CHAPTER 2

BICYCLE SYSTEM

BICYCLE SYSTEM GOAL:
To provide and maintain a comprehensive bicycle system that serves all residents and neighborhoods of Austin, and that provides facility options for all cycling skill levels.

The most fundamental element of increasing bicycle use is to ensure the facilities are in place to support bicycling. This includes well-connected on- and off-street facilities for bicycle travel as well as the support facilities such as parking, shower facilities, and wayfinding along the network. The City of Austin should be creative in constructing and maintaining a bicycle network that improves Austin's infrastructure to a world-class level where bicycling for recreation or commuting becomes easy, attractive, and safe for every citizen.

This plan identifies five elements of a strong, comprehensive bicycle system, which are discussed on the following pages:

1. The Bicycle Network
   Objective 1: Complete the City's Bicycle Network

   Establishing a convenient and safe place to ride is the first step to encouraging bicycle use, whether for utilitarian or recreational purposes. In order to provide a network that serves all of Austin, the needs and preferences for each type of potential bicyclist—children and adults, advanced riders and novice riders, and utilitarian and recreational riders, whether discretionary or non-discretionary—needs to be considered. This plan outlines how the bicycle network and the various facility treatments should be identified, prioritized, designed, and ultimately built.

2. On-Street Parking And Bicycle Lanes
   Objective 2: Resolve Parking in Existing Bicycle Lanes

   Several miles of bicycle lanes in Austin have unrestricted automobile parking in the bicycle lane. On-street parking in bike lanes is incompatible. In 2007, the City of Austin established guidelines to resolve parking in bicycle lanes, by evaluating existing conditions, and determining, with neighborhood input, which use has the greatest priority. This portion of the plan summarizes the efforts of these guidelines, establishes them as the preferred method of resolving parking in bicycle lanes per this Plan, and identifies locations where parking in bicycle lanes still needs to be resolved.

3. End-of-Trip Facilities
   Objective 3: Increase Availability of End-of-Trip Facilities

   While the bicycle network (bicycle lanes, multi-use paths, wide shoulders, etc) are considered an important element of facilitating bicycle use, a more comprehensive approach to improving the bicycle system is necessary. Citizen input continues to point to the need for support facilities, such as secure bicycle parking or storage

and shower facilities at the end of the trip. Additionally, the use of loan vehicles for daytime business related trips can also contribute to overall bicycle use. Other supporting facilities include wayfinding and signage along the route to help guide bicyclists to their destination. Providing these items will help promote bicycling as an easy, convenient way to travel and exercise.

4. Integration of Cycling with Transit
   Objective 4: Fully Integrate Cycling with Transit

   It is hard to separate bicycling and transit, as the two methods of transportation strongly support one another. For those who live too far to feasibly bicycle commute to their job, a possible option is to bike to a bus or rail stop, park, and complete the trip by transit, or take the bike and continue from where they disembark and continue to their destination. With the prospect of commuter rail and a growing mass transit system in Austin, adequate facilities and connections should be made to link the two modes of transportation. Safe and secure bicycle parking at key transit stops for regular transit, rapid bus, and rail should be coordinated and implemented. Additionally, bicycle accommodation on all bus and rail transit and van pool vehicles should be provided.

5. Bicycle Facility Maintenance
   Objective 5: Provide Superior Bicycle Facility Maintenance

   Finally, maintenance of the bicycle system, including the network and supporting facilities will ensure a comfortable and predictable bicycle trip, similar to that provided for other modes of transportation. Because bicycle tires are much smaller than motor vehicle tires, maintenance is more crucial to the operation of the bicycle network than the motor vehicle network.

BICYCLE SYSTEM OBJECTIVES:

1. *Complete the City's Bicycle Network.*
2. *Resolve parking in existing bicycle lanes.*
3. *Increase the availability of end-of-trip facilities.*
4. *Fully integrate cycling with transit.*
5. *Provide superior bicycle facility maintenance.*

EVALUATION OF EXISTING BICYCLE INFRASTRUCTURE

As of February 28, 2009, Austin has a total of 1,731.61 miles of bicycle facilities. This includes 4.66 miles of multi-use paths (not including primarily recreational trails), 156 miles of bicycle lanes, 358 miles of paved shoulders, and 1,213 miles of shared lanes and wide curb lanes, or which 143 are signed. On a per capita basis, Austin has 9 miles of bicycle facilities (multi-use paths, bicycle lanes, paved shoulders, and signed routes) for every 10,000 residents of the city. The Austin bicycle route network currently consists of a variety of facilities, including shoulders, bicycle lanes, wide curb lanes, signed bicycle routes, and multi-use paths.

The first step in identifying the needs and goals for the bicycle system is to evaluate the existing system. This analysis, which includes public input as well as detailed field research, identifies the barriers in the system, guiding recommendations for new facilities throughout the city. This analysis also evaluates the process of how the system is currently being implemented and offers recommendations and new tools to facilitate future completion of bicycle facilities.

A key issue raised during the planning process involved barriers along existing routes throughout the city. These barriers often make otherwise useful routes more difficult to use and unattractive to less confident riders. The Street Smarts Task Force (SSTF) was instrumental in identifying barriers in the bicycle network. Through the process, 101 infrastructure related recommendations were made that will improve the bicycle network by connecting gaps and removing barriers in the network. These recommendations include 92 miles of new bicycle network or improvements to existing system routes. The city and their consultant identified another 45 barriers citywide. Key barriers in Austin include:

- The crossings of Mopac and IH-35
- The river crossings at Pleasant Valley Road and US 183/Mopac/Airport
- The crossing of US 183 at Shoal Creek, Springdale, and McNeil Road

The Infrastructure and Facilities Subcommittee of the SSTF created a Barrier Categories and Rating Criteria to categorize and prioritize these 101 barriers based on seven rating criteria, for which each barrier is ranked as High, Medium, or Low priority. These recommendations are integrated into the recommendations of this Plan. The location of existing facilities, gaps, and key barriers in Austin are shown on the maps on the following pages. A combined list of barriers is found in Appendix G. Costs and potential solutions for addressing the barriers were performed by the Bicycle Program and will be used to create future project packages for funding opportunities. Addressing the barriers throughout the city should be one of the highest infrastructure actions of this plan.

Existing facilities in the City of Austin are shown on the following pages.

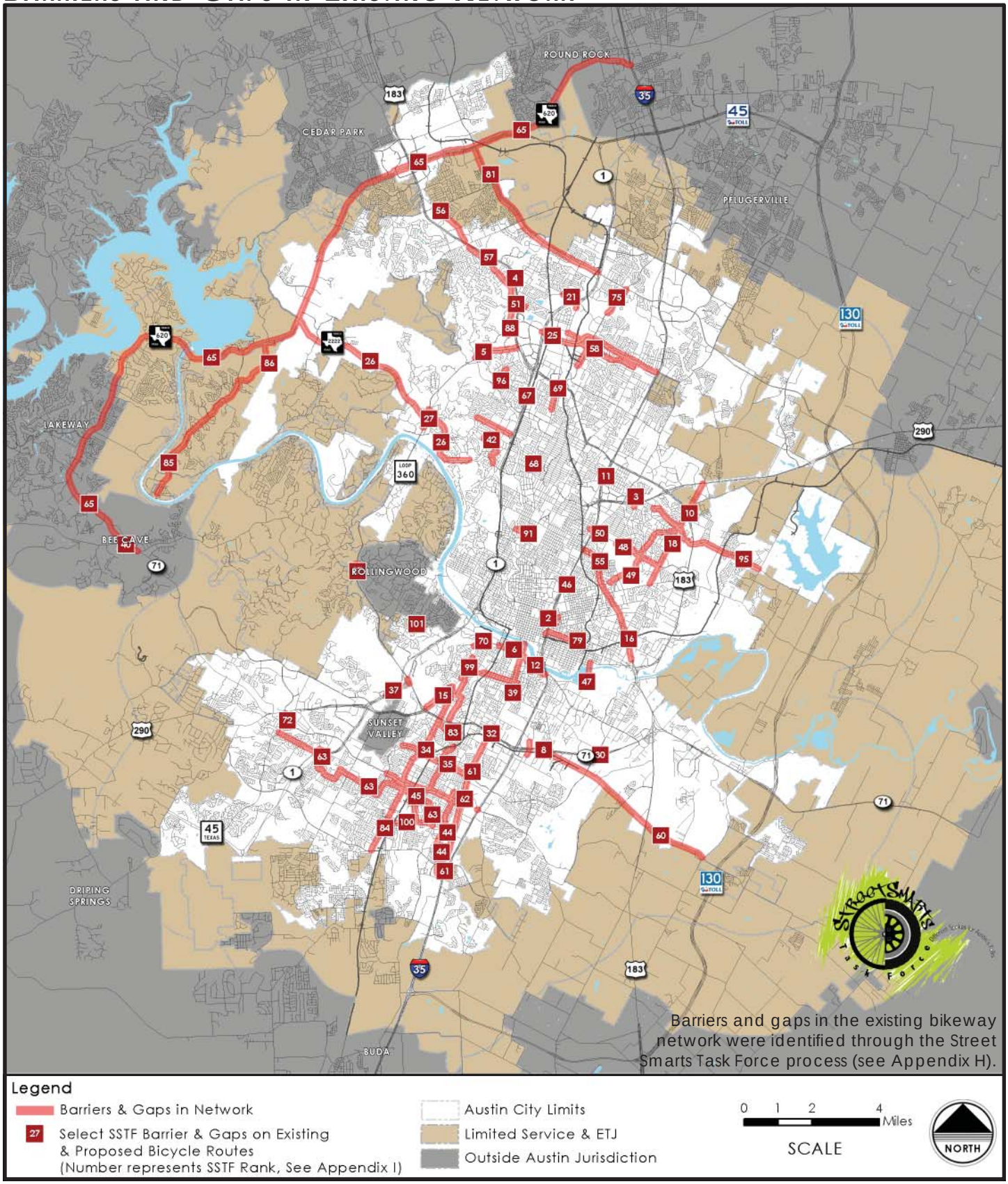
Street Smarts Task Force Seven Rating Criteria of Barriers in Austin
(endorsed by the City Bicycle Program)

1. Barrier danger / difficulty level
2. Distance required to avoid barrier
3. Proximity to "green" route (easy-use route)
4. Proximity to major attractor
5. Proximity to mass transit, bus, park and ride, rail plan
6. Current level of route use
7. Difficulty of solution (cost magnitude to implement)

Street Smarts Task Force Infrastructure Recommendations

The recommendations established by the SSTF address the gaps and barriers in the bicycle network; using signage and pavement markings for wayfinding; recommendations for on and off-street bicycle facilities; incorporating bicycle planning into the planning and development process; integrating bicycles and mass transit; and administrative recommendations. A common theme among the SSTF recommendations is coordination with other departments and agencies to implement the recommendations. Examples of other recommendations include: addressing maintenance issues and on-going review of the network to ensure quality facilities; using signage for wayfinding; improving construction detour guidelines and signage as they relate to bicyclists; exploring innovative facility uses, such as bike boxes, colored lanes, and sharrows; and coordinating with other agencies and jurisdictions to implement a regional bicycle network (SSTF, 2008, pp. 12-16).

