no additional routes are provided and existing routes are reconfigured)

Parking Management

Program Oversight

Challenge: To provide continuity, critical thinking and responsibility, a parking program needs to be overseen. As previously highlighted, the City currently does not have staff oversight of the parking program, which leads to a somewhat disjointed approach across multiple departments.

Description: Changes to the City's parking program will not happen overnight and optimizing Denton's parking system will require a variety of strategies to improve the information, operation, and regulation of parking resources in the City. These strategies are interconnected and will work best as a package of management and operational approaches. In order for the strategies to be implemented successfully, a Parking Manager should be identified to oversee the program and guide the City to future success.

Priority: High

Relative Cost: Low

Best Practice: City of Fayetteville, Arkansas

The City of Fayetteville completed their Parking Master Plan in 2017 and has strategically implemented the recommendations of that plan over the past seven years under the guidance manager of the Parking Management Division manager. The status of progress is documented on the department's website. The manager serves not only to guide the parking program but also as a liaison to the City Council and peer departments such as the Police Department, Development Services, and Public Works.

Establish Parking/Mobility Program Funding

Challenge: Funding for the parking program is currently not a dedicated budget item, and any upgrades/improvements are reliant on discretionary funding and/or grant opportunities, which leads to an unreliable investment pattern from one year to the next.

Description: Establishing the parking program as an enterprise fund separate from the City's general fund should be a long-term goal. Combining all parking- related revenue streams into one fund will allow the City to cover operating and maintenance expenses related to parking, use technology and data to make strategic enhancements to the parking program, and invest in new technology and other capital projects to improve access and livability. Ultimately, the fund should become self-sufficient over time.

Revenues from the following parking services should be included within a Parking Fund:

- Parking enforcement revenues
- Special event parking revenues
- Curbside permit revenues
- On-street and off-street parking revenues (as applicable)

Development of a program "financial plan" is recommended to consider the interconnected recommendations included within this report and continued funding of future staff and programs.

Priority: Medium

Relative Cost: Low

Best Practice: City of Columbia, MO

The City of Columbia has a specific Parking Utility Fund and as of FY25 the Parking Enforcement fund has been transferred from the Police Department to the Parking Utility. The Parking Utility provides and maintains convenient and adequate parking, both on-street and off-street, in the downtown and college campus areas. The Parking Utility collects income for the financing, maintenance, and operation of the parking garages, parking meters, and surface lots.

Monitoring & Reporting

Challenge: Without the monitoring of any parking activities and reporting of such activities, including utilization, violations and community complaints, the City is unable to reliably plan for future parking demands and needs of the community**.**

Description: Currently there are no parking meters or other parking technology utilized to manage parking Citywide. Technology should be leveraged to make data-driven decisions for future parking program policies and investments with routine monitoring and reporting. Integration with the City's enforcement technology and the City's GIS system to monitor supply and demand should be investigated.

Priority: High

Relative Cost: Low

Best Practice: City of Houston, Texas

To improve the management of the curb space, ParkHouston has deployed a data management platform that integrates data from the City's parking management system, parking meters and digital payments. This platform allows the City to make policy and operational decisions as well as the management of rates to improve parking space availability in real time. The new data management platform is the first step in the City providing the public real-time curbside parking space availability.

Development & Code Regulations

Minimum Parking Requirements

Challenge: The existing Denton Development Code (DDC) still requires minimum parking requirements for developments within the City outside of the Downtown Core.

Description: Moving away from minimum parking requirements can help promote more efficient land use, reduce housing and development costs, and encourage alternative modes of transportation. By reducing or eliminating these requirements, developers can have greater flexibility to determine appropriate parking levels based on the market needs. However, Denton is not yet in a position to completely remove minimum parking requirements without first offering options to shift away from driving and parking to other transportation modes. A lack of parking requirements works best in dense urban locations that provide transit, walking, and cycling options. First, Denton should look to allow developers to build less parking than the code requires by including multimodal infrastructure, programs, and design that improve access for transit users, cyclists, and pedestrians.

This strategy will mostly impact areas outside of Downtown Denton. In the Mixed-Use Downtown Core (the MD district), parking mandates do not apply for residential developments with 10 or fewer dwelling units or for any non-residential development. A removal of minimum parking requirements helps promote density, connectivity, and more efficient land use, which would impact areas outside of the MD district Downtown.

Priority: Low

Given the need to first implement other parking strategies in order to maximize the impact of removing minimum parking requirements, the timeline of this strategy is long-term (>3 years).

Relative Cost: Low

Best Practice: City of Austin, TX.

The City has removed all Parking minimums and related standards. Since 2013, the City has gradually lessened parking requirements beginning with new Downtown developments and a decade later removed minimums Citywide. Additional standards include:

- No minimums
- Soft parking maximums
- One on-site accessible space is required
- Development standards for parking

- Above ground parking applies to the Floor Area Ratio (FAR) limit
- Off-street parking facilities for bicycles must be provided for each use on a site

Parking Regulation Waiver Program

Challenge: Within the existing Denton Development Code (DDC), there is not a defined parking regulation waiver program that allows for creation and enforcement of a Transportation Demand Management (TDM) plan in exchange for a reduction in required parking spaces.

Description: The Denton Development Code (DDC) can be updated to reduce the parking requirement through the provision of Transportation Demand Management (TDM) measures in new developments, such as subsidized transit passes with Denton County Transit Authority (DCTA), bike facilities, car-sharing programs, and enhanced pedestrian infrastructure. This strategy could be prioritized in areas with a need for new, dense development to complement existing mobility infrastructure, such as within a mile of the Downtown Denton Transit Center (DDTC) or the MedPark Station.

Allowing developments to incorporate TDM strategies makes it possible and realistic for residents and employees to choose alternatives to driving alone, helping to alleviate congestion and support citywide mobility goals. Establishing a method to replace parking requirements with access to alternative transportation options is a win-win for developers, the community, and the City, in that it allows developers to lower development costs through reducing costly parking inventory, it gives the community options to get around Denton beyond driving and parking, and it helps support City mobility and sustainability goals. This strategy works best if off-site facilities that help complete the bicycle, pedestrian, and transit networks are eligible for a reduction in the parking requirement.

This strategy would primarily impact existing areas of dense residential, commercial, and mixed-use land uses, due to the impact being strongest in larger developments. This includes job centers, areas of high residential development activity such as those near the TWU and UNT campuses, and other areas of high growth. Underdeveloped areas that could benefit from this strategy include near the DDTC and MedPark stations. In Downtown Denton, this strategy could be amended in the MD district downtown by requiring certain TDM measures at all new downtown developments, due to the lack of parking requirements there.

Priority: High

The timeline of this strategy is short- to medium-term (1-3 years). If implemented in the short term, this change could set the stage for other parking and mobility recommendations to come online sooner (such as the removal of minimum parking requirements citywide).

Relative Cost: Low

Best Practice: The City of Lubbock, TX.

The City has minimum off-street parking standards with reductions available by 50% based on Overlay District's, location to transit (1/4 mile) and proximity to residential district (1/4 mile).

Establishing a Transportation Management Association

Challenge: The City currently has no specific management or oversight of coordinated transportation services for businesses, employers, residents and the community at large.

Description: Transportation Management Associations (TMAs) are non-profit, public-private partnerships that provide coordinated transportation solutions for businesses, residents, and local governments. TMAs can manage programs such as carpool matching, employer-based shuttle services, and flexible work-hour policies to reduce traffic congestion and parking demand. While this is not a recommendation for a code amendment, the City could instead require membership of the TMA through the development code as part of the Traffic Impact Analysis process. Establishing a TMA with many employers as members can help reduce parking demand citywide through comprehensive commute management. Denton should first look to work with partners to establish a local TMA.

This strategy can be implemented citywide, but the level of impact and its primary locations will be dependent on the number and location of member organizations. Job centers or dense residential complexes will see the biggest benefit.

Priority: Low

The timeline of this strategy is medium to long term (>2 years) but is dependent on the ability to solicit participation from job centers, residential complexes, and other stakeholders, including UNT and TWU.

Relative Cost: Low

Best Practice: City of Frisco, TX

The Frisco City Council established the Frisco Transportation Management Association (FTMA) as a public-private partnership agreement also includes the Denton County Transportation Authority (DCTA), as well Hall Group, Frisco Station Partners and The Star. The FTMA is dedicated to improving connectivity and exploring transportation solutions between the respective, mixed-use developments located within Frisco's North Platinum Corridor.

Residential Parking Permit Programs

Challenge: In residential areas where parking demand is high from adjacent uses, the parking "spillover" can create a lack of parking for residents and their visitors.

Description: Residential parking permit (RPP) programs help manage on-street parking in neighborhoods affected by overflow parking from nearby commercial areas, transit stations, or university campuses. These programs grant parking privileges to local residents while limiting or restricting non-resident parking during certain hours. When properly implemented, RPP programs can reduce competition for parking spaces, prevent excessive congestion, and maintain neighborhood quality of life while still accommodating visitors and local businesses through a balanced approach.

Areas near UNT, TWU, Fry Street, the Downtown Denton Transit Center, or other areas that see commercial activity adjacent to neighborhoods would be the primary areas for initial programs with support from the adjacent agencies (i.e., UNT and UWT). Spillover traffic is currently a concern for residents living in the neighborhoods just south of Downtown – a pilot program for this strategy could be tested there.

Priority: High

The timeline of this strategy is medium-term (1-3 years). The Denton Development Code Subsection 7.9.5C references a potential RPP program, but its framework and guidelines must be established so that locations can be identified by residents and implemented before seeing an impact. While this strategy has been used effectively in the benchmark communities, it is a new approach for Denton. Therefore, drafting the program and implementation will require robust public engagement and education to ensure a smooth and successful rollout.

Relative Cost: Low

Best Practice: City of Houston, TX.

The Houston Residential Permit Parking Ordinance is intended to enhance the quality of life in neighborhoods experiencing chronic non-resident parking along their streets. It provides for the establishment of parking permit areas in residential neighborhoods with documented problems from parking that "spills over" from nearby nonresidential activity centers. If an area is designated a "decal-only" area, only residents with the proper decal on their vehicles will be allowed to park along the street during the designated times.

Loading Zones

Challenge: The Denton Development Code currently lacks explicit definitions or guidelines regarding the establishment and enforcement of loading zones. There are no clear distinctions around permitted vehicle types, usage times, or allowable durations for loading

activity. Enforcement duties currently primarily address broader code and property maintenance violations, but the code also does not authorize automated enforcement tools like cameras or sensors, nor does it allow third-party enforcement. Additionally, there are no provisions for public reporting on violations or requirements for businesses to register delivery vehicles or be held accountable for recurring infractions.

Description: To strengthen enforcement, the code should be amended to clearly define loading zones, including permitted hours, vehicle types, and usage limits. It should also authorize modern enforcement tools such as camera-based monitoring or license plate recognition (LPR), enable third-party citation issuance, and introduce escalating penalties or towing for repeat violations. The code could mandate transparency through routine public reporting on violations and enforcement actions. For violations caused by business-owned vehicles, Denton could require businesses using loading zones to register their vehicles and see increased penalties for repeat offenses.

Areas with a high commercial presence and on-street loading needs, which include Downtown Denton, Fry Street, businesses along Hickory and Oak Streets, and other central locations would be the priority target areas.

Priority: High

The timeline of this strategy is short-term (<1 year). Loading zone enforcement has been identified as a key issue in Denton, and this step will help create guidelines that make enforcement more streamlined.

Relative Cost: Low

Best Practice: City of Nashville, TN. Nashville Department of Transportation and Multimodal Infrastructure (NDOT) introduced Smart Loading Zones in downtown Nashville. This initiative is part of the ongoing efforts to enhance curb management and address key findings from Nashville's Connect Downtown curb management study. The Smart Loading Zones are equipped with sensor technology to dynamically manage curbside loading activities. These zones operate on a pay-by-the-minute basis with variable rates designed to incentivize turnover and off-peak usage, thereby reducing traffic congestion and double parking.

6 ACTION PLAN

Many parking strategies proposed for the City of Denton cannot be implemented overnight, nor can they all be implemented concurrently. There are strategies, however, that can be implemented quickly, while others may take longer. Some strategies will work well when implemented together but others are dependent on a series of consecutive steps.
The Action Plan (Figure 9) should be viewed as tool box of options that supports the strategies outlined with Figure 10 mapping the recommendations and focus areas. The table highlights individual actions categorized based on the four primary strategies previously identified. Implementation considerations and relative cost index are indicated for each action with an associated prioritization.

The Action Plan is organized via the following structure:

Strategy

- The four overarching strategies, as outlined in the recommendations, are identified. Within this structure, the Action Plan includes the following details for each sub-strategy action:

Prioritization and Potential Timeline for Implementation

- High = Should be completed within two years and is deemed a critical element of the parking program.
- Medium = Should be completed over the course of two to four years and is implemented as a secondary step to the high priority elements
- Low = Should be deemed a less critical part of the parking program and implemented when other elements are completed and funds are available.

Actions

- The specific steps to move towards or implement recommendations.

Implementation Considerations

- Select factors to be evaluated and/or integrated into decision-making and roll out of Actions.

Relative Cost

- Level of investment required for implementation.
    - Actions marked with a single $ symbol represent the lowest cost actions, those that can be carried out by current staff or at minimal cost.

- Additional $ symbols represent increases in investment (added labor or capital improvement) required to carry out those actions. Actions whose relative cost is indicated by $$$$ are the most expensive and require a high level of capital and operational investment.

Area of Focus

- Area of focus within the City Denton for the specific recommendation/action to be implemented and/or prioritized.

Figure 9 City of Denton Parking Action Plan

Strategy	Priority	Action	Implementation Considerations	Relative Cost	Area of Focus
Parking Enforcement	Low-Medium	Upgrade Technology and Payment Systems	Upgrades in technology can enhance customer and visitor parking experiences, particularly Downtown. Tools like real-time parking space availability and online mapping can turn smartphones and street signage into personalized wayfinding maps.	$	Phased Implementation with Downtown first
	High	Enhanced Citation Enforcement	Better monitoring and tools to ensure compliance with citations could lead to additional investment in the parking program and potentially modify driver behavior. Consider public-private partnership for citation management.	$	Citywide
	High	Enforcement Oversight	Consider enabling the Transportation Services Division to provide oversight of the Parking Enforcement Program to better manage and plan for the overall parking program including smarter parking options, wayfinding and access.	$	Citywide
	Medium	Align Parking Enforcement	Work with City departments and enforcement officers to	$	Citywide

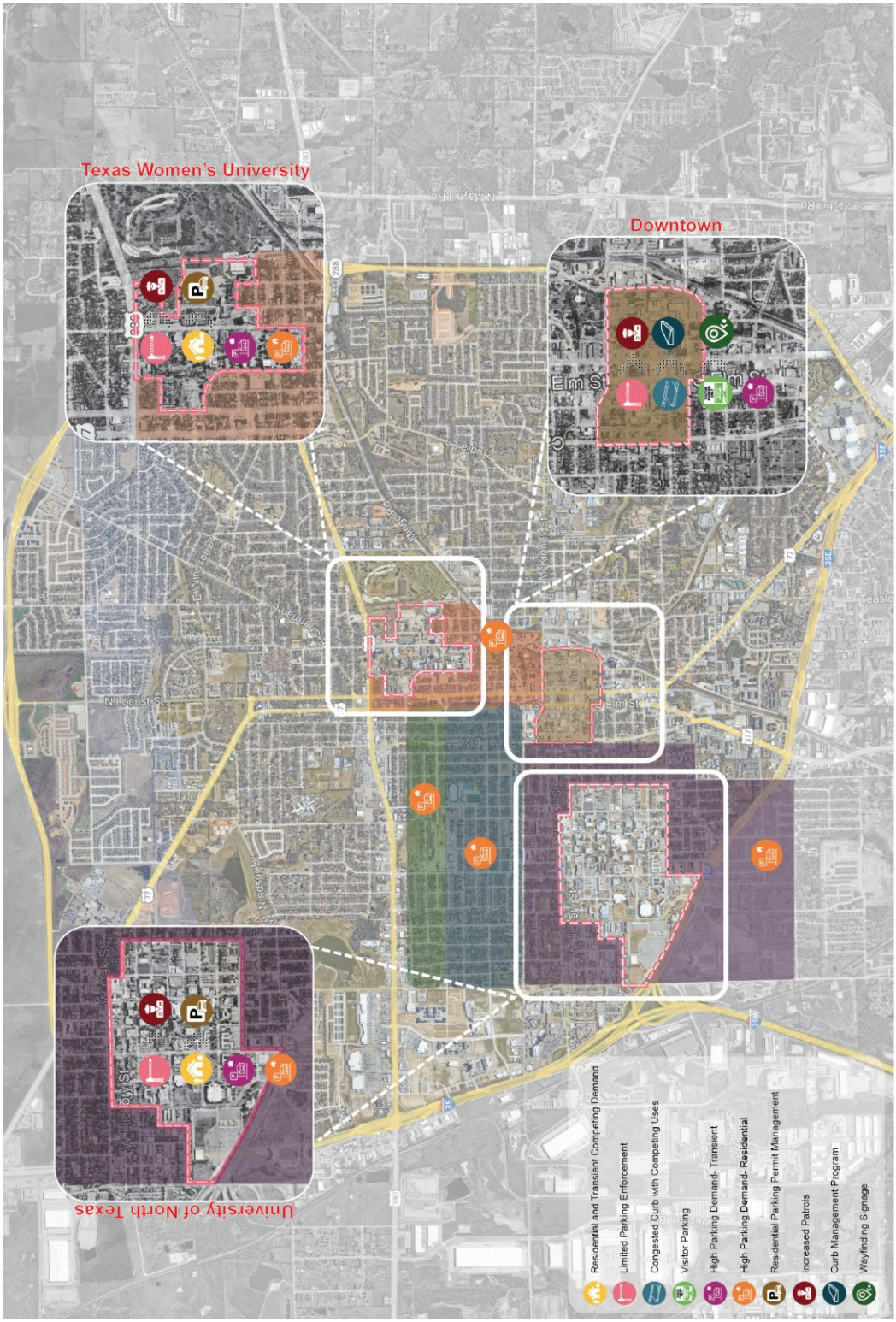
Strategy	Priority	Action	Implementation Considerations	Relative Cost	Area of Focus
		Mission to City Goals	develop a goal-oriented mission and next steps.		
	Low	Prioritize Parking Enforcement Staffing	Hire dedicated enforcement staff to provide more detailed Downtown coverage of parking assets both off-street and on-street with the ability to respond to Citywide parking related matters	$$$	Downtown
Parking Operations & Maintenance	High	Responsibility & Authority	Industry best standards recommend consolidating parking operations into a single division and/or department and in the case of the City of Denton, the Transportation Services Division would be the primary candidate for consolidation of parking operations.	$	Citywide
	High	Information & User Experience	Consider future parking information systems needs as well as future new branding requirements for redesigning or incorporation into City website.	$	Citywide
	High	Curbspace Management Plan	Considering the variety of curbspace needs in Downtown Denton, a plan for managing the curbspace should start with Downtown and later branching out to a citywide effort.	$	Downtown/ UNT/TWU
	Medium	Committee Oversight	The duties of the City's Mobility Committee should be expanded to specifically address the City's parking program and provide a direct connection to the City Council, the Transportation Services Division and the community.	$	Citywide
	Medium	Campus Shuttles	UNT and TWU in collaboration with DCTA and the City should review, reconfigure and implement shuttle routes to facilitate	$	UNT/TWU

Strategy	Priority	Action	Implementation Considerations	Relative Cost	Area of Focus
			access to student residential neighborhoods and outlying parking facilities.		
	Medium	Staffing	Additional staffing will be needed for expanded parking enforcement and consolidation of departmental responsibility related to parking operations. Current staffing levels with the Transportation Services Division and the Police Department would not meet the proposed need.	$$$	Citywide
Parking Management	High	Program Oversight	All of the parking program strategies are interconnected and will work best as a package of management and operational approaches. In order for the strategies to be implemented successfully, a Parking Manager should be identified to oversee the program and guide the City to future success.	$	Citywide
	Medium	Establish and Manage a Parking Fund	Consider the organizational structure required to establish and oversee such a fund. Understand fund enabling legislation and general fund impacts. Engage stakeholders to help determine reinvestment priorities.	$	Citywide
	High	Improve Parking System Monitoring and Reporting	Assign as the parking manager/departmental responsibility for both parking and loading reporting. Explore adding to enforcement officer duties. Consider interlocal agreement with Universities to enforce parking on	$	Downtown/UNT/TWU

Strategy	Priority	Action	Implementation Considerations	Relative Cost	Area of Focus
			adjacent streets to universities.		
	Medium	Parking Districts	Designated parking districts can provide a framework to manage parking supply, improve turnover, support local businesses, and enhance multimodal transportation options. Creating separate parking districts allows for a tailored approach that considers the needs of smaller areas, combined with the ability to improve parking management and enforcement for each district.	$	Downtown/UNT/TWU
Planning Practices & Regulations	High	Parking Regulation Waiver Program	The Denton Development Code (DDC) can be updated to reduce the parking requirement through the provision of Transportation Demand Management (TDM) measures in new developments,	$	Downtown/UNT/TWU
	High	Residential Parking Permit Programs	The Denton Development Code Subsection 7.9.5C references a potential RPP program, but its framework and guidelines must be established so that locations can be identified by residents and implemented before seeing an impact.	$	Downtown/UNT/TWU
	High	Loading Zone Regulations	To strengthen enforcement, the code should be amended to clearly define loading zones, including permitted hours, vehicle types, and usage limits. It should also authorize modern enforcement tools such as camera-based monitoring or license plate recognition (LPR), enable	$	Downtown/UNT/TWU

Strategy	Priority	Action	Implementation Considerations	Relative Cost	Area of Focus
			third-party citation issuance, and introduce escalating penalties or towing for repeat violations.		
	Low	Minimum Parking Requirements	Review minimum parking requirements to right-sizing land uses and enable parking reductions through shared parking calculations. While Denton may not be ready to remove parking minimums citywide, it should continue to facilitate additional parking reductions/remove parking minimums in specific cases and situations	$	Citywide
	Low	Transportation Management Association	Establishing a TMA with many employers as members can help reduce parking demand citywide through comprehensive commute management. Denton should first look to work with partners to establish a local TMA	$	Citywide

Figure 10 City of Denton Parking Recommendations Focus Areas



A SUMMARY OF EXISTING CONDITIONS

MEMORANDUM

To: **Brett Bourgeois, City of Denton**

From: **Nelson\Nygaard**

Date: February 3, 2025

Subject: **City of Denton: Existing Parking Operations**

To kick off the City of Denton Citywide Parking Management Assessment, a review of the existing parking program including review of existing plans, parking policies and regulations, and departmental management and responsibilities was undertaken to build upon our understanding of the study context.

REVIEW OF EXISTING PLANS

As part of this study, previous downtown parking-related studies completed in Denton were reviewed to understand the existing context of parking supply and demand downtown and to document past City efforts to examine and address parking utilization. These studies are summarized below.

Denton Downtown Parking Study, 2024

The downtown parking study used observed and anecdotal parking information from City staff, stakeholders, and the public to identify parking strategies the City can consider to encourage better utilization of existing parking facilities. The plan also identifies sustainable parking policies to help achieve future development goals.

Most City-controlled spaces in the downtown study area are free and unrestricted, and other public spaces include paid public lots located near the Denton Square, and two-hour on-street parking near the Square. Observed parking data, collected in October 2023, revealed that Downtown has sufficient parking supply to serve the current demand (peak utilization of 79% on Saturday from 8-9 pm), although there are heavy parking utilization rates close to 100% on select blocks near the Square.

Feedback from stakeholders through a workshop was insightful into what business owners, DCTA, and other stakeholders have found to be concerns, and their suggestions to improve parking and the visitor experience Downtown. Stakeholders shared similar concerns as the public, that there is sufficient parking Downtown, but only if you know where to find it, and that the area around the Square can be quite busy with vehicles circulating for parking, which

is often not available. It is noted that the City has a pending grant application to pilot an automated parking guidance system for Downtown. Stakeholders recommend a consolidated source of parking to reduce circulation of drivers for parking, signage and a cohesive parking map to improve wayfinding for visitors to parking locations, paid and time restricted parking in high demand locations, and improvements for pedestrians walking downtown (street lighting, sidewalk and crosswalk enhancements, etc.).

Feedback from the public through online and in-person engagement found that many are unsatisfied with parking availability. A few recommendations included eliminating "predatory" ticketing and towing, presumably from privately-owned public lots that are not well signed, providing public access to private lots for additional supply of parking, providing additional signage and wayfinding, and one single parking app for all paid parking Downtown, and providing better places to walk and bike.

The study concluded with near-, mid-, and long-term strategies as part of a parking management toolbox. In the **near-term**, the study recommends increasing and enhancing static signage to help visitors navigate for parking, implementing time limits and restrictions in the heaviest demand locations, providing dedicating parking for employees, especially those around the Denton Square, increasing enforcement, accommodating Transportation Network Companies (TNC's), and collecting regular data understand effectiveness of parking practices. **Mid- term** and **long-term** strategies include those to reduce overall parking demand through various means such as improvements for bicycle, pedestrian, and transit trips, land use and zoning updates, and shared parking.

A more detailed review of the Downtown Parking Study, which is still ongoing is included as part of the Conditions Assessment memorandum.

Accessible Parking Spaces on the Square, 2022

City staff reviewed existing accessible parking spaces available in the nine-block area surrounding the Denton Square to assess whether on-street parking met required parking ratios for marked or metered parking in the recently adopted Public Rights-of-Way Accessibility Guidelines (PROWAG). The study found that three of the nine blocks surrounding the Denton Square meet PROWAG ratios. Where ratios were not met, it was due largely to historic building entrances being significantly elevated above the street, or due to features such as in-ground utilities.

Figure 1 below shows locations for accessible parking spaces along each block. The table below shows the conclusions of this study.

Figure 1 Locations for accessible parking spaces along each block



As future improvements are made in the downtown area, where parking on part of the block perimeter is altered, the City will be required to provide the minimum number of accessible parking spaces required, based on the total number of marked or metered parking spaces on the block perimeter.

Figure 2 Parking Spaces by Type in Accessible Parking Spaces, 2023

Block	Total Parking Spaces	Required Accessible Spaces	Provided Accessible Spaces	Satisfies Required Accessible Parking
A	28	2	0	N
B	34	2	1	N
C	17	1	0	N
D	32	2	1	N
E	62	3	3	Y
F	39	1	2	N
G	13	1	1	Y
H	24	1	1	Y
I	12	1	0	N

Public and Private Parking Downtown Denton, 2018

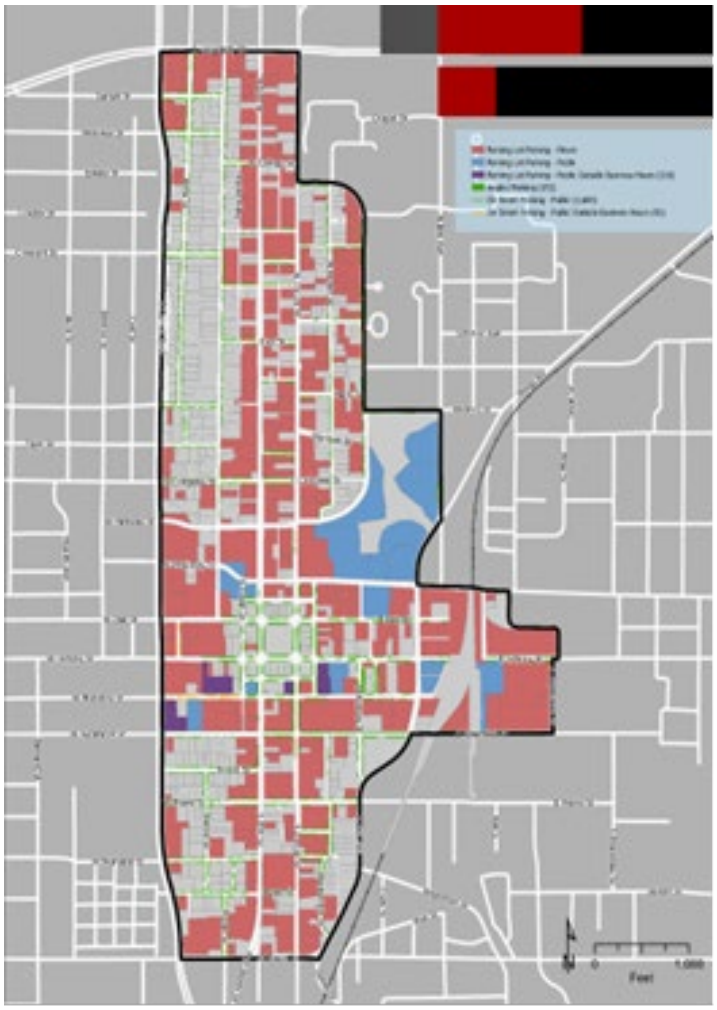
In early 2018, the public and private parking in Downtown Denton was studied by City staff and reported on parking difficulties in Downtown. Departments including Economic Development, Engineering, Transportation, Facilities, and the City Manager's Office, collaborated on the study and related outreach to the business community in Denton. At this time, there were a number of issues impacting parking in Downtown including employee parking, proximity of customer parking, and the frequency and duration of construction projects impacting parking. The report listed two major planning efforts that have helped to shape the current parking landscape in Denton. First, these departments engaged Downtown business owners, ensuring their concerns were heard and addressed. These issues included employee parking, signage and branding efforts for parking, and construction coordination and timing. Lastly, the Downtown parking maps and inventory were updated as part of this effort. This inventory has continued to be updated periodically and has helped to better direct visitors to available public parking in the area.

