PLANNING COMMISSION
WORK SESSION AGENDA

Heritage Conference Room
September 22, 2016
7:00 P.M.

1) **Call to Order –** Vice Chair Chip Paciulli

2) **Chairman's Comments**

3) **Discussion of Current Planning Documents: Transportation**

4) **Discussion of Upcoming Comprehensive Plan Workshops**

5) **Adjournment**

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STAFF REPORT
WORK SESSION ITEM

Item # 3

SUBJECT: Discussion of Current Planning Documents: Transportation

DATE OF MEETING: September 22, 2016

STAFF CONTACT: Daniel Galindo, AICP – Senior Planner

SUMMARY:

The Planning Commission will begin a discussion of transportation based on its review of the:

1. *Purcellville, Virginia 2025 Comprehensive Plan*,
2. *Purcellville Townwide Transportation Plan*, and
3. the three draft reports summarizing and analyzing each of the first three rounds of public engagement for the Comprehensive Plan Update.

NOTE: Other documents may also be discussed if determined to be relevant by the Planning Commission or Town Staff.

ATTACHMENTS:

1. Transportation chapter (pg. 88-98) of the *Purcellville, Virginia 2025 Comprehensive Plan*
2. *Purcellville Townwide Transportation Plan* (111 pages)

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Transportation

Present day Main Street (Business Route 7) serves as the Town's major east-west thoroughfare. Generally, it lies in the original alignment of the Great Road which dates to the mid-1700s. Over the last 150 years, Purcellville's road system developed with varied widths and limited connectivity. Many older residential streets are narrow, lack curb and guttering, and end abruptly without dedicated turnarounds or connections to other streets. Downtown streets also are narrow with limited on-street parking and connections. Thus, traffic management in peak hours is challenging in Purcellville, especially given the desire to maintain the small town character, while encouraging appropriate growth and addressing today's transportation needs for residents and businesses.

1998 Comprehensive Plan Recommendations

The 1998 Plan recognized the need for Purcellville to be more active in working with the Virginia Department of Transportation and Loudoun County in formulating a long-term plan for transportation improvements within the Town. The Plan recommended:

1. **Additional study of pedestrian and bicycle routes in Town** - The Plan recommended developing a bicycle traffic plan to connect W&OD Trail to commercial and recreational destinations; encouraging the development of the former Manassas Gap Railroad as a trail; improved aesthetic treatment of East Main Street and the eastern entrance into Town through the development of design standards for site development, parking, signage, landscaping, and parcel connections.
2. **Improved pedestrian and vehicular circulation in Town and safe access to public facilities** - The Plan recommended preparing a "road improvement plan" to identify areas in need of improvement and recommend a network of streets to provide greater flexibility for local traffic; preparing a "pedestrian traffic plan" to connect public facilities and provide safe, attractive landscaped spaces that effectively manage traffic and pedestrians;
3. **Improved traffic circulation outside of Town** through safe and direct connection of the southern collector road to Route 7 Bypass as delineated in the Comprehensive Plan and the 1995 PUGAMP; and maintaining the option of a minimal impact interchange at Route 690 and Route 7 Bypass.
4. **Enhanced pedestrian safety** through expansion of crosswalks, additional sidewalks, and the restriction of truck traffic (where appropriate) - The Plan recommended providing safe neighborhood sidewalk connections to schools; improvements to the trail crossing at Route 7 Bypass and Route 287; providing sidewalks on Main Street where they were lacking; upgrading East Main Street from Maple Avenue to Pickwick Drive to include landscaping and address stormwater, coordinated entrances, shared parking and pedestrian access to shopping; enhancing access to public facilities in the vicinity of Main Street; and improving Main Street at 32nd Street, Nursery Avenue and Maple Avenue; and improving visibility and turning movements at East Main and 9th Street.

5. **Improved street network serving residential, commercial and industrial areas** – Specifically, the plan recommended appropriate traffic calming measures on Main Street in the central business district; expanding off-street parking in the central business district; upgrading streets to include curb, gutter and sidewalk; consolidating access points on major streets; and encouraging VDOT to maintain streets in a manner consistent with the character of the Town.
6. **Commuter bus service and parking** – The plan encouraged a commuter bus service from western Loudoun County to northern Virginia employment areas, commuter parking, and carpooling.

2005 Existing Conditions

The Town of Purcellville maintains most streets within the Town. The Town receives annual funding from the Virginia Department of Transportation (VDOT) for this purpose and agrees to maintain certain design standards established by the state for road construction and maintenance. VDOT maintains Route 287, Main Street and portions of Hirst Road. The following two Transportation Maps show existing and proposed transportation corridors (arterial, collector and local roads), sidewalks, bicycle routes, and trails. Arterial roads are defined by the Federal Highway Administration as roads that provide the highest level of service at the greatest speed for the longest uninterrupted distance with some degree of access control. Collector roads are those that provide a less highly developed level of service at a lower speed for shorter distances by collecting traffic from local roads and connecting them with arterials. Local roads are those that provide access to areas with little or no through movement and are not defined as arterials or collectors.

Several circumferential collector roads have been discussed around the Town of Purcellville. The Southern Collector Road (A Street) is designed and a majority of the corridor has been constructed; however, its linkage to Route 287 has not been finalized. The missing link is located outside of the Purcellville corporate limits, so the Town will need the cooperation of Loudoun County and the Virginia Department of Transportation (VDOT) to complete this collector. A Western Collector Road has been proposed by VDOT to connect the Route 7 Bypass and Route 690, but a detailed corridor alignment has not been identified. Further study of this collector is necessary, and it should be included on the Countywide Transportation Plan and the PUGAMP document. A Northern Collector Road is included in the adopted PUGAMP and the Countywide Transportation Plan to connect Route 690 and Route 287 and continue east.

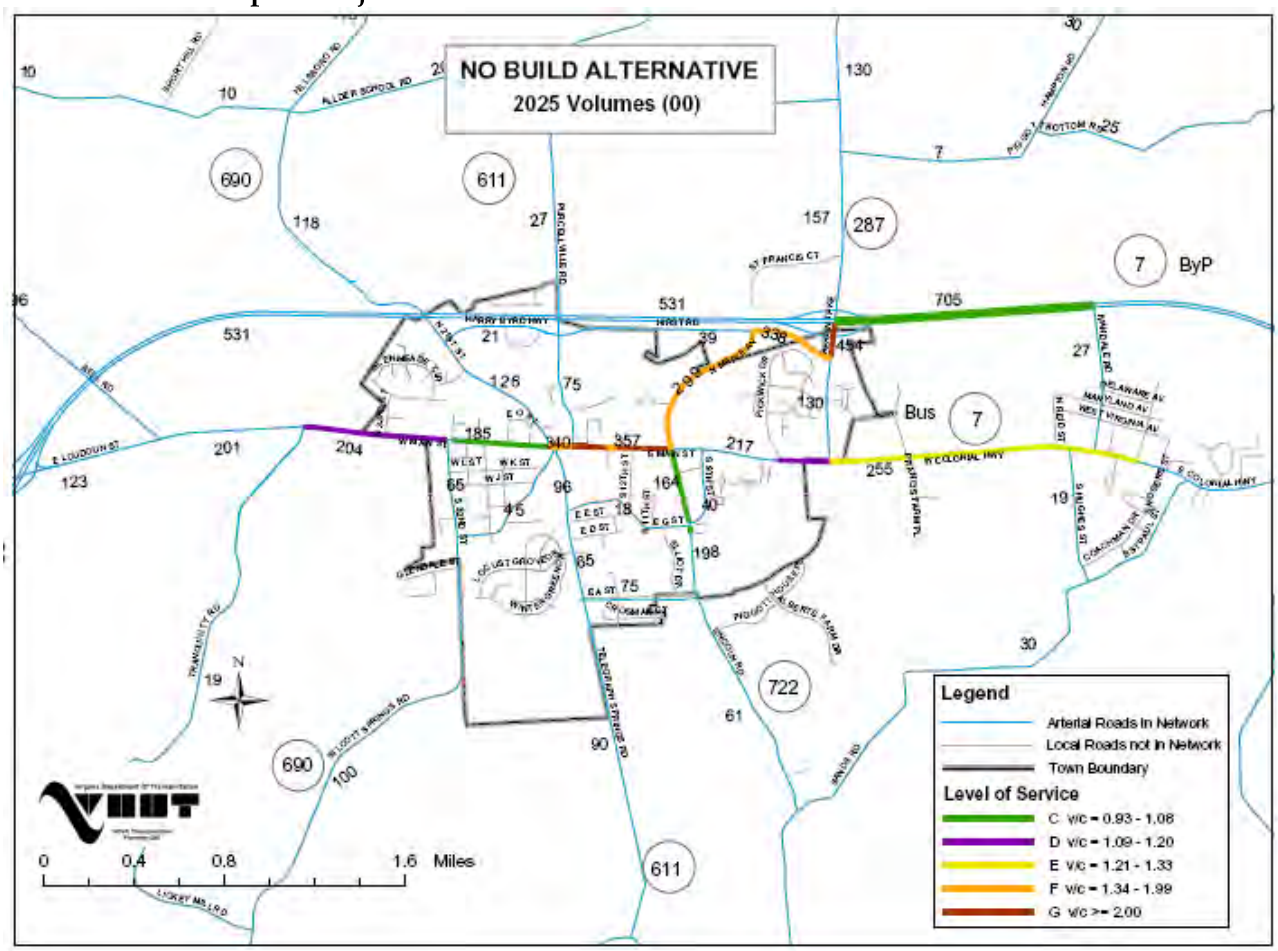
The levels of service for Purcellville's existing collector roads vary depending on the time of day. There is congestion on Main Street during peak hours. Intersections of particular concern are 23rd Street, 21st Street, Nursery Avenue, Hatcher Avenue, and Maple Avenue. As part of the Downtown Charrette in 2003, the following transportation issues were identified for further study:

1. Various Main Street improvements – signalization & stop signs at various intersections, widening through lanes east & west.
2. Reconfiguration of the Nursery/21st/20th/Main Intersection.

3. Widen 23rd Street to encourage travel between south Route 690 and Main Street.
4. Completion of A Street (Southern Collector Road).
5. New interchange at Route 690 and Route 7 By-pass.

In November 2004, VDOT's Northern Virginia District undertook an Analysis of 2025 Traffic on Alternative Highway Systems for the Town of Purcellville. The intent of the study was to update information for inclusion in the Comprehensive Plan and the PUGAMP. In addition to the issues identified in the Downtown Charrette, the Town expressed concern about traffic problems during peak commuter hours in the downtown, particularly in the vicinity of Maple and Main where school traffic worsens each morning and afternoon. Map 6 below shows the projected 2025 levels of service in Purcellville with no improvements (no build). Level of service A represents free traffic flowing conditions; level of service B also represents free flow with a noticeable presence of other vehicles; level of service C represents a range in traffic with the flow affected by other vehicles; level of service D represents a range in traffic with congestion and maneuverability severely restricted; level of service E represents at or near capacity and instability; level of service F represents forced or breakdown of traffic flows with highly unstable operations.

Map 6. Projected Traffic Levels of Service – No Build Alternative

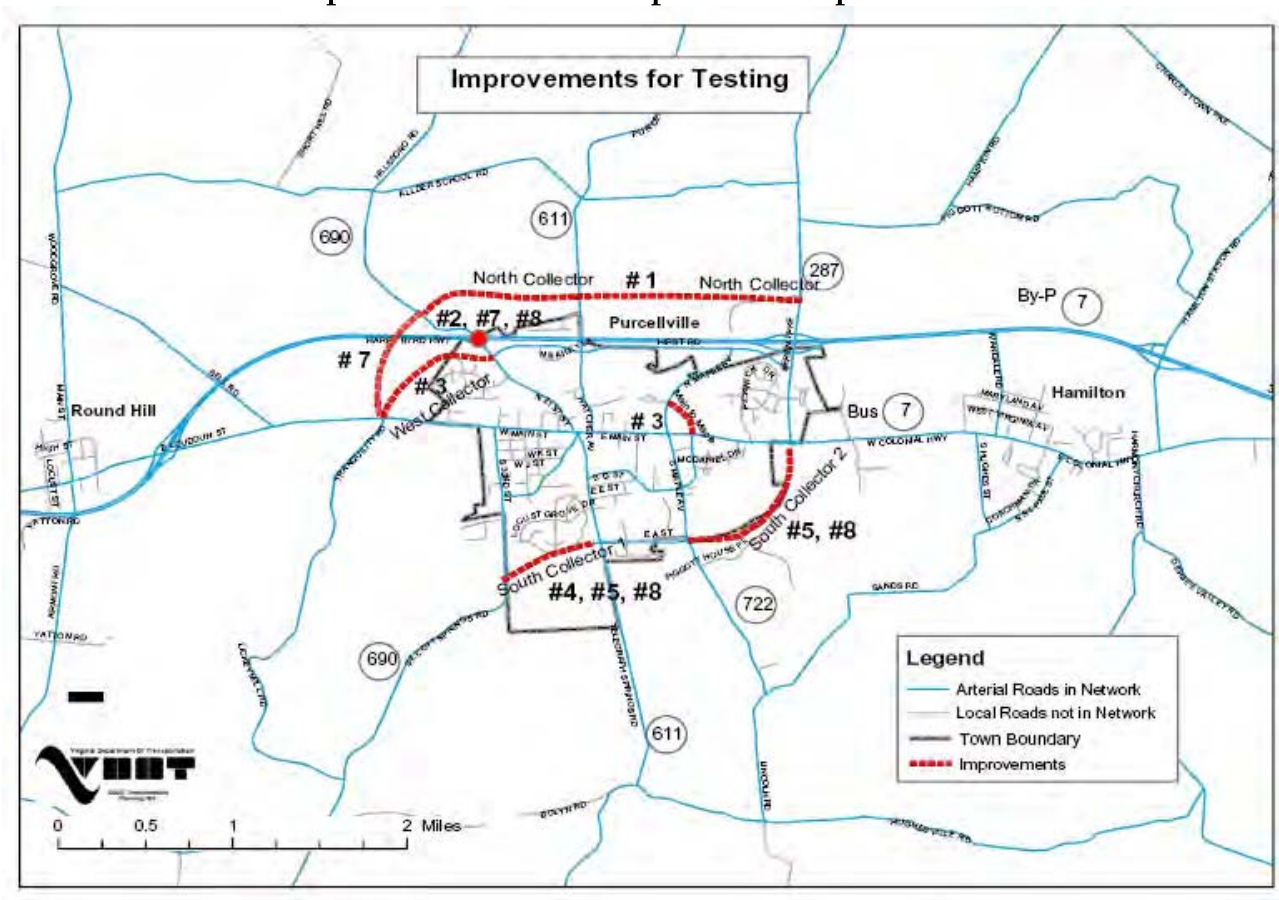


VDOT, Northern Virginia District Office, 2025 Traffic Analysis Town of Purcellville, Virginia, 2004.

Eight alternative improvements to various roads were studied in addition to a no-build alternative. These alternatives are listed below and illustrated on the following map:

Alternative 1: Northern Collector Road linking Route 690 to Route 287
Alternative 2: Interchange at Route 690 and Rout 7 By-pass
Alternative 3: West Collector Road connecting Tranquility Rod to Hirst Road plus a collector road linking 9th Street to North Maple Avenue
Alternative 4: Southern Collector Road linking 32nd Street to 20th Street
Alternative 5: Southern Collector Road linking 32nd Street to 20th Street, across the existing East A Street, and from Maple Avenue to Main Street at Route 287
Alternative 6: Composite of the above Alternatives 1 through 5
Alternative 7: Interchange at Route 690 and Route 7 By-pass with West Collector connecting Tranquility Road to the Northern Collector
Alternative 8: Interchange at Route 690 and Route 7 By-pass with both Southern Collector Roads

Map 7. Alternative Transportation Improvements



Source: VDOT, Northern Virginia District Office, 2025 Traffic Analysis Town of Purcellville, Virginia, 2004.

The level of service for the alternatives is summarized in the following table.

Figure 21. Levels of Service – VDOT Transportation Alternatives

Facility	No Build	Alternatives #1	#2	#3	#4	#5	#6	#7	#8
1. Main St. from Tranquility Rd. To 32nd Street	D	D	B	B	D	C	B	B	B
2. Main St. from Route 690 To Route 611	F	F	D	F	D	D	D	D	C
3. Main St. from Route 611 To Maple Ave.	F/G	F	D	F	D	C	C	D	C
4. N. Maple Ave. from Main St. To Hirst Road	F	F/G	D	F	F	C	B	D	B
5. Route 287 from Hirst Rd To Route 7 By-Pass	G	G	F	G	G	G	F	F	F
6. Route 7 (W. Colonial Hwy) West of Route 287	F	F	C	F	E	F	F	F	F
7. Hirst Rd. from N. Maple Ave To Route 287	F	G	F	F	F	F	C	F	B
8. Route 690 from Hirst Rd. To Route 7 By-Pass	B	B	E	B	B	B	F	E	F
9. Route 690 from Main St. To Hirst Road	B	B	C	C	B	B	C	C	C

Source: VDOT, Northern Virginia District Office

It is worthy to note that the level of service on Main Street continues to be troublesome in most of the alternatives studied. Consequently, the Town engaged the services of a transportation engineer in 2005 to study more specific traffic solutions for Main Street. A traffic signal warrant study was conducted for Main Street at 23rd Street, 21st Street, Nursery Avenue, Hatcher Avenue, and 32nd Street. Based on the additional analysis, several alternatives were considered: improve existing traffic controls; signalize West Main at 21st Street and Nursery/20th Street; and signalize East Main at Hatcher and 23rd Street. Town Council subsequently decided to signalize East Main Street at Hatcher and 23rd.

Also in 2005 the Town studied the Maple and Main Street intersection in order to improve vehicle capacity and pedestrian and bicycle safety and access. Plans for intersection improvements have been partially completed and are under review by the Town and VDOT. The preliminary plans include additional turn lanes, reduced road access points, sidewalks, landscaping and a widened intersection to accommodate turning vehicles.

Finally, a sidewalk improvement priority list is used for phasing and construction of pedestrian sidewalks. Major streets on the priority list for sidewalk improvements in the next few years include Main Street, Nursery, South 20th, North 21st, South 32nd, and North Maple Avenue.

Northern Virginia 2020 Transportation Plan recognizes the land use and employment changes anticipated and proposes infrastructure improvements for the region. There are no major project improvements proposed for the Town of Purcellville. As of 2005, Loudoun County has not included any of the above projects in the County's FY2005-2010 Transportation Improvement Plan. The Southern Collector Road (A Street) is designed and a majority of the corridor has been constructed; its linkage to Route 287 has not been finalized.

2025 Transportation Issues and Opportunities

With increased regional population and employment projected for next 10-15 years, commuter and destination traffic will increase, thereby creating a need for additional improvements to Route 7 Bypass and other key road connections to Town. Peak hour traffic congestion on Main Street could be reduced with the construction of A Street to Route 287 and a new western interchange on the Route 7 Bypass at Route 690.

The *Downtown Master Plan* recommends additional street connections and realignments to improve transportation management in the historic downtown. The Town received Transportation Enhancement Funding in 2006 for Phase 1 streetscape improvements to 21st Street and the intersection at 23rd Street. Additional federal funding is being sought to continue implementation of remaining phases of this project.

Because of its proximity to the W&OD Trail and its role as the business hub for western Loudoun County, Purcellville is an important crossroads for vehicles and bicycles. The Town encourages alternative forms of transportation and strives to create a community that is accessible for pedestrians, safe, and bicycle friendly. Existing and proposed bike routes in Purcellville are shown on the Transportation Map. Bicycle routes and dedicated bike lanes should be provided on all major roads, where feasible. Facilities should be included on Main Street, 21st Street, 20th Street, Hatcher Avenue, Hirst Road, Maple Avenue, Route 287 and the Route 7 Bypass. A detailed Bicycle Plan can provide direction for safety standards and location. A printed route map also would be beneficial, as well as bicycle racks in appropriate locations and a staging area for bicyclists. This should be part of an overall multi-modal Transportation Master Plan that will ensure equal emphasis on bicycle, pedestrian and vehicular transportation needs in the Town.

The 2003 *Loudoun County Bicycle & Pedestrian Mobility Master Plan* encouraged towns to adopt the Network Map shown in the plan, or suggest amendments. The Town of Purcellville adopted this plan in 2003. The Network Map shows the bicycle/pedestrian pathway from Round Hill to Franklin Park to Purcellville currently under development, as well as recommending pedestrian improvements on Main Street and near the high school. The plan encourages traffic calming as a means of improving bicycle and pedestrian safety and access. It notes that in the Rural Policy Area, a traffic calming project similar to Route 50 would be complementary for Business Route 7 from Round Hill to Hamilton.

Strategies identified in the plan for Town/County interface include:

1. The County will collaborate with the Town to identify ways to mitigate traffic impacts and integrate vehicular travel into the streetscape of Purcellville.
2. The County will support, as needed, additional analysis and planning for bicycle and pedestrian mobility.
3. The County will facilitate development of important bicycle and pedestrian facilities as well as improved connectivity to the schools.

There are many opportunities for public transit for commuters in Purcellville. The Virginia Regional Transportation Association, which is based in Purcellville, offers coordinated public transportation in Loudoun County. Loudoun County Transit operates a public bus service from Purcellville to eastern Loudoun County where transfer stations connect riders to various Washington DC locations. The Purcellville Connector has stops at the Maple Avenue Apartments and at the Loudoun Valley Community Center. In addition, the Loudoun County Office of Transportation Services maintains a carpool and vanpool database. Finally, the Loudoun Valley Transit has a temporary agreement with St. Andrew's Presbyterian Church to use its parking lot on west Main Street for park and ride commuters. A permanent park and ride facility in the northern portion of the Purcellville JLMA has been discussed for the future; it is expected to be approximately 4 acres in size, initially designed for 100 spaces, and expandable to 150. This facility would benefit the Town and enhance the transportation opportunities in the future. Careful placement of the facility will be needed to ensure appropriate access for commuters and compatibility with adjacent and planned development.

2025 Transportation Policies and Implementation Strategies

Relevant transportation goals from the 1998 Plan are integrated into the following transportation policies. These policies reflect transportation issues and opportunities in Purcellville moving toward 2025. Implementation strategies are recommended to further the transportation policies established by this Plan. Timeframes and participants involved in implementation are defined in the Implementation Strategy Matrix shown in Section IV, Comprehensive Plan Implementation.

1. ***Connected, Efficient Street Network:*** **Provide a connected network of attractive public streets in Town that efficiently and effectively manage traffic flow. Encourage the routing of through traffic to transportation corridors outside of the Town to minimize effects on the internal street system. Maintain and meet acceptable levels of service on all streets in Town.**

   Implementation Strategies:

   1.1 Implement the recommendations of the 2025 Transportation Analysis completed in 2004 by VDOT by working with Loudoun County to include priority projects in the 6-year transportation plan.

   1.2 Pursue the implementation of a new interchange at the Route 7 Bypass and Route 690. Include consideration of a connection to North 21st Street and to a new Western By-pass that would connect this interchange to Route 7 Business west at Tranquility Road.

1.3 Pursue the implementation of new street connections and intersection improvements in downtown as shown in the Comprehensive Plan and recommended in the Downtown Master Plan to enhance business development and improve traffic circulation. These connections include improvements to 21st and 23rd Streets, reconfiguration of the "tear-drop" intersection at 20th/MainStreet/Nursery Avenue, and the extension of O Street and 20th Street to Hatcher Avenue.

1.4 Pursue the connection of A Street to Route 287 in a manner that is consistent with the design and conservation recommendations set forth in this Comprehensive Plan. Work with affected property owners to achieve a design plan that best meets the needs of both the residents of Purcellville and the continued prosperity of the property owners.

1.5 Pursue the implementation of a roundabout (as opposed to signalization) at the intersection of East Main Street and Route 287 to manage traffic entering Town; design the roundabout as an eastern gateway entrance into Purcellville.

Roundabout at Route 287 and East Main Street: Opportunity for Traffic Management with an Alternative to Signalization. This provides a landscaped entry point.

1.6 Develop and adopt design standards for commercial and industrial parking facilities. Encourage well designed parking facilities adjacent to commercial and industrial development by requiring landscaping, buffering and pedestrian access as part of rezoning and development reviews. Encourage similar facilities for large residential developments.

2. ***Alternative Transportation Management Systems:*** **Provide a comprehensive transportation system that includes a multi-modal network of safe, adequate and efficient management opportunities for motor vehicles, pedestrians, and bicycles. Encourage and**

support transit systems and facilities to reduce energy, protect the environment, and maintain Town character and quality of life.

Implementation Strategies:

2.1 Develop appropriate transportation standards for development that provide safe vehicle and pedestrian separation, and promote the use of sidewalks and trails as an alternative to cars. Adopt them as part of the Town's Facilities Standards Manual.

2.2 Enhance the small town character of Purcellville by implementing transportation improvements that include facilities for pedestrians and bicyclists.

2.3 Amend the Zoning and Subdivision Ordinances to require bicycle facilities in new developments and provide linkages where feasible.

2.4 Develop a Mass Transit Plan as part of a Transportation Master Plan in cooperation with the Virginia Regional Transit Authority and Loudoun Transit to pursue an expanded transit system in Town and additional connections to the regional mass transit network. Support area transit needs such as a bus transfer point, commuter parking and rapid bus transit to Metro stops to benefit residents and reduce strain on the road network. Seek cooperation from churches for commuter use of their parking facilities where possible.

2.5 Improve accessibility and traffic safety in commercial areas through shared entrances, parking and access points, especially on East Main Street and in downtown. Amend the Zoning Ordinance to require shared entrances in new development and redevelopment projects.

3. *Pedestrian and Bicycle Friendly Town:* **Promote Purcellville as a pedestrian and bicycle friendly Town. Provide quality pedestrian and bicycle facilities and experiences for residents and visitors. Provide safe facilities that exhibit adequate separation of vehicles, bicycles and pedestrians.**

Implementation Strategies:

3.1 Provide sidewalks where lacking. Adopt a sidewalk improvement plan in conjunction with the Capital Improvement Plan that includes prioritized projects. Give priority to a sidewalk program that addresses school access.

3.2 Identify and enhance pedestrian linkages between neighborhoods, shopping areas, recreational areas and public facilities by conducting an inventory and assessment of conditions and facilities and adopting a plan for implementing improvements.

3.3 Designate bicycle routes and provide dedicated bike lanes, where feasible, on all major roads in Purcellville. Facilities should be included on Main Street, 21st Street, 20th Street, Hatcher Avenue, Maple Avenue, Hirst Road, Route 287 and the Route 7 Bypass.

3.4 Develop a Bicycle Plan for the Town that takes into account recreational bicycle destinations, regional trail connections and ties to the W&OD Trail. As part of the plan, develop and publish a bicycle route map and market Purcellville as a welcoming community for bicyclists.

3.5 Develop standards for public trails in Town that include bike facilities.

3.6 Provide public bike racks where feasible. Provide a staging area for bicyclists.

3.7 Support the development of the old Manassas Gap Railroad bed in southeast Purcellville as a rails-to-trails opportunity. Provide technical assistance in securing grant funding for planning and implementation.

4. ***Safe, Attractive and Inviting Streets:*** **Provide safe, attractive and inviting streets throughout the Town. Promote inviting, attractive and well-designed entrances into the Town. Encourage development that considers pedestrian scale, historic character, and is designed in context with surrounding development.**

Implementation Strategies:

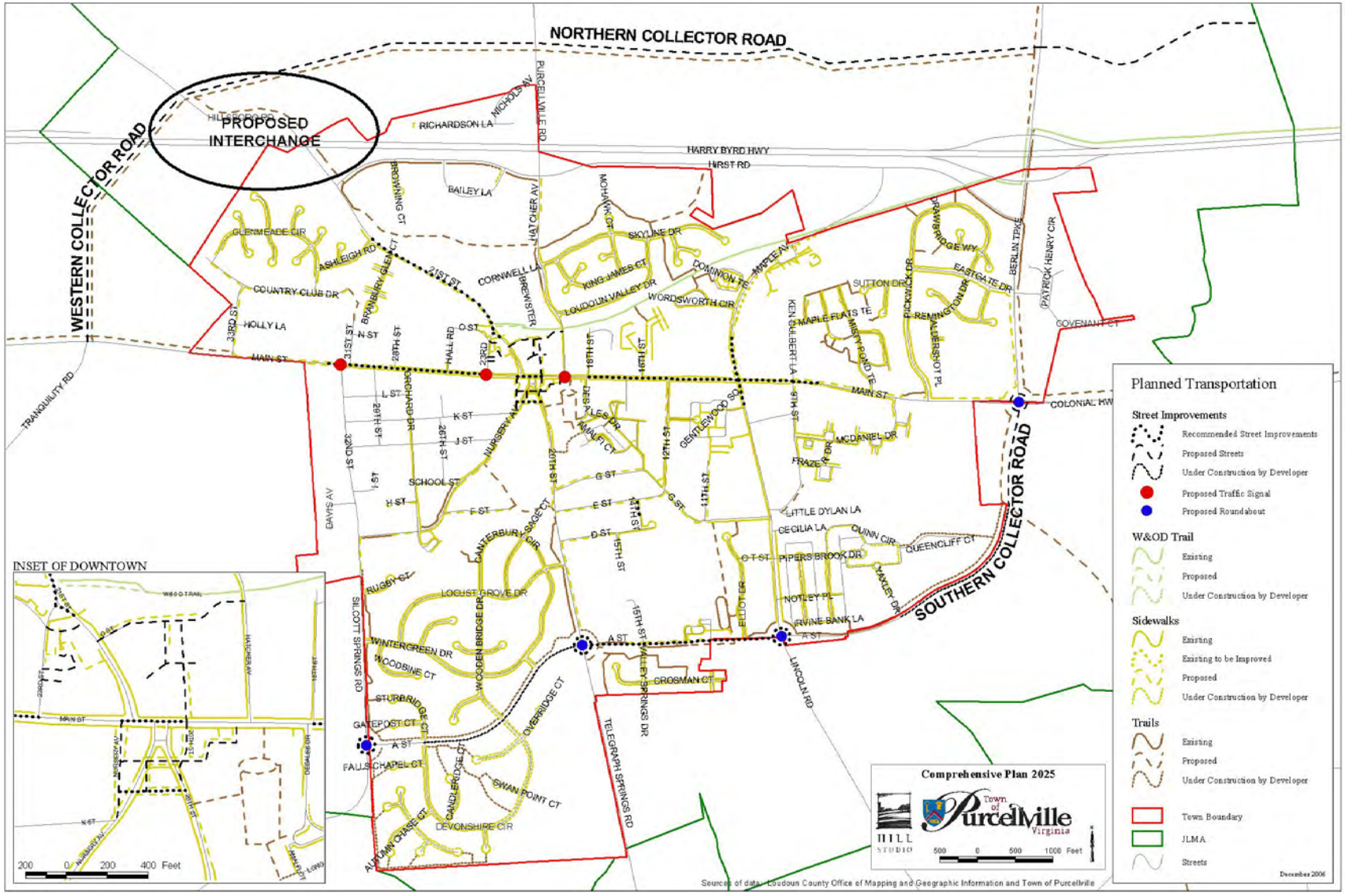
4.1 Study the feasibility and desirability of providing inter-parcel connector provisions in the Zoning Ordinance to promote improved access and connectivity in commercial areas. Adopt appropriate provisions.

