II. INVENTORY OF EXISTING CONDITIONS

In order to understand how transportation is provided to Evans residents, an inventory of the existing transportation system was conducted. This is an important part of the planning process since it becomes the starting point in identifying areas in need of improvement. Most of the data collected was provided by the City of Evans; however, supplemental traffic counts were recorded in areas such as those that have experienced high growth and areas that would be developed in the future.

Similar to other comparable cities, the Evans area transportation system is primarily focused on the automobile and, thus, the roadway system. Although the roadway system will be studied in detail, other transportation modes will be examined as an important part of a diversified transportation system. The following section includes data on these various modes of transportation.

A. Trails and Pedestrian Facilities

Both the City of Evans 2002 Comprehensive Plan and the Parks, Trails and Recreation Master Plan call for the development of a greenbelt system to create a recreational and commuting spine for the city that will also connect to regional trail systems. Today this envisioned trail system consists only of a segment in Riverside Park that runs southwest from the city limits to an underpass at US 85. Other planned trails include the following:

- The Evans Ditch trail which would run southwesterly from 31st Street to the Big Thompson River and west to connect to the future South Platte River Trail (American Discovery Trail).
- The Ashcroft Draw trail which would run south from 37th Street along the Ashcroft Draw to connect to the Evans Ditch trail.

In addition to existing and future trail systems, the City has been implementing a system of multi-use facilities for bicycle and pedestrian traffic. Multi-use facilities are detached sidewalks that are at least ten feet wide. With new development, the City has been requiring the construction of multi-use facilities along major arterials to accommodate both bicycle and pedestrian traffic. Figure 2 depicts the locations of multi-use facilities (10-foot sidewalks) and other sidewalks. In addition to the multi-use facilities, the city has a system of sidewalks that are generally attached and vary in width. These sidewalks generally exist in the older areas of Evans. Most arterial streets have this smaller width sidewalk. If this sidewalk system is to supplement the existing and future city trail systems, some of these sidewalks may need to be widened in order to effectively accommodate both bicycle and pedestrian traffic.

Generally in the older developed areas and in the rural areas of Evans sidewalks do not exist. Figure 3 illustrates areas and corridors where, in general, sidewalks do not exist or are not continuous. Sidewalk deficiencies can be found in the existing neighborhoods just east and west of US 85 and along the 37th and 49th Street corridors. It is possible that some of the sidewalk deficiencies, such as along the 37th and 49th Street corridors, could gradually be addressed as new development is constructed.

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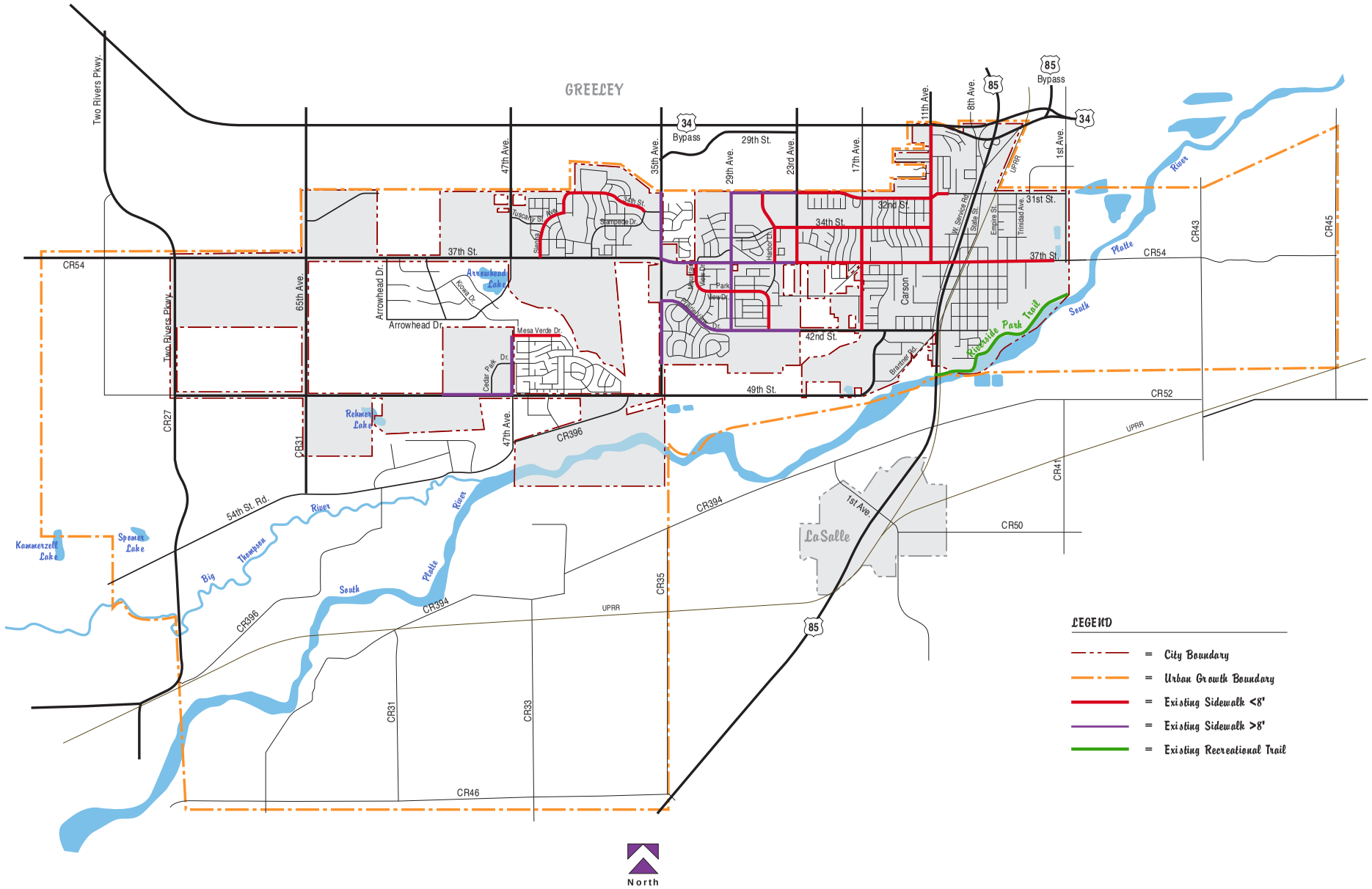

