5.0 MOBILITY AND ACCESS

Mobility refers to the ability to get to and from origin and destination points. Access refers to how these modes provide entry to destination end points. A transit route may travel on a path to a specific workplace, but without sidewalks from the bus stop to the driveway of the destination, the access is not available, especially for disabled passengers. It is critical that the transportation system provide mobility throughout the community and access between origins and destinations for all travel modes, accommodating all types of people. Residents and visitors recognize Fort Collins as a community focused on bicycle and pedestrian friendly travel, with a City-wide trail system, bicycle lanes and sidewalks on most arterial streets. The focus for the *Fort Collins Transportation Master Plan 2004* is to illustrate how all travel modes work together to form a seamless transportation system.

This chapter explores the various travel modes and transportation facilities in Fort Collins, how these modes have progressed since the adoption of the *1997 Transportation Master Plan* (TMP), and the City's vision for the transportation system in the future.

5.1 MASTER STREET PLAN

The Master Street Plan (MSP) is a map-based representation of the City of Fort Collins' long-range vision of its major street network. First implemented and adopted in 1981, the MSP is intended to reflect the functional class (the category of street, e.g. arterial, collector, etc.) of the ultimate street network in the City of Fort Collins. The MSP also helps to guide the development of the future street system for the City and its Growth Management Area (GMA). The MSP provides a reference for planning and layout of existing and future development's key transportation and circulation connections. See Figure 5.1 for a map of the adopted MSP.

Not all City streets are reflected on the MSP. The map depicts major streets only, focusing on arterial, minor arterial, and some key collector streets. Other collector streets and all connector and local-level streets are not represented on the MSP. It is important to note that the MSP is not a detailed engineering document and does not provide precise locations for new streets; it is a planning tool that represents general, conceptual-level alignments and connections only. The actual locations of new streets shall be determined by the City Engineer.

In addition to the street network with the Fort Collins GMA, the functional classification of several key regional roadways that lie outside of the Fort Collins GMA boundary are also reflected on the MSP. These roadways are included for regional context only, showing key regional connections to the Fort Collins street network. Including these regional roads on the MSP does not mean that the City has a financial stake in improving these facilities. This has recently become a concern for some critics who feel that showing these streets for contextual purposes implies that Fort Collins is somehow financially responsible for all or a portion of these streets. In order to respond to these concerns, and to make the MSP more clear, these regional facilities will now be shown using a different line type to differentiate more clearly those roads that are not the financial responsibility of Fort Collins.

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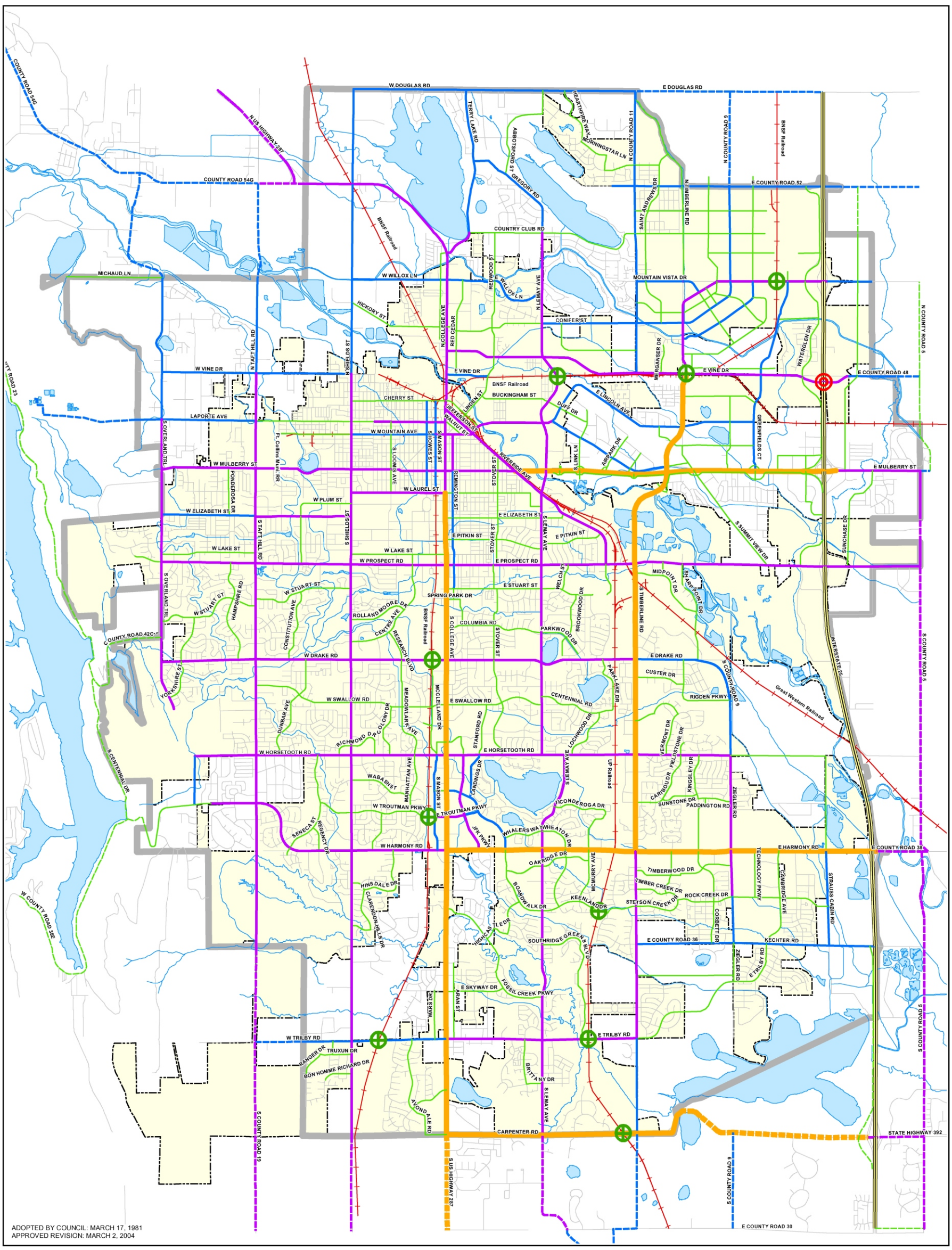
Figure 5.1

City of Fort Collins
Geographic Information Services

City of Fort Collins Master Street Plan

N W E S

0 0.5 1 Miles



ADOPTED BY COUNCIL: MARCH 17, 1981
APPROVED REVISION: MARCH 2, 2004

Legend

- Collector 2 Lanes
- Arterial 2 Lanes
- Arterial 4 Lanes
- Major Arterial 6 Lanes
- Collector 2 Lanes - Outside GMA
- Arterial 2 Lanes - Outside GMA
- Arterial 4 Lanes - Outside GMA
- Major Arterial 6 Lanes - Outside GMA
- Interstate
- Railroad Lines
- Streets
- Growth Management Area
- City Limits
- Potential Grade Separated Rail Crossing
- Potential Interchange

Note: Other collector and local streets not shown will be developed in accordance with adopted sub-area, corridor, and neighborhood plans of the city.
Streets and Arterials outside of GMA are shown for contextual purposes only and are not part of the Master Street Plan. The City of Fort Collins is not fiscally responsible for these improvements.

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The City's Land Use Code speaks to the rationale for creating the MSP:

> "***Establishment of the MSP***. In order to accomplish the purposes of this Land Use Code, the location and ultimate functional classification of necessary arterial and collector streets and other transportation facilities have been established on a map entitled "City of Fort Collins MSP," dated August 20, 1996, as amended, which map is hereby made a part of this Land Use Code by reference…" (LUC 3.6.1 a)

5.1.1 History and Background

The MSP was created based upon a multi-modal vision of Fort Collins' future transportation system. Based on land use and transportation assumptions adopted in the City's comprehensive land use plan, *City Plan Update (CPU)* (1997), the MSP incorporates the following set of assumptions:

- Regional Transportation Demand Management (TDM) programs will reduce regional Single-Occupant Vehicle (SOV) travel
- The City of Fort Collins will also pursue local TDM programs designed to reduce SOV travel within the City
- The City of Fort Collins will continue to improve transit service as well as facilities for walking and bicycling
- The land use basis is the adopted "*Preferred Land Use Plan"* (*City Plan*, March 1997)
- The MSP will be monitored to evaluate its progress

The MSP uses the *City Structure Plan* as the land use basis for the street system. Based on the urban form described by this element of *CPU*, travel behavior data was input to a computer traffic forecast model to help create the MSP network. Environmental concerns, development review guidelines, City street design standards and Level of Service (LOS) criteria were also incorporated into the design and development of the MSP.

The MSP network is designed to achieve the following results:

- A significant shift in travel behavior, with more trips shifting away from single-occupant travel into transit, walk and bicycle, and multi-occupant vehicle travel modes
- A reduction of growth in daily Vehicle Miles Traveled (VMT)
- Attainment of City air quality objectives

In addition to all these purposes, the MSP also serves to identify those streets that qualify for Federal and State funding for general urban projects. These streets also qualify for financial assistance in times of disaster.

The MSP is monitored regularly to evaluate progress and accuracy. It is amended to reflect development trends, approved developments, changes in alignment, planning and policy changes, and specific sub-area plans. Amendments are presented to the Transportation Board and the Planning and Zoning Board for recommendation of approval prior to presentation to the City Council for adoption.

5.1.2 How the Plan Is Used

As specified in the City's Land Use Code and in City Ordinance No. 228, 1998, S. 92, 12/15/98,

> "All development plans shall provide for or accommodate the streets and transportation facilities identified on the MSP that are associated with the development plan." (LUC 3.6.1 b)
>
> and
>
> "Streets on a project development plan or subdivision plat shall conform to the MSP where applicable. All streets shall be aligned to join with planned or existing streets. All streets shall be designed to bear a logical relationship to the topography of the land. Intersections shall be at right angles unless otherwise approved by the City Engineer." (LUC 3.6.2 a)

This mandates that new development or re-development activities' impacts to the street network shall comply with the City's design standards for the category of street specified in the MSP. These standards include criteria such as, but not limited to, right-of-way widths, street width, medians, parkways, bicycle facilities and sidewalk dimensions. This requirement helps ensure that the future vision of the City's street network is achieved and helps to preclude costly, and in some instances, irreversible impacts to the City's long-range infrastructure.

The City Engineering department also uses the MSP network and functional classification of streets to determine Street Oversizing Fees. These developer impact fees help pay for the cost of expanding beyond the local road portion of existing and planned roads with greater capacity to handle development-induced traffic. Street oversizing fees are determined in part by the number of lanes and miles reflected on the MSP street network. Fees are calculated for all streets, collector level and above. These fees are revisited on a regular basis and re-calibrated depending on changes to the MSP network.

5.1.3 Amending the Master Street Plan

The MSP is a dynamic plan and is regularly revisited and amended to reflect new infrastructure as a result of approved development, newly approved long range and subarea plans, or changes due to environmental, political, boundary changes, or other relevant issues. Proposed changes are first submitted to both the City Transportation Advisory Board and Planning and Zoning Board for their comment and recommendations to City Council. City Council will then decide by resolution whether or not to amend the MSP. The MSP is revisited annually at a minimum to make certain the Plan is as accurate and up-to-date as possible.

5.1.4 Recommended Street Network

Several amendments to the MSP were proposed as part of this plan. Some of these proposed changes reflect road network changes that have come about as part of plans approved since 1997's original *City Plan* and TMP. Some changes reflect "clean up" items that address slight mapping errors or reflect changes in thought as to the feasibility of construction of particular facility types. In response to concerns voiced recently by the Transportation Advisory Board and members of City Council, the MSP map will suggest changing the way it portrays regional roadways outside of the GMA boundary to more clearly reflect that the City of Fort Collins is

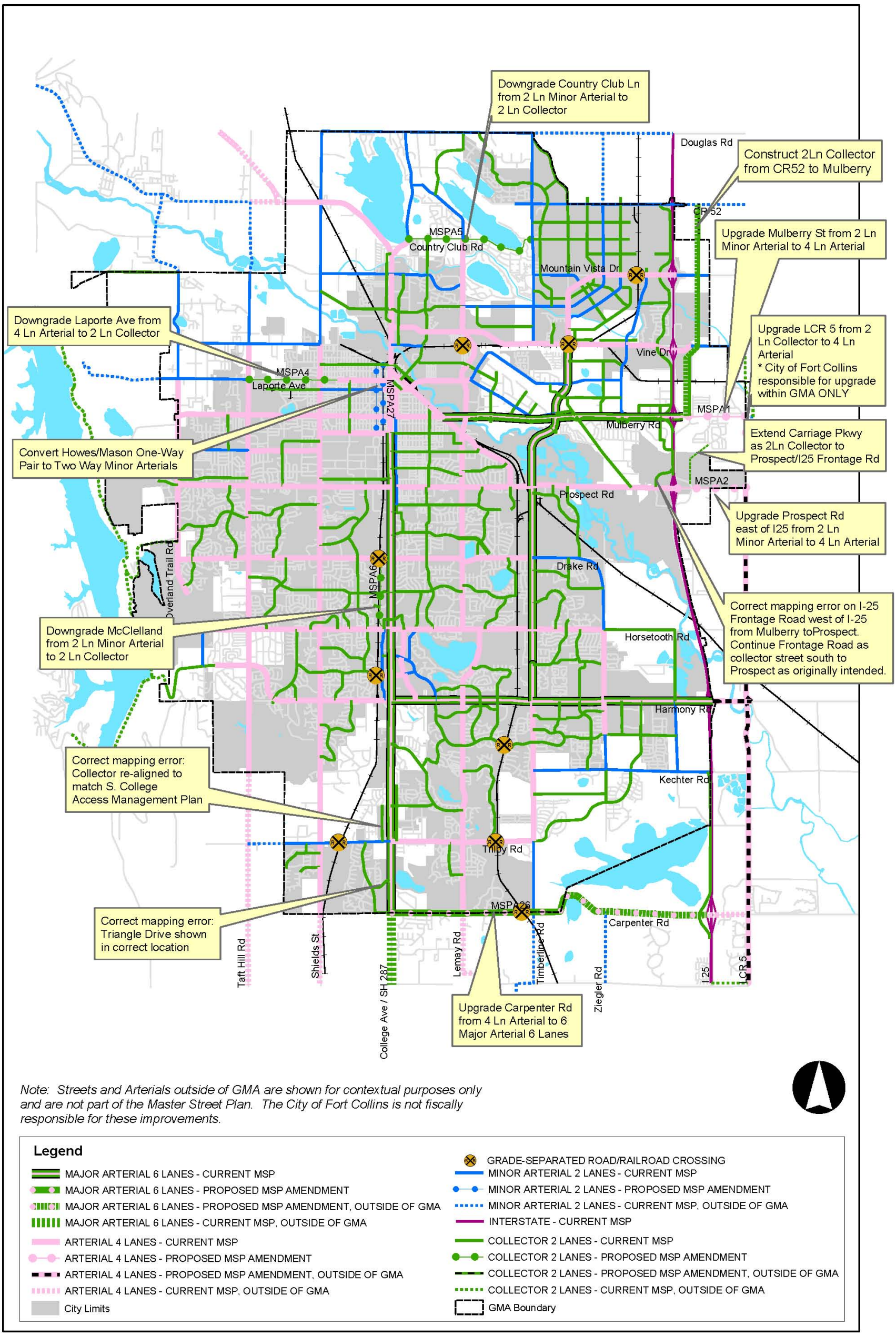
financially responsible only for those streets inside the GMA boundary. Finally, some of the recommended changes to the MSP are a result of new travel forecast model analysis as part of this update to the plan. New model analysis that incorporates updated census, population, and employment data has shown system deficiencies and needs beyond that envisioned as necessary with the previously adopted MSP network. A detailed account of model results for each recommended amendment is located in Appendix C. Staff has recommended upgrading some street facility types to better address these needs. Chapter 4 discusses how the travel forecast model was used to test MSP amendments. These amendments are shown in Figure 5.2.

Proposed amendments to the MSP include:

- **Correct mapping error on I-25 Frontage Road west of I-25 from Mulberry to Prospect.** Continue frontage road as collector street south to Prospect as originally intended.
- **Correct mapping error on collector street west of S. College north of Trilby.** Re-align collector street to match the S. College Access Management Plan.
- **Correct mapping error on Triangle Drive.** Show Triangle Drive shown as a collector street in its correct location.
- **Change the way in which regional roadways outside of the Fort Collins GMA are represented on the MSP.** Streets and arterials outside the growth management area are shown for contextual purposes only, and are not part of the Fort Collins Master Street Plan. The MSP map will portray regional roadways outside of the GMA boundary differently to more clearly reflect that the City of Fort Collins is financially responsible only for those roadways inside the GMA boundary.
- **Change Laporte Avenue, Wood Street to Taft Hill Road, from a four-lane arterial to a collector street.** This portion of the network is severely constrained by existing residential development, many structures of which may be historic in nature. The likelihood and feasibility of acquiring the right-of-way necessary to build a four-lane street in an area not likely to re-development is marginal.
- **Change Country Club Road, State Highway 1 to Larimer County Road 11, from a minor arterial to a collector street.** Similar to the Laporte Avenue amendment, this street is severely constrained by both natural features and existing residential development not likely to ever re-develop. The feasibility of acquiring room to build a four-lane facility is marginal.
- **Change McClelland Drive, Drake Road to Horsetooth Road, from a minor arterial to a collector street.** As part of preliminary design and engineering work for the Mason Transportation Corridor (MTC), it has become evident that McClelland Drive between Horsetooth and Drake Roads does not need to be built out to a minor arterial standard. The road is constrained to the west by the Burlington Northern Santa Fe (BNSF) Railroad right-of-way, largely precluding the need to provide for west-bound turns. Although McClelland Drive currently carries significant traffic as a parallel facility to the College Avenue Corridor, adequate future capacity for eastbound turning traffic can be provided by a two-lane collector-width road with left-turn bays.