Barriers and Gaps in Existing Network



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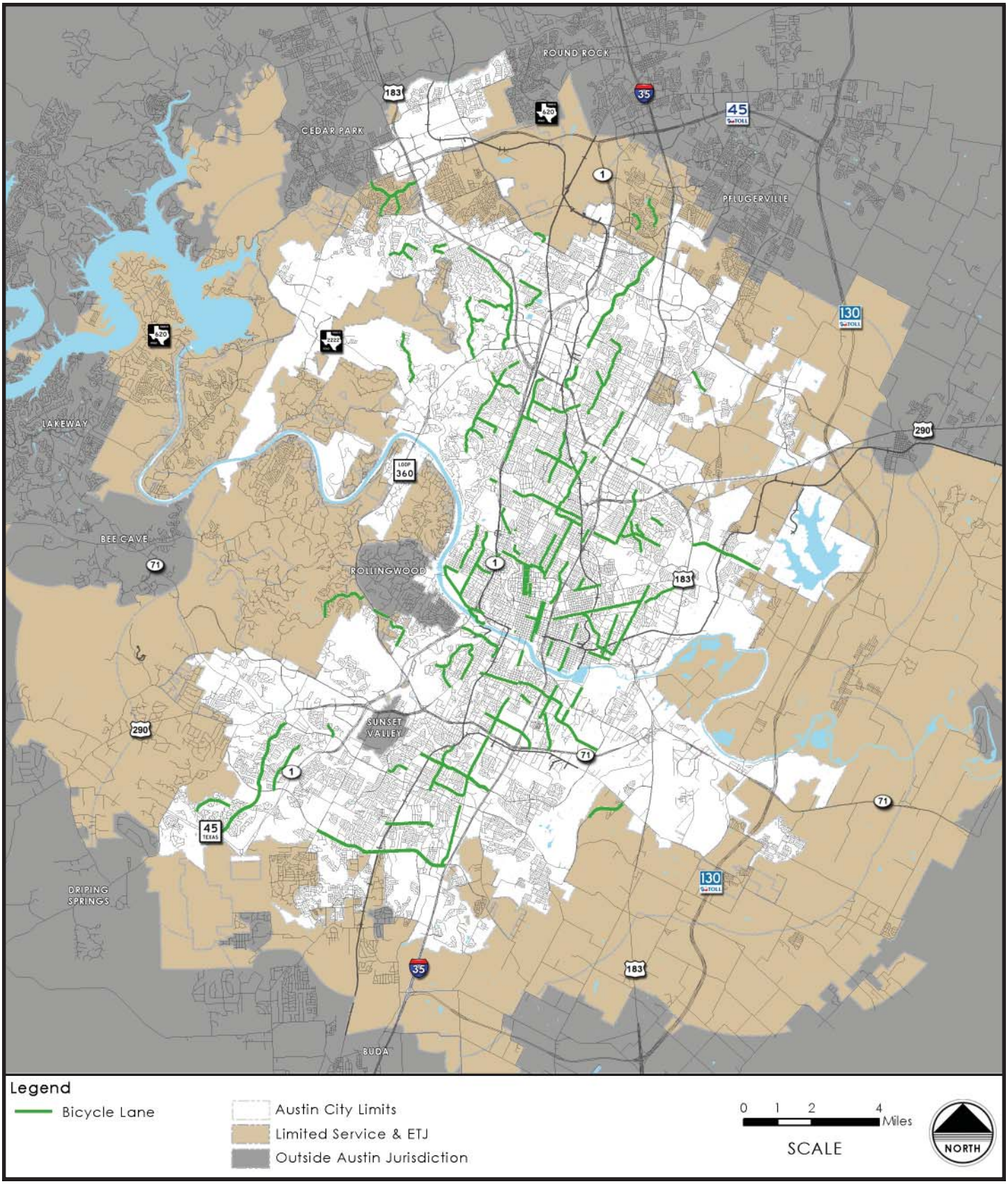
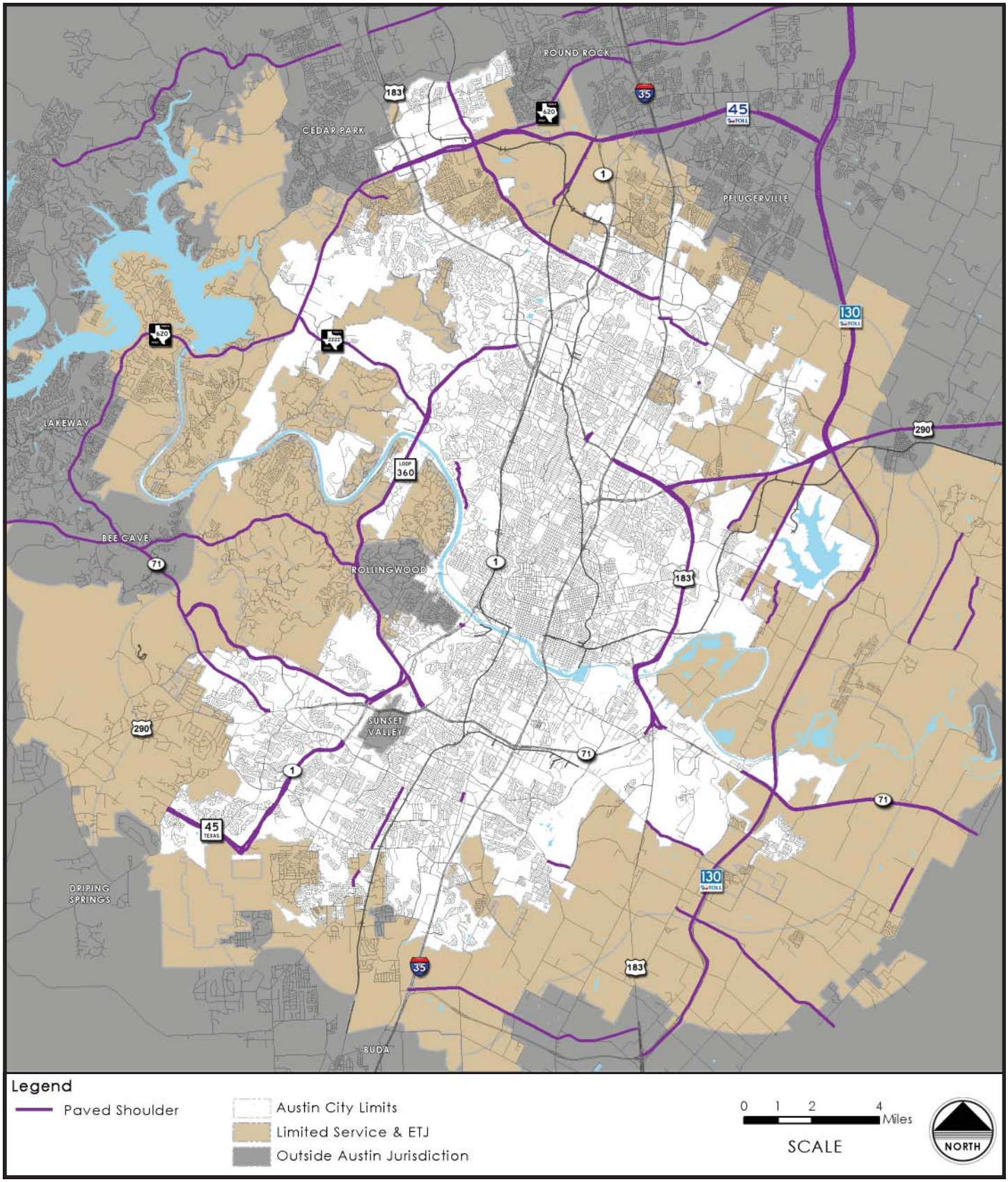
Existing Bicycle Lanes



Existing Wide Shoulders



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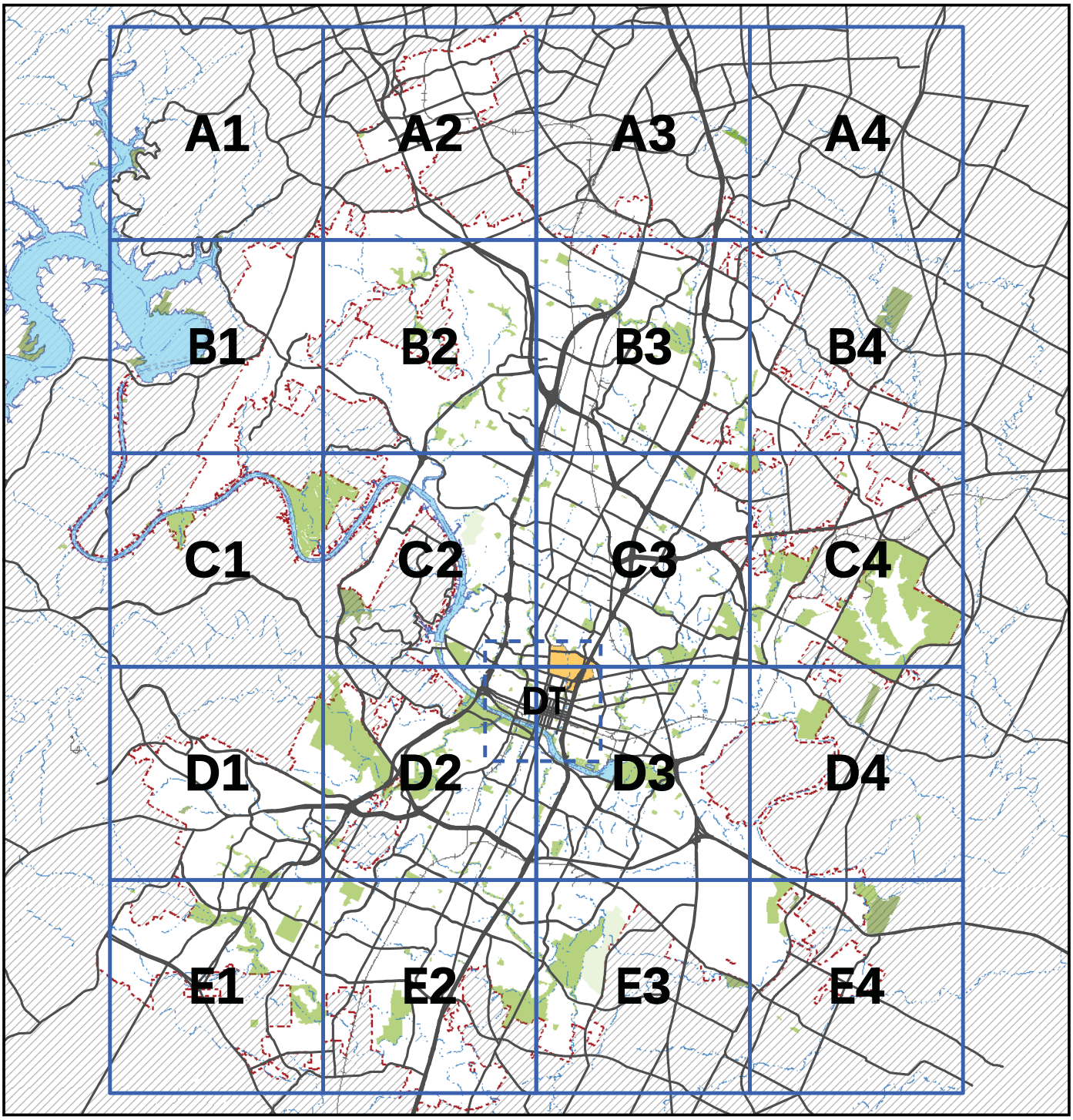
Sector Map



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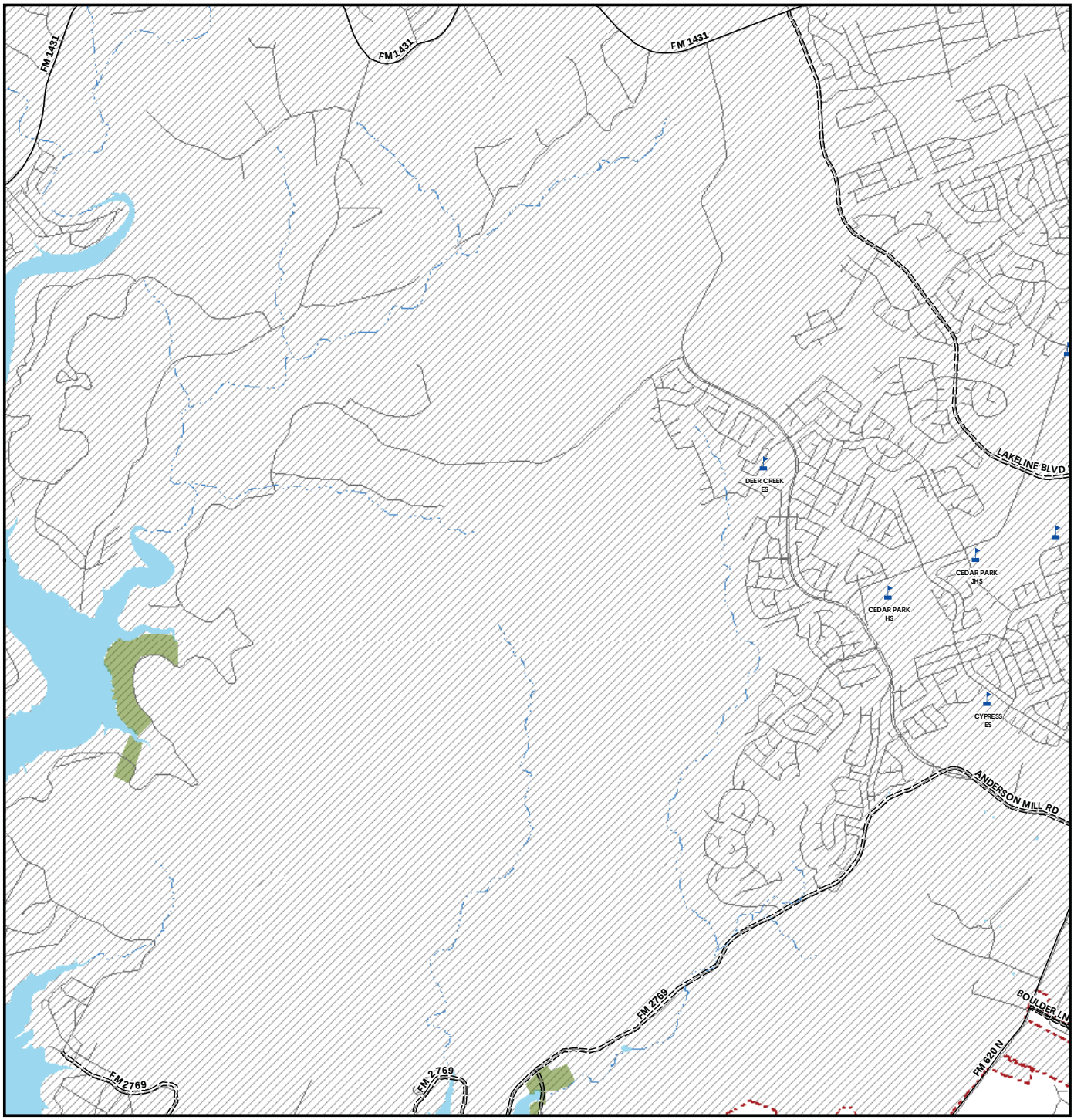
Existing Bicycle Network: Sector A1



A1

Existing Facilities

- BIKE LANE
- CLIMBING LANE
- MULTI-USE PATH/TRAILS
- WIDE SHOULDER
- WIDE CURB
- SHARED LANE
- AS DIRECTED BY AUSTIN CITY COUNCIL
- TRAILS

