Chapter Six

Transportation
# Table of Contents

6.1 **Introductions**  
6.2 **Planning Context**  
Regional Planning – Metropolitan Planning Organization and Thomas Jefferson Planning District Commission  
Albemarle County Comprehensive Plan  
City of Charlottesville Transportation Planning  
6.3 **Roadway Network and Parking**  
Functional Classification of Roads  
Traffic Volumes  
Traffic Congestion  
Crash Locations  
Municipal Parking  
6.4 **Non-Automobile Motorized Modes of Transportation**  
Transit Services  
Streetcar Task Force  
Rail Transportation  
Air Transportation  
6.5 **Non Motorized Modes of Transportation**  
Pedestrian and Bicycle Access  
Programs and Organization to Promote Walking and Biking  
6.6 **Transportation Issues, Goals and Objectives**  
Regional Issues and Objectives  
Local Issues and Objectives  
Parking Issues and Objectives  
Modal Issues and Objectives  
Financial Issues and Objectives  
6.7 **Implementation Tools**  
Transportation Demand Management and Transportation System Management  
Traffic Calming  
Context Sensitive Design  
Parking Management
Introduction

The transportation system in a community is an important factor contributing to the quality of life of the residents. Without a sound transportation system to bring both goods and patrons to, from and within the City, local businesses cannot flourish. Recognizing the intertwined relationship between land use and the transportation system is fundamental to planning for the future. As roadways are improved, access to land is increased. This encourages new development to occur which puts more traffic and pressures on the roadway system. Eventually those pressures mean new roadway improvements must be considered, creating a cycle.

The location of the City of Charlottesville within the region contributes significantly to some of the transportation challenges faced by the City. The City (encompassing approximately 10 square miles) is entirely surrounded by Albemarle County. As a result, the transportation network and land use beyond the City limits have a significant impact on travel through the City. The limited regional transportation facilities surrounding the City connecting origins and destinations both located outside of the City limits place a significant burden on the City's transportation network. The table below reflects the regional travel patterns of Charlottesville and Albemarle County residents in 1990 and 2000.

Yet, the transportation system includes not only vehicular travel, but travel by transit, rail, air, bicycle and walking. In support of the community's vision to enhance the quality of life, this Transportation Element considers all of the components of the transportation system in Charlottesville: to gauge how it moves people and goods, to identify travel issues and to set goals for the system to function safely and efficiently in the future. This chapter is not intended to provide a project by project listing of transportation-related capital improvements. Rather, it sets the stage for ongoing updates to the capital improvement program by establishing clear objectives for what the transportation system should accomplish. These objectives can serve as criteria for prioritizing potential projects over time.

The following text begins with a review of the planning context for the Charlottesville transportation system including plans formulated by others at the regional level. It considers existing conditions for travel by all modes, including roadways, transit, rail, air, bicycle and walking. The chapter then identifies transportation issues, goals and objectives to guide ongoing transportation system programming. It concludes with a listing of implementation tools including: access management, context sensitive roadway design and transportation demand/transportation system management.

### Means of Transportation to Work by Workers 16 Years and Over

<table>
<thead>
<tr>
<th>Mode</th>
<th>City of Charlottesville</th>
<th>Albemarle County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drove Alone</td>
<td>60.8</td>
<td>60.4</td>
</tr>
<tr>
<td>Car Pool</td>
<td>13.4</td>
<td>9.7</td>
</tr>
<tr>
<td>Public Transit</td>
<td>5.2</td>
<td>5.0</td>
</tr>
<tr>
<td>Walked</td>
<td>14.8</td>
<td>16.5</td>
</tr>
<tr>
<td>Bicycle</td>
<td>1.3</td>
<td>1.9</td>
</tr>
<tr>
<td>Worked at Home</td>
<td>2.9</td>
<td>5.4</td>
</tr>
</tbody>
</table>

*Source: U.S. Census of Population 1990 and 2000*
Regional Planning - Metropolitan Planning Organization and Thomas Jefferson Planning District Commission

Charlottesville is part of a regional planning organization called the Charlottesville-Albemarle Metropolitan Planning Organization (MPO). The Charlottesville-Albemarle MPO is the forum for cooperative transportation decision-making among Charlottesville, Albemarle County, state and federal officials. The MPO considers ongoing regional growth and combines public input, technical data, and agency collaboration to develop long-range transportation plans and programs for the region, specifically for the City of Charlottesville and for the urbanized area of Albemarle County immediately surrounding the City. The MPO also coordinates the transportation planning activities of the various local transportation-related agencies that have both a direct and indirect impact on regional travel.

The Charlottesville-Albemarle MPO consists of voting members: two elected officials from the City of Charlottesville, two from Albemarle County, and one Virginia Department of Transportation (VDOT) representative. Nonvoting members include a Technical Committee composed of citizens, University of Virginia staff, local planners, transit employees, and engineering/public works staff, VDOT, the Virginia Department of Rail and Public Transportation (VDRPT) and the Federal Highway, Transit and Aviation Administrations. The MPO is staffed by the Thomas Jefferson Planning District Commission (TJPDC) and is supported by federal, state and local government funds. Its fundamental documentation is a Unified Planning Work Program (UPWP) describing MPO activities that are to be developed each spring. Other regular planning documents include a Transportation Improvement Program (TIP), which list individual projects for the upcoming three years, and the 20-year Charlottesville Area Transportation (CHART) Plan, which is updated every five years. Transportation projects developed with federal funds must be approved in the TIP before the Federal Highway Administration or the Federal Transit Administration will approve funding.

The TJPDC is directed by a twelve-member board, consisting of two representatives appointed by each local governing board, more than half of whom are local elected officials. The Commissioners have varied backgrounds and currently serve on various boards and committees in the region. Meeting monthly, they provide direction and oversight for TJPDC activities.

In addition to the two voting members on the MPO Policy Board and two Commissioners on the TJPDC governing board, the City is represented by staff and the Planning Commission on the MPO Technical Committee and citizens on the CHART citizen’s advisory committee.

The following reviews current planning documents which directly effect the City of Charlottesville that have been developed by the Charlottesville-Albemarle MPO, in cooperation with the TJPDC.

United Jefferson Area Mobility Plan 2025

In order to develop effective regional solutions, the United Jefferson Area Mobility Plan (UnJAM 2025) combines the Charlottesville-Albemarle Regional Transportation (CHART) Plan for the MPO area with the Rural Area Transportation Long-Range Plan, for the five-county (Albemarle, Fluvanna, Greene, Louisa and Nelson) TJPD. The overarching goal of UnJAM 2025 is to create a balanced, multi-modal transportation network by 1) improving connections throughout the region; 2) improving mobility within neighborhoods, towns, and counties; and 3) making transportation choices which help foster livable communities. The project list as adopted in May 2004 is contained at the end of this chapter including a map illustrating the location of the projects.

This Plan recognizes the prominent role US Route 29 plays as a regional and state thoroughfare. It is the major north-south automobile and truck route, and its capacity for through travel should be enhanced by a
coordinated strategy of operational improvements where needed (additional lanes, grade-separated or other intersection improvements, improvements to signal timing and synchronization, removal of any unnecessary signals, more defined through and local service lanes, access management and improved connections, and completion of a parallel road network to serve surrounding neighborhoods and businesses). –A major portion of the roadway network can be completed with private funds, by developers building new subdivision streets, UnJAM 2025 encourages more interconnections between new developments, coupled with lower-speed, safer roadway design.

**Regional Rail Conceptual Study**

As part of the multi-pronged UnJAM planning process, TJPDC and the MPO sponsored a series of hands-on planning workshops to garner public input for creating the Regional Transportation (CHART) 2025 Plan. As a result of these workshops, there was broad-based interest in some sort of rail transport from outlying regions to the Charlottesville area. The Rail Conceptual Study, dated November 2004, highlights all of the potential rail options so that comparisons could be made for informed choices. The Regional Rail Conceptual Study examines light rail as well as commuter and intercity passenger rail alignments; the latter two options would primarily use existing Norfolk Southern Corporation and CSX Transportation lines. For short-intermediate trips, the Commonwealth of Virginia has already recommended a regional passenger rail service called the TransDominion Express (TDX) which would utilize Norfolk Southern lines in this region. This Rail Conceptual Study also outlines several proposals for commuter rail services which include Norfolk Southern (North-South) and CSX (East-West) lines, both of which are roughly parallel to Virginia state primary roads. The commuter rail proposals for CSX rail lines extend outside the PDC area as far west as the City of Staunton and as far east as Richmond. The commuter rail proposals along Norfolk Southern tracks would serve the University of Virginia, downtown Charlottesville and commercial and residential developments along the US 29 corridor.

In agreement with the Shaping Community document, this report recommends that the streetcar be an active part of the multimodal network. Integration of the streetcar mode is important in the urban area setting, and planning should begin to include the major trunk line along West Main Street and its inclusion into the downtown transit center recently constructed.

**TJPDC/VDOT Multi-modal Corridor Study**

With funding from the VDOT State Transportation Planning Grant Program, TJPDC is working with Fluvanna, Louisa and Albemarle Counties to create a transportation plan for the Northwest Fluvanna/Southwest Louisa/Eastern Albemarle Corridor. The transportation plan will support safe, multi-modal transportation options for drivers, transit riders, pedestrians and bicyclists by identifying investment strategies and key spot improvements to improve the capacity and safety of existing roads in the corridor. The study will also analyze the impacts of different development scenarios. Elements of the study may be incorporated into the County’s Comprehensive Plan.

**US 29 North Transportation Corridor Study**

The US 29 North Corridor Transportation Study is a multi-phased process to develop a plan to guide future public and/or private investment in the transportation infrastructure of the segment of US 29 from the Route 250 Bypass in the City of Charlottesville through Albemarle County to the Greene County boundary. The Transportation Study is a component of the Places29 Master Plan that is being prepared by Albemarle County. Places29 is a community planning project that brings residents, business owners and others together to map out the best possible shared vision for this critical area. The project integrates land use planning for four designated urban communities within the US 29 North Transportation Corridor Study area. The transportation plan resulting from the US 29 North Corridor Transportation Study will become the transportation component of the Places29 Master Plan that will be adopted as part of the County’s Comprehensive Plan.
29H250 Phase 2 Plan
The 29H250 Phase 2 Study is a continuation of the 29H250 Intersections Study that was completed in May 2003. A team composed of representatives from the MPO, VDOT, Charlottesville and Albemarle County were joined by expert consultants for Phase 2 of the planning process which was completed in September 2004. The goal of this project was to develop a context-sensitive, multi-modal transportation improvement plan to complement existing and anticipated development along the US 29 corridor and Hydraulic Road, focusing on the extended area surrounding the intersections of US 29 with Hydraulic Road and US 250. Public workshops were held to introduce the design concepts for transportation system improvements in the area around US 29, US 250, and Hydraulic Road. After requested feedback, detailed technical and economic analyses were completed. The economic analysis indicated that tax revenues are projected to increase under all options. Property, meal and sales tax revenues (largely in the City) are projected to increase by $1.4 to $2.2 million per year depending upon the transportation option selected. At an interest rate of 5 percent over 20 years this stream of new tax revenue could generate $17 to $28 million in capital.