- **Convert the Mason and Howes Street one-way couplet back to two-way, minor arterial streets.** Analysis provided by the MTC and *Downtown Strategic Plan* projects has suggested that future circulation and access to the downtown area will be better served by reverting these two roads back to their original two-way configuration.
- **Change Carpenter Road (LCR-32), I-25 to College Avenue (US 287), from a four-lane arterial to a six-lane arterial street.** Since the original *City Plan* and TMP adoption in 1997, significant changes in regional travel patterns have evolved as the surrounding communities in northern Colorado grow and employment and residential choices spread throughout the area. Given the existing and forecast increase in land use, employment, and population in southeast Fort Collins, Loveland, Windsor, and Greeley, regional gateways become an even more vital aspect of the MSP road network. Travel forecast analysis for 2025 suggest that the current designation of Carpenter Road as a four-lane arterial facility will be insufficient to handle the travel demand on this most southern gateway into and out of Fort Collins. This will serve as a vital arterial connection to South College/US 287 as well. Note: Part of the Carpenter Road corridor currently lies outside the GMA boundary and will be reflected as such on the MSP map. This portion of Carpenter Road has been identified as a potential site for future inclusion into the GMA as part of the *City Plan* Update process.
- **Amend MSP to reflect road network recommendations from adopted local and regional plans.** Several planning efforts since 1997 have focused on the I-25 Corridor area. Subarea plan analysis has occurred on the East Mulberry Corridor and I-25 Corridor. Regional plans such as the *Crossroads Subarea Plan, North Front Range Metropolitan Planning Organization (NFRMPO) Regionally Significant Corridor analysis,* and *I-25 Regional Corridor Plan* have also studied and made infrastructure recommendations. These recommendations not only reflect the forecast increase in intensity of land uses and population proximate to the I-25 corridor area, but also reflect on-the-ground changes that have occurred since 1997 as a result of approved development and re-development. Those recommended changes that lie partially or totally outside of the GMA boundary are shown for regional context and consistency only. It will be made clear that the City of Fort Collins is not financially responsible for these infrastructure improvements. These improvements include:
    - Add a new collector street, from LCR-52 to Mulberry Road, to serve anticipated development east of I-25
    - Extend Carriage Parkway as a collector street south to Prospect Road
    - Upgrade Mulberry, Prospect, and Harmony Roads, from I-25 to LCR-5, from minor arterial to four-lane arterial designation
    - Upgrade LCR-5, from Mulberry Road to LCR-30, from a collector street to a four-lane arterial designation. Those portions of the LCR-5 Corridor outside of the Fort Collins GMA will be represented in a different line-style and are shown for regional context and consistency only

Figure 5.2
Master Street Plan Amendments



Note: Streets and Arterials outside of GMA are shown for contextual purposes only and are not part of the Master Street Plan. The City of Fort Collins is not fiscally responsible for these improvements.

Legend

- MAJOR ARTERIAL 6 LANES - CURRENT MSP
- MAJOR ARTERIAL 6 LANES - PROPOSED MSP AMENDMENT
- MAJOR ARTERIAL 6 LANES - PROPOSED MSP AMENDMENT, OUTSIDE OF GMA
- MAJOR ARTERIAL 6 LANES - CURRENT MSP, OUTSIDE OF GMA
- ARTERIAL 4 LANES - CURRENT MSP
- ARTERIAL 4 LANES - PROPOSED MSP AMENDMENT
- ARTERIAL 4 LANES - PROPOSED MSP AMENDMENT, OUTSIDE OF GMA
- ARTERIAL 4 LANES - CURRENT MSP, OUTSIDE OF GMA
- City Limits
- GRADE-SEPARATED ROAD/RAILROAD CROSSING
- MINOR ARTERIAL 2 LANES - CURRENT MSP
- MINOR ARTERIAL 2 LANES - PROPOSED MSP AMENDMENT
- MINOR ARTERIAL 2 LANES - CURRENT MSP, OUTSIDE OF GMA
- INTERSTATE - CURRENT MSP
- COLLECTOR 2 LANES - CURRENT MSP
- COLLECTOR 2 LANES - PROPOSED MSP AMENDMENT
- COLLECTOR 2 LANES - PROPOSED MSP AMENDMENT, OUTSIDE OF GMA
- COLLECTOR 2 LANES - CURRENT MSP, OUTSIDE OF GMA
- GMA Boundary

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5.2 TRANSIT

Transfort is the City of Fort Collins' transit system. Currently Transfort operates 17 fixed routes within Fort Collins, operating from approximately 6:00 a.m. until 7:30 p.m. Monday through Saturday. Night service operates on three routes serving the Colorado State University (CSU) campus during school sessions only. In general, ridership has increased by over thirteen percent since 1997. See Table 5.1 for transit ridership totals.

Table 5.1
Transfort Ridership (1997-2002)

	1997	1998	1999	2000	2001	2002
Annual Total	1,297,759	1,348,541	1,431,779	1,545,672	1,616,328	1,471,911
Average Daily	4,269	4,175	5,112	5,526	5,935	5,378

Source: Transfort Planning Department

5.2.1 Transfort Strategic Plan

The *Transfort Strategic Plan* (TSP) was adopted by Fort Collins City Council in February 2002. This plan set forth a service strategy for fixed route transit service in Fort Collins. By identifying transit needs, opportunities and constraints, and developing a strategic plan to meet these needs within the constraints of the current and projected funding, this plan provides a long-term guide for transit development.

The implementation of the TSP is based on four transit system scenarios for fixed route bus service. These scenarios were developed to provide a productive transit system focusing on more frequent service in the high-density portions of the city, direct, non-transfer service from all parts of the city to major activity centers, and a simple design that is easy to understand. The four scenarios serve as building blocks to incrementally implement new service, eventually converting the system to a grid network as outlined:

- Scenario 1 – Minimal Redesign
- Scenario 2 – Minimal Redesign with MTC
- Scenario 3 – Transition to Grid
- Scenario 4 – Full Grid

These scenarios represent the current direction for transit planning in Fort Collins based on current and projected socio-economic conditions through 2010. The four scenarios are illustrated in Figures 5.4 through 5.7.

Transfort implemented Scenario 1 in the spring of 2002. Implementation of future scenarios will be dependent on funding availability. Because the City may be able to contribute more money toward transit services over time, these service plans may be implemented in many phases.

The long-term vision for the transit system in Fort Collins is to provide service on all major streets in the City. This plan would effectively provide transit access within ½ mile to almost all residents within the existing city limits. Figure 5.8 shows the long-term vision for Transfort service.

Figure 5.3
Transfort Strategic Plan Scenario 1 – Minimal Redesign

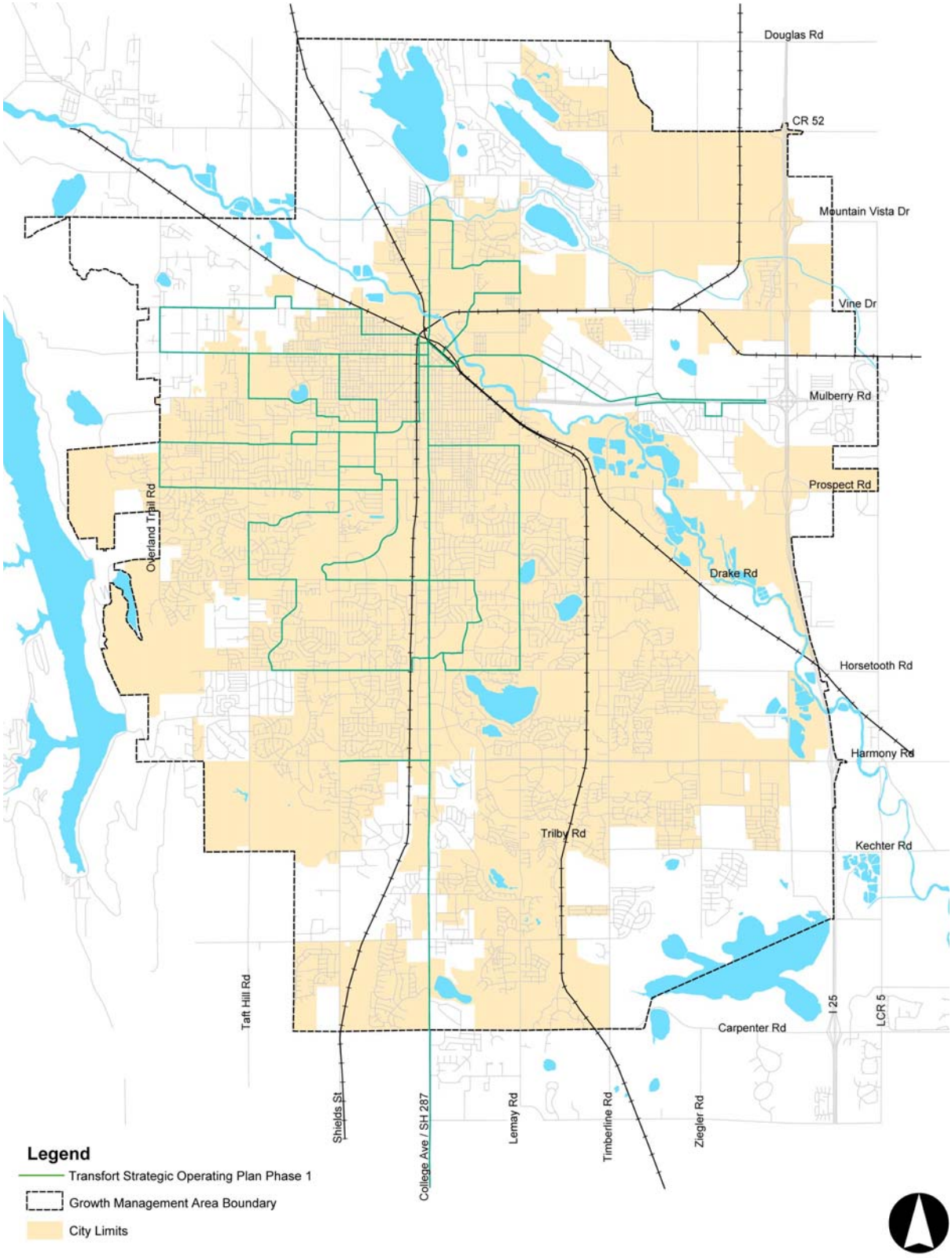


Figure 5.4
Transfort Strategic Plan Scenario 2 – Minimal Redesign with Mason Transportation Corridor