- Downtown (DT)
- Austin City Limits
- Outside Austin City Limit
- CapMetro Park & Ride (P&R) & Rail Stations

N W E S

1 0.5 0 1 Miles

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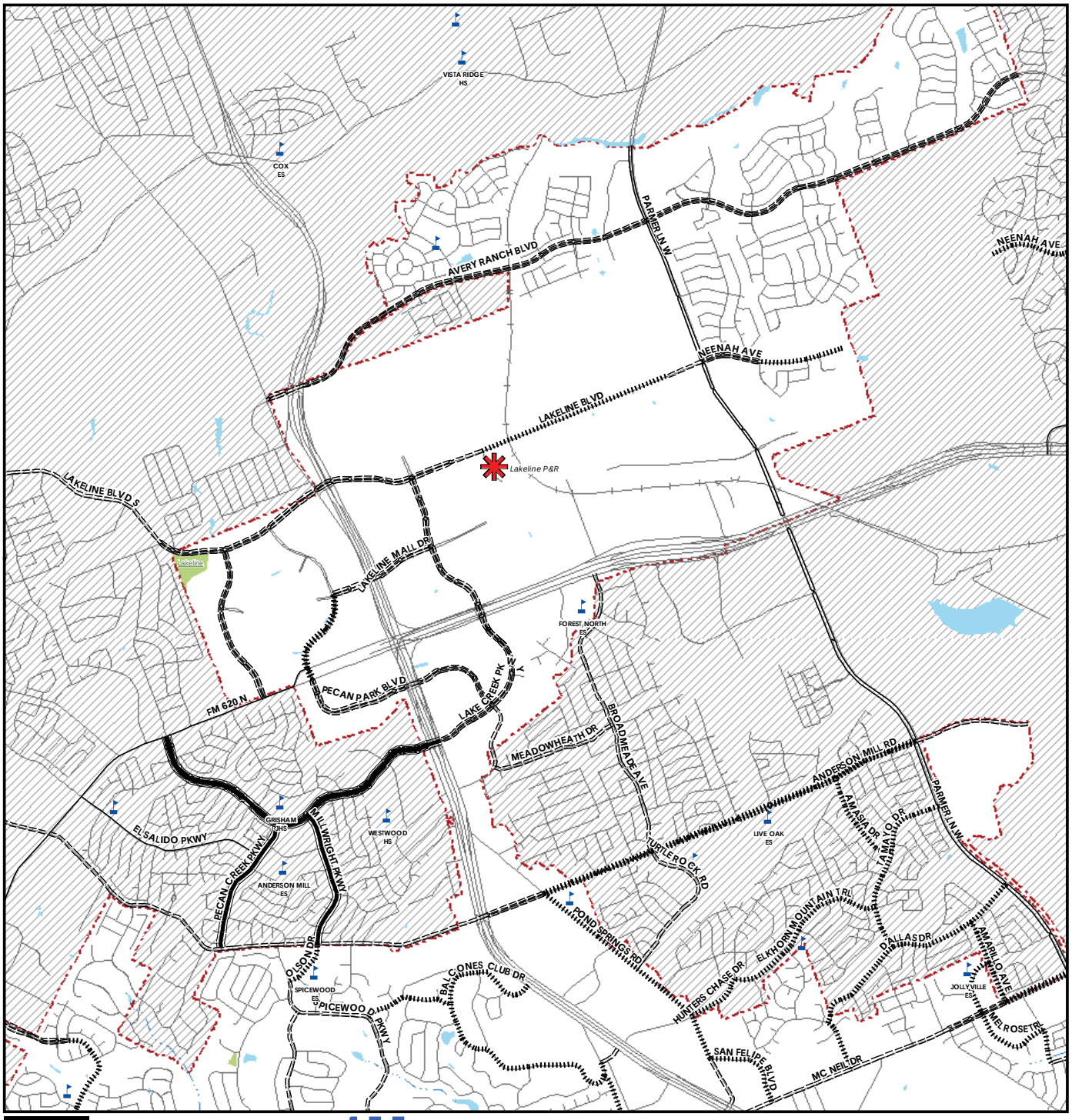
Existing Bicycle Network: Sector A2



A2

Existing Facilities

- BIKE LANE
- ▲ ▲ ▲ CLIMBING LANE
- ····· MULTI-USE PATH/TRAILS
- WIDE SHOULDER
- WIDE CURB
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N W E S

1 0.5 0 1 Miles

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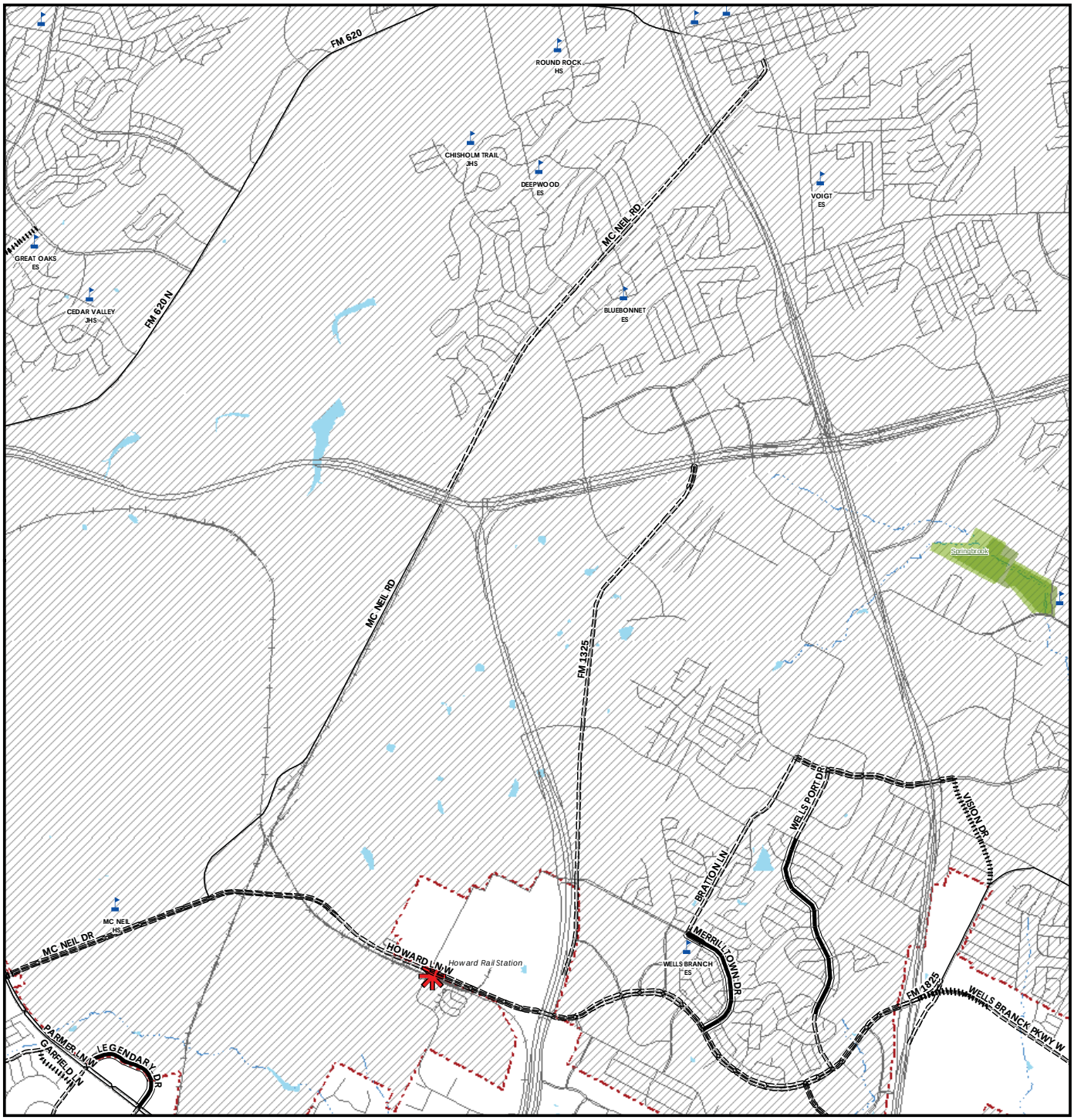
EXISTING BICYCLE NETWORK: SECTOR A3



A3

Existing Facilities

- BIKE LANE
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N W E S

1 0.5 0 1 Miles

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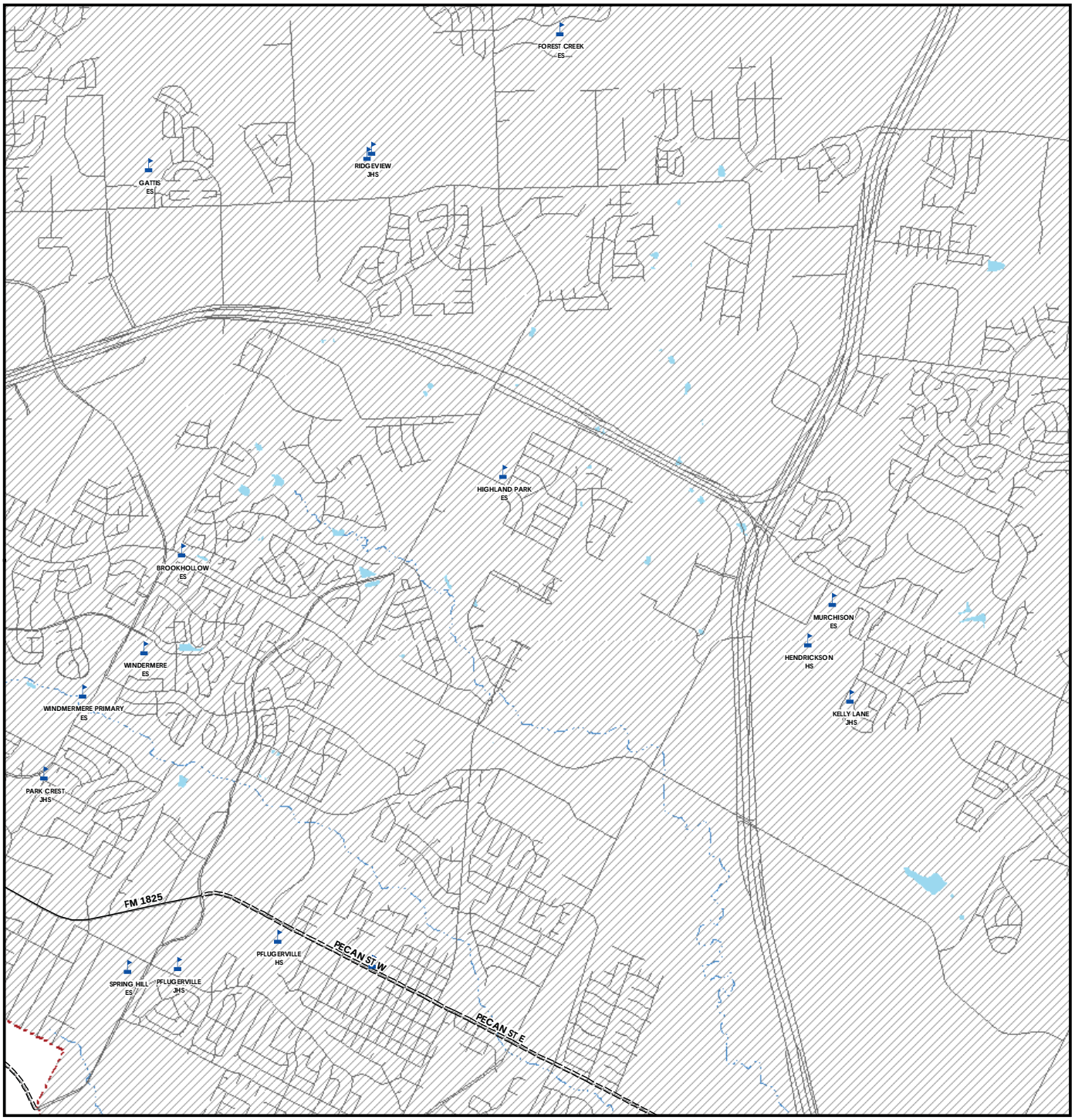
Existing Bicycle Network: Sector A4