Shaping Community with Transit
Published in 2005, Shaping Community with Transit presents an argument for a streetcar transit system on West Main Street to connect downtown Charlottesville and the University of Virginia. This report provides an overview of existing conditions in Charlottesville and a broad view of several available public transit options including bus, light rail, bus rapid transit (BRT) and streetcars, all of which have been considered as possible Charlottesville options in the past. This report also characterizes the types of land use and development patterns that are associated with transit systems and those that could support a streetcar transit system. Finally, this study provides a listing of steps that should be implemented to further assess the potential for and benefits of a streetcar transit system along West Main Street.

Jefferson Area Bicycle, Pedestrian and Greenways Plan
TJPDC also supports, with a variety of efforts, those who travel on foot via roads, trails and public spaces. In April 2004, the TJPDC adopted the Jefferson Area Bicycle, Pedestrian and Greenways Plan. The purpose of this plan is to provide information and guidance on the development of facilities and other accommodations to enhance safe bicycle and pedestrian travel within the Thomas Jefferson Planning District. Descriptions are given as to how localities can create and maintain safe, efficient walking and biking systems that link people to the services they need. An overall network is proposed to connect the many communities of the region while creating smaller networks within those communities. The plan also identifies methods for increasing awareness among the public, especially automobile drivers, about the needs of walkers and cyclists. Implementation and funding issues are discussed, as well. This plan offers recommendations for both physical improvements and programs aimed
at improving bicycle and pedestrian facilities and safety.

This regional plan is designed so that it can easily be incorporated into local/municipal plans. It begins with a description of existing conditions, demands and needs, and possible facility types for both bicycles and pedestrians. It also includes plans for each locality and references to any existing plans. Each local plan has a pedestrian and bicycle section, including maps. Facilities linking to localities surrounding the planning district are coordinated with those localities’ plans.

**Albemarle County Comprehensive Plan**

Albemarle County surrounds the City of Charlottesville entirely. As a result, the land use and transportation decisions made by the County have a significant impact on transportation within the City. Albemarle County’s current Comprehensive Plan aims to “...channel development into designated Development Areas while conserving the balance of the County as rural areas.” The plan outlines the Neighborhood Model and focuses on three types of Development Areas.

The Neighborhood Model, appended to the Comprehensive Plan in 2001, “supports a change in the form of urban development from what currently exists” and “...recognizes that if the Development Areas are to be the primary areas receiving residential growth, density must be increased...” and “to achieve that density, the form of development must change and that form must be more urban and less suburban.” The Neighborhood Model Goals that relate to the transportation on a regional scale include:

- **Network** – A network of streets, bikeways, pedestrian paths, and bus routes will connect new neighborhoods as well as existing residential areas and nonresidential districts.
- **Mixed Uses** – Neighborhoods will contain a true mix of uses, including residences, shops, and places of employment, as well as civic, religious, and cultural institutions.
- **Transportation Options** – Convenient routes for pedestrians, bicyclists, and buses/other transit including light rail will augment the street network. Public transit stops will be located within each Development Area. Walking to them will be safe and convenient. Waiting for transit will be comfortable and a normal part of activity.

**Figure 6-1** illustrates the locations of the designated Development Areas. The Urban Area immediately surrounds the City and is divided into seven neighborhoods. These neighborhoods are intended to be less suburban and more consistent with the character of the City.

The Communities are smaller urban centers removed from the Urban Area. Three Communities are included:

- **Crozet** - located to the west of Charlottesville bordered by US 250 and VA 240
- **Hollymead** - located north of Charlottesville and the Urban Area surrounding US 29
- **Piney Mountain** – located north of Hollymead surrounding US 29

In addition to the Urban Area neighborhoods and the three communities one Village, Rivanna, is identified. Different from the Urban Area and Communities, it is anticipated that Villages will most likely be established based on public requests rather than County initiative. Villages strive to combine the feeling of “country living” with the Development Area amenities.

Ideally, if implemented as outlined in the Comprehensive Plan, the Neighborhood Model and Development Areas would decrease vehicle dependency by locating work, home and amenities in close proximity to one another and increase the feasibility of transit through the increased densities. However, if the current employment base continues to be within the City, these benefits will not be recognized.
Figure 6-1

ALBEMARLE COUNTY DEVELOPMENT AREAS
City of Charlottesville Transportation Planning

Planning for the roadway system in Charlottesville is accomplished through engineering, planning and capital improvement project programming by the City of Charlottesville’s Department of Neighborhood Development Services, through the long-range planning activities of the MPO and as a function of the TJPDC. Plans for other modes of travel are reflected in the following documents.

Charlottesville Transit Improvement Study and Transit Development Plan

The Charlottesville Transit Development Plan (TDP) offers recommendations to improve Charlottesville Transit Service (CTS) in both the City of Charlottesville and Albemarle County. It may, therefore, serve as a bridge between the municipal transit system operated by the City and a new regional system governed by a partnership.

To address these issues and to begin the process of restructuring CTS into a system that will serve the growing metropolitan area, the Charlottesville Transit Improvement Study (TIS) was completed in 2005. This project studied ridership patterns and undertook an evaluation of existing route structures. A survey was conducted of riders on all CTS routes to determine the characteristics of those using the system and the origins/destinations of trips made on the bus. Studies were also conducted of the travel times of CTS routes and the proportion of time spent, by location, in-motion, and/or picking up passengers or delayed by traffic signals or by congestion. This data was supplemented by data collected in 2000 which reported boardings and alightings at each bus stop on each trip and the on-time performance of each bus trip. Several of the recommendations in the Transit Improvement Study were implemented in fall 2005.

Based on the on-survey results the majority of CTS riders could be classified as transit dependent. Specific characteristics are listed below:

- A majority of CTS riders on both day and evening routes have annual incomes below $30,000. The average annual household income for all CTS riders is approximately $37,400.

Based on the survey results, the majority of CTS riders could be classified as transit dependent. Specific characteristics are listed below:

- Almost one-third of CTS riders are affiliated with the University of Virginia; UVA students make up nearly 22 percent of night ridership.
- Approximately 54 percent of all respondents have a driver’s license.
- A large proportion of riders on both day and night routes are drawn from households that do not own an automobile, about 55 percent and 65 percent, respectively. Riders on night routes own fewer vehicles than riders on day routes. A greater proportion of night route ridership is drawn from ridership that does not have an automobile available for the trip. Even so, 24 percent of nighttime riders and 34 percent of day riders had an automobile available that could have been used for the trip.
The Charlottesville TDP is a five-year plan for CTS, which builds off of the recommendations presented in the Transit Improvement Study. The TDP is divided into two main categories of improvements. The first category includes recommendations that are cost neutral for Charlottesville but would require additional funding from Albemarle County. These recommendations are divided into two phases. Phase I includes recommendations to be implemented in FY 2007 while Phase II includes recommendations to be implemented between FY 2008 and FY 2011. Most of the TDP recommendations were implemented in conjunction with the opening of the new Downtown Transit Station in March 2007. The second category of service improvements includes additional service to Charlottesville, Albemarle County and several variations of fare-free service. In May 2007 UVA students and staff began riding CTS fare-free. There is no timeline for implementation of the other improvements included in the TDP.

Charlottesville Bicycle and Pedestrian Facilities Master Plan

The City initiated the Bicycle and Pedestrian Facilities Master Plan in March 2001, in response to the desire of the community to become more bicycle and pedestrian friendly, rely less on motorized vehicles, provide quality recreation and preserve open space. By completing this Master Plan, the City of Charlottesville has begun the preliminary steps to achieve its goal of creating a comprehensive network of on-street bicycle facilities and off-street, recreational trails. The recommendations in the plan were based upon the identification of physical opportunities and constraints within the City of Charlottesville. Major opportunities that were identified during the master planning process include:

- Community desire for alternative transportation to the automobile
- Need to reduce the dependency on cars and parking lots
- Community need for multi-use recreational trails that are accessible
- Existing lineal corridors such as the Rivanna River, Moore's Creek, Meadow Creek and railroads
- Connections to and between existing on-street bike lanes
- Connection to the University of Virginia Grounds Walk
- Connection to the Thomas Jefferson Parkway trail
- Connection to Rivanna Trails Foundation (RTF) trails

Charlottesville desires to be bike-friendly.

- Connection to Albemarle County trails
- Connection to the Downtown Pedestrian Mall
- Connections to City and County parks

Major constraints include:

- Charlottesville's rolling topography
- Lack of available land for the development of multi-use recreational trails
- Highways and railroads which interrupt possible routes
- Narrow, busy roads and off-set or skewed street intersections
- Lack of an existing off-street, multi-use trail that meets current design and safety standards
- Wide flood plains making it difficult to construct bike/pedestrian bridges
- Lack of funding
- Existing Rivanna Trails Foundation Trails that are not to be altered into accessible, multi-use trails
In response to these opportunities and constraints, the Master Plan recommends different types of on and off-street facilities and locations to meet the needs of the various types of users, who live, work and recreate in the City of Charlottesville. Figures 6-2a and b, from the Master Plan, illustrate the recommended on-street and off-street bicycle and pedestrian projects.

**City of Charlottesville Parking Master Plan**

The purpose of the Comprehensive Parking Master Plan, completed in November 2000, was to guide Charlottesville through the process of mitigating present-day parking shortages and develop proactive strategies for future parking opportunities and alternatives that will complement the community’s long-term development goals. The plan focused on three areas: the Government/Court district (Court Square), Main Downtown and West Main Downtown. The 15 primary recommendations, most of which have been implemented, were intended to optimize the use and availability of the existing parking supply in meeting current and future needs.
Figure 6-2b

BICYCLE AND PEDESTRIAN OFF STREET PRIORITIES
Though other modes of transportation exist in Charlottesville, the automobile remains the primary means of travel for most residents. As reported in the 2000 census, the pie chart below indicates how people in the City of Charlottesville are commuting to work. As shown, 61% of Charlottesville residents choose to drive alone to work. However, 16% of residents walk to work, the next highly used mode to the automobile. Compared to 1990 census data the mode choice is relatively unchanged with all modes varying by three percent or less.

