CHAPTER 6

Railroad Service started in River Falls on October 26, 1878 and ended on February 19, 1966.

TRANSPORTATION

Providing a safe and efficient transportation system is essential to promoting sound economic and social growth for a community. As the City of River Falls continues to accommodate a growing population base, transportation system improvements are needed to ensure that both mobility and safety requirements are met. The purpose of this chapter is to guide public policy in regard to the evolution of the overall transportation system, and specifically recommend objectives and actions that are consistent with the land use and urban design components of the Comprehensive Plan.

The automobile is the primary transportation mode in River Falls. Therefore, actions recommended in regard to the road system are the most prominent and influential components of the overall Transportation Plan.

However, this chapter does not focus solely on the automobile as a mode of transportation. Other modes of transportation are important due in part to the UW-RF and River Falls School District student populations within the City. River Falls is generally a compact community that can facilitate walking, bicycling, and other modes of transportation. Through planning, the needs of the automobile can be met while accommodating the needs of alternative modes of transportation. The modes of transportation do not need to compete against one another but can co-exist and create a more livable, thriving community for all residents to enjoy.

This chapter provides policies and standards for a multimodal transportation system (automobile, public transit, pedestrian, and bicycle) that attempts to reduce the dependency on automobile transportation.

THEMES

- **Character.** Maintain and respect River Falls' unique personality, sense of place, and character.
- **Community-Oriented Development.** Maintain and foster an urban fabric that promotes vehicular/pedestrian circulation, parks, conservation/open space areas, and neighborhood services.
- **Urban Form.** Promote a compact urban form that encourages sensitive/compatible infill development.
- **Mixed Use.** Provide a mix of land uses and housing densities and types throughout the City.
- **Community-Oriented Downtown.** Enhance and maintain community activities in the downtown area.
- **Transportation Alternatives.** Maintain and promote alternative modes of transportation.
- **Quality of Life.** Enhance the quality of life of the community and ensure the availability of community services.
- **Intergovernmental Cooperation.** Maintain a cooperative intergovernmental perspective with the towns, counties, and state, and work with private and governmental entities towards that goal.

6.1 TRANSPORTATION

6.1.1 Transportation System Management

Transportation system management refers to measures designed to reduce peak-period traffic by making more efficient use of existing transportation resources and emphasizing ride sharing and non-auto alternatives. It includes public transit, flexible work hours, car and vanpooling, and incentives to increase the use of these alternatives. Such strategies have become increasingly important in the efforts to enhance mobility through efficient use of alternative modes of transportation and to meet federal and state air quality standards. A transportation system management program:

- Is an essential and important element in the continuing effort to achieve acceptable levels of traffic service.
- Can reduce or delay the need for street improvements by making more efficient use of existing facilities.

6.1.2 Transportation Demand Management

Transportation Demand Management is an important component of transportation system management. Transportation Demand Management seeks to provide equitable, multi-modal transportation options, reduce the peak level of demand on the entire transportation system. This can be done by:

- Increasing vehicle occupancy (car/van pools, bus).
- Increasing the use of "smaller footprint" infrastructure (sidewalks and bike paths vs. roadways).
- Spreading the demand for travel over more hours of the day.

Further study should be done to identify transportation demand management strategies that are appropriate for implementation in River Falls.

6.2 STREETS

Providing a safe and efficient street system is essential to promoting sound economic and social growth for a community. Improvements will be made in the coming years to ensure that both mobility and safety needs are met as the City continues to accommodate a growing population base.

6.2.1 Roadway Jurisdiction

Roadway jurisdiction typically defines who is responsible for basic services such as snow removal, general repair, and other typical maintenance of the roadway surface. The City should consider the characteristics and condition of existing roadways within the Urban Area Boundary (UAB). As the urban area develops, roadway improvements will likely be needed to provide the necessary multi-modal transportation choices. Roadways within the UAB generally fall within the following jurisdictional classifications:

Township – In general, roads within the Towns surrounding the City of River Falls that serve local transportation needs are under the Town's jurisdiction. As growth occurs on the fringe of the City, roads currently under township jurisdiction become City streets through annexation.

City – In general, roads within the City of River Falls that serve local transportation needs will be under the City's jurisdiction. The City is currently responsible for maintaining public roadways within the City Limits with the exception of State Highway 35/65 on the east side, which is maintained by Wisconsin Department of Transportation (WisDOT).

Connecting Highway – Connecting highways are local roads such as Cascade Avenue and South Main Street that connect segments of the State Trunk Highway System. Although the City is predominantly responsible for these segments of road, the WisDOT retains some authority, such as approving the installation of signal lights.

County – Several county roads enter the municipal area, with maintenance responsibilities generally being performed by the City within the City limits. As growth occurs on the fringe of the City, roads currently under county jurisdiction are transferred to City jurisdiction through agreements with the county.

State – The WisDOT retains jurisdiction of all State Highways with the exception of those that have been designated as connecting highways. These roads generally serve regional or statewide transportation needs such as the STH 35 By-pass.

Jurisdictional assignments should be based on several factors including:

- Functional classification
- Route continuity and connectivity
- Type of trips using route

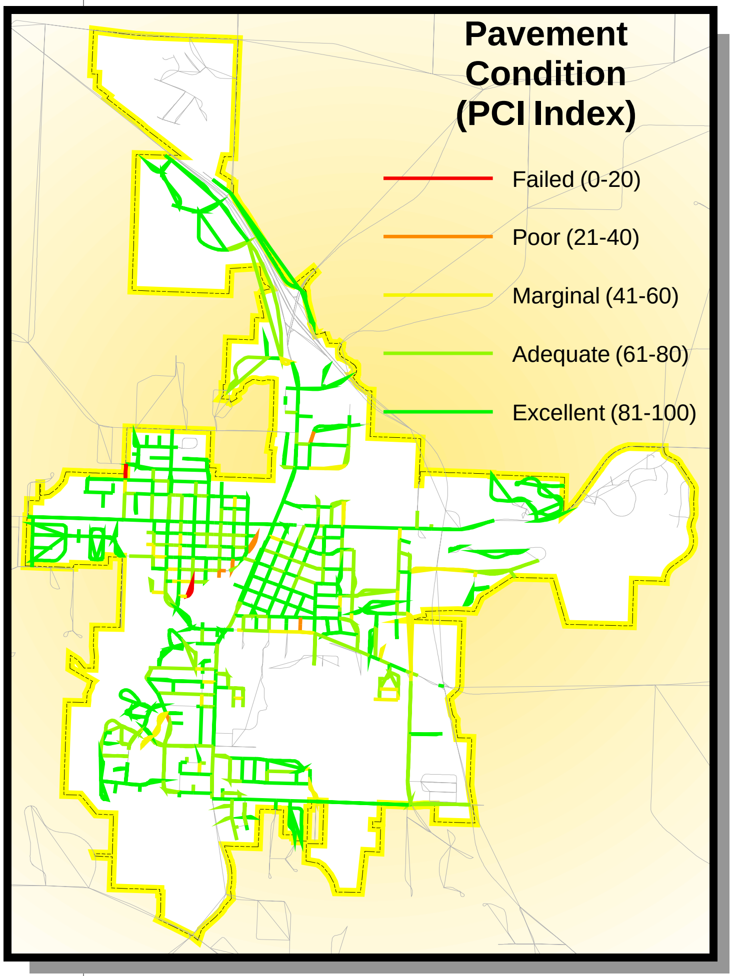
6.2.2 Existing Pavement Conditions - City

In accordance with requirements established by the WisDOT, regular pavement management reports are completed every two years. To complete these reports, the City maintains a pavement management system using the program *MicroP aver*. This program records a pavement rating, date rated, roadway section or location, pavement width, and roadway material. This information is utilized to program timely maintenance that maximizes the life cycle of the roads. The approximate pavement maintenance timeline of public roadways within the City is as follows:

Initial Construction	**0 years**
Crack Sealing	3-5 years
Seal Coating	6-8 years
Crack Sealing	9-11 years
Seal Coating	12-14 years
Mill & Overlay	**20-25 years**
Crack Sealing	28-31 years
Seal Coating	32-34 years
Crack Sealing	35-37 years
Seal Coating	38-40 years
Mill & Overlay	**45-50 years**
Crack Sealing	53-55 years
Seal Coating	56-58 years
Reconstruction	**70 years**

Pavement conditions for the vast majority of public roadways within the City are classified as adequate or excellent as shown in the following figure.