Parking was inventoried for Downtown Denton and reported by sub-area. In 2018, the study recorded 1,520 spaces in public parking lots and 2,130 on-street parking spaces and 7,878 spaces in private parking lots. Figure 3 and Figure 4 shows the extents of the parking study and parking inventory.

Figure 3 Downtown Parking Totals, 2018

	Public Lot	Private Lot	Public Lot Outside Business Hours	Angled & On-Street Parking	On-Street Outside Business Hours	Total
Public Parking in Lots – Business Hours	1,340					1,340
Public Parking in Lots – Outside Business Hours	1,340		180			1,620
Public Parking – Lots & Streets – Business Hours	1,340		180	2,075		3,416
Public Parking Lots & Streets – Outside Business Hours	1,340		180	2,075	55	3,960
All Parking – Outside Business Hours	1,340	7,878	180	2,075	55	11,528

Figure 4 Downtown Parking Area, 2018



The Downtown Implementation Plan sub-area, defined in the Public and Private Parking Downtown Denton Study, and shown in Figure 5 and Figure 6 generally matches the study area boundary defined in the Denton Downtown Parking Study, 2024. In 2018, the study recorded 5,248 total parking spaces with 1,520 spaces in public parking lots and 854 on-street parking spaces and 2,874 spaces in private parking lots.

Figure 5 Downtown Implementation Plan Area Boundary

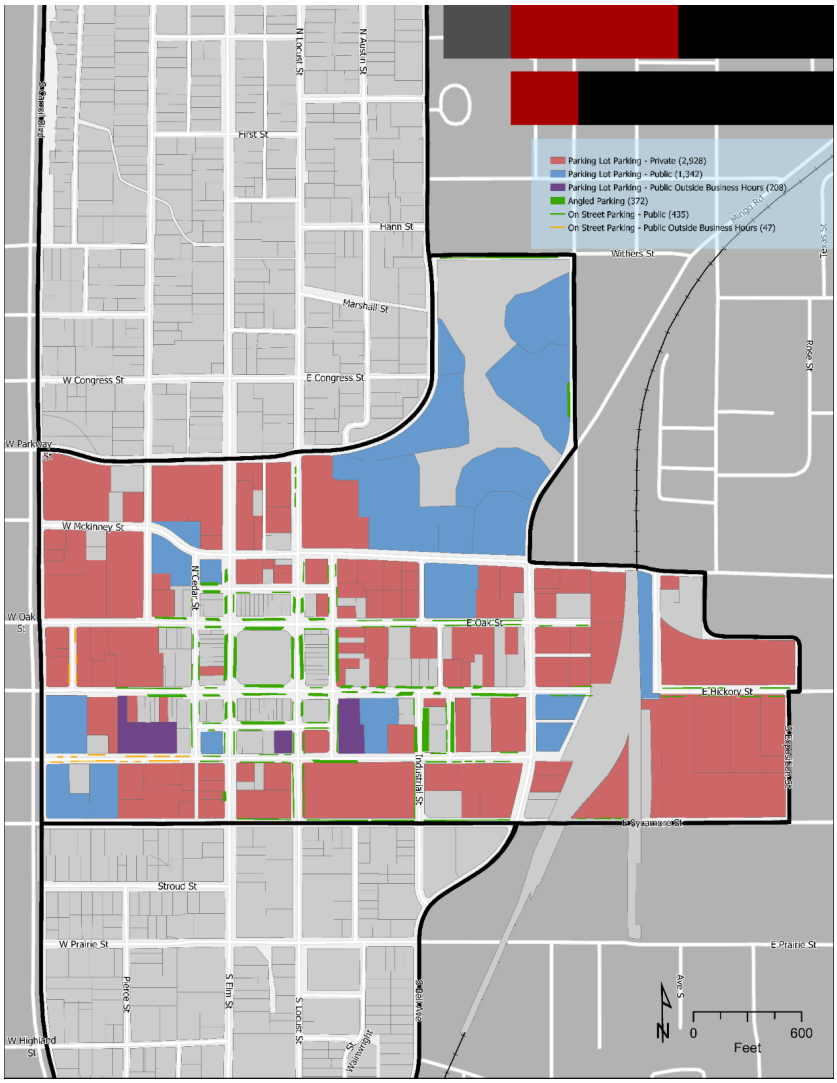


Figure 6 DTIP Area Parking Totals

	Public Lot	Private Lot	Public Lot Outside Business Hours	Angled & On-Street Parking	On-Street Outside Business Hours	Total
Public Parking in Lots – Business Hours	1,340					1,340
Public Parking in Lots – Outside Business Hours	1,340		180			1,520
Public Parking – Lots & Streets – Business Hours	1,340			807		2,147
Public Parking Lots & Streets – Outside Business Hours	1,340		180	807	47	2,374
All Parking – Outside Business Hours	1,340	2,874	180	807	47	5,248

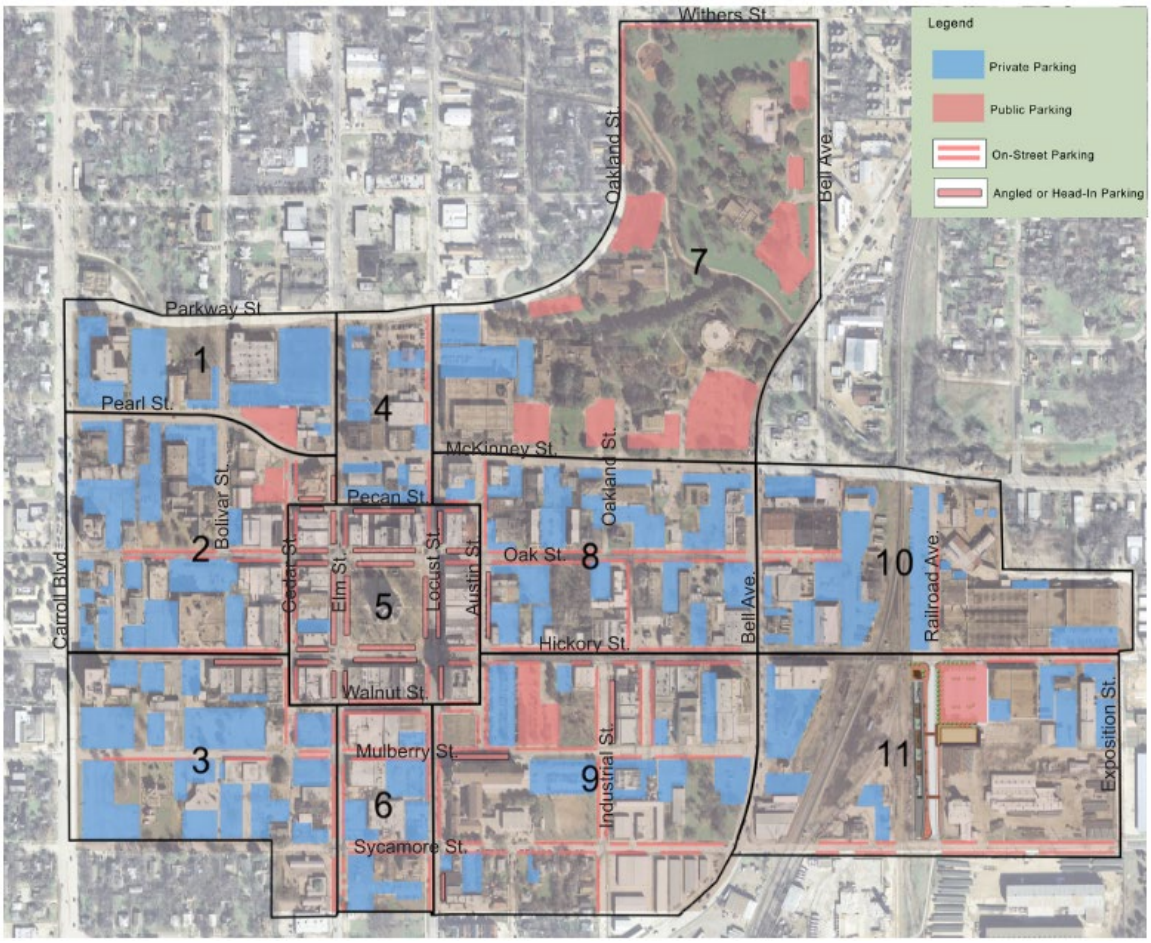
Downtown Implementation Plan, 2010

A parking assessment was conducted for the Downtown Implementation Plan (DTIP) in 2010. As described in the plan, field surveys, photographic interpretation and personal interviews were used to define Downtown parking conditions, resulting in an understanding of both real and perceived parking problems. The findings resulted in recommendations which address both current and potential future Downtown parking situations.

The Downtown Implementation Plan parking study area was bounded by Carroll Boulevard to the west, Exposition Street to the east, a half block south of Sycamore Street to the south

and Parkway Steet/Withers Street to the north. This area extends one block further south and one block further east of the study area defined by the most recent Downtown Denton parking study and captures additional private and public parking spaces.

Figure 7 Downtown Implementation Plan Parking Study Area



Downtown parking includes public parking lots, public on-street parking, and private parking lots. The study recorded 810 spaces in public parking lots, 605 spaces in public on-street parking, and 3,486 spaces in private parking lots, totaling 1,415 public spaces and 4,901 total parking spaces in the study area.

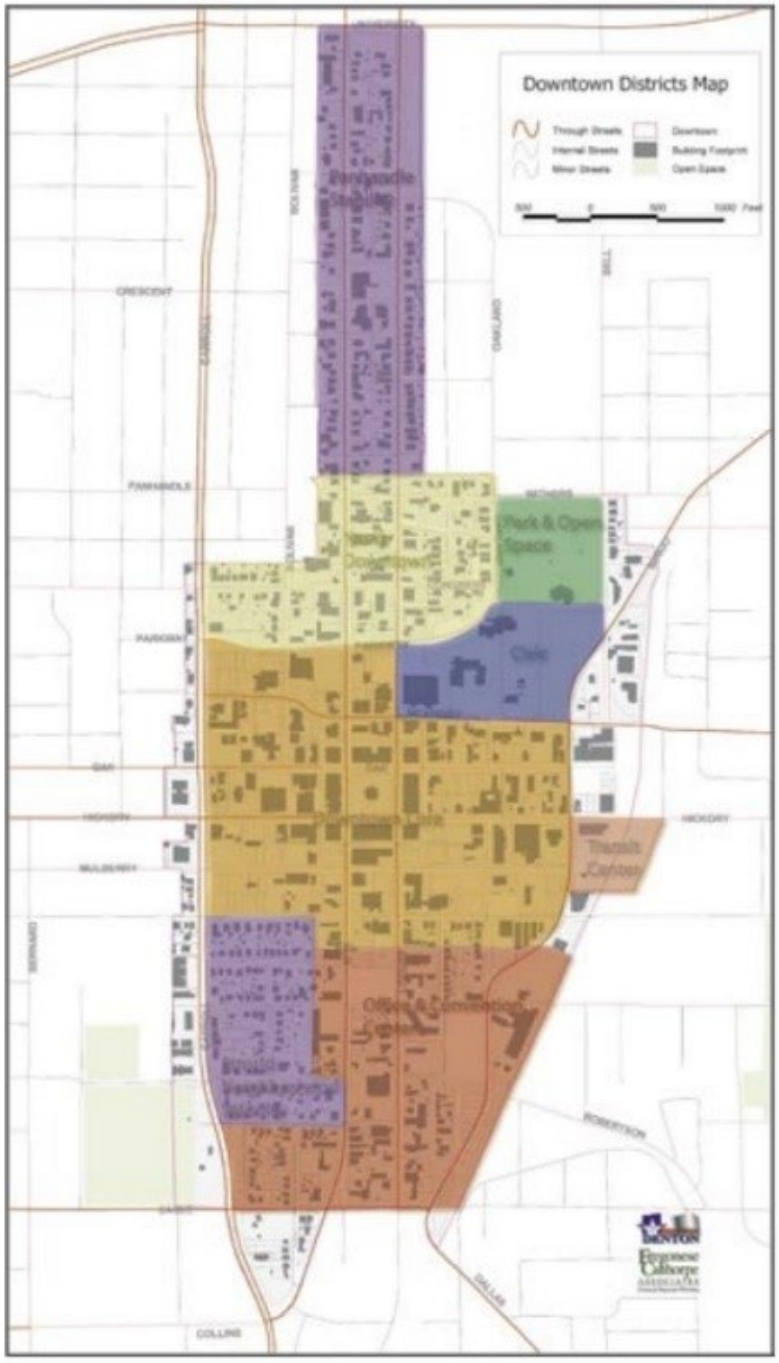
City of Denton Downtown Master Plan, 2001

A parking study was conducted in 2001 as part of the Denton Downtown Master Plan to measure the quantity and location of parking in Downtown and examine how spaces were being used. Within the defined study area, the study found that 23% of land was dedicated

to surface parking lots, 34% was dedicated to streets, 16% was comprised of buildings, and 27% consisted of vegetation or landscaping.

The study inventoried nearly 10,800 parking spaces within Denton's downtown. The majority (9,731) were located within private parking lots, followed by 751 on-street parallel spaces and an additional 313 spaces of on-street diagonal parking (see Figure 8 below). Overall, the Downtown Core, defined as approximately 100 acres, was characterized as having a surplus of parking, only 2,600 spaces required and over 3,500 available in the core area.

Figure 8 Downtown Districts Map, Downtown Master Plan 2001



While the Downtown Core was characterized as having a surplus of parking; the study found that many visitors failed to notice many spaces located just one or two blocks away from the historic square. Much of the parking was in private lots and not available after hours, even

though there were no competing uses. A shared parking system was suggested in the Downtown Core to improve business access. This shared parking system and other parking demand solutions including:

1. Maximize on-street parking by providing diagonal and parallel parking spaces where feasible. These spaces should be time limited so that Downtown customers, rather than employees or business owners, use them.
2. Encourage private parking lots to be available to the public after hours or during off-peak times. Private parking lot owners can be encouraged to participate by having neighboring businesses provide liability insurance and cleanup services during off hours.
3. Provide adequate public off-street parking to handle the shared parking demand. As the downtown continues to grow, parking structures can be added over time. Other cities have found that including pedestrian friendly uses in the ground floor is extremely beneficial in eliminating the "dead" zone that can occur around a parking facility.
4. Develop parking facilities at the edge of the "10-minute walk" zone from the Denton Square – about half a mile. This is the generally considered the longest comfortable distance most people will walk in the United States. Designing the intervening streets to be pedestrian-friendly areas will encourage shopping and strolling.

The study identified the opinions of business owners as well as visitors that Downtown parking spaces are too few and far between, especially during the afternoon and evenings around the historic square. The lack of parking appeared most acute during special events and festivals. The study cited challenges related to parking availability and the lack of viable alternative modes such as walking and transit, that can be important to successful downtowns. The study recommended parking facilities be funded through a Tax Increment District or a Public Improvement District.

NCTCOG Studies

As part of its Parking Management Program, the North Central Texas Council of Governments (NCTCOG) studied and centralized local parking studies across the region to

identify common themes and provide governments with examples of challenges and recommendations for their systems. Some similar cities' parking studies are summarized below to provide points of reference for other cities in the region facing similar challenges to Denton.

A common theme across all these parking studies is the identification of sufficient overall parking supply paired with localized shortages in high-demand areas during peak times. Because these studies focus on downtown parking, it is important to note that many of the areas of focus for this study are not covered. Other relevant peer cities are covered in the State of Practice Analysis.

Many of these studies have direct parallels to Denton, particularly Downtown, and could be seen as local best practices. Each study highlights the need for better utilization of existing parking resources through strategies such as improved signage and wayfinding to guide visitors to available spaces, enforcement of time limits to encourage turnover, and formalization of shared parking agreements to maximize the utility of private or underutilized lots.

The studies also emphasize the importance of addressing future growth and peak event demands through proactive planning, including structured parking solutions and enhanced public awareness of parking options. Collectively, these recommendations aim to balance accessibility, efficiency, and the long-term development needs of the downtown areas analyzed.

2019 Historic Town Center Parking Study Update (McKinney, TX)

McKinney studies its downtown parking every five years to ensure parking can adequately support downtown growth and activities. In 2019, key findings indicated that while the overall parking supply is adequate, certain high-demand zones experience significant occupancy during peak times, leading to localized shortages.

Notably, the study observes that new parking structures have not achieved optimal utilization, suggesting a need for improved public awareness and accessibility. Additionally, on-street parking exhibits limited turnover, with many vehicles exceeding the intended duration of stay, thereby reducing availability for short-term visitors. Key recommendations included enforcement of time limits and pricing to incentivize parking turnover in high demand areas as well as improving wayfinding signage to more evenly distribute demand.

2020 Downtown Mansfield Development Strategies (Mansfield, TX)

As part of a larger study of downtown development strategies, Mansfield studied its parking supply and use characteristics (occupancy, peak times, etc.). The findings indicated that, given the current demand, there is an abundant amount of parking within the study area, with approximately 1,140 spaces available. However, the study noted that during peak times,

particularly during special events, certain areas experienced higher occupancy rates, suggesting that there are high-visibility areas which experience shortages at key times.

Recommendations included improving wayfinding signage to guide visitors to available parking, considering shared parking agreements to optimize existing resources, and implementing time limits or enforcement measures to increase turnover and better manage parking demand. Additionally, the report suggested exploring opportunities for future development that could incorporate structured parking solutions to accommodate anticipated growth.

REVIEW OF EXISTING POLICIES/REGULATIONS

Denton Development Code

The Denton Development Code (DDC), published in 2019, serves as the primary regulatory framework guiding land use, zoning, and development within the City of Denton. It establishes standards for various aspects of urban planning, including zoning districts, building design, environmental protection, transportation infrastructure, and public facilities. The code aims to promote sustainable growth, enhance mobility, preserve the city's character, and ensure compliance with state and federal regulations. Key sections address procedures for obtaining permits, subdivision regulations, historic preservation, and provisions for nonconforming uses. Most relevant to this study, the DDC outlines parking regulations designed to balance development needs with traffic management, accessibility, and alternative transportation options. Off-street parking requirements are established based on land use, with the ability for reductions if a parking demand study demonstrates a lower need. Some examples of parking and mobility guidance within the code include:

- For residential uses, the number of required parking spaces ranges from one space per dwelling unit (for tiny homes) to four spaces for single-family detached dwellings
- Multifamily residential complexes are required to have 1.25 parking spaces for one bedroom and efficiency units, one space per bedroom for larger units, and guest parking for complexes with 10 units or more
- Shared parking and off-site parking are permitted if spaces are within 300 feet for most residential uses, 500 feet for non-residential uses, or 1,000 feet for non-residential uses if valet parking is provided. Shared parking cannot be used for single-family, duplex, or townhouse uses
- Maximum parking is equal to 125% of the minimum number of off-street parking spaces required
- Developments within ¼ mile of bus stops receive a 10% parking reduction, while affordable housing and senior developments qualify for a 25% reduction under certain circumstances
- One bicycle space is required for every 20 parking spaces, plus four bicycle spaces or two motorcycle spaces can be substituted for every one vehicle parking space up to 5% of the total required spaces

- Parking structures must be integrated into the surrounding architecture, and large parking lots require pedestrian walkways
- ADA-accessible parking spaces must be on-site, and all off-street parking areas must adhere to specific surfacing and design standards
- Parking lots adjacent to the street must be screened using a variety of methods, including landscaping, berms, or low walls
- Landscape islands planted with large canopy trees are required for every 10 parking spaces

Transportation Criteria Manual

The Transportation Design Criteria section of the Denton Design Criteria Manual (2024) establishes comprehensive guidelines for designing transportation infrastructure within the city. The manual supports a "complete streets" approach, which promotes safety, accessibility, and efficiency for all users, including drivers, cyclists, and pedestrians. Roadway classification is a fundamental component of the manual, outlining different street types – freeways, arterials, collectors, and local streets – each with specific design standards regarding right-of-way width, lane dimensions, and traffic flow. The manual also contains intersection design, requiring appropriate visibility, turn lanes, and signalization. Some of the criteria related to parking include:

- On-street parking is allowed on residential and residential collector streets but prohibited on commercial and industrial arterials
- ADA on street parallel parking spaces require an access aisle with a minimum of five feet of access connecting to pedestrian routes, while ADA perpendicular and angled spaces require eight feet of access to accommodate van accessibility.
- Specific design standards are outlined for parking configurations for different angles, including 30, 45, 60, and 90 degrees

Public Infrastructure Construction Standard Details

The City of Denton Standard Details document concentrates on the design and construction standards of various elements of public infrastructure within Denton. These standards set out the minimum and maximum heights, widths, installation details, and design of city public infrastructure, such as:

- Water vaults

- Fire hydrant installation
- Sewer lines
- Manholes
- Pavement trenches
- Storm drainage
- Roadway sections
- Curbs and gutters
- Intersection approaches
- Raised medians
- Sidewalks
- Dumpster pads

While many of the standards relate to infrastructure elements outside of parking, the roadway sections include details on roadway and sidewalk width and layout standards. The roadways sections are divided into the various street types in the city of Denton, including:

- Collector streets
    - Residential collectors
    - Commercial collectors
    - Major collectors (require additional width for bicycle and pedestrian facilities)
- Arterial streets
    - Primary arterials (with median)
    - Modified primary arterials (with center left turn lane rather than median)
    - Secondary arterials (with median)
    - Modified secondary arterials (with center left turn lane rather than median)
- Residential streets
    - Urban residential streets
    - Rural/suburban residential streets
- Alleys

Overall, the standards set for roadway widths are typically 11-foot-wide lanes, except for interior lanes on primary arterials and modified primary arterials, which are set at 10.5 feet and 11.5 feet, respectively. Collectors and arterials of all types include multi use paths

measuring 10 feet wide on both sides of the street. Center left turn lane widths are set to 12 feet on modified primary arterials and 11 feet on modified secondary arterials. Residential streets of both urban and rural/suburban types have a standard of 5-foot-wide sidewalks, although the urban type includes a curb while the rural/suburban variant includes a ditch. Alley standards include a 20-foot right-of-way with 15-foot drive space for residential alleys and 20-foot drive space for commercial alleys. On-street parking is included in the standards for residential collectors and residential streets, but no width standard is included.

REVIEW OF EXISTING DEPARTMENT RESPONSIBILITIES

City Organization

The City of Denton is organized into a multitude of departments across five (5) main disciplines:

- **Administration & Operations**
    - Services and offices that make up Denton's Administration and Operations Department such as the City's Attorney's Office and the City Manager's Office.
- **Community & Quality of Life**
    - Departments serving residents in fostering community growth and improving quality of life such as Community Services and Environmental Services.
- **Public Safety**
    - All of Denton's Law Enforcement, Fire Department, Emergency Services, and other Public Safety Divisions.
- **Utilities**
    - Services providing utility services and their providers in the City of Denton such as Denton Municipal Electric and waste management.
- **Development & Infrastructure**
    - Departments responsible for development and growth in the City include Development Services, Streets, and Transportation.

Of the City departments, there are many that play a role in the operations, management and enforcement of parking across the City, all of which can influence both the day-to-day parking operations and the long-term planning. A more detailed discussion of how the City's organization impacts parking management can be found below.

Parking Management in the City

As previously highlighted, a number of Departments within the City organization play a role in the parking operations of the City, which has led to a split parking program across all elements, including enforcement, operations, maintenance, management and planning.

Enforcement

On-street parking enforcement currently resides within the Traffic Division of the Police Department, where enforcement activities are undertaken on an as needed basis based upon community complaints and through the Engage Denton app. While parking enforcement staff have historically been moved around City departments, staff have always been civilians, and the Police Department uses the Public Safety Officers (PSO's) for enforcement activities. However, with PSO's generally being used an entry program for police officers, there is frequent turnover of staff and as of Summer 2024, only three (3) PSO's are on-staff with parking enforcement only one of their responsibilities.

For off-street enforcement involving vehicles, Community Improvement Services addresses those violations such as parking on unimproved surfaces, vehicles, blocking sidewalks, junk vehicles and illegal storage. Each of the City's seven (7) Community Improvement Services districts has a CIS Officer. If a violation is found the standard process includes a Courtesy Notice, Notice of Violation, and a Court Summons, or Work Order. Courtesy Notices and Notices of Violation are designed to inform and educate residents about violations and possible solutions before any enforcement action is taken. The majority of the City's code violations are corrected voluntarily by property owners and tenants, without the need for Summons or Work Orders.

Operations & Maintenance

Parking operations are managed through the Transportation Division which incorporates traffic engineering and traffic operations. The Division oversees regulatory signage and pavement markings. However, public parking lot maintenance is directly overseen by the Facilities Management Department. Without a specific Parking Fund, resources are limited both in terms of financing and staffing for a fully robust maintenance program.

Planning

The Development Services Department leads in the planning for off-street and on-street parking resources. Through the enforcement of the Denton Development Code, the Department regulates the provision of off-street parking and the utilization of on-street space for parking. Parking regulations within the Denton Development Code are regularly reviewed and updated as appropriate, most recently in September 2022, when non-

conforming site features were updated as well as specific changes to some land-use requirements.

Management

Overall, the City lacks a central management role for parking. With multiple departments having separate and often distinct roles within the parking program, there is not one department that oversees the program Citywide. Multiple departments receive complaints related to parking:

- The Streets Department is the recipient of the community requests through the Engage Denton system but forwards parking issues to the appropriate department(s).
- Community Improvement Services receive complaints from Denton 311 and the Engage Denton system.
- The Police Department also receives complaints through a variety of avenues such as the emergency 911, non-emergency phone, at Police Stations and directly to Officers.

B STATE OF THE PRACTICE

MEMORANDUM

To: **Brett Bourgeois, City of Denton**

From: **Nelson\Nygaard**

Date: February 3, 2025

Subject: **City of Denton: State of the Practice**

Nelson\Nygaard reviewed the parking standards from a set of peer jurisdictions as identified by City staff. Current codes and practices for off-street parking requirements and standards are summarized, while also highlighting examples of innovative code practices that may be found (e.g., removal of parking requirements, establishment of parking maximums, bike parking requirements, etc.). Key code supportive practices are also identified to include curbside management regulations on development adjacent and neighboring blocks, as well as TDM policies and programs that facilitate/encourage reduced parking supplies in key growth districts.