The Charlottesville-Albemarle region of Central Virginia, as well as its adjoining counties, is experiencing rapid growth of population, expansion of commercial development and the associated increase in traffic congestion that has long plagued many larger Virginia municipalities. The addition of highway lanes on US Route 29 just north of Charlottesville in the mid-1990s allowed more vehicular throughput necessary to compliment continued commercial and residential growth along the corridor. Unfortunately, the throughput gained by the widening project has been negated somewhat by adjacent development contributing to increased traffic volumes approaching the capacity of the facility.

Consequently, traditional reliance upon the auto presents obstacles to moving people efficiently through Charlottesville and its surrounding communities. The predominance of travel by automobile has encouraged auto-dependent patterns of land use, particularly sprawl. There is incentive to locate new, single-purpose uses on large tracts of land at the periphery of the City along with large expanses of parking. Without easily accessible alternate modes of travel and with dispersed development, it becomes increasingly difficult to travel between work, home and shopping without the use of a car.

Analysis of the Means of Transportation, Travel Time, Time to Work, Vehicle Occupancy and Vehicle Availability data reported in the 2000 census illustrates a number of trends. Comparing data reported in the 1990 census to the 2000 census indicates that little has changed related to mode choice, time spent commuting or vehicle ownership on a Citywide basis. The majority of commuters spend less than 15 minutes traveling to work and approximately 70 percent of Charlottesville residents own either one or two vehicles.

Figure 6-3 illustrates the 2000 census tracts. Moving outward from Downtown Charlottesville and the University of Virginia the percentage of commuters who drive alone increases. For example, tracts 800 and 900, located north of the US 250 Bypass, have the highest percentage of commuters who choose to drive alone at 77 and 82 percent, respectively. On the other hand, tracts 10901, 10902, which include the University, have the lowest percentage of commuters who choose to drive alone at 44 and 41 percent, respectively. Fifty three percent of commuters who live in tract 100, which includes Downtown Charlottesville, choose to drive alone.
Figure 6-3

2000 US CENSUS TRACTS
Vehicle availability data indicates that tracts 100 and 401 have the highest percentages of households with no vehicles at eight and ten percent, respectively. Tract 401 also has the highest percentage of commuters who carpool (19%) or use public transportation (14%) of any of the tracts that do not encompass the University.

Our dependence on automobiles has affected the way we live, both positively and negatively. On the one hand, cars offer freedom, flexibility and an expression of identity. On the other, they pollute the environment, can endanger other motorists, bicyclists and pedestrians, and burden the existing roadway infrastructure. Reliance on auto travel in Charlottesville translates to a need to continuously maintain and improve the safe, efficient flow of traffic on the streets. Existing conditions for the roadway network are described below in terms of the functions each class of roadway is expected to serve, traffic volumes and congestion points, and safety issues.

**Functional Classification of Roads**
The functional classification of a road indicates the character of service which it is intended to provide. It takes traffic flow qualities and volume into account and also reflects the predominate use of the road. This creates a hierarchy of roads in a community that is a progression from low to more intensive uses. The functional roadway classification system for Charlottesville, adopted prior to 1970, is shown in Figure 6-4.

Within Charlottesville four functional classification systems exist; principal arterials, minor arterials, collectors and local streets. The principal arterial street system serves the major activity centers and carries the highest traffic volumes. This system carries most of the trips entering and leaving the City and those trips traveling through the City. Bus service currently operates on nearly the entire principal arterial network. This classification includes a controlled-access facility (US 250 Bypass) but is not limited to controlled-access routes. For principal arterials, service to abutting land should be subordinate to travel service.

The minor arterial street system connects and augments the principal arterial system. It accommodates trips of moderate length and distributes travel to smaller geographic areas than the principal arterial system. This system places more emphasis on land access and offers lower mobility. Bus service currently operates on most of the minor arterial network.

The collector street system provides both land access and traffic circulation within residential neighborhoods, commercial and industrial areas. This system penetrates...
Figure 6-4

FUNCTIONAL CLASSIFICATION OF STREETS

[Map showing different types of streets classified as Principal Arterial, Minor Arterial, Collector, and Local Street.

2007 COMPREHENSIVE PLAN]
residential neighborhoods as well as collects traffic from local streets in residential neighborhoods. Bus service currently operates on many of the collector roadways.

The local street system makes up the majority of the roadway network within the City. Its primary purpose is direct access to property and, as a result, it offers the lowest level of mobility. Service to through-traffic is deliberately discouraged on these roadways. Bus service currently operates on some of the local roadways.

Traffic Volumes
The more significant traffic volumes on the City roadway network are shown in Figure 6-5. Based on VDOT’s 2005 Daily Traffic Volume Estimates Report (supplemented with City data where available), the highest traffic volumes are currently on US 29 and the US 250 Bypass. US 29 north of the US 250 Bypass carries upward of 60,000 vehicles per day (vpd). South of the US 250 Bypass US 29 traffic volumes decrease significantly but are still in the range of 20,000 to 40,000 vpd. Similarly, the US 250 Bypass carries between 20,000 and 40,000 vpd. Rugby Road, Preston Avenue and McIntire Road carry volumes in the 20,000 vpd range while Fontaine Avenue, Ivy Road, Jefferson Park Avenue, 5th Street, Avon Street and High Street also carry significant traffic volumes consistent with their higher order functional class.

Traffic Congestion
Congestion within the City occurs primarily during the morning and afternoon commuter peak periods. Locations of concern, shown in Figure 6-6 include: Emmet Street from Hydraulic Road to Ivy Road, the 250 Bypass, Avon Street between Monticello Avenue and Market Street. Nearly all of these roadways are classified as arterials; the backbone of mobility for the City. However, due to congestion, drivers divert to roadways which are of a lesser classification to move through the City. This diversion of traffic from a higher order roadway to a lower order roadway is the definition of cut-through traffic.
Congestion on Emmet Street is largely due to the high traffic volumes, lack of access management and the merge onto the US 250 Bypass westbound from southbound US 29. Currently improvements to the ramp from US 29 onto the Bypass are being explored to improve traffic flow in this area.

Much of the US 250 Bypass is currently operating at its capacity. Given that this is the City’s only limited access facility, preservation of the capacity of this roadway should be a priority. A number of local neighborhood traffic calming concerns stem from drivers using local streets to avoid use of the Bypass. The 250 Interchange Project planned at the intersection of McIntire Road, currently being designed, will improve traffic flow on the Bypass at this location. However, elimination of the at grade intersection at this location will not remedy the larger, regional issue creating congestion on the Bypass which stems from the lack of transportation facilities outside of the City connecting housing and employment centers.

Avon Street is one of two major routes to downtown from I-64 and areas south of the City. Much of the traffic congestion on Avon Street will be eliminated in the near future with the coordination of the traffic signals.

Crash Locations
Not surprisingly, the locations with the highest crash rates are consistent with the locations with the highest traffic volumes. This is due to a number of characteristics these roadways share including a lack of access management, roadway and intersection geometry and proximity to UVA. In the future the City hopes to more effectively use the available crash information to identify safety concerns and solutions.

Municipal Parking
Currently, downtown Charlottesville is served by two City-provided parking garages (one on Market Street and the other on Water Street) and on-street parking with varying time restrictions throughout the downtown area. Generally, it is perceived that there is a lack of free parking in the downtown area. As noted above, 15 recommendations proposed through the Charlottesville
Figure 6-5

AVERAGE ANNUAL DAILY TRAFFIC VOLUMES

2007 COMPREHENSIVE PLAN
Figure 6-7

CRASH AND CONGESTION “HOT SPOTS”
Parking Master Plan are being implemented to enhance the parking supply and its functionality in the City. While the previously conducted parking study provided recommendations related to parking in the downtown area it did not address the impact of parking on the following: shaping transit, specifically the viability of a Streetcar; stimulating economic development in the downtown and West Main Street areas; and reducing traffic by limiting free parking for employees and/or providing incentives not to drive into downtown. Future parking studies and recommendations need to address these larger scale items.

Non-Automobile Motorized Modes of Travel

In addition to the automobile, there are a variety of alternate modes of transportation with limited availability to residents and visitors to the City of Charlottesville. All of them contribute to moving people and goods to their destinations often interfacing with one another in an interdependent process. This section explores the alternatives to motor vehicle travel in Charlottesville.

Transit Services

Since the 1890s, when the first streetcar system was started in Charlottesville, public transportation has been part of moving residents throughout the community. However, after World War II, with ever-increasing automobile ownership, Charlottesville, like other communities across the United States has been challenged to provide transit services that residents will choose to use even when a private automobile is available. Furthermore, as development has sprawled outside the core of the City, efficient delivery of public transit has become increasingly difficult. Multimodal routes and facilities are shown in Figure 6-7.

Charlottesville Transit Service

With the exception of the University of Virginia which is primarily served by University Transit Service (UTS), the majority of today’s transit service in and around the City of Charlottesville is provided by Charlottesville Transit Service (CTS). CTS currently operates 18 fixed routes, Monday through Saturday. Twelve routes operate exclusively during the day, four routes operate exclusively during the night and two routes (the Free Trolley and Route 7) operate both during the day and the night. Day service operates from 6:15 a.m. to 6:45 p.m. and night service operates from 6:45 p.m. to 11:45 p.m. CTS also provides general public transit service to community events, such as football games at the University of Virginia and First Night Virginia on New Year's Eve.

Fleet

Including expansion of the fleet planned in the immediate future, service is provided with the following 37 vehicles:

- Five mini-buses (primarily used for night service on Routes 21, 22, 23, and 24)
- Twenty 35-foot buses (primarily used for high ridership day-time routes and on Route 7 at night)
- Seven 30-foot buses (primarily used for neighborhood day-time routes)
- Five replica trolley buses (FREE Trolley route only)

In FY 2008, CTS will also purchase an expansion 30-foot bus, if Albemarle County funds a service increase for Route 5 bringing the total to 38 vehicles.

Ridership

Analysis of CTS ridership from FY 1995 through FY 2006 shows that annual ridership has been increasing since FY 1997. Route 7 (Downtown/Fashion Square) and the Free Trolley (Downtown/UVA) have consistently shown the greatest ridership yielding approximately 416,000 and 525,000 boardings in FY 2006, respectively. Route 7 and the FREE Trolley also generate the most boardings at night. Ridership on the other routes has remained
Figure 6-7

TRANSIT AND RAIL ROUTES AND FACILITIES

[Map showing transit and rail routes and facilities, including Amtrak Rail Station, Greyhound Bus Station, Transc Center Water Street, and Transfer Points.]