In order to continue to provide an adequate roadway system at a minimal cost and maximum life cycle, funding for maintenance must increase in conjunction with the expanding network of roadways associated with this Plan. Consideration of a Transportation Utility may be prudent to ensure adequate funding for pavement management in the future. A Transportation Utility could charge all property (including tax-exempt properties) within the City on a monthly basis for the cost of transportation services associated with that property.



2005 Pavement Conditions.

6.2.3 Street Functional Classifications

Functional classification is a tool used to categorize roadways according to the service that they are intended to provide and their relationship to surrounding land uses. Travel through an urban area is served by a network functioning in a logical and efficient manner. The functional classification determines the planned role that each individual street should play in moving traffic through the network. Each roadway's role is balanced between providing land access and providing mobility. Four general categories are currently used for defining functional classification:

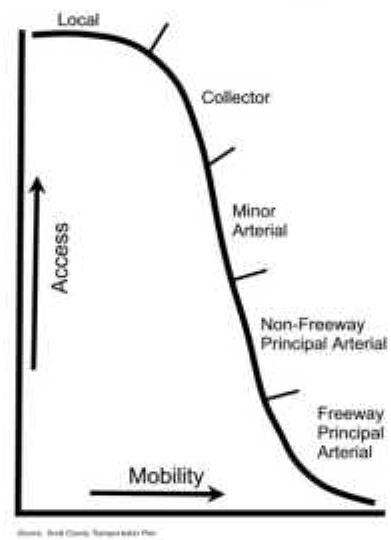


Figure 6-1 Mobility and Access.

- **Principal Arterial.** Serves longer trips within an urban area and to major outside cities. Limited access allowed due to high preference for mobility. Typically roadways with highest traffic volumes.
- **Minor Arterial.** Provides medium to short trips within an urban area. Restricts access and limits curb cuts with moderate traffic volumes. Connects sub-areas of an urban area. Collects and distributes traffic from freeways/highways to minor arterials and collector streets.
- **Collector Street.** Provides access to residential neighborhoods and commercial or industrial centers. Provides low to moderate traffic volumes for inter-neighborhood trips. Serves as connector between local and arterial streets.
- **Local Street.** Serves short trips with direct land access within neighborhoods and other nearby land uses. Low traffic volume roadways that serve the majority of trips within an urban area.

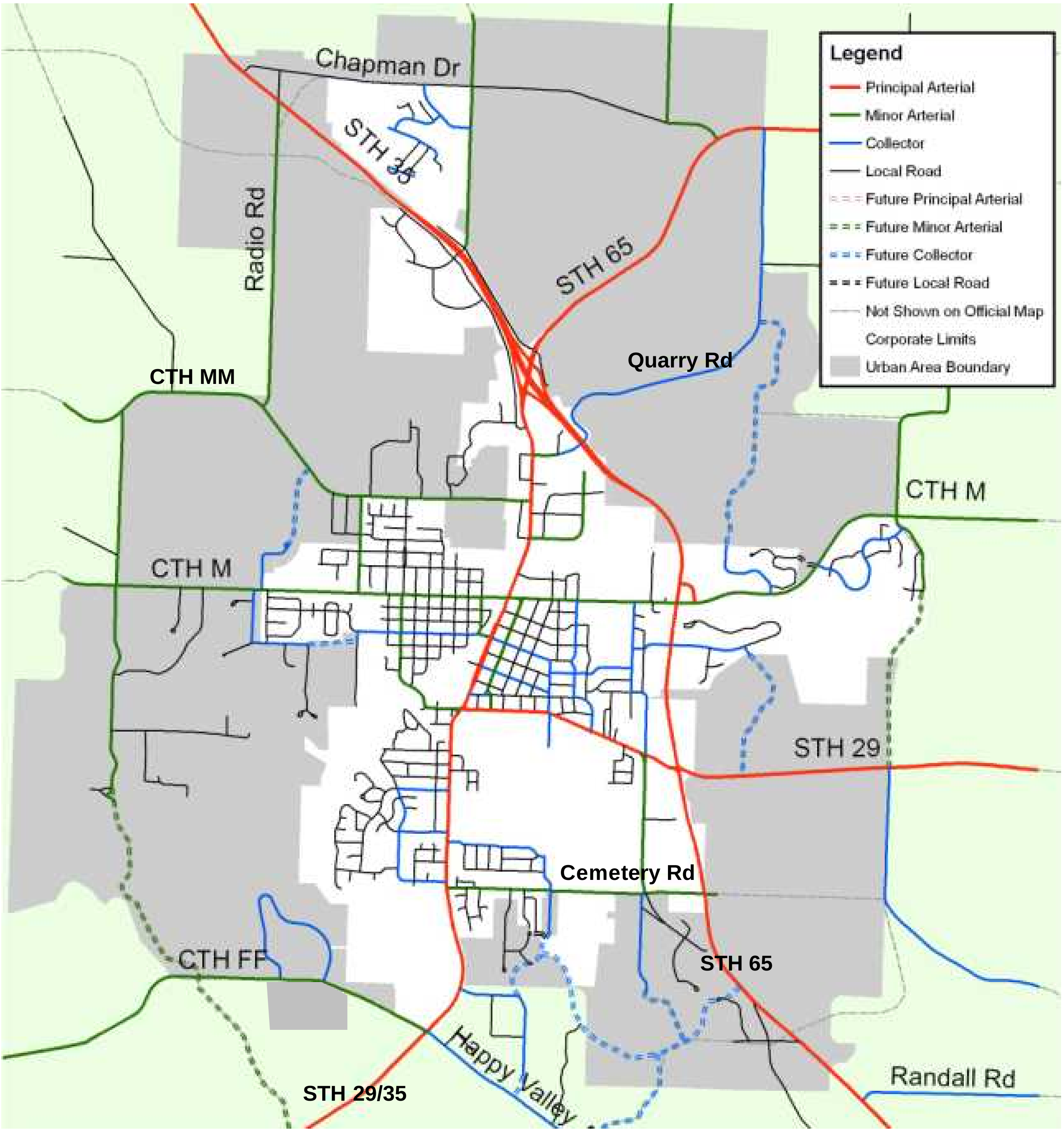


Figure 6-2 Existing Functional Classification - Current Official Map of City of River Falls

6.2.4 Access Management

Access management is a set of techniques that can be used to control access to highways, major arterials, and other roadways. The City should develop access management policies to enhance or maintain the functionality of the roadway system. This is often done by designating an appropriate level of access control for each of a variety of facilities. Local residential roads are allowed full access, while major highways and freeways allow very little. In between are a series of road types that require standards to help ensure the free flow of traffic and minimize crashes, while still allowing access to major businesses and other land uses along a road.

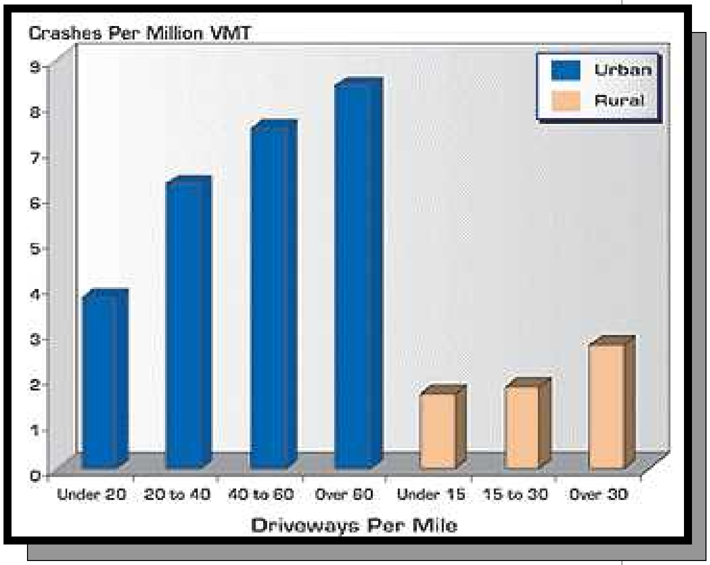
Design standards incorporating the following should be established to increase the capacity of roads, manage congestion, and reduce crashes:

- Increased spacing between signals and interchanges;
- Location, spacing, and design of driveways;
- Use of exclusive turning lanes;
- Median treatments, including two-way left turn lanes (TWLTL) that allow turn movements in multiple directions from a center lane and raised medians that prevent movements across a roadway; and
- Use of service and frontage roads.