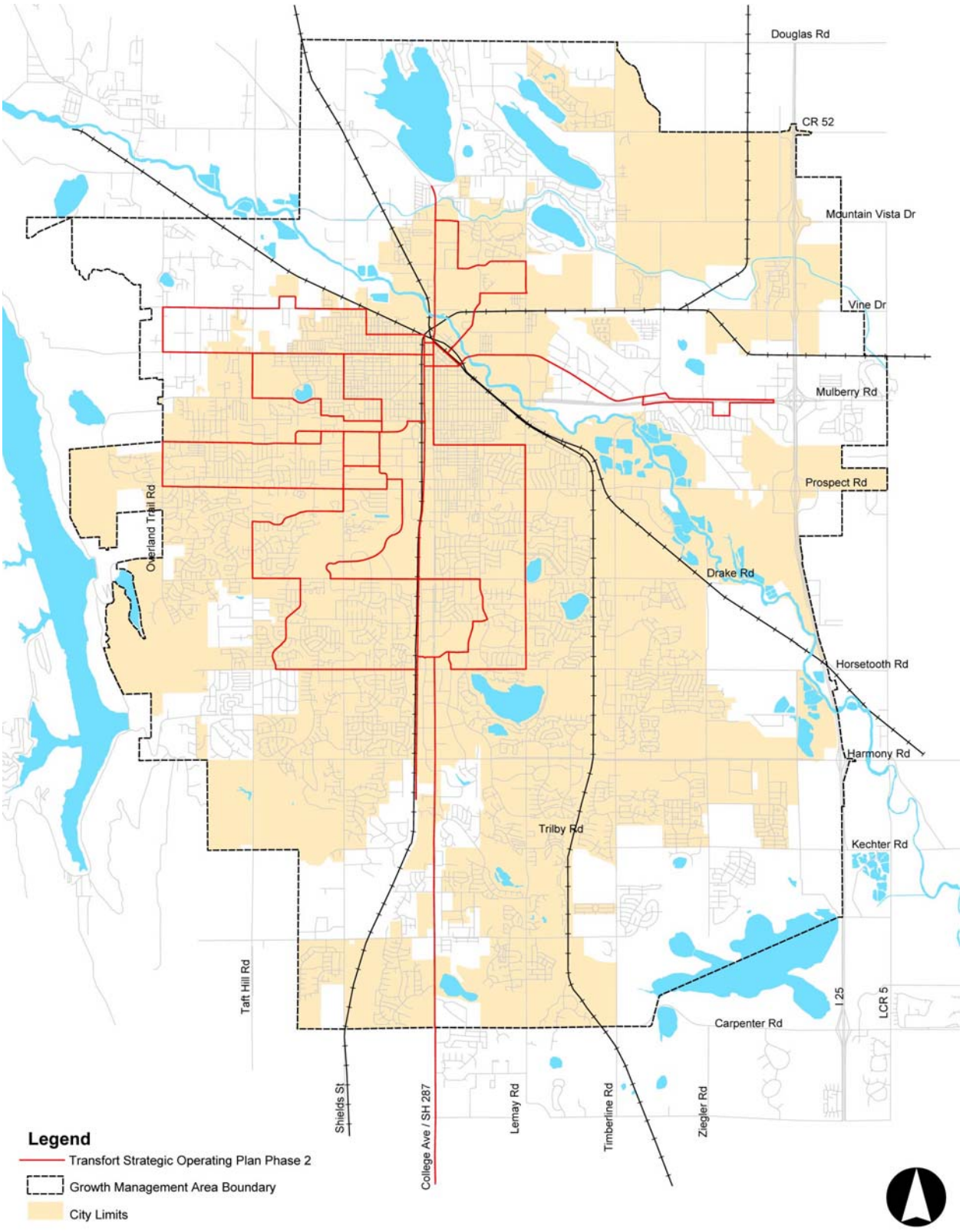


Figure 5.5
Transfort Strategic Plan Scenario 3 – Transition to Grid

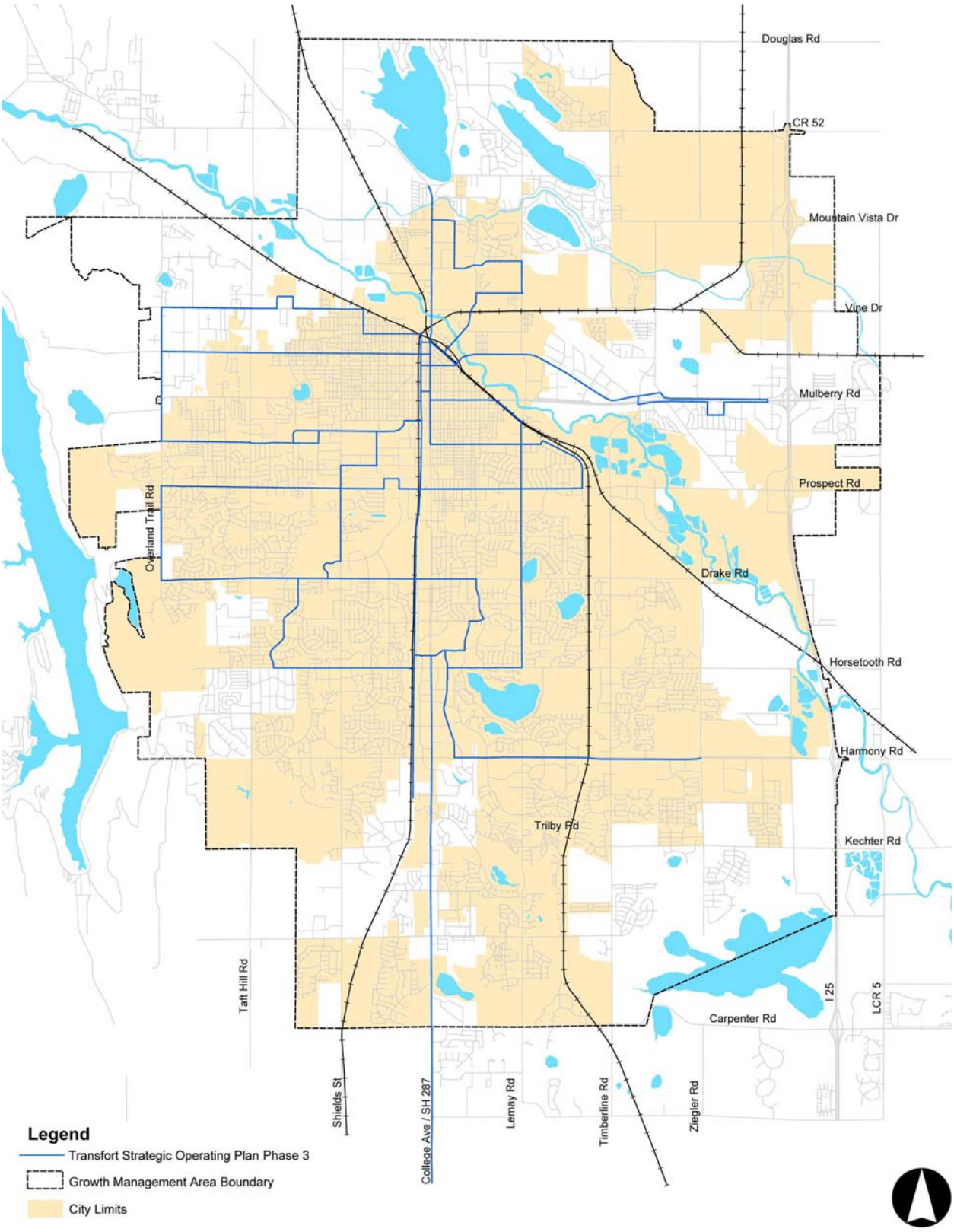


Figure 5.6
Transfort Strategic Plan Scenario 4 – Full Grid Transit Network

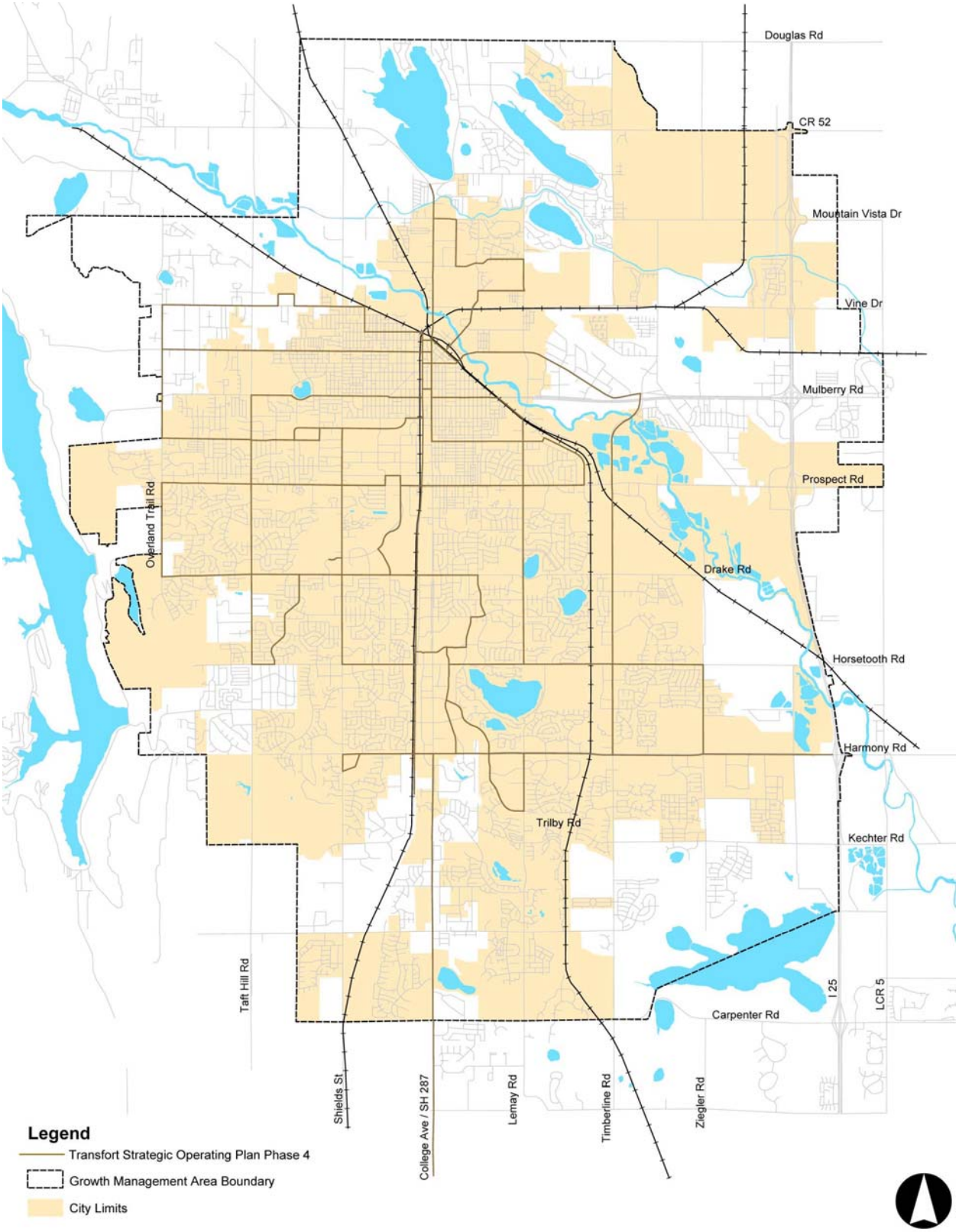
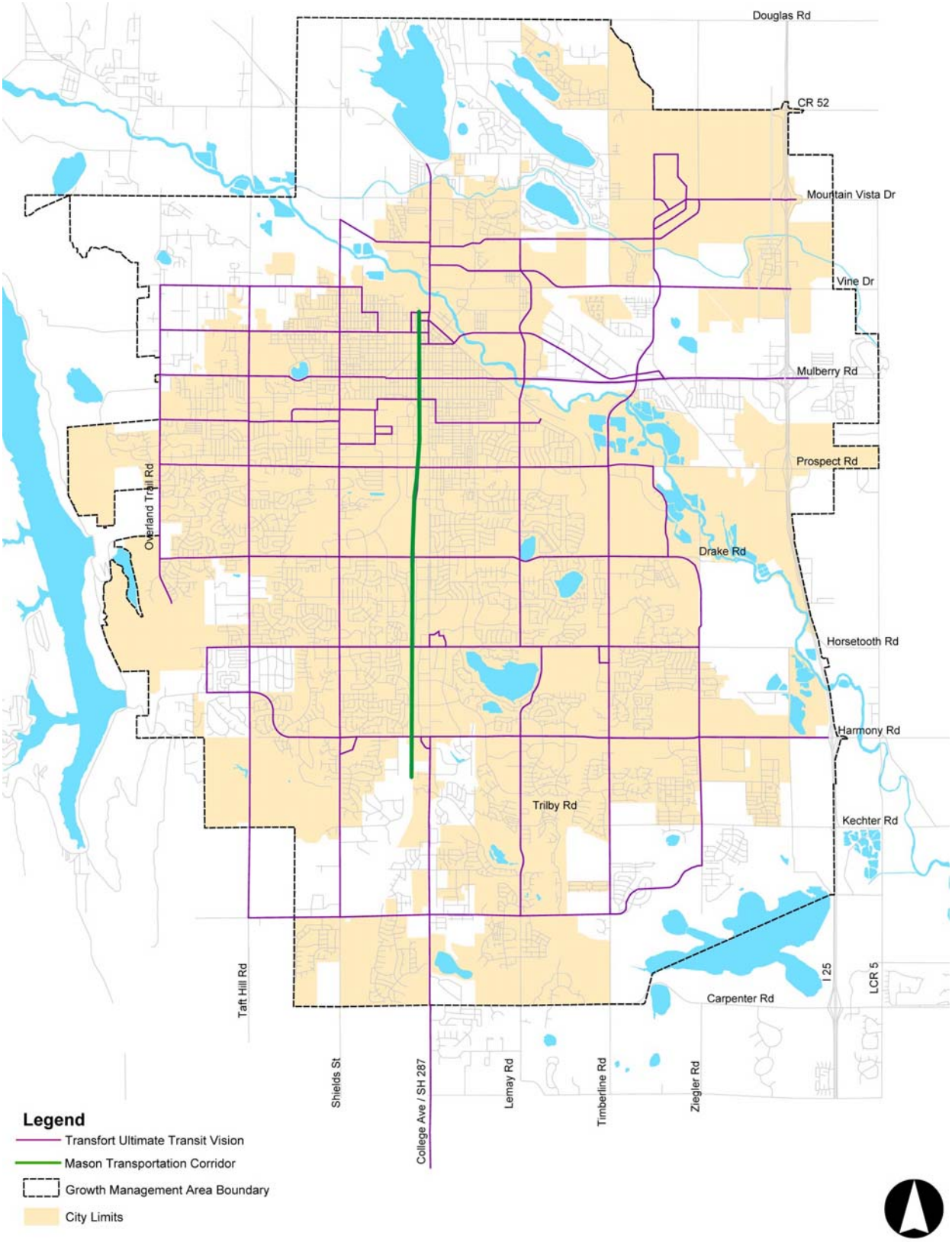


Figure 5.7
Transfort Long-Term Vision



5.2.2 Regional Transit

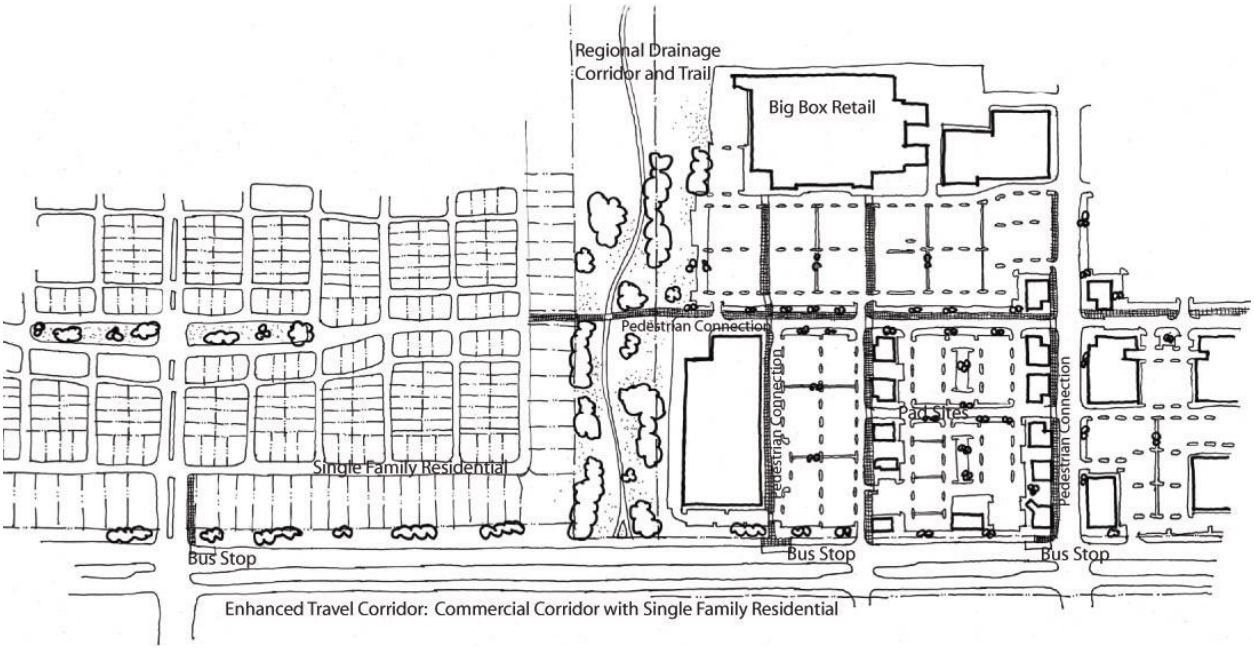
Currently, FoxTrot is the only regional transit route that provides service between Fort Collins and Loveland. While Transfort currently only provides service to areas within the Fort Collins city limits, future service additions could include regional connections to areas surrounding the city such as Wellington, Loveland, Windsor, and Timnath.

As part of the travel demand model sensitivity analysis, the City identified regional transit corridors on which future transit service could be provided, as shown in Figure 5.10. These potential transit routes were coded into the transit model network and tested to determine the relative attractiveness of regional routes, if service were provided. The analysis results indicated that regional transit between Fort Collins, Windsor, and Greeley has a relatively high transit capture potential. Based on these results, it is recommended that further analysis be conducted to establish a more detailed approach to providing some form of regional transit service between these three areas in the future.

5.3 ENHANCED TRAVEL CORRIDORS

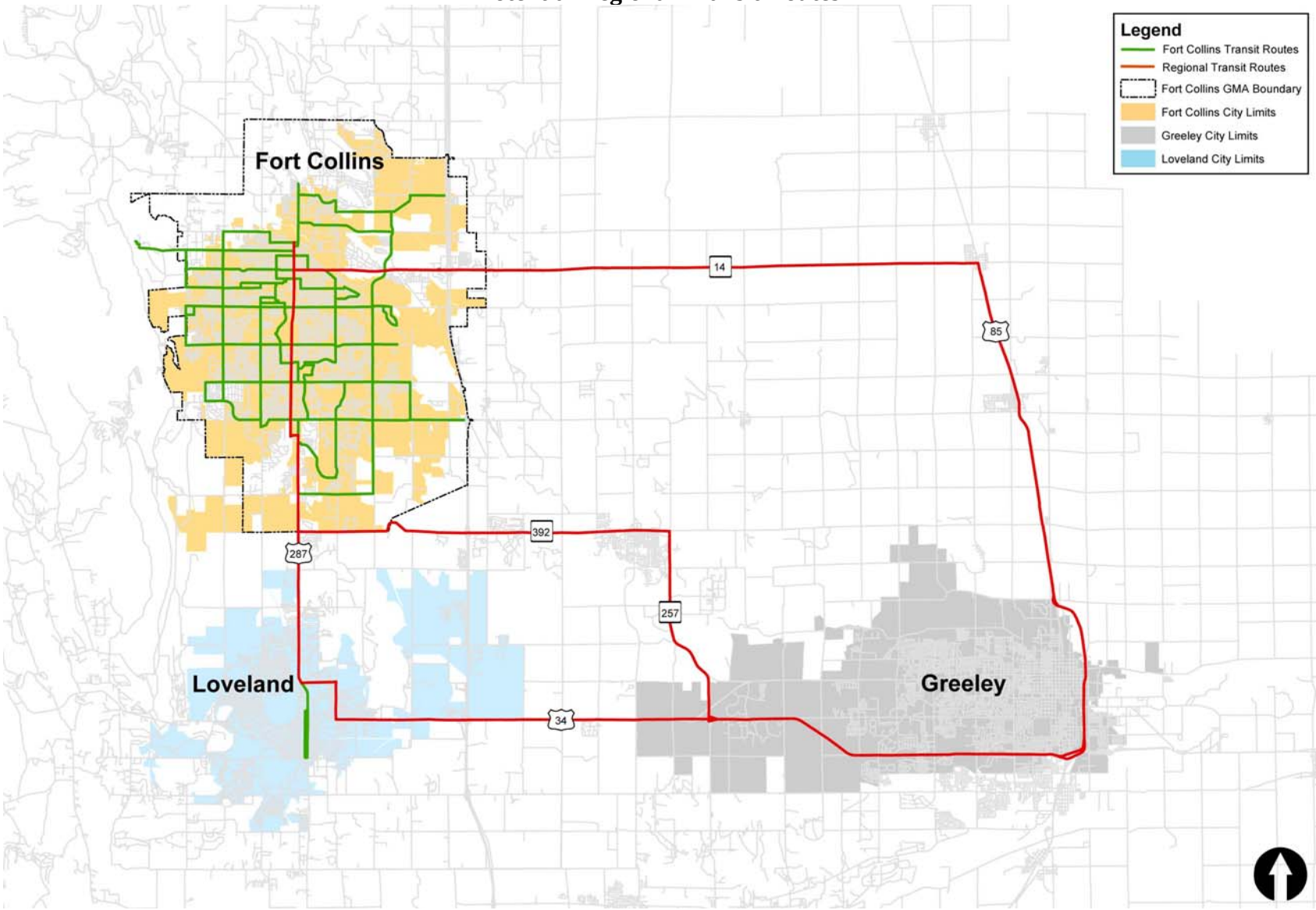
The purpose of an Enhanced Travel Corridor (ETC) is to provide multi-modal connections between two or more major activity centers. ETCs promote safe, convenient, and direct travel, with an emphasis on high frequency transit service and bicycle and pedestrian facilities. As shown in Figure 5.9, ETCs are multi-modal in nature and emphasize wide sidewalks, bike lanes on designated routes, transit stops/stations, and park-n-ride facilities. Where feasible, ETCs should integrate features of adjacent land uses to encourage transit ridership and the ability to walk or ride a bicycle. Ideally, ETCs should be designed so that alternate modes are separated on their own alignment or trail/path.

Figure 5.8
Enhanced Travel Corridor Concept



Source: City Plan, EDAW

Figure 5.9
Potential Regional Transit Routes



5.3.1 Policy Methodology and Approach

ETCs were previously discussed and defined in *City Plan* as uniquely designed corridors that are planned to incorporate high frequency transit, bicycling, and walking as part of the corridor. As such they were meant to provide connections between major activity centers like downtown, CSU, shopping destinations on College Avenue and Harmony. The methodology for developing ETCs is described in the following sections. In some corridors, ETCs may need to be incorporated with the street alignment depending upon right-of-way opportunities and constraints.