PEER CITIES

Peer jurisdictions identified by City staff included those local to the Denton region as well as comparable from the perspective of being home to higher education institutions and also some aspirational Cities that have implemented emerging best practices for parking management. The peer cities are listed below:

Table 1 Peer Cities: State of the Practice

Texas Cities	Non-Texas Cities
• San Marcos. TX	• Fort Collins, CO
• Waco, TX	• Ann Arbor, MI
• Lubbock, TX	• Columbus, MO
• Richardson, TX	• Tempe, AZ
• Tyler, TX	• Nashville, TN
• College Station, TX,	• Norman, OK
• Abilene, TX	• Fayetteville, AR
• Austin, TX	
• Houston, TX	

As a part of our desktop reviews of each jurisdiction's parking programs and policies, standard benchmarks were reviewed and included the following:

Table 2 Standard Benchmarks

Standard Benchmarks
Parking Enforcement: Organization & Operations
Parking Enforcement Department Location
Parking Enforcement: Citation Structure & Compliance
Transportation Services: Organization, Responsibilities & Operations
Department Collaboration: Development Guidelines, Design Criteria, Policies
Council Oversight: Council Review, Director Discretion
Zoning Code & Ordinance
Parking Standards: Parking Minimums & Related Standards

PEER CITY REVIEWS

San Marcos, TX

Benchmark	San Marcos, TX
Parking Enforcement: Organization & Operations	City Marshal's Department patrols Monday-Saturday with LPR used for Downtown parking enforcement. Enforcement includes: • 2-hour time limited parking • Handicap parking • Loading zones • Residential permit parking • Towing of abandoned or illegally parked vehicles • Fire lanes and hydrants • No parking zones • Blocking lane of traffic or driveway • Double parking • Sidewalk, left lane, back in/head in
Parking Enforcement Department Location	Within City's Marshal Department
Parking Enforcement: Citation Structure & Compliance	Citations are based on four levels of violation with increasing costs. Violations regarding accessible parking incur highest level of fines along with applicable court costs and admin fees as required by state law.

Benchmark	San Marcos, TX
Transportation Services: Organization, Responsibilities & Operations	• Parking enforcement and towing compliance division falls under the City Marshal's department • Public works department Provides planning, direction, and administrative support services for all divisions within the department. ○ Stormwater ○ Streets ○ Traffic ○ Transit ○ Fleet ○ Facilities Currently manages Residential Parking Permit program • Streets division Responsible for all maintenance and repair of city streets, sidewalks, and alleys. Also conducts annual street minor reconstruction program, and supports the neighborhood clean-up program. Curb repair, pothole repair, utility street cut repair, etc. • Traffic division Responsible for all maintenance and repair of city street signs, pavement markings, and traffic signals. Also conducts traffic surveys and supports neighborhood clean-up program. Responsible for striping pavement.

Benchmark	San Marcos, TX

Department Collaboration: Development Guidelines, Design Criteria, Policies	• Development guidelines, design criteria, etc.
	• Land development code
	  ○ General minimum parking requirements apply outside of downtown core
	  ○ Lower parking requirements in downtown core
	  ○ When parking exceeds 150% of minimum, landscaping and solar powered arrays are required
	  ○ Includes minimum bike parking requirements for many land uses
	  ○ Shared parking can be used to meet minimums
	Parking reductions available for affordable housing, senior housing, and land uses that provide a private carshare program.
	• Transportation design criteria manual includes:
	  ○ Street design criteria (including on-street parking)
	  ○ TIA criteria
	  ○ Sidewalks/curb ramps/bike lanes/bus stops

Council Oversight: Council Review, Director Discretion	• Council review with director discretion • City Charter – lays out Council powers
Zoning Code & Ordinance	• San Marcos Development Code is currently in the process of being reviewed • Recent changes October 2023: Legislative changes Improved development processes related to development agreements. November 2021: Historic preservation updates August 2021: Miscellaneous updates Adjusted access standards for residential garages, including pedestrian access.
Parking Standards: Parking Minimums & Related Standards	The City has parking minimums which are lower within the Downtown Core.

Benchmark	San Marcos, TX
Best Practices	• Lower parking requirements in downtown core • When parking exceeds 150% of minimum, landscaping and solar powered arrays are required

Waco, TX

Benchmark	Waco, TX
Parking Enforcement: Organization & Operations	• No parking enforcement on website, no parking regulations outside of downtown. • Enforcement within Downtown • Free parking at various lots, garages, and on-street spaces downtown ○ Limited two-hour limit regulations
Parking Enforcement Department Location	Parking enforcement is handled by the Police Department with support from an outside vendor, AirGarage.
Parking Enforcement: Citation Structure & Compliance	• Citation fee structure set by Code. • City of Waco Court administers citation compliance
Transportation Services: Organization, Responsibilities & Operations	• Organization, responsibilities and operations Transportation dept under transit system mostly focused on transit related services • Waco Metropolitan Planning Organization (MPO) coordinates transportation planning activities for Waco and McLennan County which includes 20 member cities
Department Collaboration: Development Guidelines, Design Criteria, Policies	• Development guidelines, design criteria, etc. • Waco Development Guide – 2019 • Waco Standard Specifications for Construction – 2013 • Waco Low Impact Development Guidance Manual - 2011
Council Oversight: Council Review, Director Discretion	• Council review with director discretion
Zoning Code & Ordinance	No recent changes in the Zoning Code related to parking standards.

Benchmark	Waco, TX
Parking Standards: Parking Minimums & Related Standards	• The City has parking minimums. • The parking requirements shall apply to new construction, additions, or changes to a more parking intense use, only. Structures in existence as of May 1, 2001, shall be exempt from the requirements set forth in this section; however, no action shall be permitted that will reduce the number of existing parking spaces available to such structures below the number of parking spaces required by this section.
Best Practices	n/a

Lubbock, TX

Benchmark	Lubbock, TX
Parking Enforcement: Organization & Operations	Parking enforcement is the responsibility of the Lubbock Police Department and Municipal Court System. These City departments monitor all parking restrictions and initiate appropriate enforcement actions including citations and vehicle immobilization or towing.
Parking Enforcement Department Location	Parking enforcement is handled by the Police Department with support from an outside vendor, AirGarage.
Parking Enforcement: Citation Structure & Compliance	Parking fines must be paid within 12 days of the date the citation was issued or stated for contest. Failure to respond to a parking citation may result in the issuing of an arrest warrant and the assessment of additional fees.
Transportation Services: Organization, Responsibilities & Operations	Transportation Services are split between Engineering Services and Traffic Management. Traffic Management manages the bike/ped program, complete streets as well as the residential parking program. Citibus operates and provides public transportation for the City.
Department Collaboration: Development Guidelines, Design Criteria, Policies	The UDC is administered by the Planning Department, which guides parking standards.

Benchmark	Lubbock, TX
Council Oversight: Council Review, Director Discretion	Reduction in parking minimums may be approved administratively through the Site Development Plan Review process.
Zoning Code & Ordinance	Parking Ratio's in the Unified Development Code were last updated in September 2024.
Parking Standards: Parking Minimums & Related Standards	• The City has minimum off-street parking standards with reductions available by 50% based on Overlay District's, location to transit (1/4 mile) and proximity to residential district (1/4 mile). • Where a shared parking facility serving more than one use is proposed, the total number of required parking spaces may be reduced up to 25%. • The number of required parking spaces may be reduced by five percent for parking areas of more than 50 spaces if the site provides a dedicated ride-share loading area. • On-street parking spaces may provide credit to satisfy the minimum parking space requirements in any Public and Nonresidential zoning districts subject to the Director of Planning's approval . • Off-site parking spaces may provide credit to satisfy the minimum parking space requirements in any Public and Nonresidential zoning districts subject to the Director of Planning's approval. **Time Limited Parking** Requests for time limited parking zones can be made by the owner or tenants of residential, commercial, or government facilities abutting a public street on one side of any block for a minimum distance of one hundred fifty (150) feet. Requests must represent eighty percent (80%) or more of the street frontage proposed to be placed in the time limited parking zone. **Resident Parking Only** Resident Parking Only zones are available in neighborhoods with a history of parking problems. With the approval of sixty percent (60%) or more of residents of the street frontage, a Resident Parking Only zone can be established. Residents within these zones may

Benchmark	Lubbock, TX
	then purchase permits to park on the street in front of their property. Lubbock's parking management stands out for its strong focus on residential protection, especially near Texas Tech University. In 2017, the Resident Parking Only Program was adopted. The program now has eight zones covering key neighborhoods near Texas Tech and the Medical District. By prioritizing residential permit parking and strict enforcement, the city ensures that the local community isn't overwhelmed by university-related demand.
Best Practices	• Resident Parking Only zones are available in neighborhoods with a history of parking problems.

Richardson, TX

Benchmark	Richardson, TX
Parking Enforcement: Organization & Operations	Parking enforcement is limited with staff capacity and generally assigned to vehicles in no-parking zones. The City's code does not allow for License Plate Readers (LPR) so the enforcement process is manual, and time-consuming.
Parking Enforcement Department Location	Parking enforcement is carried out by the Police Department
Parking Enforcement: Citation Structure & Compliance	The City does not have metered or paid parking. The Municipal Court has jurisdiction over Class C Misdemeanors and City Ordinance violations which occur within the corporate city limits and are punishable by fine only.
Transportation Services: Organization, Responsibilities & Operations	The Transportation and Mobility Department is charged with monitoring and responding to existing traffic conditions and planning for future transportation needs.

Benchmark	Richardson, TX
Department Collaboration: Development Guidelines, Design Criteria, Policies	The Code of Ordinances is administered by the Development Services Department, which guides parking standards. The Master Transportation Plan guides the transportation related improvements in the City and is guided by the Transportation and Mobility Department.
Council Oversight: Council Review, Director Discretion	Planning Commission can recommend to Council for a parking variance.
Zoning Code & Ordinance	Code of Ordinances outline off-street parking standards and bicycle parking standards.
Parking Standards: Parking Minimums & Related Standards	City enforces parking minimums with no allowance for reductions.
Best Practices	n/a

Tyler, TX

Benchmark	Tyler, TX
Parking Enforcement: Organization & Operations	Municipal government has a code enforcement department, addressing all city ordinances, including parking and traffic ordinances.
Parking Enforcement Department Location	Split between Police Department and Code Enforcement Department.
Parking Enforcement: Citation Structure & Compliance	The City does not have metered or paid parking. The Municipal Court has jurisdiction over Class C Misdemeanors and City Ordinance violations which occur within the corporate city limits and are punishable by fine only.

Benchmark	Tyler, TX
Transportation Services: Organization, Responsibilities & Operations	Traffic Engineering is part of the Engineering Services Department. The Traffic Engineer is responsible for the management of traffic Capital Improvement Projects (CIP) including the Intelligent Transportation System (ITS) Master Plan, bike lanes and routes, Traffic Signal Warrant Studies, installation and traffic signal timing. Tyler Transit operates the City's public transit and microtransit services. Tyler Area MPO provides transportation planning activities for the City and region.
Department Collaboration: Development Guidelines, Design Criteria, Policies	Development Services administers the UDC
Council Oversight: Council Review, Director Discretion	The Planning Director approves or disapproves off-site parking plans and shared parking plans.
Zoning Code & Ordinance	Development Services administers the UDC
Parking Standards: Parking Minimums & Related Standards	City enforces parking minimums with no allowance for reductions.
Best Practices	n/a

College Station, TX

Benchmark	College Station, TX
Parking Enforcement: Organization & Operations	Has a Code Enforcement Department which seems to address Obstruction of Right of Way violations, which may be pertinent to parking. College Station PD also has a Traffic Unit that enforces state law and local ordinances.
Parking Enforcement Department Location	Split between Police Department and Code Enforcement Department.
Parking Enforcement: Citation Structure & Compliance	The Municipal Court has jurisdiction over Class C Misdemeanors and City Ordinance violations which occur within the corporate city limits and are punishable by fine only.

Benchmark	College Station, TX
Transportation Services: Organization, Responsibilities & Operations	Traffic Engineering and Streets Maintenance is part of the Public Works Department. The Transportation Planning Division is part of the Planning & Development Services Department. The Division is responsible for leading the long range and short-range planning efforts related to multi-modal transportation and providing support as different aspects of the transportation system are implemented through land acquisition and the development review process.
Department Collaboration: Development Guidelines, Design Criteria, Policies	College Station has a suite of development guidance and regulations: - Guide to Building & Development: resource for developers that include development review procedures, submittal requirements and general H5 development information. - Unified Development Ordinance (UDO): contains all development regulations in one document, including zoning and use, platting, site plan development, and building permits - Site Design Standards: establishes minimum standards to be adhered to in the design and construction of all commercial and multifamily private improvements.
Council Oversight: Council Review, Director Discretion	The Design Review Board may waive parking space requirements in the WPC Wolf Pen Creek and NG Northgate districts if the development meets the goals of the master plan for the respective district.
Zoning Code & Ordinance	In 2017, a council ordinance established several changes decreasing requirements for off-street parking including providing a requirement for commercial and multifamily residential properties to use demand-based parking instead of existing minimums, increasing the distance of shared parking from its property, reducing parking targeted at small businesses and properties, and reducing parking requirements for multifamily residential properties.

Benchmark	College Station, TX
Parking Standards: Parking Minimums & Related Standards	• UDO provides parking requirements for off-street parking. • UDO has both minimum and maximum off-street parking standards for vehicles and min. for bicycle parking spaces. • For all non-residential uses in Redevelopment Areas as shown on the Comprehensive Plan Future Land Use & Character Map, no minimum number of off-street vehicular parking spaces will be required. • For all non-residential uses, the minimum number of off-street vehicular parking spaces may be reduced by up to twenty (20) percent (based on bicycle facilities/bicycle parking/transit availability/tree preservation).
Best Practices	• UDO has both minimum and maximum off-street parking standards for vehicles and min. for bicycle parking spaces. • For all non-residential uses in Redevelopment Areas as shown on the Comprehensive Plan Future Land Use & Character Map, no minimum number of off-street vehicular parking spaces will be required.

Abilene, TX

Benchmark	Abilene, TX
Parking Enforcement: Organization & Operations	The Signs, Signals and Lighting Division in the Public Works Department includes parking enforcement in the Downtown Central Business District. The Police Department also has a Traffic Unit that enforces state law and local ordinances.
Parking Enforcement Department Location	Split between Public Works and Police Department
Parking Enforcement: Citation Structure & Compliance	The Municipal Court has jurisdiction over Class C Misdemeanors and City Ordinance violations which occur within the corporate city limits and are punishable by fine only. The Downtown Parking Program was created in 1997 to improve the climate for customer dependent businesses in the downtown Abilene area. This is achieved by providing an opportunity for business owners to encourage their customers to conduct business or shop downtown without feeling restricted by posted time limit signs. If a customer receives a parking citation while downtown, they may return to the business they were visiting and present the citation to the business owner. The business owner then applies a stamp to it, allowing the customer to be relieved from paying the citation.

Benchmark	Abilene, TX

Transportation Services: Organization, Responsibilities & Operations	• Transportation Services - The City of Abilene's Transportation Services Department oversees the Abilene Regional Airport, CityLink public transit system, and maintenance of the City's vehicle fleet.
	• Public Works - The Public Works Department delivers and manages a number of systems, services, and projects includes multiple divisions:
	  ○ Signs, Signals & Lighting Division includes parking enforcement: enforces time and other parking regulations in Downtown Abilene's Central Business District, which includes approximately 660 on-street parking spaces with time limits.
	• Planning & Development Services Department is responsible for the plans and management that keep the city running. Includes Divisions:
	  • Building Inspections
	  • Code Compliance
	  • Junk Vehicles
	  • Vehicle Parked on Unimproved Surface
	  • Neighborhood Services Planning Services
	  • Land Development Code

Benchmark	Abilene, TX

Department Collaboration: Development Guidelines, Design Criteria, Policies	• Planning & Development Services Department is responsible for the plans and management that keep the city running. Includes Divisions:
	  • Building Inspections
	  • Code Compliance
	  • Junk Vehicles
	  • Vehicle Parked on Unimproved Surface
	  • Neighborhood Services Planning Services
	  • Land Development Code
	• Planning Approval/Review :
	The Planning Director shall be the responsible official for processing of a Site Plan.
	The Development Review Committee (DRC) shall be the responsible body for reviewing and providing comments on a Site Plan. The Planning Director shall be the initial decision-maker of a Site Plan.
	(2) Denial of an Alternative Parking Plan may be appealed to the Board of Adjustment under the procedures for an Appeal of a Responsible Official's Decision.

Council Oversight: Council Review, Director Discretion	• The appointed Planning Commission recommends to City Council decisions related to the Land Development Code. • The Planning Director has discretion to approve a parking reduction within the Central Business District.
Zoning Code & Ordinance	The Land Development Code covers the Land Use Matrix and Zoning Regulations.

Benchmark	Abilene, TX

Parking Standards: Parking Minimums & Related Standards	• Parking minimums are in effect with the exception of re-use of existing buildings which are exempt.
	
	• Development Within the CB District. Development within the Central Business (CB) district is unique in terms of parking and therefore shall be required to comply with the following.
	  ○ (1) In the case of re-use of an existing building, parking shall not be required.
	  ○ (2) In the case of new building construction, a combination of on-street, off-street and shared parking may be utilized to meet the parking requirements for the particular use.
	• The Planning Director as part of CB District Site Plan approval may approve a reduction in the required parking of up to fifty percent (50%) in the case of shared parking.
	• Alternative Parking Plan.
	  ○ The Director of Traffic and Transportation, or designee, may approve an Alternative Parking Plan which shows a reduced need for parking based on the unique characteristics of a particular use or location, shared parking such as projected transit use, high percentage non-motorized customer traffic, or as part of pedestrian-oriented mixed-use development.
	  ○ Denial of an Alternative Parking Plan may be appealed to the Board of Adjustment under the procedures for an Appeal of a Responsible Official's Decision.

Benchmark	Abilene, TX
Best Practices	• The Planning Director as part of CB District Site Plan approval may approve a reduction in the required parking of up to fifty percent (50%) in the case of shared parking. • The Downtown Parking Program was created to improve the climate for customer dependent businesses in the downtown Abilene area. If a customer receives a parking citation while downtown, they may return to the business they were visiting and present the citation to the business owner. The business owner then applies a stamp to it, allowing the customer to be relieved from paying the citation.

Austin, TX

Benchmark	Austin, TX

Parking Enforcement: Organization & Operations	• Organization:
	  ○ Parking Enterprise Division
	  ○ Under Transportation and Public Works (TPW) Operations
	• Operates several programs:
	  ○ Parking regulations and tickets
	  ○ Paid parking
	  ○ Affordable parking program
	  ○ Commercial vehicle loading
	  ○ Residential permit parking

Parking Enforcement Department Location	Parking enforcement is within the Parking Enterprise Division.
Parking Enforcement: Citation Structure & Compliance	• The City of Austin enforces on-street parking rules and regulations to enhance safety and access to available parking for all users. The Austin Transportation Department's Parking Enforcement officers and Austin Police Department officers, and in some cases trained volunteers, are authorized to enforce parking regulations within the City of Austin right-of-way. • Austin Municipal Court decides the lowest level criminal offenses in the state of Texas, including traffic, city ordinance, juvenile, and disabled parking. • Council is considering amendments to City Code to modify civil fines, costs and fees for parking violations.

Benchmark	Austin, TX

Transportation Services: Organization, Responsibilities & Operations	• Transportation and Public Works (TPW) Department:
	  ○ Active transportation and street design
	  ○ Arterial management
	  ○ Community services
	  ○ Development services
	  ○ Transportation Engineering
	  ○ Ground transportation regulation
	  ○ Land development
	  ○ Engineering
	  ○ Parking enterprise
	  ○ Office of special events
	  ○ Right of way
	  ○ Sidewalks and urban trails
	  ○ Signs and markings
	  ○ Smart mobility
	  ○ Street and bridge operations
	  ○ Transportation systems development
	  ○ Vision zero

Department Collaboration: Development Guidelines, Design Criteria, Policies	• Development services works with TPW to ensure mitigations are within realm of Austin Strategic Mobility Plan. • Transportation criteria manual outlines the TIA process
Council Oversight: Council Review, Director Discretion	Council review, Director discretion

Benchmark	Austin, TX

Zoning Code & Ordinance	• Active amendments:
	  ○ 2024: UNO height allowances, district boundaries, parking standards, and design criteria updates
	  ○ 2023: Live music and creative space bonus: Amend Title 25 of the City Code to create a new Creative District combining district with provisions for creative space and music venue preservation, modified site requirements, and density bonuses for affordable creative space.
	  ○ 2023: Site Plan Lite Phase 2 & Infill plats: Amend City Code Title 25 (Land Development Code) related to development regulations applicable to residential re-subdivisions and multi-family residential site development of five to sixteen units.
	  ○ 2022: South Central Waterfront Combining District and Density Bonus Program: Amendment to City Code Title 25 (Land Development) to create a new zoning district and modify related site development regulations and compatibility standards; and create a new zoning district for density bonus that includes granting additional floor-to-area ratio in exchange for providing community benefits; to establish boundaries for the new zoning districts located in the vicinity commonly known as the South Central Waterfront.
	• Adopted amendments:
	  ○ 2024: Revise regulations applicable to the density bonus
	  ○ 2024: Transit supportive code amendments
	  ○ 2023: Downtown parking modifications
	• Council is considering amendments to City Code to modify civil fines, costs and fees for parking violations.

Benchmark	Austin, TX

Parking Standards: Parking Minimums & Related Standards	• Parking minimums and related standards:
	  ○ No minimums
	  ○ Soft parking maximums
	  ○ One on-site accessible space is required
	  ○ Development standards for parking
	  ○ Above ground parking applies to FAR limit
	  ○ Off-street parking facilities for bicycles must be provided for each use on a site

Best Practices	• No Parking Minimums Citywide with one accessible space required. • The Austin Transportation Department's Parking Enforcement officers and Austin Police Department officers, and in some cases trained volunteers, are authorized to enforce parking regulations within the City of Austin right-of-way.

Houston TX

Benchmark	Houston, TX
Parking Enforcement: Organization & Operations	• Park Houston is a City Department dedicated to support public safety, quality of life, sustainability, and economic development. • Park Houston serves 635 square miles of Houston, parking violations such as blocking the sidewalk, blocking crosswalks and blocking fire hydrants in parking in tow-away zones are addressed through regular patrols. • Programs include the Residential Permit Parking Program, the Community Parking Program and Parking Benefit Districts. • To address blight in neighborhoods, officers complete over 7,000 service requests annually for abandoned vehicles on the public street. To encourage compliance, a warning is issued before the vehicle is towed.
Parking Enforcement Department Location	Park Houston

Benchmark	Houston, TX
Parking Enforcement: Citation Structure & Compliance	Parking citations fees are on a sliding scale based upon regulation. Citations that are contested are reported to the Parking Adjudication Office at the Municipal Court. Delinquent citations have fee's added and Vehicles that have three or more delinquent citations or one delinquent citation for parking in a handicapped zone can be booted.

Transportation Services: Organization, Responsibilities & Operations	• Transportation Planning services are a division of the Planning and Development Department. Operations includes:
	  ○ Complete Streets
	  ○ High injury network
	  ○ Bike plan
	  ○ Thoroughfare and freeway plan
	  ○ Livability Centers studies
	  ○ Coordination with the MPO

Department Collaboration: Development Guidelines, Design Criteria, Policies	The City of Houston has a code of ordinances that govern how property can be developed. The Department (including the Transportation Planning Division) uses these rules to check for compliance on subdivision plats, development site plans, parking applications, sidewalk modifications, and more.
Council Oversight: Council Review, Director Discretion	• The parking official has responsibility for the enforcement of the Parking chapter of the Code, with the exception of article VIII (off-street parking and loading), which shall be enforced by the director of the planning and development department or the director's designee. It shall be the duty of the parking official to direct, control and manage all on-street parking in residential and commercial areas. • The Planning Commission, a 26-member board appointed by the Mayor and confirmed by City Council includes citizens, elected officials and the Director of Planning and Development. The Commission reviews and approves subdivision and development plats. The Commission also studies and makes recommendations to City Council on development issues in Houston.

Benchmark	Houston, TX
Zoning Code & Ordinance	• The Department of Planning and Development regulates land development in Houston and within its extraterritorial jurisdiction, ETJ. The City of Houston does not have zoning, but development is governed by ordinance codes that address how property can be subdivided. • The City codes do not address land use. • Development site plans are checked for compliance with regulations that include parking, tree and shrub requirements, setbacks, and access.
Parking Standards: Parking Minimums & Related Standards	• Off-Street parking space minimums are in effect with the ability to reduce based on no. of bicycle parking spaces provided and designated historic buildings. • Shared parking requirements can be utilized to reduce the overall parking space requirement. • The total number of parking spaces required by the Zoning Code for a use classification on a secondary transit-oriented development street shall be reduced by 50%. • Special Parking Areas can be designated by Council to accommodate the unique parking needs in certain areas of the city upon consideration of an application filed in accordance with the Code or in conjunction with an amendment to the walkable places plan. A parking management plan has to be in place for a special parking area. • The City has three Parking Benefit Districts where a portion of the net meter and/or permit revenue is returned to a district and dedicated for public improvement projects. The funds can be applied to existing or newly identified projects recommended by the Advisory Committee.

Benchmark	Houston, TX
Best Practices	• The City has 3 Parking Benefit Districts where a portion of the net meter and/or permit revenue is returned to a district and dedicated for public improvement projects. • Special Parking Areas can be designated by Council to accommodate the unique parking needs in certain areas of the city upon consideration of an application filed in accordance with the Code or in conjunction with an amendment to the walkable places plan. • Park Houston is a City Department dedicated to support public safety, quality of life, sustainability, and economic development.

Norman, OK

Benchmark	Norman, OK

Parking Enforcement: Organization & Operations	• The Police Department enforces parking regulations, including issuing fines and towing where necessary.
	• Four, full-time Parking Enforcement Officers work Monday through Friday between the hours of 8am and 5pm and one part-time Parking Enforcement Officer who works evenings and Saturdays.
	• There are multiple options for how to pay for metered parking in the City of Norman.
	  ○ Pay at Meter/
	  ○ Flowbird Parking App
	  ○ Text to Pay

Parking Enforcement Department Location	Police Department
Parking Enforcement: Citation Structure & Compliance	• Rules for parking are established through City Ordinances and enforced by Norman PD's Parking Enforcement Officers. Citations for parking violations must be resolved or paid through the Municipal Court. • Any vehicle found to have three or more delinquent citations may be impounded in accordance with City Ordinance 32-601. Towing and storage fees, in addition to citation fees, are the responsibility of the vehicle owner. • Delinquent parking citations are referred to Linebarger, Goggan, Blair and Sampson, LLP. for collections ninety (90) days after the due date. There will be an additional fee assessed to parking citations sent to collections.

Benchmark	Norman, OK
Transportation Services: Organization, Responsibilities & Operations	• The Transit & Parking Division is part of the Public Works Department. The Division includes Parking Planning who oversee the operation of metered pay-to-park on-street parking and City owned parking lots. Maintenance and repairs of parking facilities are coordinated with other Public Works staff as needed. • Studies are periodically conducted in order to assess the availability and usage of City operated parking in the City of Norman. These studies help determine if changes need to be made to current parking operations or what improvements can be made to make the system more efficient.
Department Collaboration: Development Guidelines, Design Criteria, Policies	Planning & Community Development Department oversee City development through the administration of the Zoning Ordinance and Code Compliance. The City's Comprehensive Plan recommended the Neighborhood Planning Program targets Norman's Core Area. The Core Area contains around sixteen neighborhoods.
Council Oversight: Council Review, Director Discretion	Council approval of Zoning Ordinance with Planning Commission recommendations and director discretion
Zoning Code & Ordinance	Development ordinances were updated in 2022 and no longer include parking minimums for new developments in the City.

Benchmark	Norman, OK
Parking Standards: Parking Minimums & Related Standards	• The City replaced "Spaces Required" with "Spaces Recommended" in zoning code for all land uses except for single family homes, duplexes, fraternity houses, and mobile home parks. • Bicycle Parking facilities are required for all buildings and structures. • The Downtown Parking Lot Management Business Plan was created as a revision of the Parking Management System Business Plan to manage the City owned parking in the Downtown area and was last updated in 2016. This area includes the municipal East Gray Street Parking Lot, on-street parking around the Cleveland County Courthouse metered collectively by pay stations, and free on-street parking. • The Campus Corner Parking Management Business Plan was created as a revision of the Parking Management System Business Plan to manage the City owned parking in the Campus Corner area and was last updated in 2019. This area includes individually metered spaces, street parking metered collectively by pay stations, and the municipal parking lot located at 710 Asp Avenue. The Asp Avenue Parking Lot is serviced by two pay stations where 61 spaces and 3 disabled spaces are available for public use. Parking rates in effect are specified on the parking meter or pay station. Existing commercial loading zones previously established in various parking spaces in three designated areas remain in effect.

Benchmark	Norman, OK
Best Practices	• Any vehicle found to have three or more delinquent citations may be impounded in accordance with City Ordinance 32-601. • Delinquent parking citations are referred to Linebarger, Goggan, Blair and Sampson, LLP. for collections ninety (90) days after the due date. • The City replaced "Spaces Required" with "Spaces Recommended" in zoning code for all land uses except for single family homes, duplexes, fraternity houses, and mobile home parks. • Parking Management Business Plans have been generated in specific areas of the City to address concerns/challenges.