City Boundary
- CTS Routes
- UTS Routes
- Railroad
- Transfer Points
- Facilities

2007 COMPREHENSIVE PLAN
relatively constant with a notable increase on Route 5 (Barracks Road Shopping Center/Wal-Mart) resulting from service changes in 2005 funded by Albemarle County. The following chart contains ridership data from FY 1995 to FY 2006. This only includes day routes that were in service in FY 2006.

**Downtown Station**

A central hub for CTS buses and the Free Trolley was proposed in 1995. When the Downtown Station becomes reality in 2007, the first floor, on the Water Street level, will provide a waiting area out of the weather for CTS passengers and a place to make timed connections between bus routes. The attractive Downtown Station building will draw positive attention to CTS and encourage more people to try transit. In addition, the second floor, on the Pedestrian Mall level, will include the Downtown Visitor Center of the Charlottesville/Albemarle Convention and Visitors Bureau. The Downtown Station will be a hub for residents and visitors alike.

The facility design process included a steering committee of business leaders, architects, and others. Workshops were held to gather public input. The final two-story building design does not diminish mountain views but it does allow the building to overcome the elevation change between the Pedestrian Mall and Water Street.

The Downtown Station, together with the newly re-modeled amphitheatre, is the eastern gateway of the Pedestrian Mall. The facility will contribute to the economic vitality and the energy of the public space, including the Free Speech Monument, around City Hall.

Phase one of construction for the Downtown Station began in October 2004 at the same time as the amphitheatre was being renovated. Work on the building got underway in 2005. The grand opening is scheduled to occur in March 2007. The Downtown Station was made possible by a contribution of City-owned property and state and federal grants.
Routes

Fixed-route transit service is designed to operate on a “pulse.” All routes are scheduled to arrive and depart from a common location at approximately the same time. The logic behind this practice is to facilitate transfers between routes, especially since several routes operate infrequently at 60-minute headways. In practice, the “pulse” is often difficult to maintain, especially since traffic congestion and tight schedules can cause delay.

Daytime service on CTS operates as a hub-and-spoke system and is shown in Figure 6-8. Route 7 and the Free Trolley serve as the backbones of CTS, providing service along Charlottesville’s main arteries: Route 29, University Avenue, West Main Street and Jefferson Park Avenue - between the Downtown Mall, the University of Virginia and Fashion Square Mall. Most of the other routes connect outlying neighborhoods to downtown Charlottesville. During the day, route headways vary between 15 and 60 minutes. The Free Trolley and Route 7, which experience the greatest ridership, provide high-quality service that operates on 15-minute headways throughout the day. At this level of service, it is generally assumed that riders do not have to plan their trip in advance. Routes 4 and 6 operate at 30-minute headways during peak periods (from 7:00 a.m. to 10:00 a.m. and from 3:00 p.m. to 7:00 p.m.) and at 60-minute headways during off peak periods. Route 5 operates on 45-minute headway. Routes 1, 2, 3 and 10 are largely neighborhood circulators, and provide service at 60-minute intervals.

The six night routes operate with headways between 15 and 60-minutes and are shown in Figure 6-9. The headway for the Free Trolley remains 15 minutes, but the headway for Route 7 decreases to 30 minutes Route 21, which is the Belmont branch of Route 3 during the day, and Route 22, which is the night version of Route 6 (Ridge Street) during the day operates at 30-minute headway. Route 23, which is the PVCC branch of daytime Route 1 and Route 24, which serves much of the area served by daytime Route 10, operate at 60-minute headway.

With the opening of the Downtown Transit Center, CTS is changing the way transfers occur at bus stops around the Downtown Mall. The Downtown Station replaces transfer points formerly located on Market Street at 2nd Street, NE and on Water Street at 2nd Street, SE. Also with the opening of the Downtown Station, the following route changes recommended in the Transit Development Plan will be implemented:

- Route 1 becomes Route 1A – East Market and Route 1B – Piedmont Virginia Community College. Name change only.
- Route 2 becomes Route 2A – Locust Avenue and Route 2B – Southwood. Service to Barracks Road Shopping Center is eliminated including all service west of the Downtown Mall to UVA area. Bus will no longer travel on West Main Street. Service between the Downtown Mall and UVA will be provided by FREE Trolley and Route 7.
- Route 3 becomes Route 3A – Belmont and Route 3B – Greenleaf. Service to Grady, Rugby, & University Avenues is eliminated. Bus will no longer travel on West Main Street. Instead, bus will travel on 10th Street between Cherry Avenue and Preston Avenue. This change addresses the elimination of service on 10th, Page, and 9th Street on Route 6.
- Route 4 becomes Route 4A – Cherry Avenue and Route 4B – Fry’s Spring. Service in Johnson Village area on Shamrock loop (Route 4B) is eliminated. Please note that when the new road opens between Ridge Street and 5th Street Extended in the Brookwood development this route will be ready for some additional changes that include combining Route 4A with Route 6A. Therefore, in the long run there will not be an A and B version of Route 4. There will be a single Route 4 with service between Downtown and UVA Hospital via Cherry and Jefferson Park Avenues. This new Route 4 will not travel on West Main Street. If possible, these changes will be implemented in late August 2007.
- Route 6 becomes Route 6A – Ridge Street and Route 6B – Kmart. Service on 10th, Page, and 9th Street loop (Route 6B) is eliminated. Please note
Figure 6-8

CTS DAY SERVICE

Transfer Points

- DOWNTOWN TRANSIT TERMINAL
  615 East Water Street
- University Avenue and McCormick Road
  (UVA at Rotunda, Eastbound)
- University Avenue and Rugby Road
  (UVA at Madison Hall, Westbound)
- Barracks Road Shopping Center at McDonald's
- Kauai
- Fashion Square

Monday - Saturday Service on all routes except Non-Pri. Service or LINK.

Hours of Operations: Skyline routes operate from 6:15 am to 6:45 pm.
Figure 6-9
CTS NIGHT SERVICE

Monday - Saturday
Service on all routes

Hours of Operation: Nighttime routes operate from 6:45 pm to 11:45 pm, Monday - Saturday.

Downtown Mall Stops

Transfer Point
DOWNTOWN TRANSIT STATION
615 East Water Street

E-mail: CTS@charlottesville.org
that Route 3B will provide “replacement” service on 10th Street, but not Page or 9th Street. Please note that when a new road opens between Ridge Street and 5th Street Extended in the Brookwood development this route will be adjusted to combine Route 4A with Route 6A and re-naming Route 6A - Prospect Avenue. If possible, these changes will be implemented in late August 2007.

In addition to the planned route modifications intended to improve service to CTS riders, a Real Time Travel Information system is planned for implementation in 2007. This system will keep riders informed of expected bus arrival times via electronic message boards.

Funding
For the purpose of assessing responsibility for the local share of funding to support CTS operations, each of the fixed routes can be considered to be either a City route, a County route, or a route shared by both jurisdictions, depending on the areas that a route serves. Most fixed routes operated during the day primarily serve Charlottesville and are paid for by the City. Routes 5 and 10 largely provide service to areas outside of Charlottesville, and are funded by Albemarle County. Charlottesville also pays for the majority of routes operated at night—the Free Trolley, Routes 7, 21, 22 and 23. Albemarle County pays for Route 24. Additionally, Charlottesville takes financial responsibility for transit service to special events.

University Transit Service

The University of Virginia operates their own bus service called the University Transit Service (UTS). UTS was established in 1972 and is dedicated to providing safe and reliable transportation and charter services to all students, employees and visitors of the University of Virginia. Currently, UTS runs twenty fixed routes and transports more than three million passengers annually. UTS routes circulate both on city streets and across the University’s grounds during the school year. There are also numerous stops that function as transfer points to CTS routes. When school is out for holidays and during summer break, a reduced level of service is offered. University students and employees can ride the UTS buses for free. The general public can only board a UTS bus with a transfer from a CTS bus. Figure 6-7 includes the UTS routes.

Para-Transit

Jefferson Area United Transportation, Inc. (JAUNT, Inc.) is a regional public transportation system providing service to Charlottesville, Albemarle, Louisa, Nelson, Buckingham and Fluvanna. The 70-vehicle fleet carries the general public, agency clients, the elderly and people with disabilities throughout the five-county area. Over half the fleet is lift-equipped. JAUNT has maintained a strong record of safety, cost efficiency and high quality service, and has been recognized both statewide and nationally for its performance. In FY2006, JAUNT provided transportation for approximately 6,900 people for trips to work, agency programs, doctors offices and retail businesses. JAUNT is owned by the local governments that it serves and uses federal, state and local funding to supplement fares and agency payments.

In the City of Charlottesville, JAUNT provides several types of service including:

- Demand-response transportation for which passengers call to make a trip reservation at least one day before they want to travel. Anyone may ride this curb service, but people who are certified as having a disability by Charlottesville Transit Service (CTS) pay a much lower fare.
- Commuter routes from outlying areas into the City, including the Counties of Nelson, Fluvanna, Louisa, Buckingham and Albemarle.
- Transportation for social services agency-sponsored riders.
Greyhound Bus Lines is the single private bus service operating ten buses daily to and from Charlottesville. While exact figures are not available, its ridership through Charlottesville has dropped. The actual number of passengers that board and de-board Greyhound buses in Charlottesville is not available.

**Private Bus Service**

**Regional Transit Authority**

Currently the City and Albemarle County are exploring the feasibility of establishing a Regional Transit Authority (RTA). The vision of the proposed Charlottesville-Albemarle Regional Transit Authority is to provide fast, frequent, dependable and seamless transit service throughout the area. This vision is based on public input from previous plans and studies in both Charlottesville and Albemarle. The goals and working methods, as outlined in the RTA Vision adopted by the City, County, and MPO, are identified below.

**Goals**
- Provide direct links between and among the four major destinations in the City of Charlottesville and Albemarle County: Downtown, UVA/Medical Center, Pantops and the Rt. 29 North corridor.
- Provide competitive choices for travel throughout the region – for residents, commuters, employees, students and visitors.
- Improve routes and choices for underserved communities and individuals.
- Attract ‘choice’ riders – those who currently drive for most trips.
- Increase access to medical, employment, tourist, recreation, education, service and retail destinations throughout the region.
- Integrate transit fully with other modes of transportation - walking, wheeling, carpooling, driving alone and regional bus and rail.
- Serve as a tool to help make the area "Livable for a Lifetime."
- Reduce traffic congestion, pollution, energy consumption and personal travel costs.