Driveway Spacing - Appropriate driveway spacing presents another major access issue. Fewer driveways spaced further apart allow for more orderly merging of traffic and present fewer challenges to drivers, and reduce potential conflicts on the road. A high number of access points causes congestion to increase significantly. It is impossible for a major arterial or highway to maintain free-flow speeds with numerous access points that add slow-moving vehicles. An overabundance of driveways also increases the rate of car crashes. An examination of crash data in seven states found a strong linear relationship between the number of crashes and the number of driveways. Rural areas had a similar, but less strong relationship. Proper planning of driveways should consider the land use being served, property configuration, and peak hour trips.

Intersection Spacing – The importance of intersection spacing is similar to that of driveway spacing. As the number of intersections per mile increase, the opportunity for crashes increase. The existence of too many intersections per mile also increases delay and congestion; while not providing an adequately dense street network forces motorists, bicyclists, and pedestrians to travel farther to their destinations.

Signal Spacing - Increasing the distance between traffic signals improves the flow of traffic on major arterials, reduces congestion, and improves air quality for heavily traveled corridors. The appropriate spacing between signals for a particular corridor depends greatly upon the speed and flow of traffic, but anything greater than two signals per mile has a significant impact on congestion and safety. Improved speeds and travel times translate directly into environmental benefits. Increasing the distance between signals also reduces the incidence of crashes.



Access Management and Crash Rates. (Source:FHWA)

6.2.5 Volume Thresholds

Volume thresholds for roadways are classified so that they can be used to identify possible existing deficiencies or future improvements. The classified capacities are intended to estimate the maximum amount of traffic that can be accommodated by a facility. Classifications are divided into urban and rural sections. Urban sections are characterized by a cross-section that typically provides for multi-modal transportation options within an area developing under urban densities. Rural sections are characterized by cross-sections that typically provide for automobile transportation in rural areas. Thresholds are stated in Average Daily Trips (ADT).

Table 6.1 Potential Guidelines for Functional Classifications.

Functional Class	ADT	Lanes	Turn Lanes	Intersection Spacing	Right In/Out Spacing	Signal Spacing	Speed	On-Street Parking	Pedestrian Facilities	Bicycle Facilities
Principal Arterial	12,000–36,000	4	Left Right	2640’ (1/2 mile)	1320’	2640’	40-45	None	Both Sides	Off Road
Minor Arterial	8,000-18,000	2-4	Left Right	1320’ (1/4 mile)	660’	2640’ Preferred, 1320’ Min.	30-35	None	Both Sides	Off Road or Lanes
Collector	1,500-10,000	2	Left	660’ (1/8 mile)	N/A	1320’	25-30	1 or 2	Both Sides	Lanes or Shared
Local Residential	200-2,000	Shared	N/A	330’ Preferred, 150’ Min.	N/A	N/A	20-25	1 or 2	Both Sides	Shared
Local Residential Below 1.5 DU/Acre	100-1,000	Shared	N/A	330’ Preferred, 150’ Min.	N/A	N/A	20-25	1 or 2	One Side	Shared

Table 6.2 Urban–Volume Thresholds

Code	Description	ADT
U-1	Two-lane at-grade local urban street at 25 mph	8,000
U-2	Two-lane at-grade local arterial street at 25 mph	10,000
U-3	Two-lane at-grade with left-turn lanes/three lanes at 25-35 mph	16,000
U-3a	Two-lane at-grade with left-turn lanes/three lanes and access management/control at 35-45 mph	20,000
U-4	Four-lane at-grade with left-turn lanes at 25 mph	24,000
U-5	Four-lane beltline at-grade with left turn lanes and access management/control at 55 mph	36,000

Table 6.3 Rural–Volume Thresholds

Code	Description	ADT
R-1	Two-lane reduced speed and capacity at 35 mph	8,000
R-1c:	Two-lane County Highway at 45-55 mph	10,000
R-1s:	Two-lane State Highway with gravel shoulders and turn lanes at major intersections, 55 mph	14,000
R-1a	Two-lane with turn lanes and access management at 45-55 mph	24,000
R-2	Four-lane expressway at 45-55 mph	45,000
R-3	Four-lane grade separated at 55-65 mph	60,000

Many factors can affect roadway volume thresholds. These factors include volume distribution by time and direction, the type of traffic (truck versus automobile), operating speeds and number of access points. Based on these factors, daily capacity can fluctuate from 80% to 120% of the threshold shown.

6.2.6 Level of Service and Volume to Capacity Ratios

The standard measures of traffic flow are Level of Service (LOS) and Volume to Capacity (V/C). Traffic LOS is a level for intersections and roadway segments that is characterized by examining peak-period operations. LOS is classified by a letter grade that describes the quality of flow, ranging from the best conditions (LOS A) through extreme congestion associated with over-capacity conditions (LOS F).

Table 6.4 Traffic Level of Service

LOS	Traffic Flow Conditions	Max. V/C
A	Free-flow: speed is controlled by driver's desires, stipulated speed limits, or physical roadway conditions.	0.6
B	Stable flow: operating speeds beginning to be restricted; little or no restriction on maneuverability from other vehicles.	0.7
C	Stable flow: speeds and maneuverability more closely restricted; occasional backups behind left-turning vehicles at intersections.	0.8
D	Approaching unstable flow: tolerable speeds can be maintained but temporary restrictions may cause extensive delays; little freedom to maneuver; comfort and convenience low; at intersections motorists especially those making left turns may have to wait one or more signal changes.	0.9
E	Approaching capacity: unstable flow with stoppages of momentary duration; maneuverability severely limited.	1.0
F	Forced flows: stoppages for long periods; low operating speeds, and delays at intersections average 60 seconds or more.	>1.0

The volume-to-capacity (V/C) ratio is an index that can be used to evaluate when a roadway will become over capacity. Roads generally operate poorly at or near capacity, and roads are rarely designed to operate in this range. The V/C ratio is intended to estimate the maximum amount of traffic that can be accommodated by a facility while maintaining desired operational qualities. V/C ratios below .85 allow for good flow, reliable speeds, and safe operating conditions. A V/C ratio above .85 indicates a progressively congested roadway, with increasing safety problems, delays and operational deficiencies.

6.2.7 High-Crash Locations

River Falls receives crash data from WisDOT on a regular basis and maintains an inventory of crash locations within the City. As part of this Plan, crash data was analyzed from 1999 through 2004, with a total of 1,563 crashes occurring in the City. Crash data is useful in determining the cause of crashes and a subsequent evaluation can be completed to reduce crashes from occurring. Angle and rear-end crashes commonly occurred during the last 6 years. Angle crashes are one of the more severe crash types and involve more than one vehicle. Rear-end crashes are often a result of signalized intersections or poor geometric alignments. Additional analysis based on the locations of crashes is needed to make a further determination of the exact cause. Table 6.5 shows crashes by diagram type and severity.

The WisDOT administers a Hazard Elimination Safety (HES) Project that can be used to fund up to 90% of improvements at high accident locations. This program has been used recently for:

- Intersection improvements at the STH 29/35/65 intersection.
- Installation of a signal light on South Main Street at Foster Street.
- Reconfiguration of South Main Street into a three-lane roadway.

Accident data should be checked annually to determine if a particular location is an appropriate candidate for an HES Grant. In order to qualify:

- There must be a crash history at the proposed location. Generally 3 or 4 calendar years of data is used.
- An improvement must be proposed that would have corrected a significant number of those previous crashes.

- A cost estimate of such improvement must be provided.
- The benefits gained by anticipated crash reduction must offset the cost of the improvement.

The City of River Falls had three fatal crashes during the 1999-2004 period. The 1999 fatal crash occurred at the intersection of State Highway 35 and State Highway 29. Traffic signals with medians and turn lanes have since been installed at this location. Future plans include construction of an interchange at this location, which should result in fewer and less severe crashes. The 2001 fatal accident occurred at State Highway 35 and County Trunk Highway U. This intersection is slated for closure upon completion of a grade-separated interchange at State Highway 35 and Radio Road. The 2004 fatal accident occurred on private property at the River Falls Golf Club.

A significant contributor to the reduction in accidents from 2001 to 2002 was the conversion of Main Street from a four-lane roadway to a three-lane roadway from Division Street to Paulson Road. Pre- and post-reconfiguration studies performed by City staff indicate that only 15 accidents occurred in the year after this road was converted to three lanes compared to an average of 42 accidents per year during the three previous years. This demonstrates the importance of providing for left turning movements on arterial streets.

Table 6.5 Crash Diagram Type by Year.