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Figure 2

EXISTING SIDEWALKS

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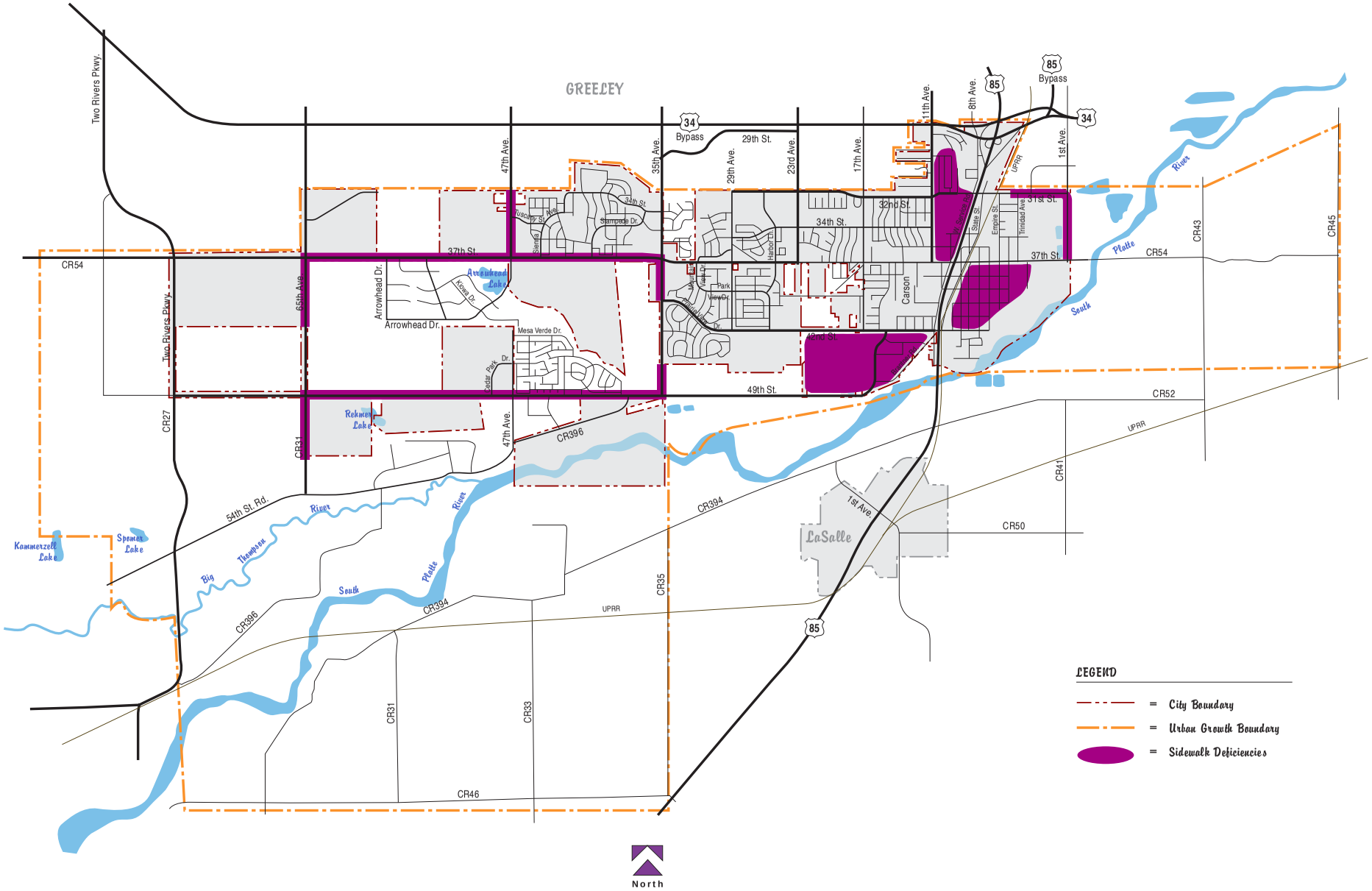

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Figure 3

AREAS OF SIDEWALK DEFICIENCIES

B. Transit

Public Providers

Fixed route public transit is provided to Evans residents by The Bus. The Bus, which is based in Greeley, provides service on six routes; three of which provide service within the Evans city limits. Routes 2, 4 and 5 provide service to and from Evans to local destinations within the Evans/Greeley area from 6:45 a.m. to 6:45 p.m. on weekdays, and from 9:45 a.m. to 5:45 p.m. on Saturdays. The fixed route service is not available on Sundays or on seven national holidays. Demand response hours are Monday through Thursday 6:45 p.m. to 8:00 p.m.; Friday 6:45 p.m. to 9:00 p.m.; Saturday 5:45 p.m. to 9:00 p.m. Figure 4 depicts these routes through the Evans area.

The Bus operates on variable fares and also offers passes on a monthly and tri-monthly basis. The fare schedule is shown in Table 1. In the year 2001, approximately 83 percent of the operating budget for The Bus came from either the federal government or from the Greeley General Fund. The remaining 17 percent was obtained from the fares and from the City of Evans.

Table 1. The Bus Fare Schedule

Types	Fares (dollars)
Adult (19 years and over)	$1.00
Senior (60 years and over)	$0.50
Disabled	$0.50
Medicare Card Holders	$0.50
Youth (5 to 18 years)	$0.50
Children (4 years and under)	free
Transfers	free
Paratransit (individual)	$1.50

The bus maintains a fleet of 22 vehicles, of which 14 are buses and 8 are vans. Many of these buses are small to mid-size with seating capacities of 21 to 30 passengers

ParaTransit

The Bus provides paratransit services to ADA eligible special needs riders within ¾ of a mile of fixed routes.

Specialized Transportation Providers

Specialized transportation providers serve the needs of the elderly, people with disabilities, the developmentally disabled, nursing homes and social service agencies. Many of these also provide service to Evans/Greeley and include Centennial Developmental Services, and Bonnell Good Samaritan Center.