**Working Methods**
- Create a unified regional transit plan to identify 1) routes, 2) level of service, 3) phasing, 4) vehicle technology, 5) funding requirements and 6) operating responsibilities.
- Secure a sustainable, stable funding source for new equipment, physical improvements, operations and maintenance.
- Work with localities, businesses and developers to plan for mixed-use Transit Oriented Development (around existing service) and Transit-Ready Development (for future system expansion).
- Design routes and schedules so that service to existing areas is maintained or improved.
- Coordinate physical improvements around bus waiting areas and transit stations.
- Maximize service efficiency through:
  - Innovative use of technology for vehicle tracking/on-time performance/real-time info.
  - Increased coordination of service planning and operations.
  - Seamless marketing, communications, and education for user-friendly customer experience.
- Promote and provide opportunities to utilize public-private partnerships.

In partnering with Albemarle County to establish a RTA the City hopes to create and environment where the City and County cooperate fully in addressing the regional transportation system. To date both the City and County have signed resolution of intent to pursue the RTA, adopted the RTA Vision and committed funding to the RTA plan. While the University of Virginia has been actively involved in discussion of the RTA it has not taken the steps outlined above.
Recommendations of the *Shaping Community with Transit* study, presented an argument for a streetcar system along West Main Street. The study suggested that an improved transit connection between Downtown and the University would encourage economic development and accommodate growth while enhancing livability along the entire West Main Street corridor. Streetcar systems are thought to be an efficient and appropriately scaled way to establish a permanent circulator between the multiple primary magnets; while serving as a catalyst for compact, walkable, mixed-use development.

City Council created a Streetcar Task Force in December 2006. Their work is ongoing at the time of this revision to the Comprehensive Plan. The Task Force consist of 14 individuals representing real estate/development stakeholders, City, County, University of Virginia, and regional and environmental perspectives. The group meets monthly and has formed three sub-committees to collect data and analysis issues relative to local/regional context, land-use and funding. The official charge of the Task Force is as follows:

- Review previous West Main Street and Transit studies.
- Analyze financial aspects of an urban streetcar, including projected cost and revenues (capital and operating).
- Identify potential funding sources and other local, state and national resources.
- Evaluate issues relative to the integration of a streetcar system in current and projected transit plans, such as the City Transit Development Plan, the proposed Regional Transit Authority and Places 29.
- Evaluate the impact of the implementation of an urban streetcar system on the resources available to other transit alternatives.

The local / regional connections sub-committee has developed a goal statement as follows:

- Provide faster, more frequent, more dependable transit; connecting Downtown, the University and Route 29N. This system should attract more riders to transit and connect seamlessly with other CTS, UTS and Jaunt services.
- Spur investment and compact development along the West Main Street corridor, creating a dynamic mixed-use environment.
- Address access issues related to major event destinations, including; Downtown Charlottesville, Scott Stadium, the future University Arts District, JPJ Arena and Barracks Road Shopping Center.
- Support a more affordable lifestyle for residents in the central development district, through a decreased need for car ownership and by creating developer incentives for providing affordable housing units.
Dating back to the 1800s, Charlottesville has been connected to the surrounding region by railroad. Currently, there are three rail service providers that have tracks through Charlottesville: the CSX Railroad System, AMTRAK and the Norfolk-Southern Corporation. AMTRAK, however, is the only carrier that offers passenger service, whereas CSX and Norfolk-Southern only move freight through Charlottesville.

AMTRAK presently offers two daily trains, in each direction, through Charlottesville. The Crescent line, operating between New York City’s Penn Station and New Orleans, Louisiana, links Charlottesville to many destinations along the east coast, including Philadelphia, Baltimore, Washington, D.C., Atlanta, and Birmingham, Alabama. The Cardinal/Hoosier State line provides service to destinations west of Washington, D.C.- such as Charleston, South Carolina, West Virginia, and Cincinnati and Indianapolis, Ohio - ultimately terminating in Chicago. In FY2006, AMTRAK’s rail service carried 45,708 passengers to and from Charlottesville, compared to 45,648 in FY2005. This trend is consistent with AMTRAK’s nationwide ridership trend which rose 300,000 from 2005 to 2006 for an annual ridership of 24.3 million.

While rail ridership has been declining in recent years, air travel through the Charlottesville-Albemarle Airport (CHO) has witnessed steady passenger growth. Opened for commercial traffic in 1955, the Charlottesville-Albemarle Airport’s first commercial flight was offered by Piedmont Airlines. CHO is a non-hub, commercial service airport offering 60 daily non-stop flights to and from Charlotte, Philadelphia, New York/LaGuardia, Washington/Dulles, Cincinnati, Detroit, and Atlanta. CHO is served by Delta Connection, United Express, Northwest Airlines and US Airways Express. Since 1955, CHO has grown to include a 60,000-square foot terminal facility with modern customer amenities offering on-site rental cars, ground transportation and food service. General aviation facilities include an executive terminal offering a full-service fixed base operation, flight schools and aircraft charter firms.

Over the next five years, the Airport Authority will continue to focus on safety and capacity related projects for CHO. The Airport Authority will complete a project to extend the Runway 3 Safety Area to conform to Federal Aviation Administration standards. Moreover, as a response to the increase in passengers traveling through Charlottesville in recent years, the Airport Authority plans to undertake an expansion of its terminal building, to expand aircraft parking areas and to make further improvements to its automobile parking areas. The airport currently offers both short and long-term parking as well as rental car services. There is no bus service available to the airport.

**Private Shuttle Service**

Passengers with booked reservations at area hotels can take advantage of private shuttle services to and from the Charlottesville-Albemarle Airport. In addition, passengers can reserve a seat in one of Van-On-the-Go shuttles. A Goff Bus currently provides this door-to-door shuttle service to and from the airport. Door-to-door shuttle service is also available to all airports in Virginia, the District of Columbia and the Baltimore-Washington Thurgood Marshall International Airport in Maryland. Other private shuttle services include van, mini-bus, motor coach, limousine and executive sedan services for group tours around the area’s major attractions and for private rental/use.
Non-Motorized Modes of Transportation

Pedestrian and Bicycle Access

Neighborhood capital improvement planning currently underway by the City of Charlottesville includes a number of sidewalk and traffic safety projects for pedestrian zones. Current sidewalk locations, as well as walking trails, in Charlottesville are shown in Figure 6-10.

Current and planned bicycle facilities are shown in Figure 6-11. These include designated bicycle routes (not necessarily with a bike lane), on-road bicycle lanes, bicycle racks and off-road multi-use paths. CTS and JAUNT welcome cyclists aboard and provide bike racks on all their vehicles. The racks are located on the front of regular buses and trolleys, and at the rear on the vans.

Major trails maintained by the city include the 2.3-mile paved Rivanna River Greenbelt Trail at Riverview Park; 1 ½ miles of soft surface nature and river trails in Pen Park; a ½-mile, paved fitness loop trail at Pen Park; a ¼ mile stone dust trail along McIntire Road, several forested and creekside nature trails at McIntire Park; and a soft surface creekside trail at Greenleaf Park, which connects the Park with Walker School. The city also manages the Antoinette Street paved trail, which leads south from Forest Hills Park. Many city trails are located entirely within an individual park and they do not extend beyond park boundaries or connect to other trails.

The Rivanna Trails Foundation (RTF) is a non-profit organization whose mission is to “create and protect natural footpaths, which follow the Rivanna River and its tributaries, for the enjoyment of all.” There are 25 miles of RTF footpaths that encircle the city and connect with several city parks. The RTF footpaths generally parallel the city/county boundary, with some sections located outside city limits. The Parks and Recreation Department works with the Rivanna Trails Foundation in coordination of trail planning, construction, maintenance, and improvement efforts across the city. The RTF also depends upon volunteers who work to maintain trails on weekend workdays and to walk trails and ensure that they are in relatively good shape. The RTF trails are maintained to Appalachian Trail Standards, which are unpaved and somewhat rustic. The RTF trail map can be found at http://avenue.org/rivanna/.

The Rivanna Trail travels throughout the city including Riverview Park (top) and Fontaine Avenue (bottom).

The goals and objectives presented below outline a series of actions that can be taken to ensure that trails are managed and expanded in an environmentally sound manner. Recommendations for new trails and trail extensions are found in the Transportation Chapter. Expanding the city’s trail network and minimizing impacts from existing trails will serve to increase and protect the city’s green infrastructure resources.
Figure 6-10

PEDESTRIAN FACILITIES

2007 COMPREHENSIVE PLAN
Figure 6-11

BICYCLE FACILITIES

2007 COMPREHENSIVE PLAN
Programs and Organizations to Promote Walking and Biking

City of Charlottesville
In 2006 a Trails Planner position was created within the Department of Parks & Recreation. Responsibilities of the trails planner include planning and developing the City’s trail system and making related improvements. One of the primary tasks assigned to the trails planner is implementation of the recommendations in the Bicycle and Pedestrian Facilities Master Plan.

TJPDC
Walking and bicycling are supported and encouraged by the TJPDC through the planning efforts noted earlier. The TJPDC also undertakes tasks specific to these modes including:
- Conducting Local Walkability Workshops;
- Including $6 million (FY 2005-2006) for walk/bike projects in MPO Long Range Plan;
- Conducting Regional Greenways and Trails forums; and
- Coordinating with state agencies on codes and policies.

Other organizations active in promoting bicycle and walking programs are described below.

The Jefferson Area Bicycling and Walking Advisory Committee
The Jefferson Area Bicycling and Walking Advisory Committee (JABAWAC) was created by the TJPDC and worked for a number of years to get plans and policies in place to support biking and walking. Much of the committee’s focus was on transportation facilities for those that use bicycles or walking to commute, but recreational riders were also considered. The committee researched funding opportunities to help build the necessary infrastructure, and reviewed local and state codes and policies to identify areas which could be improved to better facilitate creation of a safe pedestrian environment in our region.

The committee elected to disband following its success in developing the regional pedestrian, bicycle and greenways plan (described above in Section 6.1). This plan has been adopted in nearly every locality in the PDC. The JABAWAC also assisted in getting VDOT to change funding policies so that implementation of the regional plan is much more likely.

Community Mobility Committee
The Community Mobility Committee of the Charlottesville-Albemarle MPO helps develop strategies to decrease the dependence on the single occupant automobile in the urban area of TJPDC. The Committee focuses on strategies for increasing ridership on transit; increasing participation in carpooling and vanpooling; and helping the region prepare for initiatives such as ITS and light rail. It coordinates efforts with the JABAWAC and other related area groups, initiatives and programs. The Committee reports to the MPO Technical Committee and Policy Board.