4.2 Revise the Zoning Ordinance to include development standards that promote increased pedestrian and bicycle accessibility and encourage landscaping between vehicles and pedestrians.

4.3 Amend the Zoning Ordinance to encourage shared parking in the central business district and flexible standards to reduce the amount of impervious pavement and encourage alternative modes of transportation. Establish maximum and minimum parking standards for new development.

4.4 Design and implement landscaping, lighting and signage enhancements to all gateway entrances into Purcellville including East and West Main Street and North 21st Street.

The map on the following page illustrate the major existing and planned transportation improvements for Purcellville and the immediate area.


NORTHERN COLLECTOR ROAD
WESTERN COLLECTOR ROAD
SOUTHERN COLLECTOR ROAD
PROPOSED INTERCHANGE
HARRY BYRD HWY
HIRST RD
PURCELLVILLE RD
RICHARDSON LA
BAILEY LA
GLENMEADE CIR
ASHLEIGH RD
COUNTRY CLUB DR
HOLLY LA
MAIN ST
TRANQUILITY RD
CORNWELL LA
KING JAMES CT
LOUDOUN VALLEY DR
WORDSWORTH CIR
SKYLINE DR
DOMINION TE
MAPLE AV
SUTTON DR
MAPLE FLATS TE
MISTY POND TE
REMINGTON DR
ALDERSHOT PL
EASTGATE DR
DRAWBRIDGE WY
BERLIN TPKE
PATRICK HENRY CIR
COVENANT CT
COLONIAL HW
MCDANIEL DR
FRAZER DR
LITTLE DYLAN LA
CECILIA LA
QUINN CIR
QUEENCLIFF CT
PIPERS BROOK DR
NOTLEY PL
IRVINE BANK LA
YAXLEY DR
ELLIOT DR
LINCOLN RD
CROSMAN CT
VALLEY SPRINGS DR
TELEGRAPH SPRINGS RD
OVERRIDGE CT
SWAN POINT CT
DEVONSHIRE CIR
CANDLERIDGE CT
AUTUMN CHASE CT
FALLS CHAPEL CT
GATEPOST CT
STURBRIDGE CT
WOODBINE CT
WINTERGREEN DR
LOCUST GROVE DR
CANTERBURY CIR
SAGE CT
RUGBY CT
SILCOTT SPRINGS RD
WOODEN BRIDGE DR
DAVIS AV
NURSERY AV
ORCHARD DR
SCHOOL ST
HALL RD
BROWNING CT
BREWSTER
HATCHER AV
MOHAWK CT
DESALES DR
AMALFI CT
GENTLEWOOD SQ
KEN CULBERT LA
INSET OF DOWNTOWN
200 0 200 400 Feet
Planned Transportation
Street Improvements
Recommended Street Improvements
Proposed Streets
Under Construction by Developer
Proposed Traffic Signal
Proposed Roundabout
W&OD Trail
Existing
Proposed
Under Construction by Developer
Sidewalks
Existing
Existing to be Improved
Proposed
Under Construction by Developer
Trails
Existing
Proposed
Under Construction by Developer
Town Boundary
JLMA
Streets
December 2006
Comprehensive Plan 2025
HILL STUDIO
Town of Purcellville Virginia
500 0 500 1000 Feet
Sources of data: Loudoun County Office of Mapping and Geographic Information and Town of Purcellville

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Purcellville Townwide
TRANSPORTATION PLAN

Town of Purcellville Virginia

Kimley-Horn and Associates, Inc.

Purcellville Townwide Transportation Plan

Final Report
September 2009

Prepared for:

Town of Purcellville
Robert W. Lazaro, Jr., Mayor

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Revision: v6.2009-09-03

Table of Contents

Chapter 1. Introduction

Overview 1
Plan Purpose 1
Comprehensive Plan's Preliminary Objectives 1
Goals and Strategies 2
Study Area 2
This Transportation Plan 2
Planning Process 4
Public Involvement 4
Project Advisory Committee (PAC) 4
Project Web Site 4
Public Workshops 5

Chapter 2. Existing Conditions

Introduction 6
Demographics 6
Character of the Transportation System 7
Key Transportation Corridors 8
Activity Centers 11
Travel Patterns 13
Vehicular Conditions 14
Traffic Volumes 14
Study Intersections 16
Speed Surveys 18
Crash Information 18
Parking Conditions Review 22
Pedestrian and Bicycle Conditions 24
Existing Transit Conditions 27

Chapter 3. Future Conditions

Introduction 29
Travel Demand Modeling 29
Street Network Options 30
Constrained Long-Range Plan 30
Adopted County Transportation Plan 32
Recommended Plan 34
Summary of Street Network Options 36
East/West Observations on Travel Demand 36
North/South Observations on Travel Demand 36
Bicycle and Pedestrian Evaluation 36
Sidewalks and Crossings 36
Shared Use Paths 37
On-Street Bicycle Facilities 37
Off-Street Bicycle Facilities 37
Transit Evaluation 38
Recommended Transportation Plan 38

Chapter 4. Recommendations

About the Recommendations 39
Connectivity 39
Complete Streets 39
Multimodal Transportation Recommendations 40
Transportation Framework 40
Streets 44
Route 7 Bypass 49
Main Street (Business Route 7) 50
Berlin Turnpike (Route 287) 55
A Street (Southern Collector) 57
Route 611 59
Route 690 63
Route 722 69
Hirst Road (Route 692) 72
Allder School Road (Route 711) 73
Northern Collector Road 74
Collector Street Guidelines 75
Local Streets 76
Local Street Guidelines 77
Intersection Modifications 78
Bicycle and Pedestrian Recommendations 83
The Importance of Bicycle and Pedestrian Transportation in Purcellville 84
Recommendations 84
Transit Recommendations 87
Facility Recommendations 87

Chapter 5. Implementation

Introduction 91
Overview 91
Summary of Plan Recommendations 91
Objectives 91
Tabular Summary 92
Planned Short-Term Projects 96
Specific Bicycle and Pedestrian Plan Implementation Items 96
Short-Term Projects 96
Long-Term Recommendations 97
Potential Funding Sources 97
Next Steps 97

Appendix

Appendix A: Public Workshop Summary

Chapter 1

Introduction

Chapter 1: Introduction

Overview

Purcellville continues to experience moderate growth within and surrounding its traditional town core as well as at its transition to Loudoun County. The Town's carefully preserved core is at the heart of the community and is planned to be strengthened over time through strategic partnerships and investments. Along with the historic downtown area and Main Street corridor, the Town has identified the need to plan for its outward growth in a way that creates opportunities for travel diversity.

The Purcellville Townwide Transportation Plan considers the relationship between transportation, land use, and design. One of the purposes of the transportation plan is for it to serve as a tool to influence transportation decisions and stimulate desired development patterns. The plan identifies a series of transportation recommendations in support of all modes—pedestrians, bicyclists, transit, and automobiles—for the short-, mid-, and long-term.

Plan Purpose

Purcellville has the opportunity to plan a transportation network that will sustain the community's vision for the Town, support the growth outlined in Purcellville's Comprehensive Plan, and preserve the character of the historic downtown area identified in the Downtown Master Plan.

The Townwide Plan builds upon the objectives for transportation outlined in the 2025 Purcellville Comprehensive Plan. The community goal for transportation included in the Comprehensive Plan is paraphrased and supported by the following preliminary objectives:

Comprehensive Plan's Preliminary Objectives

- Plan for adequate transportation networks and systems to support existing land uses
- Plan a transportation system that adequately addresses transportation needs generated by future development and growth identified in the Town's Comprehensive Plan
- Coordinate the transportation plan with other adopted plans for the Town, including:
  - Comprehensive Plan (December 2006)
  - Downtown Master Plan (2005)
  - Transportation Model and Analysis prepared by VDOT (2004)
  - Purcellville Urban Growth Area Management Plan (PUGAMP, 1998)
  - Loudoun County Revised Countywide Transportation Plan (2001)
- Maintain and strengthen Purcellville's character and integrity through improved connections within the Urban Growth Area
- Promote the use of alternative modes of transportation such as walking, bicycling, transit, and carpooling, among others
- Enhance safety (for all transportation users)
- Further develop implementation strategies from the Transportation section and Implementation Strategy Matrix of the Town's 2006 Comprehensive Plan
- Develop further objectives based on analysis contained in the 2004 VDOT Transportation Model and Analysis effort

Community Transportation Goal. *"Purcellville will be recognized for its effective multimodal transportation system and quality bicycle and pedestrian accommodations. Public rights-of-way will be improved to encourage safe and effective access. New street, pedestrian, and trail connections will enhance community connectivity, preserve special community assets, promote attractive environments, and improve transportation safety."*

Goals and Strategies

Building on the goals and objectives included in the 2025 Purcellville Comprehensive Plan, the adopted Bicycle and Pedestrian Mobility Plan (2003), and the Open Space Master Plan, transportation specific goals and strategies were developed for the plan [through work with the public, elected officials, the Project Advisory Committee, and Town staff]. The following goals and strategies are built on the community goal for transportation and preliminary objectives included in the Comprehensive Plan.

1. **Support Community Growth and Maturation**
   - Definitively link land use and transportation decision-making
   - Expand the vehicular and non-vehicular systems
   - Make transportation decisions to support long-term community health—not only for short-term benefits
   - Influence the implementation of desirable development patterns through strategic public infrastructure investment
   - Preserve the function of the existing transportation system and protect important future transportation corridors
   - Comply with local, regional, state, and federal legislation (i.e. Clean Air Act and the SAFETEALU) to take full advantage of funding opportunities
   - Maximize the benefit of infrastructure investment

2. **Provide Facilities that Function Appropriately in Serving Vehicles, Pedestrians, Bicycles, and Transit**
   - Maintain acceptable levels of service on all facilities
   - Provide sidewalks on both sides of all arterial, collector, and major local streets and provide sidewalks on at least one side of minor local streets
   - Provide appropriate and convenient bicycle and vehicle parking
   - Enhance and extend the townwide network of bikeways to better serve users of all ability levels
   - Improve local bike and pedestrian network connectivity with the W&OD Trail
   - Actively seek partnerships in developing and maintaining transportation infrastructure

3. **Provide a High-Quality Transportation Experience for All Users and Modes of Transportation**
   - Encourage the development of a "town scale" transportation system
   - Ensure that sidewalk and bikeway networks are connected
   - Encourage patterns and scales of development that support multimodal travel
   - Provide appropriate streetscapes
   - Support local transit initiatives to provide frequent, reliable, and efficient services and attract more choice riders
   - Support existing and future transit services by providing bus stop amenities such as shelters, street lighting, benches, signage, information, and sidewalks
   - Create recognizable entrances to town
   - Create a townwide wayfinding scheme/system that ties into the countywide system

4. **Ensure Transportation Safety and Security**
   - Design the street network to accommodate all modes of transportation; however, it is stated that not all modes will be accommodated on every street
   - Minimize rates of accidents and injury for all modes of transportation
   - Create safe crossings of streets for non-vehicular users
   - Create safe routes to school for non-vehicular users
   - Design Speed = Desired Speed: design new streets and retrofit existing ones to force vehicles to travel at speeds appropriate for the surrounding community context

5. **Improve Community Connectivity, Preserve Special Community Assets, and Promote Attractive Environments**
   - Plan interconnected networks of streets, sidewalks, and bikeways
   - Implement policies that encourage and require context-sensitive planning, design, and implementation
   - Implement policies, regulations, and infrastructure improvements that move Purcellville to being a completely walkable town
   - Encourage and support the development of transportation networks and services that reduce energy consumption, minimize impacts to the environment, and maintain Town character and quality of life
   - Require interconnectivity between compatible land uses and areas within town to ensure that key residential and non-residential areas are accessible to Town residents

6. **Educate and Provide Information to the Public on Available Travel Mode Options**
   - Promote the creation of programs in schools and within the community geared toward motorists and nonmotorists that educate and encourage people to travel by non-auto modes and provide guidance on how to travel safely on foot, by bicycle, and on transit
   - Provide clear and concise information on available travel options in the community at businesses, municipal buildings, libraries, schools, community centers, and other appropriate locations
   - Partner with community organizations, businesses, or local/state agencies to conduct and provide bicycle-oriented educational events (i.e. bicycle rodeo)
   - Support programs that promote work travel by modes other than single-occupant autos

Study Area

The Town of Purcellville is located in western Loudoun County. Town limits encompass approximately 2.6 square miles and are further surrounded by the Purcellville Joint Land Management Area (JLMA) of approximately 4.7 square miles. The JMLA is governed by the Purcellville Urban Growth Management Plan and is supported by policies contained in the Revised General Plan for Loudoun County, the Countywide Transportation Plan for Loudoun County, and the Pedestrian Mobility Plan for Loudoun County.

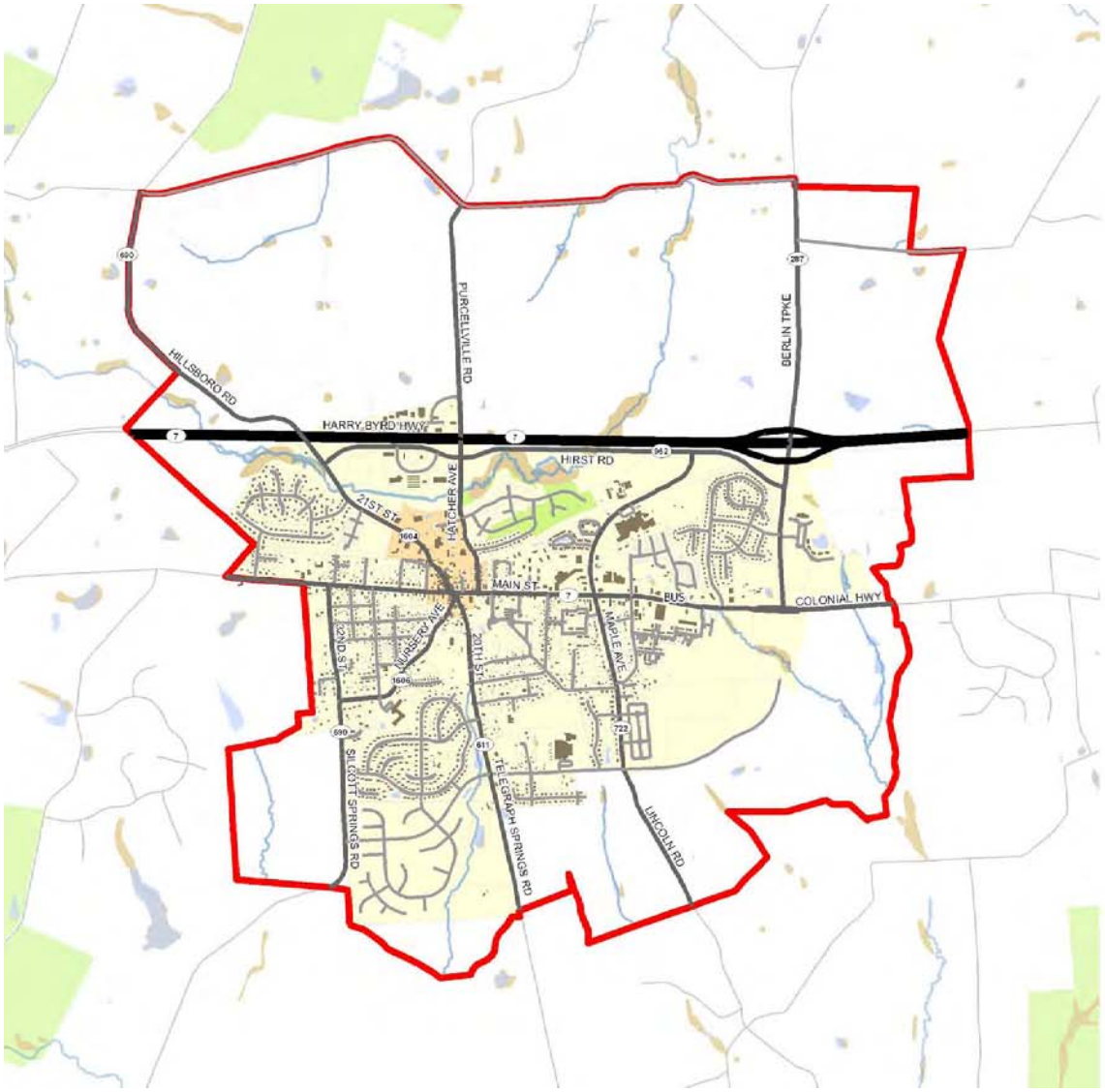
Throughout Loudoun County, JLMAs have been established around towns to encourage compact development in areas where public utilities and services are reasonably extendable. The study area for the transportation plan shown in **Figure 1.1** is the Town of Purcellville and surrounding JLMA.

This Transportation Plan

A safe, functional, and balanced transportation system can be a reality for Purcellville. The transportation plan is intended to serve as a tool and guide as modifications to the transportation system and the underlying policies that affect transportation are contemplated. The plan's horizon year is 2035. This document includes the following chapters:

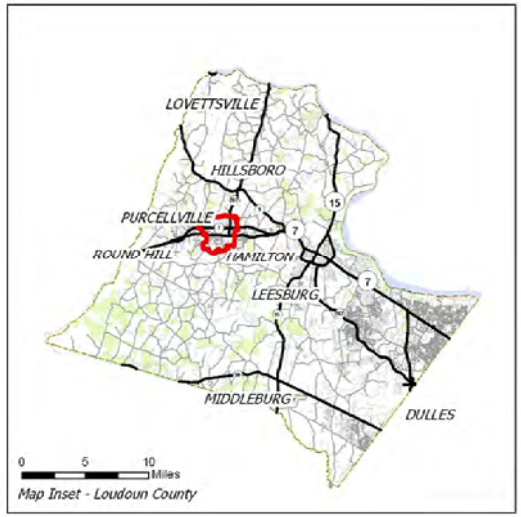
- Existing Conditions
- Future Conditions
- Recommendations (streets, pedestrians, bicycles, and transit)
- Implementation Plan

Study Area
Figure 1.1



Legend

- Study Area
- Arterial
- Collector
- Local
- Stream
- Water
- Wetlands
- Open Space
- Building
- State Boundary
- County Boundary
- Downtown Area
- Town Boundary



Planning Process

The process to develop the transportation plan involved the following major efforts:

- **Public Involvement.** At the onset of the planning process, a project Web site was established (www.purcellvilleplan.com). At the same time that the Web site was launched, a Project Advisory Committee (PAC) was created to advise the plan development process through regularly scheduled meetings and working sessions. In addition to these efforts, two public workshops and several presentations were made to solicit input and comments as well as share information on the plan.

- **Data Collection and Baselining.** This involved collecting and assimilating background information including previous transportation and land use plans, traffic studies, mapping, traffic volumes, crash data, and other information to firmly establish a starting point for the study.

- **Development of Plan Concepts.** To address current and anticipated future transportation deficiencies, challenges, and opportunities in the Town, numerous concepts were developed for all modes of transportation.

- **Plan Development.** Following input from the public, Project Advisory Committee, and Town staff, plan recommendations were developed for all modes of transportation.

- **Plan Implementation.** The first step in implementing the transportation plan is its approval by the Project Advisory Committee, followed by approval by the Transportation Committee, the Planning Commission, and finally, the Town Council. Programming and funding projects, as well as activities such as revising and establishing new policies and programs will follow plan adoption.

Public Involvement

Meaningful public involvement is important in developing community-focused transportation plans. A community's citizens have an intimate knowledge of the places where they live and travel and of the transportation problems they encounter. To make sure the transportation plan considered citizen concerns and interests, input was solicited from the general public, as well as through the Project Advisory Committee, Town staff, and elected officials. A summary of the public involvement process follows.

Project Advisory Committee (PAC)

The PAC was comprised of residents, business representatives, and Town and Loudoun County staff. The purpose of the committee was to act as a sounding board for ideas developed as a part of the plan. The committee met regularly during the course of the plan's development. Meetings and general topics discussed at the meetings were as follows:

- Goals and objectives
- Public involvement process
- Existing conditions
- Bicycle and pedestrian conditions
- Transit
- School policies related to bicycling and walking
- Transportation networks
- Recommendations
- Priorities and implementation

Citizen participants at the first plan workshop

Project Web site

A project Web site (www.purcellvilleplan.com) was developed to share information about the transportation plan with the community as well as receive their feedback. The Web site included notifications about specific public involvement opportunities, project information (maps, presentations, and summaries of public involvement sessions), general resources related to transportation planning, and contact information including an e-mail address to reach the project team with comments and suggestions.

Purcellville Townwide Transportation Plan Web Site

Public Workshops

Two public workshops were conducted to solicit input from the community on transportation issues and possible resolutions to those issues, both in the short-term and further into the future. These workshops were held on February 23 and June 14, 2008.

Public Workshop 1

Held at the historic train depot, the first workshop focused on vision and values of the Town, existing transportation issues, and initial ideas for Purcellville's future transportation system. Citizens provided input in a variety of ways at the workshop. Participants were asked to list things they like about Purcellville, ideas about the future of transportation in Purcellville, and ideas for Main Street. Citizens also were asked to respond to the prompt, "if I were King or Queen, I would improve transportation in Purcellville in the following ways." Participants also were asked to allocate $100 among transportation priorities and respond positively and negatively to photos of street character posted on a board. The summary of comments from Public Workshop 1 is included in Appendix A.

Character Preference Survey at Workshop 1

Public input at Workshop 1

Public Workshop 2

Held at Town Hall, this workshop began with a briefing on project progress and a presentation of summary input from the first public workshop. Though progress summaries were important, the primary purpose of this workshop was to review and comment on plan objectives, goals, and strategies and possible street, bicycle, and pedestrian network concepts.

The public was encouraged to provide input on preliminary concepts for new street connections or to give the project team their ideas for new street, trail, sidewalks, and other non-vehicular connections. Input was solicited through two exercises. First, citizens used aerial photographs with preliminary ideas for new street connections to provide input and other ideas for new streets, trails, and connections in Purcellville. The Town was divided into three sections: downtown, northern, and southeast. In the "Be a Transportation Planner" exercise, participants drew their own vehicular and non-vehicular transportation systems on aerial maps of the Town. A summary of public comments from Workshop 2 is included in Appendix A.

Chapter 2

EXISTING CONDITIONS

Chapter 2: Existing Conditions

Introduction

The Town of Purcellville is located in western Loudoun County along Business Route 7, which is locally named Main Street. The current transportation network has historic roots, having developed from Purcellville's original ties to the railroad and more recently as a result of rapid growth.

Today, Purcellville is primarily a bedroom community—the majority of traffic generated during peak travel periods is attributed to commuters traveling to the region's employment centers such as Leesburg, the Dulles Technology Corridor, and the Washington D.C. metropolitan area. The most significant peak-hour traffic generators within Purcellville are its elementary, middle, and high schools. Major regional access is provided by Route 7 Bypass. In addition to the local street network, Purcellville also is served by local and regional transit services, the regional Washington and Old Dominion (W&OD) Trail, and a network of trails and sidewalks.

The existing travel needs and patterns of Purcellville, along with the existing transportation system, have been evaluated to understand existing deficiencies that must be fixed today. Similarly, future travel demand and transportation system needs have been identified to understand the investments that will be necessary to support the Town as its growth continues.

Demographics

The demographic composition of the Town of Purcellville contributes to the travel patterns and demands placed on the system. Community profile data is summarized below.

Population

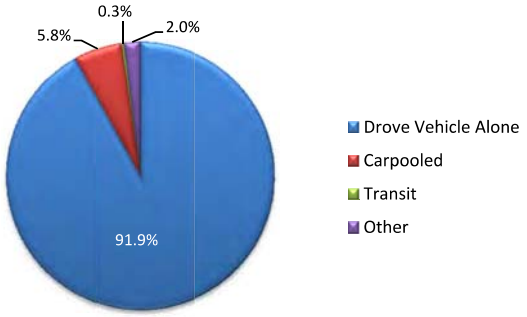
According to the United States Census Bureau, the population of the Town of Purcellville grew more than 105 percent between 1990 and 2000, growing from 1,750 people to almost 3,600 people. This represents an annual growth rate of approximately 7.5 percent. During this time, Loudoun County grew by 97 percent to more than 170,000 people. Purcellville has continued to grow since 2000; however, in recent years, the rate of growth has decreased. Even with a slowdown in the number of new houses built in 2007 and 2008, Purcellville continues to grow and has a population that exceeds 6,000 people.

School traffic creates traffic congestion at some of Purcellville's intersections during afternoon hours. This picture is a view along Main Street at Maple Avenue, looking east.

Travel Characteristics

The existing travel characteristics within the Town of Purcellville contribute to the travel demands placed on the transportation infrastructure. The most common mode of transportation for work trips of Purcellville residents as reported by the 2000 U.S. Census was driving alone in a personal vehicle. Nearly 98 percent of respondents reported using a private automobile to travel to work. The figure at-right illustrates work travel mode split in Purcellville.

Means of Transportation to Work by Purcellville Residents



Source: Journey to Work Summary for Purcellville (2000 U.S. Census)

Character of the Transportation System

One of the noteworthy elements of Purcellville's transportation system is its network of historic farm-to-market roads, which include:

- Hatcher Avenue/Purcellville Road
- Maple Avenue/Lincoln Road
- 20th Street/Telegraph Springs Road
- 21st Street/Hillsboro Road

These roads converge at Main Street in the center of Purcellville and connect to the many rural communities north and south of town. The character of these historic roads has remained largely unchanged, except for the paved surface. The majority of these roads still have narrow two-lane cross-sections, drainage swales, and no street lighting. Their alignment rolls with the natural topography.

Main Street and 21st Street are highlights of downtown Purcellville. They are lined with vibrant and historic businesses and residences. A causality of its own success, Main Street is congested during some periods of the day, and there are times when it is difficult to turn out of 21st Street. Access management issues and less-than-optimal traffic signal coordination add to congestion on Main Street. The cross-section, availability of sidewalks, and lighting are inconsistent along both streets. The 2005 Downtown Master Plan provided a vision to revitalize downtown Purcellville by coordinating the transportation system with adjacent land uses. This transportation plan builds on that vision to unify and strengthen the character of Main Street and 21st Street.

In the historic core of Purcellville, an established grid of local streets exists. The grid network allows streets to retain two-lane cross sections and to manage traffic by limiting choke points and distributing traffic among many, rather than fewer, streets. The grid network also provides many cross-town travel opportunities, minimizing travel time and distance and encouraging walking. An additional benefit, the redundancy created in the interconnected street network reduces distances and time for emergency vehicles responding to the community's needs.

The street patterns in newer developments in Purcellville have departed from an interconnected street pattern. These newer developments are largely organized around curvilinear streets and cul-de-sacs. In contrast to a grid network, cul-de-sacs funnel traffic to single access points and limit pedestrian connections.

Looking north on Maple Avenue at A Street

Purcellville has many unique assets that can serve as the foundation for its efforts to become a more pedestrian- and bicycle-friendly community. There are important existing resources, such as a walkable downtown and regional destinations and facilities like the W&OD Trail. The Town has the beginnings of an interconnected network of sidewalks and secondary trails, many of which serve the community's schools and other important pedestrian-oriented destinations quite well. The relative convenience of walking and bicycling and the partial network of facilities to support these modes contribute to areas of lively pedestrian and bicycle activity in parts of town.

The community realizes the benefits of pedestrian and bicycle planning, and as a result, actively supports building bicycle and pedestrian facilities. There are a number of sidewalk projects under design and the Town's leaders and staff continually prioritize improvement projects to ensure that the most worthy facilities are constructed first. Pedestrian and bicycle destinations and activity centers throughout the study area contribute to the existing pedestrian and bicycle demand and the need for enhanced facilities. Some of these destinations and activity centers include community centers, schools, parks and nature preserves, a public library, Main Street, and the Purcellville Farmer's Market. Consistent, safe pedestrian facilities will promote likable character and reduce congestion, especially in the historic downtown area, as people are able to park once and walk to other destinations.

Key Transportation Corridors

The transportation network is comprised of a collection of roadways with different functional classifications. Functional classification refers to a hierarchy of street types used to describe the purposes of different streets in a network. In Purcellville, there are three classes of streets represented, as shown in **Figure 2.1**, on the following page. These arterials, collectors, and locals form a network that seeks to provide a balance between access and mobility.

A main focus of the transportation network are the corridors linking activity centers such as home, school, job, shopping, social, and recreational destinations to one another. Key transportation corridors are described below and shown in **Figure 2.1**.