5.3.1.1 Defining Enhanced Travel Corridors

Specific criteria should be used to assess the potential for a corridor to serve as an ETC. Criteria for selecting ETCs includes:

- The feasibility of providing high frequency transit or rail service
- The level of activity in connecting districts and ridership/usage potential
- The potential for integrating appropriate land use and development patterns
- The availability of right-of-way
- The potential to counteract higher levels of automobile congestion and delay

Four ETCs have been defined as part of the *City Plan* Update and the *Fort Collins Transportation Master Plan 2004*. These corridors include the Mason Transportation Corridor (MTC), Harmony Road Corridor, North College/Conifer Street Corridor, and Timberline Road/Power Trail Corridor. The Timberline Road/Power Trail is a new ETC that was identified during the analysis completed for this plan. These four ETCs complete a loop through Fort Collins connecting activity centers in and around Downtown, CSU, College Avenue, Harmony Road and the Mountain Vista subarea. Figure 5.11 shows the location of all four defined ETCs.

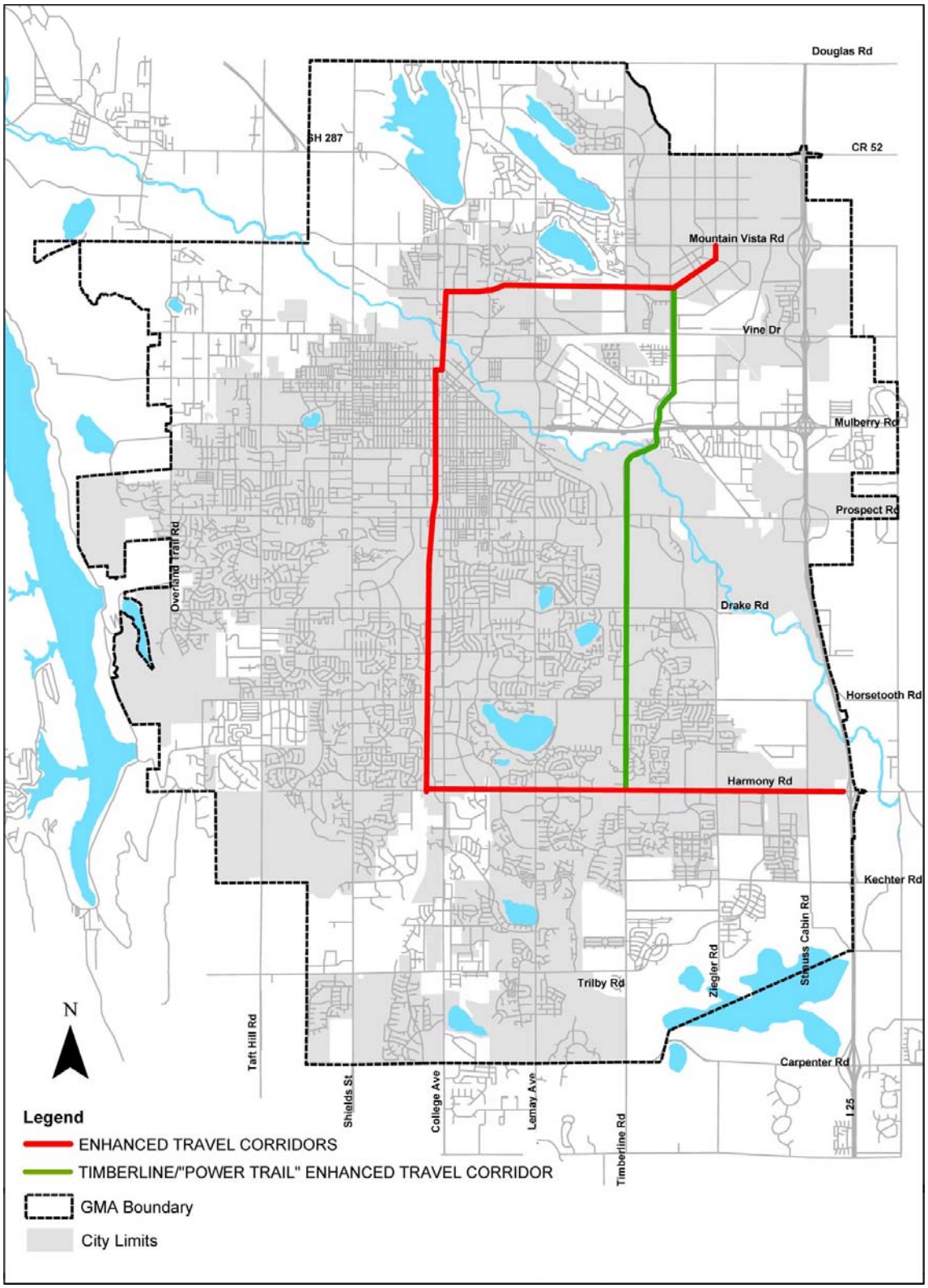
5.3.1.2 Develop the Corridor Master Plan

The purpose of a Master Plan for ETCs is to define the vision for what the corridor will look like and determine if it is feasible. Some of the aspects of the vision that need to be identified include the mode of transit that will be used (e.g. rail or bus), a cross-section of the corridor, adjacent parking and station/stop amenities, necessary partnerships with other agencies or private interests, a funding strategy, and an implementation plan. A master plan has been completed for the MTC to define its features, amenities, and overall character.

5.3.1.3 Completing Corridor Design and Implementation

In many cases, the ETCs will need to complete an Environmental Assessment (EA) or Environmental Impact Statement (EIS) according to Federal requirements under the National Environmental Policy Act (NEPA). This step is necessary if funding from the Federal Transit Administration (FTA) or other State and Federal sources will be used to construct the corridor. As part of the NEPA process, more detailed designs are typically developed to further define the features of the corridor. Once the NEPA process is complete, design and construction activities can proceed.

Figure 5.10
Fort Collins Enhanced Travel Corridors



5.3.2 Mason Transportation Corridor (MTC)

The MTC is a proposed 5.5-mile north-south Bus Rapid Transit (BRT) corridor in the central area of Fort Collins as shown in Figure 5.12. The BRT corridor is located along the east side of the Burlington Northern Santa Fe (BNSF) railway tracks within the railroad right-of-way (ROW), which run through the City, and is a few hundred feet west of College Avenue (US 287), the major north-south arterial in the City. The BRT will operate in mixed traffic from the North Transit Center through CSU, and then in exclusive right of way from Prospect to the southern terminus at the South Transit Center. Transit centers will operate at each end of the corridor, with several transit stations and stops at major intersections along the corridor.

5.3.2.1 Corridor Details

Rubber tire BRT vehicles were identified as the preferred transit technology in the MTC for their efficiency and cost-effectiveness. Specific manufacture, cost, and other characteristics of the vehicles have not been identified at this time.

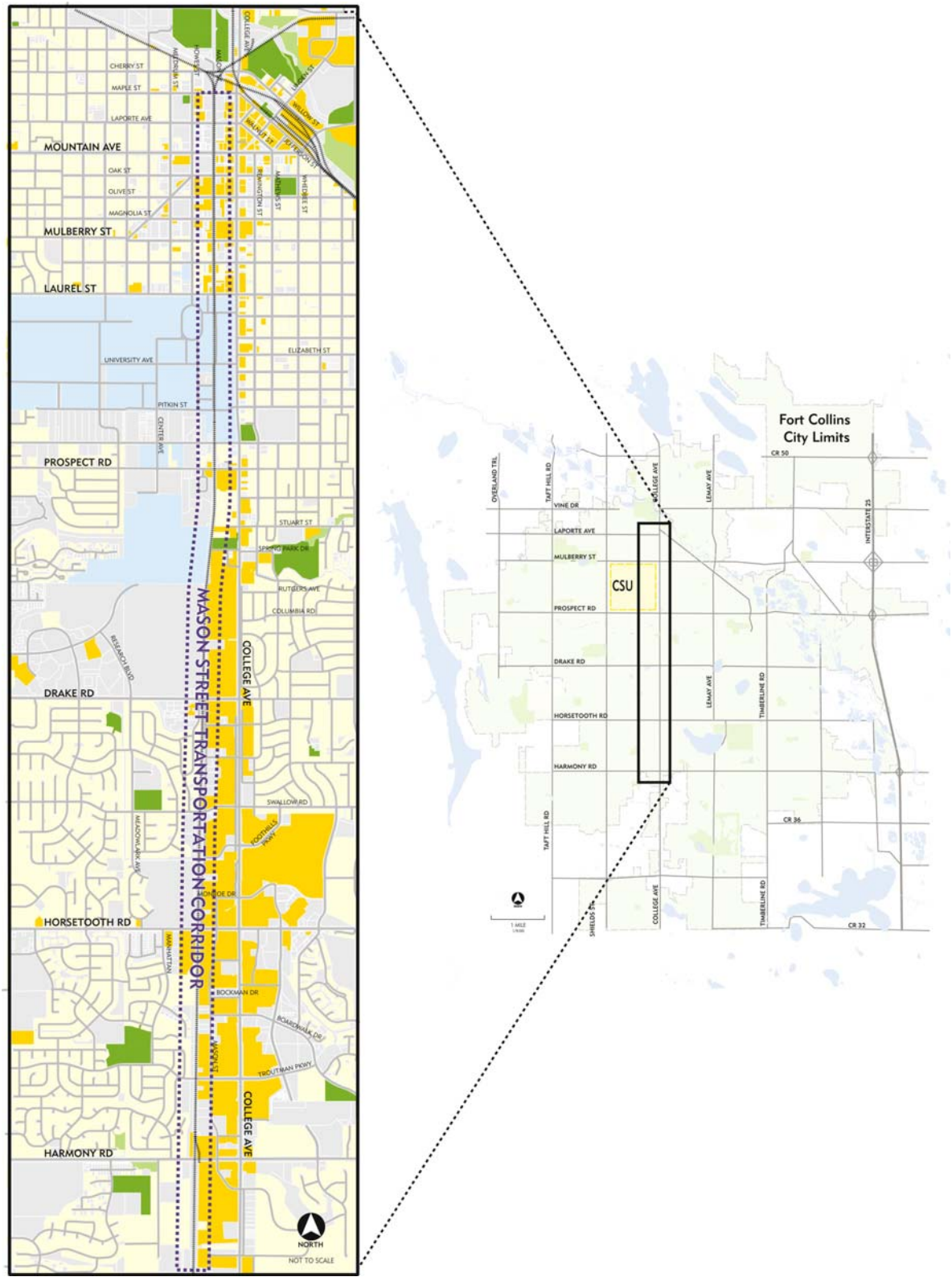
Transit Centers. Two transit centers are located in the MTC. The Downtown Transit Center (DTC) is located at the north end of the corridor between Cherry Street and Maple Street. A new transit center is planned approximately ½ mile south of Harmony Road. In the future, both transit centers will be served by park-n-ride lots (125 +/- cars at the north and 250 +/- cars at the south), which is intended to intercept users so they can get on the bus at either end of the corridor rather than driving further into the city. The transit centers are also designed to allow buses other than those of the MTC to circulate in and out to make east/west passenger transfers. The transit centers are designed to provide bus turnaround areas, pedestrian waiting shelters, site furnishings for user comfort and safety, public restrooms, security lighting, identification signage, signage for transit rider information, and landscape improvements.

Transit Stations and Stops. Along the length of the corridor, 17 transit stations and stops have been located at logical destination and connection points. These include end-of-line stops or transit centers, primary transit stations, secondary transit stations, downtown transit stops and bus connection stops. Some transit stations will include park-n-ride lots.

Pedestrian/Bike Pathway. In addition to BRT, the corridor Master Plan includes a north-south off-street bicycle and pedestrian trail system along the west side of the BNSF Railroad tracks with grade-separated crossings of four arterials, at which the bike/pedestrian users will cross using underpasses. This trail system is proposed to extend from the Fossil Creek Trail on the south, located approximately ¾ mile south of Harmony Road to the Spring Creek Trail. The bicycle/pedestrian connection will continue north of the Spring Creek Trail to Cherry Street via a combination of off street paths, on-street bike lanes, and sidewalks.

The pedestrian and bike trails, like the transit improvements, have a series of features which provide amenities for the pedestrian and bicyclist. These improvements include primary and secondary rest stops. The rest stops are located at wide areas in the corridor where space and need allow, and consist of a shelter, seating, picnic tables and a drinking fountain where possible. The rest areas are intended to provide a series of focal points for the trail system, and consist of a smaller shelter, seating, trail signage, and public art opportunities. The BRT vehicles will be designed to carry bicycles on-board to aid passengers in making combined transit/bike trips.

Figure 5.11
Mason Transportation Corridor



The MTC is a transportation corridor intended to enhance opportunities for transit riders, pedestrians and bicyclists along its length, to encourage in-fill development and to provide for economic opportunities. It will provide faster passenger-trip time using BRT transit technologies and a direct north/south route for bicyclists and pedestrians rather than having to use automobiles on a physically constrained, congested College Avenue (US 287) corridor. The MTC also offers the future possibility of connecting to rail service from Fort Collins to Denver and other destinations throughout the region.

5.3.2.2 Corridor Master Plan

This locally preferred alternative for the MTC was developed following a two-year study documented in the *Mason Street Transportation Corridor Master Plan,* October 2000. During the study, City staff and the City's consultants, with significant involvement from the public, evaluated alternatives for transit, pedestrian/bike pathway, and landscaping, lighting and signage. The City completed the Alternatives Analysis phase of the project, and began the process of requesting funding and approval from the FTA New Starts Program, by initiating the NEPA process.

5.3.2.3 Funding the Corridor

Fifty percent of the required funding was sought from federal government sources including FTA New Starts and Congestion Mitigation Air Quality (CMAQ) funds. The City and other local sources would account for the remaining 50 percent of capital funds for the project from sales taxes, property taxes, public/private partnerships, and general fund appropriations.

5.3.2.4 Current Status and Implementation

The City of Fort Collins is now moving forward to complete the funded portion of the MTC bicycle and pedestrian trail system. This aspect of the MTC project was committed to and funded by the "Building Community Choices" 1997 tax initiative and also has a funding grant from the Colorado Department of Transportation (CDOT) and the NFRMPO.

This portion of the project includes the trail system from the Spring Creek Trail south to the future Fossil Creek Trail. The MTC bicycle/pedestrian trail system will be a significant enhancement for the Fort Collins community, offering a convenient north/south route for cyclists and pedestrians for this 3½-mile segment. The alignment of the trail will be along the Burlington Northern Santa Fe (BNSF) Railroad Corridor, and it will be a vital regional connection between the Spring Creek Trail and the future Fossil Creek Trail, providing system-wide connectivity for the City's trail network.

The MTC trail system will be designed as a shared bicycle and pedestrian facility with at-grade crossings of Harmony, Horsetooth, Drake and Swallow Roads. The City will continue to pursue any funding options that include Federal, State, and Local sources, as well as public-private partnerships to further enhance the project for such features as bicycle/pedestrian grade-separated structures in the future.

5.3.3 Harmony Road Corridor

The Harmony Road Corridor ETC has been defined as Harmony Road from the South Transit Center identified in the MTC to the park-and-ride facility at Harmony Road and I-25. The City recognizes that Harmony Road serves as a major commercial center between College and Timberline. Numerous large employers such as Hewlett Packard, Agilent Technologies, and Poudre Valley Hospital South Campus are also located along Harmony, east of Timberline. The combination of commercial/retail development and a large employment center create a captive transit market, especially for trips to and from this area to downtown. The Harmony Road Corridor ETC is ideally located to connect to the MTC at the South Transit Center, with a connection to the park-and-ride facility at I-25, to capture incoming trips to the city. This ETC could also provide service to the Poudre Valley Hospital South Campus at Harmony and Timberline.

The transit technology for this corridor has not yet been determined. Many options exist, including rail or a dedicated bus way designed to run either on the south side of Harmony Road or within the existing median. A dedicated lane could be provided for bicycle and pedestrian traffic along the transit line. Separate, extra wide sidewalks or paths will exist along Harmony Road, as called for in the Harmony Corridor Plan (1995).

The next step for the Harmony Road Corridor includes completion of a master plan to define its features, amenities, and overall character. Following the master plan, the City would begin the NEPA process as either an EA or EIS, depending on the anticipated impacts. Concurrently, preliminary engineering could begin at this time. A financial plan would also be developed as part of the submittal process to FTA for federal funding.

5.3.3.1 North College/Conifer Street Corridor

The North College/Conifer Street Corridor has been defined as the alignment of North College from Cherry Street north to Conifer, and Conifer east and north to Mountain Vista Road. Goals B1 and B2 of the *Mountain Vista Subarea Plan*, adopted in March 1999, state that commercial development in the Mountain Vista Subarea will serve as a transit hub for the City and that all employment and industrial districts will be designed encourage transit and other non-auto travel modes. Once the Mountain Vista Subarea becomes more fully developed as a major activity center, the North College/Conifer Street Corridor will serve as a major travel link between downtown and the new Mountain Vista Activity Center.

The transit technology for this corridor has not yet been determined. Many options exist, including rail or a dedicated bus way designed to run parallel to Conifer Street, north or south of the existing street. Bicycle and pedestrian traffic would be accommodated on a dedicated lane or path separated from auto and transit modes.

The next step for the North College/Conifer Street Corridor includes completion of a master plan to define its features, amenities, and overall character. Following the master plan, the City would begin the NEPA process as either an EA or EIS, depending on the anticipated impacts. Concurrently, preliminary engineering could begin at this time. A financial plan would also be developed as part of the submittal process to FTA for federal funding.