Year	Crash Type - Crash Diagram Type by Year					Crash Severity			Total
	Angle	Rear End	Side-swipe	Head On	Other*	Fatality	Injury	Property Damage	
99	75	45	33	7	64	1	58	165	**224**
00	83	63	43	6	76	0	56	215	**271**
01	100	58	40	10	79	1	54	232	**287**
02	72	62	33	5	57	0	54	175	**229**
03	75	73	27	7	76	0	42	216	**258**
04	65	68	23	3	135	1	63	230	**294**
Totals	**470**	**369**	**199**	**38**	**487**	**3**	**327**	**1233**	**1563**

**Other crash types included rear -to-rear, fixed objects, and unknown causes.*

6.2.8 Travel Forecast Model

In conjunction with development of this Comprehensive Plan, a transportation forecast model is being developed in order to help identify possible existing deficiencies and future improvements that may be necessary as this Comprehensive Plan is realized. Travel forecast modeling assumes that travel demand is a response to the pattern of land use activity in a city or surrounding region. The modeling process uses existing and forecast land use and demographics as model input. Through daily activity, the people who live, visit, shop, and work in and around River Falls generate the traffic that the model assigns to the circulation system.

Volume to Capacity ratios will be determined using the model for the following scenarios:

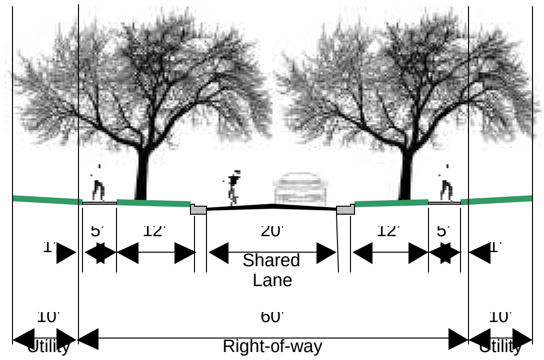
Existing Conditions – Existing land uses and the volume threshold classifications of existing roadways will be utilized for this scenario. This analysis will show possible existing deficiencies within the modeled network.

Future Build-Out/Existing Roads – Future land use within the UAB and volume threshold classifications of existing roadways will be utilized for this scenario. This scenario should include projected 20-year increases in traffic due to growth outside of the UAB. This analysis will show the possible deficiencies that could exist upon full build-out of the future land uses proposed in this plan.

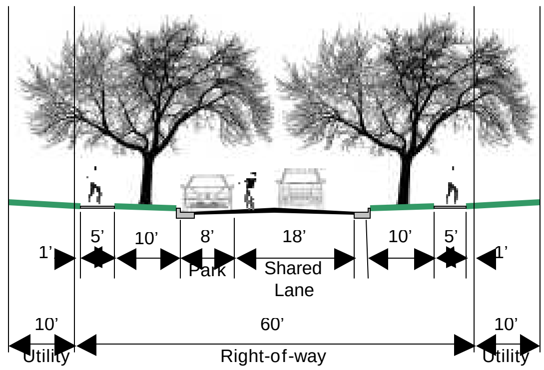
Future Build-Out – Future land use within the UAB and future volume threshold classifications will be utilized for this scenario. This scenario should include projected 20-year increases in traffic due to growth outside of the UAB. This analysis will show the possible volume threshold classifications that should be planned for in order to adequately accommodate full build out of the future land uses proposed in this plan.

6.2.9 Roadway Design

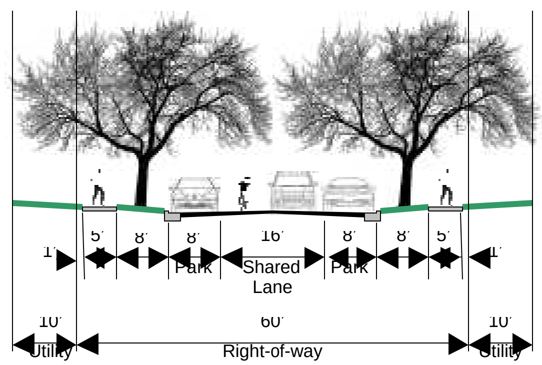
Roadway design is closely tied to the function the road serves in the overall system. Travel-lane widths, the width of road shoulders, the inclusion of sidewalks and bicycle lanes, and the overall nature of the roadway all impact the traveling public by affecting speeds and the volume of traffic that the road may carry. Many streets in the developed downtown area have a historic character, and their purpose or function is clearly defined. Many roads in the developing urban area of the City may transition into different functions as land development occurs. At a minimum, rural roads that are brought into the City by the development process should be upgraded to urban roadways. Minimum roadway widths are not codified. The City does maintain typical design standards for new local roadway widths as shown in Figure 6-3.



No Parking
(24' Curb – Curb)



Parking One Side
(28' Curb – Curb)



Parking Both Sides
(32' Curb – Curb)

Figure 6 -3 Current Local Street Standards

Current City Code establishes a minimum right-of-way width and minimum radius of curvature for roadways as shown in Table 6.6. Local streets should be designed to serve the needs of the neighborhoods. Roads that are unnecessarily wide are costly both to build and maintain, and may create a less safe environment for residents. Excessively wide streets tend to move traffic rather than control it, which encourages speeding, and creates hazards. Narrow, curved streets discourage speeding. Over design of roads and walks may result in undesirable environmental defects: more cuts and fills, more runoff, and diminished groundwater supply. Planning and design of residential streets should clearly indicate the functions.

Table 6.6 Roadway Rights-of-Way and Minimum Radius of Curvature.

Street Type	Right-of-Way (Min. width)	Minimum Radius of Curvature
Cul-de-sacs with restricted parking (also loop streets not exceeding 1500' with restricted parking)	50'	100'
Local (provides access to individual lots)	60'	100'
Collector (collects traffic from minor streets)	66'	180'
Minor Arterial (carries traffic from collectors to arterials)	80'	230'
Principal Arterial	100'	300'

6.2.10 Street Network

The community street network is primarily made up of two-lane local streets. As of 2000, the City services approximately 48 miles of streets. The City, over the past few years, has reduced the number of streets with loops or cul-de-sacs through planning standards and working with developers. There is a need for more through streets and fewer cul-de-sacs.

The lack of a continuous street system and growth has resulted in increased use along arterials, such as Main Street, Division Street, and Cascade Avenue.

The City is attempting to reduce vehicular access points to Main Street and provide additional traffic signals at major intersections. The reduction of vehicular access points will assist in providing the needed signalization to ease traffic congestion and offer increased safety throughout the Main Street corridor.

Street grids within residential and commercial neighborhoods (intersections every 300 to 500 feet) make bicycling and walking easy and convenient. Yet local and collector residential streets should have limited continuity to discourage through traffic and high speeds. Since a limited number of streets internal to a neighborhood should intersect with the surrounding arterials (i.e. residential collectors) the street grid pattern must be broken near the edges of the neighborhood.

Streets should be designed to limit meandering and minimize unnecessary vehicle, bicycle and pedestrian mileage. This will also encourage walking and bicycling for short trips. However, this does not mean that: 1) all streets need to be straight, as streets should be designed in context to the terrain, natural and built features of the area; or 2) that residential streets should be long (continuous).

6.2.11 Wisconsin State Highway Plan 2020

The Wisconsin State Highway Plans focus is on the 11,900 miles of State Trunk Highway routes. It accounts for only 11% of the state's total roadway mileage but carries 60% of all traffic. This plan identifies the Corridors 2020 System, which is designed to carry high volumes of auto and heavy truck traffic. State Trunk Highway 35 from River Falls to Hudson is designated in the plan as a Corridors 2020 Collector Route. The WisDOT is currently in the process of adopting a freeway designation for this section of road. As lands are re-developed or as direct access becomes a safety hazard, at-grade public intersections will be reconstructed or removed. The existing private driveways will be removed from STH 35 and alternate access will be provided to the public road system or the property will be acquired and the access to STH 35 will be eliminated. As part of this process, preliminary plans have been prepared for an interchange to be built at STH 35/Chapman Drive/Radio Road though the improvement has not been included in the State's Six- Year Highway Improvement Program.

6.2.12 Wisconsin 2004- 2009 Six-Year Highway Improvement Program

The Wisconsin 2004-2009 Six-Year Highway Improvement Program identifies the following planned projects within the planning boundary area:

- STH 29 From US 10 (Prescott) to Cemetery Road (River Falls) - Diamond grinding the existing concrete pavement to provide for a safer and smoother riding surface is scheduled to happen between 2007 and 2009.
- STH 65 from STH 35 (River Falls) to US 12 (Roberts) - Resurface existing roadway with new asphaltic pavement is scheduled to happen between 2007 and 2009.