Nashville, TN

Benchmark	Nashville, TN
Parking Enforcement: Organization & Operations	On-street parking regulations are enforced by the Nashville Department of Transportation Parking Patrol and the Metro Nashville Police Department. Officers patrol meters, loading zones, fire hydrants and other restricted parking areas. The CBD is enforced 24-hours and includes Downtown, SoBro, Gulch, Gulch East Neighborhoods. All other areas are enforced 6am-12am.
Parking Enforcement Department Location	Nashville Department of Transportation Parking Patrol and the Metro Nashville Police Department.
Parking Enforcement: Citation Structure & Compliance	Parking citations are issued by the Nashville Department of Transportation Parking Patrol and Metro Nashville Police Department. Fines vary based on the violation. Circuit Court Clerk of Metropolitan Nashville & Davidson County has jurisdiction over parking citation payments.

Benchmark	Nashville, TN

Transportation Services: Organization, Responsibilities & Operations	• City Department of Transportation covers:
	  ○ ROW Permits
	  ○ Parking Permits
	  ○ Traffic Calming
	• Transportation Licensing
	The Transportation Licensing Commission shall have exclusive jurisdiction of the licensing and regulation of all vehicles for hire, including, but not limited to, taxicabs, wreckers, sedans, limousines, horse drawn carriages, and persons or businesses engaged in the practice of "booting" vehicles. The Transportation Licensing Commission shall constitute the sole administrative agency for the administration of all laws and ordinances relating to the licensing and regulation of vehicles for hire and booting services.
	• Parking enforcement and citations
	• Signage
	• Traffic Signals
	• Street Lighting Roadway Paving and Maintenance
	• Multimodal Transportation Analysis

Department Collaboration: Development Guidelines, Design Criteria, Policies	The recently created NDOT now plays a larger role in Citywide transportation planning with interaction through the planning approval/review process.
Council Oversight: Council Review, Director Discretion	• Planning Approval/Review: ○ NDOT updated the Multimodal Transportation Analysis in 2023 to align with the updates the Nashville Department of Transportation made to the new Multimodal Transportation Analysis Guidelines. The subject ordinance amended various provisions of Chapter 17.20.140 of the Code relating to Traffic Impact Studies. The changes were decided upon to provide clarification on the expectations set forth by the Nashville Department of Transportation and will include multimodal and safety analysis in alignment with current plans, policies, and strategies adopted by the

Benchmark	Nashville, TN
	Nashville Department of Transportation and other Metro Departments. ○ NDOT approves the Multimodal Transportation Analysis prior to Planning Commission review Requirements for a Multimodal Transportation Analysis. A multimodal transportation analysis shall be required by the planning department for applications to the metropolitan planning commission (MPC) or the Nashville Department of Transportation and Multimodal Infrastructure (NDOT) for all other development which contains: ○ Residential developments with more than seventy-five dwelling units; or ○ Nonresidential developments of more than fifty thousand square feet; or ○ Combinations of residential and nonresidential uses expected to generate seven hundred fifty trips or more per day, or one hundred or more peak-hour trips; or ○ In the opinion of NDOT, a multimodal transportation analysis is needed for developments not meeting the above thresholds. NDOT shall set requirements for the level of analysis, modes of transportation considered, and analysis methodology for applicants meeting any of the above thresholds.
Zoning Code & Ordinance	Parking Code Land Uses in the Downtown Code (DTC) area are exempt from off-street parking requirements. Land Uses in the Urban Zoning Overlay District are eligible for a parking reduction.
Parking Standards: Parking Minimums & Related Standards	• Parking minimums are removed from the City's Urban Zoning Overlay – most of the land sits with a ¼ miles from bus service. • The ordinance also created a parking maximum (which is the old parking minimum) within the UZO. Relief is

Benchmark	Nashville, TN
	available through the BZA appeals process. • The parking enforcement program was enhanced as a result of the parking ordinance changes. • Resident Parking Program Nashville's Residential Parking Permit Program is designed to provide residents with a better quality of life in their neighborhoods by issuing parking permits for residents and their visitors. The issuance of these permits helps ease the impacts of non-resident parking in neighborhoods along streets where space is limited and may be adjacent to commercial properties. • Green Parking Permit Drivers who own clean technology vehicles, including hybrid vehicles that use both electric and gasoline engines for power, or non-hybrid vehicles that get very high gas mileage and have very low exhaust emissions are allowed free parking at meters in the downtown Central Business District. The Davidson County Clerk's office will provide Green Parking Permits to private passenger vehicles after an annual fee of $10 is paid. The permits are valid for a period of one year and shall be issued at the time the motor vehicle is registered. Residents with Green Parking permits must adhere to all parking laws, including properly parking in metered spaces and parking no longer than meter limits. Green Parking permits are tied to vehicle VIN numbers and cannot be shared with another vehicle. • Responsible Ride Program While Nashville's on-street metered parking offers generous time limits to explore (2-6 hours), driving home under the influence is never recommended and necessitates alternative modes of transportation. Prioritize safety and choose responsible transportation such as public transport, ridesharing services, a taxi, or a designated driver, to return to your local home address. Should you opt for these safer options and possess documented proof (e.g., receipts) of your

Benchmark	Nashville, TN
	responsible travel home, a single parking violation incurred during this period will be waived.
Best Practice	• Parking minimum's are removed from the City's Urban Zoning Overlay – most of the land sits with a ¼ miles from bus service. • The ordinance also created a parking maximum (which is the old parking minimum) within the UZO. Relief is available through the BZA appeals process. • The parking enforcement program was enhanced as a result of the parking ordinance changes. • Nashville's Residential Parking Permit Program is designed to provide residents with a better quality of life in their neighborhoods by issuing parking permits for residents and their visitors.

Fayetteville, AR

Benchmark	Fayetteville, AR

Parking Enforcement: Organization & Operations	• Parking Management Department under the Parking Department
	• Parking programs in:
	  ○ Downtown business district
	  ○ Entertainment district
	  ○ Wilson Park South Neighborhood
	• Parking is enforced 8am-6pm M-F

Parking Enforcement Department Location	Parking Management Department
Parking Enforcement: Citation Structure & Compliance	Parking violations may be written up to three times per day. All violations are subject to an additional Summons Fee of $25.00 if not paid within 14 days.

Benchmark	Fayetteville, AR
Transportation Services: Organization, Responsibilities & Operations	Transportation division under the Public Works Department Manages the following: • Drainage • Operations and Administration • Rights-of-Way • Sidewalks • Streets • Traffic Control and Maintenance • Trail Development
Department Collaboration: Development Guidelines, Design Criteria, Policies	Parking Master Plan – 2016 Currently in phase 1 of implementation
Council Oversight: Council Review, Director Discretion	Council review, Director discretion
Zoning Code & Ordinance	Code of Ordinances in 2015 removed commercial parking minimums and set maximums for both commercial and residential uses.
Parking Standards: Parking Minimums & Related Standards	• All commercial parking minimums removed in 2015 with maximum number of spaces as per code. • Residential minimum and maximums are in effect with reductions related to transit stops, motorcycles/Scooter spaces, bicycle parking and shared parking. • Existing Programs: ○ Residential Parking ○ Employee Parking ○ Downtown Square Parking ○ Entertainment District Parking
Best Practice	• All commercial parking minimums removed in 2015 with maximum number of spaces as per code. • Residential minimum and maximums are in effect with reductions related to transit stops, motorcycles/Scooter spaces, bicycle parking and shared parking. • Parking Management Department under the Parking Department enforces parking regulations.

Tempe, AZ

Benchmark	Tempe, AZ
Parking Enforcement: Organization & Operations	Parking Enforcement is carried out by Community Responders in the Police Department. The purpose of the Community Responders is to enforce parking restrictions and prohibitions throughout the City. This allows for better visibility on crowded streets, clear access to private driveways, closer parking for those with disabilities, and clear access for emergency vehicles. Parking enforcement of Downtown meters occurs until 10pm M-F with free parking on Sundays & Holidays.
Parking Enforcement Department Location	Police Department
Parking Enforcement: Citation Structure & Compliance	Parking meters can be paid in person and through Parkmobile. Once you receive a Parking Ticket you have seven (7) days to address it in Tempe Municipal Court. If you fail to appear within seven days, the registered owner of the vehicle will receive a summons with a date and time to appear in court. You must decide how you want to plea to the violation by the time of your court date.
Transportation Services: Organization, Responsibilities & Operations	The Transportation Division is responsible for street signage, pavement markings, barricading, traffic control, street maintenance, sidewalks, right-of-way landscaping, graffiti abatement, traffic signals, streetlights, bus and light rail service and bike lanes and paths.

Benchmark	Tempe, AZ

Department Collaboration: Development Guidelines, Design Criteria, Policies	• The Transportation & Sustainability Department ensures a safe and sustainable community for those who live, work and visit Tempe.
	  ○ The **Transportation Division** provides safe, sustainable transportation options for Tempe's residents and the community through the design and maintenance of an integrated transportation system that enables the movement of people and goods. This includes Traffic Engineering, Transportation Maintenance, Transportation Planning and Transit Operations/Facility Maintenance. The division also ensures compliance with federal grants, monitors CIP project budgets and oversees the half-cent transit tax.
	  ○ The **Sustainability Division** is committed to growing a sustainable city alongside community stakeholders to be resilient for our future by taking action to reduce emissions and cultivate resilience by focusing on the guiding principles of fiscal responsibility, enterprise, equity, engagement, and effectiveness.

Council Oversight: Council Review, Director Discretion	Board of Adjustment carries out the provisions and intent of the Zoning Code and provide relief from the code. Zoning Administrator administers the code on applications not requiring relief.
Zoning Code & Ordinance	Parking regulations are outlined in Section 4-607 of the Zoning Development Code. To request changes to minimum parking requirements, a zoning amendment must be submitted to the planning division.

Benchmark	Tempe, AZ
Parking Standards: Parking Minimums & Related Standards	• No use shall provide less than the minimum or more than the maximum number of off-*street parking* spaces required under the Code's Parking Ratio section. • The City Center District has reduced parking minimums and that District is exempt from the Transportation Overlay District reductions. • Most of the parking in Tempe is on-street (utilizing paid permits), off-street paid garage parking, and free on-street parking. There is a small supply of metered on-street and free off-street parking. Parking restrictions are greater in the historic downtown.
Best Practices	• No use shall provide less than the minimum or more than the maximum number of off-*street parking* spaces required under the Code's Parking Ratio section. • The City Center District has reduced parking minimums and that District is exempt from the Transportation Overlay District reductions

Columbia, MO

Benchmark	Columbia, MO
Parking Enforcement: Organization & Operations	As of October 2024, Public Works assumed responsibility for Downtown Parking Enforcement. Public Works has already begun hiring staff and acquiring necessary equipment. Downtown residents and visitors should expect a gradual increase in enforcement over the coming months. Parking meters continue to accept coins and the ParkMobile app is still available for convenient credit card payments. All six City parking garages offer hourly parking at a rate of 50 cents per hour, with enforcement from 8 am to 6 pm Monday through Friday. On-street parking is enforced during the same hours, Monday through Saturday. Parking meters exist to promote parking turnover, not as a revenue source. All parking revenue stays within the Parking Utility, supporting parking meter and garage maintenance.
Parking Enforcement Department Location	Parking responsibilities shared between Public Works and Police Department
Parking Enforcement: Citation Structure & Compliance	Prosecutor's office serves as a collection agency for payment of fines for parking violations Payments are due 15 days from issuance and any protests must be submitted within that time. A written response to protests will be made within 10 days of receiving the statement. A vehicle may be impounded or immobilized if there are 4 or more parking tickets that remain unpaid.
Transportation Services: Organization, Responsibilities & Operations	The Public Works Dept. is home to the Parking Utility Division, Transit Division and Traffic Management (including Nonmotorized Transportation). .

Benchmark	Columbia, MO
Department Collaboration: Development Guidelines, Design Criteria, Policies	Community Development Dept. oversees development in the City. The Planning Division reviews development and zoning applications. Also focus on long-term traffic system development (Street standards, bicycle plan, sidewalk plan, area plans Long-Range Transportation Plan). Columbia Area Transportation Study Organization (CATSO) is the regional MPO.
Council Oversight: Council Review, Director Discretion	The City Council is the governing body of the city. In connection with this Unified Development Code, the council's responsibilities include approving amendments to the city's adopted comprehensive plan, approving amendments to the text of this chapter, and approving amendments to the official zoning map, appointing the members of the commission and board, and performing any additional duties set forth in this chapter. The City Planning Commission prepares, recommends and submits to the Council applications of the UDC. The Board of Adjustment hears and decides applications where errors are alleged in relation to the UDC.
Zoning Code & Ordinance	The UDC was adopted by Council in 2017, with minimums included except for the M-DT district (with maximums) and reductions allowed by Director discretion based on transit incentives, shared parking, public parking and on-street parking

Benchmark	Columbia, MO
Parking Standards: Parking Minimums & Related Standards	Parking minimums exemptions for non-residential development and redevelopment in the M-DT district. New residential development in district is also exempted with 20 or fewer bedrooms. No off-street parking is required for any non-residential primary use on a lot smaller than 10,000 sq ft. Maximum parking limits are included for the M-DT district (150% of the minimum), Retail or personal services in mixed-use districts are also limited to 150% of the minimum as a maximum limit. Downtown Employee Parking permits are available for use at 10-hour parking meters in Downtown (limited to 225 participants monthly)
Best Practices	• Parking minimums exemptions for non-residential development and redevelopment in the M-DT district. New residential development in district is also exempted with 20 or fewer bedrooms. No off-street parking is required for any non-residential primary use on a lot smaller than 10,000 sq ft. • Maximum parking limits are included for the M-DT district (150% of the minimum), Retail or personal services in mixed-use districts are also limited to 150% of the minimum as a maximum limit. • Downtown Employee Parking permits are available for use at 10-hour parking meters in Downtown (limited to 225 participants monthly). • As of October 2024, Public Works assumed responsibility for Downtown Parking Enforcement. • Public Works has already begun hiring staff and acquiring necessary equipment. Downtown residents and visitors should expect a gradual increase in enforcement over the coming months. • A vehicle may be impounded or immobilized if there are 4 or more parking tickets that remain unpaid.

Ann Arbor, MI

Benchmark	Ann Arbor, MI
Parking Enforcement: Organization & Operations	Parking Enforcement is managed by the Police Department's Community Standards Division. Public parking meters are enforced Monday through Saturday, 8 am-6 pm unless otherwise stated on the meter or central pay station.
Parking Enforcement Department Location	City of Ann Arbor Police Department
Parking Enforcement: Citation Structure & Compliance	• The fine for an expired meter parking citation is $15 if paid by the end of the next business day, $25 if paid within 14 days, $60 if paid after 14 days and $70 after 30 days. • Six (6) or more unpaid City of Ann Arbor and/or University of Michigan parking citations may result in: (1) the impoundment of your vehicle without further notice, or (2) the loss of your right to renew your driver's license. Towing results in additional expenses incurred by the owner of the vehicle as well as the parking citation. • Parking citations may be appealed through the City's parking referee, who will investigate and make a decision on the matter. • If you have previously appealed a parking citation through the parking referee and wish to appeal the parking referee's finding to the 15th District Court.
Transportation Services: Organization, Responsibilities & Operations	Downtown Ann Arbor has over 8,000 parking spaces located in parking structures, surface parking lots, and on the street metered parking. The parking system is a City of Ann Arbor asset managed by the DDA. Twenty percent of parking revenue goes back to the City to support other City services. The parking system supports itself through parking revenue and also funds other transportation initiatives such as the goPass!, the Get Downtown Program, and supplemental service on public transit routes.

Benchmark	Ann Arbor, MI
Department Collaboration: Development Guidelines, Design Criteria, Policies	• Planning Services Department administers and maintains the City's Unified Development Code. • The Engineering Department includes the Transportation Division that creates and maintains the design guidelines (inc. crosswalk design guidelines), Vision Zero Plan, corridor plans and Regional and State Planning. • The City's Transportation Commission serves as an advisory body to the City Council to shape the future of transportation.
Council Oversight: Council Review, Director Discretion	• The City Council is the legislative body for the City and has final authority for adoption of and amendments to the UDC. • The Planning Commission makes recommendations to City Council regarding the manner of administering and enforcing the UDC. • The Zoning Board of Appeals hears and decides questions that arise in the administration of the zoning ordinance, including the interpretation of the Zoning Map.
Zoning Code & Ordinance	The 9th Edition of the UDC was effective in May 2024 with the removal of off-street parking minimums in the 8th Edition (Feb 2023).
Parking Standards: Parking Minimums & Related Standards	• Parking minimums removed citywide and parking maximums introduced for specific land-uses/zones/districts in August 2022. • Includes minimum bicycle parking standards and EV parking spaces • The Residential Parking Permit (RPP) program allows vehicles owned by residents to park in an RPP neighborhood for the posted time limit without being cited. Neighborhoods participating in an RPP Program will need residents to acquire and display a residential parking permit decal for every vehicle that will park on neighborhood streets during the specified enforcement period.

Benchmark	Ann Arbor, MI
Best Practices	• Parking minimums removed citywide and parking maximums introduced for specific land-uses/zones/districts in August 2022. • The Residential Parking Permit (RPP) program allows vehicles owned by residents to park in an RPP neighborhood for the posted time limit without being cited. • Six (6) or more unpaid City of Ann Arbor and/or University of Michigan parking citations may result in: (1) the impoundment of your vehicle without further notice, or (2) the loss of your right to renew your driver's license.

Fort Collins, CO

Benchmark	Fort Collins, CO
Parking Enforcement: Organization & Operations	Parking Services carry out the parking enforcement in the City. The Division utilizes a variety of tools to enforce traffic and parking codes in the City: ○ ALPR ○ Handheld computers ○ Wheel Locks/Boots ○ Immobilization (Barnacles)
Parking Enforcement Department Location	Parking Services is responsible for parking enforcement and is part of the Traffic Operations Department.

Benchmark	Fort Collins, CO
Parking Enforcement: Citation Structure & Compliance	If you have an overdue unpaid citation (parking ticket) you will receive a "notice" from Parking Services with the amount due. You have 20 days from the date the notice is sent to pay the full amount due or to make payment arrangements. If the citation remains unpaid after 20 days from the date of notice, your vehicle may be immobilized (barnacle/boot). The immobilization device(s) will remain on the vehicle until the full amount owed is paid in full, plus an $85 immobilization fee. If arrangements to remove the immobilization device are not made within 72 hours, the car may be impounded and the vehicle owner will be responsible for towing and storage fees in addition to the unpaid citation(s) and immobilization device fee.
Transportation Services: Organization, Responsibilities & Operations	• The City of Fort Collins Traffic Operations department oversees all aspects of traffic related responsibilities within the City. Examples include signal systems, signs and pavement markings, traffic engineering such as speed limits, other studies, work area traffic control, safety, pedestrian and bike innovations, neighborhood traffic mitigation, etc. • The Transportation Board advises the Fort Collins City Council on transportation issues. The Board examines issues relating to financing, the development and implementation of master plans pertaining to pedestrian, streets, transit, bicycles, automobiles, congestion, traffic signalization, and transportation facilities, the use of technology, and education of the public and private industry on transportation topics.
Department Collaboration: Development Guidelines, Design Criteria, Policies	• The City of Fort Collins Parking Services, Downtown Development Authority, and community members work together to address downtown parking concerns. Time limited parking creates parking space turnover for downtown businesses, customers, and visitors. Most time-regulated parking in the downtown area is 2-hours and is typically regulated Monday through Saturday. • Planning and Development Services cover long-range planning, development review, zoning and environmental planning.

Benchmark	Fort Collins, CO
Council Oversight: Council Review, Director Discretion	• The City Council, Planning and Zoning Commission, Land Use Review Commission, the Historic Preservation Commission and Director all play a role in the Land Use Code. • The Director or the Planning and Zoning Commission will consider, review and decide all development applications for permitted uses. For those development applications subject to basic development review, the Director, or the Director's designee, is the authorized decision maker. • For those development applications subject to administrative review (sometimes referred to as "Type 1 review"), the Director is the designated decision maker. • For those development applications subject to Planning and Zoning Commission review (sometimes referred to as "Type 2 review"), the Planning and Zoning Commission is the designated decision maker. • For PUD Overlays greater than 640 acres, the City Council is the designated decision maker after receiving a Planning and Zoning Commission recommendation. • City Council is the decision maker regarding the issuance of permits to conduct an activity or develop within an area of state interest pursuant to Article 6 after receiving a Planning and Zoning Commission recommendation.
Zoning Code & Ordinance	• The city has progressive policies regarding parking minimums with fewer required spaces for many common land uses than other peer cities. The city encourages shared parking strategies to reduce the amount of parking developed with associated development.

Benchmark	Fort Collins, CO
Parking Standards: Parking Minimums & Related Standards	• The Land-Use Code specifies minimum off-street parking spaces by use with non-residential uses including maximum limits. • Multi-unit dwellings and mixed-use dwellings within the Transit-Oriented Development (TOD) Overlay Zone may reduce the required minimum number of parking spaces by providing demand mitigation elements. • The Code also includes Bicycle parking space minimums including enclosed space requirements.
Best Practices	• Parking Services carry out the parking enforcement in the City. The Division utilizes a variety of tools to enforce traffic and parking codes in the City: ◦ The Land-Use Code specifies minimum off-street parking spaces by use with non-residential uses including maximum limits • If the citation remains unpaid after 20 days from the date of notice, your vehicle may be immobilized (barnacle/boot). The immobilization device(s) will remain on the vehicle until the full amount owed is paid in full, plus an $85 immobilization fee. If arrangements to remove the immobilization device are not made within 72 hours, the car may be impounded and the vehicle owner will be responsible for towing and storage fees in addition to the unpaid citation(s) and immobilization device fee.

C CONDITIONS ASSESSMENT

MEMORANDUM

To: **Brett Bourgeois, City of Denton**

From: **Nelson\Nygaard**

Date: February 3, 2025

Subject: **City of Denton: Conditions Assessment**

The City receives numerous complaints and requests from residents and businesses regarding a variety of parking issues and concerns through the City's Engage Denton system. Review of that database is included below along with analysis of the impacts related to parking on the residential streets adjacent to the campuses of the University of North Texas (UNT) and Texas Woman's University (TWU).

Parallel to the Citywide Parking Management Assessment, the City is undertaking a Downtown Parking Study led by Fehr & Peers. Their work for the Downtown Study is summarized for coordination with the Citywide assessment and future recommendations.

REVIEW OF COMPLAINTS

Data provided by the City from 2023 reveals that there were 935 vehicle complaints reported to Denton PD and Community Improvement Services (CIS). All complaints received by Denton PD or CIS can be categorized into the following areas:

- Abandoned Vehicle (Vehicles that are parked on the dirt or grass, over the sidewalk, or considered junk or inoperable are violations and considered abandoned, if not removed)
- Blocking Access (including accessibility/ADA related complaints)
- CIS Complaint
- Loading Zone
- Parking Violation
- Storing in right-of-way (ROW)
- Miscellaneous (i.e., unclear complaints, incomplete etc)

The most reported category of complaint was abandoned vehicles, which made up about 52% of all vehicle complaints in 2023. The next highest reported categories were Storing in ROW (21%) and Blocking Access (12%). Below are maps displaying the geographic locations of the 2023 complaints with heat maps highlighting the densest areas for complaints. Figure 1 displays the complaints received Citywide while Figure 2 displays vehicle complaints

reported in the Downtown area of Denton. Figures 3 and 4 show the vehicle complaints reported in the UNT and TWU campus areas, respectively.

Figure 1: Parking Related Complaints Citywide, 2023

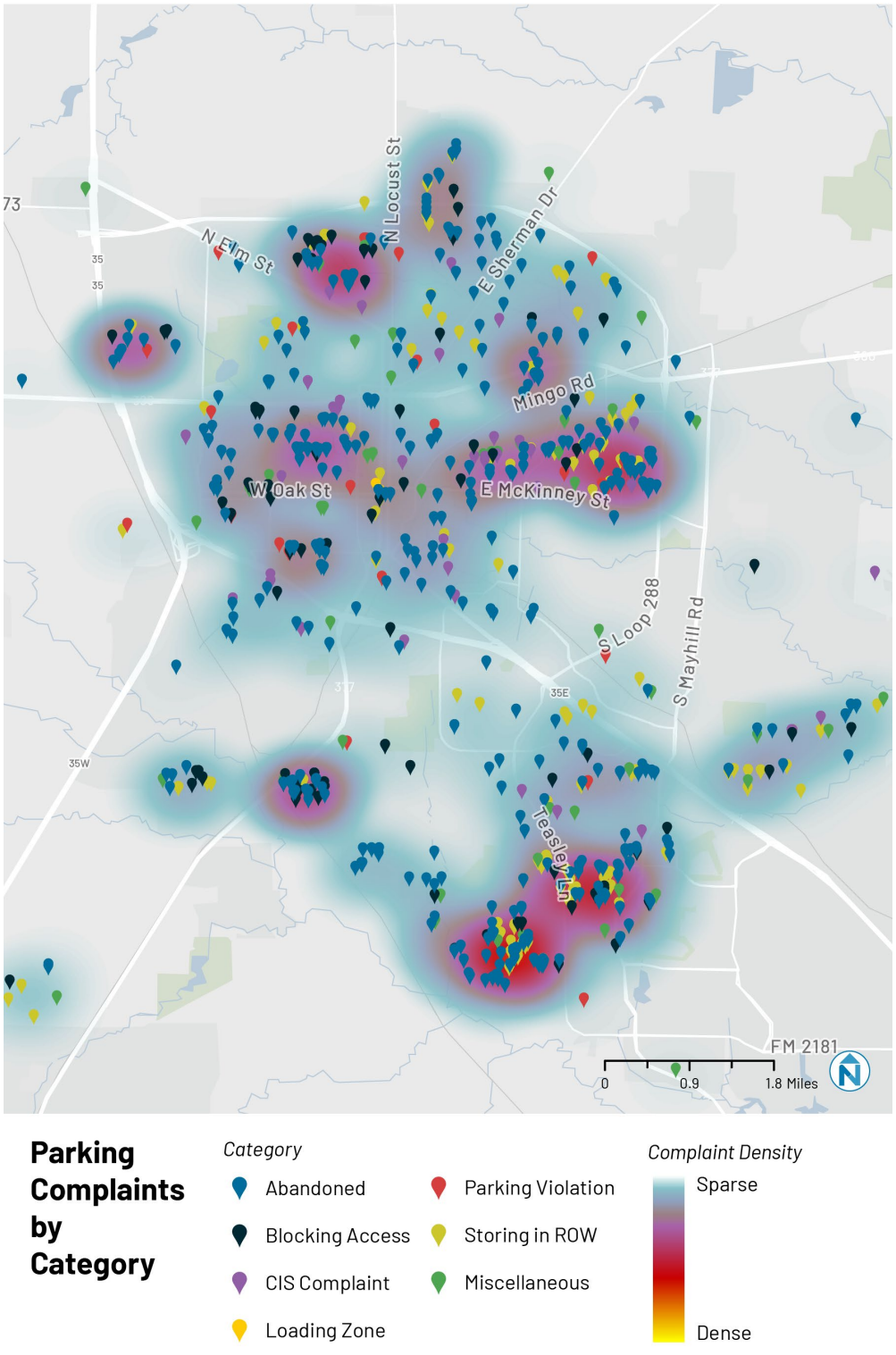
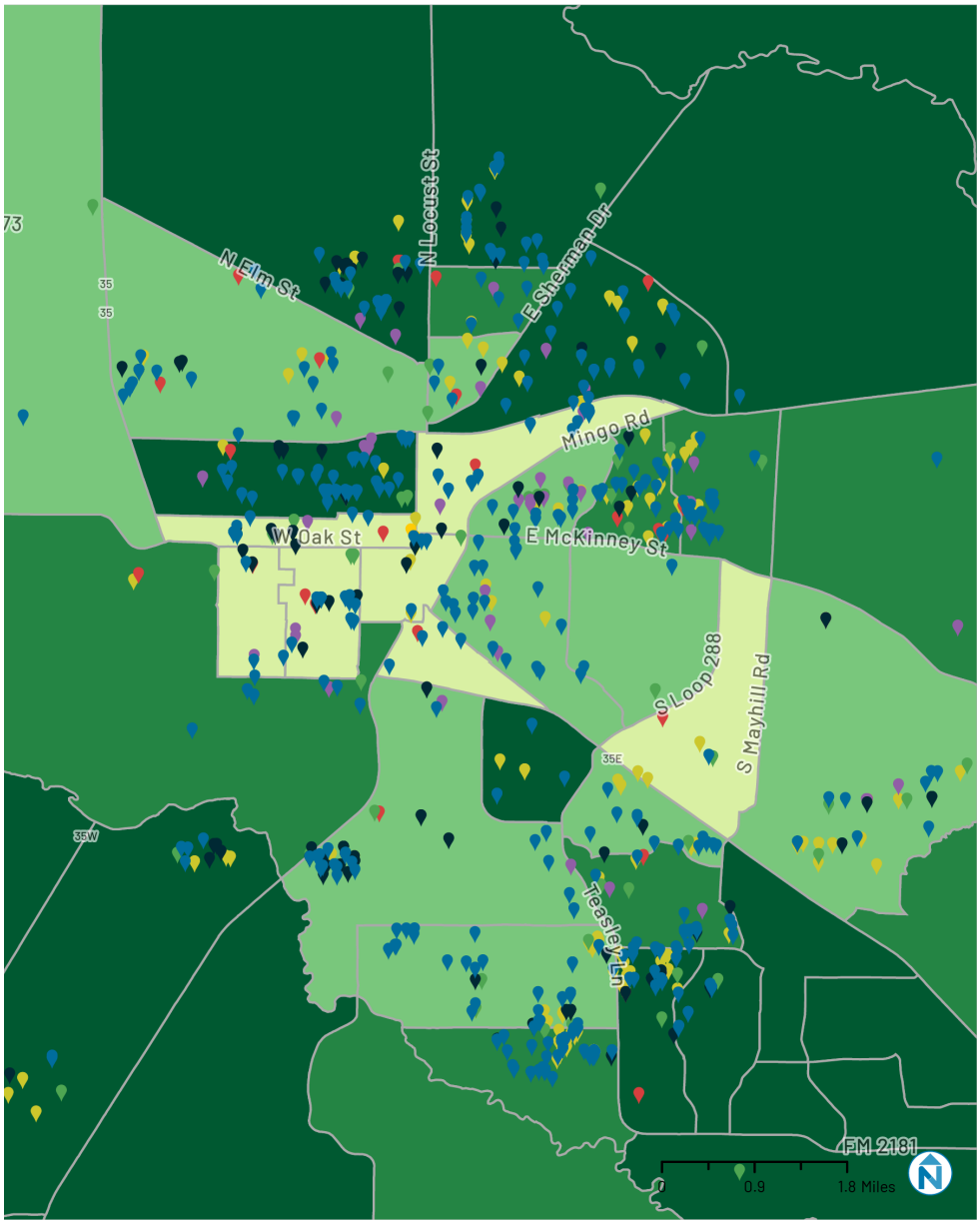