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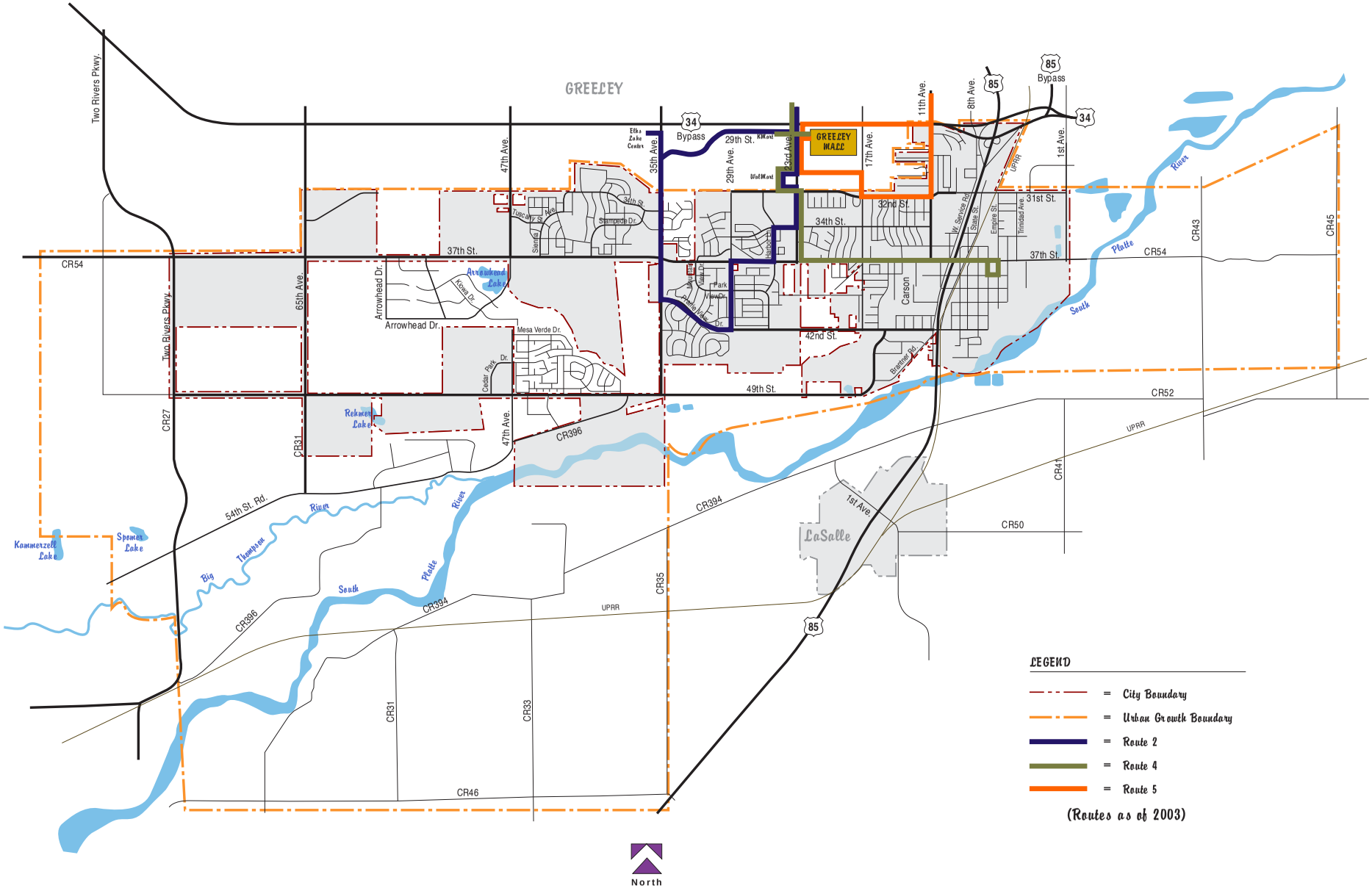

Figure 4

EXISTING TRANSIT ROUTES (THE BUS)

Commercial Transit

These providers are privately owned companies that provide chartered or fixed route service and include:

- Rocky Mountain Shuttle – service to and from DIA
- Shamrock Yellow Cab – taxi cab service
- Medi-Van – service for medical appointments (Medicaid trips)

VanGo

This is a service offered by SMARTTrips, an organization supported by the North Front Range Transportation and Air Quality Planning Council that promotes alternative transportation in northern Colorado. These vans provide regional service to communities in the North Front Range area as well as to Denver. Presently, two vans operate between Evans/Greeley and Fort Collins and five vans operate between Evans/Greeley and Denver.

C. Roadway Network

The following sections describe the physical characteristics and the use patterns of the roadway system. This inventory is based on information provided by the City of Evans, field work and traffic counts provided by All Traffic Data, Inc.

Functional Classification

Table 2 below provides a brief overview of the features and physical characteristics of each classification. The roadway functional types are more thoroughly described, in order of their ability to provide mobility, as follows:

Table 2. Functional Classification

Roadway Classification	Function	General Features	Examples
Expressway	Mobility over long distances	Multi-lane	US 85 US 34 Bypass
Arterial	Primary – Intercommunity and intracity traffic movement Secondary – Land access	Two to four lanes	37th Street 23rd Avenue
Collector	Balances traffic movement with land access. Provides connections to neighborhood centers	Two to four lanes	34th Street Arrowhead Drive Harbor Lane
Local Roads	Property access	Two or three lanes	Neighborhood streets

Expressways

Expressways primarily serve long distance travel between major communities. Expressways provide the greatest mobility, with strictly controlled access allowed only at interchanges and major intersections.

Arterials

Major and minor arterials carry longer-distance major traffic flows between important activity centers. The primary difference between expressways and major arterials is access; expressways generally have at-grade accesses spaced at one-mile intervals with interchanges at major intersections, while arterials usually include at-grade intersections spaced at intervals of less than one mile.

Arterials usually consist of four lanes, tend to carry significant traffic volumes (typically greater than 10,000 vehicles per day) at higher speeds for longer distances and are seldom spaced closer than at 1-mile intervals. Minor arterials augment the major arterial system. These roadways place a high emphasis on access, instead of mobility, distributing travel to smaller destinations with moderate trip lengths.

Collectors

Collector roadways link local streets with the arterial street system. Both mobility and access take equal precedence on these roadways. Travel speeds and volumes are moderate and distances traveled are short to medium; these streets provide for intercommunity, intercity, and intracity traffic movements, such as connections between city centers, schools, and neighborhoods.

The collector system provides both property access and traffic circulation within residential areas and commercial and industrial areas. They are usually two to four lanes wide and carry 5,000 to 10,000 vehicles per day.

Local Roadways

The primary function of local roads is to provide access to adjacent land uses, whether it be residences, businesses, or community facilities, in both urban and rural areas. They are typically low speed, closely spaced, two lanes wide, and carry relatively low traffic volumes.

As shown in Figure 5, the two expressways in the Evans area are US 85 running in a north-south direction and a small segment of US 34 Bypass running in the east-west direction between 11th Avenue and the interchange with US 85. Arterials in the east-west direction include 31st Street, 32nd Street, 37th Street, 42nd Street and 49th Street. North-south arterials include 11th Avenue, 17th Avenue, 23rd Avenue, 35th Avenue, 47th Avenue, 65th Avenue and Two Rivers Parkway. In Evans north-south arterials are generally just a few miles in length because of the Platte River along Evans' south city boundary.