Although not yet part of the State's Six Year Highway Improvement Program, preliminary discussions and planning involving the City and WisDOT have taken place regarding the following:

- Extending STH 35/29 as a four-lane facility south to Division Street and Cascade Avenue.
- Construction of a second "jug handle" at the intersection of STH 35/65 and County Trunk Highway M to eliminate an existing un-signalized cross-traffic turning movements.
- Construction of an interchange at the intersection of STH 35/65 and Cascade Avenue to eliminate the current signalized at-grade intersection.

6.2.13 City Capital Improvement Program

Each year, the City prepares a Capital Improvement Program (CIP) that attempts to program capital improvement projects over the upcoming 5-year period. The most current CIP is for 2005-2009 and includes the following transportation related improvements:

- Maple Street Bridge Rehabilitation
- Wasson Lane Bridge Reconstruction
- Traffic Control Signals on South Main Street at Cemetery Road
- Cascade Avenue Repaving
- Wasson Lane Reconstruction
- Industrial Park Entrance Road from Quarry Road
- Traffic Control Signal on Cemetery Road at High School
- Radio Road Interchange
- East Division Street from Yellowstone Drive to Liberty Road
- CTH U from STH35 to Chapman

6.2.14 Other Transportation Issues

A number of major transportation issues were identified through analysis, public comment and observation in preparing this Comprehensive Plan. As discussed in Section 6.2.8, a transportation forecast model is being developed in conjunction with this plan that will help to better understand these issues and plan accordingly. Some of the major transportation issues that need to be studied include:

Southwest River Crossing – The Official Map has included a future road crossing the Kinnickinnic River "Canyon" southwest of the city for quite some time. The need for this bridge should be analyzed under the future land use assumptions of this plan to determine if it can be removed from the Official Map.

Southeast Interchange and Connection – The future land use map suggests an east-west connection between STH 29 and STH 65 south of the city. Also included is a southeast interchange location. The need for this interchange and connector should be analyzed under the future land use assumptions of this plan to determine if it should be added to the Official Map.

Main Street - Historically, Main Street has generally served as the predominant north-south travel route through the City. Construction of the STH 35 bypass has introduced an alternative north-south route. Studies should evaluate the future role of Main Street and STH 35 in handling north-south traffic generated from future growth. Key questions to address include whether Main Street should be designed to accommodate cut through traffic or should cut through traffic be directed to STH 35.

Cemetery Road/STH 65 – WisDOT has proposed closing this access point in conjunction with construction of a grade-separated interchange at STH 29/35/65. Land use assumptions in this Plan should be used to analyze transportation patterns and determine an appropriate long-range strategy for this intersection. Some strategies to consider include signals, grade separation with no access, or cul-de-sac type closure. This issue interrelates with the Southeast Interchange issue noted above.

6.3 PUBLIC TRANSIT

Encourage convenient and acceptable public transit options will reduce the number of single-occupancy vehicle commuting trips and result in a decrease in average trip length and overall vehicle miles traveled.

6.3.1 River Falls Taxi

The City of River Falls has received State and Federal grant dollars to help fund a shared-ride taxi program. This taxi service is open to anyone, and covers the area within the City of River Falls as well as five miles outside the city limits. Consideration should be given to expanding the taxi service territory to allow residents to connect to other public transit service.

6.3.2 Regional Park-and-Ride

A majority of residents are employed outside the City. Their primary mode of travel is single-occupancy vehicles. A study is needed to find ways to increase the use of higher-occupancy vehicles, such as van pools and express bus service operating from park-and-ride lots, to service commuters traveling to their destinations. There are park-and-ride lots located north of River Falls along State Highway 65 that provide the opportunity for a park-and-ride program.

6.3.3 Bus Service

The City of River Falls is not served by any form of commuter bus service. The nearest point to which the Metropolitan Council's Metro Transit bus service currently provides service is in Woodbury, Minnesota, approximately 25 miles from River Falls. Greyhound provides limited commercial bus service between Eau Claire, Wisconsin and St. Paul, Minnesota. Airport Passenger Service of Eau Claire, Wisconsin, provides eighteen scheduled trips between Eau Claire and the Minneapolis Airport and V.A. Hospital. This service stops in Menomonie, Baldwin, and Hudson.

In addition, no local bus service exists in the City of River Falls. The University of Wisconsin – River Falls ran a shuttle bus service from October 2001 through May 2002. This shuttle provided service on Cascade Avenue and South Main Street in an attempt to get students to utilize available parking at Ramer Field. Cost was $50,006 for that time period or about $1970 for each full week. $8500 was funded by the Student Senate and $1361 in revenue was generated from the users. The rest was funded by the campus-parking program. Due to cost and lack of ridership, the University did not reinstate this service in the following fall for the 2002-2003 school year.

6.3.4 Commuter Vanpools

The Metropolitan Council's Metro Commuter Services does provide opportunities for vanpools serving River Falls. VPSI Commuter Vanpools are subsidized by Metro Commuter Services as part of their Van-Go! Program. The Van-Go! Program is specifically for those commuting on a route with limited or no transit service. VPSI also participates in vanpools outside of the Van-Go! Program area. There are currently two commuter vanpools originating out of the River Falls area and many others originating out of Hudson and other nearby western Wisconsin communities. Some of the benefits of vanpools include:

- No cost to drivers.
- Passengers can relax, sleep or read on their way to work.
- Free or reduced rate parking is provided in specific areas of Downtown Minneapolis and St. Paul.
- Many employers offer special parking spaces for carpools and vanpools.

6.3.5 Transit Corridor Functional Classification

In planning for the future, it is important to promote and reinforce the need for multi-modal transit hubs and transit corridors in new development. Such planning could promote high-frequency inter-city transit service and regional transit between River Falls and the Twin City Metropolitan area of Minnesota. Consideration should be given to creating a Functional Classification on the Official Map for Transit Corridors. The following guidelines should be considered within Transit Corridors to create environments that make walking, biking, and transit use more viable alternatives while still accommodating auto traffic:

- Orient buildings toward the street with short setbacks and parking behind or on the side of buildings.
- Cluster buildings along the street within convenient walking distance of one another.
- Design pedestrian-oriented buildings by ensuring that ground floor space faces the street, street-level retail is included in appropriate areas, structures are built to lot lines, and building fronts are made permeable by the placement of windows and doors.
- Encourage a mixture of uses among and within buildings.
- Eliminate minimum parking requirements that result in dedicating large areas of surface parking. Promote shared parking agreements between uses that require parking at different times of the day and days of the week (e.g. office and entertainment uses).
- Provide streets with wider sidewalks (e.g., 8 to 12 foot minimums), street trees, pedestrian-scale lighting fixtures, planters, pedestrian-scale signage, and street furniture.
- Buffer sidewalks from parking lots with landscaping, fencing, etc.
- Create transit bays within street right-of-way and transit shelters placed in high activity locations.

6.4 BICYCLE AND PEDESTRIAN CIRCULATION

Bicycling and walking will probably never completely replace the need for motor vehicles. However, in relatively compact cities like River Falls, non-motorized modes of transportation are beneficial transportation alternatives for much of the year. Sidewalks, trails, and other linkages need to be made available to enable safe, efficient travel for alternative forms of transportation. Enhancing people's ability to safely and effectively bike or walk throughout River Falls will help preserve the community's unique character. Furthermore, increasing non-motorized transportation opportunities will benefit River Falls by providing healthy, non -polluting and cost effective travel options.

6.4.1 Bicycle and Pedestrian Accidents

River Falls receives crash data from the WisDOT on a regular basis and maintains an inventory of crash locations within the City.

Table 6.7 Pedestrian & Bike Accidents

Year	Pedestrian		Bicycle	
	Acc.	Inj.	Acc.	Inj.
1999	2	2	4	4
2000	8	8	6	6
2001	6	6	2	1
2002	8	8	3	3
2003	5	5	3	3
2004	6	7	2	2
Total	**35**	**36**	**20**	**16**

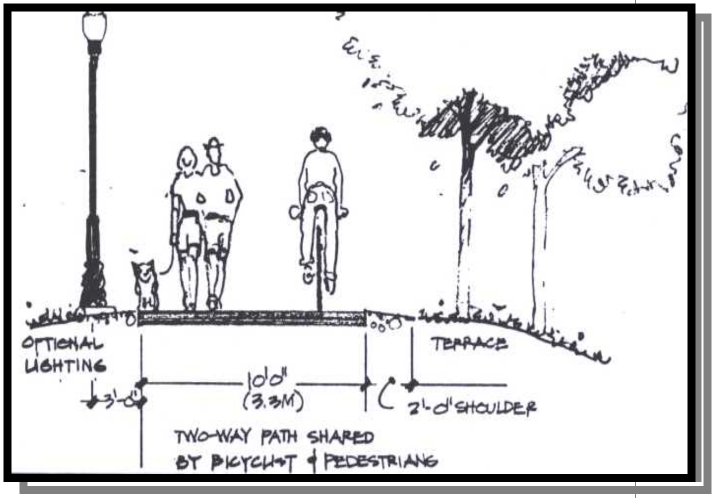
As part of this Plan, crash data was analyzed from 1999 through 2004, with a total of 35 pedestrian and 20 bicycle accidents occurring in the City as shown in Table 6.8.