Alliance for Community Choice in Transportation
The Alliance for Community Choice in Transportation (ACCT) is a network of citizens and groups dedicated to promoting balanced transportation options, sustainable land-use and transit-oriented communities through education and leadership in the greater Charlottesville area. Key ACCT programs include:

Safe Routes to School: ACCT promotes the local Safe Routes to School programming. This programming is a local adaptation of a national program with the primary goal to improve the health of kids and the community by making walking and bicycling to school safer, easier and more enjoyable.

Bike Safety Programs: ACCT works closely with a variety of community organizations to provide bicycle safety instruction and free bike helmets to children who need them. Throughout the year, ACCT undertakes events and activities, such as:
- Westhaven Community Days with Charlottesville Police Department;
- Health and Safety Fair at Blue Ridge commons sponsored by UVA Nursing Students;
- Bicycle Safety class for Bright Stars
preschoolers through Albemarle County Social Services; and
• Bicycle Rodeos at area schools and bicycle safety classes for elementary school students.

Regional Mobility Map: ACCT has created a Regional Mobility Map which is updated every two years. The map shows all of the area’s roads but also includes information about bike lanes, trails, safe walking routes, transit and ridesharing options. Maps are free and can be picked up at many locations in the City of Charlottesville and Albemarle County.

Transportation System Issues, Goals and Objectives

The above review of transportation system conditions in the City of Charlottesville highlighted a number of issues for travel today and in the future. These issues are listed below. In order to address the issues identified and pro-actively guide the future development of the transportation system, the following overarching goal is established:

**Transportation System Goal:** To provide a safe, efficient transportation system that reduces single occupancy vehicle travel (from 61 percent to 50 percent for commuters) by prioritizing options for mode of travel, while at the same time enhancing the quality of life in the City, facilitating development in priority locations, preserving valued cultural resources, reducing greenhouse gas emissions and conserving natural resources.

In order to fulfill the above goal, the objectives that follow are established and are grouped into the following four categories:

- Regional – These objectives address travel around the City.
- Local – These objectives address travel through the City.
- Parking – These objectives address parking within the City.
- Modal – These objectives address reducing the number of single occupancy vehicles and increasing the number of people who bike, walk and use transit.
- Financial – These objectives address the limited funding for transportation.

**Issues**

**Regional Issues**

**ISSUE I:** Too many trips occur in motor vehicles occupied only by a driver.
**ISSUE II:** Motor vehicles emit too much greenhouse gas and use too much non-renewable fuel, especially petroleum-based gasoline.
**ISSUE III:** Roadway network surrounding the City is insufficient. Traffic neither destined to nor originating from the City must travel through the City.
**ISSUE IV:** Access to transit is limited for County-City travel forcing area residents to drive to and from the City.
**ISSUE V:** A greater understating of the regional travel patterns is need to effectively address congestion within the City and region.

**Local Issues**

**ISSUE I:** The capacity of the arterial roadway network is stressed by high usage, resulting in congestion and increased traffic on local streets.
**ISSUE II:** Numerous height and weight limitations on bridges throughout the City.
**ISSUE III:** Vehicles are traveling at high speeds on local streets and cutting through neighborhoods rather than using the arterial and collector roadway.
network in place for this type of travel.

ISSUE IV: While an efficient transportation system is desirable, neighborhoods do not want to lose their character due to transportation improvements.

Parking Issues

ISSUE I: Maintaining the parking supply to meet demand, support economic vitality and contribute to the community land use vision is a dynamic and ongoing challenge. At the same time, parking site development should be aesthetic, accommodate pedestrians, bicyclists and transit users and minimize impacts to sensitive environmental resources.

Modal Issues

ISSUE I: The majority of the roadway network within the City was designed to accommodate vehicular travel and does not adequately address safety and user comfort for pedestrians, bicyclists or citizens with disabilities.

ISSUE II: Trails are used for both commuting and recreation creating conflicts.

ISSUE III: Many residents live within a reasonable walking or biking distance to retail and commercial destinations within the City. However, residents choose to drive rather than bike or walk due to a lack of trails, paths, sidewalks and bike lanes connecting the residential and commercial areas.

Financial Issues

ISSUE I: While transportation needs continue to increase, funding at the state level is decreasing.

ISSUE II: Trail funding is limited and all possible sources of revenue need to be considered.

Goals and Objectives

Regional Goals and Objectives

GOAL I: Reduce number of single-occupancy vehicle trips.

Objective A: Reduce the number of trips per person in motor vehicles, especially trips in vehicles occupied only by a driver, with a goal of reducing the percentage of people who drive alone as a means of transportation to work, to 50 percent by 2015. To achieve this, an increase in the percentage of trips by walking, biking, transit, and car pooling by enhancing incentives and opportunities to use other modes of transportation, exploring disincentives to drive alone, and altering land use patterns to facilitate use of non-driving modes of transportation will have to occur.

GOAL II: Limit use of non-renewable fuel for vehicles, specifically petroleum-based gasoline.

Objective A: Increase access to alternative fuels, such as by incentives for private sector, or direct public sector, augmentation of capacity to service vehicles with renewable fuels and fuels that emit less greenhouse gas.

Objective B: Develop a plan to replace City owned vehicles with more environmentally friendly vehicles.

Objective C: Create innovative incentives for those who use alternative fuels.

GOAL III: Establish adequate regional roadway network to divert traffic neither originating nor destined for the City away from local network.

Objective A: Develop a regional transportation network surrounding the City by actively participating in the planning for construction of new facilities such as the Eastern Connector and Sunset/Fontaine Avenue Connector.

Objective B: Evaluate regional transportation network priorities surrounding the City in CHART and MPO Plans.
GOAL IV: Increase regional access to transit for County-City travel.

Objective A: Increase regional mode-split opportunities by actively participating in the establishment of the Regional Transit Authority and encouraging bicycle, pedestrian and transit connections, including attention to Sunday and after dark bus service, between the County and City.

Objective B: Cooperate with Albemarle County in exploring express bus lanes and other transit improvements north of the City.

Objective C: Actively explore the role a streetcar can play as a primary transportation element along the Main Street corridor and Emmet Street to encourage economic development and more residential density close to Downtown and the University of Virginia with shared financing by the City, University, Commonwealth of Virginia, Federal Highway Administration and property owners.

Objective D: Continue to expand transit service and increase ridership.

Objective E: Identify park and ride opportunities by locating sites, developing them and advertising them, working with Albemarle County where appropriate.

GOAL V: Develop information regarding regional travel patterns to address congestion within the City and region.

Objective A: Actively work with the MPO to develop origin-destination data.

Local Goals and Objectives

GOAL I: Efficiently manage the capacity of the arterial roadway network, relieving congestion and increased traffic on local streets.

Objective A: Preserve the traffic-moving capacity of the arterial roadway network using Travel Demand Management (for local employers including, the University of Virginia, City of Charlottesville, Albemarle County and Charlottesville High School) and developing a travel demand management plan for the City of Charlottesville.

Objective B: Continue to use Transportation System Management techniques such as Intelligent Transportation Systems to coordinate traffic signals, communicate emergencies, weather and incidents to drivers, and promote transit using preemption.

Objective C: Develop Access Management standards for new development and redevelopment.

Objective D: Identify multimodal solutions to reduce single occupancy vehicle use.

Objective E: Identify additional roadway connections to improve the grid.

GOAL II: Establish routes along continuous height and weight limitations on bridges throughout the City.

Objective A: Establish designated truck routes within the City.

GOAL III: Reduce the high vehicle speeds and limit cut-through traffic on local streets as this type of travel is intended for arterial and collector roadway networks.

Objective A: Reduce speeding and cut-through traffic on local streets (where justified by data and not a detriment to emergency services) using a comprehensive, safety-focused approach that prioritizes efforts to address the greatest safety concerns first.
GOAL IV: Develop an efficient transportation system without doing so at the cost of neighborhood character due to transportation improvements.

Objective A: Improve the roadway network and encourage new development using Context Sensitive Design.

Parking Goals and Objectives

GOAL I: Provide parking to adequately meet demand and support economic vitality without sacrificing aesthetics, minimizing environmental impacts and accommodating pedestrians, bicycles and transit users.

Objective A: Provide public parking to maintain the vitality of the City while using prices (including metering) and locations of parking to encourage use of transit, walking and bicycling.

Objective B: Explore options for park-and-ride lots and examine parking exempt zones. Utilize the zoning regulations to promote sound private parking facility supply and design by private developers.

Objective C: Initiate a parking study addressing the impact of parking on the transportation network, economic vitality and transit feasibility.

Objective D: Encourage employers to provide incentives for employees who do not drive to work.

Objective E: Work with University of Virginia officials on how parking incentives and disincentives might encourage students, faculty and staff to live closer to the University or to use alternative modes of transportation wherever they live.

Objective F: Explore shared motor vehicle service (such as service provided by Flexcar and Zipcar) for the Downtown and University areas.

Modal Goals and Objectives

GOAL I: Increase safer accommodations for pedestrians, bicyclists and citizens with disabilities while within existing roadway network.

Objective A: Provide design features on existing roadways to improve the safety and comfort level of all users by enhancing the pedestrian and bicycle facility network, using the Safe Routes to School program in the vicinity of schools and consistently applying ADA standards to facility design.

Objective B: Complete the sidewalk network using a priority system of: dual-side safe routes to all city schools; dual-side routes along all arterial and collector routes; dual-side routes to parks and public facilities; completing routes that have less than ¼ mile sections missing; mitigation rain run-off and drainage problems; and citizen requests in neighborhoods.

Objective C: Evaluate how street trees, sidewalk width and buffers between motor vehicles and sidewalks can enhance pedestrian travel, especially in development corridors.

Objective D: Ensure ADA access is improved to provide equal transportation options for all users.

GOAL II: Designate separate trails both commuting and recreation to avoid user conflicts.

Objective A: Designate trails for specific uses to avoid user conflicts and negative environmental impacts and when planning new trails or trail improvements consider developing separate commuter and nature trails within a greenway.

GOAL III: Establish connectivity between residences and commercial destinations that are located in close proximity to one another to promote the option of walking and biking rather than driving.
Objective A: Identify connections between residential and commercial areas that would enable residents to bike and walk to their destinations.

Financial Goals and Objectives

GOAL I: Acquire adequate funding for growing transportation needs.