A4

Existing Facilities

- BIKE LANE
- CLIMBING LANE
- MULTI-USE PATH/TRAILS
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N W E S

1 0.5 0 1 Miles

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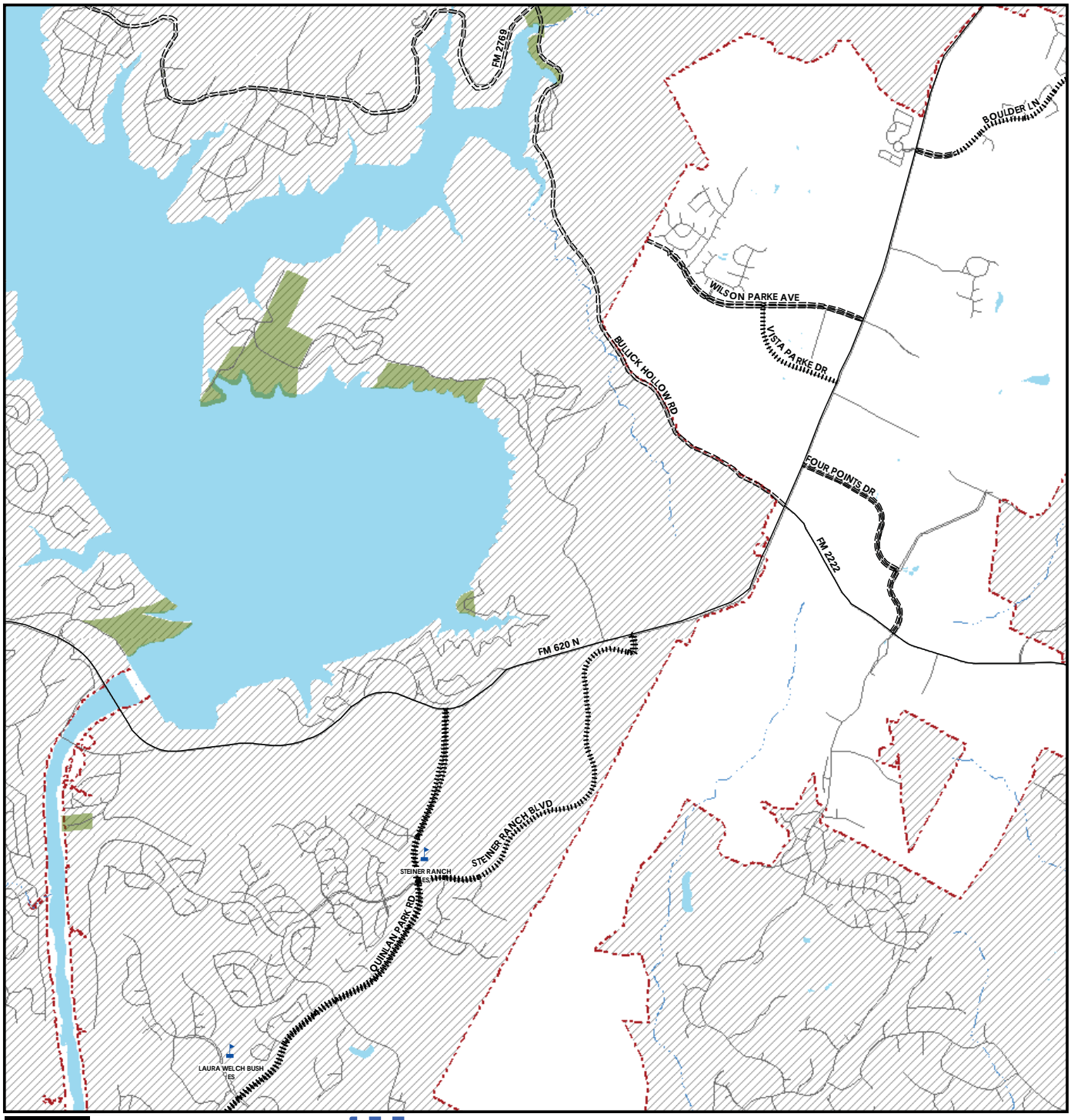
Existing Bicycle Network: Sector B1



B1

Existing Facilities

- BIKE LANE
- CLIMBING LANE
- MULTI-USE PATH/TRAILS
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N W E S

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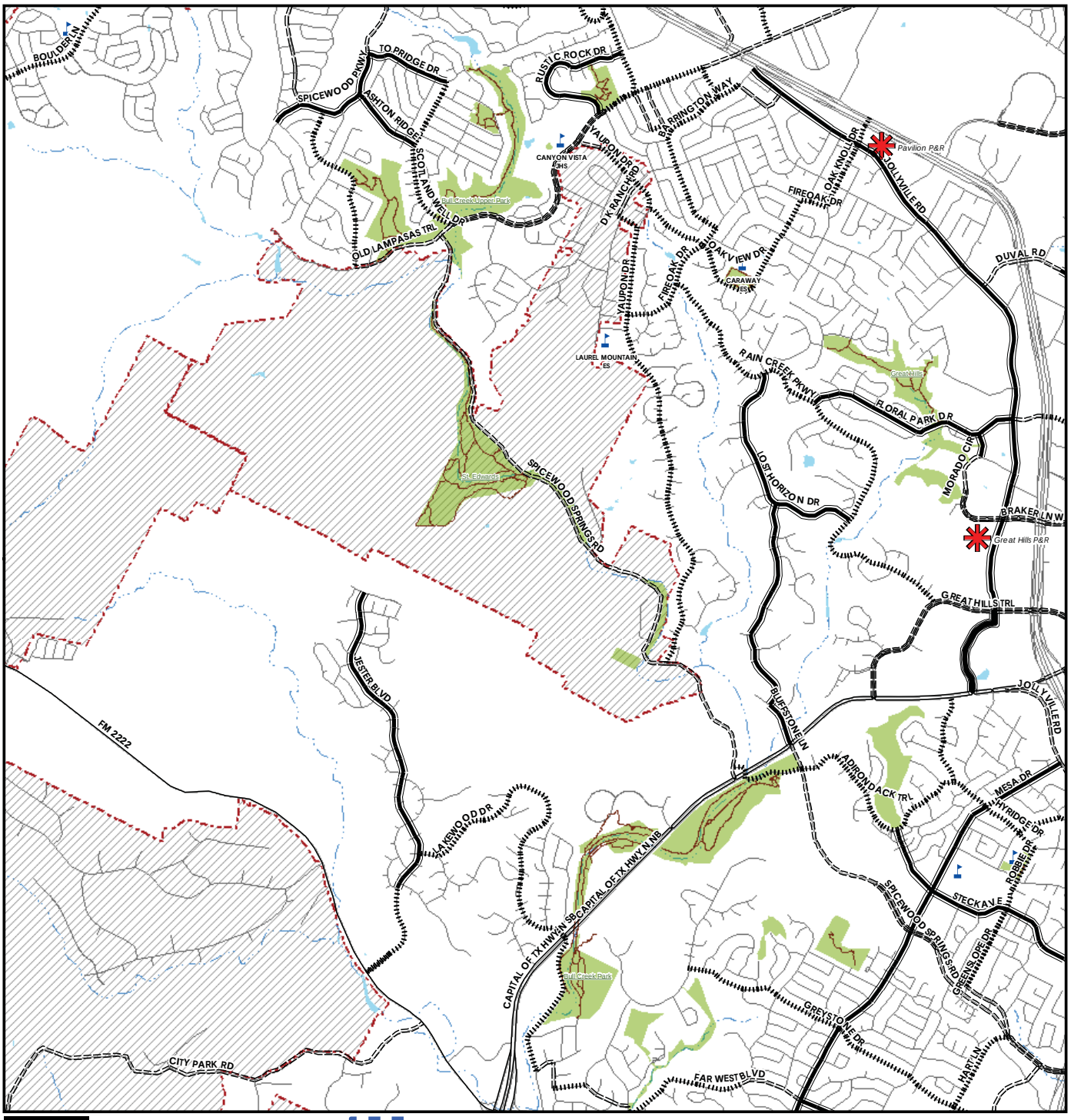
Existing Bicycle Network: Sector B2



B2

Existing Facilities

- BIKE LANE
- ▲ ▲ ▲ CLIMBING LANE
- ····· MULTI-USE PATH/TRAILS
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- WIDE CURB
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N W E S

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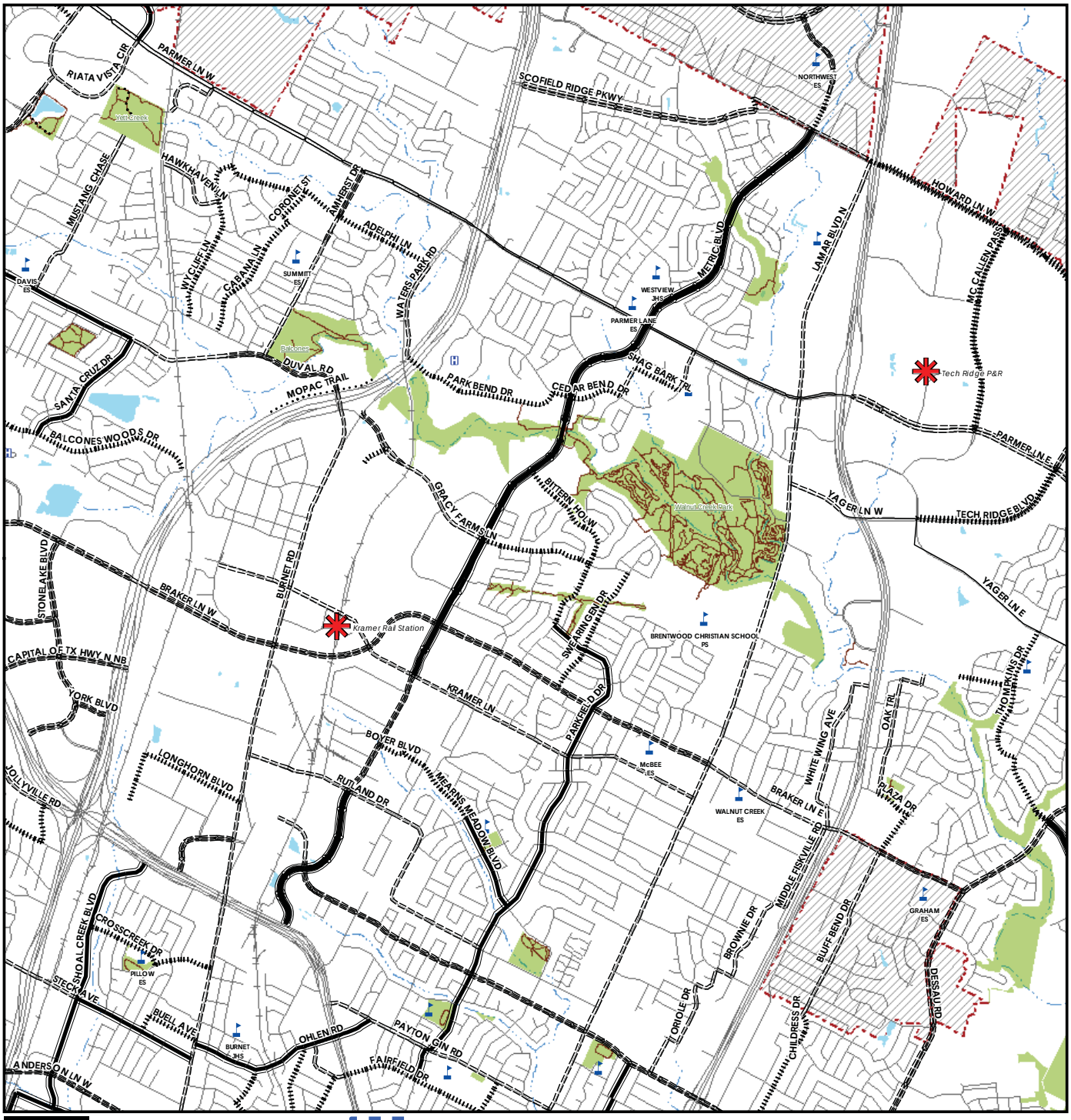
EXISTING BICYCLE NETWORK: SECTOR B3



B3

Existing Facilities

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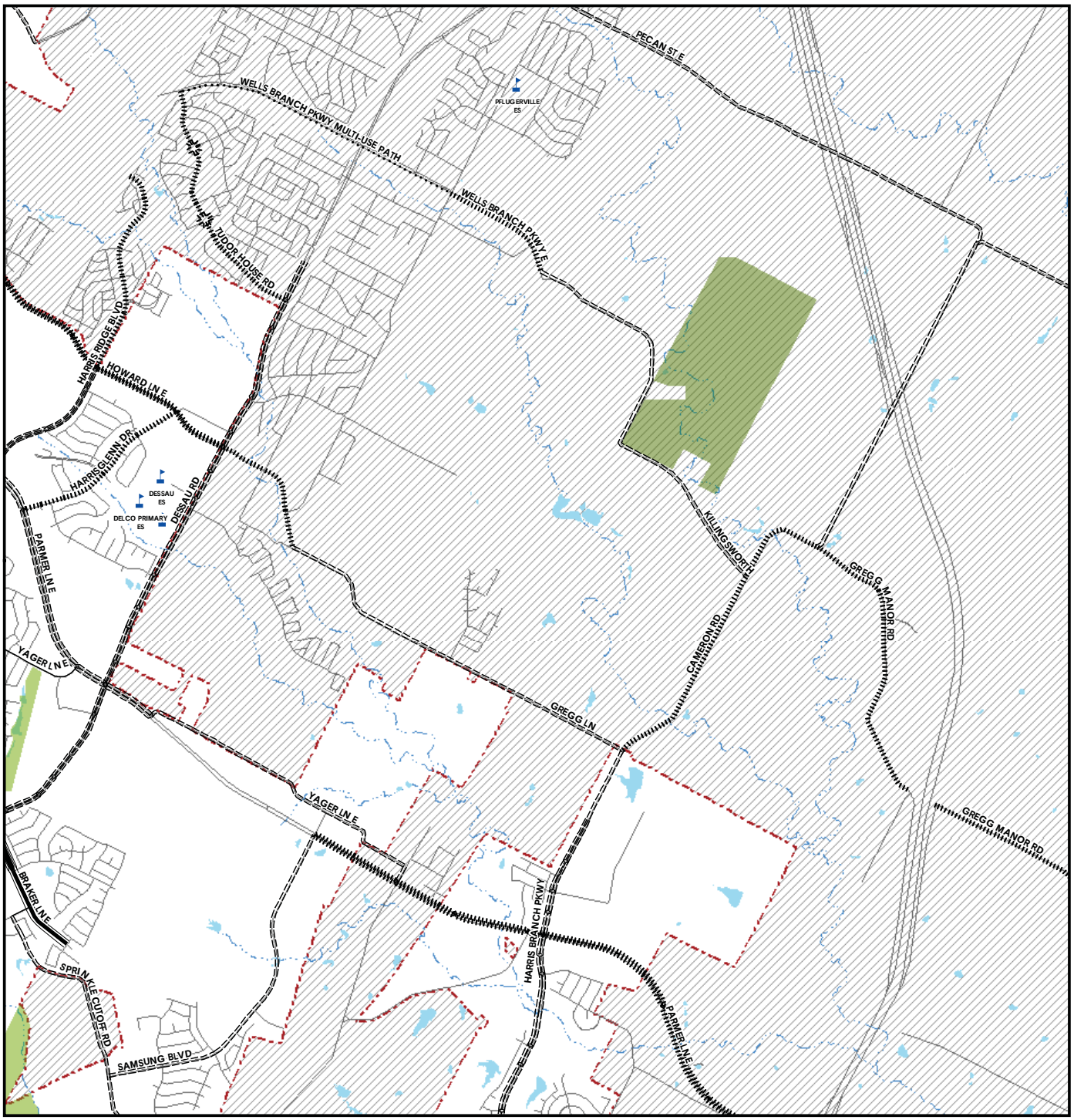
Existing Bicycle Network: Sector B4