6.4.2 Bicycle and Pedestrian Plan.

The City of River Falls developed a Bicycle and Pedestrian Plan in 1995. The overall goal of the plan was to recommend facilities and policies that would encourage increased levels of bicycling and walking while creating a safe, comfortable environment for existing users. Some of the specific objectives designed to accomplish this goal included:

- Create a bicycle transportation system accessible within a two minutes ride of all urban residences and make the pedestrian system directly accessible (one or both sides of all city streets) to all residences.
- Focus the development of facilities on schools, the downtown area, other commercial areas, transportation nodes, and the University.
- Design an off-street, grade/automobile-separated, bicycle and pedestrian system integrated into the overall transportation system.
- Recommend bicycle and pedestrian support facilities at transportation nodes, schools and businesses.
- Integrate the plan with adjoining towns and counties.
- Recommend community policies such as minimum road width standards and options to accommodate bicyclists on all streets.

This plan has been used as a guide for developing off-road and on-road alternative transportation routes that connect new development to major destinations within the City. The 1995 Plan should be updated by integrating existing bicycle and pedestrian facilities. Planning and design considerations should be explored to identify and recommend additional corridors for bicycles and pedestrian ways.



Bicycle and Pedestrian Circulation.

6.4.3 Types of Bicycle Facilities

There are many ways in which roadways can be constructed or improved to enhance bicycle transportation. Paved shoulder bikeways are commonly used on rural highways. In urban areas, a portion of the roadway can be designated as a bike lane for the preferential use of bicycles. Wide curb lanes that allow bicycle traffic to share the traffic lane may be necessary especially where improvements are made to existing urban routes. Bikeways designated to follow a high volume arterial should be located as far as practicable from the roadway on a separate bike path.

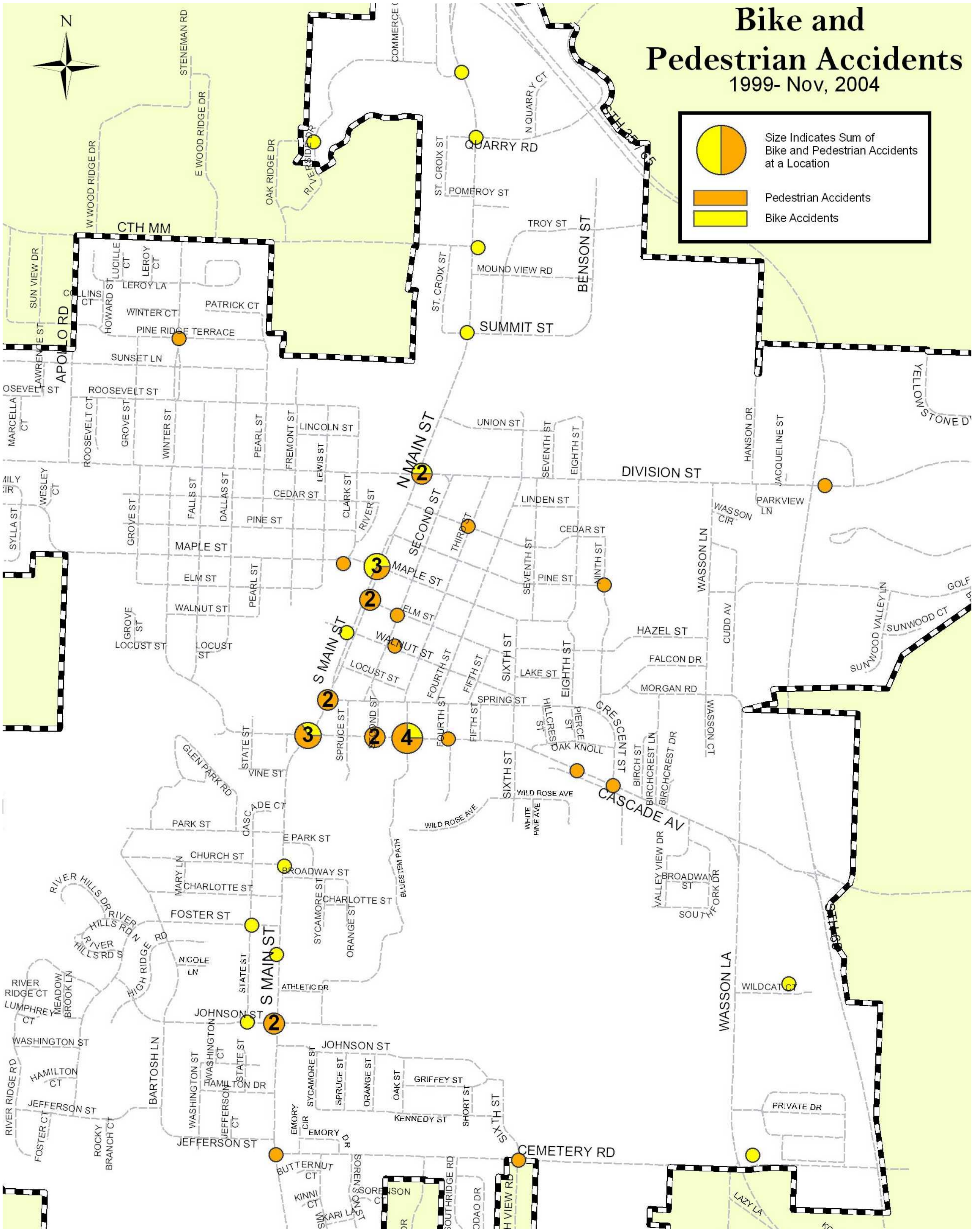
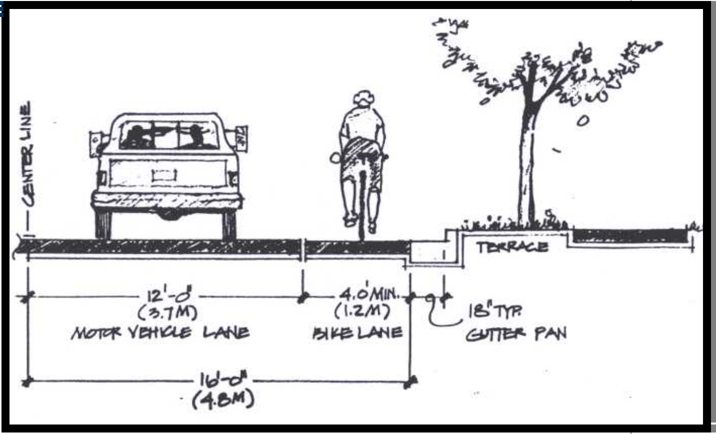


Figure 6 -4 ***Bike and Pedestrian Accident Locations***

Bicycle Paths - Bicycle paths may be exclusive to bicycling or may accommodate pedestrian travel. Paths should be isolated from motor vehicle traffic and, therefore, provide pleasurable utilitarian and recreational riding opportunities. The recommended minimum surface width of two-way paths is 8 feet, with an additional 2-foot clear zone, free from obstructions, on each side. A width of ten feet is highly recommended especially in highly used urban corridors where many skaters and walkers can also be expected.

Bicycle Lanes - Bicycle lanes are delineated in available road space by bicycle lane markings and are intended to give preferential use for respective modes of transportation within a roadway. Bicycle lanes should carry one-way traffic in the same direction as adjacent motor vehicle traffic. The width of the bike lane measured from the face of curb should be 5 feet when the curb is integral with the pavement. The minimum bike lane width should be 4 feet measured between a gutter/pavement longitudinal joint and the motor vehicle traffic lane. Where parking is permitted, the bicycle lane should always be located between the parking lane and the motor vehicle lane. The width of this combined bicycle and parking lane can vary from 14 feet to 16 feet depending on the width required for the parking lane. A reduced total width of 13 feet may be considered where site conditions and right of way restrictions preclude a greater width and providing that the traffic lane next to the bike lane is at least 12 feet wide.