Traffic Volumes

As part of this study, traffic counts were obtained from the City of Evans and Weld County, and supplemental counts were recorded by All Traffic Data, Inc. at various locations throughout the city and the county. Figures 6 and 7 depict daily and peak hour traffic volumes. Most traffic counts collected are along the arterial street system and at arterial-arterial intersections. Not surprisingly, the heaviest traffic volumes exist on US 85 and US 34 Bypass, which carry nearly 23,000 vehicles per day (vpd) and 40,000 vpd, respectively. In the east-west direction, 37th Street east of 35th Avenue carries between 12,000 and 16,000 vpd which is more than double the volume carried by any other east-west arterial. Only 37th and 49th Streets extend west of 35th Avenue where traffic volumes drop significantly ranging between 3,000 and 7,000 vpd. In the north-south direction, 11th and 23rd Avenues carry up to 14,000 vpd, 35th Avenue carries up to 10,000 vpd near 37th Street and 17th Avenue carries approximately 5,500 vpd. West of Evans, 65th Avenue carries nearly 5,500 vpd just south of 49th Street.

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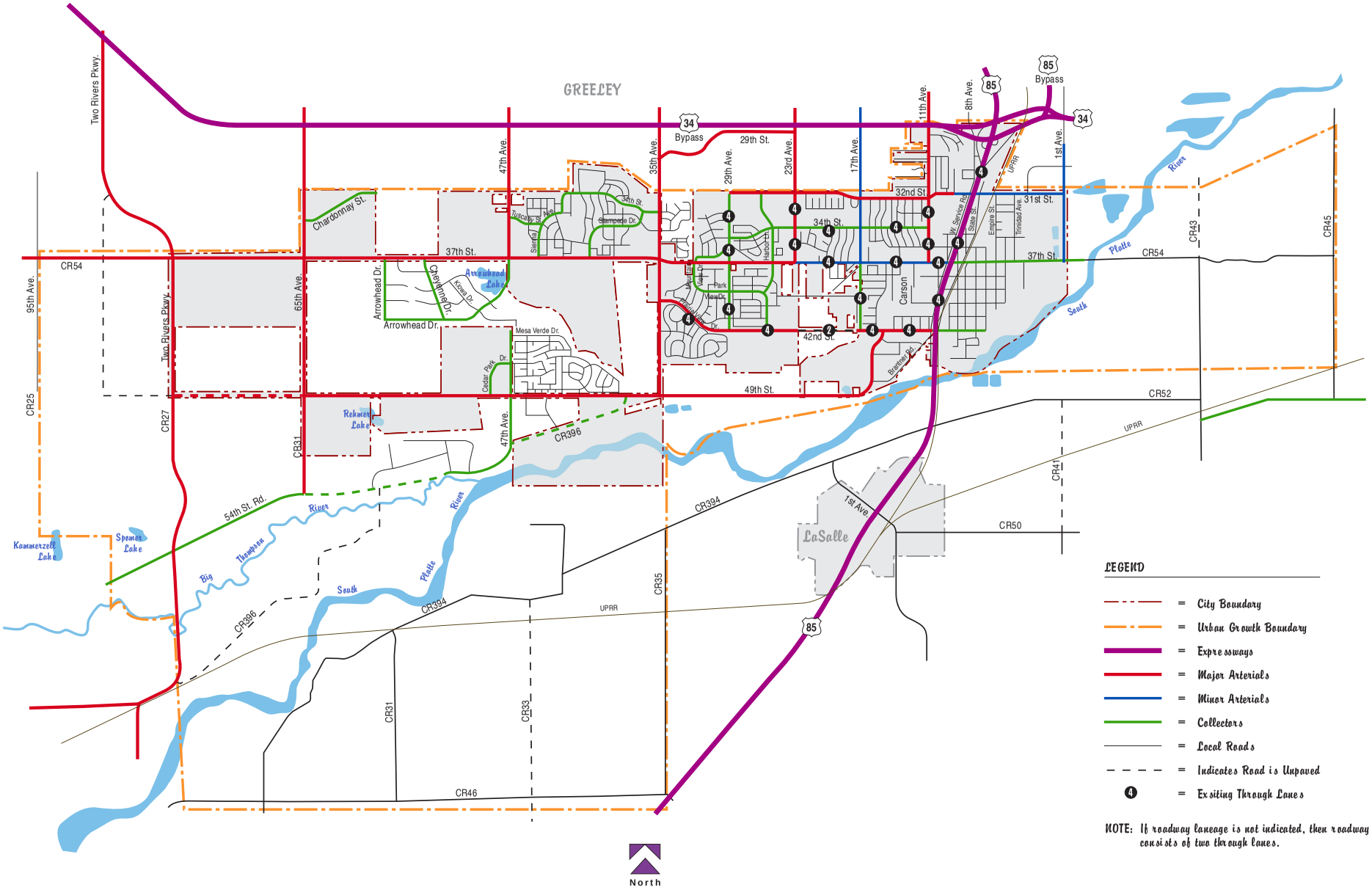

LEGEND

- = City Boundary
- = Urban Growth Boundary
- = Expressways
- = Major Arterials
- = Minor Arterials
- = Collectors
- = Local Roads
- = Indicates Road is Unpaved
- 4 = Existing Through Lanes

NOTE: If roadway laneage is not indicated, then roadway consists of two through lanes.