Figure 2: Parking Complaints with Percent of Households with Vehicle Available Overlay



Parking Complaints with Vehicle Available Overlay

Category

- Abandoned
- Blocking Access
- CIS Complaint
- Loading Zone
- Parking Violation
- Storing in ROW
- Miscellaneous

Percent of Households with at least 1 vehicle

- Less than 90%
- 90% - 95%
- 96% - 99%
- 99% - 100%

Figure 3: Parking Related Complaints Downtown, 2023

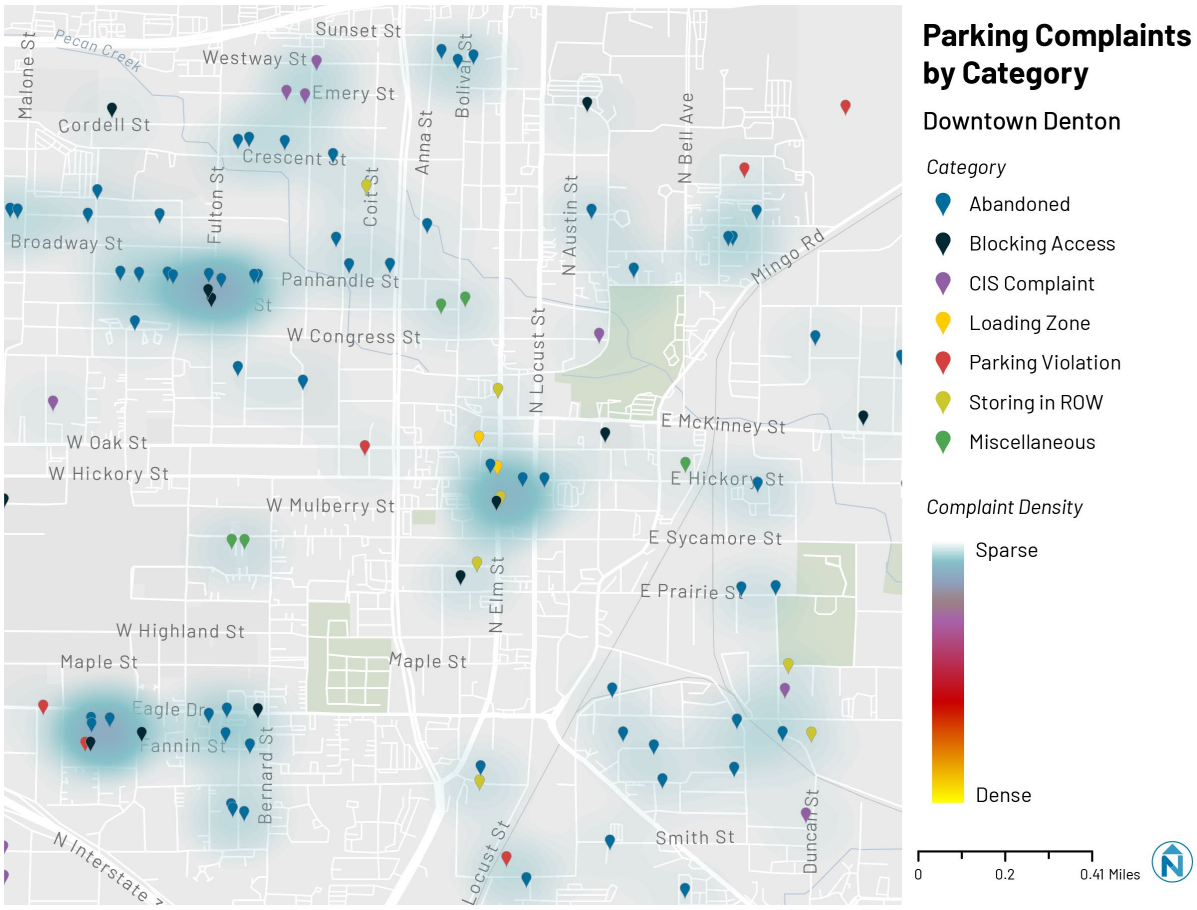
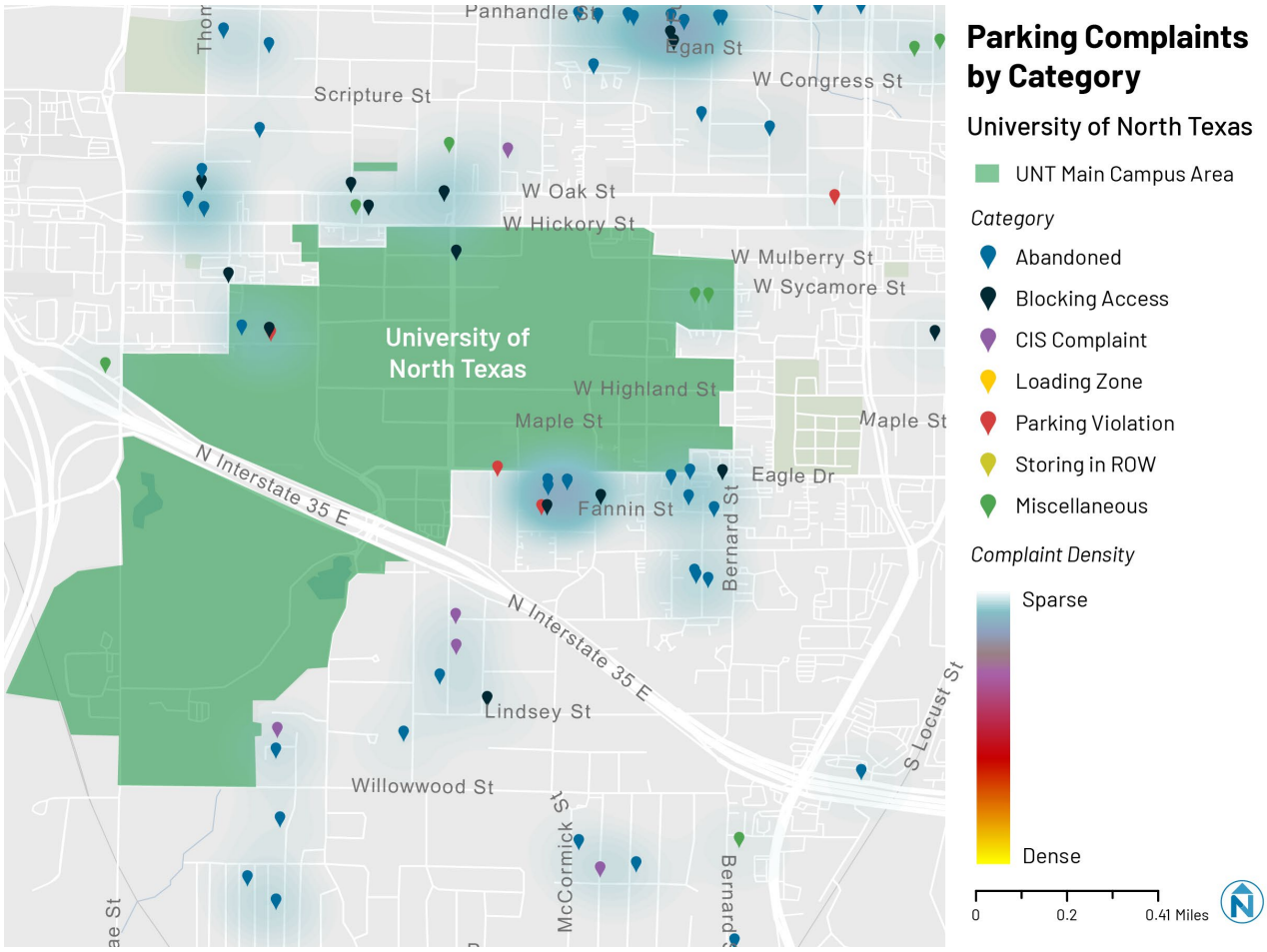


Figure 4: Parking Related Complaints, University of North Texas Campus Area, 2023



The portions of the streets for which the governing board of the University of North Texas has been delegated jurisdiction and control (including enforcement, parking designation and prohibition) pursuant to City Code Section 18-151 are as follows:

(1) Avenue A, both sides, from Hickory Street to Mulberry Street;

(2) Avenue A, both sides, from Chestnut Street to Prairie Street;

(3) Avenue A, both sides, from Highland Street to Eagle Drive;

(4) Avenue B, both sides, from Hickory Street to Mulberry Street;

(5) Avenue B, both sides, from Maple Street to Eagle Drive;

(6) Avenue C, both sides, from Hickory Street to Eagle Drive;

(7) Avenue D, east side, from Hickory Street to Sycamore Street;

(8) Avenue D, both sides, from Highland Street to Eagle Drive;

(9) Avenue D, both sides, from Sycamore Street to Chestnut Street;

(10) Central Street, both sides, from Highland Street to Maple Street;

(11) Chestnut Street, both sides, from Avenue A to Bernard Street;

(12) Chestnut Street, both sides, from Avenue C to Avenue E;

(13) Edwards Street, both sides, from Avenue E to Avenue D;

(14) Fry Street, both sides, from Oak Street to Hickory Street;

(15) Hickory Street, both sides, from Avenue B to Welch Street;

(16) Highland Street, both sides, from Avenue E to Bernard Street;

(17) Maple Street, both sides, from Avenue D to Bernard Street;

(18) Mulberry Street, both sides, from Avenue D to Avenue B;

(19) Mulberry Street, both sides, from Avenue A to Bernard Street;

(20) Oak Street, both sides, from Avenue B to Welch Street;

(21) Prairie Street, both sides, from Avenue A to Bernard Street.

(22) Sycamore Street, both sides, from Welch Street to Bernard Street;

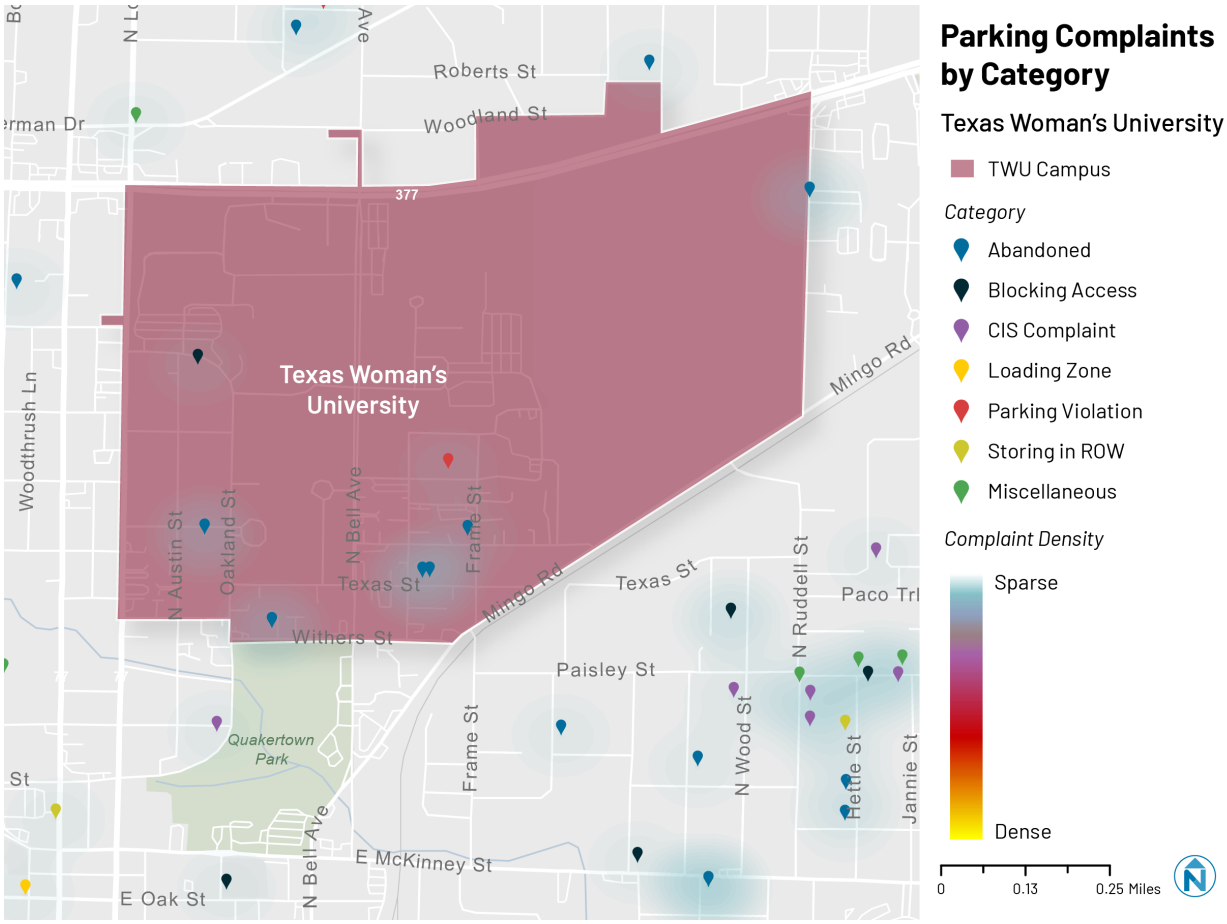
(23) Sycamore Street, both sides, from Avenue C to Avenue D;

(24) Sycamore Street, south side, from Avenue E to Avenue D;

(25) Welch Street, both sides, from Mulberry Street to Oak Street.

(26) Kendolph Street, both sides, between Eagle Drive and Wilshire Street.

Figure 5: Parking Related Complaints, Texas Women's University Campus Area, 2023



REVIEW OF CAMPUS PARKING SPILLOVER IMPACTS

The parking utilization of the campus communities of Denton's two universities, University of North Texas (UNT) and Texas Woman's University (TWU), presents challenges for both city and campus staff in addressing the impact campus community members have on Denton streets and parking supply. Campus community members, primarily students, have weekly schedules that concentrate parking demand and utilization in certain campus areas, which can create spillover onto city streets for extended periods of time. Over the course of 2023, the City received 93 and 43 complaints in the area of UNT and TWU respectively through the Engage Denton system.

UNT faces the most parking challenges on Hickory Street and Oak Street, where parking demand on the northern extents of the campus is seen from students and was highlighted by Campus staff. The use of these streets presents a complicated issue to address, as these are not university streets and UNT cannot enforce parking activities. UNT staff highlighted that while they have never received a neighborhood complaint from community members regarding disruptive student parking, congested parking in campus areas and resulting spillover cause concern for students. UNT staff notes the main complaint received from students is a perceived lack of parking, however staff also noted these complaints are more about limited convenient parking on campus and demand for spaces in areas directly adjacent to the buildings where students attend their classes. Historical discussions with City and UNT staff to resolve spillover and overall student parking challenges have included a reliable park and ride system, which would ostensibly be successful with students, license plate recognition (LPR) technology to monitor campus and campus adjacent parking, and creating partnerships with different Denton entities to centralize communication and address issues more promptly.

TWU faces similar spillover issues to UNT, with most of the spillover occurring on Austin St. to the west of the campus. With only about 2,300 students of the 12,000 total TWU students living on campus and 40% percent of the student body utilizing non-drive alone modes, there is a significant number of driving commuters that vie for the university's 3,000 spaces when class is in session. Tuesdays and Thursdays produce the highest demand during the week and while overall parking demand has not returned to pre-COVID levels, the newest university master plan with proposed campus growth, may push demand back to those levels. However, a proposed increase to accommodate 25% of students residing on campus, may negate the increased demand for commuter parking. Several additional opportunities present themselves for resolving TWU's parking situation such as LPR technology, the

implementation of ParkMobile for on campus parking, better signage for parking information, and ordinances that promote better traffic flow in campus areas. Currently TWU does implement strategies to assist students in parking, such as setback markings on Oakland Street, College Street, and Texas Street that help students avoid citations.

REVIEW OF DOWNTOWN PARKING STUDY

The Downtown Parking Study used observed and anecdotal parking information from city staff, stakeholders, and the public to identify parking strategies to encourage better utilization of existing parking facilities. The plan also identifies sustainable parking policies to help achieve future development goals.

Most city-controlled spaces in the downtown study area are free and unrestricted. Other public spaces include paid public lots and free on-street parking located near the Denton Square. Observed parking data, collected in October 2023, revealed that Figure OBJ 5 OBJ displays the limits of the Downtown study, and public parking by type. This study found 1,575 spaces in public parking lots and 1,Figure OBJ 6 OBJ displays parking utilization on a Saturday evening in October 2023, which identifies heavier demand parking locations across the downtown area.

Figure 6 Downtown Denton Parking Study Boundary

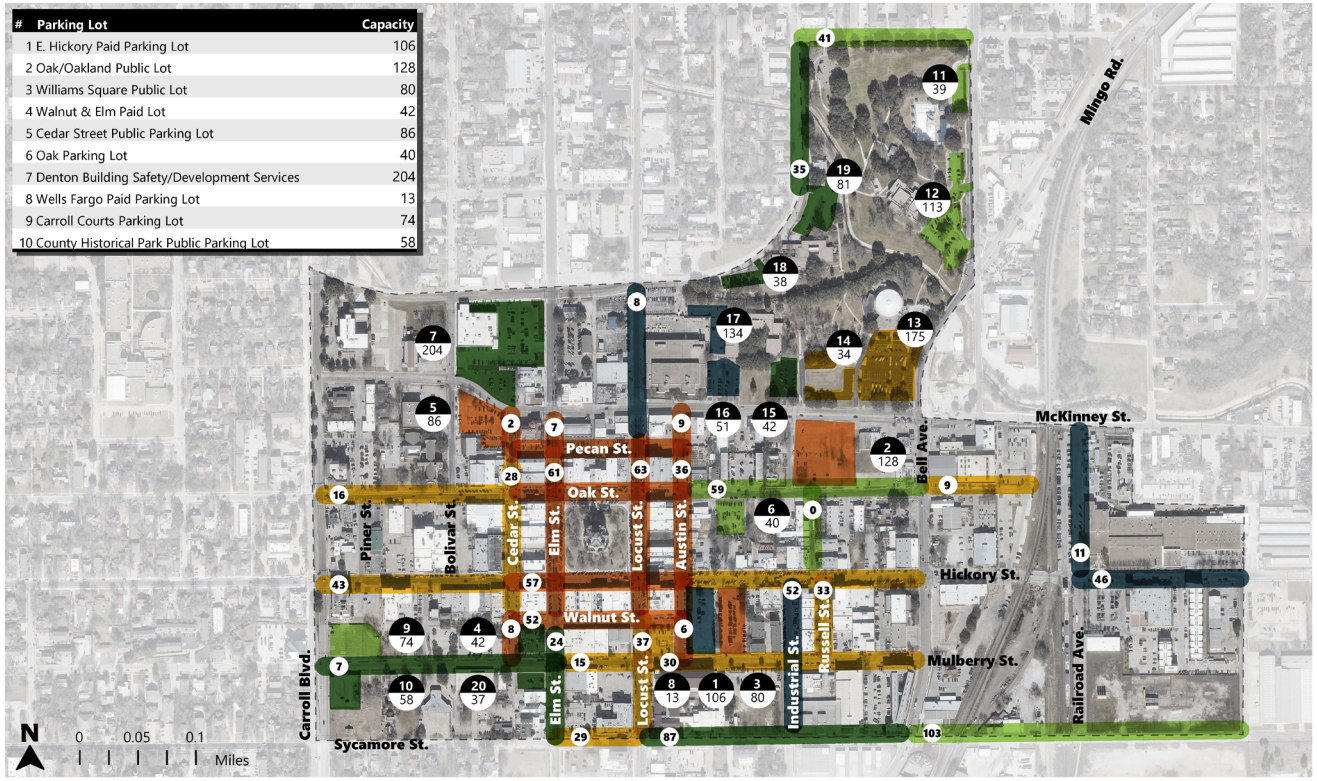


Figure 1

Downtown Denton Parking Study Area

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Figure 7: Parking Utilization in the Downtown Denton Parking Study Area, 2024



#	Parking Lot	Capacity
1	E. Hickory Paid Parking Lot	106
2	Oak/Oakland Public Lot	128
3	Williams Square Public Lot	80
4	Walnut & Elm Paid Lot	42
5	Cedar Street Public Parking Lot	86
6	Oak Parking Lot	40
7	Denton Building Safety/Development Services	204
8	Wells Fargo Paid Parking Lot	13
9	Carroll Courts Parking Lot	74
10	County Historical Park Public Parking Lot	58

Figure 14

Parking Utilization Saturday Evening

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Feedback from stakeholders through a workshop was insightful into what business owners, DCTA, and other stakeholders have found to be concerns, and their suggestions to improve parking and the visitor experience Downtown. Stakeholders shared similar concerns as the public, that there is sufficient parking Downtown, but only if you know where to find it, and that the area around the Denton Square can be quite busy with vehicles circulating for parking, which is often not available. Stakeholders recommend a consolidated source of parking to reduce circulation of drivers for parking, signage and a cohesive parking map to improve wayfinding for visitors to parking locations, paid and time restricted parking in high demand locations, and improvements for pedestrians walking downtown (street lighting, sidewalk and crosswalk enhancements, etc.).

Feedback from the public through online and in person engagement found that many are unsatisfied with parking availability. A few recommendations included eliminating "predatory" ticketing and towing, presumably from privately owned public lots that are not well signed, providing public access to private lots for additional supply of parking, providing additional signage and wayfinding, one single parking app for all paid parking Downtown, and providing safer places to walk and bike.

The study recommended near-, mid-, and long-term strategies as part of a parking management toolbox. These strategies can be used in isolation or combined as part of a larger management plan. It is the intent that the City select a few strategies from this toolbox to improve the visitor experience, circulation and availability of parking spaces, and encourage alternative transportation modes to reduce demand for parking Downtown and allow for greater active uses. These strategies are described below:

- In the **near-term**, the study recommends increasing and enhancing static signage to help visitors navigate parking, implementing time limits and restrictions in the heaviest demand locations to incentivize turnover, dedicate parking for particular uses (i.e. employee only, pick-up and drop-off, truck loading) to better distribute parking demand, increasing enforcement, accommodating Transportation Network Companies (TNC's), and collecting regular data to understand effectiveness of parking practices. It is noted that the City has a pending grant application to implement a Downtown Automated Parking Guidance System.
- **Mid-term** strategies include coordinating valet operations to improve parking occupancies along higher demand streets, promote other modes of transportation to reduce parking demand, implement urban design and traffic calming strategies, stripe and/or restripe parking spaces (i.e. for different uses such as motorcycle and/or bicycle parking, conversion of parallel spaces to angle or back-in to increase parking

spaces, etc.), implement shared parking to maximize efficiency of existing parking supply, and charge for parking in high demand areas to incentivize turnover.

- In the **long term**, strategies include adding off-street parking if a need arises, provide intelligent signage for real-time information to visitors, create a uniform parking experience at public parking facilities through a private-public partnership, and establish a parking district to protect resident parking, or to create revenue to reinvest in commercial areas. Table 1 presents these strategies along with associated cost and time to implement.

Table 1. Summary of Parking Management Strategies

Strategy	Cost	Time to Implement
Near-Term Strategies		
Increase and Enhance Static Signage	$	
Implement Time Limits and Restrictions	$	
Assign Parking Locations	$	
Enforce Parking	$$	
Accommodate TNC's	$	
Adopt a Regular Schedule for Data Collection and Performance Tracking	$$	
Update Parking Standards	$	
Mid-Term Strategies		
Coordinate Valet Options	$	
Promote Other Modes of Transportation	$$	
Implement Urban Design and Traffic Calming Strategies	$$	
Stripe and/or Restripe Parking Spaces	$$	
Increase Use of Shared Parking	$	
Charge for Parking	$$	
Long-Term Strategies		
Add Off-Street Parking	$$$	

Provide Intelligent Signage	**$$$**	
Create a Uniform Parking Experience at All Publicly Available Parking	**$$**	
Establish Parking Districts	**$$**	

Source: Fehr & Peers, 2024

D TRAVEL AND MODE SHARE

NELSON
NYGAARD

MEMORANDUM

To: **Brett Bourgeois, City of Denton**

From: **Nelson\Nygaard Team**

Date: February 3, 2025

Subject: **City of Denton: Travel and Mode Share**

INTERNAL COMMUTING AND TRAVEL PATTERNS

To study the travel behavior in Denton, a few areas were selected where trip activity is relatively higher. Fehr & Peers extracted data for a period from January 1st through August 31st in 2024. The raw observed data was analyzed to better understand travel patterns by trip origins and destinations, travel distance, trips between key areas in Denton, and dwell times and arrivals by time of day. These areas, or zones, were evaluated to identify potential applications of parking management strategies such as enforcement, parking time limits, and parking permit zones. Additional details regarding the travel trends analysis can be found in the appendix to this memorandum.