Wide Curb Lanes - Widened curb lanes provide a width that will generally allow bicyclists and motor vehicle drivers to share the roadway while minimizing conflicts. Generally, 14 feet of usable width is necessary to allow motorists to overtake bicyclists. On-street, without parking the usable width should be measured from edge of gutter pan to prevent encounters with drainage grates and curbs. Usable width on streets that include parking should be a minimum of 22 feet from edge of gutter pan to lane stripe.



On-Street Bicycle Circulation.

Shared Roadways - Shared roadways are often effective and efficient facilities that provide common bicycle accommodation within motor vehicle travel lanes. In general, shared roadways are undesignated because of their narrow usable road surface width that must be shared by cyclist and motorist. Nonetheless, roadways with low motor vehicle traffic levels (urban roads below 2000 ADT) can be designated. Low traffic volumes, in the case of many residential streets, and low speed in some downtown regions can be suitable for bicycling. Whether shared roadways are designated or not, they are an integral part of the bicycle transportation system and provide basic accommodation by providing access to the designated bikeway system.

Figure 6.5 shows existing bicycle facilities in and around the City of River Falls. Also shown are proposed facilities from the 1995 Bicycle and Pedestrian Plan.

6.4.4 Pedestrian Circulation

While only about 5% of the commuter trips in the City were made on foot, the actual share of walking trips is probably much higher when trips by non-commuters (such as tourist and students) are taken into account. River Falls' traditional centers (such as Main Street and the University) are hubs for pedestrian activity. These areas have small blocks and interconnected streets that facilitate pedestrian movement. Virtually all trips begin and end with a walking trip, yet over the last 50 years walking as a form of transportation have generally been ignored.

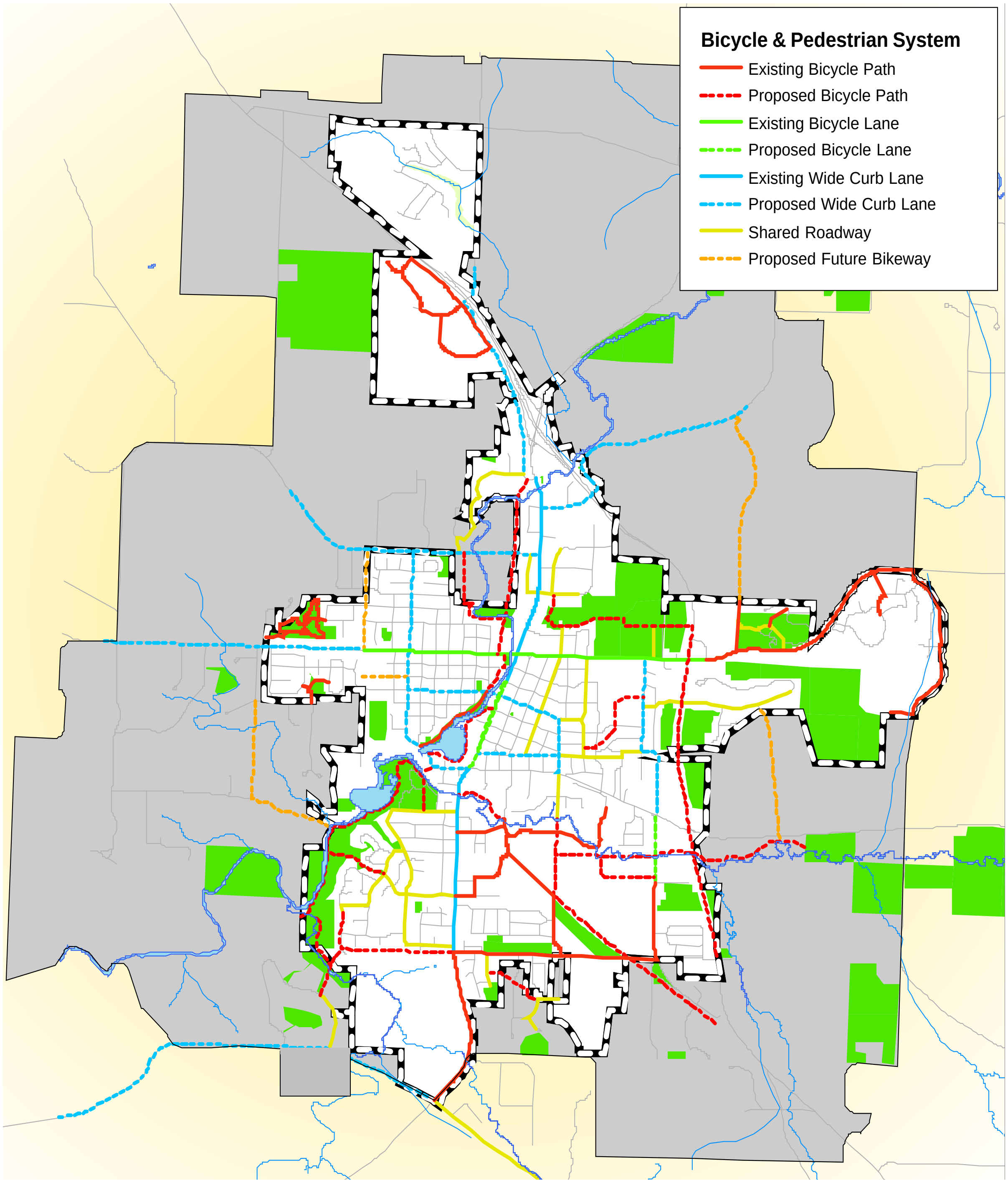


Figure 6-5 The above Bike and Pedestrian System represents the existing conditions as well as the proposed systems a noted in the 1995 River Falls Bicycle and Pedestrian Plan.

Pedestrian issues should not be underestimated or undervalued. Similar to the road network, pedestrian facilities need to be viewed as a system providing for seamless and comfortable pedestrian movements throughout the community. Sidewalks are largely provided in the older commercial and residential areas of River Falls and in the newer subdivisions. However, many regions of the community developed in the 1960–1990 era lack sidewalks. In the township residential developments that are outside of the City limits, no pedestrian facilities have been constructed.

It is important that neighborhoods have an interconnected sidewalk system and that major gaps from the past be retrofitted, at least along collector and arterial streets. While the City can retrofit streets with needed pedestrian accommodations through the Capital Improvement Program, only minimal funding is provided for the program. This limits the process of retrofitting streets with sidewalks, ramps, and street crossings throughout the City. There will also need to be strong support from property owners to build these sidewalks.

As part of updating the 1995 Bicycle and Pedestrian Plan, the City should identify and rank in priority sidewalk infill needs. The plan should include an implementation process and program for funding pedestrian improvements in existing neighborhoods and developments. Improvements should be ranked according to pedestrian benefits, safety, access to schools, parks and other major pedestrian generators.

Because the towns do not require sidewalks for subdivisions, this is an issue that should be reviewed for all potential subdivisions that may be annexed into the City.

All pedestrian crossings should comply with the Americans with Disabilities Act (ADA) by providing appropriately designed pedestrian ramps. Pedestrian ramps should not be incorporated into the pedestrian system unnecessarily. Generally, the pedestrian system should only be interrupted by public streets, not by private driveways. Instead, private driveways should be built with driveway approaches that match the pedestrian facility allowing it to proceed uninterrupted through the private drive access.

Sidewalks by themselves will not induce walking. As important are an appropriate mix of land uses and densities, the quality and design of the built environment, pedestrian scale streetscapes, and pedestrian comfort. The City should work to create pedestrian-oriented environments by implementing this Plan's land use and urban design recommendations. Creating pedestrian environments between buildings, even in auto-oriented commercial areas, can encourage more walking between buildings. At a minimum, sidewalks or pedestrian areas should provide connections between buildings within developments. Providing pedestrian amenities (e.g., trees, planters, street furniture, awnings, building windows, etc.) are also desirable.