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Figure 5

EXISTING ROADWAY FUNCTIONAL CLASSIFICATION

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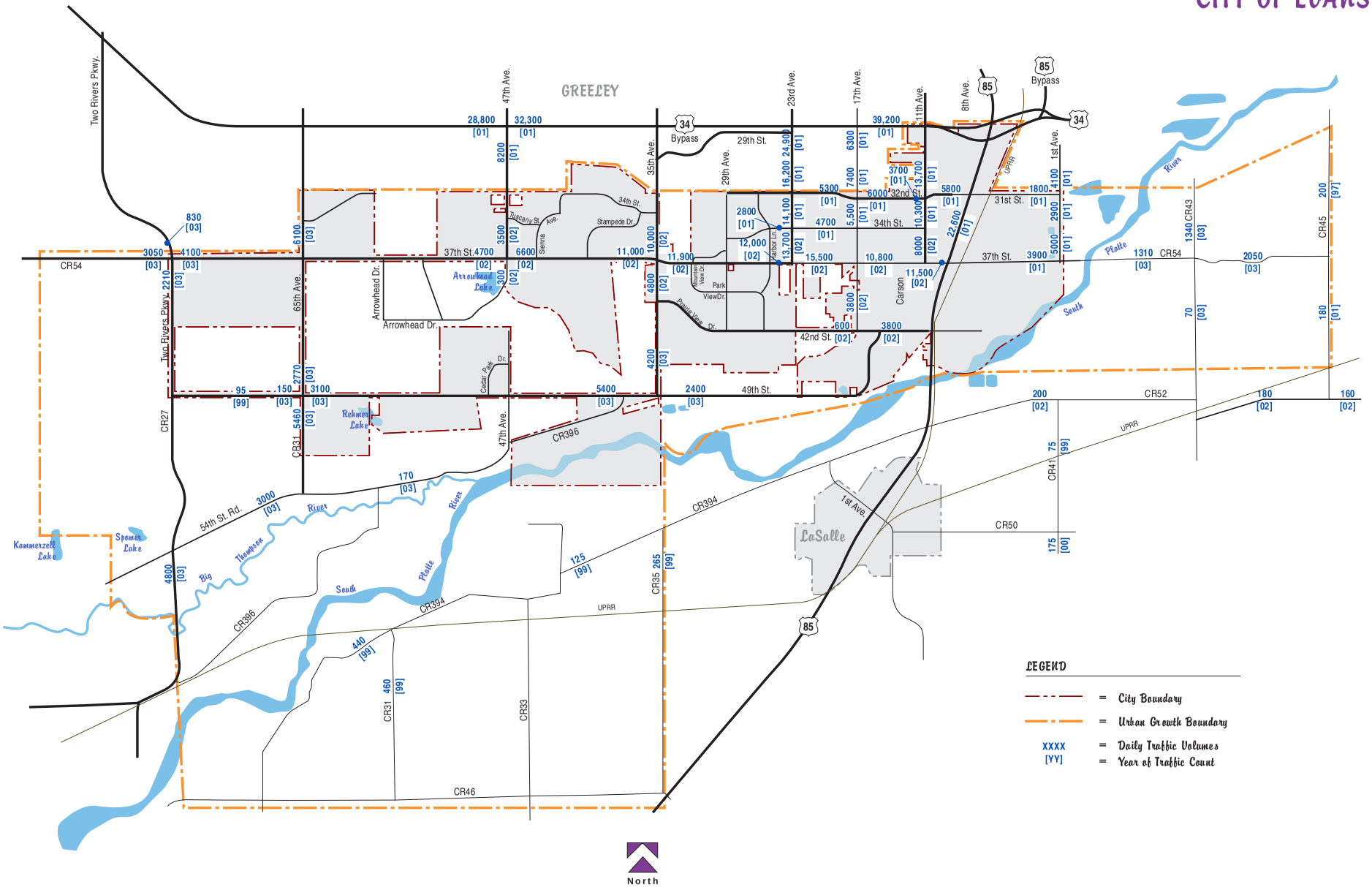

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Figure 6

DAILY TRAFFIC VOLUMES

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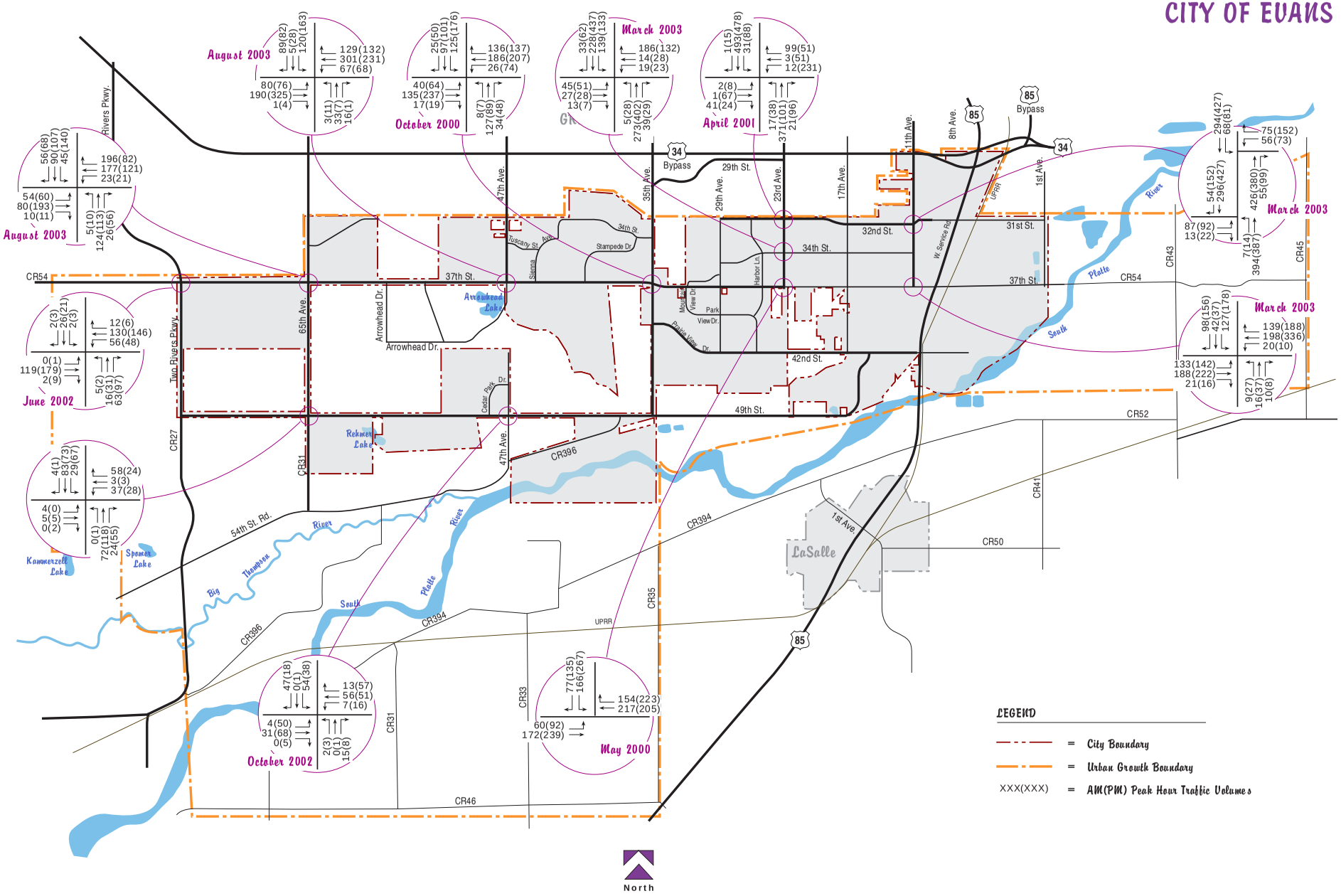

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Figure 7

PEAK HOUR TRAFFIC COUNTS

Daily Volume to Capacity

The degree of congestion on a roadway depends upon the capacity of that roadway and the demand placed on it by vehicles. Volume to capacity (v/c) ratios can be used on a planning level to get a comparative idea of how a roadway is performing. A planning level capacity of a roadway can be determined by a roadway's facility type, laneage, and traffic control conditions. The following capacity thresholds were estimated for Evans streets:

Table 3. Roadway Capacities

Facility Type	Daily Traffic Volume Threshold (Capacity)
Expressway	11,000 / Lane
Major Arterial	8,000 / Lane
Minor Arterial	6,000 / Lane
Collector	5,000 / Lane

The v/c ratio is also a good planning tool as it is a quick way to judge how much more traffic a certain roadway can handle. Furthermore, a comparison can be made between these ratios and the level of congestion experienced by the roadway. Table 4 presents relative congestion levels based on the v/c ratios, however, it should be noted that the v/c ratios are based on daily link traffic volumes and, thus, are not related to peak hour operations. For example, it is possible for a roadway to have a low v/c ratio but have an intersection operating at a much higher v/c ratio during the a.m. and p.m. peak hours.