B4

Existing Facilities

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N W E S

1 0.5 0 1 Miles

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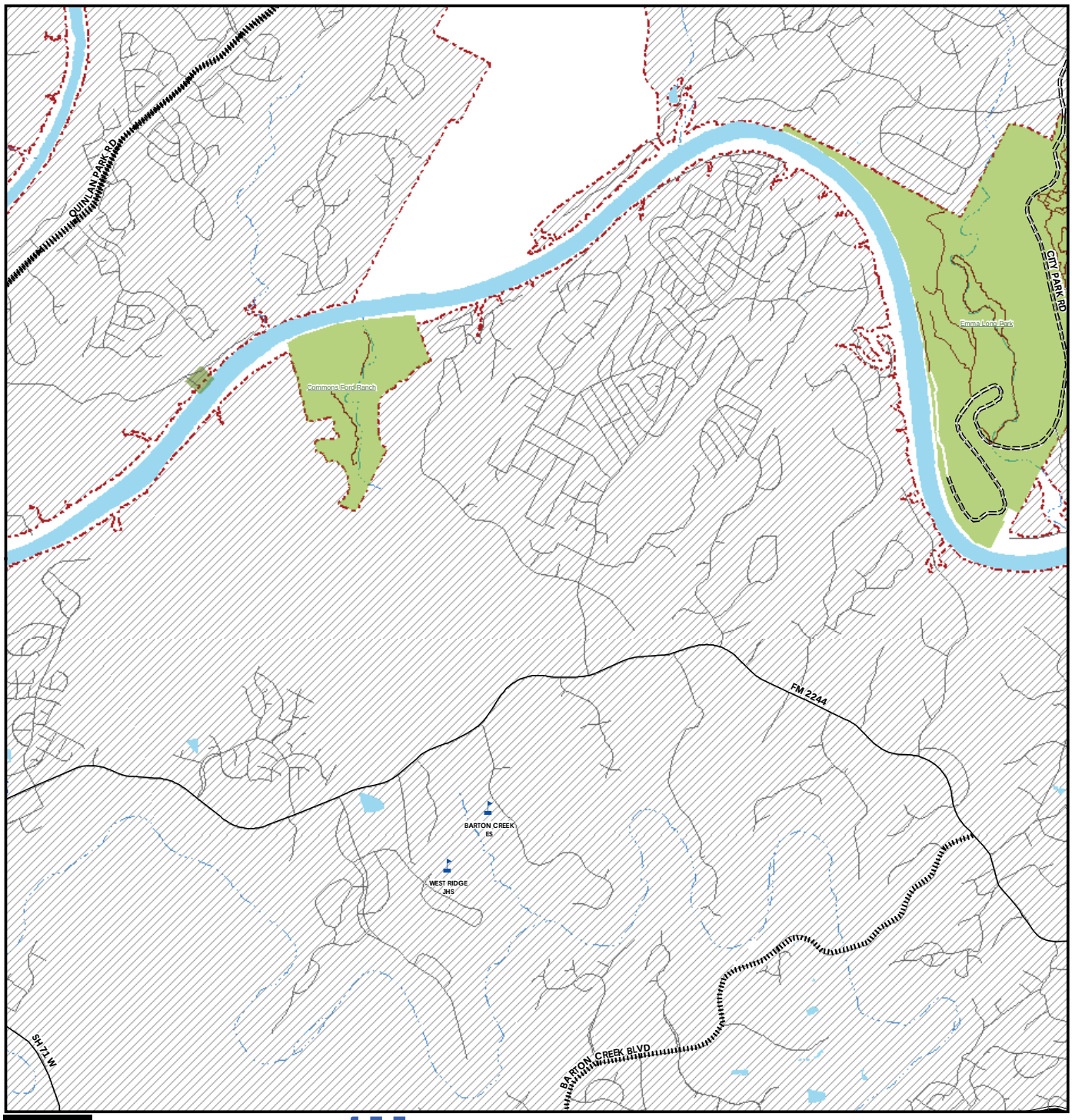
Existing Bicycle Network: Sector C1



C1

Existing Facilities

- BIKE LANE
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N W E S

1 0.5 0 1 Miles

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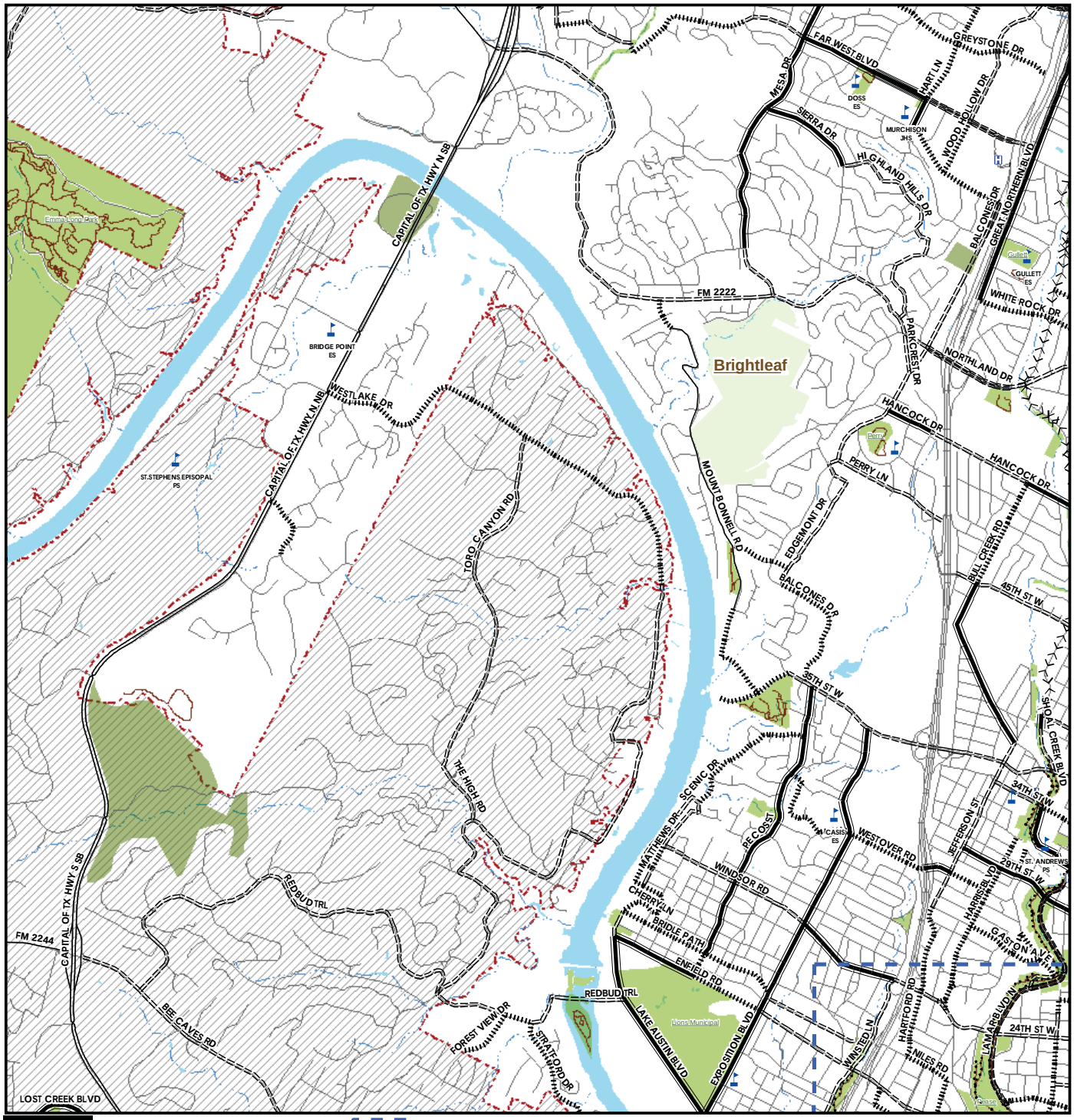
Existing Bicycle Network: Sector C2



C2

Existing Facilities

- BIKE LANE
- CLIMBING LANE
- MULTI-USE PATH/TRAILS
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N W E S

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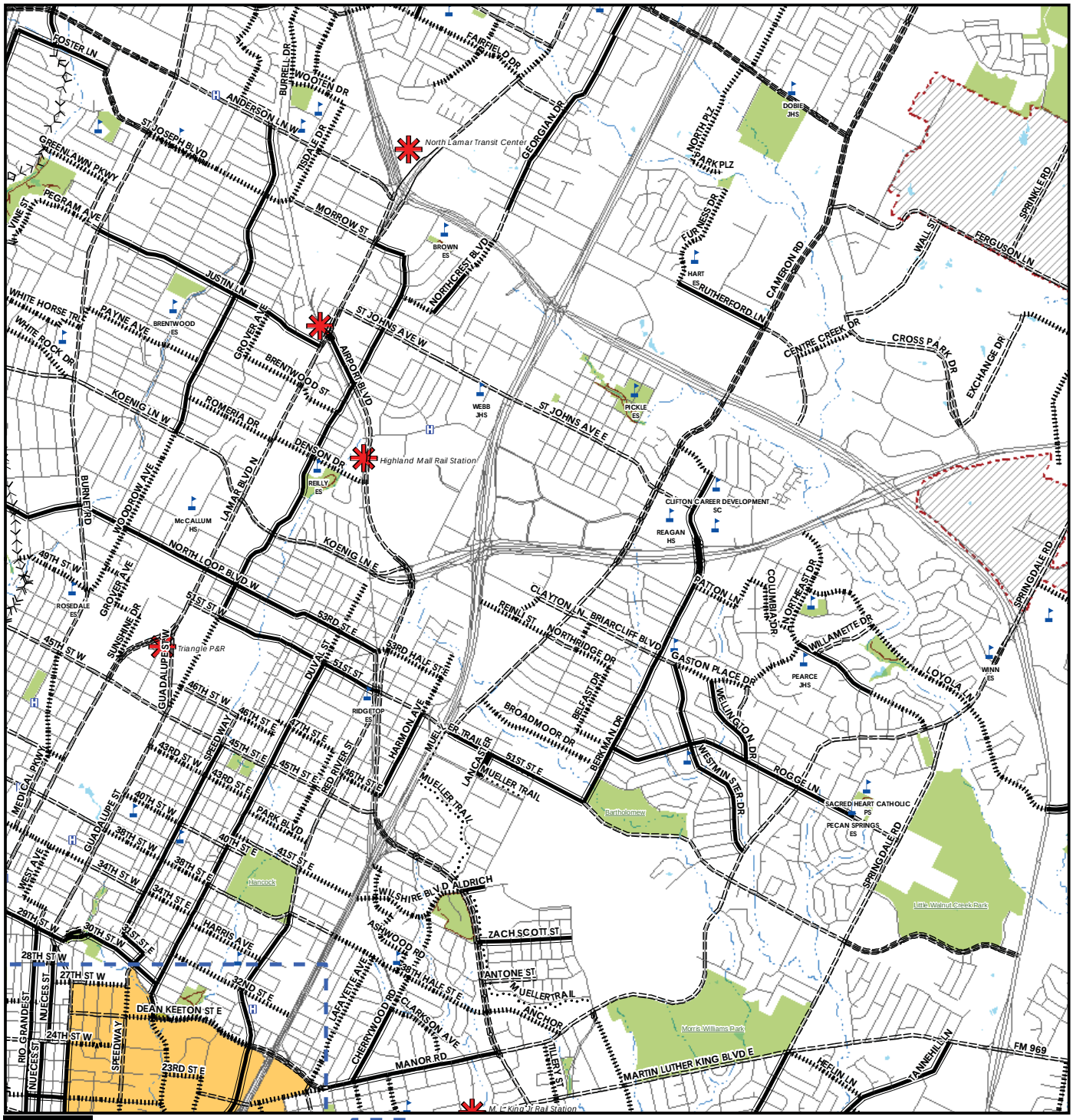
EXISTING BICYCLE NETWORK: SECTOR C3