In Purcellville, transportation corridors need to support diverse travel purposes including regional travel, such as the work trips of Purcellville residents who are employed outside the Town, and local travel between activity centers in Purcellville. In addition to supporting a combination of regional and local trip purposes, key corridors need to serve vehicular users as well as pedestrians and bicyclists. The following briefly describes characteristics of each functional class of roads in Purcellville:

- **Arterials.** These roadways provide a high level of mobility; however, they offer little opportunity for access (driveways and intersections). This classification includes limited access roadways such as freeways and expressways. Typically, arterials have higher operating speeds and significant vehicular capacity. They also are largely focused on serving longer distance travel. Most arterials in Virginia, including Route 7 Bypass, are maintained by the Virginia Department of Transportation (VDOT). Route 7 Bypass is the only existing arterial in the study area.

- **Collectors.** These roadways balance mobility and access. Collectors in Purcellville include Main Street, Maple Avenue, Hirst Road, and Hatcher Avenue. Collectors can be further stratified as major and minor collectors. Minor collectors primarily serve a local travel purpose in addition to "collecting" traffic from neighborhoods and activity centers. Major collectors often connect other collector and arterial roadways. Typical characteristics of collector streets include moderate travel speeds, on-street parking, turn lanes at major intersections, traffic signals, and lane widths to accommodate larger vehicles.

Looking east on Main Street toward 21st Street

- **Locals.** This classification of street provides the least mobility, but the highest level of access to property. Similar to collectors, local streets are stratified into major and minor streets. Local streets typically connect to one another and to collectors. Less often, local streets connect to arterials. Typical characteristics of local streets include low posted speeds, narrow lane widths, on-street parking, frequent driveways, and low traffic volumes.

Route 7 Bypass (Harry Byrd Highway)

Route 7 Bypass is the primary east/west transportation corridor in Loudoun County. This major state highway serves regional traffic and is Purcellville's link to communities to the east and west. Route 7 Bypass is a limited access, VDOT-maintained road in Purcellville. It has a four-lane median divided cross-section typical of major state highways in Virginia. In addition to vehicular traffic, Route 7 Bypass is an important facility for regional transit services carrying workers between Loudoun County and major employment areas east of Purcellville.

Main Street (Business Route 7/Colonial Highway)

Main Street is Purcellville's primary east/west route. Originating as an ox cart route and being converted to a turnpike in 1832, it became known as "The Great Road." Main Street currently connects Round Hill on the west to Hamilton in the east. Within and near Purcellville, it largely runs parallel to Route 7 Bypass. Main Street is the only continuous east/west street connection through Purcellville. Main Street's cross-section varies from a two-lane undivided section with sidewalks to a three-lane section serving much of Purcellville's commercial properties.

Berlin Turnpike (Route 287)

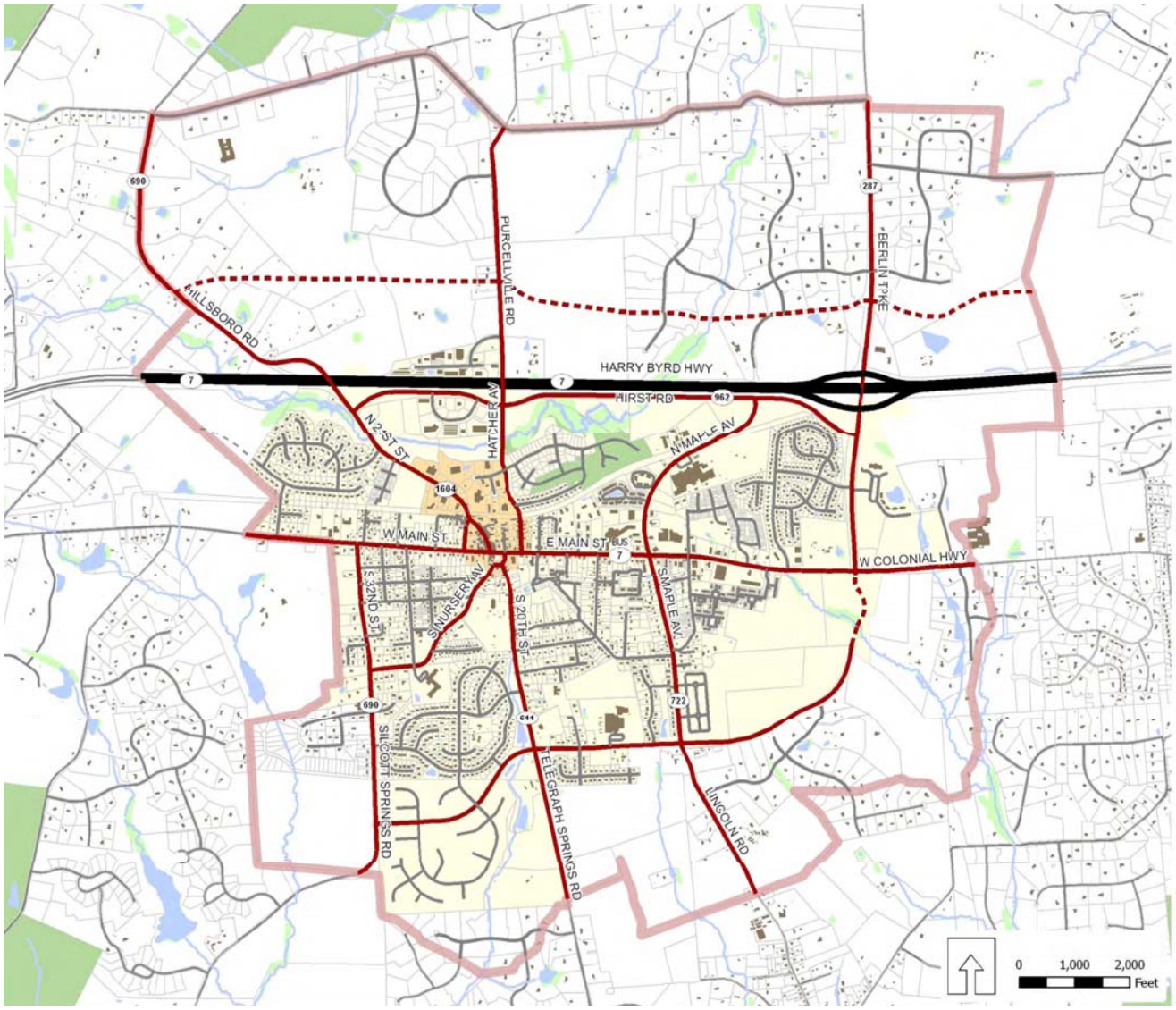
Route 287 is a major north/south corridor in western Loudoun County. It originates at Main Street in Purcellville and winds northward to Lovettsville and then into Maryland to the north. In the Purcellville area, Berlin Turnpike is a major connection between Main Street and Route 7 Bypass, where there is an existing interchange. In this section, Berlin Turnpike has a two-lane undivided cross-section with wide gravel shoulders. To the north of the Route 7 Bypass, it has a two-lane undivided cross-section.

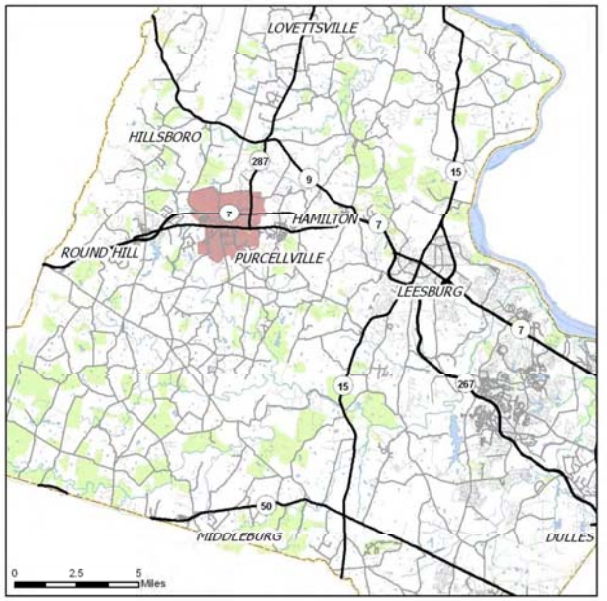
Purcellville Road, Hatcher Avenue, 20th Street, and Telegraph Springs Road (Route 611)

Route 611 is north/south corridor in the Purcellville. It connects Route 50 and Telegraph Spring to the south and Morrisonville to the north. Route 611 crosses Route 7 Bypass at a grade separation. Through the study area, Route 611 runs along streets including Purcellville Road, Hatcher Avenue, 20th Street, and Telegraph Springs Road. Hatcher Ave and 20th Street intersect Main Street in downtown Purcellville.

Existing Streets Plan

Figure 2.1





Map Inset - Loudoun County

Legend

- Existing Arterial
- Existing Collector
- Future Collector
- Existing Local
- Local Street
- Local Street (new location)
- Building
- Property Line
- Stream
- Body of Water
- Wetland
- Park or Open Space
- Study Area
- Town Limit
- Downtown Area

Hillsboro Road, 21st Street, 23rd Street, 32nd Street, and Silcott Springs Road (Route 690)

Route 690 is a primary north/south corridor. It connects Route 611 and the Snickersville Turnpike to the south and Hillsboro to the north. Route 690 crosses Route 7 Bypass at a grade separation. Within the study area, Route 690 follows several streets including Hillsboro Road, 21st Street, 23rd Street, 32nd Street, and Silcott Springs Road.

Maple Avenue and Lincoln Road (Route 722)

Route 722 is a north/south corridor. It runs from Hirst Road in Purcellville to Lincoln and then on to North Fork on the south. Maple Avenue is an important route within Purcellville and serves primary commercial areas as well as new residential development and Loudoun Valley High School.

Hirst Road (Route 962)

Hirst Road is an alternate east/west route just south of Route 7 Bypass. It runs from 21st Street to Berlin Turnpike and has a two-lane cross section for much of its length.

A Street

A Street is an east/west local street that will eventually become a collector and connects 32nd Street and Maple Avenue. The existing corridor is mostly two lanes with portions of asphalt trail on one side of the street.

Washington & Old Dominion Railroad Trail (W&OD)

The W&OD Trail is a major regional recreational and transportation resource. It originates in Purcellville and runs more than 45 miles, connecting to Arlington County to the east. It serves both recreational and commuting purposes and is widely used for both. Generally, the trail follows the alignment of Route 7 in Loudoun County. The trail head is located on 21st Street at the historic Purcellville Depot.

Washington & Old Dominion Trail in Purcellville

Looking north on 21st Street near Ashleigh Drive

Activity Centers

Though not as evident as transportation corridors, activity centers are another main focus of transportation. Activity centers, as defined for this transportation plan, are the destinations or areas where significant bicycle and pedestrian activity occurs. The primary purpose of identifying these locations is to inform the town about the development of bicycle and pedestrian recommendations. Key activity centers are briefly described in the following and shown in **Figure 2.2**:

Shopping and Services

- **Historic Downtown.** This is the part of Purcellville located along Main Street from 32nd Street to 12th Street. The area includes a number of destinations such as Town Hall, the Purcellville branch of the Loudoun County Public Library, the Post Office, the Depot, shops, offices, and homes. Plans for the historic downtown area contained in the 2005 Downtown Master Plan include a new location for Town Hall, a Town green, and a farmer's market. Opportunities for redevelopment of other properties in the area also are outlined in the Downtown Master Plan.
- **Main Street.** This is Purcellville's primary transportation corridor. It has a varying character and the development along the street exemplifies the diversity of character in Town. Main Street connects Purcellville's civic and retail core with suburban commercial areas and new residential neighborhoods.
- **East Main Street Commercial.** The majority of Purcellville's retail development is located on East Main Street between 12th Street and Berlin Turnpike.
- **Purcellville Gateway (future).** In addition to existing Main Street commercial development, the future Purcellville Gateway development will increase services available to area residents. It is planned to include a grocery store, restaurants, and retail shops, among other uses.
- **Catoctin Corner (future).** This proposed development is neither approved nor fully developed as a concept. As of January 2009, the plan for this center included several quick service restaurants, a pharmacy, bank, and gas station.
- **Hirst Road Commercial Area.** West of Hatcher Avenue, this area along Hirst Road includes numerous commercial and service businesses including the Department of Motor Vehicles, Virginia Regional Transit, and several office buildings.
- **Richardson Road Commercial Area.** North of Route 7 Bypass off of Purcellville Road, there is a concentration of commercial businesses located along Richardson Road and Nichols Lane.

Parks and Recreational Opportunities

- **W&OD Trail Head.** The western most point of the W&OD Trail is located in Purcellville immediately to the north of the historic downtown along 21st Street. The trail head is a prominent gateway to the region via bicycle.
- **Fireman's Field.** Fireman's Field is located between Nursery Avenue and 20th Street to the south of Main Street and downtown. The park includes two baseball fields and a skating rink.
- **Upper Loudoun Youth Football League Sports Complex (future).** This will be developed on 44 acres of Fields Farm, located immediately north of town along Hillsboro Road (Route 690). The site plan for the complex includes a high-school-sized football stadium with approximately 1,000 seats, a practice field, and two baseball fields. This property is anticipated to be annexed by the Town of Purcellville.
- **Suzanne R. Kane Nature Preserve.** The nature preserve is located south of Hirst Road between Hatcher Avenue and 21st Street. A natural surface path has been built through some sections of the preserve and is in various stages of planning and construction in other portions.
- **20th Street Open Space (undeveloped).** This open space is located west of 20th Street and south of A Street. It may become a town park in the future when the existing maintenance facility that currently occupies the site is relocated.
- **Village Case Park (undeveloped).** This open space is located south of 9th Street and north of Kinvarra Place. It may become a town park in the future.
- **Franklin Park.** Franklin Park is located west of Purcellville in Loudoun County, along Business Route 7. A major Loudoun County park, facilities include walking trails, a playground, a catch-and-release fishing pond, a swimming pool, a performance and visual arts center, and various fields and courts.
- **South Fork Catoctin Creek Park.** The Town recently accepted an 11-acre conservation easement along the South Fork Catoctin Creek which provides public access to environmental stewardship and passive recreation opportunities.
- **Loudoun Valley Golf and Country Club.** This golf and country club is located along the western edge of Purcellville.

Schools

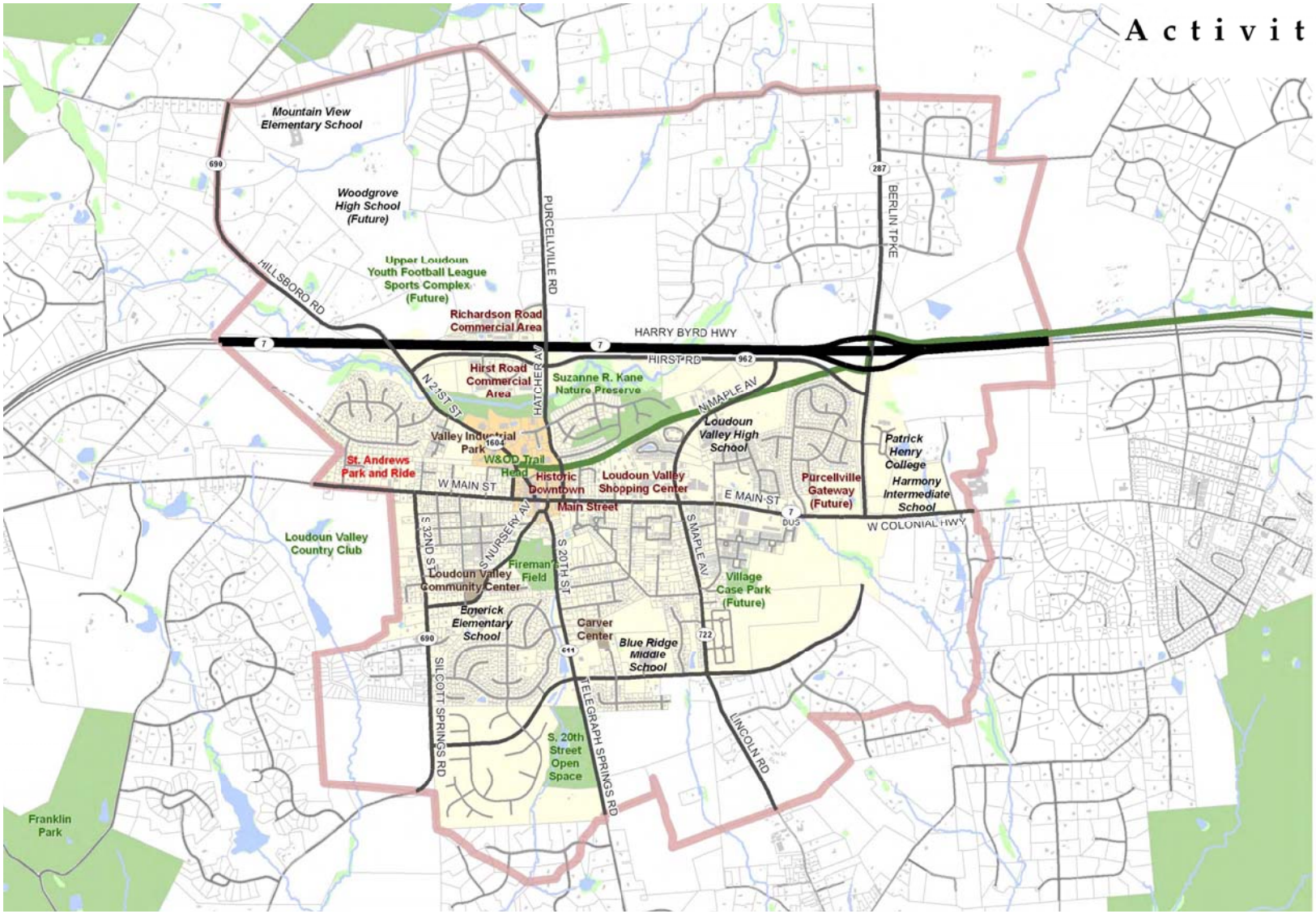
- **Patrick Henry College.** Patrick Henry College is a private, independent college that is nationally accredited. Currently, there are approximately 325 students enrolled at the college.
- **Loudoun Valley High School.** This school is located along Maple Avenue north of Main Street. The current enrollment is approximately 1,635 students in grades 10 through 12.
- **Woodgrove High School (future).** This school will be located south of Allder School Road, east of Hillsboro Road. The planned enrollment is approximately 1,600 students.
- **Harmony Intermediate School.** This school is located just to the east of Purcellville to the north of Colonial Highway. The current enrollment is approximately 1,200 students in grades 8 and 9.
- **Blue Ridge Middle School.** This school is located north of A Street, east of 20th Street. The current enrollment is approximately 1,170 students in grades 6 and 7.
- **Emerick Elementary School.** This school is located along Nursery Road near Orchard Avenue. The current enrollment is approximately 525 students in grades K through 5.
- **Mountain View Elementary School.** This school is located just outside Purcellville to the south of Allder School Road. Its current enrollment is approximately 770 students in grades K through 5. This school will be annexed by the Town of Purcellville to coincide with the completion of Woodgrove High School.

Community Amenities

- **Loudoun Valley Community Center.** This facility is located along School Street west of Nursery Road. It offers recreational programs, pre-school and after-school programs, and a weight room.
- **Carver Community Center.** This center is located along 15th Street to the east of 20th Street. The Carver Center serves as a senior center and adult day care center on weekdays and is available for general community use on evenings and weekends.
- **Loudoun Valley Country Club.** This club is located west of Purcellville south of Business Route 7.
- **Valley Industrial Park.** This industrial park is located south of Hirst Road between Hatcher Avenue and 21st Street.
- **Neighborhoods.** There are a variety of identifiable neighborhoods in Purcellville. These include Catoctin Meadows, Country Club Hills, Courtland Square, Courts of St. Francis, Garner Meadows, Golf Course View, Hirst Farm, Kingsbridge, Locust Grove, Main Street Village, the Meadows, Old Dominion Valley, Purcellville Ridge, Village Case, and the Villages of Purcellville.
- **Blue Ridge Bible Church.** This large church is located on 20th Street near A Street.
- **Purcellville Baptist Church.** This large church is located on Yaxley Drive near A Street.

Activity Centers

Figure 2.2



Travel Patterns

As part of the data collection for the Purcellville Transportation Plan, a license plate survey was conducted in October 2008 during the morning and afternoon peak travel periods. The license plate survey documented travel patterns of drivers using Silcott Springs Road, Main Street, Telegraph Springs Road, Lincoln Road, Berlin Turnpike, and Hirst Road. The purpose of documenting these travel patterns was to understand the routes used by traffic traveling through Purcellville in morning and afternoon commuting periods. Ultimately, this information is useful in understanding the value, or lack thereof, of new street connections such as the Southern Collector Road.

In the collection of information, license plates were recorded at six locations in town. Entry points for the morning peak period and exit points for the afternoon peak periods were the following:

- Main Street to the west of 32nd Street
- Silcott Springs Road to the south of A Street
- Telegraph Springs Road to the south of A Street
- Lincoln Road to the south of A Street

The exit points for the morning peak period and entry points for the afternoon peak period were the following:

- Berlin Turnpike to the south of Hirst Road
- Hirst Road to the east of Maple Avenue

By correlating license plates recorded at each of these locations, travel patterns of non-town residents were derived to better understand where new street connections bypassing town would provide benefit. A summary of results of the license plate survey are shown in **Table 2.1** and in **Figure 2.3**.

As shown in **Figure 2.3**, the majority of through trips (those trips that do not begin or end in Purcellville) during the morning peak-hour use one of the north/south streets to reach Main Street and then follow Main Street to Berlin Turnpike, rather than following Maple Avenue to Hirst Road. In the evening, there was less consistency in travel patterns. Of people traveling through town, the distribution of those using Hirst Road/Maple Avenue was relatively equal to those using Berlin Turnpike/Main Street.

Table 2.1 License Plate Survey Route Preference

Route	Exit at Hirst Rd		Enter at Hirst Rd		Exit at Berlin Tpke (Route 287)		Enter at Berlin Tpke (Route 287)		In-Town Trip or Unmatched				Total Vehicles	
	AM		PM		AM		PM		AM		PM		AM	PM
	Vehicles	%	Vehicles	%	Vehicles	%	Vehicles	%	Vehicles	%	Vehicles	%	Vehicles	Vehicles
Main St	19	3.4%	14	1.9%	29	5.2%	41	5.5%	513	91.4%	696	92.7%	561	751
Silcott Springs Rd	9	5.8%	20	9.8%	19	12.3%	18	8.8%	127	81.9%	167	81.5%	155	205
Telegraph Springs Rd	4	3.3%	23	20.0%	14	11.7%	14	12.2%	102	85.0%	78	67.8%	120	115
Lincoln Rd	5	2.8%	17	9.3%	21	12.1%	22	12.1%	152	85.4%	143	78.6%	178	182

Note: License plate survey counted by Kimley-Horn and Associates in October 2008. AM counts 7:00-8:30; PM counts 4:30-6:00

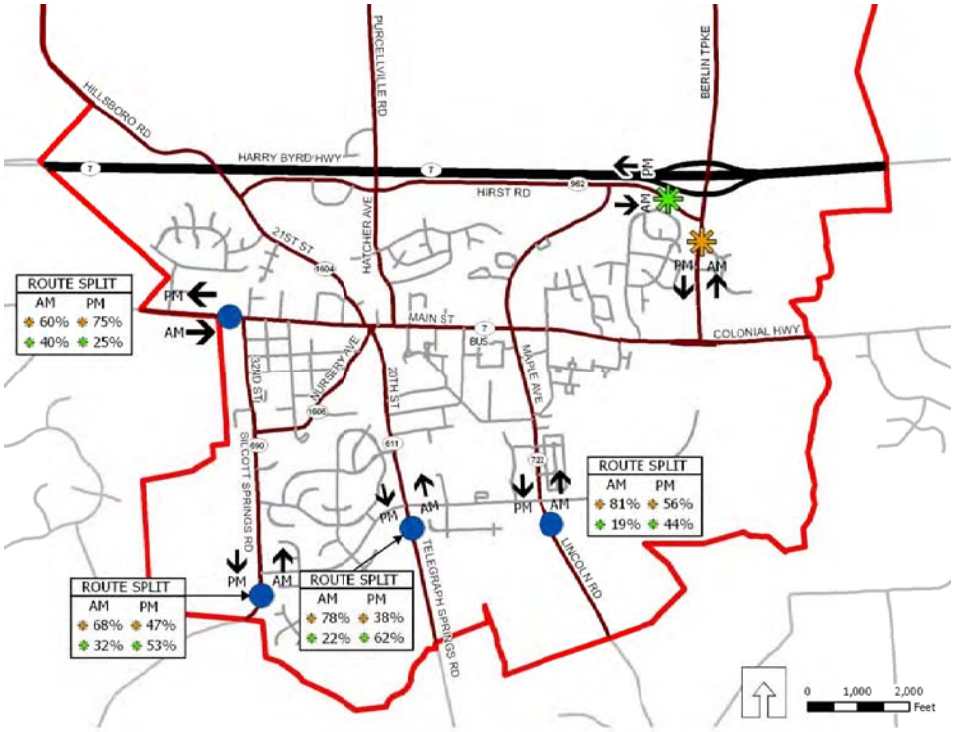


Figure 2.3: License Plate Survey Summary

Vehicular Conditions

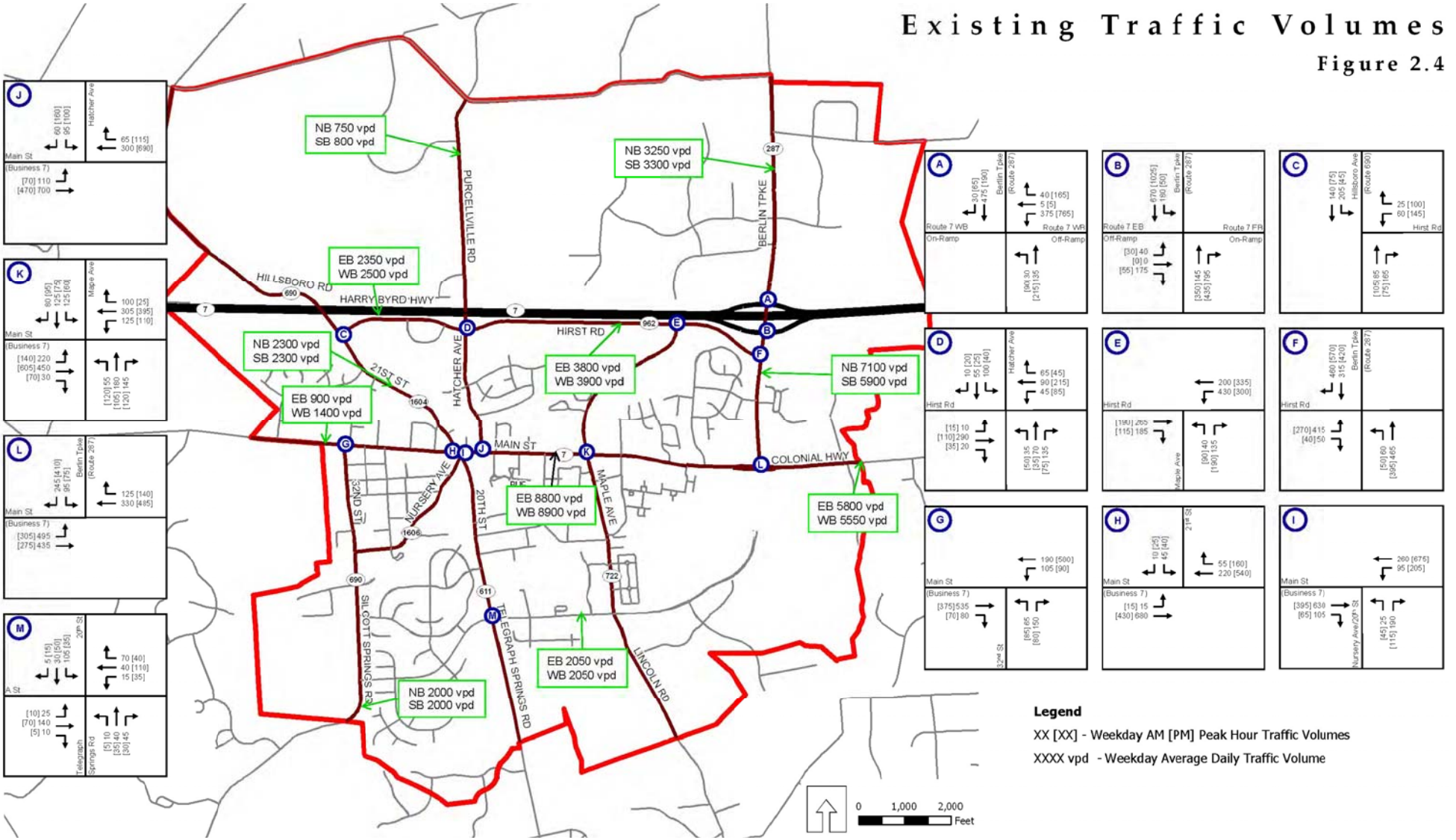
Traffic Volumes

Figure 2.4 illustrates average daily traffic (ADT) volumes in study corridors as well as peak hour turning movement traffic volumes at important study intersections. Main Street and Route 287 have the highest average daily traffic volumes within the study area with approximately 17,000 and 13,000 vehicles per day respectively. The intersections of Main Street with Maple Avenue and Route 287 have the highest turning movement volumes in the study area.

Looking North on Berlin Turnpike (Route 287) toward Hirst Road

Existing Traffic Volumes

Figure 2.4



Existing Vehicular Conditions

An important first step in creating a recommended street network for Purcellville is to understand how the existing roadway network is operating. To understand the existing operating condition of Purcellville's street network, intersection levels of service, traffic speed information, and crash history were reviewed.

The level of service (LOS) rating is used to describe operating conditions for motorists. As with school grades, LOS A denotes good performance with little to no delay. Failing intersections where the average delay exceeds 85 seconds of delay per vehicle are rated LOS F. Purcellville streets operating at LOS D or better are considered acceptable from a motorist's perspective.