Table 4. Congestion and V/C Ratios

V/C Ratio	Congestion Level
< 0.45	Good Traffic Flow
0.45 – 0.65	Moderately Congested Roadways
0.65 – 0.90	Increasingly Congested Roadways

The v/c ratios of selected streets within Evans are graphically depicted in Figure 8. As shown in the figure, most of the City of Evans roadways fall into the good traffic flow and moderately congested categories. The only roadways that fall within the "increasingly congested" category are 37th Street between 23rd Avenue and US 85, 35th Avenue north of 37th Street and the portion of the US 34 Bypass located within the city. Although 47th Avenue is moderately congested north of 37th Street, this arterial becomes increasingly congested as it approaches US 34 Bypass.

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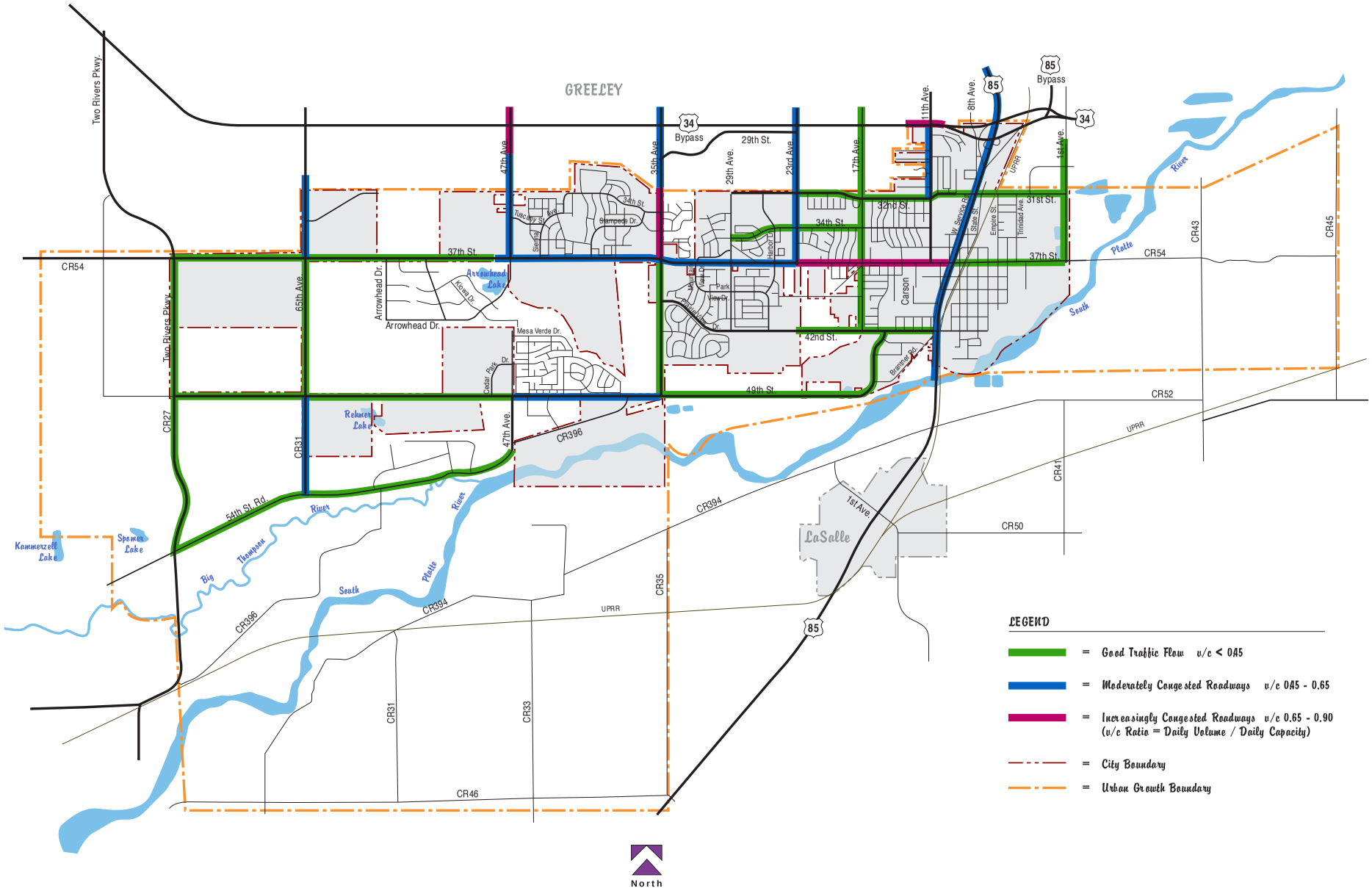

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Figure 8

EXISTING ROADWAY USAGE

Peak Hour Level of Service

Based on the peak hour volume data, peak hour levels of service were evaluated at key intersections using the procedures in the Highway Capacity Manual (HCM) 2000. Level of service (LOS) is described by a letter designation ranging from A to F, with A representing very little delay and F representing congested conditions. The peak hour levels of service are graphically depicted in Figure 9. As shown, most turn movements at major intersections currently operate at LOS D or better during the peak hours. The only area in Evans where turn movements experience LOS F conditions is along 23rd Avenue. For example, left turning movements to 23rd Avenue and movements across 23rd Avenue at 32nd and 34th Avenues currently operate at LOS F. The only other turn movement experiencing LOS F conditions is the southbound left turn movement from 23rd Avenue to 37th Street.