C3

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N W E S

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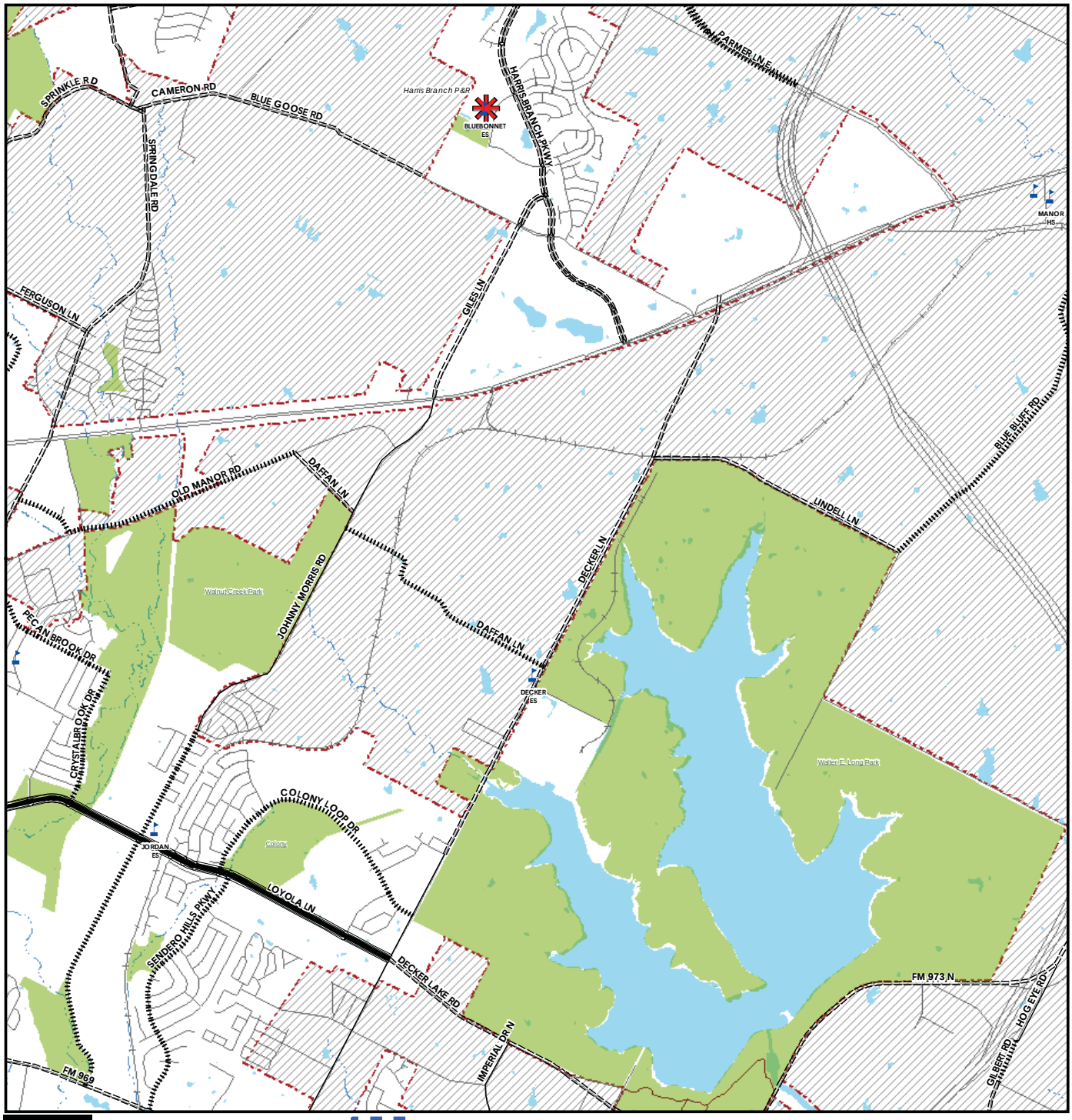
Existing Bicycle Network: Sector C4



C4

Existing Facilities

- BIKE LANE
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N W E S

1 0.5 0 1 Miles

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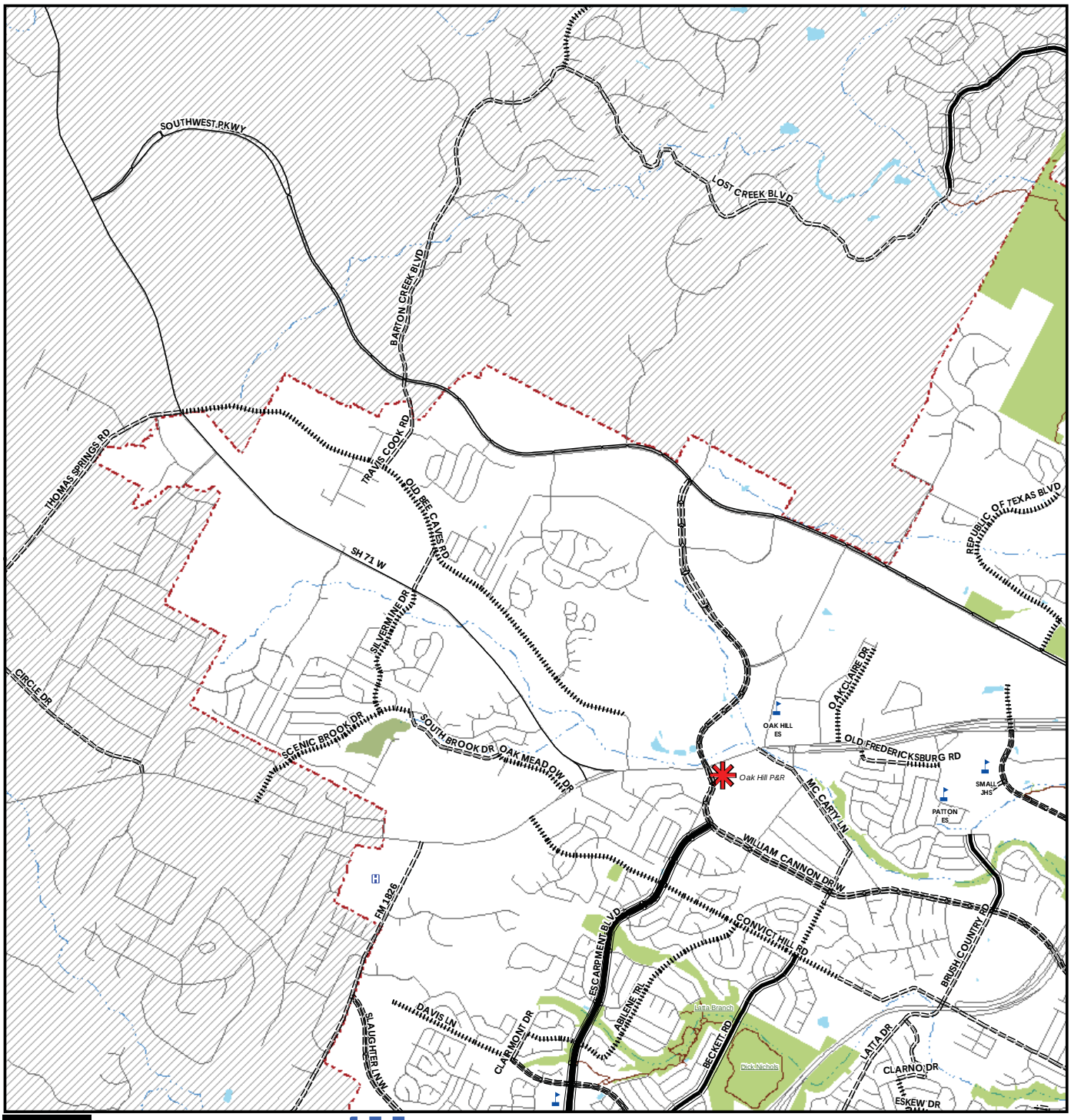
EXISTING BICYCLE NETWORK: SECTOR D1



D1

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N W E S

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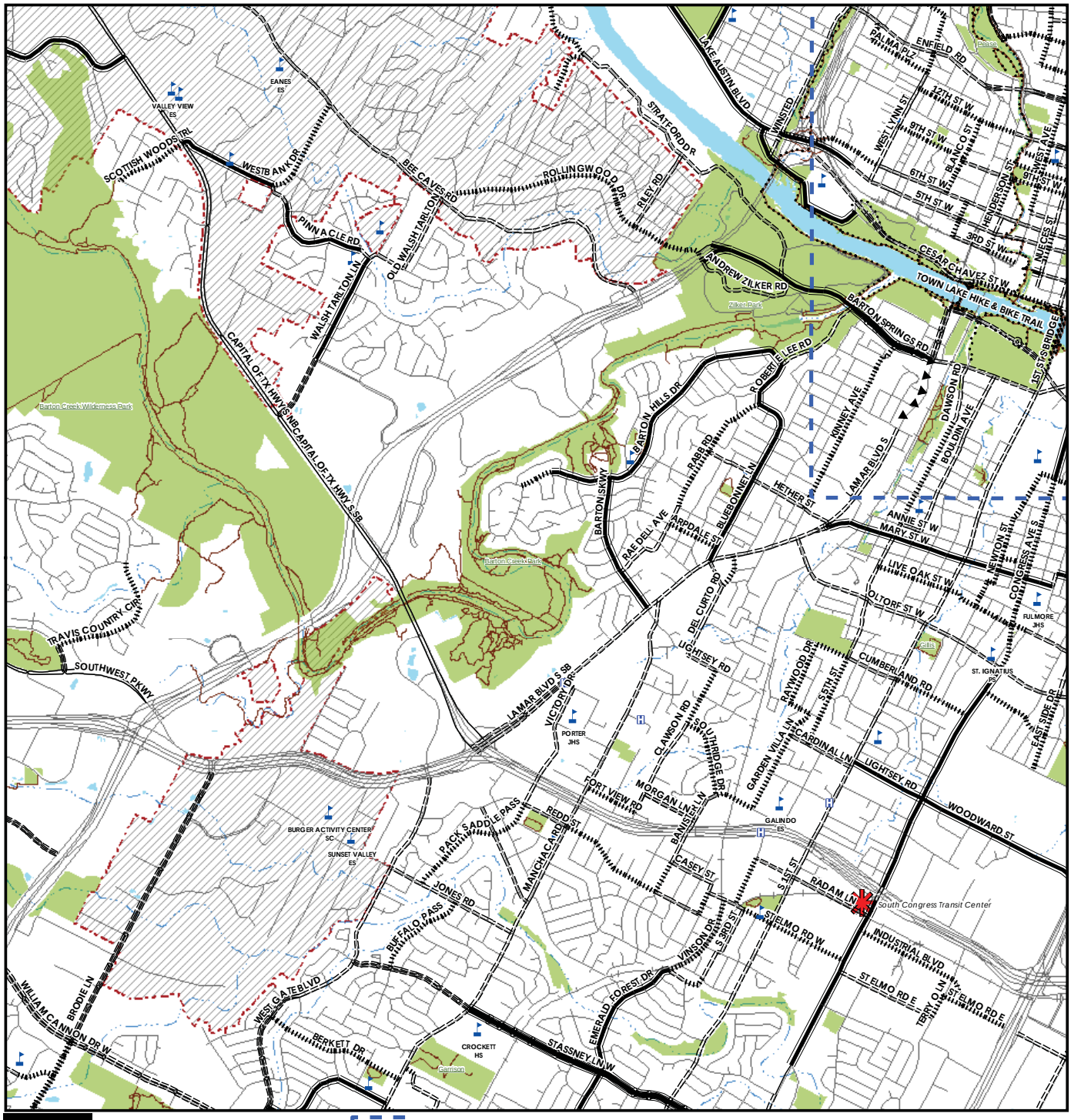
EXISTING BICYCLE NETWORK: SECTOR D2



D2

Existing Facilities

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Downtown (DT)