5.3.3.2 Timberline Road/Power Trail Corridor

The Timberline Road/Powers Trail Corridor alignment has been defined as Timberline Road between Harmony Road and Mountain Vista Road. With the existing Power Trail running along the Union Pacific Railroad (UP) from Horsetooth to Prospect Road, the combination of the trail and future development of a dedicated transit facility make this corridor a good opportunity for an ETC to close the loop created by the other three ETCs. This link would establish the connection between the Harmony Road Corridor on the south and the North College/Conifer Street Corridor on the north, linking the Poudre Valley Hospital South Campus and other employment and commercial activity on Harmony Road with future development along Timberline Road and the Mountain Vista Activity Center.

The transit technology for this corridor has not yet been determined. Many options exist, including rail or a dedicated busway. Bicycle and pedestrian traffic could be accommodated on the Power Trail that could be extended south to Harmony Road and north into the Mountain Vista Subarea.

The next step for the Timberline Road/Power Trail Corridor includes completion of a master plan to define its features, amenities, and overall character. Following the master plan, the City would begin the NEPA process as either an EA or EIS, depending on the anticipated impacts. Concurrently, preliminary engineering could begin at this time. A financial plan would also be developed as part of the submittal process to FTA for federal funding.

5.4 BICYCLE PLAN UPDATE

In 2003, Fort Collins was awarded the Bicycle Friendly Community award from the League of American Cyclists, making it one of only 14 such cities with this distinction in the country. This award speaks highly of the efforts made by policy makers, staff, and residents who have continued to promote safe and efficient bicycle travel in Fort Collins.

In 1995, the *Bicycle Program Plan* began the framework to make Fort Collins one of America's leading bicycle friendly communities. The *Bicycle Program Plan* set forth a set of implementation priorities and recommended actions to improve the bicycle system and bicycle friendly nature within the City. Priorities refer to the relative importance and order in which action items should be addressed. These priorities include:

- Highest Priority – Programs and policy
- Second Priority – Maintenance and management of the facility system
- Third Priority – Capital projects for facilities

The emphasis on programs and policy was meant to guide the city to create the necessary framework to build a strong bicycle program. Following the program and policy development, necessary projects could be identified for both maintenance and new construction. These priorities are defined further in recommended action items listed in the *Bicycle Program Plan* including:

- Hire a bike education/encouragement coordinator on City staff (Highest priority)
- Expand Fort Collins' bicycle law enforcement program (Highest priority)

- Take steps to adopt or amend applicable City standards (Highest priority)
- Take steps to adopt or amend applicable City policy and plans (Highest priority)
- Carry out cooperative efforts on matters involving maintenance, signalization, and parking (Second Priority)
- Take steps to upgrade maintenance of bicycle facilities and to adopt bikeway and trail maintenance standards (Second Priority)
- Implement the fiscally constrained plan for bicycle facilities (Third Priority)

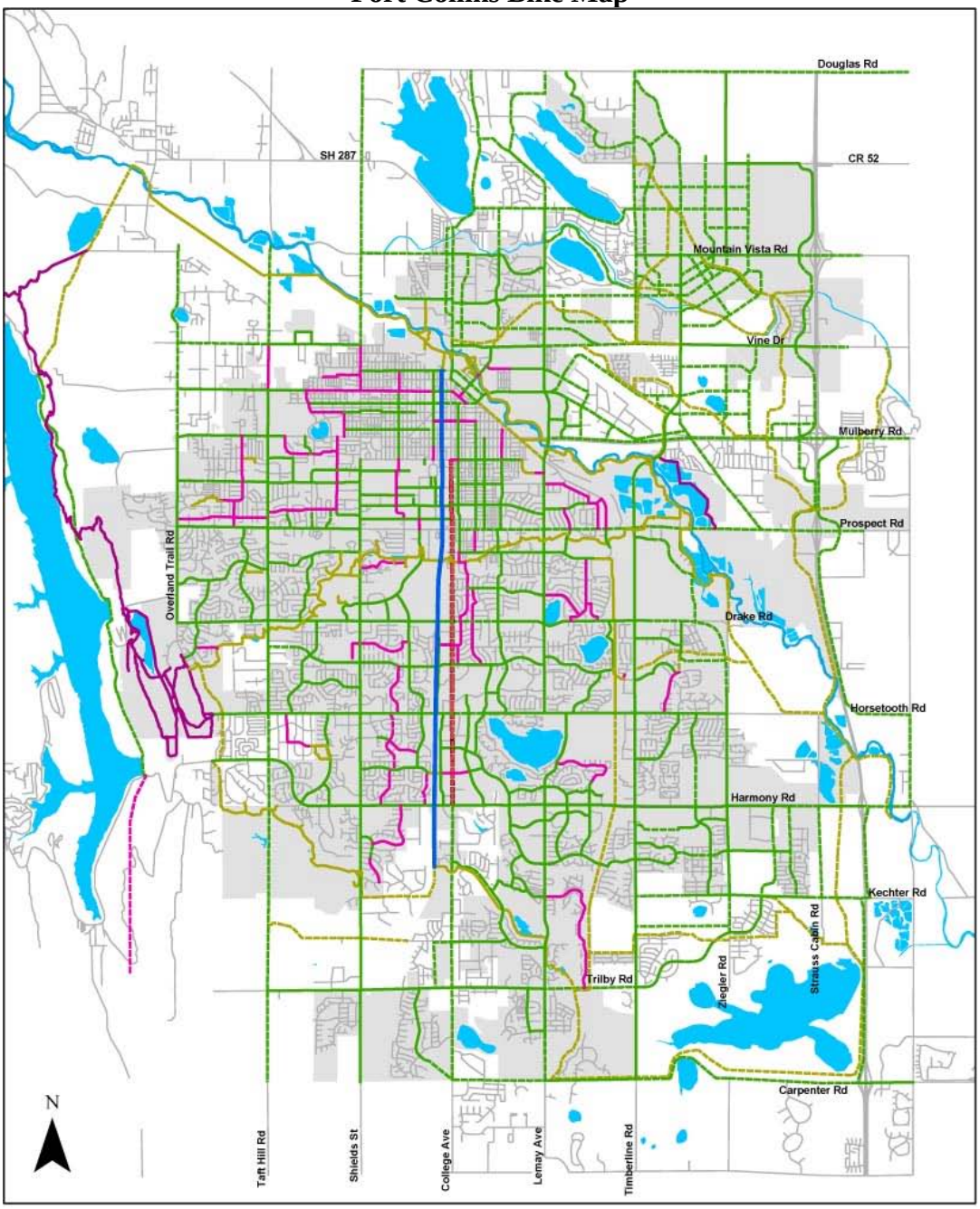
The City has successfully hired a bicycle education and encouragement coordinator. Their role in the Transportation Services Department is to coordinate educational programs for bicycling, maintaining and updating the bicycle facilities map every two to three years, and working with the engineering and transportation planning departments in the development review process to ensure that development projects include bicycle amenities as part of their design. Figure 5.13 shows the City's existing and proposed bicycle facilities.

Since 1997, many bicycle facilities have been constructed, improving connectivity between neighborhoods and commercial destinations and providing better mobility through the City. While the City does not have a dedicated funding source specifically for bicycle system improvements, bike lanes, trail connections, and are often constructed as part of roadway or drainage improvement projects. Examples of such projects completed since 1997 include:

- Harmony Road bike lanes from College to I-25
- Whedbee bike lanes from Prospect to Mulberry
- East Elizabeth bike lanes from College to Stover
- Timberline bike lanes from Willow Springs to Trilby
- Bike/pedestrian bridge over Poudre River at Mulberry
- Vermont bike/pedestrian underpass

In January 2001, Larimer County adopted the Larimer County Urban Area Street Standards (LCUASS), which include the minimum standards necessary for design and construction of all transportation and public improvements in cooperating municipalities, including the City of Fort Collins. These standards are required for all development projects within the Fort Collins City limits and its GMA. As part of these standards, bicycle lanes and detached sidewalks are required as part of all street cross sections, classified as collector level and above within the City of Fort Collins. The width of these facilities is dependent on the street classification. These standards have been incorporated as part of all development requirements, since their adoption in 2001.

Figure 5.12
Fort Collins Bike Map



Legend

- Existing Bicycle Lanes
- Proposed Bicycle Lanes
- Existing Multi-use path, off-street
- Proposed Multi-use path, off-street
- Existing Bicycle Route
- Proposed Bicycle Route
- Existing Soft Surface path
- Mason Transportation Corridor
- College Avenue No-Ride zone
- Parks
- Fort Collins City Limits

As part of the *Fort Collins Transportation Master Plan 2004*, a group comprised of members of the Transportation Advisory Board and Fort Collins and Larimer County bicycle planning staff was convened to provide guidance on bicycle issues. This group met twice during the TMP development process to discuss bicycle specific policy and goals, and to identify specific bicycle projects that should be added to the bicycle Capital Improvement Plan (CIP). All members of the bicycle subgroup are avid bicyclists in Fort Collins or play some role in the planning of bicycle facilities both on- and off-street. In a collaborative effort, this group developed a bicycle system map consisting of three tiers of bicycle facilities including: High volume bike corridors

- High volume feeder routes
- Future high volume corridors
- Critical missing links and unsafe facilities

High volume bike corridors consist of major east-west and north-south direct travel commuting routes that could be used for high volume bicycle traffic. High volume feeder routes would feed directly into the high volume bike corridors, providing system linkages from neighborhoods and smaller commercial areas to a citywide bicycle facility. Feeder routes are intended to be located on existing streets, as bike lanes or well-signed routes on the existing street system.

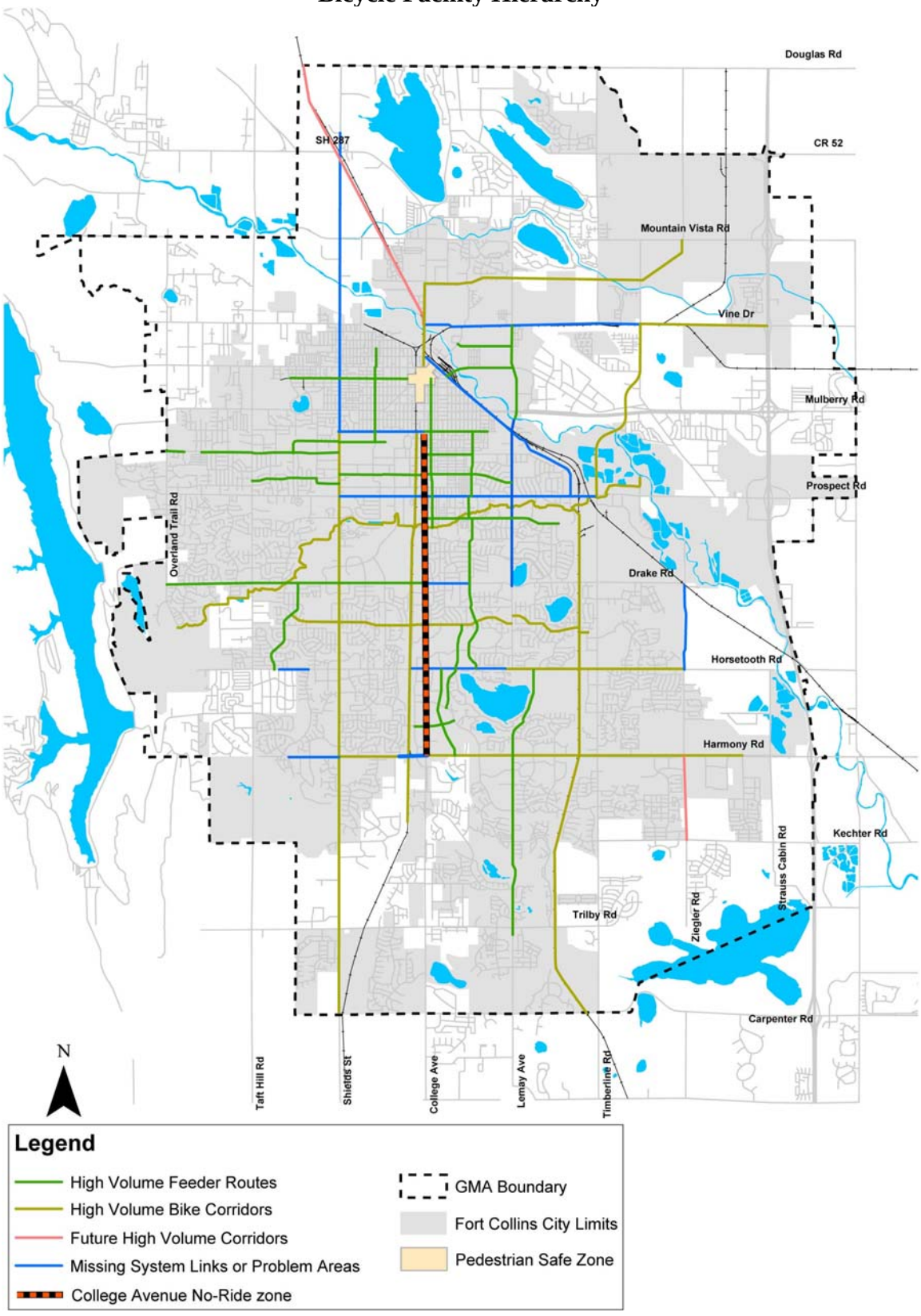
The bicycle interest group also identified corridors that have the potential to become additional high volume corridors in the future, if bicycle travel continues to become a commuting choice for travelers in Fort Collins. These routes were identified for existing streets, linking residential areas with major commercial districts, employment centers, parks, schools, and other destinations. These facilities are illustrated in Figure 5.14.

5.4.1 Grade Separated Crossings

One of the critical missing links of Fort Collins' bicycle system relates to grade separated crossings at arterials with local and regional trails and the railroads. Such crossings have been a long-standing need to address safety concerns for bicyclists in Fort Collins for many years. Grade separated crossings provide continuous movement for bicycle travel over or under arterials and railroads without interfering with automobile or train traffic. As traffic volumes and train frequencies and lengths continue to increase, the need for safe crossing locations has increased. As part of the MTC, several grade separated crossings are planned and will be constructed as part of dedicated bicycle/pedestrian trail. Other crossing locations have been identified as needs to complete the bicycle system including:

- Fairway Lane at BNSF
- Harmony at Mason
- Troutman at BNSF
- Horsetooth at Mason
- Drake at Mason
- NRRC Employment/ CSU Vet Campus at BNSF
- Prospect at Mason

Figure 5.13
Bicycle Facility Hierarchy



Additional grade separated crossings are included as part of the pedestrian and railroad crossing discussions in sections 5.6 and 5.7, respectively. The City has developed a design manual, *Design Guidelines for Grade Separated Pedestrian, Cyclist, and Equestrian Structures* that provides specific design principles for use when grade separated crossings are being considered.

5.5 PEDESTRIAN PLAN UPDATE

In 1996, the City of Fort Collins made a concerted effort to turn itself into a "Walkable City". While most cities have largely ignored the pedestrian mode of travel since the 1950's, Fort Collins has recognized the value and importance of pedestrian travel. With the adoption of the *1996 City of Fort Collins Pedestrian Plan*, Fort Collins set about restoring the ability of those on foot to travel easily and to make walking a viable and attractive form of travel. The plan identified major issues and hurdles to pedestrian mobility and outlined a plan that began to address pedestrian mobility. The *1996 City of Fort Collins Pedestrian Plan* outlined five action items to help Fort Collins become a "Walkable City". These five items include:

1. Target pedestrian LOS standards by development areas within the city.
2. Change the City traffic ordinances to give right-of-way to the pedestrian over the automobile.
3. Require that all new developments conduct a Traffic Impact Analysis (TIA) that addresses pedestrian problems and mitigation.
4. Approve revised sidewalk, corner ramps, and other miscellaneous standards and policies that will evaluate the pedestrian as a mode of transportation.
5. Approve an implementation and funding program to successfully achieve the vision of Fort Collins as "The Walkable City."

The following sections provide a brief description of each of these action items identified in the *1996 City of Fort Collins Pedestrian Plan*, as well as progress that has been made to date on each item.

The first action item identified by the 1996 *City of Fort Collins Pedestrian Plan* was to target pedestrian LOS standards by development areas within the city. In order to do this, the plan first identified LOS standards for pedestrian facilities. These standards were based on directness, continuity, street crossings, visual interest and amenity, and security.

5.5.1 Directness and Continuity

The directness measure represents the actual pedestrian distance from trip origin to destination. Since these types of trips are highly dependent on trip length, the infrastructure to provide the shortest and most direct route is critical. This fact is easily observed on college campuses and in parks where the most direct route is often worn into the landscape, despite the lack of paving. The ideal pedestrian network is the grid system, since curvilinear street patterns add additional distance to the potential trip.

The concept of pedestrian porosity is being explored, especially in the Downtown area, to provide a way to increase connectivity and directness between residential and retail uses, allowing pedestrians to avoid street crossings at busy intersections and follow a more direct route between origins and destinations. Pedestrian porosity refers to the development of a network of alleyways, interior building hallways and mid-block crossings to provide an enhanced pedestrian environment and reduce the need for automobile travel.

Continuity measures the completeness of the pedestrian system. A continuous sidewalk or bicycle system not only allows the pedestrian or bicyclist to make an uninterrupted trip, it may also be required for a stroller or wheelchair user to utilize the facility. Gaps in continuity can come in the form of missing segments, broken or overgrown vegetation, or physical barriers such as freeways, rivers, or fences.