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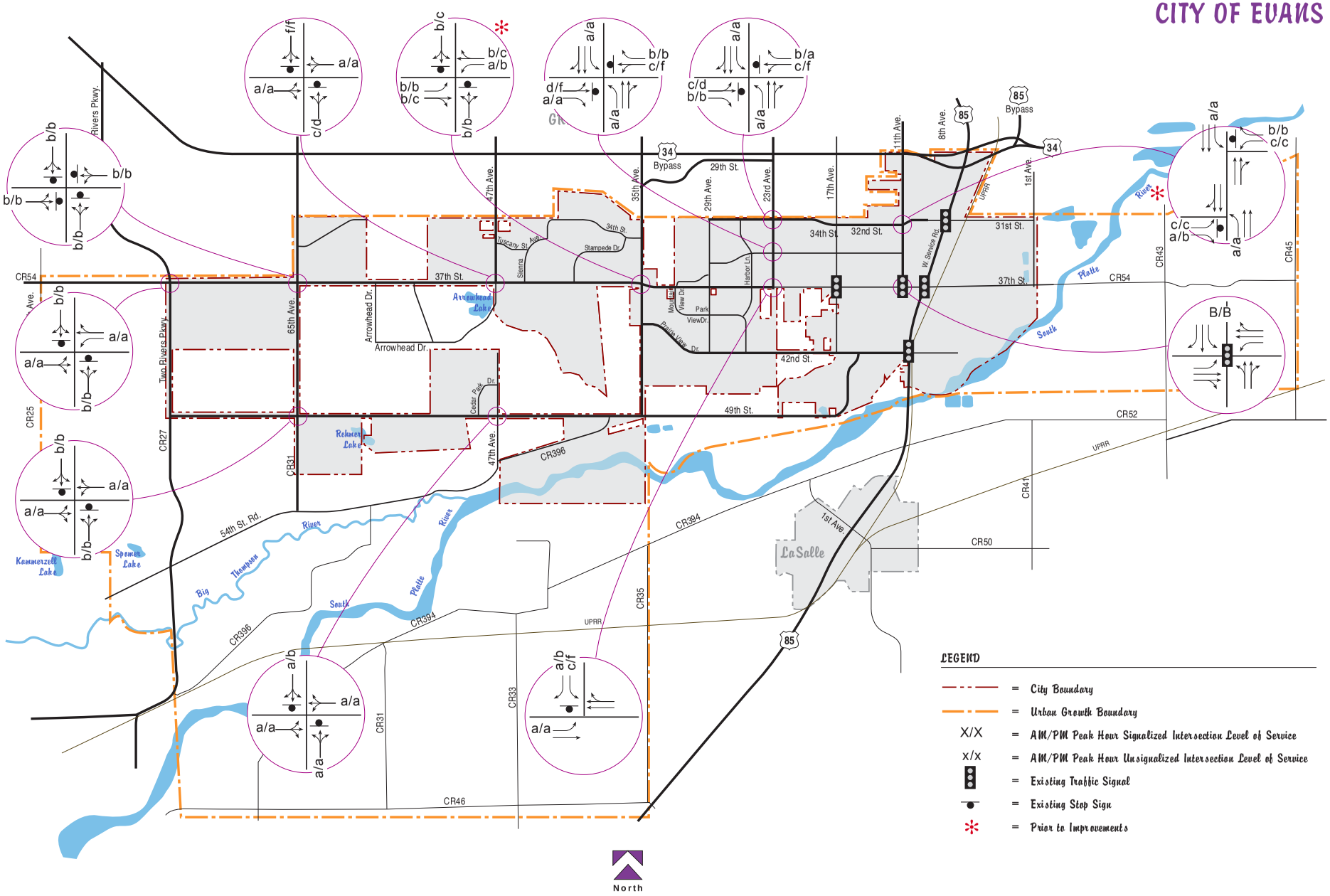

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Figure 9

PEAK HOUR LEVEL OF SERVICE

D. Railroad Crossings

The City of Evans currently has four railroad/street at-grade crossings with the Union Pacific Railroad (UPRR). These crossing locations, shown in Figure 10, are all east of US 85 on 31st, 37th, 39th and 42nd Street. The crossing on 42nd Street is close to US 85 and requires the preemption of the traffic signal on US 85. In addition to creating delay to vehicular travel during train crossings, the railroad itself creates a barrier to travel from east to west.

Table 5. Railroad Crossings

Location	Average Daily Vehicular Traffic	Average Daily Train Traffic	Traffic Control
31st St. and UPRR	1800	20 per day	Crossing Gates
37th St. and UPRR	3900	20 per day	Crossing Gates
39th St. and UPRR	500	20 per day	Lights/Signal
42nd St. and UPRR	3800	20 per day	Crossing Gates

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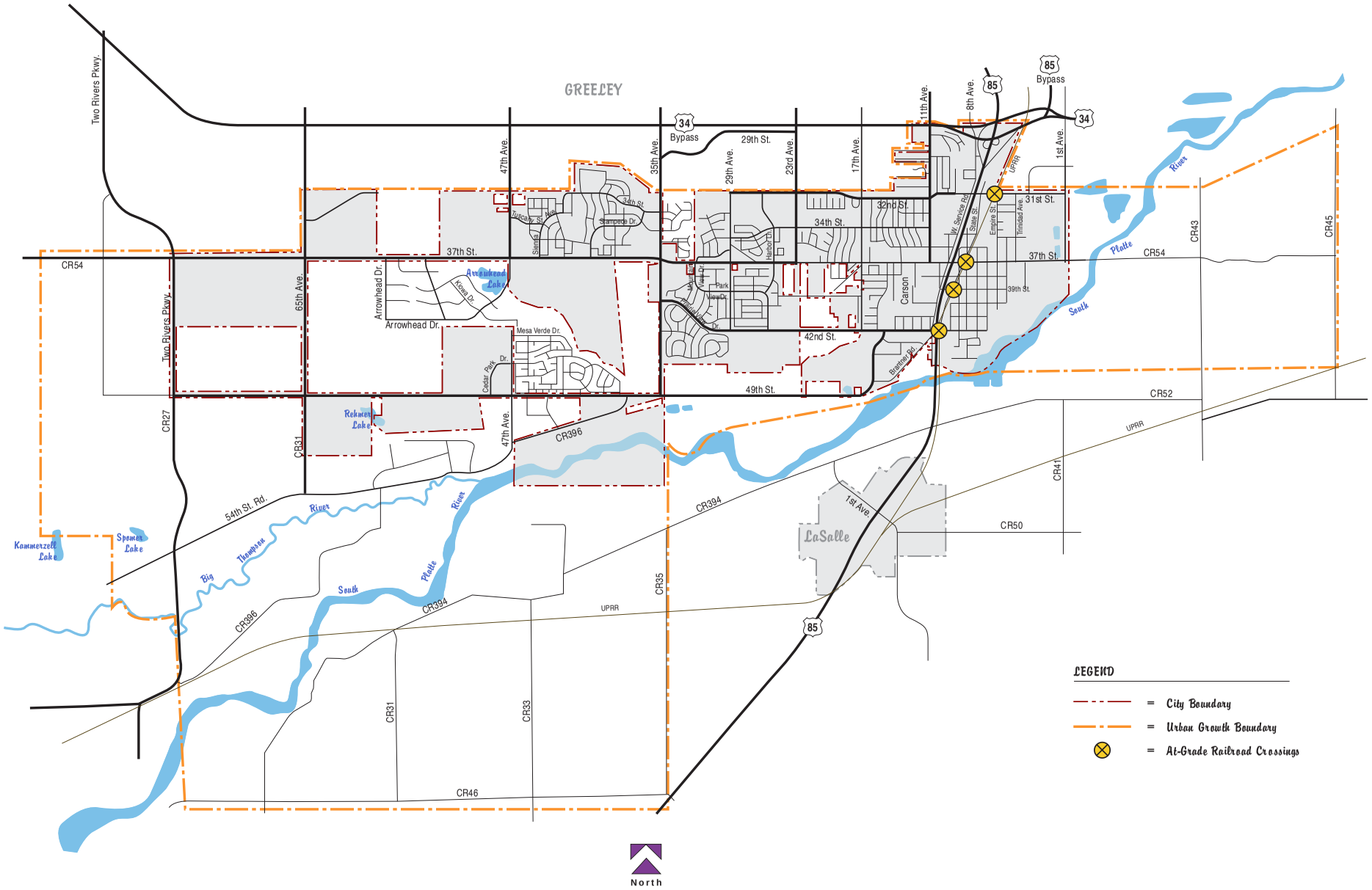