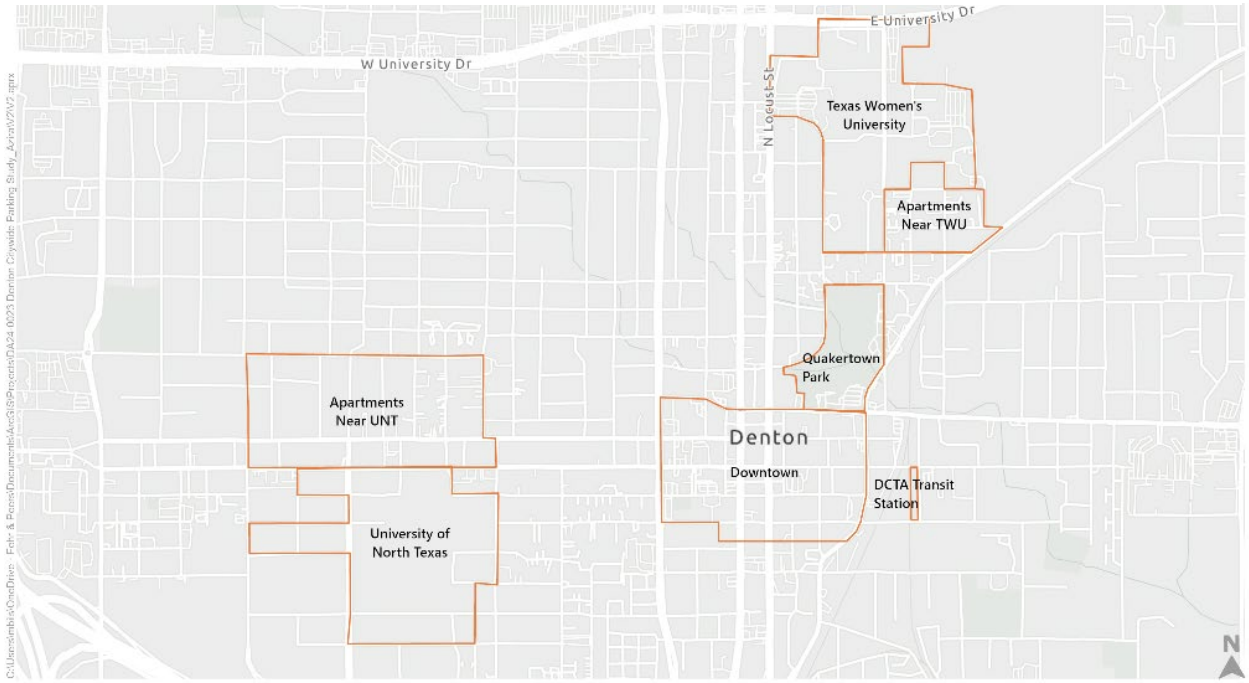
For this analysis, mobile GPS data was obtained and provided by Azira. Azira collects Consumer Behavior Data, which consists of geo or spatial data obtained from smartphone users who voluntarily share their locations through mobile apps. Azira anonymizes this data and provides it to consultants and government agencies. The data helps them understand travel behaviors and markets. The devices used by Azira track location-based information, documenting trip trajectories for trips that start or end in specific zones during a particular period. Importantly, Azira's data includes not only vehicle trips but also walking or biking trips.

By analyzing trip origins, destinations, and connecting them with time-of-day and day-of-week patterns, along with associated demographic information, we can gain insights into existing travel behaviors. These insights can help the City of Denton improve their parking management program and better support the needs of their residents and visitors.

Seven zones were chosen based on reviews by City staff and the project team. These zones were selected because they are assumed to be significant activity generators, offering insights into areas with high traffic. Zones created for the analysis are shown below in Figure 1 and include:

- Apartments near TWU
- Apartments near UNT
- DCTA Transit Station
- Downtown
- Quakertown Park
- Texas Women's University (TWU)
- University of North Texas (UNT)

Figure 1 Study Zones for Travel Behavior Analysis



Trip Distance to Understand Mode Choice

Median trip lengths within each zone are identified by reviewing trip origin and destination locations for each trip. Trip length is an indicator of how far people travel to/from a particular

area within the city. Downtown draws over 50% of its visitors from trips over five miles, second only to the DCTA Transit Station. Zones with shorter trip distances which may be able to

Figure 2 Distance from Downtown Denton

from enhanced pedestrian, bicycle, and transit facilities include the apartments Near TWU, UNT, and Quakertown Park, each drawing 65% or more of their respective trips from within five miles.

Figure 2 Distance from Downtown Denton

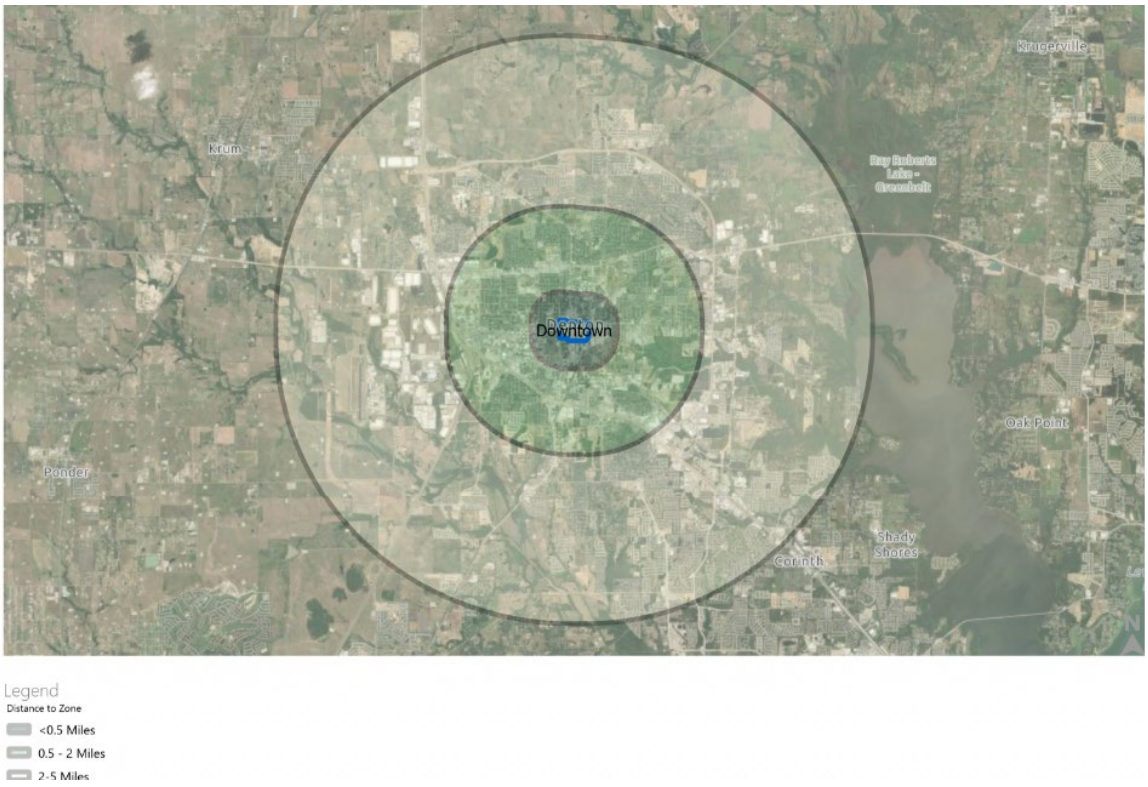
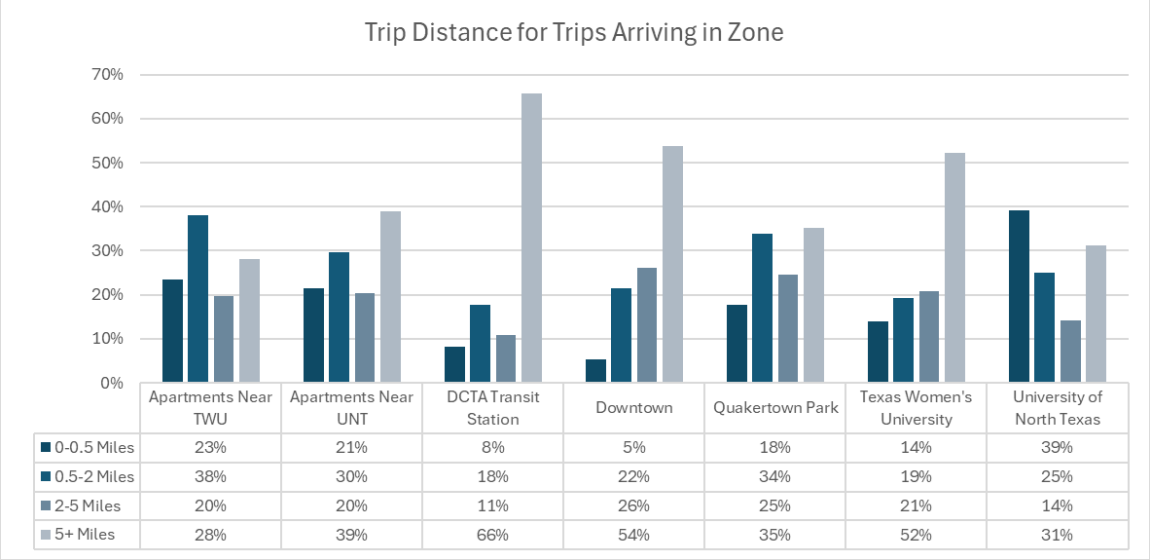


Figure 3 classifies the different trip distances into distinct categories or "buckets." These buckets correspond to potential travel modes, in each of the zones mentioned above, including walking, cycling, transit, or driving. It's important to note that these buckets do not directly represent actual travel modes, as the data does not provide specific information on the mode of transportation. Instead, these buckets reflect the percentage of trips that could be completed using these modes if certain conditions were met:

- It has been shown that walking becomes a viable mode of transportation when the distance is less than a half mile and the facilities are safe, accessible, and comfortable.

- Conversely, driving or regional transit are generally the preferred modes for distances over 5 miles, regardless of the quality of facilities.
- In between those distances, incentivizing cycling and transit by building safe, convenient, and comfortable multi-modal networks begins to provide opportunities for modal shift. Urban residential areas in Denton such as around UNT and TWU may benefit most from building upon these networks, as the majority of trips into the apartment zones near UNT and TWU are fewer than 2 miles (UNT-51%; TWU-61%).
- For trips exceeding a distance of five miles, it is likely that they are primarily undertaken by vehicles or regional transit. Consequently, these longer trips have the highest demand for parking.

Figure 3 Trip Distance for Trips Arriving in Each Zone



	Apartments Near TWU	Apartments Near UNT	DCTA Transit Station	Downtown	Quakertown Park	Texas Women's University	University of North Texas
0-0.5 Miles	23%	21%	8%	5%	18%	14%	39%
0.5-2 Miles	38%	30%	18%	22%	34%	19%	25%
2-5 Miles	20%	20%	11%	26%	25%	21%	14%
5+ Miles	28%	39%	66%	54%	35%	52%	31%

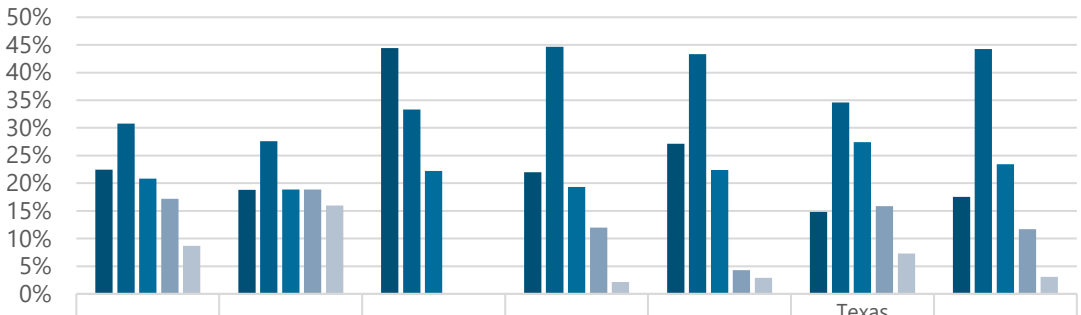
Dwell Time

Dwell time refers to the duration between a vehicle leaving its origin and arriving at its destination. When analyzing dwell times, we find that longer durations (8+ hours) are typically linked to overnight residential trips and employment or student-related journeys. All study zones except for the two residential zones (Apartments Near UNT and Apartments Near TWU, refer to Figure 1) had a median dwell time of less than two hours. The following figures (Figure 4 and Figure 5) display dwell time for all trips and weekday trips (8 am to 5 pm). During weekdays, an analysis of trips focused on the duration of stay during hours when parking restrictions are typically in effect in high-demand areas near businesses or

universities. These trips tend to be shorter, with many individuals staying at their destination for 30 minutes to two hours.

Given the relatively short dwell times in these high-demand zones, relying solely on time limits may not effectively reduce parking demand or enhance turnover. The creation of Residential Parking Permit districts would enable residents of streets to petition for permit status to deter the use of parking by students attending classes at adjacent University

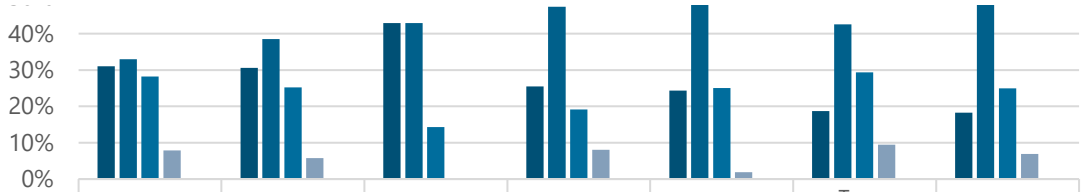
Figure 4 Dwell Time for All Trips



	Apartments Near TWU	Apartments Near UNT	DCTA Transit Station	Downtown	Quakertown Park	Texas Women's University	University of North Texas
15-30 Minutes	22%	19%	44%	22%	27%	15%	18%
30 Minutes - 2 Hours	31%	28%	33%	45%	43%	35%	44%
2-5 Hours	21%	19%	22%	19%	22%	27%	23%
5-12 Hours	17%	19%	0%	12%	4%	16%	12%
12+ Hours	9%	16%	0%	2%	3%	7%	3%

campuses. Additionally, introducing five-to-fifteen-minute parking spaces in commercial areas could be beneficial for quick pick-up and drop-off activities.

Figure 5 Dwell Time for Weekday Trips (8 AM - 5 PM)



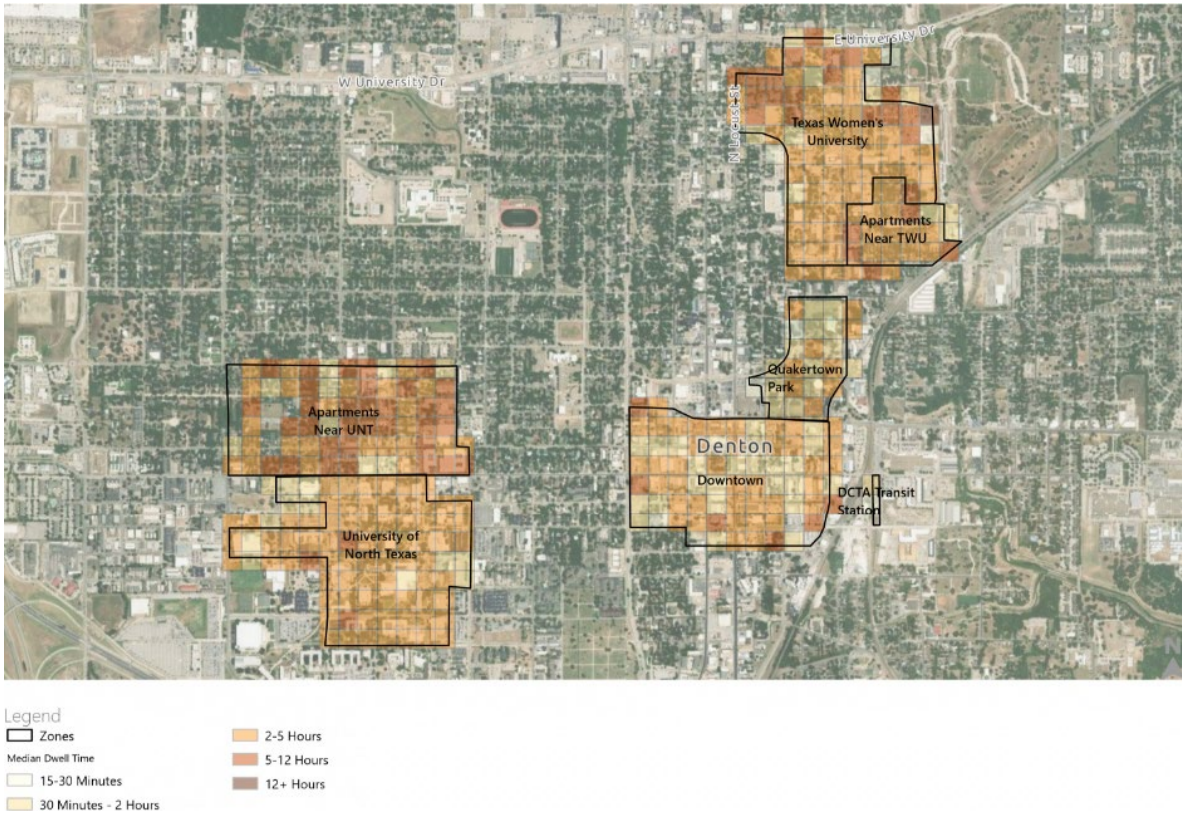
	Apartments Near TWU	Apartments Near UNT	DCTA Transit Station	Downtown	Quakertown Park	Texas Women's University	University of North Texas
15-30 Minutes	31%	31%	43%	25%	24%	19%	18%
30 Minutes - 2 Hours	33%	38%	43%	47%	49%	43%	50%
2-5 Hours	28%	25%	14%	19%	25%	29%	25%
5-12 Hours	8%	6%	0%	8%	2%	9%	7%
12+ Hours	0%	0%	0%	0%	0%	0%	0%

In response to concerns raised during the study of public parking on residential streets near the University of North Texas and Downtown, an evaluation of dwell times was conducted. The purpose was to assess the potential benefits of implementing Residential Parking Permit (RPP) zones in the area. These zones restrict parking in residential areas to those with a valid permit.

For RPP zones to be effective, they would need enforcement and monitoring to minimize parking violations in these neighborhoods. Additionally, ensuring sufficient curb parking availability for residents would be crucial.

To study RPP zones, zoning classification and dwell time were overlayed and the analysis revealed significant differences in dwell times between residential and commercial areas. In the zone directly north of the University of North Texas, residential areas exhibited a median dwell time of over five hours. In contrast, the adjacent commercial area had dwell times of less than one hour. Based on this pattern, other residential areas within a ½-mile radius of UNT were identified as potential candidates for RPP zones. Figure 6 shows median dwell time for each zone.

Figure 2 Median Dwell Time by Zone



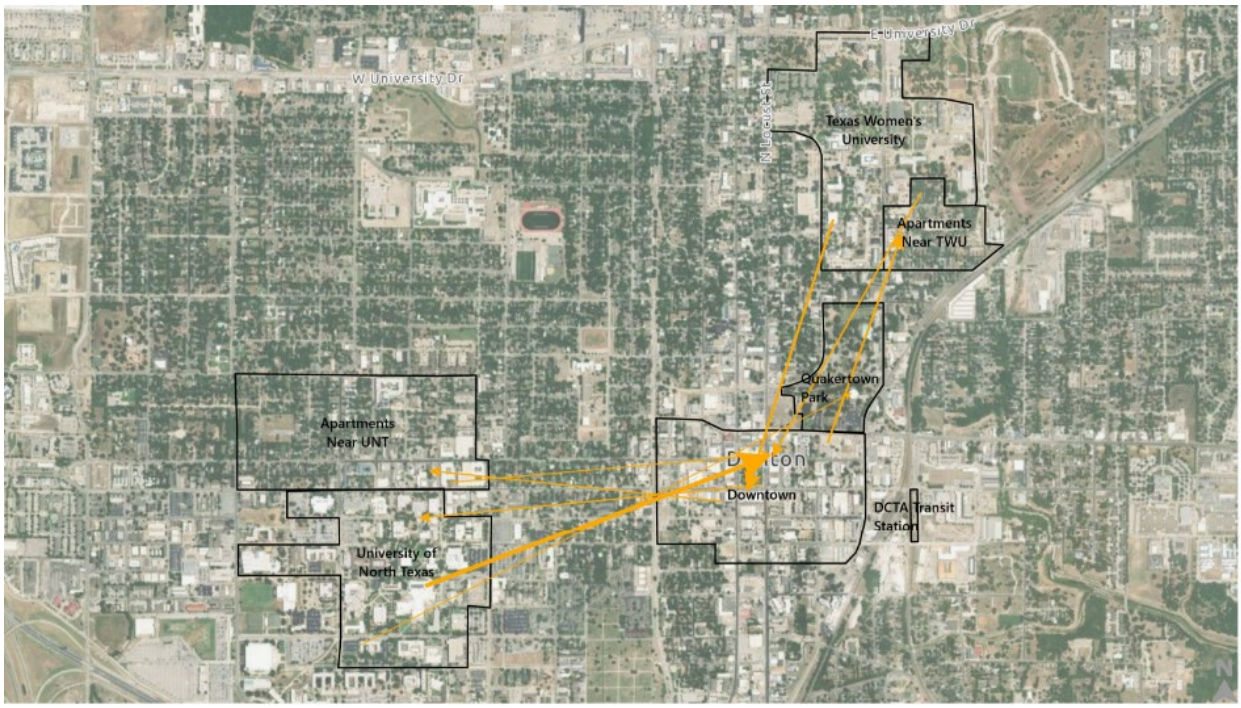
Trip Destinations

Figure 7 illustrates trip destination density for trips originating or ending in each zone. Trip density serves as a measure of activity generators, and locations with higher trip destination density are likely to experience greater parking demand. Since Azira's data tracks users, these locations represent the end of individual trips rather than vehicle-based or other modal trips. Consequently, parking demand is concentrated within the area surrounding these destinations. High trip density locations may benefit from more robust parking regulations, such as time limits or fees, along with regular enforcement rounds to ensure compliance. Additionally, these areas are well-suited for transit stops, bicycle parking, pedestrian facilities, and other infrastructure supporting alternative modes of transportation**.**

Figure 8 shows common trip pairs from the data gathered for the study. The plot shows many trips either originating or ending near the Square. Origin and destination points shown on the map represent a 500-foot radius, meaning that locations are not exact, but represent approximately where trips are commonly made from one area to another. These pairs could represent areas where increased micromobility options or micro transit would be in highest

demand.

Figure 8 Common Trips

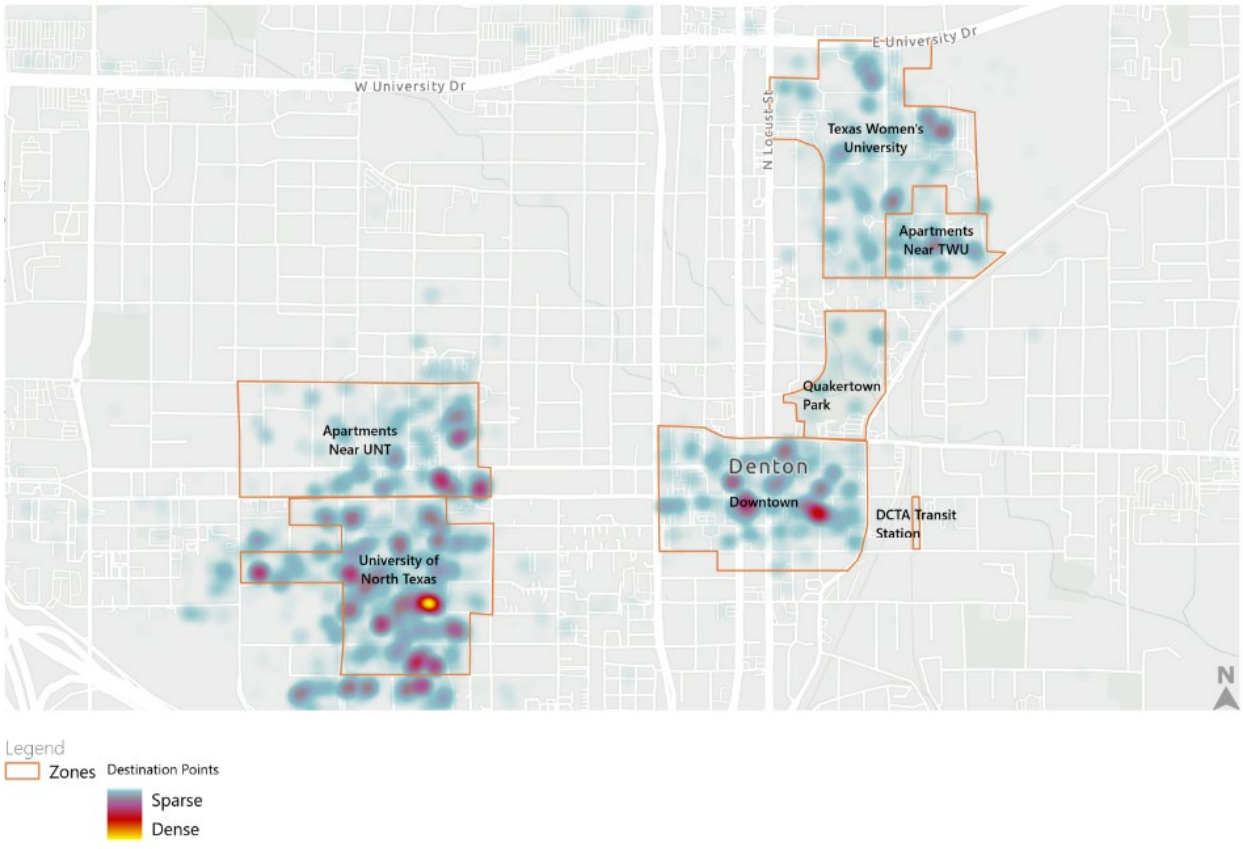


In summary, the utilization of mobile GPS data complements traditional parking data by

providing insights into travel behavior. By analyzing trip distance, dwell times, and trip

Figure 7 Trip Density for Trips Beginning or Ending in Study Zones

Figure 7 Trip Density for Trips Beginning or Ending in Study Zones



NON-DRIVING MODE CONDITIONS AND TRENDS

2022 Mobility Plan Summary

The Denton Mobility Plan (2022) is built around eleven key goals aimed at improving safety, accessibility, and connectivity while supporting sustainability and economic growth. It prioritizes reducing traffic congestion, creating options for a broader mode choice, and making streets safer for pedestrians and cyclists. The plan also emphasizes better public transit access, stronger regional connections, and equitable mobility options for all residents. Environmental sustainability is a major focus, with an emphasis on reducing vehicle dependence and promoting greener alternatives.

To achieve the central goal of improving safety for all mobility users, the plan outlines strategies to reduce crashes, upgrade crossings, and add protected bike lanes to roadways across Denton. As the plan also seeks to improve accessibility, the plan calls for ADA-compliant infrastructure, better pedestrian connections, and safer routes to schools and transit stops.

Lastly, the plan prioritizes public transit improvements in Denton by optimizing bus routes, improving amenities at transit stops, and better integrating transit with existing and planned pedestrian and bike networks. These changes will help make transit more reliable and efficient while encouraging fewer people to choose to drive. Strengthening regional connectivity is also a key outcome of improving transit in Denton by ensuring better transportation links between Denton and surrounding communities.

Beyond mobility, the plan recognizes the role of transportation in shaping Denton's future growth. Investing in safe, efficient, and well-connected infrastructure will improve access to jobs, businesses, and key destinations, which will support economic development. Better transportation will also help create a more livable city by providing those in Denton with broader choices on how to get around.

By balancing growth, safety, and sustainability, the 2022 Denton Mobility Plan is the first step in establishing a foundation for a modern transportation system that meets the needs of residents today while preparing for the future.