Study Intersections

While some corridors experience delay and congestion, traffic safety and congestion concerns are most acute at intersections. Existing intersection levels of service shown in **Table 2.2** and **Figure 2.5** were compiled from existing traffic impact studies and independent assessments. **Figure 2.5** also shows intersection traffic control and laneage.

Several key intersections that currently experience traffic congestion were evaluated and potential modifications suggested to mitigate current, unacceptable operations (based on existing geometry and traffic volumes). These suggested modifications are intended to serve as a guideline for future recommended improvements. It is not anticipated that all modifications will be constructed by the town. As new development and redevelopment occur, some modifications should be constructed in phases to coincide with that development.

Main Street/Colonial Highway/Berlin Turnpike

This unsignalized T-intersection operates at LOS F during the weekday AM and PM peak hours based on 2006 volume data. The free-flowing movements along Main Street and Colonial Highway operate with minimal delay. During the PM peak hour major delay occurs in the stop-controlled Berlin Turnpike (southbound) left-turn movement.

The Cole Farm traffic impact study shows that signalization or installation of a roundabout is needed at this intersection to mitigate unacceptable traffic conditions. The analysis in the report found that a roundabout would reduce vehicle queues and result in an operation of LOS B or better on all approaches. Installation of a roundabout at the intersection is planned in conjunction with the Cole Farm development.

Main Street/20th Street/Nursery Avenue

This unsignalized intersection operates at LOS F during the weekday AM and PM peak hours based on 2005 volume data. The northbound 20th Street/Nursery Avenue approach experiences significant delay due to relatively few gaps in Main Street traffic that permit vehicles to egress from the south. To improve operations at this intersection would require the installation of a traffic signal and the modification of the existing "teardrop" intersection. It is understood that VDOT currently does not support the installation of a traffic signal at this location. In the future as downtown becomes more active, a traffic signal should be reconsidered as a part of an engineering study to determine the appropriate treatment for the intersection.

Hirst Road/Berlin Turnpike

This signalized intersection operates at LOS E during the weekday AM and PM peak hours based on 2006 volume data. Traffic volumes are heavy in the AM and PM peak periods as the intersection is located immediately to the south of Route 7 Bypass and its interchange with Berlin Turnpike. In the short-term, operations at this intersection can be improved minimally through the construction of an additional turn lane on Hirst Road. In the long-term, widening Berlin Turnpike to a four-lane median divided roadway will allow the traffic signal to operate more efficiently and will enable more green time to be allocated to Hirst Road turning movements.

Berlin Turnpike/Route 7 Bypass Westbound Ramps

This signalized intersection operates at LOS C and F during the weekday AM and PM peak hours, respectively, based on 2006 volume data. Traffic volumes are heavy in the PM peak hour as evening commuters return from employment centers to the east. To improve the operations of this intersection in the short-term, the following are recommended:

- Widening Berlin Turnpike in the southbound direction between the westbound ramps and Hirst Road to provide two through lanes
- Constructing an additional left-turn lane on the westbound off-ramp

Main Street looking east toward Berlin Turnpike near Pickwick Drive

In the long-term, Berlin Turnpike should be further widened to provide a four-lane median divided cross-section and additional ramp improvements should be considered to better serve the highly directional traffic volumes.

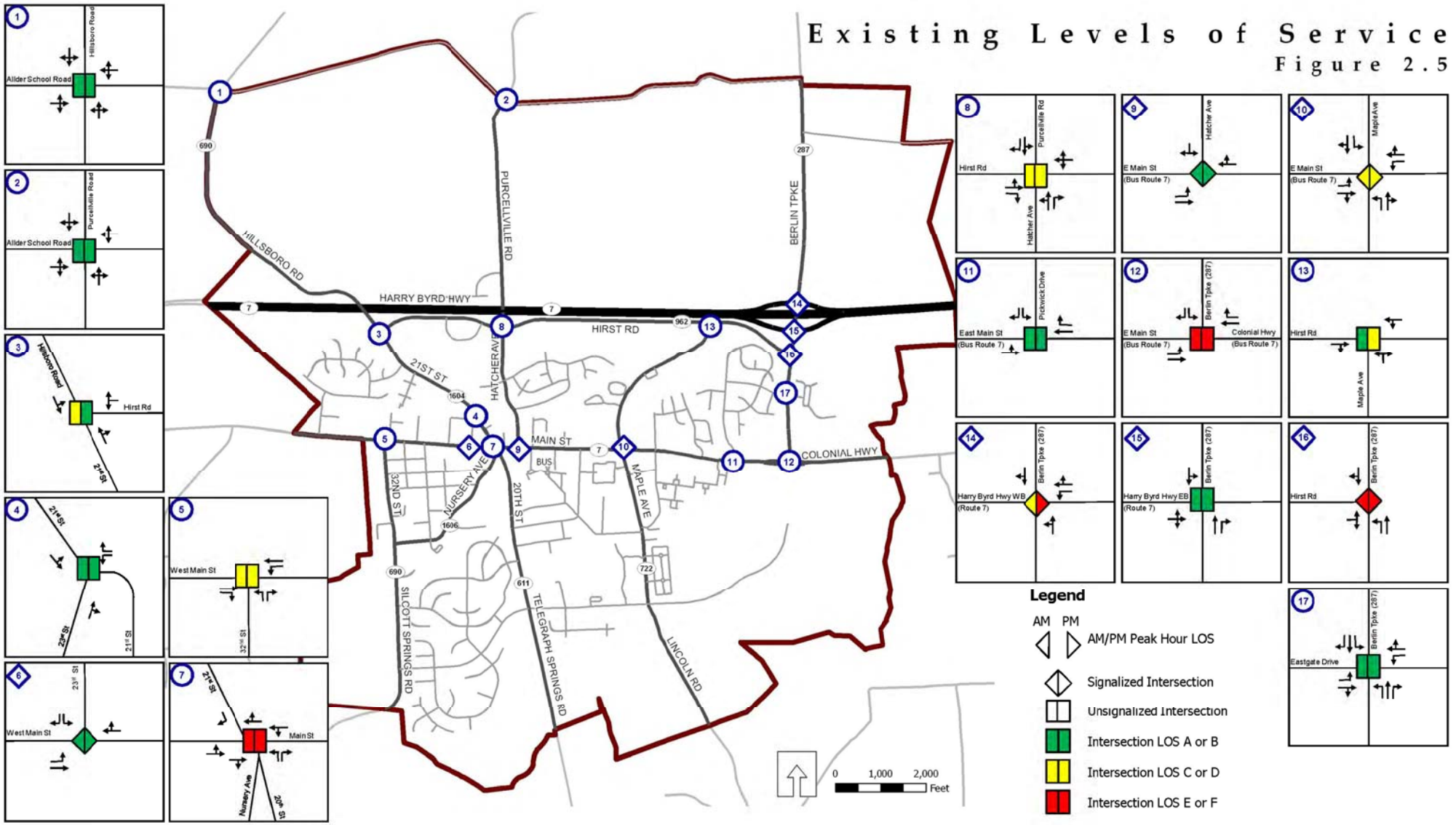
Table 2.2: Existing Intersection Levels of Service (LOS)

Intersection	AM Peak Hour LOS	PM Peak Hour LOS
Allder School Road and Hillsboro Road	B	B
Allder School Road and Purcellville Road	A	A
Eastgate Drive and Route 287[4]	A	A
Hirst Road and Hatcher Ave/Purcellville Road	C	C
Hirst Road and N. 21st Street/Hillsboro Road	C	B
Hirst Road and N. Maple Avenue[3]	B	C
Hirst Road and Route 287[4]	E	E
E. Main St/W. Colonial Highway and Route 287[4]	F	F
E. Main Street and Hatcher Avenue	B	B
E. Main Street and Maple Avenue[3]	C	C
E. Main Street and Pickwick Drive[4]	A	A
Main Street and S. 20th Street/S. Nursery Avenue	F	F
Route 7 Bypass EB Ramps and Route 287[4]	A	A
Route 7 Bypass WB Ramps and Route 287	C	F
W. Main Street and N. 23rd Street[4]	B	B
W. Main Street and S. 32nd Street[1]	D	C
N. 21st Street and N. 23rd Street	B	B

Sources
All counts gathered from Western Loudoun High School-Allder School Road TIA (2005), unless otherwise noted.
1 – 21st Street Left-Turn Restriction TIA (2008)
2 – Purcellville Fire and Rescue TIA (2007)
3 – Main and Maple Ave Left-Turn Phase Analysis (2007)
4 – Cole Farm TIA (2006)

Existing Levels of Service

Figure 2.5



Speed Surveys

Traffic speed data was collected at five locations in the study area. The speed data was evaluated at each location to compare actual running speeds with posted speeds. Speed data collected is shown in **Figure 2.6**.

As shown in **Figure 2.6**, except for on Silcott Springs Road, actual average speeds collected were within a reasonable range of the posted speed limit. Furthermore, the 85th percentile speed at these locations was within five miles per hour of the posted speed limit. On Silcott Springs Road, actual speeds were significantly higher than posted speed limits. South of A Street, speeds were reported at 49 and 48 miles per hour in the northbound and southbound directions, respectively. These speeds are nearly 15 miles per hour faster than the posted speed limit of 35 miles per hour. 85th percentile speeds were higher at 55 miles per hour and 54 miles per hour in the northbound and southbound directions, respectively.

Understanding the current travel speed conditions on Silcott Springs Road, it may be appropriate to consider the implementation of measures to manage traffic speeds. Measures could include increased enforcement, roundabouts, additional pavement markings, and radar speed signs.

Crash Information

Three full years of crash data was evaluated for this study. It is important to note that crash data requested of, and provided by VDOT includes only reported crashes. Many minor crashes go unreported and are not included in the following summaries and evaluation.

From 2005 to 2007, the locations with the highest number of crashes were Main Street/Maple Avenue intersection and Berlin Turnpike between Hirst Road and Route 7 Bypass ramps. Crash data is summarized in **Figure 2.7.** Additionally, the locations with the highest crash frequencies are shown in **Table 2.3**.

Crashes are the result of a number of factors that include environmental, operating, and physical conditions. They can be linked to tangible characteristics such as light conditions, roadway geometry, wildlife crossing, and driver condition. Based on the review of crash data, the following were the most commonly experienced crash types in Purcellville:

Looking east along Main Street in downtown near 21st Street. The numerous driveways and intersections create challenges for operations and safety.

- **Angle crashes** are typically the result of drivers misjudging the speed and/or distance of oncoming traffic and mistakenly turning in front of an oncoming vehicle. This may be related to failure to see, understand, or obey a traffic control device and inadequate sight distance due to a physical obstruction or geometric condition. Angle crashes also may be related to congestion and caused specifically by drivers who choose to make unsafe turns, rather than wait for a suitable gap in traffic.

- **Rear-end crashes** commonly occur at locations with periods of congestion, locations with inadequate sight distance, or changes in speed limits. In addition, poor access management may result in rear-end crashes. Where there are many driveways, drivers may signal their turn too late or slow down more quickly than under normal circumstances.

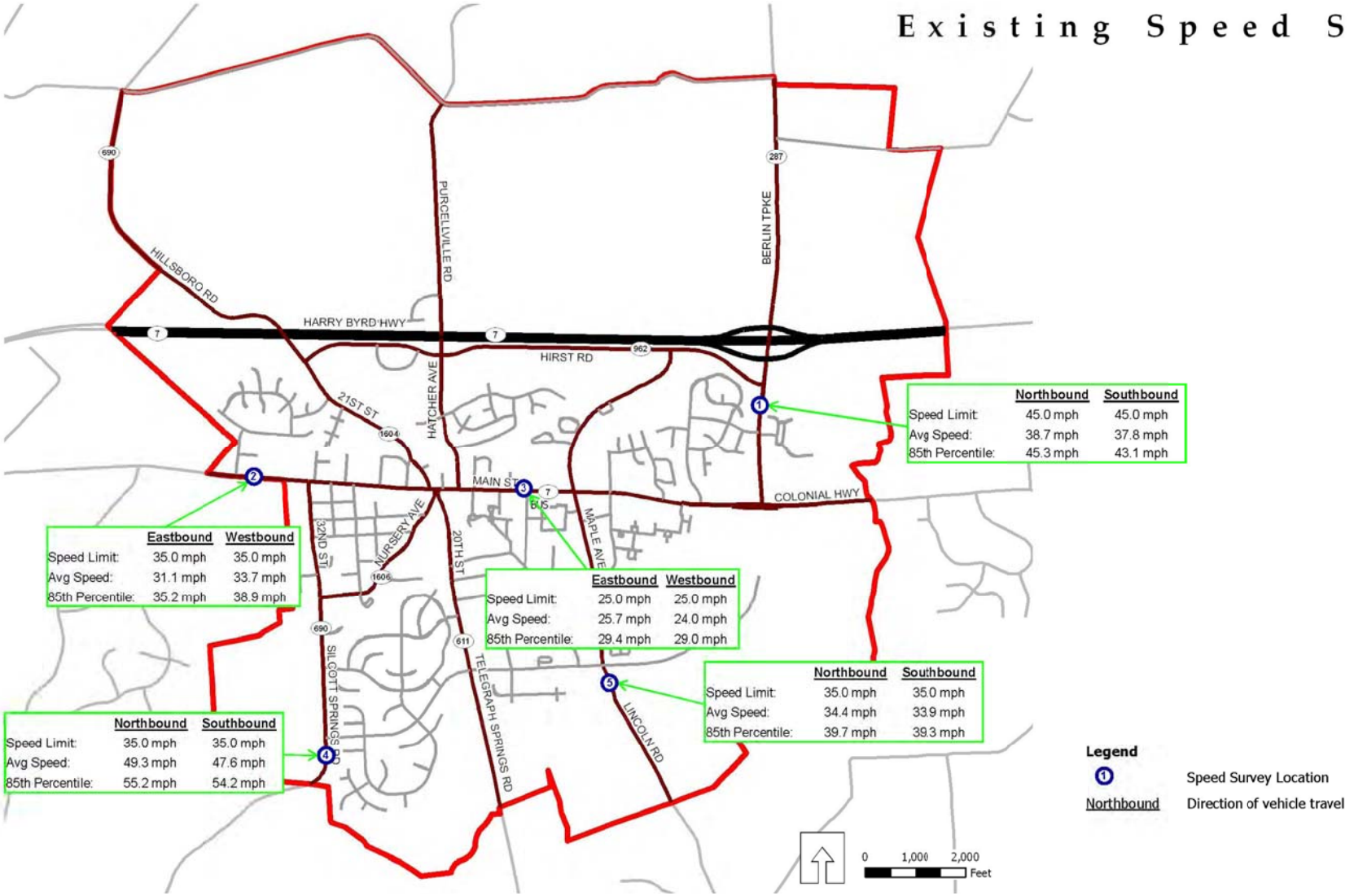
- **Sideswipe crashes** may occur at locations where a road or approach is not wide enough to accommodate vehicles trying to avoid one another. In addition, the road may not be striped to designate the lanes. Congestion at an intersection may increase the possibility for crashes as drivers may try to get around another vehicle that is delayed.

Table 2.3: Crash Locations Ranked by Three-Year Crash History

Rank	Location	Crash Frequency (Crashes/Year)
1	Main Street/Maple Avenue	52
2	Berlin Turnpike/Route 7 Bypass Ramps/Hirst Road	42
3	Main Street/Teardrop/Hatcher Avenue	17
4	Main Street/Colonial Highway/Berlin Turnpike	15
5	Main Street from Town Line to 32nd Street	13
6 (tie)	Hillsboro Road North of the Town Line	7
6 (tie)	Hirst Road/Maple Avenue	7
7	Hillsboro Road/Allder School Road	5
Source: Virginia Department of Transportation		

Existing Speed Summary

Figure 2.6



Top Crash Locations 2005 through 2007

Crash Summary - Location A *Route 690 and Alder School Road*	
Crashes by Severity	
Fatal Crashes	0
Crashes with Injuries	2
Property Damage Crashes	3
Crashes by Type	
Rear-End Collision	0
Angle Collision	3
Head-on Collision	0
Sideswipe Collision	0
Pedestrian Collision	0
Animal Collision	0
Other Collision	2
Total Crashes	**5**

Crash Summary - Location E *Main St from Town Line to 32nd St*	
Crashes by Severity	
Fatal Crashes	0
Crashes with Injuries	7
Property Damage Crashes	6
Crashes by Type	
Rear-End Collision	6
Angle Collision	2
Head-on Collision	0
Sideswipe Collision	2
Pedestrian Collision	0
Animal Collision	1
Other Collision	2
Total Crashes	**13**

Crash Summary - Location B *Route 690 North of Town*	
Crashes by Severity	
Fatal Crashes	0
Crashes with Injuries	4
Property Damage Crashes	3
Crashes by Type	
Rear-End Collision	2
Angle Collision	0
Head-on Collision	0
Sideswipe Collision	1
Pedestrian Collision	0
Animal Collision	0
Other Collision	4
Total Crashes	**7**

Crash Summary - Location F *Main St at Teardrop and Hatcher Rd*	
Crashes by Severity	
Fatal Crashes	0
Crashes with Injuries	4
Property Damage Crashes	13
Crashes by Type	
Rear-End Collision	13
Angle Collision	0
Head-on Collision	0
Sideswipe Collision	2
Pedestrian Collision	0
Animal Collision	0
Other Collision	2
Total Crashes	**17**

Crash Summary - Location C *Hirst Road and Maple Ave*	
Crashes by Severity	
Fatal Crashes	0
Crashes with Injuries	1
Property Damage Crashes	6
Crashes by Type	
Rear-End Collision	2
Angle Collision	4
Head-on Collision	0
Sideswipe Collision	0
Pedestrian Collision	0
Animal Collision	0
Other Collision	1
Total Crashes	**7**

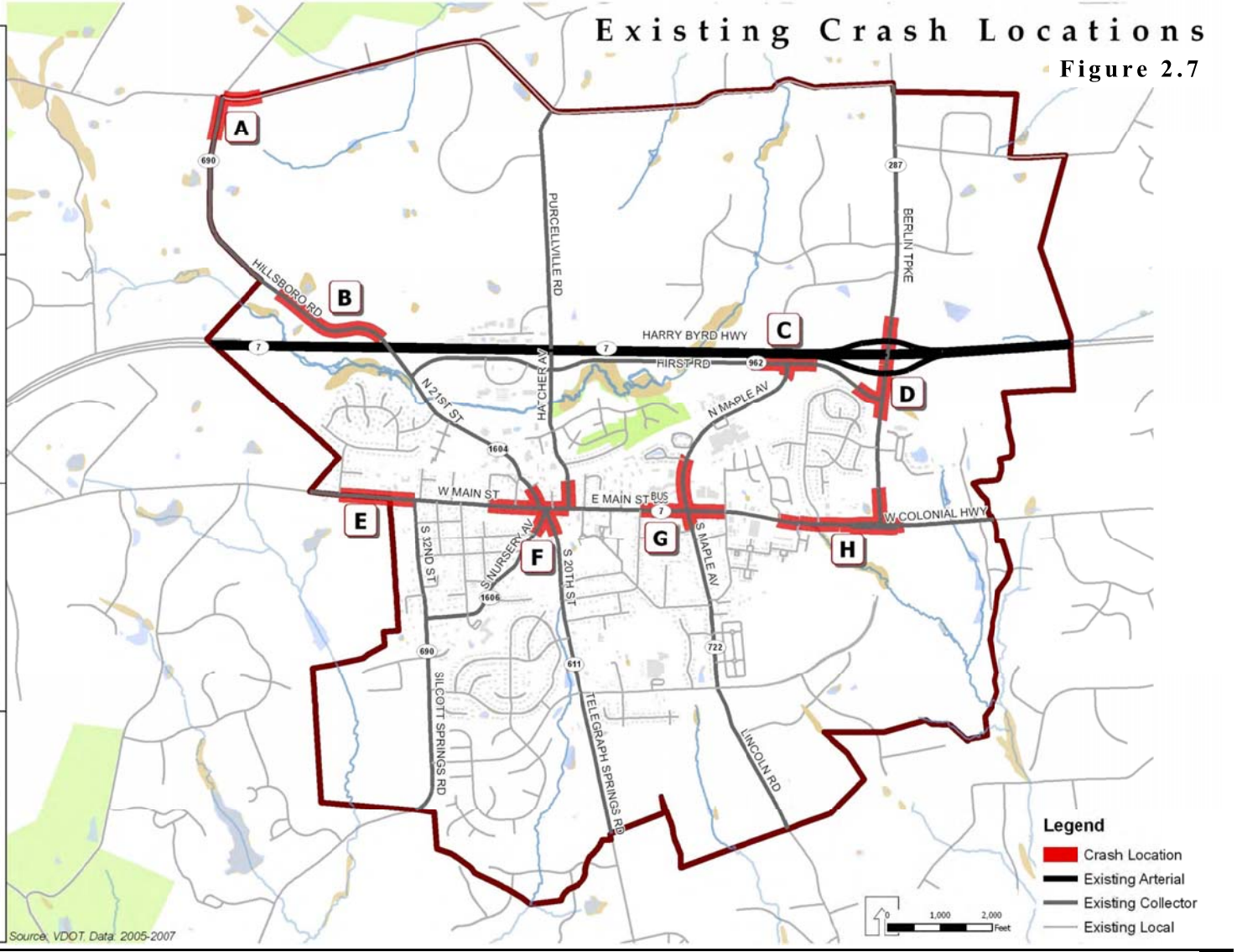
Crash Summary - Location G *Main St and Maple Ave*	
Crashes by Severity	
Fatal Crashes	0
Crashes with Injuries	5
Property Damage Crashes	47
Crashes by Type	
Rear-End Collision	20
Angle Collision	26
Head-on Collision	0
Sideswipe Collision	4
Pedestrian Collision	0
Animal Collision	0
Other Collision	2
Total Crashes	**52**

Crash Summary - Location D *Route 287 at Interchange and Hirst Rd*	
Crashes by Type	
Fatal Crashes	0
Crashes with Injuries	10
Property Damage Crashes	32
Crashes by Type	
Rear-End Collision	24
Angle Collision	11
Head-on Collision	0
Sideswipe Collision	5
Pedestrian Collision	0
Animal Collision	0
Other Collision	2
Total Crashes	**42**

Crash Summary - Location H *Main St and Route 287*	
Crashes by Severity	
Fatal Crashes	0
Crashes with Injuries	4
Property Damage Crashes	11
Crashes by Type	
Rear-End Collision	10
Angle Collision	2
Head-on Collision	0
Sideswipe Collision	0
Pedestrian Collision	1
Animal Collision	0
Other Collision	2
Total Crashes	**15**

Existing Crash Locations

Figure 2.7



Source: VDOT Data: 2005-2007

Main Street/Maple Avenue

This intersection experienced the highest crash frequency over the period evaluated. Of the 47 crashes experienced, the most frequent crash types included angle crashes (26) and rear-end crashes (20). Relating to this intersection, this pattern of crashes is most likely the result of peak period traffic congestion, the frequency of driveways, and vehicle turning movements along Main Street and Maple Avenue. The Town, understanding the challenges currently faced by this intersection, is in the process of designing modifications to remedy existing capacity and safety issues. Plans include the design of right-turn lanes eastbound and westbound along Main Street to serve Maple Avenue as well as driveways adjacent to the Main Street/Maple Avenue intersection. Plans also include modifications to sidewalks in coordination with roadway modifications.

Berlin Turnpike between Route 7 Bypass and Hirst Road

The majority of the 42 crashes experienced in this section of Berlin Turnpike was a combination of rear-end (24), angle (11), and sideswipe (5). Ten of the crashes, or nearly 25 percent, resulted in injuries. The close spacing of intersections along this section of Berlin Turnpike combined with relatively heavy turning movement volumes and frequent traffic congestion are the likely culprits of the existing safety hazards.

To remedy undesirable safety conditions on Berlin Turnpike, measures to reduce traffic congestion and driver confusion will need to be implemented. These could include widening Berlin Turnpike to provide two through lanes in each direction or providing exclusive turn lanes to serve the ramps and Hirst Road.

Main Street between 20th Street and Hatcher Avenue

The section of Main Street between 20th Street and Hatcher Avenue is just over a quarter mile in length, but is intersected by six streets, four of which are important collectors. With the close spacing of intersections and reasonable traffic volumes turning onto and from Main Street, congestion is frequent and conflicts are numerous. The majority of the 17 crashes experienced on this section of Main Street were rear-end collisions (13).

Similar to the Main Street/Maple Avenue intersection, the Town, understanding the traffic challenges of the area, has implemented a left-turn restriction on 21st Street. Although this will not resolve all issues on Main Street, it will reduce the number of conflicts and is likely to reduce the number of crashes in doing so. To fully remedy current safety concerns in this area, a comprehensive approach to modifying the "teardrop" will be required.

Main Street/Colonial Highway/Berlin Turnpike

Berlin Turnpike is stop-controlled at Main Street/Colonial Highway. The majority of the 15 crashes reported over the studied period were rear-end collisions (11). Four of the 15 crashes, resulted in injuries. To mitigate current safety and intersection operational concerns, the intersection should be signalized or a roundabout constructed, consistent with existing Town plans. Increasing intersection capacity is likely to reduce the number of rear-end collisions and constructing a roundabout will substantially reduce the number and severity of crashes at the intersection.

Main Street in the Vicinity of 32nd Street

More than half (7) of the 13 crashes at this intersection resulted in injuries. This intersection has undergone past study and the Town desires to signalize the intersection to remedy safety and capacity issues; however, traffic volumes do not currently meet minimum warrants. Prior to major geometric improvements or signalization, a reduction in speed limit on Main Street further west may help reduce intersection crashes.

Maple Avenue/Hirst Road

At the intersection of Hirst Road and Maple Avenue, four out of seven crashes over the study period were angle collisions. The northbound approach of Maple Avenue is stop-controlled and experiences significant delay during peak periods. It is likely that drivers, impatient to turn left from Maple Avenue to Hirst Road, turn when there are insufficient gaps in traffic to successfully turn and are struck by traffic on Hirst Road. A potential low-cost remedy to this condition would be the installation of a four-way stop, if warranted. A more extensive remedy to this condition would involve signalization or the installation of a roundabout.

Hillsboro Road/Allder School Road

Allder School Road is stop-controlled at Hillsboro Road. This intersection experienced relatively few crashes, three (of the five) of which were angle collisions. It is likely that the combination of driver impatience (insufficient gaps in traffic) and limited sight distance are contributing to the angle collision pattern. This intersection will become more important with the completion of the Western Loudoun County High School and modifications should be constructed. The traffic study prepared for the high school recommends the implementation of a roundabout to serve projected traffic volumes.

Looking west along Main Street in the vicinity of 18th Street

Parking Conditions Review (supply and occupancy)

Public parking inventory (on- and off-street) and occupancy data was collected in October 2008. Public parking was defined as street parking and off-street parking in publicly owned parking lots. Data was collected at the following locations as shown in **Figure 2.8**:

- **Zone 1:** Main Street between 31st Street and 23rd Street
- **Zone 2:** Main Street between 23rd Street and Maple Avenue
- **Zone 3:** 21st Street between Main Street and 23rd Street
- **Zone 4:** Public parking lot between 21st Street and 23rd Street

Parking spaces were classified as general use, motorcycle only, and reserved accessible. Parking occupancy counts were performed at 10:00 a.m., 12:00 p.m., and 2:00 p.m. on a weekday. Parking inventory and occupancy data is summarized in **Table 2.4** and **Figure 2.8** depicts the approximate occupancy of on-street and off-street parking in the zones studied.

The review of the parking supply in downtown indicated that there is an adequate supply of parking to serve typical weekday demand at current development levels. Based on anecdotal evidence and experience in Purcellville, on weekends, demand is higher and it is often necessary to park further from a desired destination. On weekdays, Zone 3 experienced the highest occupancy of the areas studied. The majority of parking observed along Main Street was concentrated near the downtown core (21st Street/23rd Street areas).

Along Main Street where sufficiently sized residential driveways and surface parking lots exist, demand for on-street parking was relatively minimal, offering flexibility in the overall use and configuration of the street. Along these sections of Main Street, traffic calming measures could be considered to benefit pedestrians, bicyclists, and side-street traffic.

Based on calculated occupancy rates, the weekday peak parking period was observed to be from 12:00 p.m. to 2:00 p.m. Though this was observed to be the peak, occupancy overall of all spaces surveyed was only 22 to 23 percent. This means that more than 70 percent of all spaces available in the system were open. With regard to parking planning, a parking facility is generally defined as being at-capacity when its occupancy exceeds 90 percent. Based on weekday observations, sufficient parking capacity within the system exists to serve demand.

Similar to many most parking systems, overall parking supply appears to be adequate; however, proximity is an issue. Spaces are available, even during peak periods, but not always adjacent to destinations. One relatively low-cost solution to address the proximity issue, the installation of parking wayfinding signage would assist people in locating appropriate parking in the downtown area. Ideally, this type of signage would be coordinated with downtown or Townwide wayfinding.

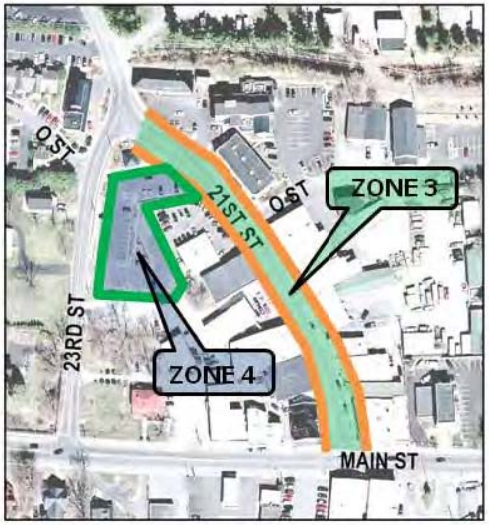
Additional Parking within Purcellville

Most parking facilities within Purcellville have some surplus capacity to accommodate growth. Understanding that downtown will continue to develop and additional parking will be needed, a parking garage is planned for the downtown area in the long-term to coordinate with redevelopment.