Objective A: Identify additional funding sources for transportation improvements including grants, public-private partnerships, and potential for system operations revenues.

Objective B: Create a regional advocacy that brings all jurisdictions together to push for state-wide changes in transportation funding and to lobby the general assembly for additional funding.

Objective C: Explore the possibility of establishing a Transportation District.

Objective D: Explore establishment of impact fee service areas for road improvement projects and determine the feasibility of implementing an impact fee service area.

GOAL II: Acquire adequate funding for trails from all possible sources of revenue.

Objective A: Make developers aware of new trail linkages needed and seek opportunities for private donations of trail easements and construction of trail enhancements such as bridges or interpretive signage.
Implementation Tools

Transportation Demand Management and Transportation System Management

Transportation demand management (TDM) addresses traffic congestion by reducing travel demand rather than increasing transportation capacity and focuses on alternatives such as ride sharing, alternative work schedules and teleworking, increased transit usage, parking management, walking and bicycling. Transportation system management (TSM) strategies focus on increasing the efficiency, safety and capacity of existing transportation systems through such techniques as facility design treatments, access management programs, high occupancy vehicle (HOV) lanes, incident response plans, targeted traffic enforcement and intelligent transportation systems (ITS).

Transportation Demand Management/ RideShare

The TJPDC currently operates RideShare, which is a program that works to reduce traffic congestion and increase mobility throughout the City of Charlottesville and Albemarle, Fluvanna, Greene, Louisa, and Nelson Counties.

Ride Sharing: RideShare offers a free carpool and SchoolPool matching service, a vanpool start-up service, and a Guaranteed Ride Home program, which provides free rides home in an emergency to users of alternative transportation. RideShare also works with employers to develop and implement traffic reduction programs (incentives for employees not to travel alone by car), and also markets the region’s Park and Ride lots. RideShare is a member of the Commuter Information Team (CIT), a partnership that includes JAUNT, Charlottesville Transit Service (CTS), University Transit Service (UTS), and Greene County Transit. RideShare’s current work with the CIT includes acting as a transportation information and referral center for the region, as well as contributing to joint marketing and awareness efforts.

Telework: Teleworking is an extension of the workplace, enabling employees to be productive in a location other than the normal “office” by using the phone and the computer. The spread of home-based businesses has done much to enhance the image of teleworking, and many preparedness experts tout the value of decentralized office environments. In the Washington, D.C. area, for example, many Fortune 500 and government employees work from one of 19 government-subsidized telework centers. RideShare provides individuals and employers with information and assistance in implementing telework policies and programs.

Commuter Choice: Commuter Choice is a program offered by RideShare which allows employers to offer employees up to $100 tax free to cover the cost of an employee’s commuting using public transit or a vanpool.

Transportation System Management

TSM strategies focus on increasing the efficiency, safety and capacity of existing transportation systems through such techniques as facility design treatments, access management programs, incident response plans, targeted traffic enforcement and intelligent transportation systems (ITS). Through better management and operation of existing transportation facilities, these techniques are designed to improve traffic flow, air quality and movement of vehicles and goods, as well as enhance system accessibility and safety. TSM strategies are low-cost but effective in nature, and include, but are not limited to:

- Intersection and signal improvements,
- Arterial bottleneck removal programs,
- Data collection to monitor system performance,
- Special events management strategies.

The identification and elimination of traffic bottlenecks can greatly improve traveling conditions and enhance system capacity, reliability and safety, especially during
peak periods. TSM projects can complement major capacity improvements and infrastructure by providing improved traffic flow on arterials and local streets.

**Intelligent Transportation Systems**

A TSM measure referred to as Intelligent Transportation Systems, or ITS, encompasses a broad range of wireless and wire-line communications-based information, control and electronics technologies. When integrated into the transportation system infrastructure, and in vehicles themselves, these technologies help monitor and manage traffic flow, reduce congestion and provide alternate routes to travelers, thereby enhancing productivity and saving lives, time and money. Advanced Traffic Management Systems employ detectors, cameras and communication systems to monitor traffic, optimize signal timings on major arterials and improve the flow of traffic. Research has reported that roadway capacity can be increased 19% after traffic signals are coordinated and operating in a system environment. This additional capacity through technology provides an extremely cost effective method to mitigate mounting congestion within a constrained-capacity system. ITS is considered to be the most cost effective TSM measure for reducing congestion and increasing capacity on existing roadways.

Charlottesville has invested in various ITS technologies. Planning for Charlottesville’s evolving ITS efforts began in earnest in 1996 and received initial funding in 2004. The evolution of the system began with procurement and installation of intersection signal communication equipment along Ivy Road and Emmett Street near the University. The system has evolved since then to include improved signal coordination of the West Main Street, Emmet Street and Preston Avenue corridors. Ten traffic monitoring cameras were erected at high volume intersections, resulting in an ability to monitor traffic operations and modify signal operations remotely if needed to respond to traffic conditions. The system control room is located in the Public Works Building. The facility houses the necessary computers, communication equipment and viewing monitors required to operate the system. In 2007, a more robust centralized-system control software was installed which greatly improves the City’s ability to observe and control existing and future traffic signal coordination, traffic monitoring cameras, road surface weather stations and changeable message signs among other traffic devices throughout the City. Other options for system expansion exist, such as interfacing the system with transit vehicle operations to allow vehicle tracking and timing and transit vehicle priority preemption. Another ITS option is to link the video feed from the ITS cameras to an internet site, where the public can view various roadway segments or intersections in order to choose the least congested arterial route before leaving their house or work place. Ultimately, the City’s ITS measures will include, at a minimum, direct communication with all traffic signals, additional traffic monitoring cameras, traffic volume sensors for real time signal system timing modifications, additional road surface/weather sensors and variable message signs for dynamic routing of traffic during events and incidences. The City can pursue various funding sources, both federal and state, to offset costs associated with ITS implementation.

**Access Management**

Access management is the process of balancing the competing needs of motor vehicle mobility and land access. As land use patterns change, so too does the pattern of vehicle turning movements to and from the roadways.

Access management provides access to land development while simultaneously preserving the safe and efficient flow of traffic, including bicyclists and pedestrians, on the roadway system. Access design characteristics that directly impact roadway traffic flow and safety include location and design of access drives and side roads as well as location of signals, medians and turn lanes. Effective access management includes a comprehensive package of both physical design plans for improving roadway function, local planning programs and development regulations to control access by future development onto a roadway system.

The technical focus of access management is on
controlling conflict points to increase the predictability and safety of traffic along a roadway. A conflict point is a location along a roadway where vehicles turning into or out of a driveway or side street have the potential to collide with other vehicles, pedestrians or bicyclists. Access management can reduce the number of conflict points and provide the following benefits:

- Helps maintain the capacity of the roadways relative to the functions they are expected to serve by sustaining smooth traffic flows; this in turn reduces the need for costly road widening;
- Enhances safety by reducing conditions that induce accidents;
- Enhances the accessibility of commercial sites, improving economic activity with more logical and clear access to businesses;
- Creates a corridor with fewer driveways; this along with other access management features generally means there will be more road frontage space within which to locate more streetscape elements such as street trees and aesthetic lighting to enhance the look of the roadway. This contributes to community character and livability; and
- Reduces localized auto emissions (less congestion with idling of cars) and stormwater runoff (less impervious driveway and parking surfaces that increase runoff).

The City of Charlottesville has limited existing policy or practice to promote access management. Policy statements for access management are typically included in a comprehensive plan, transportation system improvement plan or land use regulation. The goals for access management are indirectly referenced in the 2001 Charlottesville comprehensive plan. Access management concepts appear in some of the 2006 neighborhood plans, Fontaine Avenue Study, and zoning regulations. The revised City Design Standards should incorporate access management guidelines.

Charlottesville Comprehensive Plan, 2001: The 2001 plan articulates a series of value statements that includes maximizing accessibility by improving traffic flow and safety. One of the goals in the plan identified through the community survey was to reduce traffic in the neighborhoods. However, utilizing access management to achieve this goal was not mentioned. Traffic congestion was noted as a competitive disadvantage for the City in the plan’s discussion of the economy. Chapter Ten of the plan on transportation describes and incorporates the findings of the Charlottesville Area Transportation Study (CATS). This study articulated a set of criteria for evaluating future road project alternatives. Several of those criteria are consistent with access management objectives including roadway projects that:

- Provide efficient, flexible access to and circulation within economic activity centers
- Support efficient, appropriate use of roadways, i.e., through routes carrying through traffic, local routes carrying local traffic.
- Reduce the likelihood of accidents among or between automobiles, buses, trucks, bicycles, pedestrians and airplanes.

Neighborhood Capital Improvement Plans: The 2006 neighborhood plans each address roadway issues in their respective neighborhoods. Several of the plan’s project lists call for roadway improvements that include access management features. These projects call for sight-line improvements, intersection redesign, redesign of some curb-cuts to public properties, signage and, for the Fontaine Avenue neighborhood, medians and turn lanes.

Fontaine Avenue Study (March, 2005): The goals for this study include approaches to improving the roadway that avoid widening. Alternative design concepts were considered including one with a median and one with added turning lanes - both access management solutions. A key proposal for the corridor was the elimination of numerous driveways and parking lot entrances or curb cuts onto Fontaine Avenue. The loss of these access points would be mitigated with new access points via two alleys. The criteria for evaluating the alternative design concepts in the study included actions that would minimize traffic impacts by considering turning movements and access issues.

The Zoning Ordinance of the City of Charlottesville,
Virginia (updated to September, 2003): The current zoning regulations have two sections that address access design. Section 34-975 establishes some limited access design requirements in the context of off-street parking standards. Section 34-976 requires that the design of any driveway (except those for single and two-family homes) must be approved by the Director of Neighborhood Development Services. It also sets some standards for driveway width at the curb line, maximum driveway length, and distance of any driveway from a street intersection (at least 15 feet). The distance between driveways where a property has more than one access drive is also set to a minimum of 20 feet. Finally, it states that the Director of Neighborhood Development Services may approve a shared driveway.

Traffic Calming
Traffic calming is a proactive attempt to improve the livability of residential neighborhoods and promote pedestrian activity. It involves various engineering techniques to physically change the characteristics of streets, improve pedestrian safety and encourage drivers to obey speed limits. Engineering approaches most commonly use a variety of physical devices to alter the geometry of the street, along with more traditional traffic engineering techniques to slow traffic, such as speed humps, curb extensions and narrowings. A successful traffic calming plan is generally not a single device, but rather a series of integrated improvements to slow traffic and, if desired, to direct traffic to more appropriate routes. It is important to note that the term “traffic calming” also applies to non-engineering approaches to educate the public and provide awareness relative to unsafe driver behavior; these are in the realm of education and enforcement.