Existing Infrastructure

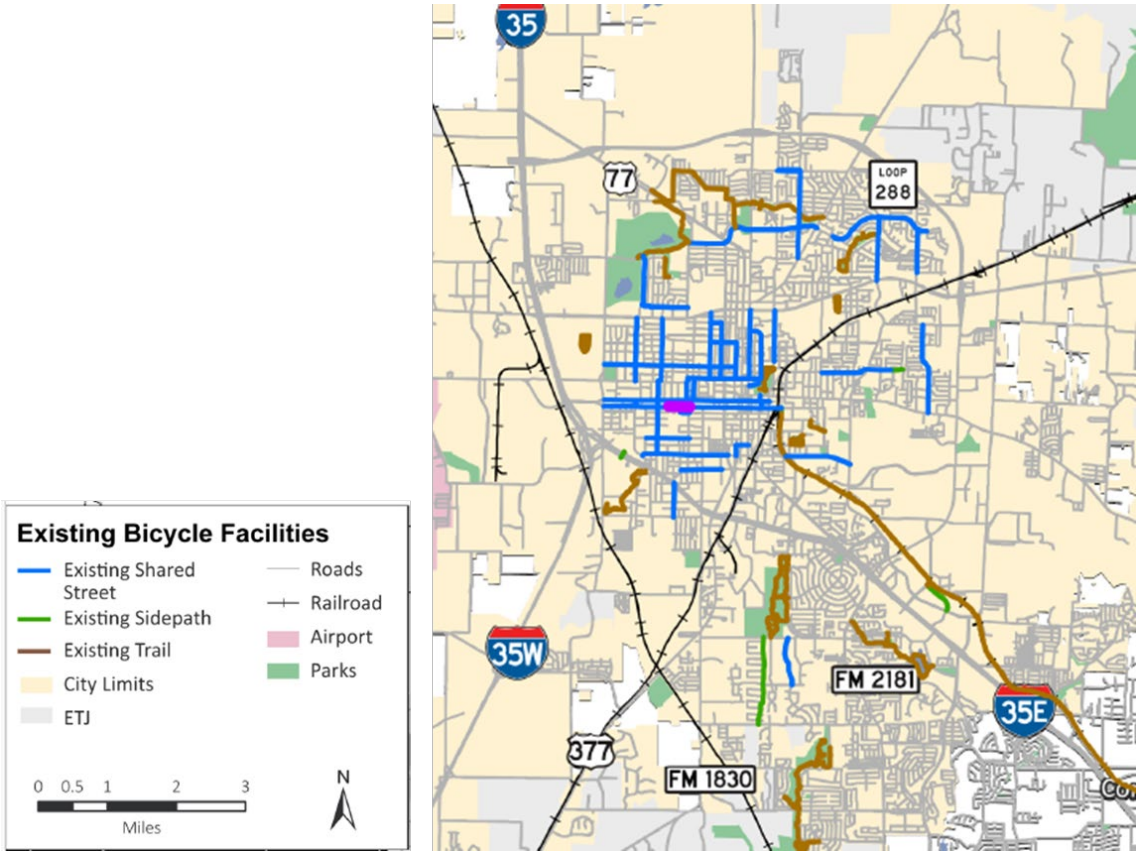
The Denton Mobility Plan provides a detailed overview of the City's existing bicycle, pedestrian, and transit infrastructure. While Denton has made progress in developing a

multimodal transportation network, the city still sees mobility challenges such as connectivity gaps, safety concerns, and accessibility barriers.

Bicycle Infrastructure

Denton has approximately 90 miles of bicycle facilities, which include a mix of bike lanes, shared-use sidepaths (which are located behind the curb), and shared lanes. Since many bicycle facilities are not protected or dedicated facilities, usage is likely limited to those confident and experienced cyclists since the new or novice cyclists are often intimidated by shared lanes. Many of these facilities are concentrated around Downtown Denton, UNT, TWU, and City parks, where bicycle use is highest. Data from Strava identified the key cycling corridors in Denton as including Windsor Drive, Oak Street, Hickory Street, Eagle Drive, and Highland Drive, as well as the Denton Katy Trail, a popular off-street path for cyclists of all types. Figure 7 highlights the existing bicycle infrastructure within the City Core as per the Denton Mobility Plan (2022).

Figure 3 Existing Bicycle Facilities – City Core, Source: Denton Mobility Plan



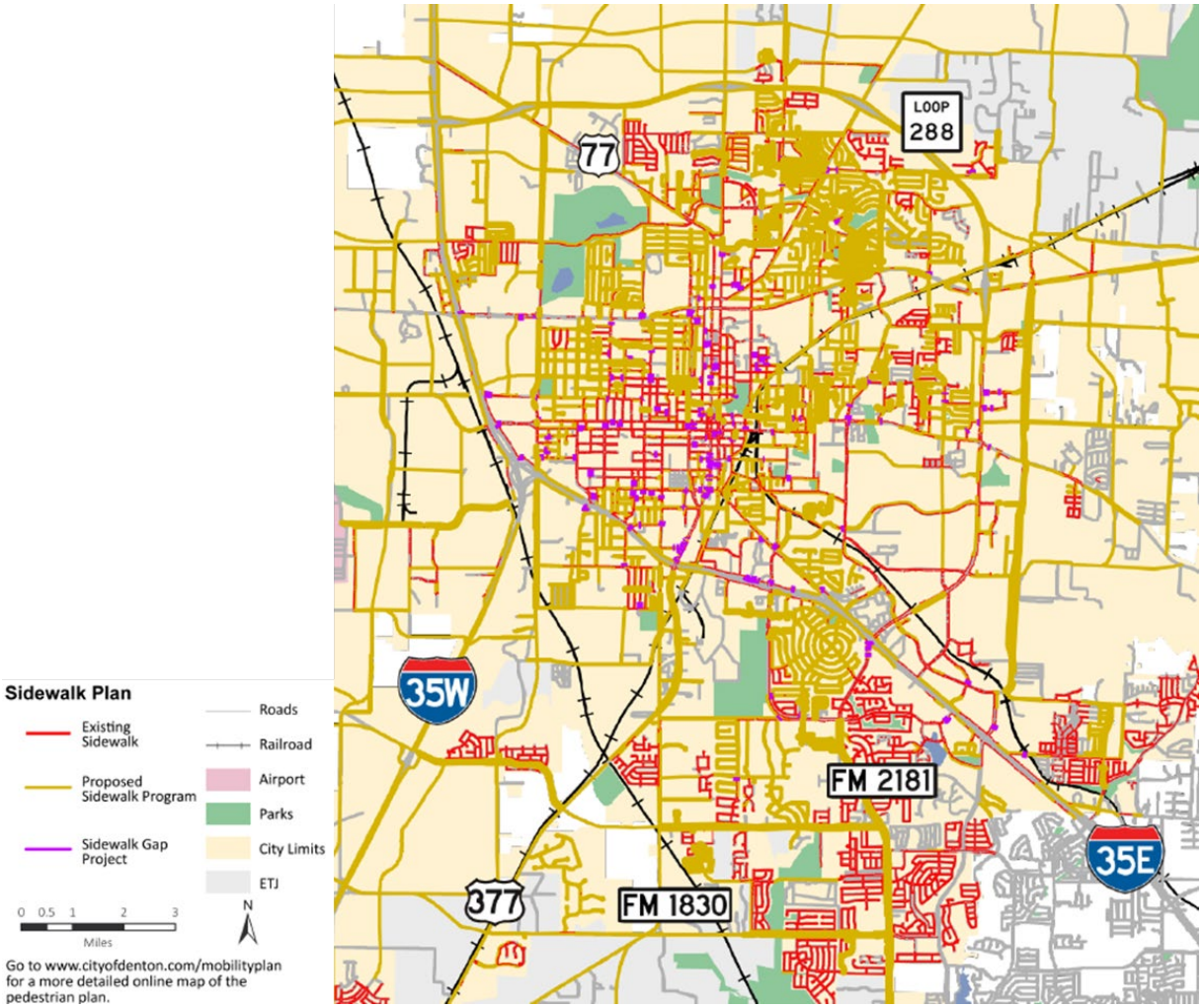
Pedestrian Infrastructure

Denton's pedestrian network includes approximately 469 miles of sidewalks and 24.4 miles of trails which are generally found in two contexts. The first is the well-developed network in areas built prior to the automobile as the primary mode of transportation. This includes Downtown Denton and areas immediately surrounding UNT and TWU. The second context includes the newer residential subdivisions constructed in the last 20 years, after the city required sidewalks for all development. Both of these areas have some of the best pedestrian infrastructure, featuring continuous sidewalks, crosswalks, and accessible pedestrian signals. However, sidewalk coverage is incomplete in many residential neighborhoods, particularly in residential neighborhoods constructed in the mid- to late-20th Century. Figure 8 highlights the existing sidewalk infrastructure within the City Core as per the Denton Mobility Plan (2022).

Transit Infrastructure

Public transportation in Denton is provided by the Denton County Transportation Authority (DCTA), which operates a mix of fixed-route buses, on-demand transit services, and regional rail connections. The fixed-route bus system serves key corridors within the city, providing connections to Downtown Denton, UNT, TWU, and major employment centers. Additionally, DCTA offers GoZone, an on-demand ride service that offers transit coverage where fixed-route bus service is not available.

Figure 4 Existing Sidewalk Facilities – City Core, Source: Denton Mobility Plan



Planned Infrastructure

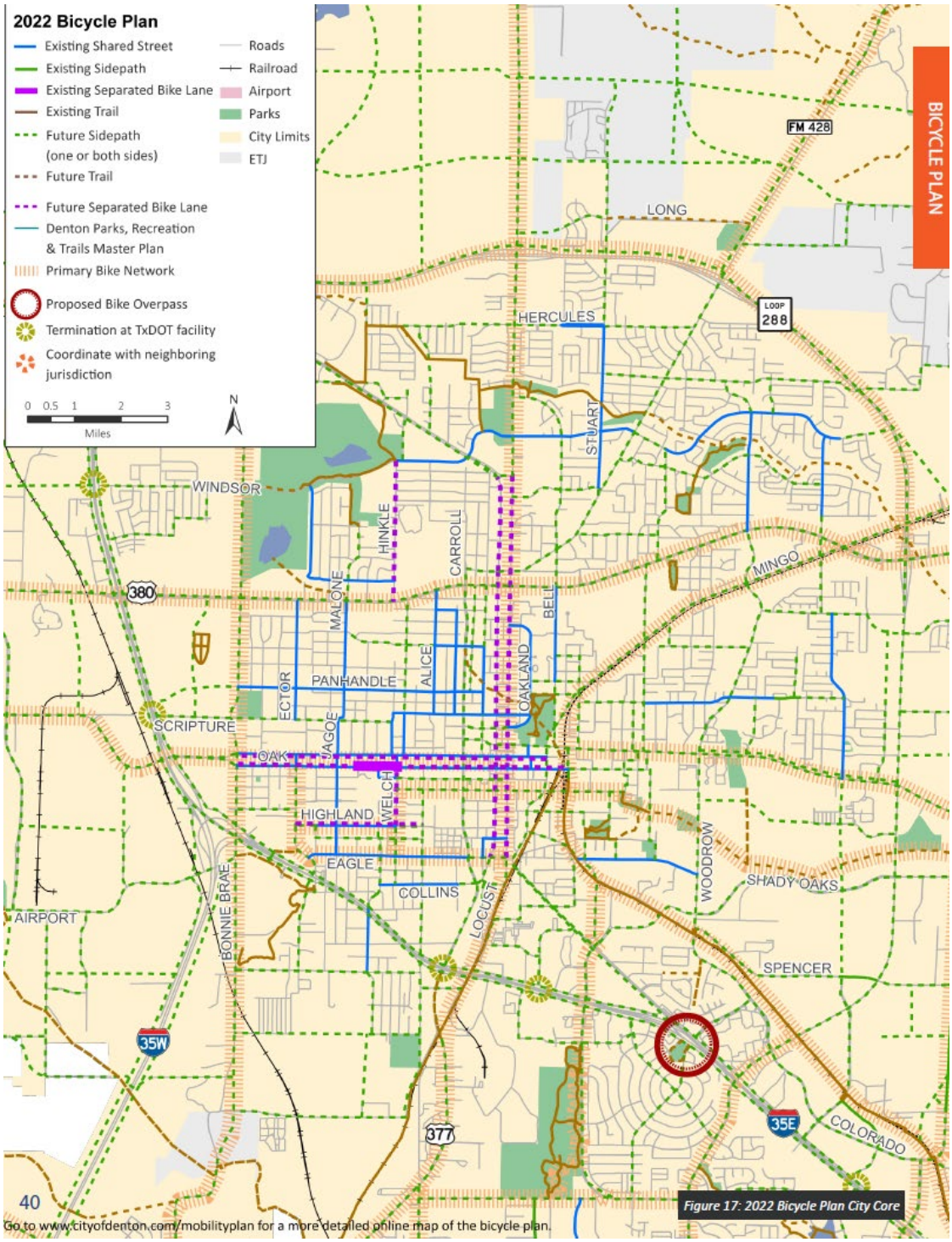
The Denton Mobility Plan also outlines planned improvements to bicycle, pedestrian, and transit infrastructure to enhance safety, connectivity, and accessibility throughout the city. These planned developments aim to address existing gaps, improve safety for all users, and create a more multimodal transportation network.

Planned Bicycle Infrastructure

The City plans to significantly expand its bike network, adding 553.53 miles of new sidepaths, 11.68 miles of separated bike lanes, and 229.28 miles of new trails. These improvements, presented in the 2022 Bicycle Plan, prioritize protected bike lanes and off-street paths to make cycling safer and more accessible, especially in high-traffic areas. New sidepaths are

proposed throughout Denton, while new trails are proposed along greenways, and new separated bike lanes are primarily proposed in the Downtown Denton area. A key focus is addressing major barriers such as highways and busy arterials, where new bike crossings and dedicated lanes will improve connectivity. Additionally, the plan integrates cycling routes with transit hubs, schools, and commercial areas, ensuring cyclists have safer, more direct routes to key destinations.

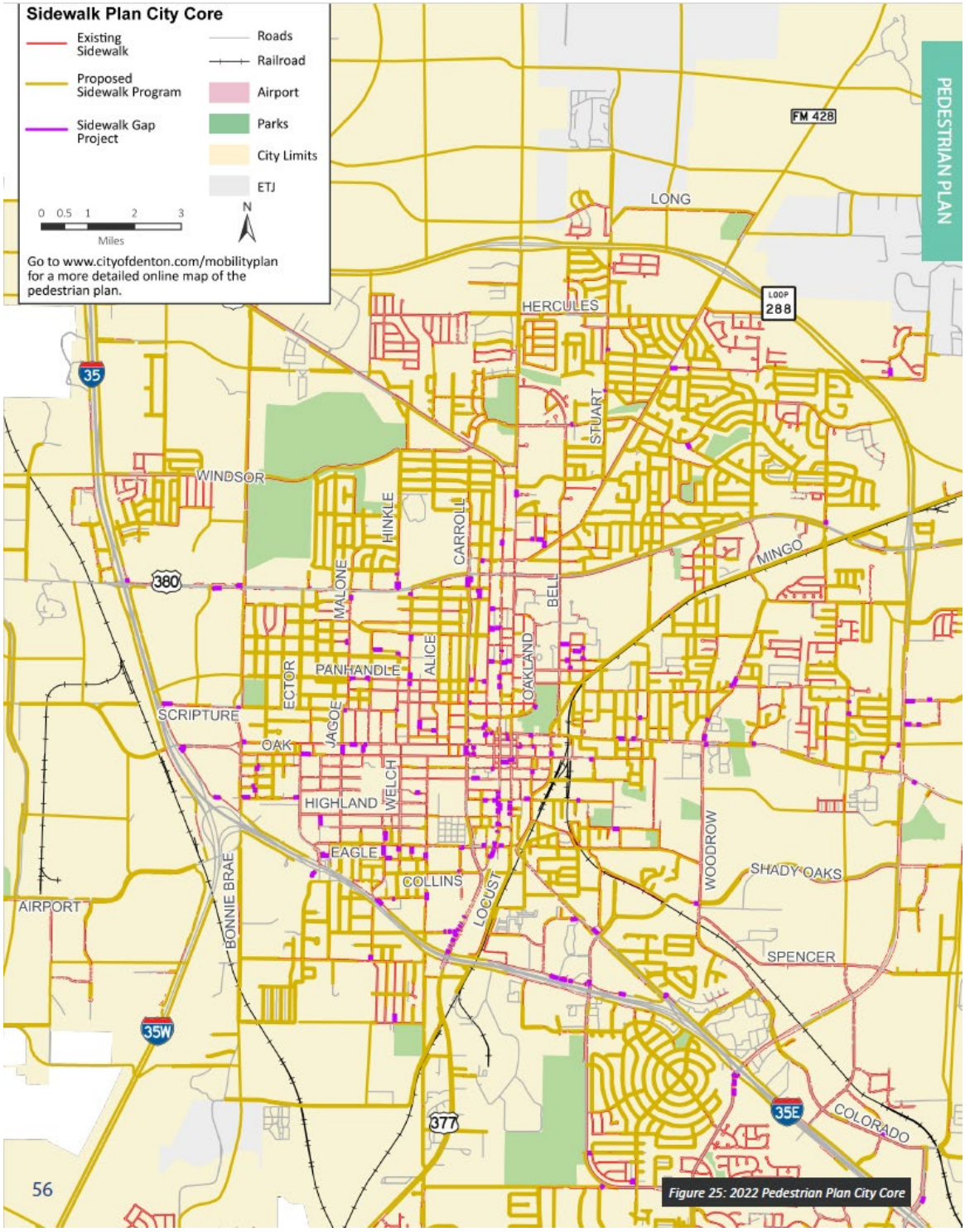
Figure 5 Planned Bicycle Infrastructure – City Core, Source: Denton Mobility Plan



Planned Pedestrian Infrastructure

The 2022 Pedestrian Plan proposes to add 742.44 miles of new sidewalks, which will more than double the amount of sidewalks in Denton and help address gaps in the existing network. The plan prioritizes school zones, transit stops, and high-pedestrian areas like downtown and areas near UNT and TWU. Improvements include high-visibility crosswalks, pedestrian refuge islands, improved lighting, and ADA-compliant sidewalks. The city will also enforce new policies to ensure temporary sidewalks are provided during construction projects, preventing accessibility disruptions. By focusing on safer crossings and better sidewalk coverage, the plan aims to make walking a more viable and comfortable transportation option.

Figure 6 Planned Sidewalk Infrastructure – City Core, Source: Denton Mobility Plan



Planned Transit Infrastructure

Denton's public transit system will be enhanced with improved bus stop placement, better pedestrian access, and expanded services. The plan ensures that new road projects will accommodate transit infrastructure, making it easier for riders to reach bus stops safely. Coordination between DCTA and the city will help optimize bus routes, bus stop locations, and multimodal connections. Additionally, efforts will be made to strengthen regional transit links, ensuring better connectivity between Denton and neighboring cities.

Non-Driving Trends

There are significant gaps and barriers that make cycling difficult or unsafe in certain areas of Denton. Major roadways such as Sherman Drive, US 380, I-35, and Loop 288 have high traffic volumes and limited safe crossings for cyclists, creating physical barriers to Denton's bicycle network. Additionally, many bike lanes are not fully protected from vehicular traffic, making them less appealing to casual or inexperienced riders. Crash data from 2017 to 2021 shows 120 reported bicycle-related crashes, including two fatalities, indicating a need for better safety measures such as protected bike lanes and improved road crossings.

Pedestrian safety is impacted by the existing sidewalk infrastructure and pedestrian network in Denton. Many existing sidewalks are narrow, in poor condition, or interrupted by gaps, creating barriers for pedestrians, especially those with disabilities. According to the City's ADA Transition Plan (2019), approximately 35% of sidewalks were rated as marginal, poor, or very poor due to being too narrow and/or having cracks or other obstructions, such as street lights, signage poles and other street furniture. Vehicle crashes involving pedestrians are another concern, with 161 reported incidents between 2017 and 2021, including 20 fatalities. High-speed roadways, limited crosswalks, and poor lighting contribute to pedestrian safety issues.

Public input gathered for the 2022 Mobility Plan indicated strong demand for more sidewalks, better pedestrian crossings, and improved connectivity to parks, schools, and transit stops. Survey results showed that 60% of respondents felt sidewalks were not well connected, and 73% supported expanding the sidewalk network to make walking a more viable option.

While transit is a critical mobility option, several infrastructure challenges limit its effectiveness. Many bus stops lack adequate pedestrian connections, making it difficult for riders to safely access transit. Some stops are poorly located, lacking shelters or proper signage, which reduces their visibility and usability. Additionally, regional transit connections could be improved, as many residents commute to and from the Dallas-Fort Worth Metroplex for work or school.

Overall, non-driving trends in Denton are informed by the existence or lack of safe, convenient infrastructure to support pedestrians, cyclists, and transit users. While data regarding counts and travel trends of non-driving modes were not available for this study, the broad existence of gaps and barriers in the respective networks for those traveling without a car limit the potential to travel by any transportation mode other than driving.

E PRELIMINARY RECOMMENDATIONS

MEMORANDUM

To: **Brett Bourgeois, City of Denton**

From: **Nelson\Nygaard**

Date: February 17, 2025

Subject: **City of Denton: Preliminary Recommendations**

To provide greater clarity and efficiency across Denton's parking system, the City can leverage existing assets and informal practices already in place, while also planning with the future in mind. An efficient and flexible parking system – one that addresses operations, management and planning will be imperative as the City of Denton continues to grow and pressures on the City's mobility system, which includes parking, increase to accommodate community expectations.

Recommendations are categorized within four overarching strategies each identifying the existing challenge, implementation description, prioritization, relative cost and a best practice example. Prioritization is provided as high, medium and low with high being identified as being completed within 2 years, medium between 2-4 years and low as and when funds being available or when prior actions are implemented. Relative costs identify a level of investment required for implementation. Recommendations marked as low symbol represent the lowest cost actions, those that can be carried out by current staff or at minimal cost. Medium and High-cost recommendations represent increases in investment (added labor or capital improvement) required to carry out those actions. Many of the medium and high-cost elements could be scaled over time based on the number of staff hired at the outset and subsequently increased as the program evolves.

Parking Enforcement

Prioritization of Parking Enforcement Staffing

Challenge: Currently parking enforcement is a facet of the City's Police Department with parking enforcement being only a small part of the greater mission of the Department. As a result, parking enforcement has a low priority, and dedicated staffing would provide the ability to focus on parking matters.

Description: Hire dedicated enforcement staff to provide more detailed Downtown coverage of parking assets both off-street and on-street with the ability to respond to Citywide parking related matters. Re-orienting enforcement policies and practices, in conjunction with updating regulations and parking management practices, can be help the City reach its parking goals. The enforcement team should be re-oriented to support:

- The creation of a customer-oriented parking system;
- Development of sensible and reasonable parking regulations that are easy to understand and easy to manage;
- Modernization and adoption of new parking technologies; and
- Establishment of a data-driven, flexible parking system that can adapt over time

Enforcement's role must support a customer-friendly and education focused policy. Parking enforcement operations should help to ensure and enforce parking availability and broader parking management goals and not be punitive or deter customers and visitors away from destinations in the City.

Enforcement is part of an integrated parking system. The standards and protocols of enforcement staff should be evaluated and better aligned with City goals. Denton should train its parking enforcement officers to be focused on encouraging appropriate parking behavior through friendly assistance and providing directions, as opposed to diligent ticket writing. Providing parking enforcement officers with uniforms that identify them as representatives of the City rather than simply enforcement officers is an important part of creating a department that is seen in a positive light by customers. Furthermore, tracking parking enforcement activities can help identify parking violation hotspots and could help City staff collaborate on strategies to improve conditions. Elements to track could include citation category, locations of citations or warnings, and common behavior or common occurrences, among others.

Parking enforcement should follow a priority hierarchy to be developed by City staff based on the City's goals and parking enforcement needs. Developing a hierarchy of types of violations and locations to be prioritized can help streamline enforcement activities. Some of the prioritization criteria could include:

- Where there are time restrictions on parking (Downtown and near campus areas)
- Where there are user restrictions (visitor, employee, paid, etc.)
- Where poor behaviors may be found (i.e., Downtown sees people parking outside of designated parking spaces)

Continued coordination is essential between the parking enforcement staff and parking management within the City of Denton. Parking enforcement staff should participate in regular meetings with the City to serve as a feedback loop for better management of parking resources. This would include things like identifying areas of confusion to customers,

locations where availability is poor, areas where regulations should change, etc. Parking enforcement officers are a vital resource to identify patterns and influence policy.

Priority: Low

Relative Cost: Medium

Best Practice: Downtown Memphis Commission (DMC) Blue Suede Brigade

The Blue Suede Brigade is the DMC's best-in-class safety and hospitality team. Anchored by 30+ full-time employees, the team is responsible for creating a welcoming environment throughout the entire Central Business Improvement District, including Beale Street, Riverfront, and the Medical District. Using vehicles, bikes and Segways for increased mobility, the team covers all of Downtown and the Medical District.

Brigadiers are trained to provide assistance and information to visitors, workers, residents, and businesses throughout Downtown. In addition, Brigadiers are the supplemental eyes and ears of the business community and our law enforcement agencies including the following services:

- Provide directions and information about activities, attractions, history, development, businesses, and services.
- Monitor compliance with parking, vending, Main Street Mall access, and other civil ordinances
- Issue city parking citations on Main Street and connecting streets/alleys
- Offer daily reports on events, activities, contacts made, and assistance provided, as well as maintenance or safety conditions requiring attention.
- Are thoroughly trained in security, radio and patrol procedures, health and safety awareness, history and geography of Downtown, and hospitality and customer service skills.

While Denton maintains its own Downtown Ambassador program – its duties do not include any parking enforcement component. Expanding Denton's program to involve parking could help enhance the program while instituting larger enforcement activity downtown.

Expand Parking Technology Options

Challenge: Existing parking wayfinding and space availability are limited in Downtown Denton, leading to a perception of a lack of parking and/or an under-utilization of available parking areas**.**

Description: Upgrades in technology can enhance customer and visitor parking experiences, particularly Downtown. Tools like real-time parking space availability and online mapping can turn smartphones and street signage into personalized wayfinding maps. These upgrades

allow for more efficient use of personnel and simplify the evaluations and monitoring of parking utilization. Convenient parking technology has shown improvements in traffic congestion by reducing the need to "circle the block" and provides choice in parking fees relative to the proximity of the parking space.

Parking technology systems from various vendors enable the establishment of on-street zone system, off-street lots, parking apps and paid parking when and if demand requires pricing, such as within Downtown.

While additional staff would enable more detailed coverage of the City's parking assets, license plate recognition (LPR) technology, similar to that utilized by the Police Department, would provide for coverage efficiency, real-time data, reliability and transparency. LPR is a system that uses cameras to automatically read and verify vehicle license plates, primarily used for parking enforcement and management. It provides a more efficient and accurate way to track vehicles in parking areas, compared to traditional methods relying on physical permits or manual checks.

Priority: Low (Citywide) Medium (Downtown and University Neighborhoods)

Relative Cost: Medium to High

Best Practice: City of San Marcos

The City of San Marcos, Texas, has implemented advanced parking enforcement technology to improve efficiency, accuracy, and compliance in managing its parking system. In 2018, the city adopted a cloud-based parking management system developed by NuPark, a Texas-based company specializing in smart parking solutions. This system integrates Automatic License Plate Recognition (ALPR) technology to streamline enforcement and optimize the city's parking resources. Parking enforcement officers use vehicles equipped with cameras and software that automatically scan and recognize license plates of parked vehicles, enabling them to detect violations such as expired permits, overstayed time limits, or unauthorized parking instantly. The system eliminates the need for manual ticketing and ensures faster, more accurate enforcement.

Additionally, the cloud-based platform allows real-time data access for enforcement officers and city officials, enabling remote monitoring of parking utilization, violations, and trends to make data-driven policy decisions. The system also supports digital permitting, allowing residents and visitors to purchase and manage their parking permits online without the need for physical decals or paper passes. Mobile payment app integration further enhances convenience for users. Using data-driven insights has allowed City staff in San Marcos to optimize traffic flow, determine high-demand parking areas, and adjust policies accordingly.

The impact of this technology has been significant, leading to a reduction in parking violations, enhanced revenue collection through more efficient fine enforcement, and better overall user experience. The large college student population of San Marcos, not unlike that of Denton's, has meant that managing parking requires a dynamic approach.

Enforcement Oversight

Challenge: Within the City parking enforcement is managed by the City's Police Department, but the Transportation Services Department has the ability to better utilize enforcement data to manage and plan parking options, programs and facilities to address parking needs.

Description: Currently, parking enforcement is managed by the City's Police Department. While this organizational structure may be functional, the Police Department must prioritize their resources to achieve their wide-ranging mission of making Denton a "safe, sustainable, and livable city for everyone, by keeping victims safe and holding offenders accountable." Since parking violations are more often related to driver confusion, tardiness, and frustration rather than criminal activity, enforcement may be better managed as part of the Transportation Services Department. Furthermore, Transportation Services may be able to use enforcement data and other resources to better plan for smarter parking options, better wayfinding, improved access, and supporting mode-shift.

Therefore, it is recommended that the City explore transferring enforcement to the Transportation Services Department, considering the following:

- Financial impacts of enforcement staffing & technology needs
- Additional budgetary needs
- Citation revenues
- Development of a Parking Enforcement Business Plan
- Operations
- Technology
- Reporting
- Education & Community Engagement

- Coordination with Citywide mobility goals

Priority: High

Relative Cost: High

Best Practice: Nashville Department of Transportation

The Traffic and Parking Section of Nashville Department of Transportation (NDOT) includes the Parking Management Group and the Traffic Operations Group responsible for ensuring safe and efficient transportation and parking products to Davidson County.