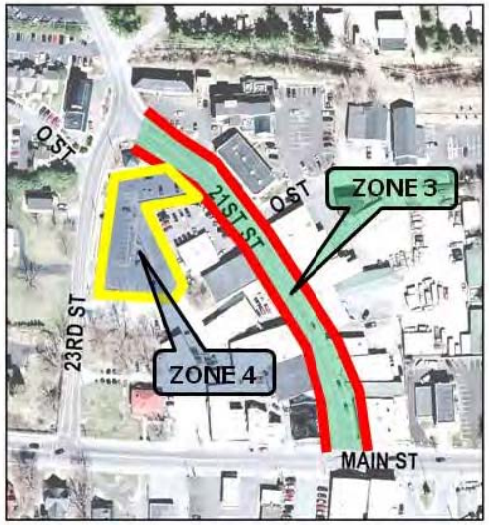
One element of the area's parking infrastructure that was not accounted for quantitatively with the review of the existing parking conditions was the supply of surface parking for private business. There are numerous off-street parking facilities along Main Street that were not included in the parking analysis, but serve the needs of businesses fronting Main Street and other commercial corridors. As a part of the process for sizing a parking structure in downtown and understanding impacts of potential redevelopment, a detailed study including public and private parking should be conducted.

Table 2.4: Public Parking Inventory and Occupancy (October 2008)

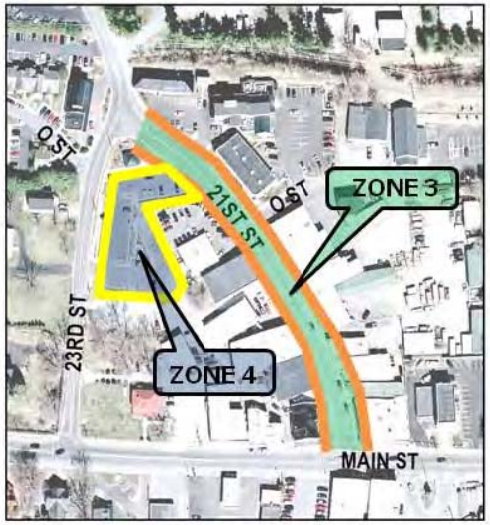
Facility Type/Location	Inventory (Number of Spaces)	10 AM Weekday Occupancy		12 PM Weekday Occupancy		2 PM Weekday Occupancy	
		Number of Parked Vehicles	Percent of Spaces Occupied	Number of Parked Vehicles	Percent of Spaces Occupied	Number of Parked Vehicles	Percent of Spaces Occupied
Street Parking							
Zone 1: Main Street between N. 31st Street and N. 23rd Street							
General	72	5	7%	6	8%	1	1%
Motorcycle	0	0	0%	0	0%	0	0%
Handicapped	0	0	0%	0	0%	0	0%
Total	72	5	7%	6	8%	1	1%
Zone 2: Main Street between N. 23rd Street and Maple Avenue							
General	58	0	0%	1	2%	0	0%
Motorcycle	0	0	0%	0	0%	0	0%
Handicapped	0	0	0%	0	0%	0	0%
Total	58	0	0%	1	2%	0	0%
Zone 3: N. 21st Street between W. Main Street and N. 23rd Street							
General	25	13	52%	20	80%	17	68%
Motorcycle	0	0	0%	0	0%	0	0%
Handicapped	0	0	0%	0	0%	0	0%
Total	25	13	52%	20	80%	17	68%
Total Street Parking	**155**	**18**	**12%**	**27**	**17%**	**18**	**12%**
Surface Parking: Public Parking Lot between N. 21st Street and N. 23rd Street							
Zone 4							
General	55	9	16%	22	40%	29	53%
Motorcycle	4	0	0%	0	0%	0	0%
Handicapped	3	0	0%	0	0%	0	0%
Total Surface Parking	**62**	**9**	**15%**	**22**	**35%**	**29**	**47%**
Overall Parking							
Total	**217**	**27**	**12%**	**49**	**23%**	**47**	**22%**



10 AM



12 PM



2 PM

Legend

Parking Occupancy

- Less than 25%
- 25%-49%
- 50%-75%
- Greater than 75%

Pedestrian and Bicycle Conditions

Purcellville has many assets that can serve as the foundation to become a more pedestrian- and bicycle-friendly community, including a pedestrian-friendly downtown and regional destinations such as the W&OD Trail. These assets generate much of the pedestrian and bicycle traffic that exists today, contributing to the overall vibrancy of the area.

Motor vehicle drivers are considered to be respectful of pedestrians and bicyclists and there is an acknowledgement of the benefits of pedestrian and bicycle planning in the community. As a result, there is strong community support for building pedestrian and bike facilities. As of January 2009, there were five sidewalk projects in the design stage and an ongoing sidewalk prioritization process to evaluate future projects.

Pedestrian and bicycle destinations and activity centers throughout the study area contribute to existing pedestrian and bicycle demand and the need for enhanced facilities. Some of these destinations and activity centers are listed below.

- Community centers such as Carver Community Center and Loudoun Valley Community Center
- Schools such as Hillsboro Elementary School, Blue Ridge Middle School, Lincoln Elementary School, Loudoun Valley High School, Emerick Elementary School, Harmony Middle School, and Patrick Henry College
- Parks and nature preserves such as Franklin Park, Fireman's Field, and the Suzanne R. Kane Nature Preserve
- Upper Loudoun Youth Football Complex
- Loudoun County Public Library
- Main Street and Downtown Purcellville
- W&OD Trail
- Purcellville Farmer's Market

Existing Pedestrian and Bicycle Conditions

Purcellville already has many of the hallmarks of a community for pedestrians and bicyclists. The center of Purcellville is a historic pedestrian-friendly downtown, with an extensive sidewalk network, stamped brick crosswalks, and pedestrian destinations such as the local farmer's market. There are many crosswalks and curb ramps throughout the Town. Traffic signals and newly installed pedestrian crossing signals have made it easier to cross roads in Purcellville. There also are existing pedestrian and bicycle signs throughout town. While there are currently no on-road bicycle facilities in Purcellville, there are multiuse trails, notably the regional W&OD Trail that has bicycle parking, bollards, signs, and other features.

While Purcellville has these amenities for pedestrians and bicyclists, there are also are challenges for those who travel by foot and bike through the Town. For one, many desired destinations, like neighborhoods and schools, are very far apart, making it difficult to walk and bike for transportation and creating traffic congestion for school buses and parents dropping students off.

In addition, Purcellville has a disconnected sidewalk network and very difficult crossing conditions in some locations. For example, a large number of students were observed crossing Maple Avenue near Loudoun Valley High School in a section of the road that did not have traffic signals or pedestrian crossing islands. There also are sections of Route 287 and the Harry Byrd Highway that are difficult to cross. Crosswalks are necessary in certain areas and sidewalks should be widened in some locations.

There are roads in Purcellville that carry large traffic volumes at high speeds, but that do not have on-road bicycle facilities. Many of the roads are too narrow to provide bike lanes within the existing road width and residents have in the past expressed reluctance about widening streets. In many cases, a constrained right-of-way will make it difficult to widen roads or provide enhanced pedestrian and bicycle facilities. Additional challenges to encouraging more walking and bicycling in the study area include school policies that discourage walking and bicycling to school and an over capacity of parking in many areas of town.

Looking east on A Street at the raised crosswalk serving Blue Ridge Middle School

Strengths and Weaknesses

Purcellville's pedestrian and bicycle-related strengths that were identified include existing resources such as the W&OD Trail, neighborhood connector trails, and a pedestrian-friendly downtown. Weaknesses included disconnected sidewalk networks, difficult crossings, and narrow roads. These and other strengths and weaknesses are highlighted in **Table 2.5**

Table 2.5: Summary of Strengths and Weaknesses for Pedestrian and Bicycle Facilities in Purcellville

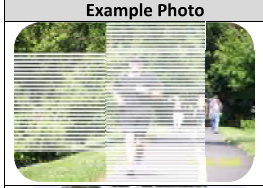
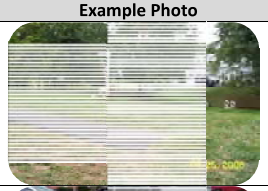
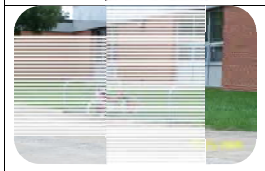
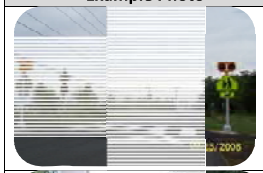
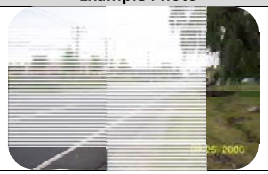
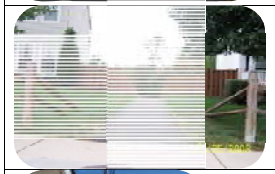
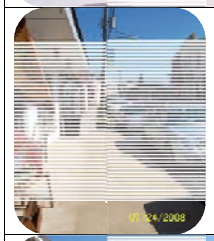
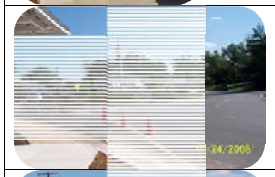
Strengths		Weaknesses	
Example Photo	**Description**	**Example Photo**	**Description**
	The W&OD trail is a significant asset in the Town of Purcellville. It not only connects destination within the Town, but also extends into the region outside of Purcellville's boundaries.		There are gaps in the sidewalk network. The sidewalk network has been developed in a piecemeal fashion, leaving areas disconnected from the system. The Town should seek to fill gaps in the sidewalk network.
	Purcellville has a pedestrian-friendly system of pathways, such as the one shown in the photo of Loudoun Valley High School. The photo shows a sidewalk that is buffered from the street. The speed limit sign is active during school hours reminding drivers to drive the 20mph speed limit, and to be aware of students walking. The crosswalk also has a pedestrian-activated signal. The signal increases visibility of pedestrians crossing from the trail to the school. The signal can only be activated by a pedestrian pushing the button. It will not flash if there is not a pedestrian crossing.		Some crosswalks are not ADA-compliant. This crosswalk can be challenging for anyone pushing a stroller or operating a wheelchair. The curb on the opposite side of the street does not have a curb cut. Anything with wheels will need to change course and use the driveway to the right. The Town should ensure that crosswalks have curb cuts (or ramps) directly on either side of the road.
	Purcellville has many buffered sidewalks and sidepaths. Sidepaths can be used by pedestrians and bicyclists. They parallel the roadway but usually have a landscaped buffer between the path and the roadway.		New construction creates opportunities to improve the pedestrian and bicycle network. The Town should look for ways to ensure that new and redevelopment addresses the needs of pedestrians and bicyclists.
	Bike racks are located throughout town, for example at Emerick Elementary School. This bike rack is located near the front entrance of the school and is visible from classrooms inside. The bike rack is clearly accessible from a wide pathway. Bike racks that are located away from main entrances are often unused. They should be clearly visible and convenient for riders to use. It is important that they can be monitored from the inside. Isolated racks are more susceptible to theft and vandalism. Bike racks that are located away from pathways also are often unused, especially if the ground is muddy or blocked.		Difficult crossing conditions exist on Maple Avenue. There is a lot of traffic on Maple Avenue, especially in the afternoon when students from Loudoun Valley High School are dismissed. Pedestrians do not have a comfortable way to cross the four lanes of the street. The only signals are at the school and at East Main Street. The Town should consider mid-block crossing treatments such as pedestrian refuge islands to improve crossing conditions for students trying to access the retail center on the west side of the street.

Table 2.5: Summary of Strengths and Weaknesses for Pedestrian and Bicycle Facilities in Purcellville

Strengths		Weaknesses	
Example Photo	**Description**	**Example Photo**	**Description**
	A raised crosswalk and a pedestrian-actuated signal is located at Blue Ridge Middle School. The crosswalk elevates the pedestrian, making them more visible to oncoming traffic. The raised surface also acts as a speed bump, encouraging vehicles to approach at slower speeds. The pedestrian-actuated signal increases the visibility of pedestrians when crossing from the trail to the school.		Pedestrian facilities are needed on East Main Street. East Main Street does not always accommodate pedestrians for the entire length of the street. Pedestrian demand for facilities is demonstrated where the grass is worn away. The Town should create facilities for bicycles and pedestrians. Pedestrians need sidewalks and crossing facilities, while bicyclists benefit from bike lanes and sharrows.
	Purcellville has many strategically-placed neighborhood connectors. These pathways are located between private residences, but are public accessible. Pedestrians can use these pathways to shorten their trips between destinations. They are ideal for children and families as the pathways are separate from the roadways. Generally these pathways connect cul-de-sacs to schools and other public community spaces.		
	The center of Purcellville is a historic pedestrian-friendly downtown, with an extensive sidewalk network, stamped brick crosswalks, and pedestrian destinations such as the farmer's market.		
	The Town has established a prioritization process for sidewalks, which is meant to focus the Town resources on the most important sidewalk gaps.		
	According to local stakeholders, motor vehicle drivers are considered to be respectful of pedestrians and bicyclists. This contributes to a more comfortable walking and bicycling experience in Purcellville		

Existing Transit Conditions

Commuter Bus Services

Commuter bus service in Purcellville is operated by Loudoun County Transit (LCT) under the authority of the Transit and Commuter Services division of the Loudoun County Office of Transportation Services. The routes travel between Loudoun County and major destinations to the east including those in Arlington and Washington, D.C. More information on these services can be found by navigating to www.loudoun.gov. Generally, LCT services operate on weekdays to serve typical commuter demand.

An evaluation conducted for Loudoun County found that commuter bus service operates effectively and efficiently, with high levels of passenger convenience and service reliability. Commuter routes are heavily patronized, often to the point of over-crowding during the busiest periods.

Park-and-Ride Lots

To serve Loudoun County Transit, two park-and-ride lots are located proximate to or within Purcellville. One lot is located at Franklin Park in Loudoun County and provides 130 parking spaces free of charge. The second park-and-ride lot is located at St. Andrews Presbyterian Church and provides 90 parking spaces free of charge. As of June 2008, the St. Andrews park-and-ride lot was planned to remain for five more years. Loudoun County has appropriated funds to the church to contribute to repaving and installing lighting for the lot. The Franklin Park lot is in need of improvement to best serve transit patrons.

Loudoun County and VDOT are continuing to look for additional sites in the western part of the County for future commuter parking. A customer-focused evaluation conducted by Loudoun County found that park-and-ride lots do not always offer the opportunity to combine trips or promote access by other modes. This same evaluation found that customers view the supply of bus facilities and shelters with low satisfaction due the limited number provided. A 2003 study conducted by VDOT identified an area to the northwest of the Route 7/Route 287 interchange as a potential location for a future park-and-ride lot. Through discussions with Purcellville, it is understood that the Town is interested in a dedicated park-and-ride facility sized to serve town residents and not the larger surrounding community.

Demand-Response Service

A not-for-profit transit provider managed by Loudoun County provides residents on-demand curb-to-curb transportation on a first-come, first-serve basis. Virginia Regional Transit (VRT) provides curb to curb on-demand transportation requiring 24-hour advance registration within Loudoun County. Other groups provide additional weekday on-demand service targeting specific population groups. The evaluation conducted as a part of Loudoun County's transit plan found that the demand response service has declining performance in terms of cost-efficiency, cost effectiveness, and service effectiveness. It recommends coordination with local agencies, investigation of subscription services, enhanced use of technology, and exploration of supplemental same-day taxi service with subsidies.

Local Bus Service

Recognizing the role that transit amenities (shelters, benches, lighting, and similar) have on people's choices to use transit or not, Purcellville continues to install bus shelters and amenities for transit patrons at strategic locations. Most recently, the Town installed shelters at Town Hall, 16th Street, and adjacent to the Main Street/Maple Avenue intersection.

Local fixed-route bus service is operated by the state designated rural provider for Loudoun County, VRT. The Purcellville Connector provides service within and between Purcellville and Leesburg with stops in Hamilton. The service operates on weekdays from 7:00 a.m. to 7:00 p.m. Stops are located along local streets in Purcellville and the Town has installed a bus shelter at Town Hall to serve patrons. **Figure 2.9** shows current (2009) Purcellville Connector services.

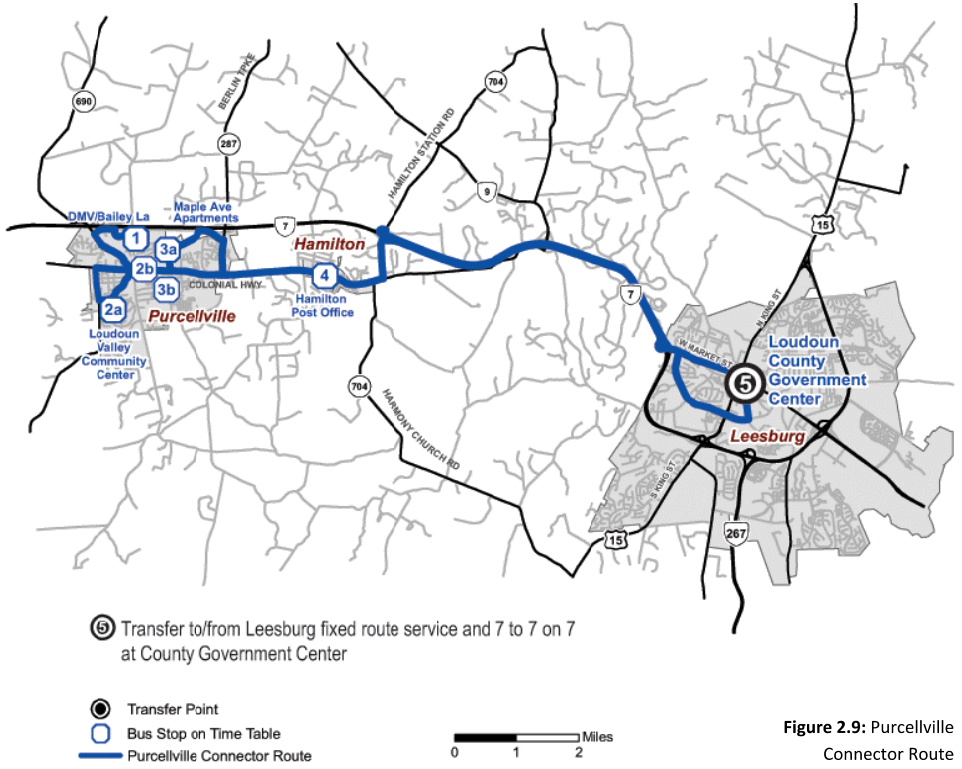


Figure 2.9: Purcellville Connector Route

In addition to the Purcellville Connector, VRT operates service between Purcellville, Lovettsville, and Brunswick as shown in **Figure 2.10**. This service was incepted at the urging of Purcellville and Lovettsville. The Western Flyer service operates Monday through Friday from 6:45 a.m. to 8:00 p.m. Service operates continuously between 6:45 a.m. and 10:38 a.m. in the morning and between 4:00 p.m. and 8:00 p.m. in the evening.

Service Evaluation

The local fixed-route bus evaluation conducted by Loudoun County for their transit plan development found that the Purcellville Connector was carrying an average of six passengers per hour between October 2004 and October 2007. Initial evaluations of the Western Flyer indicate fewer passengers per hour than on the Purcellville Connector. The evaluation recommended that areas with ridership of less than 10 passengers per peak hour should be considered for alternative service delivery methods or reduced service. It recommends that services be provided in the later evening for trip purposes such as shopping where possible.

The evaluation also found that physical facilities to support transit including bus shelters are limited. The study recommended that bus shelters be provided at all exchange and transfer points, high boarding locations with more than 35 passengers in a three-hour peak period, unique exposure to inclement weather, and in front of senior residences and other institutional facilities. The evaluation recommended considering the provision of a discounted fare mechanism for multi-ride passes by cooperating with local retail stores and businesses that could serve as points of sale in order to partner with the community and provide convenience to passengers.

The study recommended that transfers be encouraged between local fixed-route and commuter buses. Follow-up steps identified included the investigation of service hours to enable local fixed-routes to feed park-and-ride locations, to adjust commuter coach routes to make stops at existing fixed-route transfer hubs, and to implement unified passes or other fare media to provide access to all transit services.

Figure 2.10: Western Flyer Route

Chapter 3

FUTURE CONDITIONS

Chapter 3: Future Conditions

Introduction

Little or no residential growth is likely for the next few years in Purcellville, primarily due to national economic conditions. However, during the next 25 years there will be significant increases in population, employment, and travel demand. To support community growth, transportation system modifications will need to be made. **Figure 3.1** illustrates corridor levels of service for Loudoun County's fiscally constrained long range transportation plan (2030) in the Purcellville area.

Purcellville will be impacted by growth attributed to increases in population and employment in town as well as by growth in the surrounding county. From a traffic perspective, not only will Purcellville's street network need to accommodate increases in local travel, but also increases in through trips attributed to regional growth. Main Street, Hillsboro Road/21st Street, Silcott Springs Road/32nd Street, Maple Avenue, and Berlin Turnpike will continue to be important streets in town and to the county. To accommodate projected increases in travel demand on these and other corridors, the implementation of a combination of the following will be required:

- **Transportation system management:** Address existing geometric deficiencies, consolidate and remove unnecessary driveways, restrict the location of new driveways, improve signal timing/coordination (where signals will exist) to maximize major street capacity based on variation of vehicular demand, consider non-traditional intersection treatments such as roundabouts, and accommodate non-vehicular users through the construction of sidewalks, crosswalks, and bikeways.
- **Intersection modifications:** Install/designate exclusive turn lanes at key locations to improve intersection efficiency, consider non-traditional intersection treatments such as roundabouts, and provide appropriate pedestrian crossing treatments and amenities.
- **Widenings (add through lanes):** Provide additional through lanes on streets such as Berlin Turnpike and improve multimodal accommodation on streets throughout town by providing appropriate bicycle and pedestrian facilities.
- **Street extensions:** Improve local and collector street network connectivity to increase the number of alternative routes in town.
- **New street construction (corridors):** Construct new collector and local streets to improve mobility and access.

Travel Demand Modeling

In general, regional travel demand models use land use (socioeconomic) and transportation network (street and transit networks) data to generate future person-trip forecasts. Forecasted person trips are assigned within the model to non-motorized (pedestrian and bicycle), transit, and vehicle (car and truck) trips. Each trip type is assigned to a respective network and vehicular traffic volumes, numbers of walking and bicycling trips, and transit ridership is generated. Overall travel demand generation in the model is based on adopted local, county, and regional plans.

Travel demand models are not perfect; however, they are the best available tools for developing future travel demand forecasts. The traffic forecasts developed for the Town's plan rely on the best available information for predicting future travel demand. Forecasts reflect typical conditions on an average weekday and do not include special events, inclement weather, or nonrecurring incidents such as accidents. Forecasts are included for each scenario studied.

Modeling Process

To understand the overall travel demand impacts of long-term population and employment growth in the Washington, D.C. metropolitan area and in the Town, the 2030 Loudoun County travel demand model was used through cooperation with Loudoun County. This model is the primary tool for forecasting and evaluating future travel demand for communities in Loudoun County. Purcellville is a small area within the Loudoun County model. To accurately reflect transportation network conditions in town, manual adjustments were made to the model including:

- **Traffic analysis zone connector relocations:** Connections (centroid connectors) between zones and the street network were appropriately relocated to better represent the way in which traffic currently reaches the Town's collector street network.
- **Street network revisions:** New street links were added to reflect the collector street network proposed for the Town.

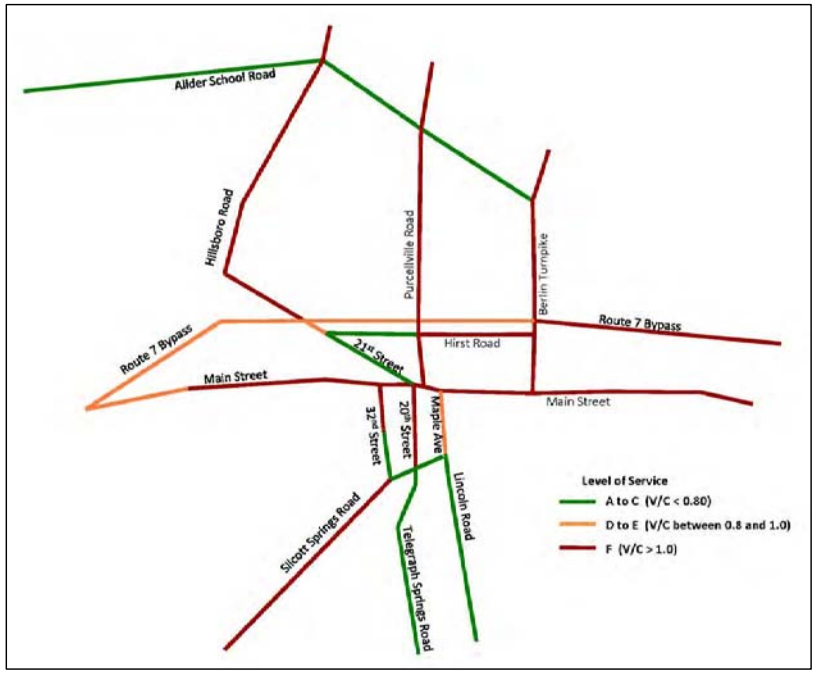


Figure 3.1: Volume to Capacity (V/C) Ratios for the Fiscally Constrained Regional Long Range Plan in Purcellville

Street Network Options

A number of transportation network options were studied to determine the most appropriate strategy for accommodating future travel demand in Purcellville while minimizing impacts on the natural and built environments and special community features. Transportation network options ranged from the fiscally constrained regional transportation plan to the county's current adopted transportation plan to their yet to be completed updated transportation plan. Forecasts were reviewed for each scenario, as well as the recommended plan. For each, street network scenarios were created and forecasts developed using the regional travel demand model and post-process adjustments.

Uniformly, the future network scenarios provide additional vehicular capacity and connectivity for traffic traveling through, to, from, and within Purcellville. Scenarios studied are described in the following sections, and listed below:

- **Constrained Long-Range Plan:** This scenario is the fiscally constrained future (2030) transportation plan. Projects fitting within forecasted available revenue sources are included in this scenario.
- **Adopted County Transportation Plan:** This scenario represents the currently adopted (2001) Loudoun County Transportation Plan. This plan includes several new street connections in Purcellville including the Route 690 (Hillsboro Road/20th Street) interchange with Route 7 Bypass, the Northern Collector, and the Southern Collector.
- **Recommended Plan:** This scenario is the recommended transportation plan for Purcellville. It includes all of the projects in the County Transportation Plan scenario as well as projects such as the O Street extension, reconfiguration of the "teardrop," and roundabouts at key locations.

A detailed description of each option, including traffic volumes, is presented in the sections that follow.

Constrained Long-Range Plan

This scenario is consistent with the current fiscally constrained regional transportation plan. The street network and traffic volumes associated with this scenario are shown in **Figure 3.2**. Of the options studied, it includes the fewest number of major transportation projects and has the least amount of success in accommodating traffic volume growth in Purcellville.

After studying future travel demand forecasts associated with this option, it is clear that more extensive street and highway improvements than are currently planned will be necessary to accommodate future travel demand. Specifically on Main Street and Berlin Turnpike, additional roadway capacity would be needed to accommodate future travel demand. The continuation of few points of access to Route 7 Bypass and a sparsely connected major street network will result in congestion on critical local streets.

Figure 3.2 illustrates the network accompanying this scenario. **Table 3.1** summarizes travel demand and capacity in the east/west and north/south directions for major roadways (as indicated) in Purcellville.