Austin City Limits

Outside Austin City Limit

CapMetro Park & Ride (P&R) & Rail Stations

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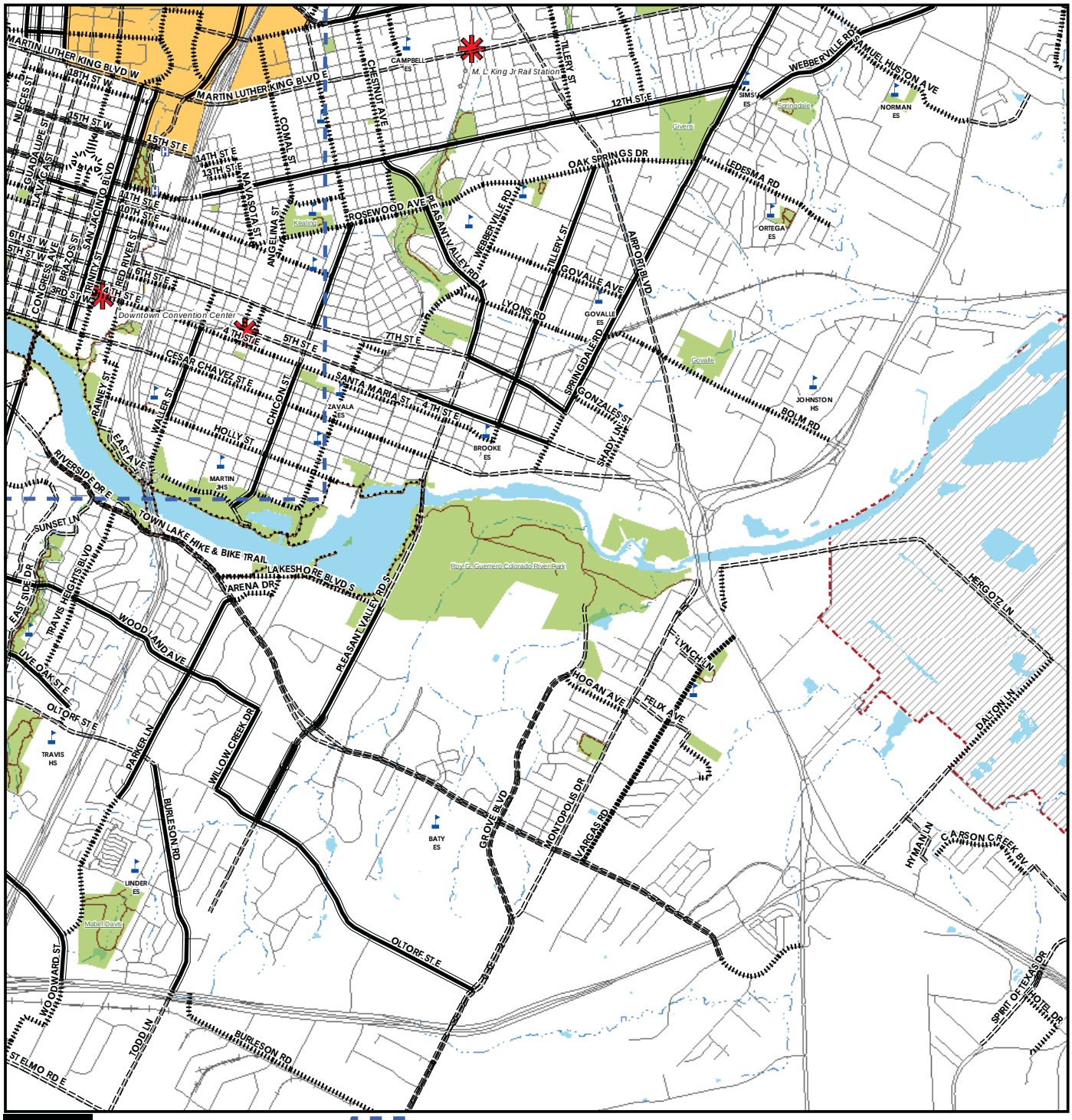
EXISTING BICYCLE NETWORK: SECTOR D3



D3

Existing Facilities

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N W E S

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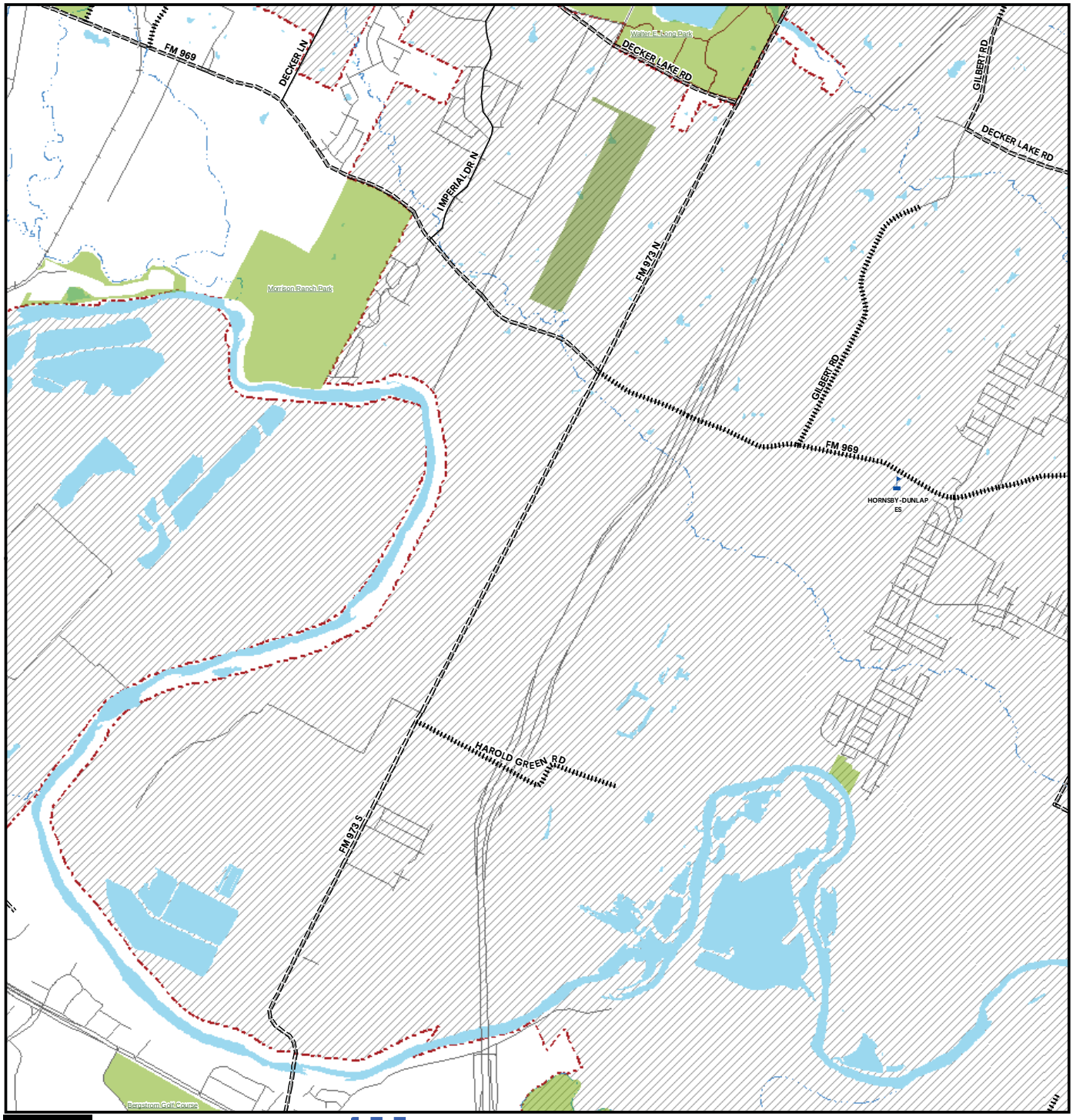
Existing Bicycle Network: Sector D4



D4

Existing Facilities

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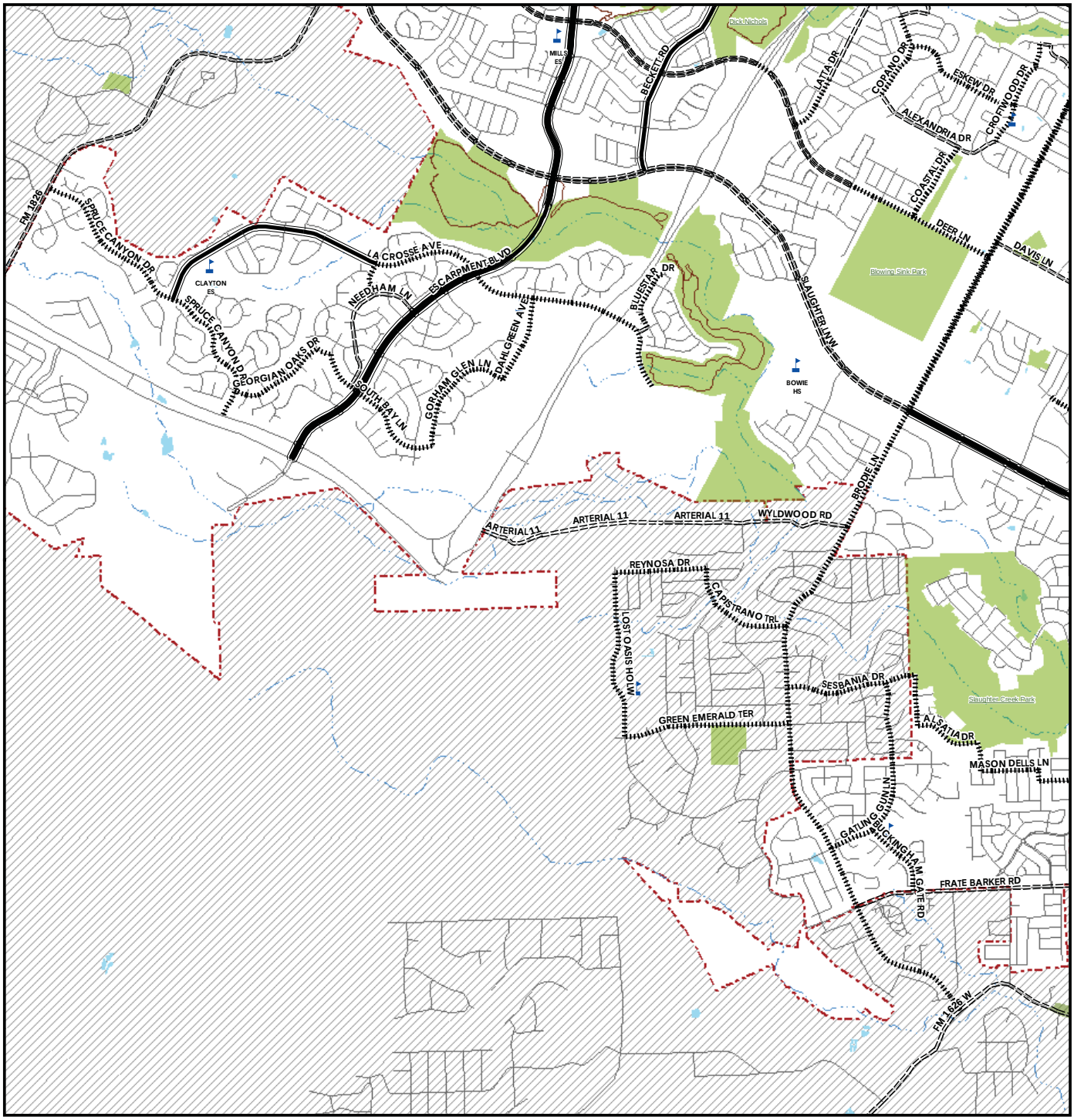
N W E S

1 0.5 0 1 Miles

EXISTING BICYCLE NETWORK: SECTOR E1



E1

Existing Facilities

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N W E S

1 0.5 0 1 Miles

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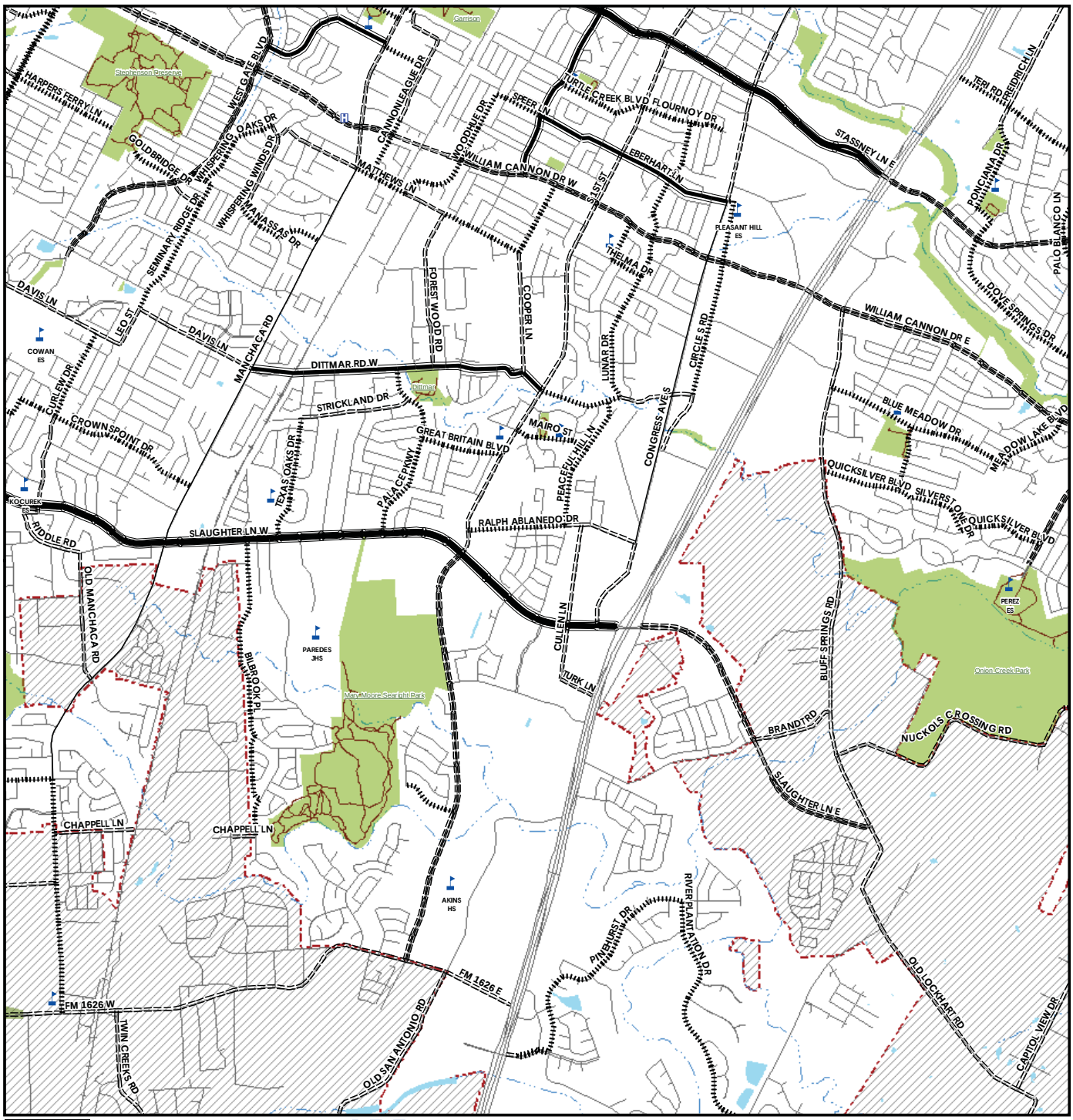
Existing Bicycle Network: Sector E2