The Parking Management Group created in 2021 manages parking resources that provide access for businesses and visitors within Nashville and Davidson County. Duties include enforcement of parking meter restrictions and parking regulations; installation and maintenance of parking meters; management of Metro-owned parking garages; and fulfilling parking permit requests.

Within the Central Business District (CBD) parking is enforced 24 hours -per -day, whereas in all other areas of the City enforcement takes place between 6 a.m. and 12 a.m. The Parking Enforcement Group currently employs 33 officers through a combination of contracted staff and Metro employees, with the goal of the all staff being direct metro employees within the next five years.

Prior to 2021, parking enforcement had limited resources with only five officers active during business hours and limited oversight of the parking program elements such as valet permits, loading zones, and general use of the curb space.

Enhanced Citation Enforcement

Challenge: Parking citations issued by the City's Police Department are not tracked with limited monitoring of why and where violations occur and if they are resolved. Unresolved parking citations are not enforced leading to continued non-compliance of the City's parking regulations.

Description: Parking citations within the City are issued by the Police Department and are subsequently filed with the Denton Municipal Court for resolution as civil infractions. Records are not currently maintained as to how many citations are written and resolved, leaving a gap in the data that would be useful in understanding parking challenges. Consequently, the City cannot determine violation "hotspots" or the frequency of violation types. Furthermore, discussions with staff highlighted the number of parking citations which are not resolved is a disincentive for drivers to follow the City's parking regulations and inhibits revenue collection from citations. Better monitoring and tools to ensure compliance with citations could lead to additional investment in the parking program and potentially modify driver behavior. Staffing and management solutions can be performed by

public/private partnerships, with many jurisdictions outsourcing citation management to private contractors.

Priority: High

Relative Cost: Low

Best Practice: Various Cities within the State of Texas

Within the State of Texas, there are a number of processes that increase the resolution and payment of outstanding parking citations.

In the City of Laredo, the Municipal Court can place a hold on driver's license renewals until all citations are paid in full.

The City of Fort Worth utilizes booting or impounding of offender's vehicle, with three or more delinquent unpaid parking citations. When a vehicle has been booted or impounded, it will not be released until all fines and fees have been paid or a cash bond has been posted to ensure the appearance of the registered vehicle owner at a boot hearing.

The City of San Antonio parking hearing orders may be enforced by the following:

- Vehicle impoundment if the subject vehicle is found on any public street, public right-of-way, public easement, or city-owned parking facility, or other public property if the vehicle owner has committed three (3) or more offenses in any calendar year
- Immobilization of the subject vehicle (booting) if found on any public right-of-way, easement, city owned parking facility or other public property
- Imposition of a $10 fine after 14 days of non-payment
- Refusing registration of the subject vehicle

The City of El Paso sends parking citations not paid within 75 days from the date of issuance to the City's collection agency. *In compliance with the Texas Code of Criminal Procedure, Chapter 103, Article 103.0031(b), once the commitment, warrant, or parking citation is placed with the City's collection agency, an additional 30% collection fee will be added to the amount owed on the case.*

Parking Operations & Maintenance

Responsibility & Authority

Challenge: The responsibility for the City's parking operations is spread across an array of City Departments which poses complications to a coherent parking program.

Description: Currently operations related to parking are split between a number of different City departments. Industry best standards recommend consolidating parking operations into a single division and/or department and in the case of the City of Denton, the Transportation Services Department would be the primary candidate for consolidation of parking operations.

Responsibilities of parking operations and maintenance duties include the following amongst others:

- Parking lot maintenance and operations
- Parking permit system management
- Parking meter program maintenance and operations (as applicable)
- Parking space rental program (i.e., valet zone, construction zone)
- Parking Information program
- Electric Vehicle charging stations maintenance and operations

Along with the responsibilities of parking operations and management, the authority to administer permit programs and curb space programs would also be within the department's purview to administer.

Priority: High

Relative Cost: Low

Best Practice: Austin, Texas

The City of Austin has a Parking Enterprise Division located within the Department of Transportation and Public Works whose goal is to make access to curb space convenient and user-friendly through the regulation of public parking spaces. The Division works to implement the approved Parking Strategy while also managing and operating the following programs:

- District Parking Programs
- Paid Parking and Enforcement
- Commercial Loading Program

- Affordable Parking Program
- Parking Regulations and Tickets
- Residential Permit Parking

Staffing

Challenge: With no specific staff assigned to parking management and responsibility spread across departments, a central parking program manager and support staff is needed to adequately provide an enhanced parking program.

Description: Additional staffing will be needed for expanded parking enforcement and consolidation of departmental responsibility related to parking operations. Current staffing levels with the Transportation Services Department and the Police Department would not meet the proposed need.

Priority: Medium (as actions get implemented)

Relative Cost: Medium

Best Practice: Nashville Department of Transportation

The Traffic and Parking Section of Nashville Department of Transportation (NDOT) includes the Parking Management Group covering parking operations and parking enforcement.

The Parking Management Group created in 2021 manages parking resources to access businesses and visitors to Nashville and Davidson County. Duties include enforcement of parking meter restrictions and parking regulations; installation and maintenance of parking meters; management of Metro-owned parking garages; and fulfilling parking permit requests.

Prior to 2021, parking enforcement had limited resources with only five (5) officers active during business hours and limited oversight of the parking program elements such as valet permits, loading zones and general use of the curb_space. -Within the parking realm, NDOT has 33 parking enforcement officers, maintenance staff, an Operations Manager, a Livability Planner and a Transportation Planning Director.

Parking Districts

Challenge: The City has a number of areas where parking demand exceeds supply at specific times of day and/or during special events, such as in Downtown Denton, in areas around the universities, and in other commercial or entertainment hubs. Implementing district-wide management strategies ensures that parking is utilized effectively, benefiting businesses, residents, and visitors alike.

Description: Effective parking management within designated parking districts can provide a framework to manage parking supply, improve turnover, support local businesses, and enhance multimodal transportation options. Creating separate parking districts allows for a tailored approach that considers the needs of smaller areas, combined with the ability to improve parking management and enforcement for each district. Tools such as paid parking, shared parking agreements, time limits, and enhanced parking enforcement can ensure that parking resources are used efficiently, while limiting their impact only to areas with defined boundaries. Developing a recurring parking data collection framework can help identify where parking districts are most needed. By strategically managing parking districts, cities can encourage better land use while reducing congestion and vehicle miles traveled.

Priority: Medium

Relative Cost: Medium

Best Practice: The City of Austin has created a process where a Parking and Transportation Management District (PTMD) may be initiated by the Director of the Austin Transportation Department. Additionally, a representative of a business organization, real estate developer or other stakeholder that is located completely or partially within the proposed PTMD may file an application to create a PTMD with the Director.

In order to become a PTMD, an area with paid, on-street parking must add at least 100 new paid, on-street parking spaces and an area without paid, on-street parking must create at least 200 paid, on-street parking spaces. The goal of this requirement is to promote parking turnover and reduce high commuter idle. The PTMD dedicates 51 percent of the public paid parking revenue, less City expenses, to help with mobility improvements within the established district and can include park maintenance, signage, wayfinding and sidewalk improvements.

Information & User Experience

Challenge: Information pertaining to parking in the City and particularly the Downtown area, is not easily available on the City website. Parking information related to Downtown options as well as other key destinations and for special events should be clearly announced on the City's website with mobile phone compatibility.

Description: An important and critical role the City should play is to become the parking information clearinghouse for the City's residents, visitors, business owners and property owners.

By creating a central repository for all the parking information, the City will be providing an invaluable service and will subsequently build the program's value and reputation in the

community. Developing a web-based program with effective and easy to read maps is the primary method of delivering the information and can serve as a tool to provide program updates. Developing a parking system brand is also a best practice amongst the nation's leading parking programs and should parallel overall improvements to the parking system. Branding all aspects of the program (and department) into a unified system makes the program look and feel more proficient.

Downtown Denton sees regularly visitors from all around Texas. Piloting an online parking dashboard in the downtown area that focuses on providing parking information for those who have never visited Denton could be a first action towards pursuing this recommendation

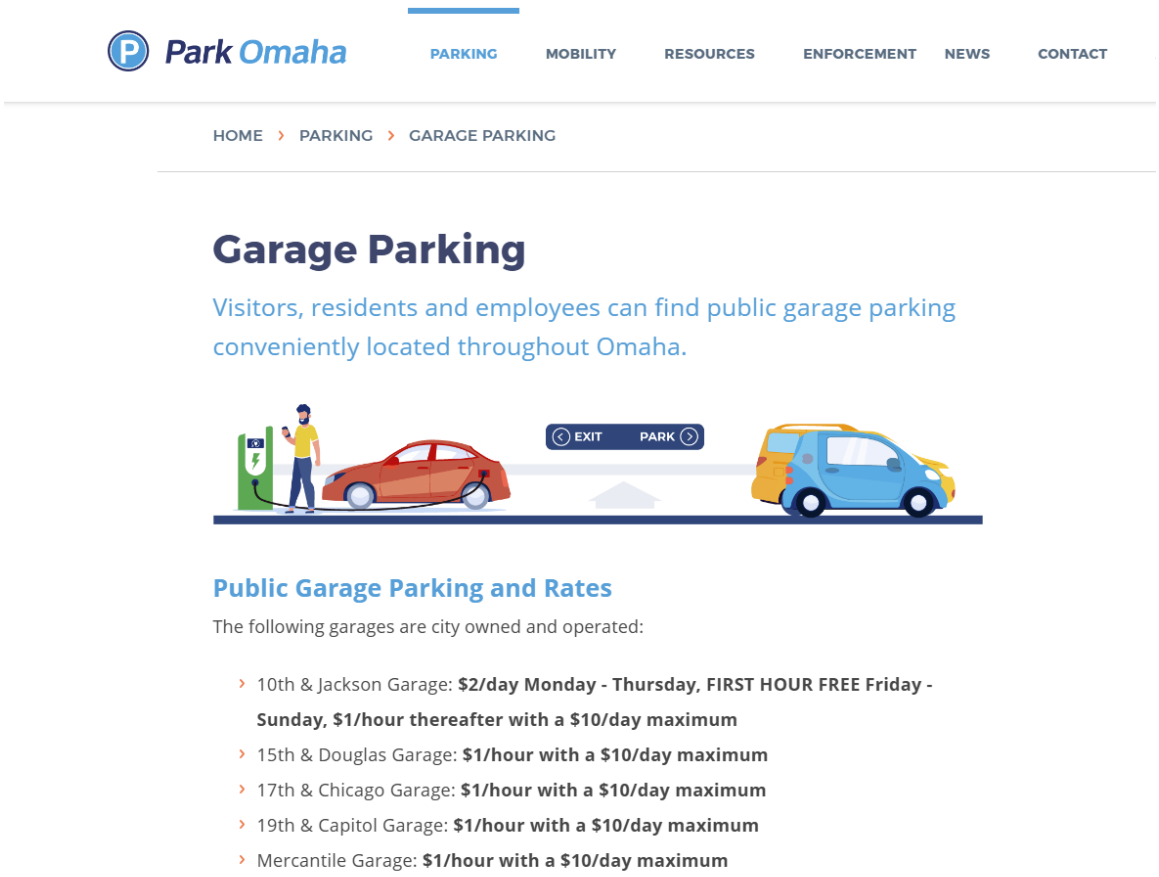
Priority: High

Relative Cost: Medium

Best Practice: Park Omaha, City of Omaha

Over the past 10-years the City of Omaha has transformed its parking program from an inefficient environment which was doing little to maximize its parking resources, to a high performing program that is self-sufficient and enabling the continued economic vitality of the City.

The City has an interactive map that specifies rates and hours and is gradually updating its user experience to enable gateless transactions at its garages and surface lots with license plate recognition. In addition, Park Omaha, much like the Downtown Memphis Commission, launched a Parking Ambassadors program. Parking Ambassadors can provide assistance with parking guidelines, safety tips, give directions to popular venues and monitor parking lots and garages.



Curbspace Management Plan

Challenge: The curbspace has come under increased pressure from a variety of uses through a typical day and Denton has seen these pressures from food delivery, passenger pickup/dropoff and e-commerce activities. The City does not have a plan to actively manage its curbspace and should start with the Downtown to support its thriving Downtown District.

Description: Proactively managing the City's curb is a key element of any Citywide Mobility Plan, with the curb increasingly coming under pressure from the growth of curbside pickup, dining, and e-commerce delivery in recent years. Space at the curb can be managed using a variety of tools, including signage, pavement markings, time limits, usage agreements, restricting too many driveways, and charging fees. This wide range of options allow cities to tailor the tool to the specific need or context within a given area instead of relying on a "one size fits all" approach. Thoughtful management of the limited space along the curb can incentivize or disincentivize certain driver behaviors to meet a range of needs for users. For example, cities around the country have found that adding parking meters in commercial areas can help ensure that vehicles turn over regularly, allowing for greater patronage of the

commercial establishments. Bringing order to the City's curb space and parking management system assists in the following:

- Supporting business districts by making it easier for customers to find an available parking space.
- Reducing congestion and conflicts in travel lanes by allocating adequate space and time for a wide range of users wanting access to the curb
- Providing consistency in the application of curb lane management strategies

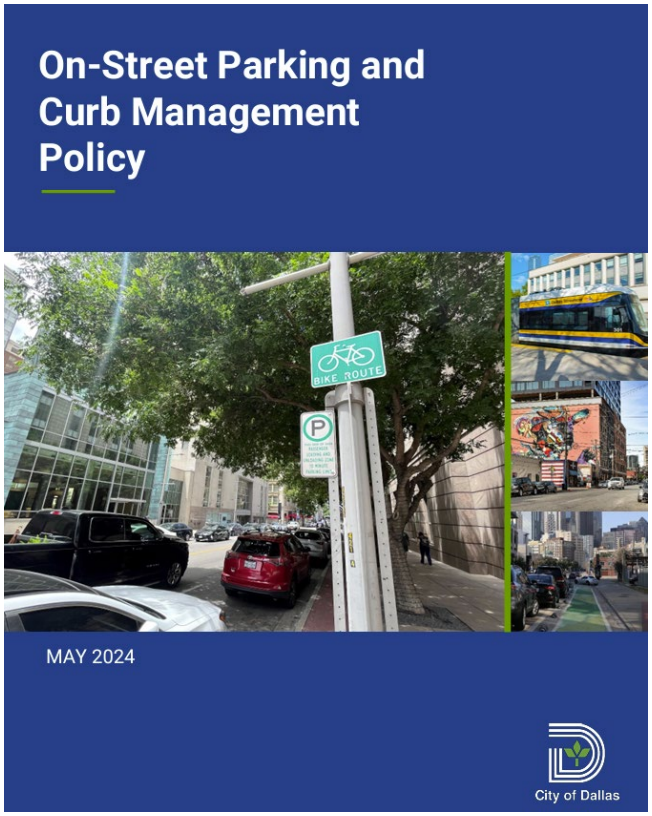
Considering the variety of curbspace needs in Downtown Denton, this recommendation includes beginning with exploring the downtown curbspace and later branching out to a citywide effort.

Priority: High

Relative Cost: Low

Best Practice: City of Dallas, Texas

The Dallas Department of Transportation has modernized the City's paid (metered) parking program and other tools for managing the use of the curb. An "On-Street Parking & Curb Management Policy" has been developed to guide decision-making and inform additional work that will occur over the next several years. The Dallas City Council adopted the policy on May 22, 2024.



Commission Oversight

Challenge: Liaison between the community, City staff and the City Council on parking matters is a key attribute of a proactive approach to a dynamic parking program. The existing City Mobility Committee does not include parking within its purview but does cover other elements of the City's mobility system.

Description: The existing City of Denton Mobility Committee is an advisory committee consisting of three City Council Members and two Resident Members. The powers and duties of the Mobility Committee include providing information, advice, and recommendations to the City Council which pertain to traffic safety, education, and publicity; ways and means of improving traffic conditions and safety for motor vehicles; ways and means for improving bicycle and pedestrian safety; implementation of traffic control devices; or other matters assigned to the Mobility Committee. The duties of this commission should be expanded to specifically address the City's parking program and provide a direct connection to the City Council, the Transportation Services Department and the community.

Priority: Medium

Relative Cost: Low

Best Practice: City of San Marcos, Texas

The City of San Marcos has an advisory Parking Board that provides recommendations to the City Manager and City Council regarding creation and operation of the City's parking and transportation demand management program. The Board is comprised of seven voting members, and two non-voting City Council members. The City Council appoints all members of the board. When considering appointments to the board, the City Council endeavors to appoint individuals who represent the variety of downtown stakeholders, and who meet the following qualifications:

- One member recommended by the Main Street Advisory Board
- One member recommended by the Downtown Association of San Marcos Board
- Two members who are either a business owner within the Downtown Parking Benefit District, a property owner within the Downtown Parking Benefit District, or a resident within the Downtown Parking Benefit District,
- Three members at large
- Two non-voting City Council members

University Campus Parking Shuttles

Challenge: Surrounding the UNT and TWU campuses there is pressure on residential street parking from students going to class that want to avoid searching for parking on campus or do not want to pay the Campus parking permits.

Description: In addition to the parking enforcement, operations, maintenance and management strategies recommended within this memorandum, the City should encourage the Universities of UNT and TWU to review their campus shuttle programs to further encourage usage of outlying parking facilities and/or shuttles from campus to residential destinations. UNT does provide 12 bus routes through their service agreement with Denton County Transit Authority (DCTA) including an evening ride service called Night Flight. The Transportation Fee students pay is used to support these and other transportation initiatives.

Priority: Medium

Relative Cost: Low (if no additional routes are provided and existing routes are reconfigured)

Parking Management

Program Oversight

Challenge: To provide continuity, critical thinking and responsibility, a parking program needs to be overseen. As previously highlighted, the City currently does not have staff oversight of the parking program, which leads to a somewhat disjointed approach across multiple departments.

Description: Changes to the City's parking program will not happen overnight and optimizing Denton's parking system will require a variety of strategies to improve the information, operation, and regulation of parking resources in the City. These strategies are interconnected and will work best as a package of management and operational approaches. In order for the strategies to be implemented successfully, a Parking Manager should be hired to oversee the program and guide the City to future success.

Priority: High

Relative Cost: Low

Best Practice: City of Fayetteville, Arkansas

The City of Fayetteville completed their Parking Master Plan in 2017 and has strategically implemented the recommendations of that plan over the past seven years under the guidance manager of the Parking Management Division manager. The status of progress is documented on the department's website. The manager serves not only to guide the parking program but also as a liaison to the City Council and peer departments such as the Police Department, Development Services, and Public Works.

Establish Parking/Mobility Program Funding

Challenge: Funding for the parking program is currently not a dedicated budget item and any upgrades/improvements are reliant on discretionary funding and/or grant opportunities, which leads to an unreliable investment pattern from one year to the next.

Description: Establishing the parking program as an enterprise fund-separate from the City's general fund should be a long-term goal. Combining all parking--related revenue streams into one fund will allow the City to cover operating and maintenance expenses related to parking, use technology and data to make strategic enhancements to the parking program, and invest in through new technology and other capital projects to improve access and livability. Ultimately, the fund should become self-sufficient over time.

Revenues from the following parking services should be included within a Parking Fund:

- Parking enforcement revenues
- Special event parking revenues
- Curbside permit revenues
- On-street and off-street parking revenues (as applicable)

Development of a program "financial plan" is recommended to consider the interconnected recommendations included within this report and continued funding of future staff and programs.

Priority: High

Relative Cost: Low

Best Practice: City of Columbia, MO

The City of Columbia has a specific Parking Utility Fund and as of FY25 the Parking Enforcement fund has been transferred from the Police Department to the Parking Utility. The Parking Utility provides and maintains convenient and adequate parking, both on-street and off-street, in the downtown and college campus areas. The Parking Utility collects income for the financing, maintenance, and operation of the parking garages, parking meters, and surface lots.

Monitoring & Reporting

Challenge: Without the monitoring of any parking activities and reporting of such activities, including utilization, violations and community complaints, the City is unable to reliably plan for future parking demands and needs of the community**.**

Description: Currently there are no parking meters or other parking technology utilized to manage parking Citywide. -Technology should be leveraged to make data-driven decisions for future parking program policies and investments with routine monitoring and reporting. Integration with the City's enforcement technology and the City's GIS system to monitor supply and demand should be investigated.

Priority: High

Relative Cost: Low

Best Practice: City of Houston, Texas

To improve the management of the curb space, ParkHouston has deployed a data management platform that integrates data from the City's parking management system, parking meters and digital payments. This platform allows the City to make policy and operational decisions as well as the management of rates to improve parking space

availability in real time. The new data management platform is the first step in the City providing the public real-time curbside parking space availability.

F PRELIMINARY CODE UPDATE RECOMMENDATIONS

MEMORANDUM

To: **Brett Bourgeois, City of Denton**

From: **Nelson\Nygaard**

Date: February 17, 2025

Subject: **City of Denton: Preliminary Code Update Recommendations**

Updating the City Development Code can help reduce car dependency in Denton and promote efficient land use throughout the City. These recommendations are intended to support Denton's evolving parking and transportation needs.

Minimum Parking Requirements

Moving away from minimum parking requirements can help promote more efficient land use, reduce housing and development costs, and encourage alternative modes of transportation. By reducing or eliminating these requirements, developers can have greater flexibility to determine appropriate parking levels based on the market needs. However, Denton is not yet in a position to completely remove minimum parking requirements without first offering options to shift away from driving and parking to other transportation modes. A lack of parking requirements works best in dense urban locations that provide transit, walking, and cycling options. First, Denton should look to allow developers to build less parking than the code requires by including infrastructure, programs, and design that improve access for transit users, cyclists, and pedestrians.

Areas Most Impacted

This strategy will mostly impact **areas outside of Downtown Denton**. In the Mixed-Use Downtown Core (the MD district), parking mandates do not apply for residential developments with 10 or fewer dwelling units or for any non-residential development. A removal of minimum parking requirements helps promote density, connectivity, and more efficient land use, which would impact areas outside of the MD district Downtown.

Timeline

Given the need to first implement other parking strategies in order to maximize the impact of removing minimum parking requirements, **the timeline of this strategy is long-term(>3 years)**.

Parking Regulation Waiver Program

The Denton Development Code (DDC) can be updated to reduce the parking requirement through the provision of Transportation Demand Management (TDM) measures in new developments, such as subsidized transit passes with Denton County Transit Authority (DCTA), bike facilities, car-sharing programs, and enhanced pedestrian infrastructure. This strategy could be prioritized in areas with a need for new, dense development to complement existing mobility infrastructure, such as within a mile of the Downtown Denton Transit Center (DDTC) or the MedPark Station.

Allowing developments to incorporate TDM strategies make it possible and realistic for residents and employees to choose alternatives to driving alone, helping to alleviate congestion and support citywide mobility goals. Establishing a method to replace parking requirements with access to alternative transportation options is a win-win for developers, the community, and the City, in that it allows developers to lower development costs through reducing costly parking inventory, it gives the community options to get around Denton beyond driving and parking, and it helps support City mobility and sustainability goals. This strategy works best if off-site facilities that help complete the bicycle, pedestrian, and transit networks are eligible for a reduction in the parking requirement.

Areas Most Impacted

This strategy would primarily impact **existing areas of dense residential, commercial, and mixed-use land uses**, due to the impact being strongest in larger developments. This includes job centers, areas of high residential development activity such as those near the TWU and UNT campuses, and other areas of high growth. Underdeveloped areas that could benefit from this strategy include near the DDTC and MedPark stations. In Downtown Denton, this strategy could be amended in the MD district downtown by requiring certain TDM measures at all new downtown developments, due to the lack of parking requirements there.

Timeline

The timeline of this strategy is short- to medium-term (1-3 years). If implemented in the short term, this change could set the stage for other parking and mobility recommendations to come online sooner (such as the removal of minimum parking requirements citywide).

Establishing a Transportation Management Association

Transportation Management Associations (TMAs) are non-profit, public-private partnerships that provide coordinated transportation solutions for businesses, residents, and local governments. TMAs can manage programs such as carpool matching, employer-based

shuttle services, and flexible work-hour policies to reduce traffic congestion and parking demand. While this is not a recommendation for a code amendment, the City could instead require membership of the TMA through the development code as part of the Traffic Impact Analysis process. Establishing a TMA with many employers as members can help reduce parking demand citywide through comprehensive commute management. Denton should first look to work with partners to establish a local TMA. Look to the Frisco TMA as a local example.

Areas Most Impacted

The impact of this strategy can be seen citywide, but the level of impact and its primary locations will be dependent on the number and location of member organizations. Job centers or dense residential complexes will see the biggest benefit.

Timeline

The timeline of this strategy is medium to long term(>2 years) but is dependent on the ability to solicit participation from job centers, residential complexes, and other stakeholders, including UNT and TWU.

Residential Parking Permit Programs

Residential parking permit (RPP) programs help manage on-street parking in neighborhoods affected by overflow parking from nearby commercial areas, transit stations, or university campuses. These programs grant parking privileges to local residents while limiting or restricting non-resident parking during certain hours. When properly implemented, RPP programs can reduce competition for parking spaces, prevent excessive congestion, and maintain neighborhood quality of life while still accommodating visitors and local businesses through a balanced approach.

Areas Most Impacted

Areas near UNT, TWU, Fry Street, the Downtown Denton Transit Center, or other areas that see commercial activity adjacent to neighborhoods will see the most impact. Spillover traffic is currently a concern for residents living in the neighborhoods just south of Downtown – a pilot program for this strategy could be tested there.

Timeline

The timeline of this strategy is medium-term (1-3 years). The Denton Development Code Subsection 7.9.5C references a potential RPP program, but its framework and guidelines must be established so that locations can be identified by residents and implemented before seeing an impact. While this strategy has been used effectively in the benchmark

communities, it is a new approach for Denton. Therefore, drafting the program and implementation will require robust public engagement and education to ensure a smooth and successful rollout

Loading Zones

The Denton Development Code currently lacks explicit definitions or guidelines regarding the establishment and enforcement of loading zones. There are no clear distinctions around permitted vehicle types, usage times, or allowable durations for loading activity. Enforcement duties currently primarily address broader code and property maintenance violations, but the code also does not authorize automated enforcement tools like cameras or sensors, nor does it allow third-party enforcement. Additionally, there are no provisions for public reporting on violations or requirements for businesses to register delivery vehicles or be held accountable for recurring infractions.

To strengthen enforcement, the code should be amended to clearly define loading zones, including permitted hours, vehicle types, and usage limits. It should also authorize modern enforcement tools such as camera-based monitoring or license plate recognition (LPR), enable third-party citation issuance, and introduce escalating penalties or towing for repeat violations. The code could mandate transparency through routine public reporting on violations and enforcement actions. For violations caused by business-owned vehicles, Denton could require businesses using loading zones to register their vehicles and see increased penalties for repeat offenses.

Areas Most Impacted

Areas with a high commercial presence and on-street loading needs, which include Downtown Denton, Fry Street, businesses along Hickory and Oak Streets, and other central locations.

Timeline

The timeline of this strategy is short-term (<1 year). Loading zone enforcement has been identified as a key issue in Denton, and this step will help create guidelines that make enforcement more streamlined.

Parking Districts

Effective parking management within designated parking districts can provide a framework to manage parking supply, improve turnover, support local businesses, and enhance multimodal transportation options. Creating separate parking districts allows for a tailored approach that considers the needs of smaller areas, combined with the ability to improve

parking management and enforcement for each district. Tools such as paid parking, shared parking agreements, time limits, and enhanced parking enforcement can ensure that parking resources are used efficiently, while limiting their impact only to areas with defined boundaries. Developing a recurring parking data collection framework can help identify where parking districts are most needed. By strategically managing parking districts, cities can encourage better land use while reducing congestion and vehicle miles traveled.

Areas Most Impacted

This strategy will have the most impact in **areas where parking demand exceeds supply**, such as in Downtown Denton, in areas around the universities, and in other commercial or entertainment hubs. Implementing district-wide management strategies ensures that parking is utilized effectively, benefiting businesses, residents, and visitors alike.

Timeline

The timeline of this strategy is medium-term (1-3 years). While some parking management tools can be implemented in the short term (such as better enforcement and updated signage), broader changes like shared parking agreements and dynamic pricing require coordination with businesses and stakeholders.