Table 3.1: 2030 Constrained Long Range Plan Daily Capacity

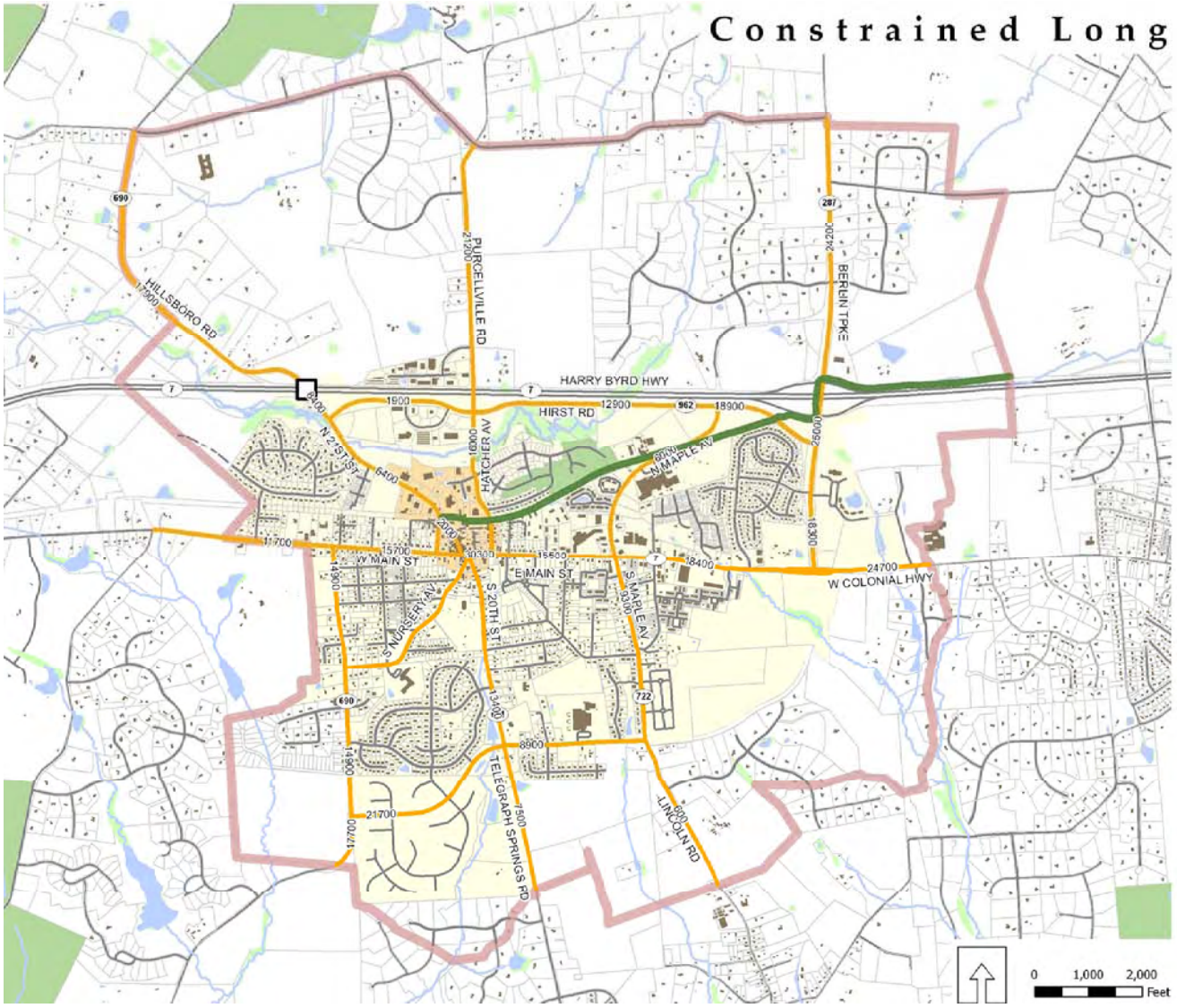
North/South Routes							East/West Routes						
Network Segment	North			South			Network Segment	East			West		
	Volume	Capacity	V/C	Volume	Capacity	V/C		Volume	Capacity	V/C	Volume	Capacity	V/C
Between Wright Farm Road and Harry Byrd Highway (7)							**Between the East Study Area boundary and Berlin Turnpike (287)**						
Hillsboro Rd (690)	8700	5000	1.74	9200	5000	1.84	Harry Byrd Highway (7)	36300	27000	1.34	39500	27000	1.46
Purcellville Rd	10300	5000	2.06	10900	5000	2.18	Colonial Highway (Bus 7)	14100	5000	2.82	10600	5000	2.12
Berlin Tpke (287)	12400	5000	2.48	11800	5000	2.36							
Total	***31400***	***15000***	***2.09***	***31900***	***15000***	***2.13***	***Total***	***50400***	***32000***	***1.58***	***50100***	***32000***	***1.57***
Between Hirst Road and Main Street (Bus 7)							***Between Berlin Turnpike (287) and Maple Avenue***						
N 21st St (690)	2800	5000	0.56	3600	5000	0.72	Harry Byrd Highway (7)	25600	27000	0.95	25400	27000	0.94
Hatcher Ave	7600	2000	3.80	8400	2000	4.20	Hirst Rd	9100	5000	1.82	9800	5000	1.96
N Maple Ave	3000	4000	0.75	3000	4000	0.75	E Main Street (Bus 7)	9300	5000	1.86	9100	5000	1.82
Berlin Tpke (287)	8000	5000	1.60	10300	5000	2.06							
Total	***21400***	***16000***	***1.34***	***25300***	***16000***	***1.58***	***Total***	***44000***	***37000***	***1.19***	***44300***	***37000***	***1.20***
Between Main Street (Bus 7) and A Street							***Between Maple Avenue and Hatcher Avenue***						
S 32nd St (690)	7000	5000	1.40	7900	5000	1.58	Harry Byrd Highway (7)	25600	27000	0.95	25600	27000	0.95
S 20th St (611)	6300	5000	1.26	7100	5000	1.42	Hirst Rd	6100	5000	1.22	6800	5000	1.36
S Maple Ave	4900	5000	0.98	4400	5000	0.88	E Main Street (Bus 7)	8100	5000	1.62	7400	5000	1.48
Total	***18200***	***15000***	***1.21***	***19400***	***15000***	***1.29***	***Total***	***39800***	***37000***	***1.08***	***39800***	***37000***	***1.08***
							Between 32nd Street and the West Study Area Boundary						
							Harry Byrd Highway (7)	23000	27000	0.85	23000	27000	0.85
							E Main Street (Bus 7)	6200	5000	1.24	5500	5000	1.10
							Total	***29200***	***32000***	***0.91***	***28500***	***32000***	***0.89***

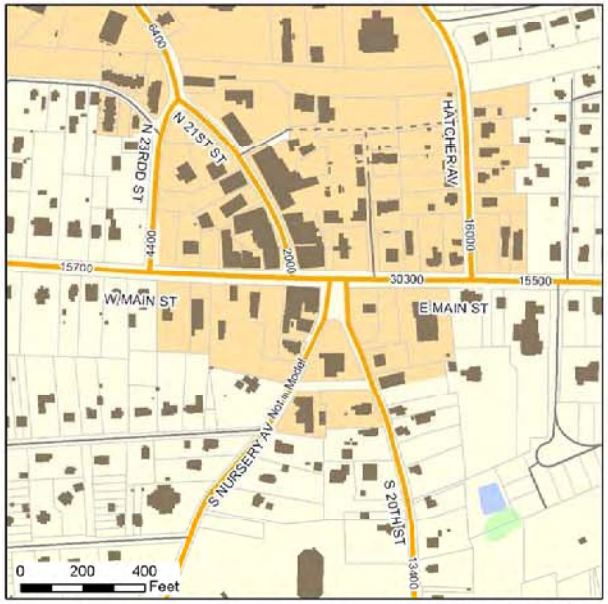
**All capacities shown are from the Loudoun County model and are one-way.*

Key to V/C Ratios
LOS A to C - V/C less than 0.80
LOS D to E – V/C between 0.80 and 1.0
LOS F – V/C greater than 1.0

Constrained Long Range Plan Volumes

Figure 3.2





Map Inset - Downtown

Legend

General Number of Through Lanes

- 2 lanes
- 2 lanes (new location)
- 3 lanes (two-way left-turn lane)
- 4 lanes (with median)
- Interchange (future)
- W & OD Trail

- Study Area
- Building
- Property Line
- Stream
- Body of Water
- Wetland
- Park or Open Space
- Downtown Area
- Town Limit

Adopted County Transportation Plan

This scenario is consistent with the current Loudoun County Transportation Plan. Purcellville continues to have involvement in the County Transportation Plan development process through the review of project documentation and submission of comments. The street network and traffic volumes associated with this scenario are shown in **Figure 3.3**. This option mitigates most traffic congestion in Purcellville; however, some segments of key streets will continue to experience some congestion even with proposed improvements. The most significant features included in this scenario are the following:

- Widening of Berlin Turnpike to four lanes from Main Street/Colonial Highway through the Purcellville Urban Growth Area
- Construction of the Southern Collector to Main Street/Colonial Highway to tie to Berlin Turnpike
- Construction of Northern Collector Road from Berlin Turnpike to Hillsboro Road
- Construction of the Route 690 (Hillsboro Road/21st Street) interchange with Route 7 Bypass
- Route 7/287 interchange modifications (VDOT does not have any plans developed for this location)

Figure 3.3 illustrates the network accompanying this scenario. **Table 3.2** summarizes travel demand and capacity in the east/west and north/south directions for major roadways (as indicated) in Purcellville.

Table 3.2: 2030 County Transportation Plan Daily Capacity

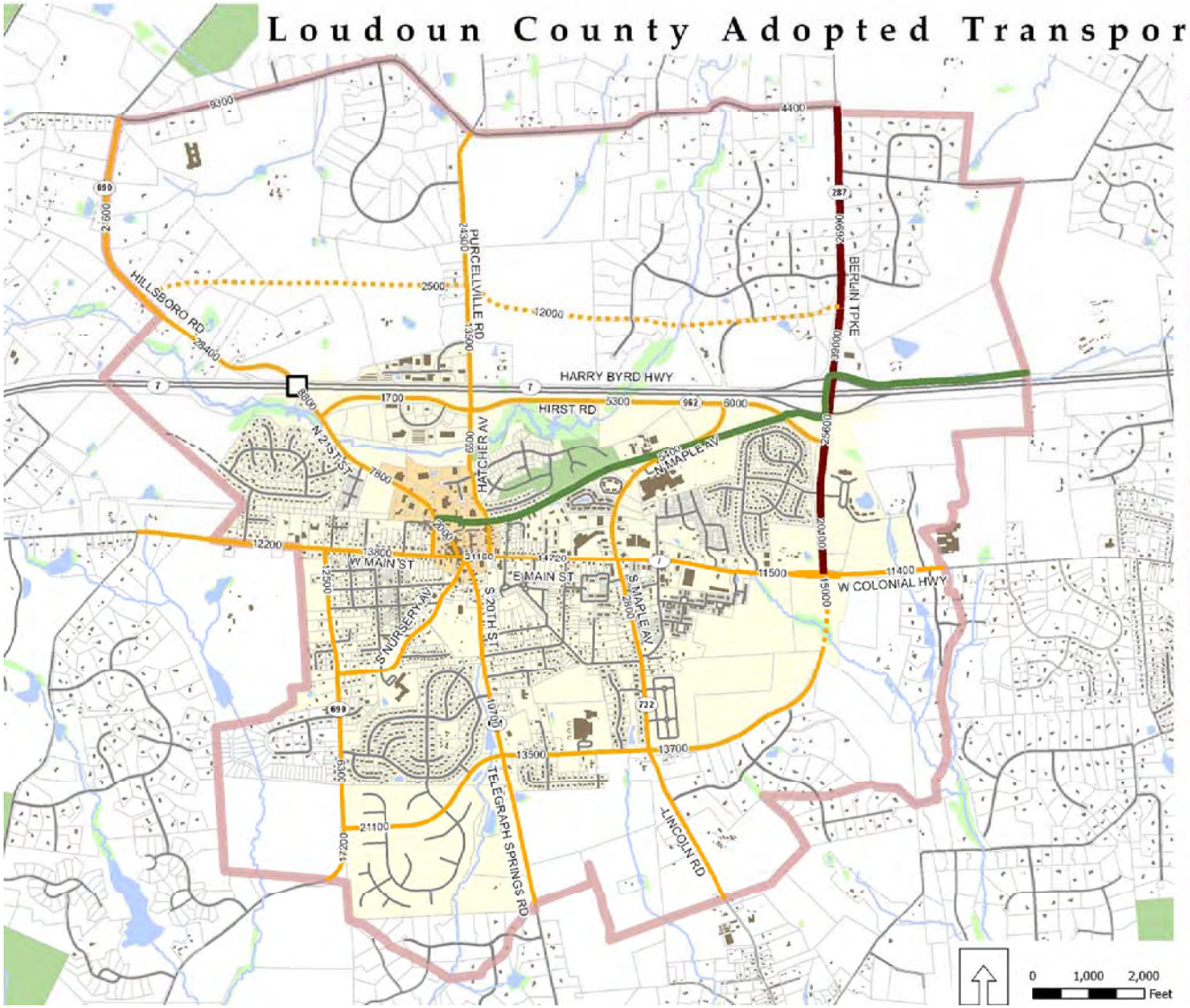
North/South Routes							East/West Routes						
Network Segment	North			South			Network Segment	East			West		
	Volume	Capacity	V/C	Volume	Capacity	V/C		Volume	Capacity	V/C	Volume	Capacity	V/C
Between the proposed Northern Collector and Harry Byrd Highway (7)							**Between the East Study Area boundary and Berlin Turnpike (287)**						
Hillsboro Rd (690)	9500	5000	1.90	13400	5000	2.68	Harry Byrd Highway (7)	54500	58500	0.93	52500	58500	0.90
Purcellville Rd	8000	5000	1.60	5500	5000	1.10	Colonial Highway (Bus 7)	6500	5000	1.30	4900	5000	0.98
Berlin Tpke (287)	18100	10000	1.81	20900	10000	2.09							
Total	**35600**	**20000**	**1.78**	**39800**	**20000**	**1.99**	**Total**	**61000**	**63500**	**0.96**	**57400**	**63500**	**0.90**
Between Hirst Road and Main Street (Bus 7)							***Between Berlin Turnpike (287) and Maple Avenue***						
N 21st St (690)	2900	5000	0.58	4400	5000	0.88	Northern Collector	6700	10000	0.67	4100	10000	0.41
Hatcher Ave	3300	2000	1.65	3400	2000	1.70	Harry Byrd Highway (7)	32800	58500	0.56	30500	58500	0.52
N Maple Ave	3300	4000	0.83	2000	4000	0.50	Hirst Rd	1900	5000	0.38	4100	5000	0.82
Berlin Tpke (287)	9500	10000	0.95	10500	10000	1.05	E Main Street (Bus 7)	6100	5000	1.22	5400	5000	1.08
Total	**19000**	**21000**	**0.90**	**20300**	**21000**	**0.97**	**Total**	**47500**	**78500**	**0.61**	**44100**	**78500**	**0.56**
Between Main Street (Bus 7) and A Street							***Between Maple Avenue and Hatcher Avenue***						
S 32nd St (690)	6100	5000	1.22	6400	5000	1.28	Northern Collector	6700	10000	0.67	4100	10000	0.41
S 20th St (611)	4600	5000	0.92	6100	5000	1.22	Harry Byrd Highway (7)	32800	58500	0.56	30500	58500	0.52
S Maple Ave	2400	5000	0.48	400	5000	0.08	Hirst Rd	900	5000	0.18	4400	5000	0.88
Southern Collector	5700	5000	1.14	5800	5000	1.16	E Main Street (Bus 7)	7300	5000	1.46	600	7400	0.08
Total	**18800**	**20000**	**0.94**	**18700**	**20000**	**0.94**	**Total**	**47700**	**78500**	**0.61**	**39600**	**80900**	**0.49**
							Between 32nd Street and the West Study Area Boundary						
							Harry Byrd Highway (7)	29500	58500	0.50	30400	58500	0.52
							E Main Street (Bus 7)	5000	5000	1.00	4800	5000	0.96
							Total	**34500**	**63500**	**0.54**	**35200**	**63500**	**0.55**

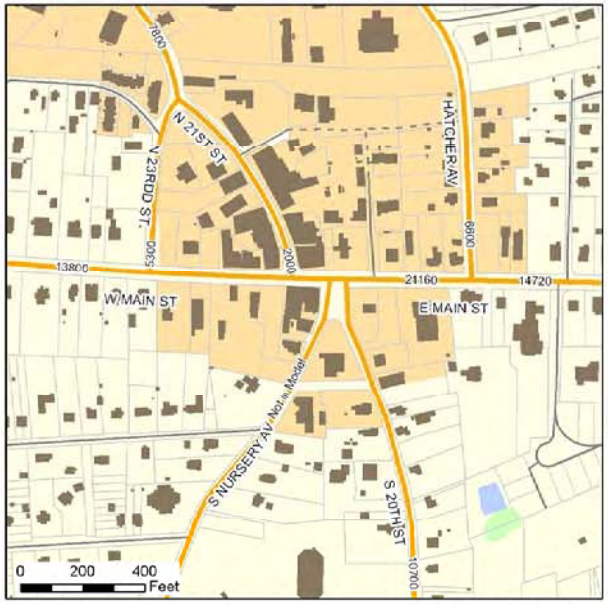
**All capacities shown are from the Loudoun County model and are one-way.*

Key to V/C Ratios
LOS A to C - V/C less than 0.80
LOS D to E – V/C between 0.80 and 1.0
LOS F – V/C greater than 1.0

Loudoun County Adopted Transportation Plan Volumes

Figure 3.3





Map Inset - Downtown

Legend

General Number of Through Lanes
- 2 lanes
- 2 lanes (new location)
- 3 lanes (two-way left-turn lane)
- 4 lanes (with median)
- Interchange (future)
- W & OD Trail

- Study Area
- Building
- Property Line
- Stream
- Body of Water
- Wetland
- Park or Open Space
- Downtown Area
- Town Limit

Recommended Plan

This scenario presents the recommended street network for Purcellville. Some recommendations identified in this section pertain to roadways and intersections outside the PUGAMP area. It is mostly consistent with the Loudoun County plan; however, it is more extensive in its approach because the County's plan does not address local streets. The street network and traffic volumes associated with this scenario are shown in **Figure 3.4**. This option accommodates Purcellville's growth and increases local street connectivity in town. The most significant features included in this scenario are the following:

- Widening of Berlin Turnpike to four lanes from Main Street/Colonial Highway through the Purcellville Urban Growth Area
- Widening of Route 690 to four lanes from the northern PUGAMP area boundary to Route 7 (not on the current county plan, but may be reconsidered as a part of an ongoing update)
- Construction of the Southern Collector to Main Street/Colonial Highway to tie to Berlin Turnpike
- Construction of Northern Collector Road from Berlin Turnpike to Hillsboro Road
- Construction of Western Collector Road from Hillsboro Road to Main Street (this project is recommended, but would be in Loudoun County and subject to an evaluation as a part of their transportation plan's development)
- Construction of the Route 690 (Hillsboro Road/21st Street) interchange with Route 7 Bypass
- Route 7/287 interchange modifications (VDOT does not have any plans developed for this location)
- Reconfiguration of the "teardrop" through a realignment of 20th Street and Nursery Road
- Extension of O Street (as a public street) from 21st Street to Hatcher Avenue
- Extension of 20th Street to the O Street extension
- Construction of roundabouts at the Main Street/Western Collector (Loudoun County), Main Street/Berlin Turnpike, A Street/32nd Street, A Street/20th Street, A Street/Maple Avenue, Hirst Road/Maple Avenue, and Purcellville Road/Northern Collector Road intersections

Figure 3.4 illustrates the network accompanying this scenario. **Table 3.3** summarizes travel demand and capacity in the east/west and north/south directions for major roadways (as indicated) in Purcellville. New corridors such as the Southern Collector and Northern Collector will not be without challenges to implement. Between property and built environment impacts and potential environmental impacts related to wetlands, threatened and endangered species, farmland, and other natural environmental features, alignments for these corridors will need to be carefully developed. Depending on the funding sources and parties ultimately implementing these corridors as well as other projects identified in the transportation plan, a combination of local, state, and federal requirements will need to be met prior to any approvals for construction.

Table 3.3: 2030 Recommended Transportation Plan Daily Capacity

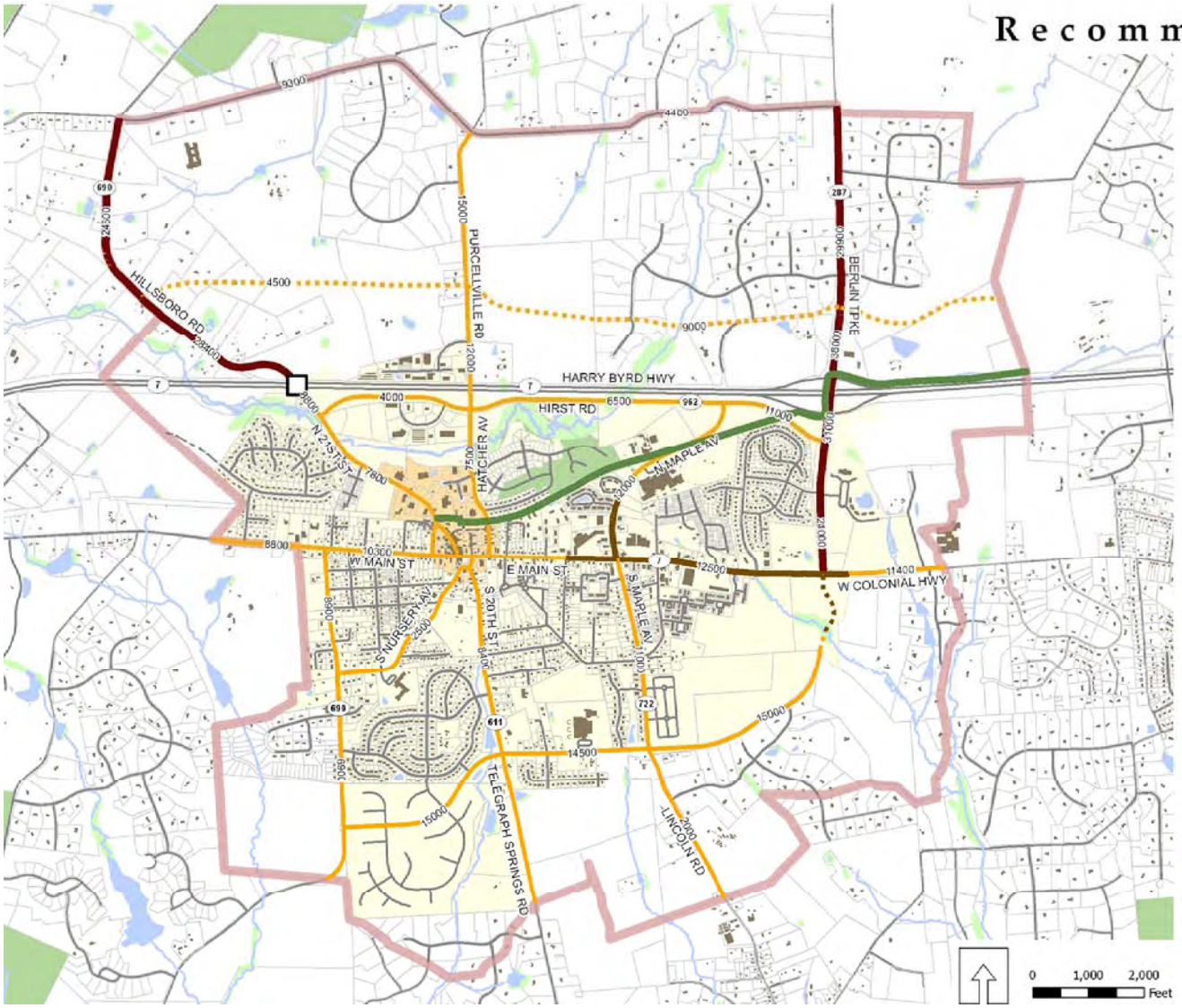
North/South Routes				East/West Routes			
Network Segment	North/South			Network Segment	East/West		
	Volume	Capacity	V/C		Volume	Capacity	V/C
Between the proposed Northern Collector and Harry Byrd Highway (7)				**Between the East Study Area boundary and Berlin Turnpike (287)**			
Western Collector (Loudoun County)	1000	12500	0.08	Harry Byrd Highway (7)	107000	117000	0.91
Hillsboro Rd (690)	28400	28000	1.01	Colonial Highway (Bus 7)	11400	12500	0.91
Purcellville Rd	12000	12500	0.96				
Berlin Tpke (287)	38000	28000	1.36				
Total	***79400***	***81000***	***0.98***	***Total***	***118400***	***129500***	***0.91***
Between Hirst Road and Main Street (Bus 7)				***Between Berlin Turnpike (287) and Maple Avenue***			
Western Collector (Loudoun County)	1000	12500	0.08	Northern Collector	9000	12500	0.72
N 21st St (690)	7800	10000	0.78	Harry Byrd Highway (7)	63300	117000	0.54
Hatcher Ave	7500	8000	0.94	Hirst Rd	11000	12500	0.88
N Maple Ave	12000	12500	0.96	E Main Street (Bus 7)	12500	12500	1.00
Berlin Tpke (287)	21000	28000	0.75				
Total	***49300***	***71000***	***0.69***	***Total***	***95800***	***154500***	***0.62***
Between Main Street (Bus 7) and A Street				***Between Maple Avenue and Hatcher Avenue***			
S 32nd St (690)	8900	10000	0.89	Northern Collector	9000	12500	0.72
S 20th St (611)	8400	10000	0.84	Harry Byrd Highway (7)	63300	117000	0.54
S Maple Ave	11000	10000	1.10	Hirst Rd	6500	12500	0.52
Southern Collector	15000	15000	1.00	E Main Street (Bus 7)	13600	12500	1.09
Total	***43300***	***45000***	***0.96***	***Total***	***92400***	***154500***	***0.60***
				Between 32nd Street and the West Study Area Boundary			
				Harry Byrd Highway (7)	59900	117000	0.51
				Northern Collector	4500	12500	0.36
				E Main Street (Bus 7)	8800	12500	0.70
				Total	***73200***	***142000***	***0.52***

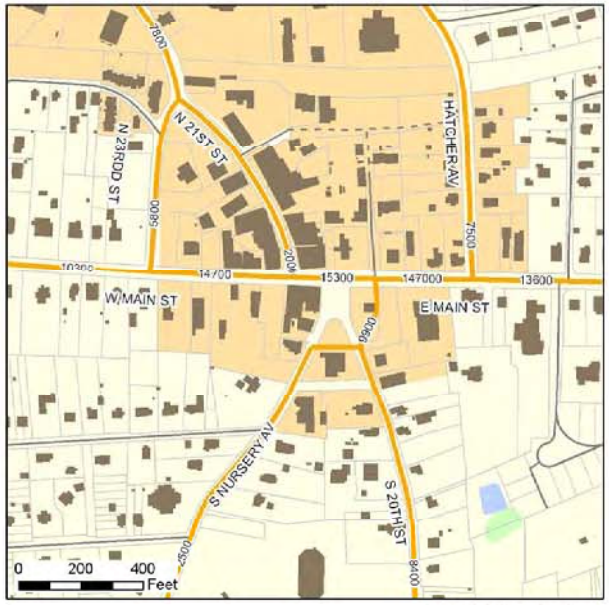
*All capacities shown are assumed based on the recommended plan and are two-way.
**The Western Collector is included in the north/south route evaluation, but is noted that it is not within the PUGAMP area and is excluded from recommendations in Chapter 4. The county should consider including the Western Collector in their transportation plan update.

Key to V/C Ratios
LOS A to C - V/C less than 0.80
LOS D to E – V/C between 0.80 and 1.0
LOS F – V/C greater than 1.0

Recommended Plan Volumes

Figure 3.4





Map Inset - Downtown

Legend

General Number of Through Lanes

- 2 lanes
- 2 lanes (new location)
- 2 lanes (with median)
- 2 lanes (with median, new location)
- 4 lanes (with median)
- Interchange (future)
- W & OD Trail

- Study Area
- Building
- Property Line
- Stream
- Body of Water
- Wetland
- Park or Open Space
- Downtown Area
- Town Limit

Summary of Street Network Options

East/West Observations on Travel Demand

The anticipated travel demand for east/west streets is fairly consistent for each of the options studied. The majority of regionally-focused traffic is carried on Route 7 Bypass and local and shorter distance traffic continues to use Main Street and Colonial Highway. The currently adopted county plan and recommended plan both benefit from the inclusion of the Northern Collector Road, which diverts some traffic away from Hirst Road and Main Street. Equally, the extension of A Street, provides significant benefit to Main Street between Maple Avenue and Berlin Turnpike. The extension of A Street is included in the adopted county plan and the recommended plan. Further, each of these plans includes a new interchange at Hillsboro Road/21th Street, which would relieve Berlin Turnpike as well as sections of Main Street.

While the currently adopted county plan and recommended plan both benefit from new streets and street extensions, the transportation network in the fiscally constrained plan suffers from congestion. This is to be expected in that the constrained long range plan is more of a regional tool, having more to do with fiscal realities. In the east/west direction, Main Street will continue to experience increases in traffic and will become increasingly congested as a result. Hirst Road will similarly experience increases in traffic, mostly the result of travelers from areas north of Purcellville entering town on Hillsboro Road and Purcellville Road and then turning eastward on Hirst Road to reach Berlin Turnpike and Route 7 Bypass.

Unique to the recommended plan, at a local street level, the extension of O Street as a public street would improve access and mobility in downtown.

North/South Observations on Travel Demand

Similar to east/west travel demand, travel demand was relatively similar in the north/south direction among the three scenarios studied. Berlin Turnpike carries a substantial volume of traffic, most of which is oriented to Route 7 Bypass. With the construction of a new interchange on Route 7 Bypass and Hillsboro Road/21th Street, some traffic will be diverted away from Berlin Turnpike and onto Hillsboro Road and 21th Street. Benefitting local street connectivity and also providing relief for downtown streets (23rd Street and 21st Street), the recommended plan includes the Western Collector, which would help divert some traffic around Purcellville and provide access to Route 7 Bypass/Hillsboro Road/21st Street interchange. It is understood that the Western Collector is entirely in Loudoun County and its inclusion in the county plan will be subject to county evaluations. Plan recommendations remain the same whether the county pursues a Western Collector or does not.

Bicycle and Pedestrian Evaluation

Local plans and studies were reviewed in the development of the transportation concepts included in this plan. Potential routes were evaluated that could provide connections to and between important destinations in Purcellville. Adjacent land uses and existing right-of-way were considered.

Road characteristics such as the number and width of travel lanes, the width of the road, traffic volume and speed, the presence of on-street parking, and the condition of the pavement also were considered. In determining the type of facility and the phasing, the costs and ease of implementation also were important factors.

The recommended pedestrian and bicycle system consists of a variety of complementary facility types, including multiuse paths, bicycle lanes, and sidewalks. The pedestrian and bicycle facilities that are recommended in this plan:

- Provide residents and visitors with pedestrian and bicycle access to activity locations, such as schools, offices, restaurants, churches, etc.
- Provide access to scenic open space areas such as greenways, parks, and water bodies
- Create more direct access for pedestrians and bicyclists between destinations
- Improve opportunities for recreation within neighborhoods
- Increase the safety of pedestrian and bicycle activity

Looking east on Main Street near Town Hall

Sidewalks and Crossings

The Town should provide more sidewalks, improve roadway crossings for pedestrians, and install measures to calm traffic to the benefit of pedestrians. Nearly all residents and visitors are pedestrians at some time during the day when they are walking to school, running on a sidewalk for exercise, crossing the street after parking in the downtown shopping district, or walking to a store entrance through a parking lot. Therefore, it is essential to provide safe and convenient facilities for pedestrians.

Sidewalks

Sidewalks should be provided throughout town to increase the safety and comfort of pedestrians. There is approximately 22 miles of existing sidewalks in Purcellville and nearly 12 more miles are planned or under construction. This plan recommends an additional 12 miles of sidewalks, as discussed in the following chapter. As a long-term goal, sidewalks should be provided on both sides of all new local streets in Purcellville.