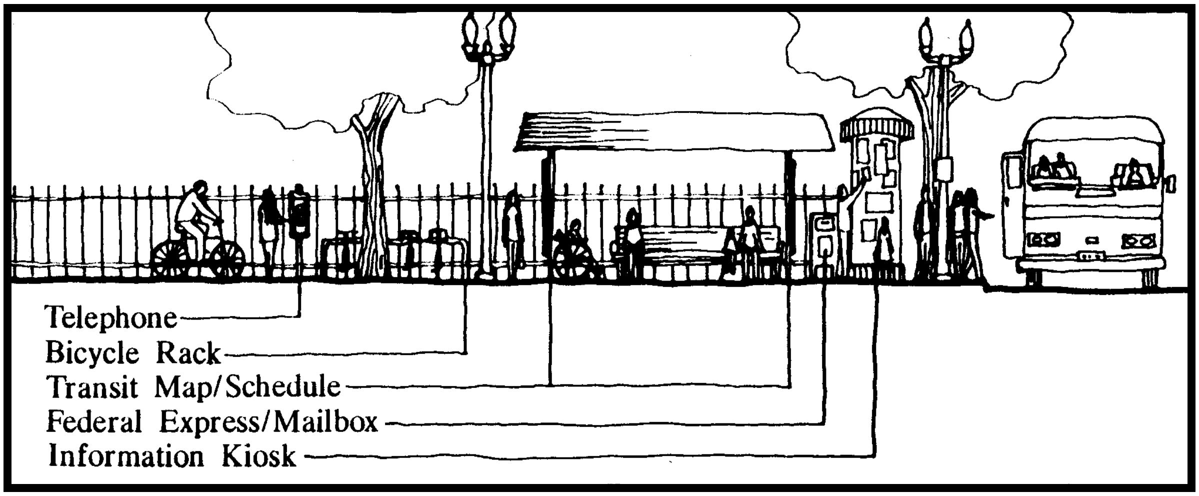


Illustration of a Public Transit Access Point.

Existing Conditions

The City of River Falls downtown has three main parking areas to choose from:

- Metered Public Parking
- Un-metered Public Parking
- Private, Business, and Residential Parking

The Downtown holds 1,934 total spaces. Rarely does the total use of all these spaces reach capacity.

6.5 PARKING

Public parking issues in River Falls can be grouped into three categories:

- Downtown Parking
- UW-River Falls Parking
- Residential Parking

Parking is both a land use issue and a transportation issue. Parking lots consume considerable space and can be viewed as a barrier to pedestrians, thus discouraging multi-modal trips. Similarly, accommodating parking on streets requires those streets to be constructed considerably wider than if no on-street parking was provided. Therefore, parking policy should not be thought of independently from transportation policy.

6.5.1 Downtown Parking

In May 1989, a River Falls Merchant Survey was conducted for the River Falls Main Street 2000 project. In this survey, parking was listed as one of the issues facing the downtown area. Some of the concerns were as follows:

- Eliminate parking meters and control long-term parking.
- Develop more convenient parking locations.
- Keep employees and UWRF students from parking on Main Street.

Some of these concerns have been addressed, such as development of more public parking areas since this survey. However, there are still lingering problems that need to be addressed.

Private business and residential parking areas make up the largest part of the downtown parking total. In the Main Street and Second Street alleys, it is very difficult to differentiate the parking lots of various businesses. Many of the parking lots in the Second Street alley are not well maintained and have been enlarged due to cars parking on the grass. Some lots are severely underutilized, such as the lot south of Econo Foods. Businesses and homeowners hold 46% (880 parking spaces) of the total available parking in the downtown. At peak parking times, 4:00–6:00 p.m., only 56% of the spaces are filled.

Providing for parking is important in creating an accessible downtown. However, it is only one component of many. Clearly, parking should be available, but it should not detract from or overwhelm what makes downtown unique and attractive. Rather than attempting to compete with the large amounts of parking, offered by shopping mall, downtown should compete by offering multi-modal options that create a comfortable, safe, and attractive environment for pedestrians.

The most desirable and convenient parking should be managed to encourage customer and visitor access. Consistently full parking spaces have the same effect as having no parking spaces. A parking lot is generally considered full at 90 to 95 percent occupancy. Parking management strategies should promote higher turnover for the highest demand parking spaces. The least convenient parking should be targeted for long-term and employee usage.

Parking management strategies include:

- Setting time limits and pricing to promote higher short-term parking turnover.
- Limiting convenient parking to customers by prohibiting parking prior to retail hours.
- Increasing on-street parking along low traffic streets (consider angle parking where right-of-way permits). While on-street parking, particularly angle parking has been shown to increase accident rates, the severity of crashes are lower due to the traffic calming effect on-street parking creates.

▪ Promoting shared parking agreements for compatible uses (e.g. office parking with high demand during the weekdays and entertainment uses with high demand during evenings and weekends).

6.5.2 UW-River Falls Parking

The University of Wisconsin - River Falls is a medium-sized campus (5,000-6,000 students) close to residential areas and downtown businesses. At times this has been the cause of some heated debate among residents. Arguments have been made that due to the overflow from the campus into the streets of the surrounding community, house values have gone down and there is less parking available for the homeowners and downtown businesses. In 2003, the City commenced use of parking permits for one side of the street within neighborhoods adjacent to the University to address the need for parking for residents.

There has been some discussion of constructing a parking ramp or ramps that could be utilized to meet university-related parking demands. The Campus is evaluating the merits of ramp facilities; for both students living on campus with automobiles, as well as for students and faculty who commute to campus. Another idea that has been discussed is that of a combined City/University ramp structure that could benefit both the Downtown Business District and the University.

6.5.3 On-Street Neighborhood Parking

On-street parking in residential areas near university, employment and commercial sites should strike a balance between providing resident parking and providing overflow commercial and employee parking. Requiring off-street parking may result in less attractive and less pedestrian friendly neighborhoods. The City currently prohibits parking on one side of all streets between the hours of 1 a.m. and 6 a.m. from November 1 through March 31. The prohibited side alternates according to the date after midnight on an odd/even basis.

Strategies for addressing residential area on-street parking that allow flexibility for neighborhood-specific situations include:

▪ "Resident-only" permit zones such as that implemented by the City around the University in 2003.
▪ Metered on-street parking with residential exemptions with revenues used to benefit neighborhood.
▪ Time-limited on-street parking with residential exemptions.
▪ "Resident-only" permit zones with other users allowed to purchase parking permits.

Benefits of allowing or encouraging on-street parking include:

▪ Traffic calming by narrowing through traffic lanes.
▪ Buffering between moving traffic and pedestrians.
▪ Use of "empty" or unused street space.

Detriments of allowing or encouraging on-street parking include:

▪ Increased street maintenance costs associated with plowing in conjunction with on-street parking.
▪ Increased impervious surfaces of wider streets needed to accommodate both parking and the safe passage of traffic including emergency and maintenance vehicles.

6.5.4 Minimum Parking Requirements

If more parking than reasonably necessary is required, it yields lower land use density and greater impervious surfaces. Off-street parking areas can quickly grow and consume a tremendous amount of land if it is not examined. Possible measures include:

▪ Exempt downtown from minimum parking requirements.
▪ Increase flexibility with minimum parking requirements to reflect typical daily demand and allow innovate parking provisions.
Encourage mixed-use developments that share parking.

6.6 GUIDING AND IMPLEMENTING POLICIES

6-G-1 Implement a comprehensive strategy to provide for the necessary and efficient use of automobiles, while encouraging the use and accommodating the needs of alternative modes of transportation.

6-1-I-1 Create a Task Force to identify beneficial strategies for regional and local, public and private transportation options that may be desirable as the City's Comprehensive Plan is realized.

6-1-I-2 Adopt Land Use, Zoning, and other City Codes consistent with the Comprehensive Plan and its commitment to all modes of transportation.

6-1-I-3 Develop parking policies and strategies that will promote and enhance the downtown, university, and entire community and consider the following:

- Requirements for surface parking lots appropriate for land use and character of the area they serve.
- Inter-agency utilization of parking areas to maximize usage.
- Strategies that may result in efficient use of parking facilities.

6-G-2 Develop comprehensive long-range multi-modal transportation plans that identify necessary improvements, minimum standards, and encourage the most efficient and economical means of payment for new and upgraded transportation facilities, especially in new build out areas.

6-2-I-1 Analyze and identify the transportation needs associated with build-out of land uses proposed in this Comprehensive Plan and revise the City's Official Map accordingly.

6-2-I-2 Adopt minimum but flexible and economical standards for various classifications and types of transportation facilities consistent with this Plan.

6-2-I-3 Develop and implement measures to prioritize, plan, program and fund transportation needs. Consideration should be given to:

- Creating a Transportation Utility for existing deficiencies and ongoing operations and maintenance.
- Creating a Transportation Impact Fee for deficiencies created by future development.

6-2-I-4 Monitor status of transportation system operations on a regular basis to identify unanticipated deficiencies that should be addressed.