5.5.2 Street Crossings

Arterial streets can significantly impact pedestrian safety in crossing a street. The safety of a pedestrian at a street crossing is primarily related to the specific design features and protections that are at the crossing location. These elements include:

- The number of lanes to cross
- The presences of a raised median or refuge island
- The presence of a crosswalk
- Use of a pedestrian actuated signal or dedicated pedestrian phase for crossing
- Clear sight lines from motorists to pedestrians
- Directional corner ramps
- Street lighting

5.5.3 Visual Interest and Amenities

Often overlooked in determining potential pedestrian and bicycle potential is the system's visual interest and amenities. Some aspects of this measure are related to facilities that enhance the comfort of the user such as shade trees, street lighting, and benches that may be particularly important to pedestrians with mobility or visual impairments. Other elements are important to the visual appeal such as landscaping, planter boxes, trash receptacles, and public art.

5.5.4 Security

The pedestrian environment must feel like a safe place for people to walk, including such elements as the presence of other pedestrians, the ability for people in adjacent buildings to overlook the sidewalk, good lighting, and clear sight lines.

The *1996 City of Fort Collins Pedestrian Plan* took these LOS standards and applied them to various areas within the city to established minimum LOS requirements by activity area. Table 5.2 shows the target LOS by pedestrian facilities plan area. LOS A and B are considered as providing excellent pedestrian movement with regard to directness, continuity, street crossings, visual interest and security. LOS C provides the minimum acceptable operation for pedestrians. LOS D, E, and F illustrate decreasing services with LOS F representing a complete breakdown in the ability for pedestrian movement.

Table 5.2
Target Levels of Service by Pedestrian Facilities Plan Area

	Directness	Continuity	Street Crossings	Visual Interest & Amenity	Security
Pedestrian District	A	A	B	A	B
Walking to Schools/Parks	B	B	B	C	B
Activity Corridors & Activity Centers	B	B	C	B	B
Walking to/from Transit	B	C	C	C	B
Other Areas within City	C	C	C	C	C

In 1997, the City of Fort Collins published the *City of Fort Collins Multimodal Transportation Level of Service Manual*. This manual details specific requirements for pedestrian LOS taken directly from the 1996 *City of Fort Collins Pedestrian Plan.* These standards are formally recognized in the City of Fort Collins Land Use Code, Division 3.6.4(B), where it states that:

> "All development plans shall adequately provide vehicular, pedestrian and bicycle facilities necessary to maintain the adopted transportation Level of Service standards contained in Part II of the City of Fort Collins Multi-modal Transportation Level of Service Manual for the following modes of travel: motor vehicle, bicycle and pedestrian."

The second action item identified in the *1996 City of Fort Collins Pedestrian Plan* recommended traffic ordinances to give right-of-way to the pedestrian over the automobile when crossing the street in a crosswalk (marked or unmarked). The current Fort Collins Traffic Code, Section 802[1]) reads:

> "When traffic control signals are not in place or not in operation, the driver of a vehicle shall yield the right-of-way, slowing down or stopping if need be to so yield, to a pedestrian crossing the street within a crosswalk."

However, it is important to note that vehicles must yield the right of way only when a pedestrian is on the half of the street where the vehicle is traveling, or is approaching so closely from the opposite half of the street as to be in danger. The traffic code does place responsibility on the pedestrian not to "suddenly leave a curb or other place of safety and walk or run into the path of a moving vehicle which is so close as to constitute an immediate hazard." (Fort Collins Traffic Code, Section 802[3].

The third action item of the *1996 City of Fort Collins Pedestrian Plan* recommended that all new developments conduct a TIA that addresses pedestrian problems and mitigation. This item has also been addressed through the Fort Collins Land Use Code, Division 3.6.4(C) where it states "all development plans must submit a Transportation Impact Study approved by the Traffic Engineer."

The fourth action item recommended revised sidewalk, corner ramps, and other miscellaneous standards and policies that will evaluate the pedestrian as a mode of transportation. While city standards were revised at the time of the document to better accommodate pedestrians, the plan recommended standards for corner ramps, including limiting the corner radius to 20', and stop bars at signalized and stop sign controlled intersections.

For the most part, these standards have been implemented. The LCUASS, which was created through a collaborative effort between Fort Collins, Loveland and Larimer County, apply to new construction and reconstruction of streets in the two cities and their GMA. In all intersections involving only collector or smaller streets, the street standards (in Section 8.2.9) allow for a 20' curb return radius. Only arterial roads have a minimum curb return radius of over 20'. While this is a minimum standard, and the *1996 City of Fort Collins Pedestrian Plan* calls for it to be a maximum standard, it at least allows for the *1997 City of Fort Collins Pedestrian Plan's* recommended radius. Additionally, according to the street standards, the City Engineer can make exceptions to the minimum standards as required. The design standards (in Section 14.4.2[D]), also require that stop bars at least 18" wide be located at all new signalized intersections and where identified by the City Engineer.

The fifth and last action item identified by the *1996 City of Fort Collins Pedestrian Plan* is an implementation and funding program to successfully achieve the vision of Fort Collins as "The Walkable City." The Plan further recommends a two-tiered prioritization program based on the Pedestrian Facilities Plan and on specific location needs. The primary areas within which to focus the City's pedestrian resources were identified as pedestrian districts, routes to schools and parks, activity corridors, activity centers, and routes to transit. In April of 1997, Fort Collins residents approved a ballot measure known as Building Community Choices (BCC). This sales tax is allocated for, among other things, pedestrian improvements. With this dedicated funding source the City has made numerous pedestrian improvements. Table 5.3 lists all improvements completed since 1999 with BCC funding and other sources. Figure 5.15 presents a map identifying the Pedestrian Districts, Activity Corridors, and Activity Centers updated from the 1996 *City of Fort Collins Pedestrian Plan*.

Table 5.3
Completed Pedestrian Projects (1999-2003)

Facility Location	From	To	Project Description	Year Completed
Horsetooth/Lemay	Dunbar	Northstar	Sidewalk and retaining wall	1999
Horsetooth @ Northstar	Dunbar	Northstar	Sidewalks and retaining wall	1999
620 W. Oak			Sidewalks around City tree (approx 50 feet)	1999
Olive	Grant		Sidewalks and access ramp improvements	1999
Cherry	Sherwood		Alley crossing to connect sidewalks on each side	1999
Highcastle Drive			Sidewalk repair (approx. 15 feet)	1999

Facility Location	From	To	Project Description	Year Completed
Blevins Park			Eight foot sidewalk reconstructed and landscape (approx. 150 feet)	1999
Overland Trail	Sumac	Azalea	Five foot sidewalk	1999
Boardwalk	Lemay		Sidewalks on north side	1999
College	South of Pitkin		Sidewalks and access ramp in front of Forest Service Building	1999
Lemay	Stoney Hill		Five foot sidewalk on east side (approx. 325 feet)	1999
1160 W. LaPorte			Four foot sidewalk to connect to existing walks (approx. 100 feet)	2000
Fuqua	Clearview		Six foot sidewalk to connect to bus stop (approx 75 feet)	2000
Plum	Peterson		Eight ramps at intersection and reconstruction to meet grade requirements	2000
Elizabeth	Stover		Four foot sidewalk and curb/gutter (approx. 225 feet)	2000
Magnolia	Washington		Four foot sidewalk and ramp at southeast corner of intersection	2000
Mulberry	Grant		Four foot sidewalk and ramps at northwest corner of intersection	2000
Horsetooth	JFK		Sidewalk realignment on northwest corner to bring ramp to radius	2000
310 E. Mountain			Six foot sidewalk to provide connectivity to existing walks (approx. 100 feet)	2000
900 Sycamore			Four foot sidewalk to connect to existing walks	2000
Elizabeth	L&P Arial Drop		Sidewalks widening to six feet, following utility placement	2000
Sheely Neighborhood			Sidewalks where possible, separated from roadway	2000
Blevins			Trail bridge to park	2000
Drake	Yorkshire		Pedestrian crossing (contribution to traffic Operations for new intersection ramps)	2000

Facility Location	From	To	Project Description	Year Completed
Civic Center			Contribution to Downtown 4-Corners Project	2000
Remington	Lake	Buckeye	Six foot attached/detached sidewalks and four new ramps at Parker (approx. 500 feet)	2001
Sherwood	Sycamore		Four food sidewalk to connect to existing walks & Lee Martinez Park	2001
Mulberry	Crestmore		Remove three trees and six foot sidewalks (approx. 225 feet)	2001
Remington	Prospect	Parker	Six foot detached sidewalk (approx 725 feet)	2001
Prospect	BNSF RR	College	Five to six foot sidewalks and hand rails over railroad tracks (approx. 425 feet)	2001
228 W. Prospect			Six foot sidewalk and 12 foot retaining wall/handrail (approx. 90 feet)	2001
832-900 W. Prospect			Five foot sidewalk and three foot retaining wall (approx. 200 feet)	2001
Landings	Horsetooth	Spinnaker	Six foot attached sidewalk and 10 access ramps (approx. 1750 feet)	2001
S. College	Elizabeth		Access ramps to separate bikes and pedestrians	2001
Laurel	East Side Park/Laurel Elementary		Pedestrian crossing and access to park/school	2001
Civic Center			Contribution to Downtown 4-Corners Project	2001
S. College	Swallow	Foothills	Seven foot attached and 6 foot detached sidewalk	2002
Landings	Horsetooth	Spinnaker	Repairs/changes and improvements to 2001 walk construction	2002
Lab/Washington Elementary			Sidewalk widening to eight feet with PSD cost share (approx 800 feet)	2002

Facility Location	From	To	Project Description	Year Completed
2034-2106 S. Taft Hill	Blevins Jr. High		Six to seven foot sidewalks, curb/gutter, and pedestrian signal	2002
Putnam Elementary			Sidewalk widening to eight feet with PSD cost share (approx. 225 feet)	2002
McClelland	Drake	Thunderbird	Five foot sidewalk on east side	2002
Shields	Stuart & Spring Creek		Sidewalk reconstruction and hazard removal with SO project	2002
W. Elizabeth	City Park	Shields	Phase I sidewalk improvements from Campus West Study	2002 and 2003

Source: Fort Collins Transportation Planning Department

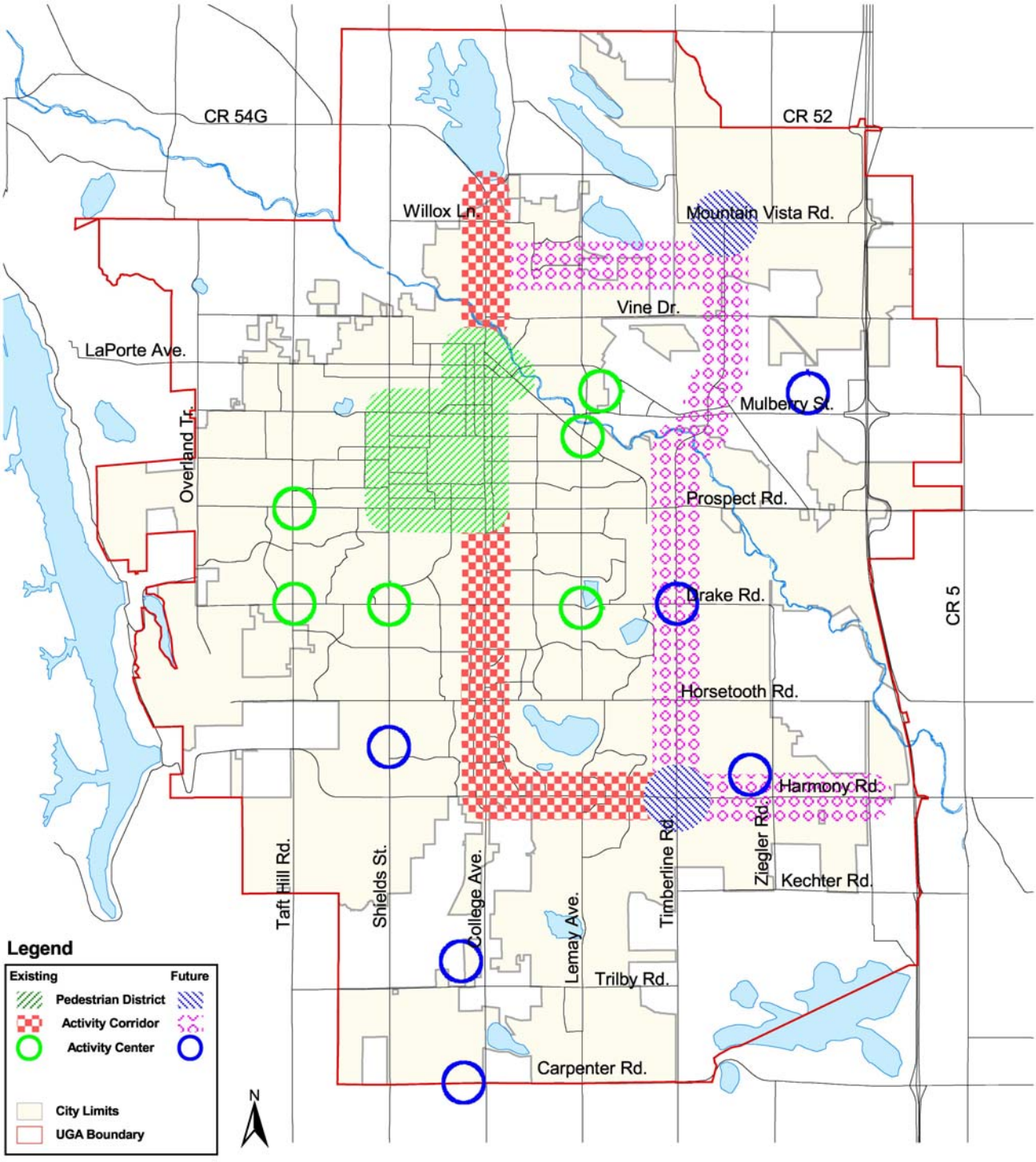
Fort Collins has made great strides since the *1996 City of Fort Collins Pedestrian Plan* to turn itself into a truly "Walkable City", but there is still a long way to go. According to the 2000 Census, only 3.7 percent of workers in Fort Collins walked to work. While this is still greater than many cities, and greater than the 2.9 percent mode share for pedestrians nationwide, it is a drop from the 1990 Census, which indicated that 4.7 percent of Fort Collins workers and 3.9 percent of U.S. workers walked to work. Further work must be done to continue to enhance the Fort Collins pedestrian network and enhance overall multimodal mobility in Fort Collins for people of all ages and abilities.

5.5.5 Grade Separated Crossings

One of the critical missing links of Fort Collins' pedestrian system relates to grade separated crossings at arterial streets with local and regional trails and the railroads. Such crossings have been a long-standing need to address safety concerns for pedestrians in Fort Collins for many years. Grade separated crossings provide continuous movement for pedestrian travel over or under arterials and railroads without interfering with automobile or train traffic. As traffic volumes and train frequencies and lengths continue to increase, the need for safe crossing locations has increased. As part of the MTC, several grade separated crossings are planned and will be constructed as part of dedicated bicycle/pedestrian trail. Other crossing locations have been identified as needs to complete the pedestrian system including:

- Fairway Lane at BNSF
- Harmony at Mason
- Troutman at BNSF
- Horsetooth at Mason
- Drake at Mason
- NRRC Employment/ CSU Vet Campus at BNSF
- Prospect at Mason

Figure 5.14
Pedestrian Areas



Additional grade separated crossings are included as part of the bicycle and railroad crossing discussions in sections 5.5 and 5.7, respectively. The City has developed a design manual, *Design Guidelines for Grade Separated Pedestrian, Cyclist, and Equestrian Structures* that provides specific design principles for use when grade separated crossings are being considered.

5.6 TRANSPORTATION DEMAND MANAGEMENT (TDM) STRATEGIES

Fort Collins has developed its own Transportation Demand Management (TDM) program called SmartTrips. This program, identical in name to the TDM program for the North Front Range MPO, provides programs and services to make it easier for commuters to use other travel modes rather than driving alone. SmartTrips' success in reducing automobile dependency and promoting alternate travel modes is largely dependent on the successful implementation of local transit systems, bicycle and pedestrian networks, and employer participation in allowing their employees to work from home and/or work flexible schedules. The goal of the Fort Collins SmartTrips Program is "To ease congestion on Fort Collins streets and improve air quality." This is accomplished through individual programs focused on reducing vehicle miles traveled and increasing the mode share of trips made by modes other than the single occupant vehicle. In 2002, Fort Collins SmartTrips Programs included:

- Business /Community Outreach – Extensive recruitment activities were conducted to encourage employers to use alternate modes. These programs included: breakfast/lunch presentations to business districts, on-line survey forms for assessing the potential success of various programs, a streamlined Guaranteed Ride Home program, a new carpool/vanpool promotion including on-line carpool matching forms, the Freewheels program that provides loaner bikes to employers, identification of Commuter Bicycle Coaches to encourage bicycling to work, the Drive Less Challenge that is an incentive program to report miles traveled using alternative modes, the PassFort program to provide bulk rate bus passes to employees, and numerous presentations to raise awareness

- Transit – In addition to community awareness activities, three specific programs were used to encourage increased ridership on Transfort. The programs included: a three-day event called Try Transfort Days providing free rides and a business challenge, programs with the Colorado State University, and a Ride Assistance Program that provides free bus passes to people in emergency situations

- Bicycle/Pedestrian Outreach – The focus of the bicycle and pedestrian outreach programs were on awareness campaigns, education, and safety. Awareness programs included participating in Bike to Work Day, Bike to Worship Day, Bike Fest, Bike to Campus Day, and Earth Day. Education and Safety programs included; developing Bicycle Rodeo Kits to educate kids about bicycle safety and providing free and low-cost helmets through the Strap 'n Snap program

- Youth Outreach – In addition to education and awareness activities that include a focus on the benefits that using alternate modes have on air quality, four specific programs were used. These include; the SchoolPool program that facilitates carpooling for families from participating schools, the Youth Drive Less Contest that challenges high school students and staff to carpool, the Walk a Child to School Day, and the Summer Reading

Program/Clear Air Campaigning to encourage use of alternate modes when going to the library

There were 412 companies that participated in SmartTrips programs in 2003. As shown in Table 5.4, nearly three million VMT were saved via alternate travel modes through the TDM program in 2003. SmartTrips business services efforts continue outreach to get more employers to participate in the different programs offered.