E2

Existing Facilities

- BIKE LANE
- CLIMBING LANE
- MULTI-USE PATH/TRAILS
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N W E S

1 0.5 0 1 Miles

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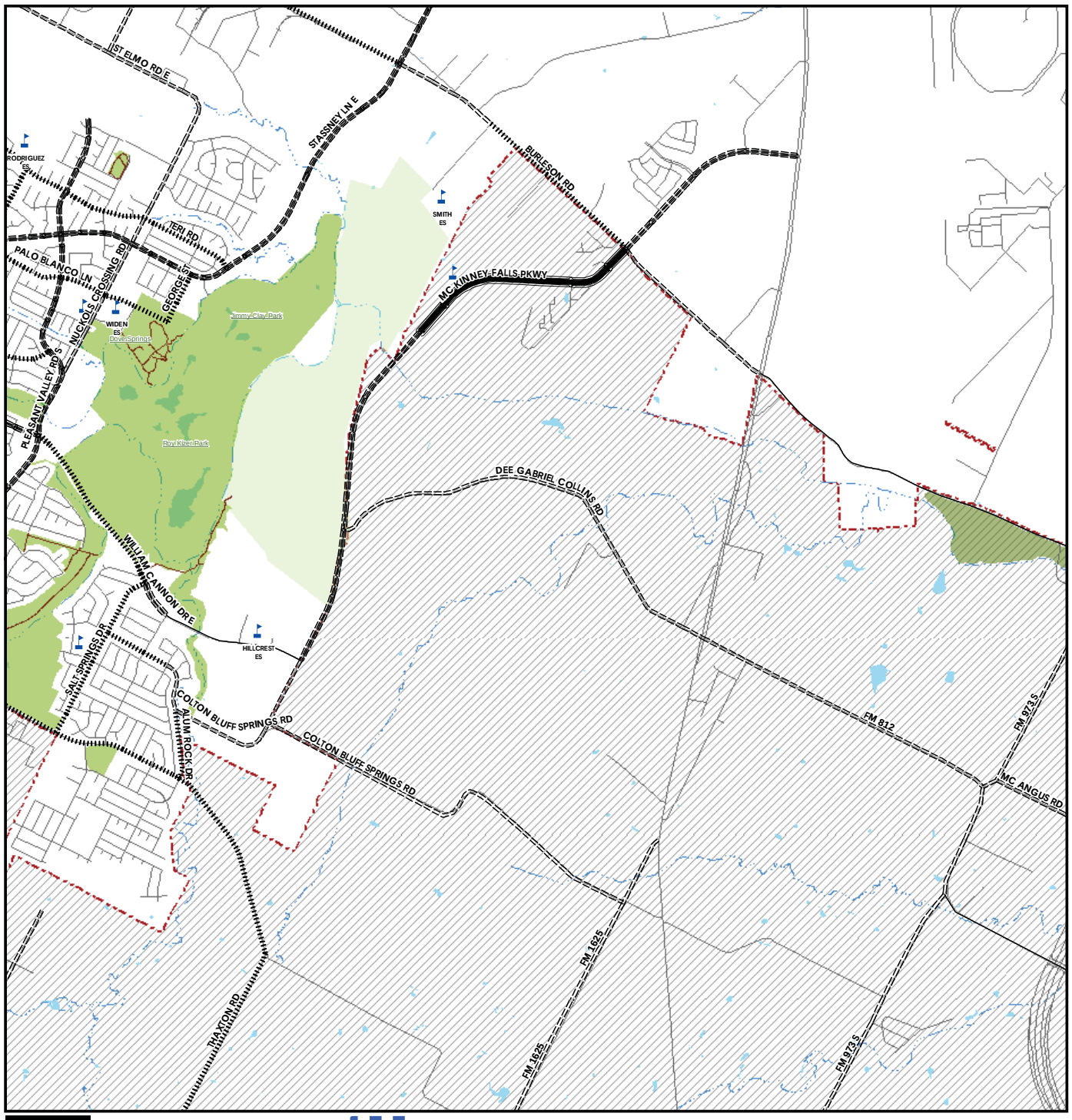
Existing Bicycle Network: Sector E3



E3

Existing Facilities

- BIKE LANE
- CLIMBING LANE
- MULTI-USE PATH/TRAILS
- WIDE SHOULDER
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N W E S

1 0.5 0 1 Miles

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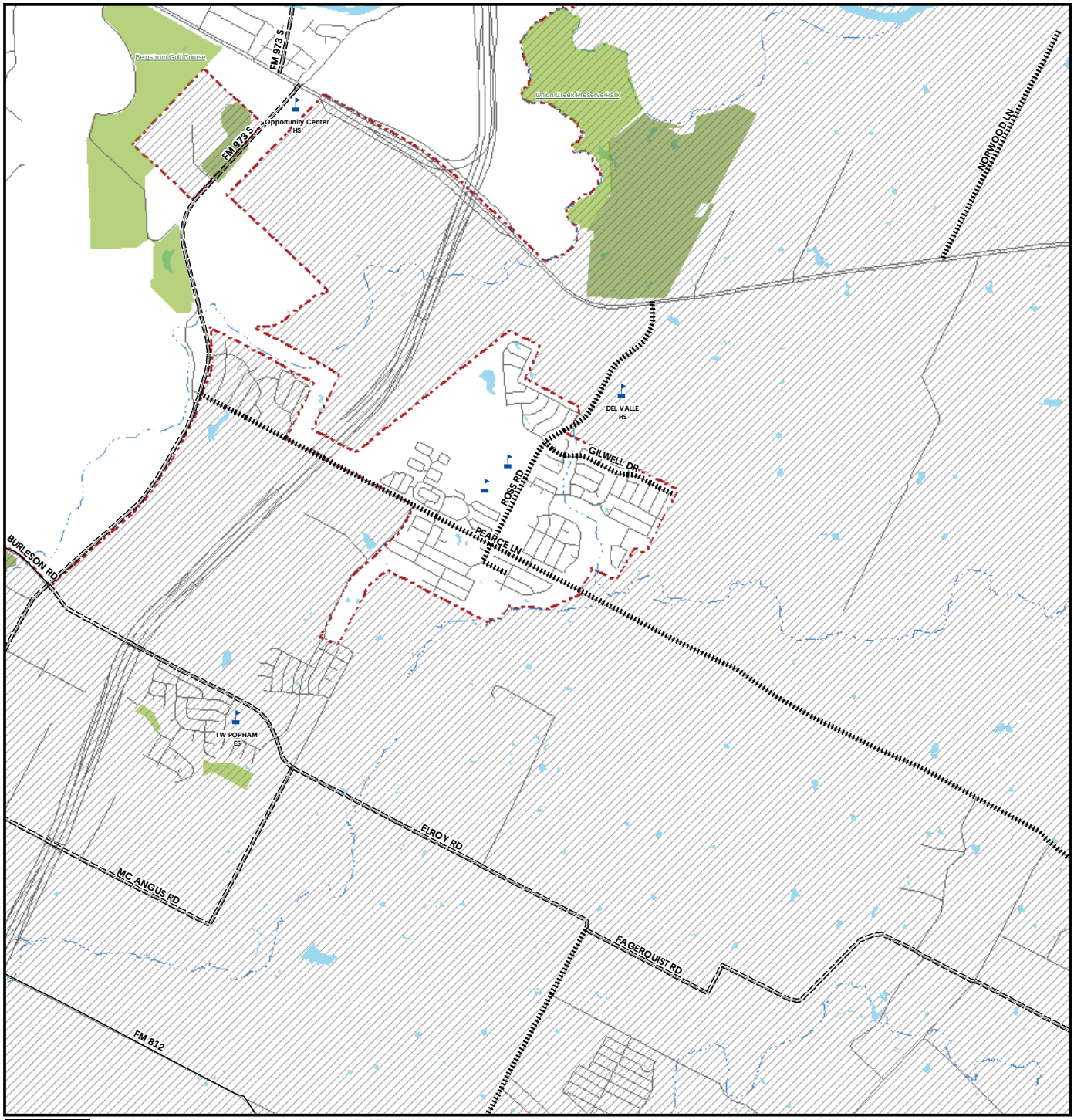
Existing Bicycle Network: Sector E4



E4

Existing Facilities

- BIKE LANE
- CLIMBING LANE
- MULTI-USE PATH/TRAILS
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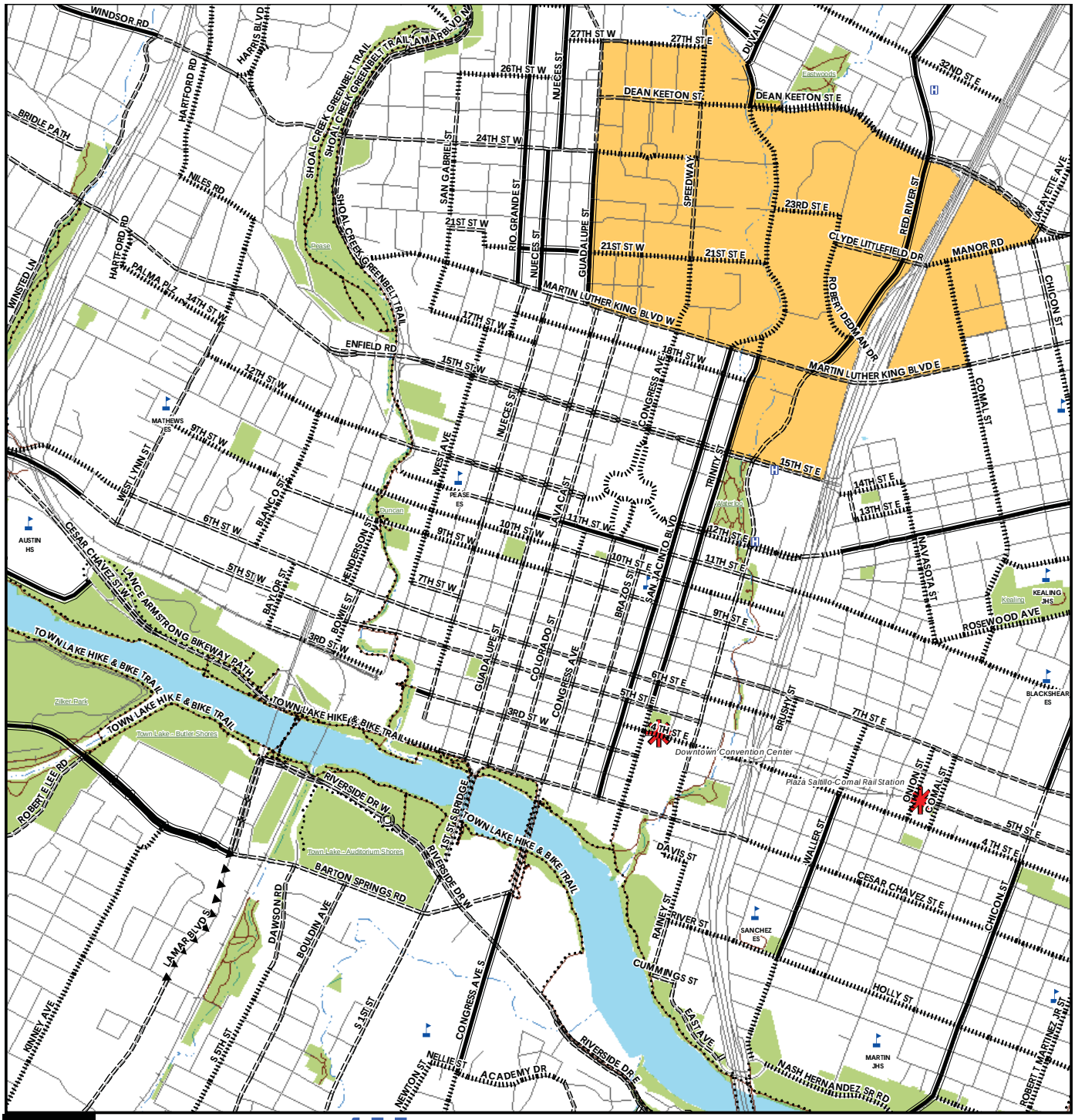
N W E S

1 0.5 0 1 Miles

DRAFT

EXISTING BICYCLE NETWORK: SECTOR DT



DT

Existing Facilities

- BIKE LANE
- CLIMBING LANE
- MULTI-USE PATH/TRAILS
- WIDE SHOULDER
- WIDE CURB
- SHARED LANE
- AS DIRECTED BY AUSTIN CITY COUNCIL
- TRAILS

- Downtown (DT)
- Austin City Limits
- Outside Austin City Limit
- CapMetro Park & Ride (P&R) & Rail Stations

N W E S

0.5 0.25 0 0.5 Miles

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