Figure 10

EXISTING RAILROAD CROSSINGS

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E. Accident History

City of Evans accident data by intersection were obtained for the period between 1999 and 2002. These data were compiled by the total number of accidents at each intersection, but the data do not provide any information on the types of accidents or the direction of travel. A summary of these accident data for the top ten locations based on accidents rates is provided in Figure 11. Excluding US 85, the highest accident location within the City of Evans is along 11th Avenue where 31st and 32nd Streets intersect 11th Avenue in close proximity to each other. The City improved this intersection in 2003. The intersection of 11th Avenue and 37th Street was recently signalized. It is important to note that the top ten accident rate locations may not have higher-than-average accident rates when compared with other cities with similar streets.

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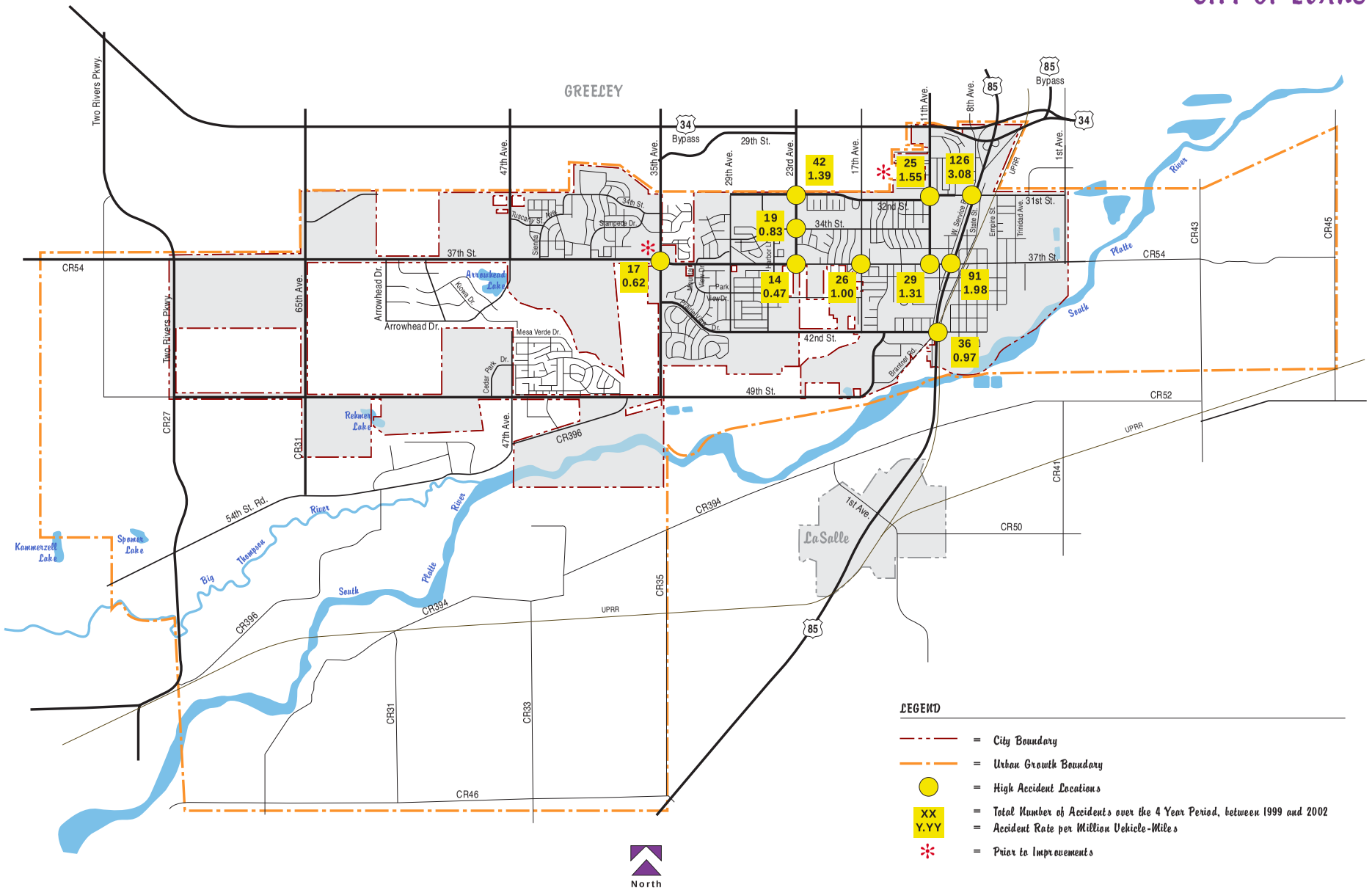

LEGEND

- = City Boundary
- = Urban Growth Boundary
- = High Accident Locations
- XX = Total Number of Accidents over the 4 Year Period, between 1999 and 2002
- Y.YY = Accident Rate per Million Vehicle-Miles
- ✻ = Prior to Improvements

Figure 11

HIGH ACCIDENT LOCATIONS (1999 - 2002)

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