Crosswalk Improvements

Crosswalk improvements also are recommended at several locations in Purcellville. While sidewalks are important pedestrian facilities, many pedestrian crashes occur where pedestrians cross the street, at a crosswalk, and at other locations. In addition, streets can be barriers to pedestrian travel because they are difficult to cross. The combination of crosswalks and strategically implemented traffic calming measures have the potential to improve crossing conditions and are recommended at several locations.

Bicycle Facilities

In addition to augmenting the non-vehicular network with more sidewalks and improved crosswalks, the Town also should complete its bicycle network. To serve the entire range of potential bicyclists, the Town should implement on- and off-street bikeways. **Table 3.4** summarizes different facility types recommended at locations throughout town.

On-Street Bicycle Facilities

Purcellville should construct on-road bicycle facilities for all types of bicyclists. There are many different types of bicycle accommodations that can be provided on roadways, including bicycle lanes, paved shoulders, and shared roadways. These facility types can be appropriate in different situations. Factors that impact safety and comfort for on-street facilities are noted below.

- Amount of lateral separation between bicycles and motor vehicles (more space is needed when traffic speeds increase)
- Motor vehicle traffic volumes on the roadway
- Speed of the traffic on the roadway
- Percent of heavy vehicles on the roadway
- Presence of on-street parking
- Pavement surface condition

Off-Street Bicycle Facilities

Purcellville should continue to construct off-street bicycle facilities. They are important for a portion of the cycling public and have proven to be very successful in Purcellville. Similar to on-road facilities, a number of factors should be considered when locating these facilities which include:

- Driveway frequency
- Adjacent land use
- Speed of adjacent roadway
- Right-of-way
- Adjacent road type

Table 3.4: Bicycle Facility Types Recommended for Purcellville

Example Photo	Common Name	Description
	Shared-Use Path	Purcellville should continue to develop a system of shared-use path facilities. The facilities in this system should generally be separated from roadway rights-of-way. Shared-use paths are paved or unpaved trails that can serve a wide variety of types of non-motorized users. Paved shared-use paths can serve all types of bicyclists, runners, walkers, in-line skaters, and wheelchair users. When constructed, these paved paths should be a minimum of 10 feet wide and designed according to the standards in AASHTO's *Guide for the Development of Bicycle Facilities (1999)*. This plan recommends adding approximately three miles of shared-use paths.
	Bicycle Lane	Bicycle lanes should generally be provided in the more urban and suburban areas of town and on roadways with moderate traffic volumes. These facilities make conditions more comfortable for all types of bicyclists, particularly for children and less experienced riders. Bicycle lanes are areas of the roadway that have been designated by striping, signing, and pavement markings for the preferential or exclusive use of bicyclists. They are always located on both sides of the road (except one-way streets), and carry bicyclists in the same direction as adjacent motor vehicle traffic.
	Shared Roadway	Shared roadways are locations where bicyclists can comfortably share the travel lanes with motor vehicles. These roadways provide excellent conditions for bicycling without any other special bicycle accommodations. Purcellville has many shared roadways that are bicycle-friendly, including many low-volume rural roadways and low-speed neighborhood streets. No special recommendations are made for these roadways except to provide routine maintenance and to monitor traffic volumes and speeds over time to ensure that they remain safe as shared roadways.
	Striped/Paved Shoulder	Striped/paved shoulders are another treatment that can be considered for roads in Purcellville with higher traffic volumes and speeds. These facilities increase the comfort of bicyclists by providing greater lateral separation between automobiles and bicycles along streets without curb and gutter. The width of the shoulder can vary, but at least four feet is preferred. It is important to note that at intersections, additional symbols and arrows may be needed to provide direction to bicyclists and reduce potential conflicts between bicyclists and turning cars.
	Shared Roadway Marking	Motor vehicle/bicycle sharing of the travel space can be emphasized by using special shared roadway pavement markings, or *sharrows*. Shared lane markings can be helpful on shared lane streets where there is insufficient space to add bicycle lanes, and where the speed limit is not above 35 miles per hour. In some cases they may be used on two-lane roadways as well. The shared lane marking assists with wayfinding and can be used in conjunction with signs to delineate specific bicycle routes.
	Side Path	Side paths are essentially wide sidewalks intended for shared pedestrian and bicycle use. They should be provided on both sides of the roadway and bicyclists should use the paths as one-way facilities (traveling in the same direction as adjacent motor vehicle traffic). Due to right-of-way and budget constraints, they are often provided only on one side of the roadway. They should be designed to reduce conflicts between pedestrians and bicyclists and to minimize potential conflicts with crossing roadways and driveways (which may or may not be signalized).

Transit Evaluation

Loudoun County Transit Plan Development

Loudoun County is currently in the process of developing a transit plan as part of their Countywide Transportation Plan update. Their plan will focus on planning and implementing transit and ridesharing services that connect Loudoun County to Metrorail and nearby jurisdictions, while developing transportation demand management (TDM) strategies to reduce vehicle miles traveled.

Town officials involved with the transit planning process have noted that research conducted as a part of the county plan was limited to primarily long-haul transit riders and that local data was not well-represented. Purcellville has expressed significant concern that local service may be threatened in the future. The Town has a clear priority of maintaining local transit service—Purcellville Connector and Western Flyer—within Purcellville and between Purcellville and nearby towns.

Public Input

Loudoun County conducted public input sessions and hosted a Web site taking public comments for the development of the transit plan. A summary of comments received for western Loudoun County as of September 2008 is available on the Loudoun County Web site. Comments on the Web site include:

- Relocate and reopen the Hamilton Park park-and-ride lot east of Purcellville or between Purcellville and Hamilton.
- Add more direct commuter routes that skip Leesburg, Dulles North, and/or Rosslyn in traveling to the District.
- Expand commuter options to western Loudoun County by adding routes from Purcellville to Leesburg-Greenway-Fairfax County Parkway (stop at the Herndon/Monroe park-and-ride); to Fair Lakes or the Fairfax Government Center; from Purcellville/Leesburg to Reston Town Center and the Fairfax Connector bus service.
- Find a permanent county-owned or long-term lease for the park-and-ride in Purcellville.

Study of Route Adjustments and Additions

Loudoun County studied route adjustments and additions using their travel demand model. The routes studied covering Purcellville were the Purcellville Connector with an alternative route including Round Hill. A route serving stops in Purcellville, Hamilton, Lovettsville, and Brunswick (serving MARC) also was studied. The study found that alternating service to Round Hill would not enhance the existing low effectiveness of the existing route. Furthermore, the Purcellville, Hamilton, Lovettsville, and Brunswick (MARC) route did not generate substantial ridership. The Loudoun County study will evaluate the cost effectiveness of alternative routes studied prior to future routes being recommended.

Recommended Transportation Plan

The recommended plan supports the projected growth in traffic in Purcellville while at the same time integrating opportunities for pedestrian and bicycle facilities. Recommendations for streets, pedestrians, bicyclists, and transit are described in Chapter 4.

Chapter 4

RECOMMENDATIONS

Chapter 4: Recommended Plan

About the Recommendations

To accommodate future growth and enhance mobility in Purcellville, especially the historic downtown area, providing opportunities to drive, walk, bicycle, and take transit will be important. Driving will remain a dominant mode of travel; however, in many parts of Purcellville, and for many age groups, increasing opportunities to walk and bicycle could greatly contribute to quality of life for portions of the community. Walking and bicycling have innumerable benefits to personal and societal health, traffic conditions, livability, sustainability, and an area's vibrancy. Similarly, transit can offer people a real alternative to driving for some trips and offer those who are not able to or choose not to drive a means of making trips to more distant destinations.

This chapter contains recommendations to accommodate future growth and improve vehicular and non-vehicular conditions throughout town and the PUGAMP. In reading and understanding the recommendations contained in this chapter, there are several important points to note:

- Recommendations in this plan were prepared at a level of detail consistent with long range planning methodology and a 25-year horizon.
- Cross-sections shown are typical. Undoubtedly, the section of a roadway will vary throughout its length to accommodate natural terrain, avoid unwanted negative impacts, accommodate turn lanes, and address other factors and considerations. The sections shown exclude additional right-of-way and general road width needed to accommodate intersection turn lanes and non-typical corridor conditions. In cases where there are slight inconsistencies between cross sections shown and existing sections, future street sections should match existing sections to the extent practicable. **Collector** and **local** street guidelines are provided following the section of this document addressing specific street recommendations.
- New location roadways and trails and trail and road extensions (local streets and collector streets) shown on maps and described in text are an illustration or description of a desired connection, not an engineered alignment. Further studies will be necessary to determine precise alignments and natural and built environment impacts.
- Overhead utilities are not specifically addressed; however, they should be approached in the following manner, subject to funding availability and other factors, as roadways and intersections are modified:

  Step 1: Consolidation. Where funds are not available to bury or relocate overhead utilities off-corridor, efforts should be undertaken to consolidate overhead utilities to one side of a roadway. As a part of this relocation, to the extent possible, laterals also should be consolidated.

  Step 2: Removal of Laterals. If additional funds are available, overhead utility laterals should be further consolidated and relocated underground as feasible and practicable.

  Step 3: Bury Overhead Utilities or Locate Off-Corridor. If a sufficient level of funding is available, utilities should be fully consolidated off-corridor or underground. This is the preferred approach to addressing overhead utilities during intersection and roadway reconstruction, but also represents the most costly option to addressing overhead utility concerns.

Connectivity

The proposed transportation network enhances the Town's existing street system by recommending new street connections, extensions of existing streets, and modifications to existing streets. The resulting interconnected network of streets will accommodate future travel demand for vehicles as well as pedestrians and bicycles by increasing the number of overall connections, reducing travel distances, increasing facilities, and reducing the number of barriers and obstacles to connectivity.

Few of the Town's streets are recommended to be widened to increase vehicular capacity—sections of East Main Street (toward Route 287), Route 690 north of town, and Route287 to name a few. Instead, the following new streets and street extensions are proposed to increase overall network capacity:

- O Street Extension from 21st Street to Hatcher Avenue
- Southern Collector from its current terminus to Main Street
- Northern Collector from Route 690 to Route 287

Additionally, to improve the distribution of regional traffic on streets throughout town, the plan recommends the construction of a new interchange with Route 7 Bypass in the vicinity of Route 690 (20th Street/Hillsboro Road) as well as modifications to the existing Route 7 Bypass/Route 287 interchange.

Looking west along Main Street at 23rd Street

Complete Streets

Streets are where most transportation modes interface with one another and where every element of transportation must be addressed and accommodated–pedestrians, bicycles, transit, and private and commercial vehicles. Streets also are where the public and private realms interface. They are gathering places for festivals and celebrations, can set the tone for private investment in the community, are the spaces that can green a community, and connect one place and mode to another. Because of their importance, space must be planned for all modes on the street network.

Not every mode needs to be on every street, but every mode needs to be accommodated within the overall network. Context is key to determining what elements are needed on a given street. Complete streets must fit in with the surrounding community.

There is no cookie-cutter complete street. Each street must contain elements that are part of a network designed with all modes and user types in mind and fit into the context of the community. Transportation elements that may be included in a complete street include:

- Appropriate number, width, and type of vehicle lanes
- Pedestrian and bicycle facilities
- Bus pullouts, refuge medians, bulbouts, and similar

- Audible pedestrian signals
- Appropriate signage and wayfinding
- Landscaping/streetscaping

Purcellville should embrace the concept of complete streets. Researchers have found the following benefits for building complete streets:

- **Complete streets make economic sense.** Accessible and efficient connections between activity centers bolster economic growth and stability. Complete streets reduce transportation costs and travel times, while walkable streets and lower automobile speeds are economically beneficial to both businesses and residents.
- **Complete streets improve safety.** Reducing the speeds and number of automobiles can reduce the number and severity of crashes.
- **Complete streets encourage walking and bicycling.** People that are provided with safe facilities to walk and bicycle will do so more often.
- **Complete streets can help ease transportation woes.** Alternative travel choices allow some users to avoid vehicles, increasing the overall capacity of the transportation network.
- **Complete streets help children.** With safe places to walk and bicycle, children can be more active and independent
- **Complete streets are good for air quality.** Reducing the number of vehicle-miles-travelled reduces emissions and fuel consumption.
- **Complete streets make fiscal sense.** Including the proper elements of a complete street in the initial design or redesign will spare the expense of later retrofits.

Complete streets impact more than just transportation. Complete streets and complete land uses work hand-in-hand. Streets that cater to automobiles tend to encourage the replacement of residences and locally-owned shops with strip commercial development and "big box" national chain stores. Complete streets, on the other hand, tend to attract a set of community-based uses including shops, offices, civic spaces, and residential. Balanced land use promotes shorter trips by providing for all of the community's needs locally. Shorter trips are more likely to use the alternative transportation modes provided on complete streets.

From national experience, planners and engineers have developed the following set of general rules to guide the development of systems of complete streets:

- **Design for appropriate speeds.** Traffic speeds should be appropriate for the context. Downtown Purcellville, for example, is a destination rather than a thru-way. Local businesses and public spaces need foot traffic and when traffic speeds on the adjacent streets are slow, people are more likely to feel comfortable walking. Access and mobility for all modes should be emphasized over vehicular mobility.

- **Plan for community outcomes.** The transportation network should be laid out to support the long-term vision of Purcellville. The street network should serve the community and create a desirable pattern of development. Good land planning can reduce the number of vehicular trips.

- **Think of transportation as public space.** Roads, parking lots, and bus stops can serve more than just one mode and one purpose. Sidewalks can be accommodating with benches, outdoor cafes, and public art. Roads can be shared between pedestrians, bicyclists, transit, automobiles, and parking. Bus stops can serve as gathering places. Even parking lots can have other uses such as public markets or festival locations.

  Great transportation facilities such retail-lined 21st and 23rd Streets, the W&OD trail, and the interconnected residential street network in Purcellville are part of the public realm. Transportation improvements can improve the public realm by creating developable land or open space, connecting communities and activity centers, and reducing dependency on automobiles.

In addition to the transportation elements that may be included in a complete street, benefits of complete streets, and rules for developing great streets, there are ten general qualities that contribute to the success of great streets. These qualities are:

- **Attractions and destinations**. Having something to do gives people a reason to come to a place—and to return again and again.
- **Identity and image**. Whether a space has a good image and identity is key to its success.
- **Active edge uses**. Buildings should be built to the street, and the street level of buildings should be human-scaled and allow for interaction between indoors and out.
- **Amenities**. Successful streets provide amenities to support a variety of activities.
- **Management**. Great places are managed to keep them clean and safe, and are programmed to generate daily activity.
- **Seasonal strategies**. Use seasonal strategies, like holiday markets, parades, and recreational activities to activate the street during all times of the year and make weather less of a factor.
- **Diverse user groups**. Mixing people of different race, gender, age, and income level ensures that no one group makes others feel unwelcome and out of place.
- **Traffic, transit, and the pedestrian.** A successful street is easy to get to and get through; it is visible and accessible both from a distance and up close.
- **Blending of uses and modes**. Ground floor uses and retail activities should spill out into the sidewalks and streets to blur the distinction between public and private space.
- **Protect neighborhoods**. There should be clear transitions from commercial streets to nearby residential neighborhoods.

Multimodal Transportation Recommendations

This chapter identifies multimodal transportation recommendations for Purcellville's future transportation system. These recommendations remedy existing transportation deficiencies; enhance conditions for vehicles, pedestrians, bicycles, and transit; and accommodate future travel demand. Transportation recommendations are focused not only on those that work or live or visit Purcellville, but instead on the balance among all of the aforementioned. Recommendations take into consideration the built and natural environments, the built context of the town and its rural fringe, and town and county plans. Recommendations in this chapter are organized into the following sections:

- **Transportation framework.** Systemwide overview of streets, pedestrians and bicycles, and transit.
- **Streets.** Corridor-specific recommendations for major streets within the PUGAMP and general local street guidelines.
- **Pedestrians and bicycles.** General and specific recommendations to describe the future network of on- and off-street bicycle and pedestrian facilities.
- **Transit.** General guidelines on providing for transit in-town.

Transportation Framework

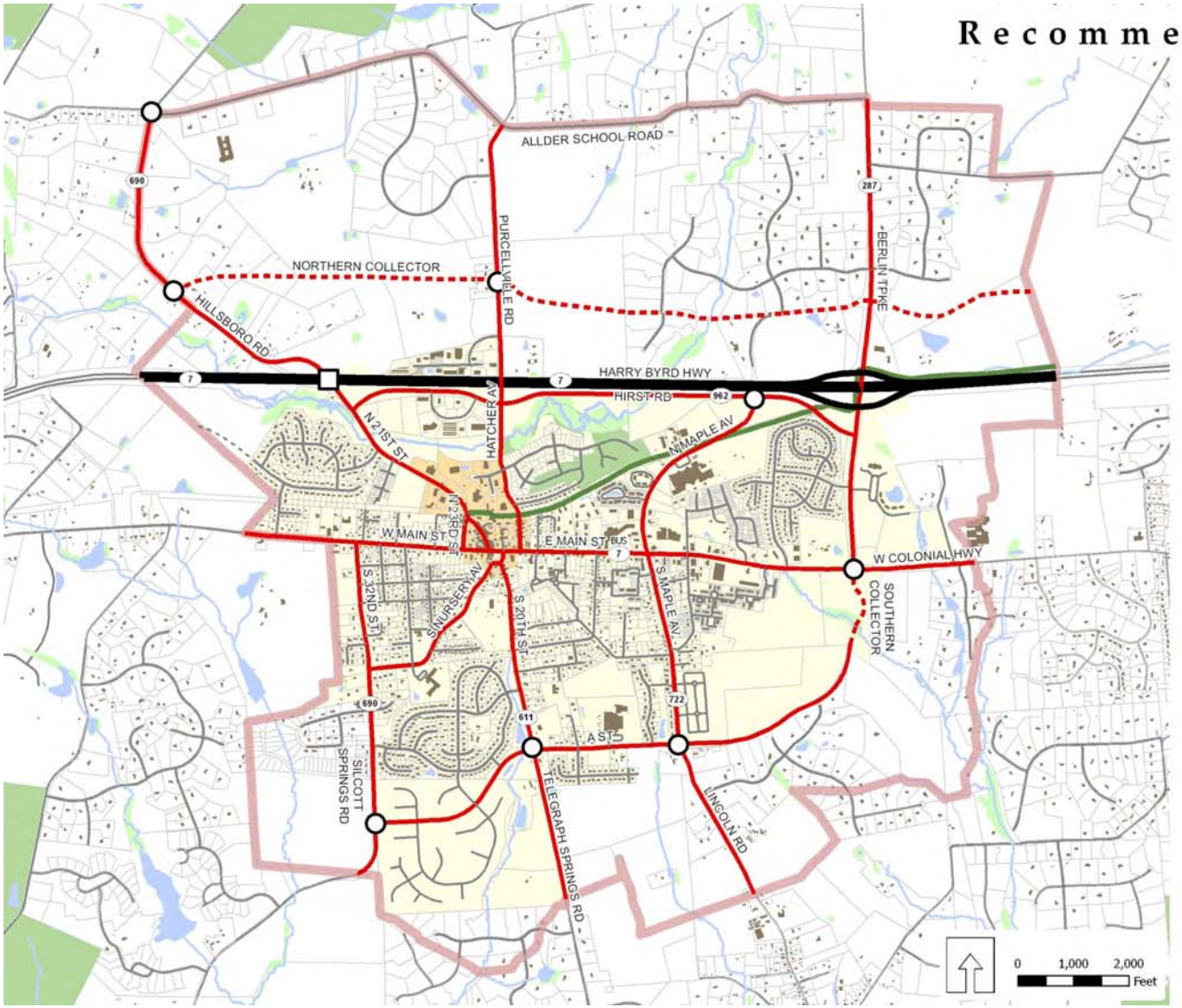
To continue to serve the Town successfully in the future, the Town's future transportation system will need to adapt to serve vehicular users as well as bicycles and pedestrians. Streets, sidewalks, transit amenities, and bikeways are important as isolated facilities; however, more important is the connectivity between these. The recommended general street, sidewalk, and bikeway networks are shown in the following figures:

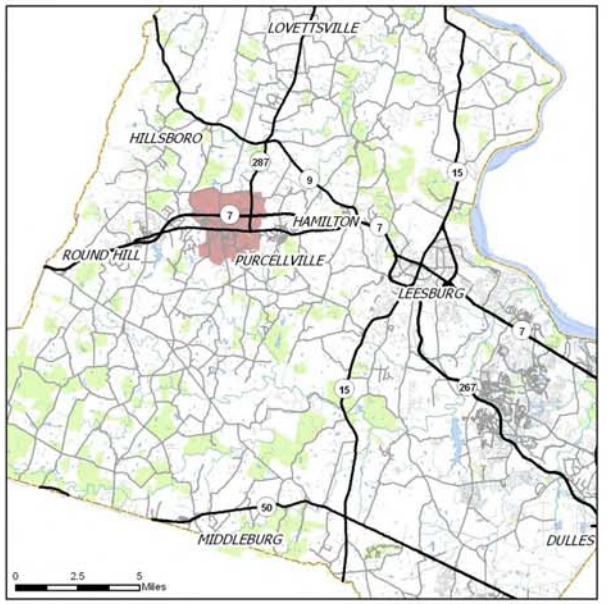
- **Figure 4.1:** Recommended Street Network (by street classification)
- **Figure 4.2:** Recommended Pedestrian Network (by facility type)
- **Figure 4.3:** Recommended Bikeway Network (by facility type)

Specific and general recommendations for streets, sidewalks, and bikeways are provided in sections that follow.

Recommended Street Network

Figure 4.1





Map Inset - Loudoun County

Legend

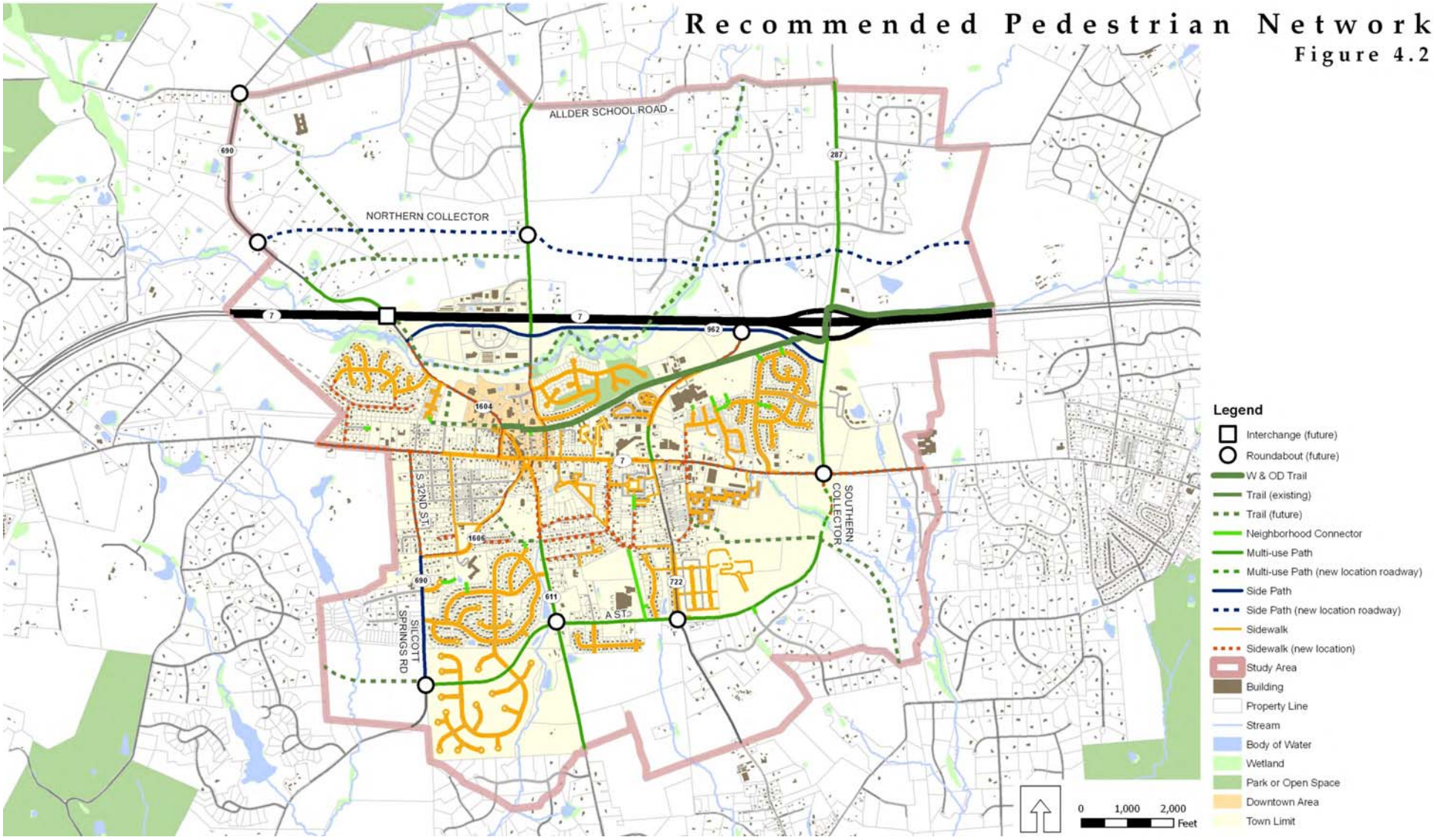
- Interchange (future)
- Roundabout (future)

Recommended Street Classifications

- Arterial
- Collector
- Collector (new location)
- Local
- Local (new location)
- W & OD Trail
- Building
- Property Line
- Stream
- Body of Water
- Wetland
- Park or Open Space
- Study Area
- Town Limit
- Downtown Area

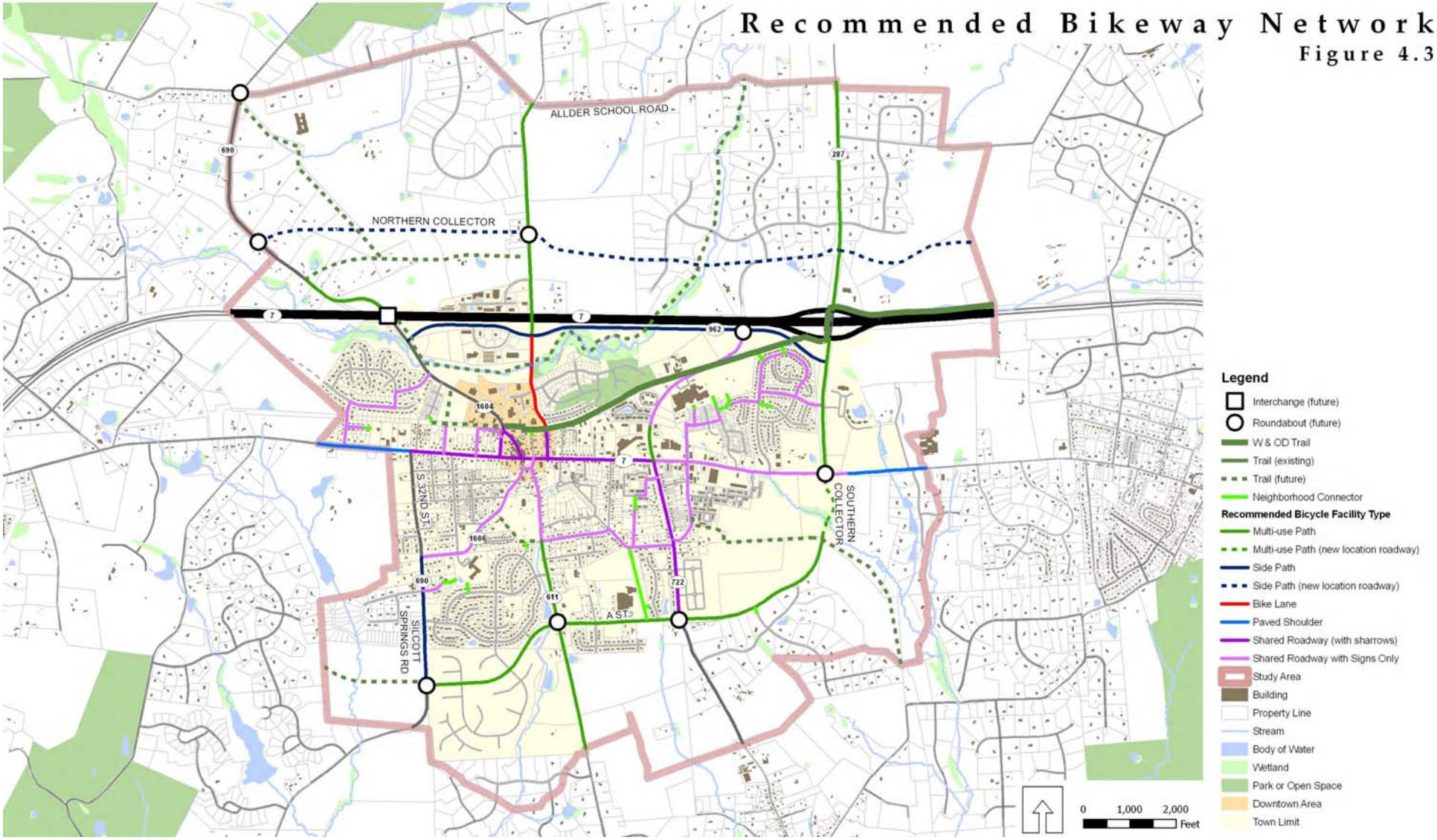
Recommended Pedestrian Network

Figure 4.2



Recommended Bikeway Network

Figure 4.3



Streets

The recommended street network accommodates projected travel demand (as indicated by the Loudoun County travel demand model with modifications) and local mobility and access needs of Purcellville. Growth will be accommodated through select widening, modification of existing streets, extension of streets, and the identification of new corridors. The recommended street network enhances mobility, connectivity, and access to historic and new growth areas of town.