Table 5.4
VMT Reduction Programs

	2003 VMT Savings	2003 CO Savings (lbs.)
Business Outreach		
Drive Less Challenge	876,962	44,988
Freewheels Program	5,744	295
Commuter Bicycle Coach	53,165	2,727
PassFort	169,908	8,716
Carpool/Vanpool	390,000	20,007
Transit Marketing		
Communities in Motion	15,379	789
Senior Campaign	26,391	1,354
Events & Free Ride Promotions	15,712	806
Colorado State University Promotions	41,160	2,111
Route Specific Promotions	139,650	7,164
Bicycle/Pedestrian Outreach		
Bike to Work Day	117,790	6,043
Bike to Worship Day	1,576	81
Bike to Campus Day	869	45
Youth Outreach		
SchoolPool	79,685	4,088
Youth Drive Less Contest	605,325	31,053
Walk a Child to School Day	152,485	7,822
Clean Air Campaign	18,375	943
Total	**2,710,176**	**139,031**

Source: Fort Collins SmartTrips statistics

5.7 RAIL CROSSINGS

The City of Fort Collins has numerous streets with at-grade crossings along the Burlington Northern Santa Fe (BNSF) Railroad, Union Pacific (UP) Railroad, and the Great Western (GW) Railroad. Currently, six to eight trains per day travel on the BNSF Railroad through Fort Collins, one train daily on the UP Railroad, and one train daily on the GW Railroad. Collisions at railroad crossings kill or seriously injure approximately 2,500 people per year in the United States. To date, there have been no reported automobile/train crashes in Fort Collins in recent years. There have been some unofficial incidents of bicycles, pedestrians, and wheelchairs getting caught in the tracks while attempting to cross the street in the downtown area. Given the increasing traffic volumes and bicycle/pedestrian traffic on existing streets and the number and length of trains traveling through Fort Collins on a daily basis, the potential for automobile and train accidents is increasing. Fort Collins views this as a major safety consideration, when developing its CIP.

Exposure factors (crossing exposure) are used as thresholds to determine the type of controls necessary for at-grade crossing locations, justify elimination of at-grade crossings, and substantiate rail-crossing improvements. The exposure factor is determined by multiplying daily train traffic by daily vehicular traffic. *The Guidance on Traffic Control Devices at Highway-Rail Grade Crossings* (November 2002) document published by Federal Highway Administration (FHWA) uses Exposure Factor as one criterion for considering active at-grade crossing control and to evaluate the need for grade separated crossings. Table 5.5 summarizes FHWA's recommended exposure factor thresholds.

Table 5.5
FHWA Recommended Threshold Values for Exposure Factor

Railroad Crossing Treatment	Minimum Exposure Factor Value	
	Urban	Rural
Active Control (ex: Gates)	5,000	4,000
Grade Separation	1,000,000 (800,000 for passenger trains)	250,000 (200,000 for passenger trains)

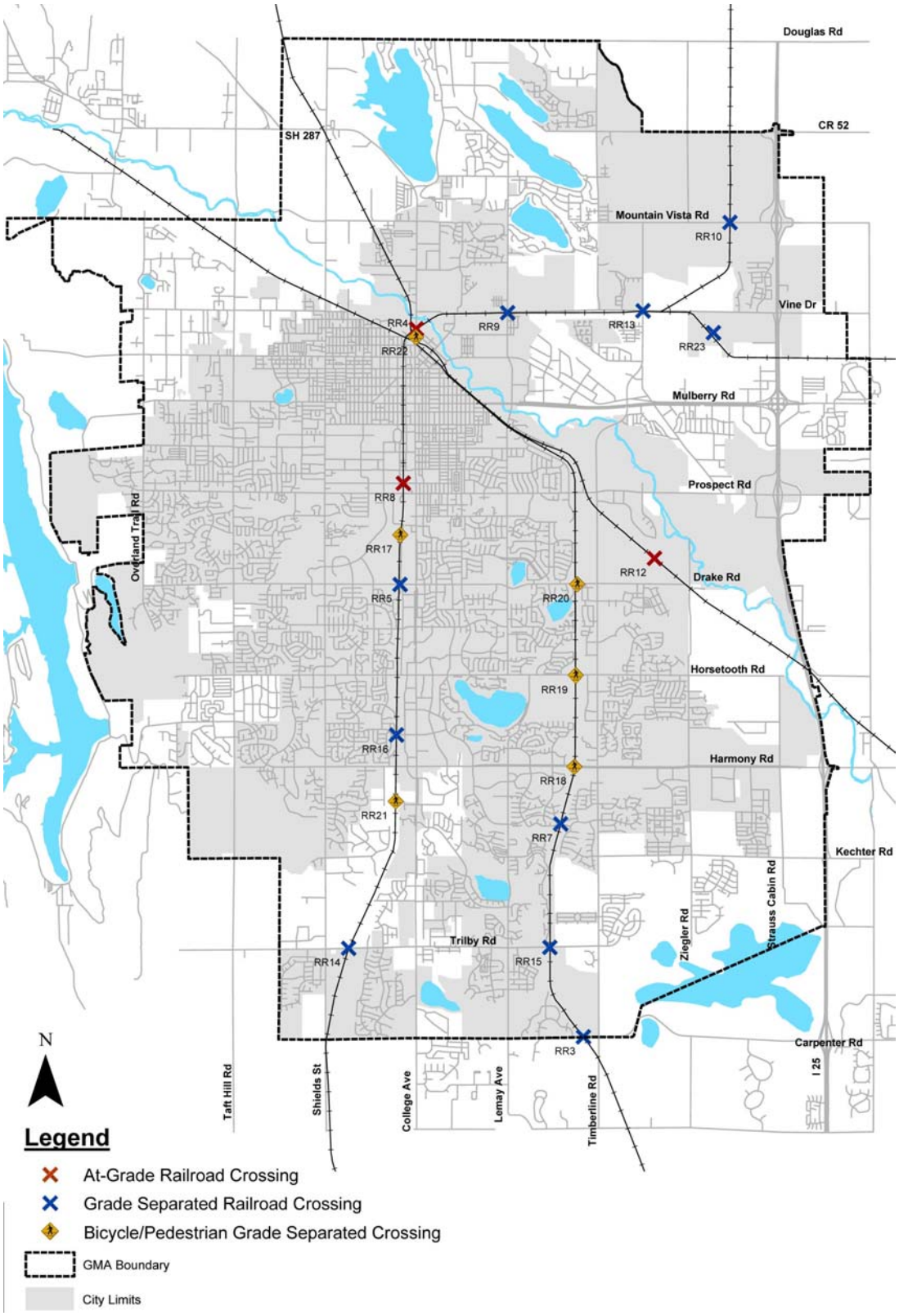
Source: Guidance on Traffic Control Devices at Highway-Rail Grade Crossings, November 2002

While most at grade crossings located within the Fort Collins city limits are gate controlled, there are some that require additional active control treatment. In high volume pedestrian areas, such as Downtown, the City desires to provide a safe crossing environment that is accessible for bicycles and pedestrians. FHWA's threshold values for exposure factor provide a guide for the City to use in future consideration of railroad active control and grade separation projects.

The City has made a concerted effort to include grade separated rail crossings a part of the planning process in the development of corridor and subarea plans, and most notably on dedicated recreational trails, such as the Spring Creek Trail and school routes, to accommodate better traffic flow across the railroads. The City's rail crossing needs list currently includes grade separated railroad crossings as part of the City's long-term plan, as listed below. See Figure 5.16 for locations of existing and planned railroad grade separations with street and bicycle/pedestrian facilities. This map also corresponds to the list of capital improvements proposed in section 7.2.5, later in this document.

- Trilby/BNSF
- Troutman/BNSF
- Drake/BNSF
- Lemay/BNSF
- Timberline/BNSF
- Mountain Vista/BNSF
- College/Cherry
- Greenfields/RR spur south of Mulberry
- Carpenter Road/UPRR
- Trilby/UPRR

Figure 5.15
Planned Grade Separated Railroad Crossings



- Keenland/UPRR
- Harmony/UPRR
- Horsetooth/UPRR
- Drake/UPRR

The MTC also includes additional bicycle/pedestrian grade separated crossings of the BNSF Railroad that could be built independent of the street grade separations, when a funding source is identified. These bicycle/pedestrian grade separations include:

- Troutman at BNSF
- NRRC Employment/ CSU Vet Campus at BNSF
- Fairway Lane at BNSF

5.8 PARKING FACILITIES AND SERVICES

Parking in Fort Collins, especially in the downtown area has become a more prominent issue, as the downtown core continues to develop as the central business district for shopping, dining, and employment in Fort Collins and the North Front Range. The availability, cost and location of parking is an important issue to address in transportation, as it affects an individual's travel mode decisions and how many auto trips are made within a given area.

5.8.1 Existing Parking Facilities

The City of Fort Collins currently provides off-street parking in two parking structures and seven surface parking lots. All of the parking facilities, except the Justice Center lot provide parking for transient and monthly customers. The Justice Center lot provides transient parking only.

Pay-by-space parking is provided in the Mason Street surface parking lot. Short-term parking provided in the other lots is time-restricted to two hours. The Jefferson lot offers all day free parking.

The City also operates two downtown parking structures: the Civic Center parking structure and Old Town parking structure. Hours of operation at these facilities are 7:30 a.m. to 10:00 p.m. Monday through Wednesday, and 7:30 a.m. to 2:00 a.m. Thursday through Sunday. Parking rates in these facilities are $0.50 for the first two hours and $0.50 for each additional hour.

On-street parking is also provided throughout the downtown area. On-street parking located in the core of downtown is provided free to transient parkers with a two-hour time limit. Additional free on-street parking located on the periphery of downtown and throughout the city is provided without time restrictions. Figure 5.17 shows the location of the City's existing parking facilities.

Figure 5.16
Fort Collins Parking Facilities

5.8.2 Downtown Strategic Plan

A comprehensive parking plan is included as part of the *Downtown Strategic Plan* that is currently being developed by the City of Fort Collins, the Downtown Development Authority (DDA), and the Downtown Business Association (DBA). The parking analysis and recommendations contained in this plan clarify the role of parking in support of the tenant and land use mix, with answers to specific questions about enforcement, supply, revenue generation, and the conflict between employees and customers desiring convenient on-street parking in front of stores and restaurants. Recommendations from this plan include:

- Park Once/Pedestrian First Concept –promote making the downtown a more pedestrian friendly environment, so that visitors will park once and complete their downtown activities using pedestrian, transit, and bicycle facilities
- Core Periphery Parking Concept – plan new parking additions along the periphery of the downtown core in association with projected development with walking distances between parking to destinations not exceeding 600-800 feet
- Parking Signage and Way Finding – improve parking directional signage, and develop a consistent theme that is easy to understand
- On-Street Parking Management Strategies – short term strategy of enhanced enforcement strategies and more aggressive approach to parking enforcement to promote parking space turnover; long term strategy of implementing on-street pay parking
- Centerline Parking College and Mountain Avenues – reconfigure the current parking on College and Mountain Avenues to accommodate long-term on-street parking strategy
- Fee In-Lieu Parking – allow developers to pay a fee in lieu of providing parking spaces, as required by zoning ordinance, and use this revenue to finance public parking spaces

These recommendations will be brought forward in the *Downtown Strategic Plan* for Council approval in the first quarter of 2003.

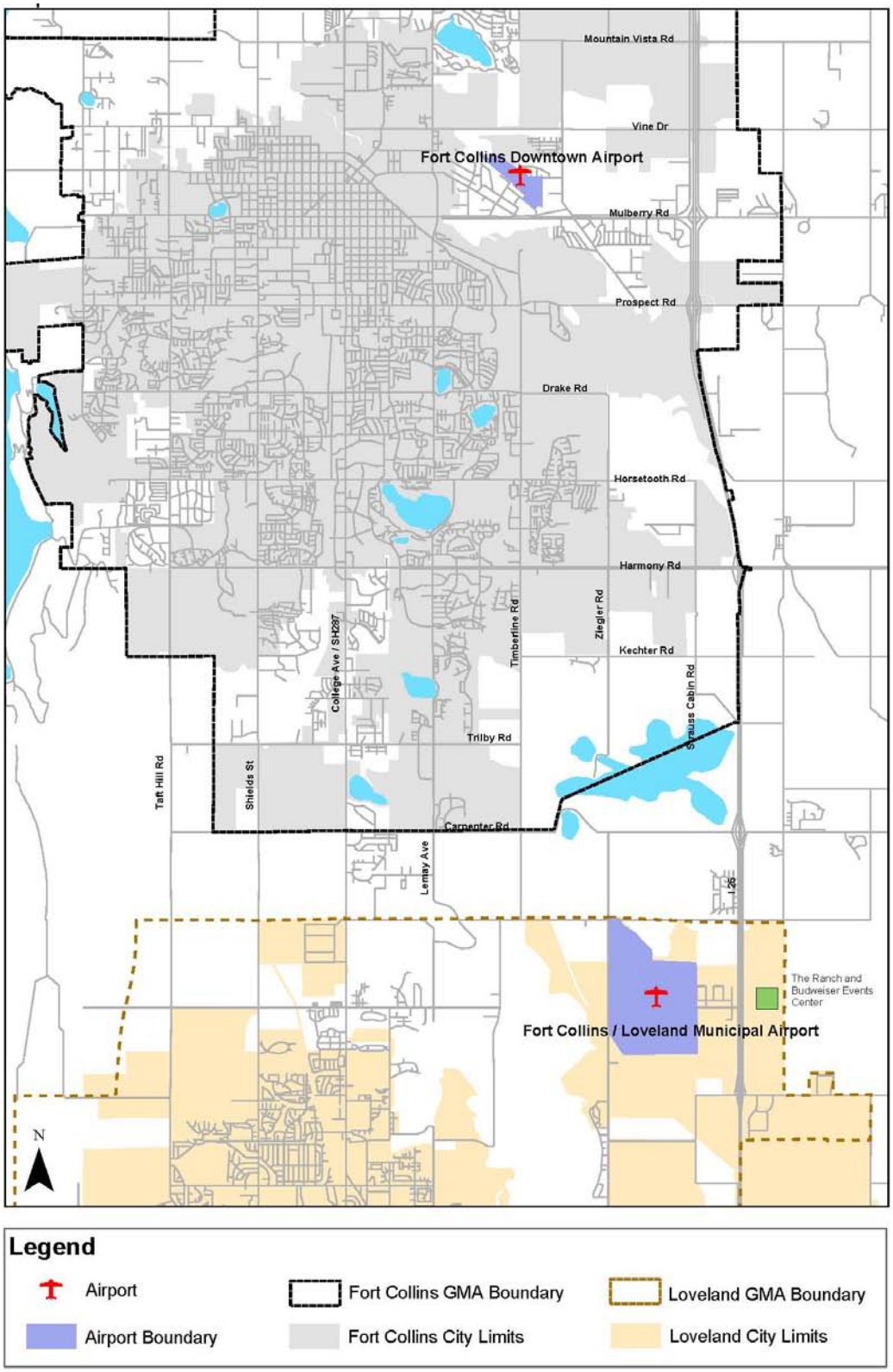
As part of the City's effort to develop a more multi-modal transportation system, Transfort, plans to construct several park-n-ride facilities as part of the MTC, including the proposed stations at Mason/Horsetooth, Mason/Drake, and Mason/Prospect. Additional park-n-ride locations have also been planned at I-25/Mulberry and I-25/Harmony to accommodate travel from the interstate into the City.

5.9 AVIATION

As shown in Figure 5.18, two airport facilities exist proximate to the Fort Collins area. The Downtown Fort Collins Airport on located north of State Highway 14/Mulberry Road between Lemay and Timberline. The Fort Collins-Loveland Municipal Airport is located near Crossroads Boulevard and I-25 between Loveland and Fort Collins.

The Downtown Fort Collins Airport is privately operated, although publicly used, and therefore does not receive federal funding. One asphalt runway, 4,700 feet in length, serves this facility. The airport elevation is approximately 4,935 feet Mean Sea Level (MSL). The Downtown Fort Collins Airport primarily serves small craft, general aviation.

Figure 5.17
Fort Collins Area Airports



The public airport in Larimer County is the Fort Collins-Loveland Municipal Airport, located within easy access to I-25. The airport elevation is 5,016 feet MSL. The airport currently consists of two asphalt runways. The primary runway is 8,500 feet long and the crosswind runway is 2,273 feet long.