The City of Charlottesville has been formally providing traffic calming solutions for its residents since 1996. In 2000, the City adopted a Traffic Calming Guideline that outlined the following recommended four-part process to integrate traffic calming into the traffic improvement program:

- Documentation of the problem and the need for traffic calming devices.
- The collection of field reconnaissance and traffic study data.
- Selecting the proper device to correct the problem.
- Monitoring the effectiveness of the solution once the device(s) are installed.

Since 2000, the City has allocated funding to each City Neighborhood Group within each CIP cycle to address traffic calming requests. The process enables the neighborhood association to prioritize their concerns and submit them to NDS for consideration. NDS staff then address these concerns using the four step process summarized above.

As the City continues to grow in terms of increased density and traffic volumes, it has become increasingly apparent that, instead of prioritizing traffic calming concerns on strictly a street and neighborhood basis, a more holistic approach could be more effective. This approach would allow city staff to study an entire neighborhood or multiple neighborhoods simultaneously, with the goal of identifying traffic operational concerns and impacts in a larger context. This bigger picture view could have a greater impact on reducing cut through traffic, improving walkability within and between neighborhoods and increasing quality of life within the neighborhood settings. In many locations throughout the City, construction of sidewalks would likely eliminate the need for traffic calming devices within the roadway by providing a designated area for pedestrians. Where appropriate City staff shall address traffic calming on a larger scale rather than a street by street basis.

The potential for traffic calming to preserve safety and quality of life may require the City to re-examine the process and funding mechanisms for applying traffic calming on neighborhood streets. Coordination of this planning with the ongoing neighborhood planning framework, coupled with resident input and engineering investigation, should serve as the basis for improved traffic calming and cut-through traffic prevention and mitigation.
Context Sensitive Design

Context Sensitive Design (CSD) is defined by the Federal Highway Administration (FHWA) as a collaborative, interdisciplinary approach to building roadway projects that involves all stakeholders. The goal is to develop a transportation facility that fits its physical setting and preserves scenic, aesthetic, neighborhood, historic and environmental resources, while maintaining safety and mobility. It is an approach to project design that considers the total context within which a transportation improvement project will exist. The following principles for CSD were articulated at a 1998 FHWA workshop, Thinking Beyond the Pavement:

- The project should satisfy the purpose and needs as agreed to by a full range of stakeholders.
- The project is a safe facility for both the user and the community.
- The project is in harmony with the community, and it preserves environmental, scenic, aesthetic, historic and natural resource values of the area.
- The project exceeds the expectations of both designers and stakeholders and achieves a level of excellence in people’s minds.
- The project involves efficient and effective use of the resources (time, budget, community) of all involved parties.
- The project is designed and built with minimal disruption to the community.
- The project is seen as having added lasting value to the community.

Context sensitive design (CSD) is not directly addressed in any City policy or implemented through any City practice. The 2001 Comprehensive Plan did note the value of preserving neighborhood character but did not identify CSD as a tool to help achieve that objective. The varied neighborhood capital improvement plans do include some projects for streetscaping, traffic calming and pedestrian access. These features are part and parcel of a CSD approach for new or reconstructed local streets. The principles for traffic calming and CSD overlap in many instances.

In contrast, the findings of the 2005 Fontaine Avenue Study were a CSD alternative for this roadway. The study established a set of CSD criteria for evaluating five alternative improvement concepts for the roadway. Context sensitive approaches included multi-modal opportunities specifically for pedestrian, bicycle and transit use, a tree-lined, landscape median introduced wherever possible, left turn lanes positioned at key intersections, narrower lanes and traffic calming measures and the elimination of numerous driveways and parking lot entrances onto Fontaine Avenue, replaced by access via two alleys between Piedmont Road and Lewis Street. These alleys are intended to provide access to parking and garages to the rear of buildings. This transition allows a continuous sidewalk and tree line to be created on both sides of the street.

The Charlottesville zoning regulations include some limited requirements that contribute to CSD. The regulations require site plans to include landscaping and screening along roadway frontages and the use of street trees in the interface between development and the street. However, no other street design requirements that would minimize street widths and integrate them into the fabric of an existing neighborhood are specified. The revised City Design Standards shall include context sensitive design solutions.

Parking Management

Parking management includes not only implementation of public parking recommendations as detailed in the Charlottesville Parking Master Plan, but ongoing monitoring and adjustment to the public supply along with aggressive enforcement. A critical complementary approach is careful management of the private parking supply through the land development approval process. The Charlottesville zoning regulations should be reviewed with regard to the parking provisions to ensure that they allow for a comprehensive variety of flexible approaches to meeting the parking requirements. Along with this, the regulations should include clear standards for parking facility design, well articulated criteria for decision-making on parking proposals, and comprehensive requirements for parking information to be supplied with development applications (including parking impact reports).
### CHART 2025 Project Listing

<table>
<thead>
<tr>
<th>Project #</th>
<th>TIF # (Funding source)</th>
<th>Project</th>
<th>Type*</th>
<th>Project Description</th>
<th>Project Purpose</th>
<th>Total Cost</th>
<th>Remaining Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-1</td>
<td>S-10</td>
<td>Airport Road (Route 649)</td>
<td>U4</td>
<td>Expand roadway to four lanes with sidewalks and bike lanes: includes roundabout at intersection of 649/606</td>
<td>Add capacity, Improve safety</td>
<td>$12,103,950</td>
<td>$2,577,400</td>
</tr>
<tr>
<td>I-2</td>
<td>n/a</td>
<td>Southern Urban (Area B) Improvements</td>
<td>n/a</td>
<td>Contribution to PE and construction of projects to be identified by Area B study</td>
<td>Add capacity, Alternate route</td>
<td>$2,000,000</td>
<td>$2,000,000</td>
</tr>
<tr>
<td>I-3</td>
<td>n/a</td>
<td>Free State Road Connection and Bridge</td>
<td>R2/ER</td>
<td>Construct 2-lane road with sidewalks and bike lanes from Rva Road to Free State Road and replace substandard bridge (See footnotes 1)</td>
<td>Improve safety</td>
<td>$4,200,000</td>
<td>$2,477,631</td>
</tr>
<tr>
<td>I-4</td>
<td>U-1</td>
<td>Fontaine (Maury St to WCL)</td>
<td>U3R</td>
<td>Roadway improvements, add bicycle lanes and sidewalks</td>
<td>Improve safety, Add capacity</td>
<td>$6,004,000</td>
<td>$2,374,009</td>
</tr>
<tr>
<td>I-5</td>
<td>S-5</td>
<td>Georgetown Road (Route 656)</td>
<td>Spd</td>
<td>Retrofit existing roadway, create urban cross-section providing for continuous pedestrian, bicycle access</td>
<td>Improve safety</td>
<td>$3,200,000</td>
<td>$2,500,000</td>
</tr>
<tr>
<td>I-7</td>
<td>U-6</td>
<td>Jefferson Park Avenue Ext-Bridge Replacement</td>
<td>Br</td>
<td>Replace bridge at JPA over Norfolk Southern Railroad</td>
<td>Improve safety, Enhance community character</td>
<td>$4,000,000</td>
<td>$2,350,000</td>
</tr>
<tr>
<td>I-8</td>
<td>S-1</td>
<td>Old Ivy Road (Route 601)</td>
<td>U3</td>
<td>Widen road from 2 to 3 lanes, add sidewalks and bike lanes from 290 to 29/290 Bypass</td>
<td>Add capacity</td>
<td>$7,200,000</td>
<td>$5,296,000</td>
</tr>
<tr>
<td>I-9</td>
<td>S-2</td>
<td>Old Lynchburg Road (Route 631)</td>
<td>Spd</td>
<td>Realign roadway at various locations</td>
<td>Improve safety</td>
<td>$1,500,000</td>
<td>$1,500,000</td>
</tr>
<tr>
<td>I-10</td>
<td>S-12</td>
<td>Profit Road (Route 649)</td>
<td>U2</td>
<td>Reconstruct roadway; create urban cross-section adding capacity; increase lanes (4 from 23 to Warm Crossing, 3 to Pritchett Lane, remain 2 lanes to Development Area Boundary)</td>
<td>Improve safety</td>
<td>$8,500,000</td>
<td>$8,500,000</td>
</tr>
<tr>
<td>I-11</td>
<td>n/a</td>
<td>Reservoir Road (Route 702)</td>
<td>n/a</td>
<td>Spot improvements</td>
<td>Improve safety, Enhance community character</td>
<td>$700,000</td>
<td>$700,000</td>
</tr>
<tr>
<td>I-12</td>
<td>I-1</td>
<td>Rest Area at Ivy (upgrade sewer system)</td>
<td>n/a</td>
<td>Upgrade deteriorating rest area sewer system underlining sewer line extension</td>
<td>Improve safety</td>
<td>$2,377,000</td>
<td>$1,068,000</td>
</tr>
<tr>
<td>I-13</td>
<td>P-1</td>
<td>Route 20 (Rte 250 to Rte 600)</td>
<td>R1</td>
<td>Need for sidewalks on the southern portion of Rt. 20 connecting to public transit in an area of mixed use and low-cost housing</td>
<td>Strengthened, widened shoulder</td>
<td>$289,000</td>
<td>$289,000</td>
</tr>
<tr>
<td>I-14</td>
<td>P-2</td>
<td>Route 22 (at Route 250 Int)</td>
<td>Int</td>
<td>Realign hazardous intersection</td>
<td>Improve safety</td>
<td>$750,000</td>
<td>$136,000</td>
</tr>
<tr>
<td>I-15</td>
<td>n/a</td>
<td>Route 29 (from South Fork Rivanna River to Airport Road)</td>
<td>R6</td>
<td>Improve roadway to accommodate anticipated traffic due to increased development</td>
<td>Provide travel choices. Improve safety, Enhance access</td>
<td>$17,500,000</td>
<td>$17,500,000</td>
</tr>
<tr>
<td>I-16</td>
<td>n/a</td>
<td>Route 29 Corridor Improvements (Previously named Route 250 / 29 Hydraulic-Greer Briar (interchanges)</td>
<td>n/a</td>
<td>Provide partial funding for improvements to be recommended from 29H250 P1 Study</td>
<td>Add capacity, Improve safety</td>
<td>$35,649,829</td>
<td>$35,649,829</td>
</tr>
</tbody>
</table>

Approved by MPO Policy Board 5.10.04