In the past, this airport has serviced approximately 90,000 operations per year, with the emphasis being on general aviation and corporate needs *North Front Range 2025 Regional Transportation Plan*, December 2001. The airport has also hosted special events such as air shows. Allegiant Air recently began commercial air passenger service out of the Fort Collins-Loveland Airport in the summer of 2004. Allegiant provides limited commercial passenger service to Las Vegas, Nevada.

5.9.1 Future Aviation Issues

The Fort Collins-Loveland Municipal Airport seems well poised to serve the growing aviation needs of northern Colorado. The facility is located centrally between major growth areas of northern Colorado. It provides very good access to the southeast portion of Fort Collins, home to many of the community's high-technology industries such as Hewlett-Packard, Agilent, and LSI. It is located directly west of the newly constructed Larimer County Fairgrounds and the Crossroads subarea. This area is planned to serve a high intensity mix of commercial, industrial, and office uses as well as future residential uses. The US Highway 34 Corridor in Loveland, located just south of the airport, is a rapidly growing commercial, retail, restaurant, and office center. A regional hospital facility and hotel are also planned to be constructed near the airport and fairgrounds. If Allegiant Air is successful with their current limited commercial service, the Fort Collins-Loveland Municipal Airport may experience future commercial carrier growth as well.

The increased intensity of surrounding land uses, combined with increased air service will likely pose future local and regional transportation issues for the Fort Collins-Loveland Municipal Airport. Existing infrastructure serving the airport is already reaching its limits. Special events at the airport and new fairgrounds have resulted in congestion on the I-25/Crossroads Boulevard Interchange, the I-25/US-34 Interchange, frontage roads and surrounding county roads servicing the area. I-25 currently experiences moderate to severe congestion throughout extended periods of the day. Combined with anticipated increases in background traffic, additional automobile trips resulting from increased land use intensity in this area may severely strain the capacity and performance of the nearby road network.

Increased air service, combined with increased land use intensity near the Fort Collins-Loveland Municipal Airport may also present more opportunity to explore future inter-modal partnerships. Local and regional transit connections may provide linkages to and from the airport to Fort Collins and Loveland destinations, and offer a travel alternative to automobile travel via I-25. Strategically placed future park-n-ride facilities may encourage multi-modal trip connections in and near the airport. Increased air freight at the Fort Collins-Loveland Municipal Airport service may also provide future opportunities for inter-modal freight carrier relationships (e.g. OTR truck carriers linking with air freight services.)

The Fort Collins-Loveland Municipal Airport is currently beginning the update to its Airport Master Plan. Last updated in 1993, it is anticipated that this planning effort will address many of these issues. City of Fort Collins Transportation Planning staff will look for opportunities to collaborate on future airport-related transportation planning activities with Fort Collins-Loveland Municipal Airport staff and management.

5.10 LOCAL AND REGIONAL PLAN COORDINATION INTRODUCTION

5.10.1 Regionally Significant Corridors

As part of the *North Front Range Metropolitan Planning Organization 2025 Regional Transportation Plan* (RTP) a network of Regionally Significant Corridors was developed. Corridors are defined as regionally significant if they provide an important link between major communities and destinations within or outside the North Front Range. Other criteria include high levels of current and projected travel demand, the economic importance to the region, and the ability to relieve other primary regional routes. The RTP provides an emphasis on planning for and making multi-modal investments on Regionally Significant Corridors during the project prioritization process. Figure 5.19 shows the Regionally Significant Corridors.

5.10.2 Regional Transit

Regional bus service between Loveland and Fort Collins (FoxTrot) currently operates along US 287 between 8th Street in downtown Loveland and the South Transit Center located in the Square Shopping Center at the northeast corner of College Avenue and Horsetooth in Fort Collins. FoxTrot is currently the only transit service that operates between Fort Collins and another community in the North Front Range.

Airport Express operates an airport shuttle service from Fort Collins to Denver International Airport (DIA). This service is available seven days a week between 5:00 a.m. and 6:00 p.m., with approximately 15 daily round trips.

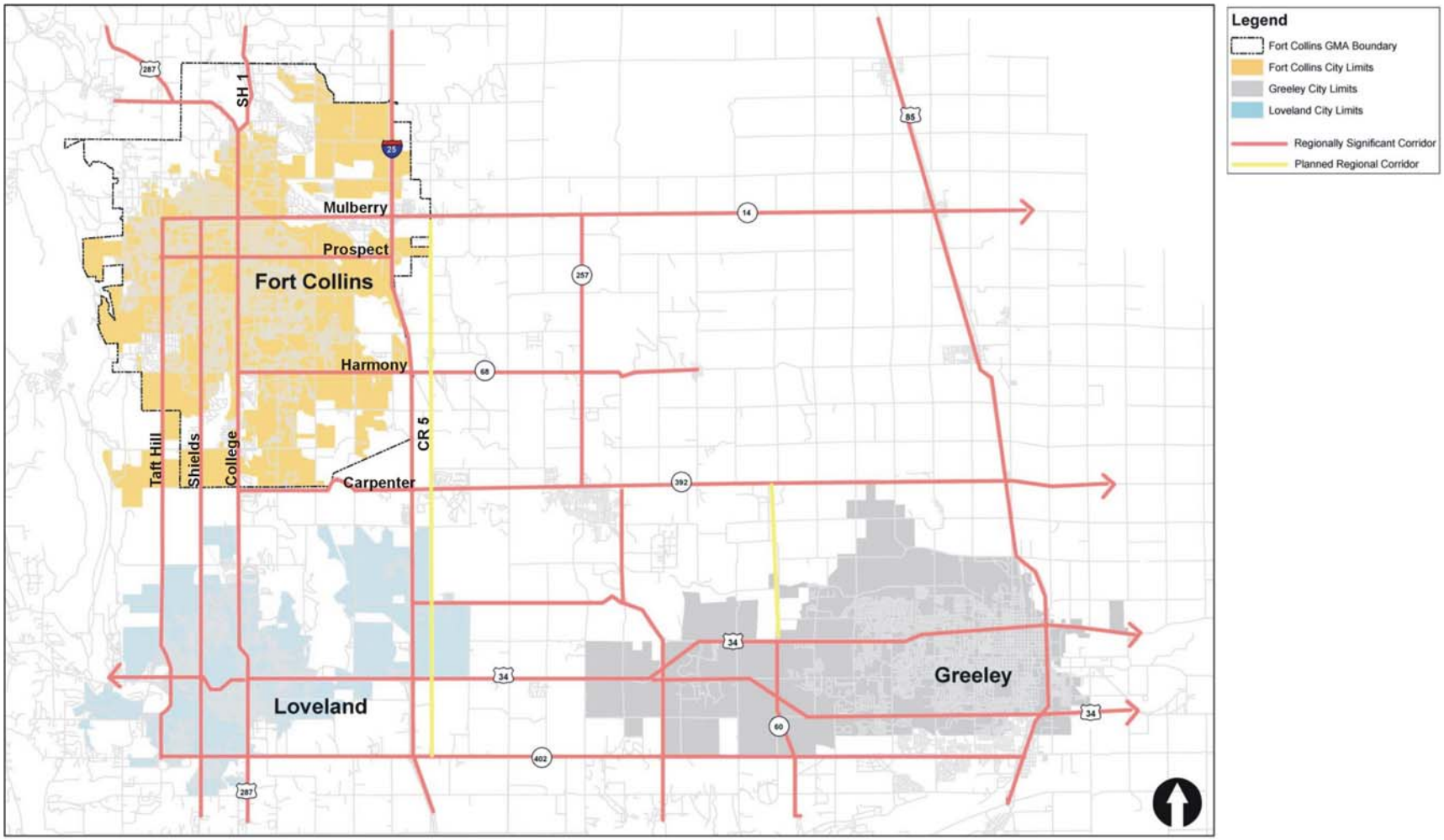
Numerous adult care facilities have privately owned vans used for transporting clients to medical non-emergency trips only.

5.10.3 Interregional Transit

The *North Front Range Transportation Alternatives Feasibility Study* (NFRTAFS) completed in March 2000 identified potential street improvement and rail connection alternatives between the North Front Range and the Denver Metropolitan Area to help manage traffic between the two regions. The recommended alternatives included widening I-25 from SH 7 to SH 14, one additional lane in each direction for high-occupancy vehicles between 70th Avenue in north Denver and SH 14, and three potential passenger rail routes between Denver Union Station and Fort Collins.

Currently CDOT is conducting an EIS to identify the potential environmental impacts of the transportation improvements needed to best serve north-south traffic on I-25 between the two regions. The EIS will include the stretch of I-25 between SH 66 and SH 14, and include both street and rail transit alternatives.

Figure 5.18
North Front Range Regionally Significant Corridors



5.10.4 Rural Transportation Authority

The establishment of a Rural Transportation Authority (RTA) has been proposed for the North Front Range. The RTA, as authorized by Colorado law, provides a local funding mechanism to develop or improve multi-modal transportation projects, including, streets, transit, bicycle, pedestrian, passenger rail and rideshare choices. The dollars raised by the proposed NFRTA, when used in combination with State and Federal dollars, could address a significant number of unmet transportation needs in the North Front Range. Dollars raised by the NFRTA would stay in the region giving local representatives more decision-making authority over regional transportation improvements.

5.10.5 Larimer County Regional Road Impact Fees

Larimer County has identified highways that are regional in nature and serve transportation needs beyond facilitating movement within a single community. These roadways include CR 17, CR 19, CR 32, and CR 38. In November 1998, Larimer County passed an ordinance enacting a Regional Road Impact Fee requiring development to pay impact fees based on land use type. This fee is collected for new development in all unincorporated areas of Larimer County. The fees fund improvements to these regional roadways. To date, Fort Collins is the only municipality that has adopted an ordinance to collect this impact fee from developers within the City, supporting improvements to four of the five identified regional roadways.

5.10.6 Regional Travel Demand Management

SMARTTrips™ is a public TDM program designed to reduce automobile dependency and promote the use of alternative transportation in Northern Colorado. By encouraging Northern Colorado residents to leave their cars at home at least one day a week, the SMARTTrips™ program helps preserve air quality, decrease traffic congestion, conserve fuel and promote better health. This program is similar to the Fort Collins Smart Trips Program. However, its reach extends to the greater North Front Range. The program provides services and information including:

- Free carpool matching
- Vanpool services to Denver, Boulder, Longmont, Greeley, etc.
- Bus scheduling and routing
- Employer transportation programs
- Bike trail information and assistance
- TeleWork information
- Alternate work schedule
- Guaranteed Ride Home information

SMARTTrips™, itself, is a marketing program that serves the North Front Range. Its success in reducing automobile dependency and promoting alternate travel modes is largely dependent on municipal cooperation and continued development and advancement of local transit systems, bicycle and pedestrian networks, and employer participation in allowing their employees to work from home and/or work flexible schedules.

5.11 ADVANCED TRAFFIC MANAGEMENT SYSTEM (ATMS)

The City of Fort Collins continues to implement the complete rebuild of its traffic signal system. The three-year project, called the Advanced Traffic Management System (ATMS), is a citywide transportation and communication system project to replace the existing 20-year old traffic signal system, install an underground fiber optics communication network (FON), and build the initial phase of the Traffic Operations Center (TOC). The ATMS is an expandable and integratable system that will allow the City to provide a higher level of transportation services to the public. Figure 5.20 identifies the funded signal system improvements included in this system-wide reconstruction.

The ATMS project serves three purposes:

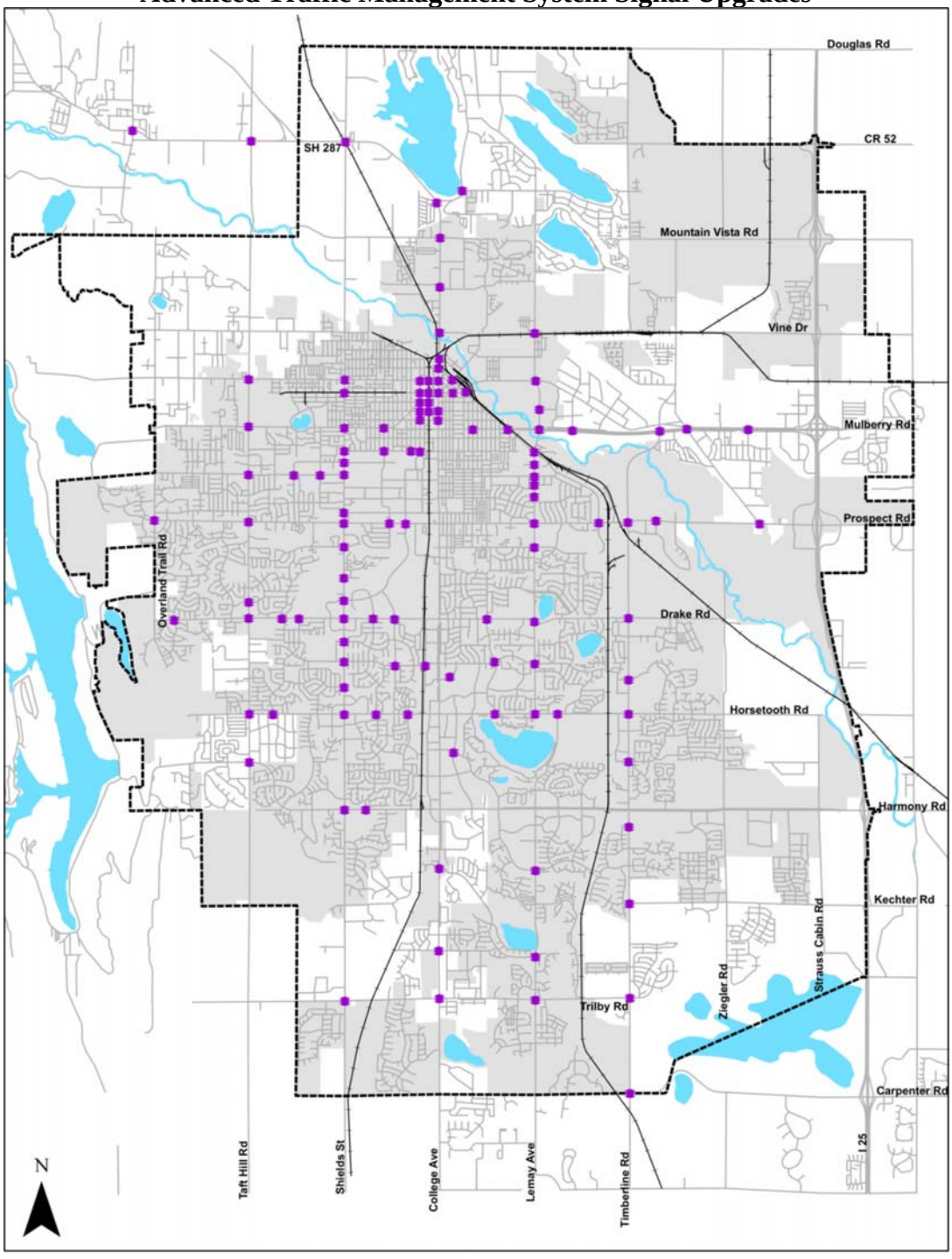
1. To provide a scalable and integratable transportation system
2. To regain stability in the City's traffic signal system
3. To provide currently unavailable services to the public

The ATMS is being designed to allow for continued software and hardware upgrades as technology changes. Additionally, the system is being designed to accommodate any Intelligent Transportation System (ITS) architecture and utilize current and future National Transportation Communications for ITS Protocol (NTCIP). These design features effectively standardize the City's system making it more compatible with other systems and future upgrades easier. The ATMS will allow for integration of ITS elements including transit operations enhancements, improved bike and pedestrian services, improved traffic management technologies, improved environmental benefits, and increased flow of information. Upon completion of the ATMS, the City will no longer passively manage its transportation system. The system will be managed primarily at the new TOC, located at 626 Linden Street. From this location, traffic is monitored and managed. For example, if traffic is backing up at specific intersections during heavy traffic, the timing of the signals that are part of this integrated ATMS can be adjusted to allow better traffic flow through the system.

The FON component of the ATMS will be the basis of providing the missing stability in the signal operations. It will also provide the main link for integrating ITS programs with other City departments and CDOT. The FON will also provide the medium to connect with future CDOT ITS programs in the northern part of the state. Currently, CDOT's plans have not been formalized, but are in the process. All of these functions are dependent on getting the new FON installed and operating.

Fort Collins continues to place a high priority on pedestrian mobility, bicycling capabilities, and effective and efficient transit capabilities. In order to accomplish these goals, greatly improved methods of managing current and future transportation modes is needed to support the public's desire to bike, walk and use the transit system. These modes need to be made much more viable in order get people out of their cars. This will be accomplished through improved systems operation and management, facilitated by the ATMS and the FON.

Figure 5.19
Advanced Traffic Management System Signal Upgrades



The initial ITS work elements are centered on transit operations. The City Traffic and Transit departments will be working together to initiate a transit priority strategy within the new traffic signal system. Other transit functions are being viewed for the future as well. The City Traffic and Transportation Planning departments are also looking at current pedestrian and cycling technologies to integrate them in to the new traffic signal system.

Funding for the project is primarily by the City, but Federal ITS funds have been designated as part of the overall funding for the acquisition and installation of the FON, both inside the TOC and for the outside network. The City of Fort Collins Traffic Operations Department is the lead agency for the project with personnel from CDOT, the City's ITS, Transit and Transportation Planning departments participating in the design team.