The recommended street network by street cross-section is shown in **Figure 4.4** for the downtown area and in **Figure 4.5** for the Town as a whole. Existing, future, and future right-of-way deficiencies are shown in **Figures 4.6**, **4.7**, and **4.8**, respectively. In addition to showing the recommended street network by cross section, these figures also show street rights-of-way, specific intersection treatments, and interchange locations with Route 7 Bypass. As shown in these figures, the following new streets and street extensions are proposed:

- **O Street Extension.** This extension will formally connect 21st Street with Hatcher Avenue, just south of the W&OD Trail.
- **Southern Collector.** This will classify the existing portion of A Street as a collector road and extend it to Main Street at Berlin Turnpike.
- **Nursery Avenue Realignment.** This realignment will reconfigure the "teardrop" intersection (Main Street/Nursery Avenue/20th Street) to reduce the number of conflicts and confusion at that location. Nursery Avenue is recommended to be realigned to tie directly to 20th Street approximately 150 feet south of Main Street. When warranted or determined to be appropriate through an engineering study, a traffic signal is recommended at the future realigned Main Street/20th Street intersection.
- **Northern Collector.** This new corridor will run east/west from Berlin Turnpike to Hillsboro Road, north of Route 7 Bypass.
- **Local Street Connections.** Opportunities for local street connections include the extension of O Street to Hatcher Avenue and the extension of 20th Street (difficult to achieve) to O Street. As development and redevelopment occurs, other locations may become available for local street connections and should be considered.

In addition to the aforementioned major corridor initiatives, roundabouts are recommended at the following intersections:

- Main Street/Berlin Turnpike (Route 287)/Southern Collector (2 lanes)
- A Street/Silcott Springs Road/32nd Street
- A Street/Telegraph Springs Road/20th Street
- A Street/Lincoln Road/Maple Avenue
- Maple Avenue/Hirst Road
- Purcellville Road/Northern Collector Road
- Allder School Road/Hillsboro Road

The sections that follow describe recommendations on each existing and future collector street for Purcellville. The recommended street sections match existing street sections where the section is acceptable in terms of providing capacity and safety for vehicles, pedestrians, and bicyclists. The sections are meant to provide guidance for implementing road improvements when development or other impetuses occur. The street sections are ideal sections, but adjustments may be needed upon road design to fit specific contexts. Specifically, modifications to the sections may be considered to better match existing conditions.

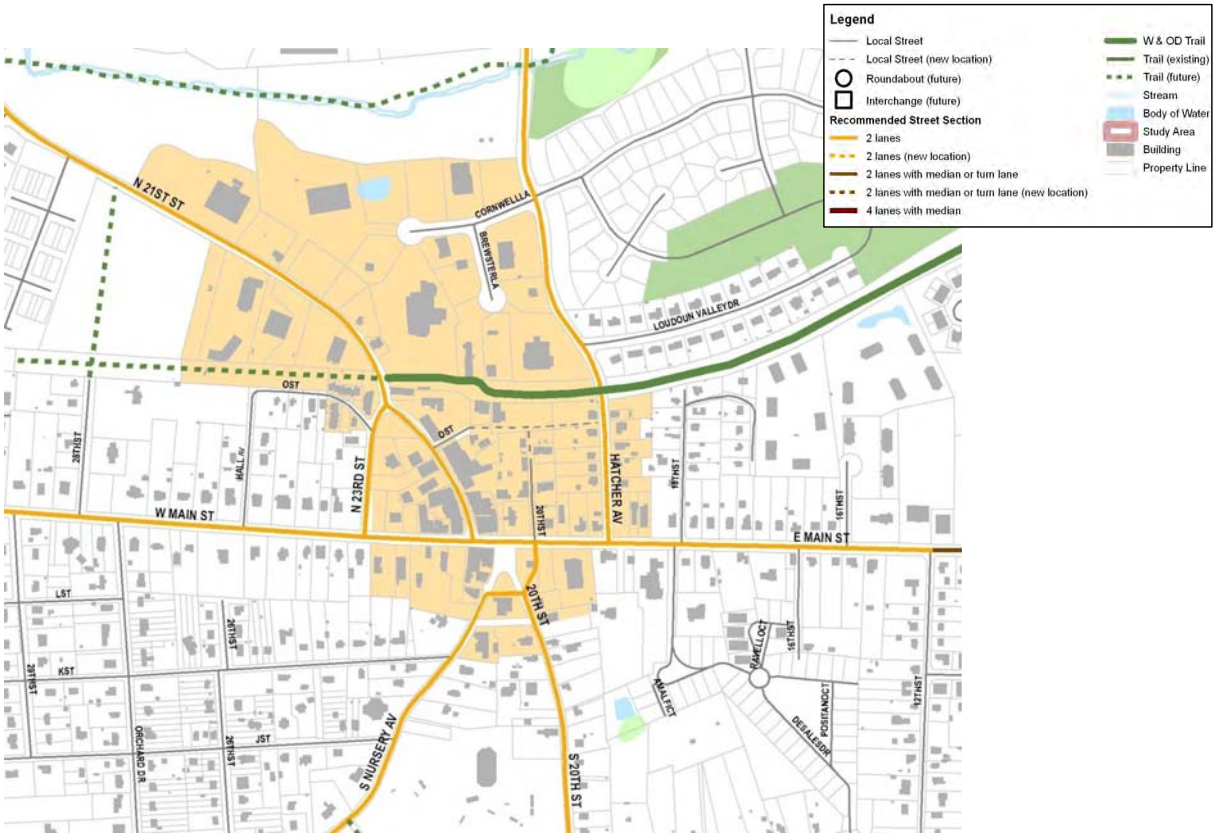
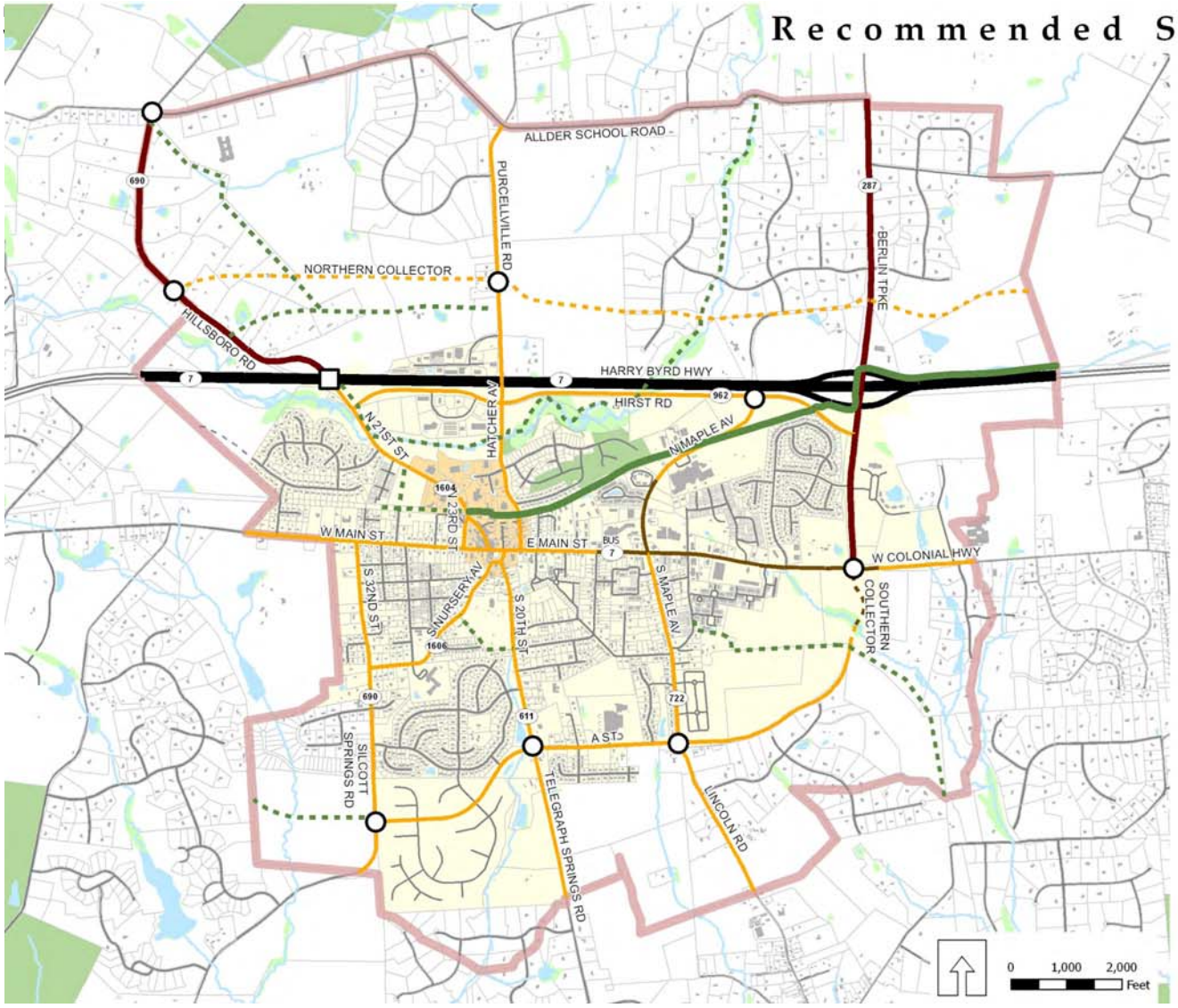
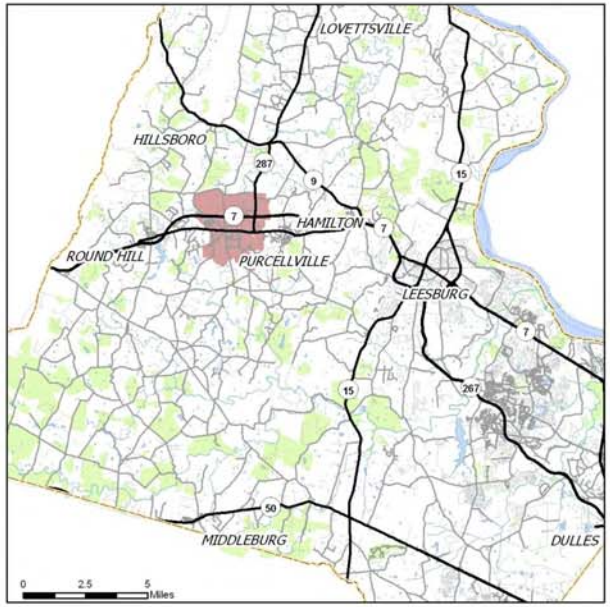


Figure 4.4: Recommended Downtown Street Network

Recommended Street Cross-Sections

Figure 4.5





Map Inset - Loudoun County

Legend

- Arterial Street
- Local Street
- Local Street (new location)
- Roundabout (future)
- Interchange (future)

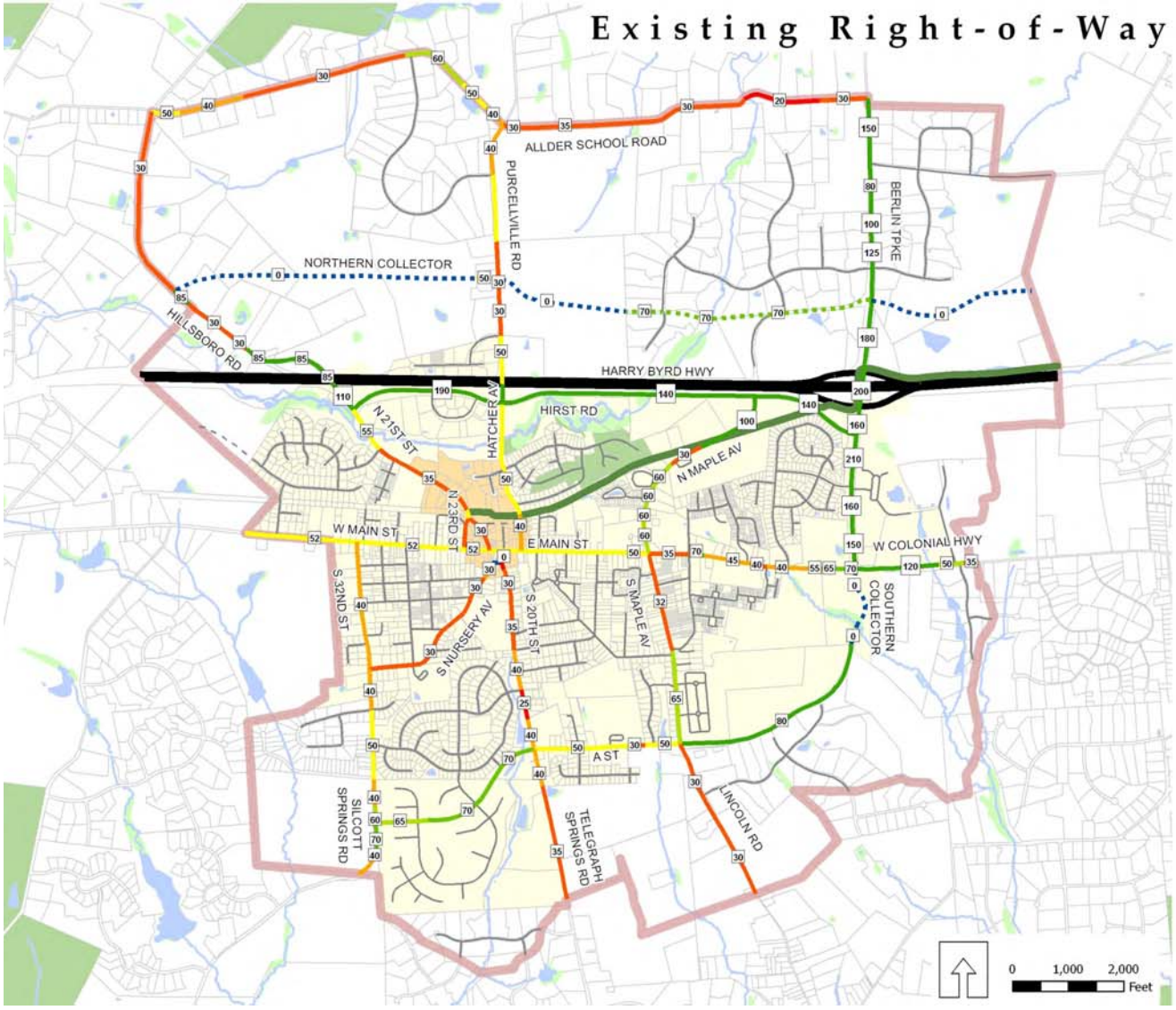
Recommended Street Section

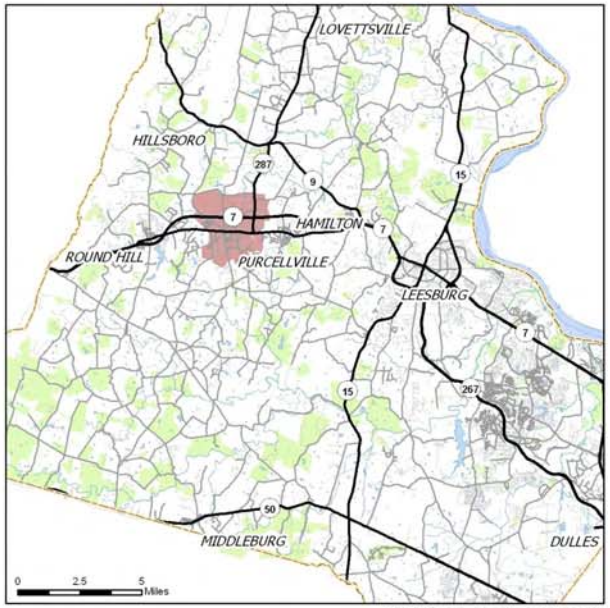
- 2 lanes
- 2 lanes (new location)
- 2 lanes with median or turn lane
- 2 lanes with median or turn lane (new location)
- 4 lanes with median

- W & OD Trail
- Trail (existing)
- Trail (future)
- Stream
- Body of Water
- Study Area
- Town Limit
- Building
- Property Line

Existing Right-of-Way on Collector Streets

Figure 4.6





Map Inset - Loudoun County

Legend

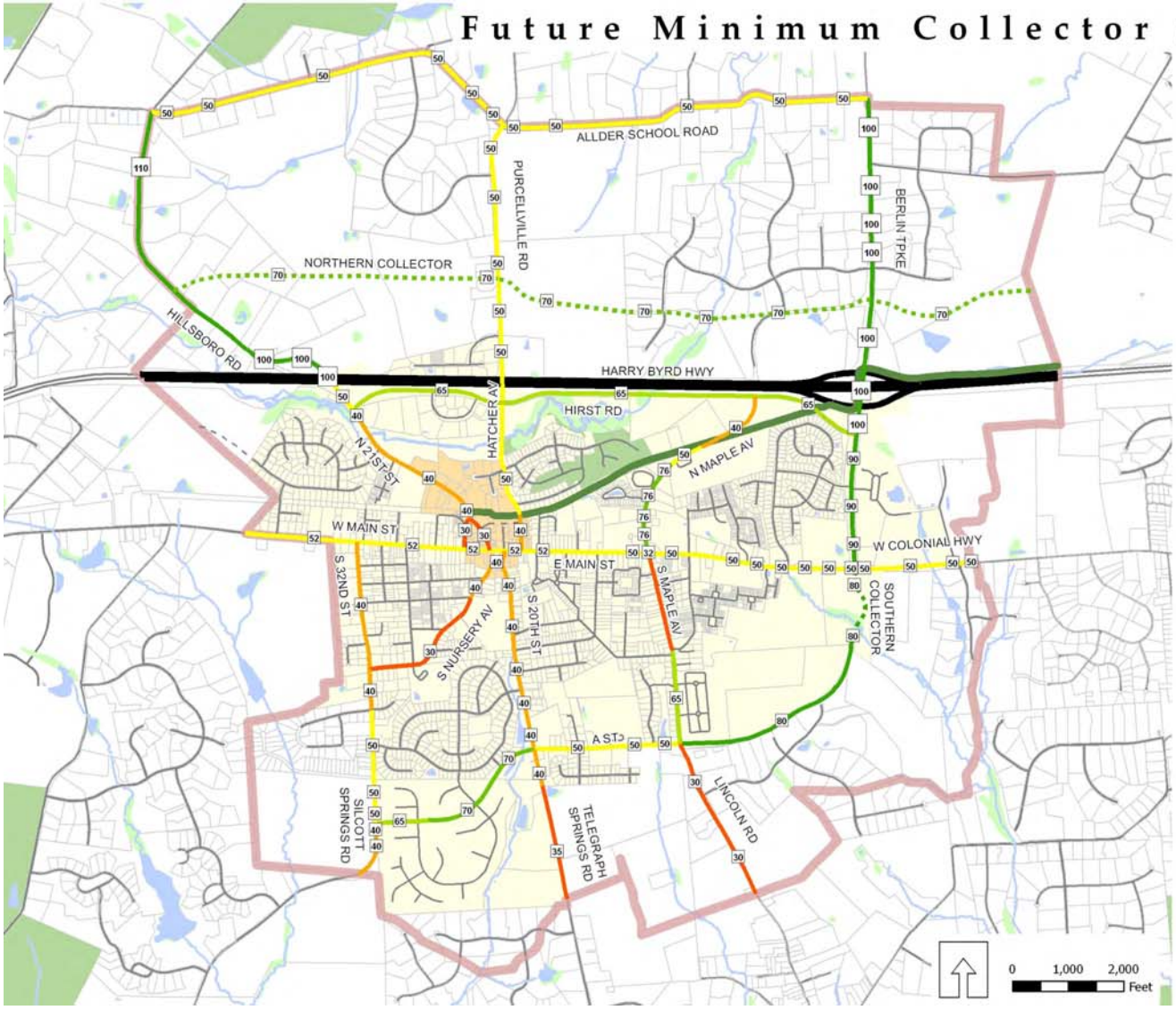
Existing ROW Range (feet)	
None	W & OD Trail
Less than 30 feet	Study Area
30 to 39 feet	Property Line
40 to 49 feet	Stream
50 to 59 feet	Body of Water
60 to 69 feet	Wetland
70 to 79 feet	Park or Open Space
80 or more feet	Downtown Area
	Town Limit

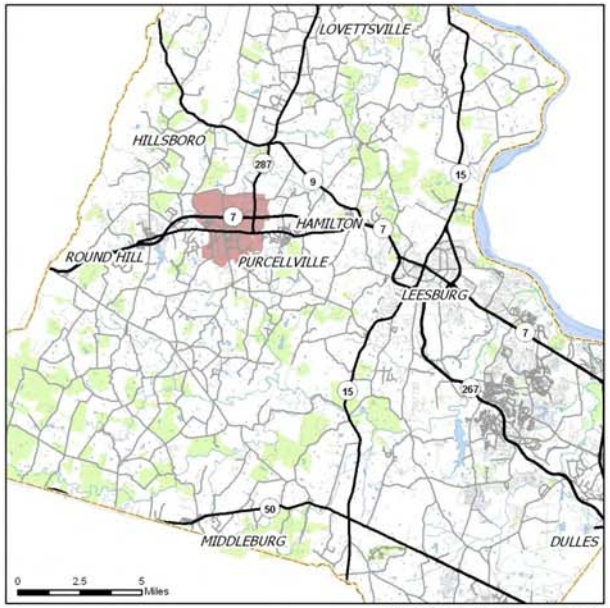
Rights-of-way were measured using Town of Purcellville GIS. Some variance exists within the generalized ROWs shown due to property boundary and map abnormalities. All measurements shown are approximate and do not constitute a survey.

Right-of-way for the Northern Collector is currently 50 feet through Wright Farm; however, an additional 20 feet is agreed to be dedicated when the remainder of the corridor's right-of-way is reserved.

Future Minimum Collector Street Rights-of-Way

Figure 4.7





Map Inset - Loudoun County

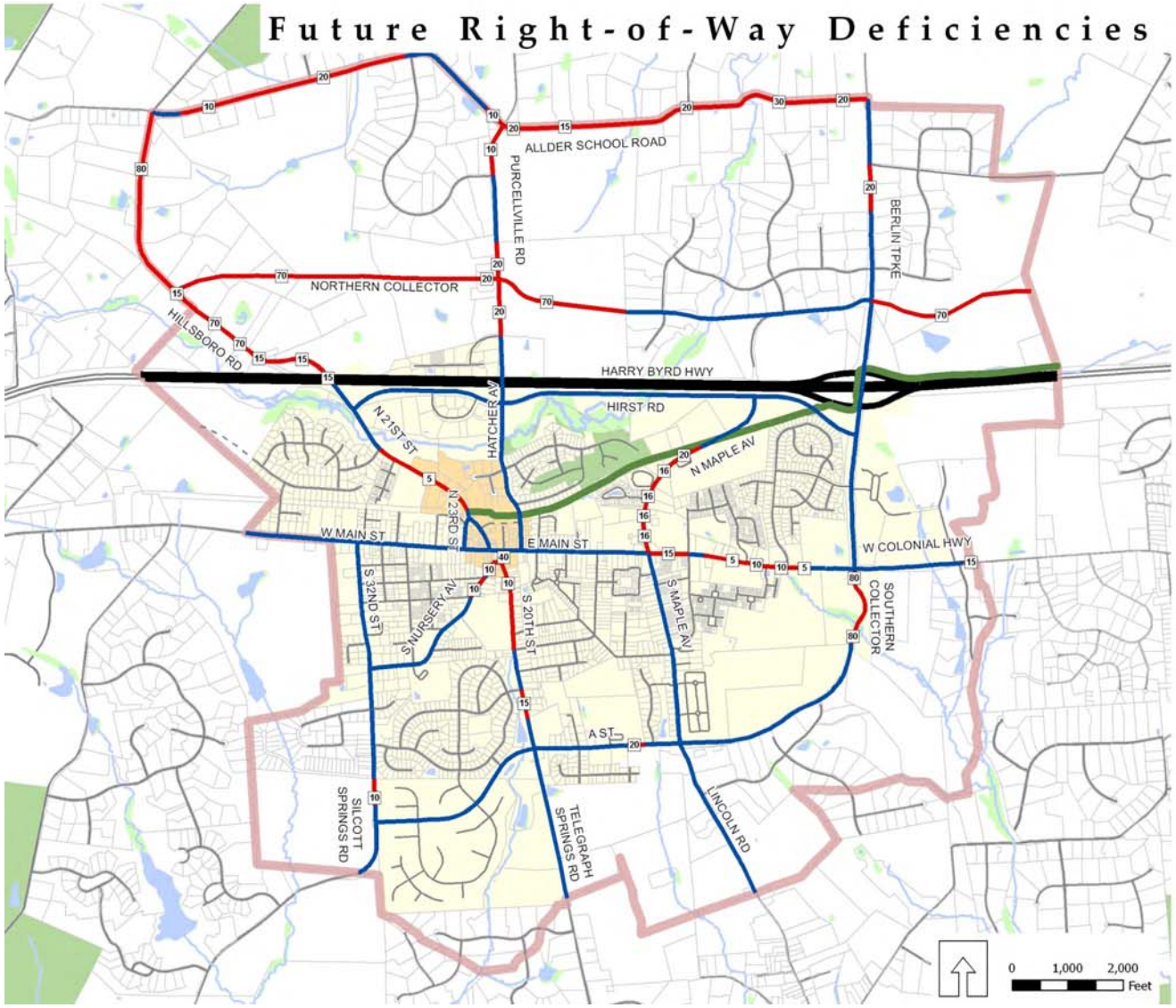
Legend

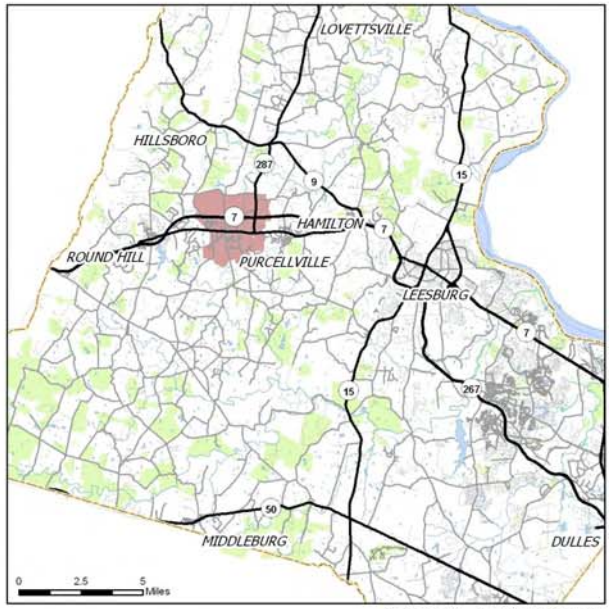
Required ROW Range (feet)	
None	W & OD Trail
Less than 30 feet	Study Area
30 to 39 feet	Property Line
40 to 49 feet	Stream
50 to 59 feet	Body of Water
60 to 69 feet	Wetland
70 to 79 feet	Park or Open Space
80 or more feet	Downtown Area
	Town Limit

Future minimum collector street rights-of-way shown on this map are the minimum and correspond to the TYPICAL STREET SECTION. Right-of-way needed for intersection turn lanes would be in addition to the width shown. Actual existing rights-of-way may be wider than the minimum widths indicated on this map.

Future Right-of-Way Deficiencies for Collector Streets

Figure 4.8





Map Inset - Loudoun County

Legend

- Existing ROW Adequate
- Additional ROW Needed
- W & OD Trail
- Local Street
- Local Street (new location)
- Property Line
- Stream
- Body of Water
- Wetland
- Park or Open Space
- Study Area
- Town Limit
- Downtown Area

Right-of-way deficiencies indicated are approximate and based on property line mapping from Purcellville GIS files and recommended idealized typical roadway sections. Squares on the map show approximate deficiency in feet.

Route 7 Bypass (Harry Byrd Highway)

Purcellville's most direct and efficient vehicular link to the larger region is the Route 7 Bypass. Currently, the Town derives access to Route 7 Bypass through an interchange at Berlin Turnpike (Route 287). In the future, the Town may have additional access to the bypass through a new interchange at, or in the vicinity of Route 690 (21st Street).

Route 7 Bypass in not only important to Purcellville, but to much of western Loudoun County, and traffic volumes are forecasted to grow substantially in the future. To accommodate the projected increase in traffic, Loudoun County's adopted Countywide Transportation Plan recommends widening Route 7 Bypass from the existing four-lane cross section to a six-lane section.

Even with the recommended widening of Route 7 Bypass, the corridor will continue to experience peak-hour traffic congestion. Despite the fact that there will continue to be periods of congestion on the bypass, as Purcellville and its urban growth area continue to develop, additional access to Route 7 Bypass will be essential. To support that need, the existing Berlin Turnpike (Route 287) interchange is recommended to be modified and a new interchange is recommended to be constructed in the vicinity of Route 690 (21St Street).

In addition to the capacity-enhancing modifications at the Route 7 Bypass/Berlin Turnpike (Route 287) interchange, a new interchange should be constructed in the vicinity of Route 690 (21st Street). This new interchange would relieve the existing Route 7 Bypass/Berlin Turnpike (Route 287) interchange by attracting trips to Route 690, instead of to Route 287. Additionally, an interchange on the west side of Purcellville would increase access to downtown from the west, has the potential to reduce through trips along Main Street, and would reduce congestion at the Berlin Turnpike (Route 287) interchange.

An interchange on the west of Purcellville had long been included in comprehensive and transportation plans for Loudoun County and Purcellville. This interchange will need to undergo further study and preliminary design before it can be constructed. During a study process, an interchange justification report (IJR) would be prepared and submitted to VDOT for review and approval.

Looking west on Route 7 Bypass (Harry Byrd Highway)

Main Street (Business Route 7)

Main Street is an essential route in Purcellville. It provides east/west mobility, access to a wide range of uses, and connectivity from one side of town to the other. **Figure 4.9** summarizes Main Street's character areas in Purcellville. As shown, Main Street has been subdivided into four segments, each of which is further discussed in the following sections. For clarity, these sections and their classification are as follows:

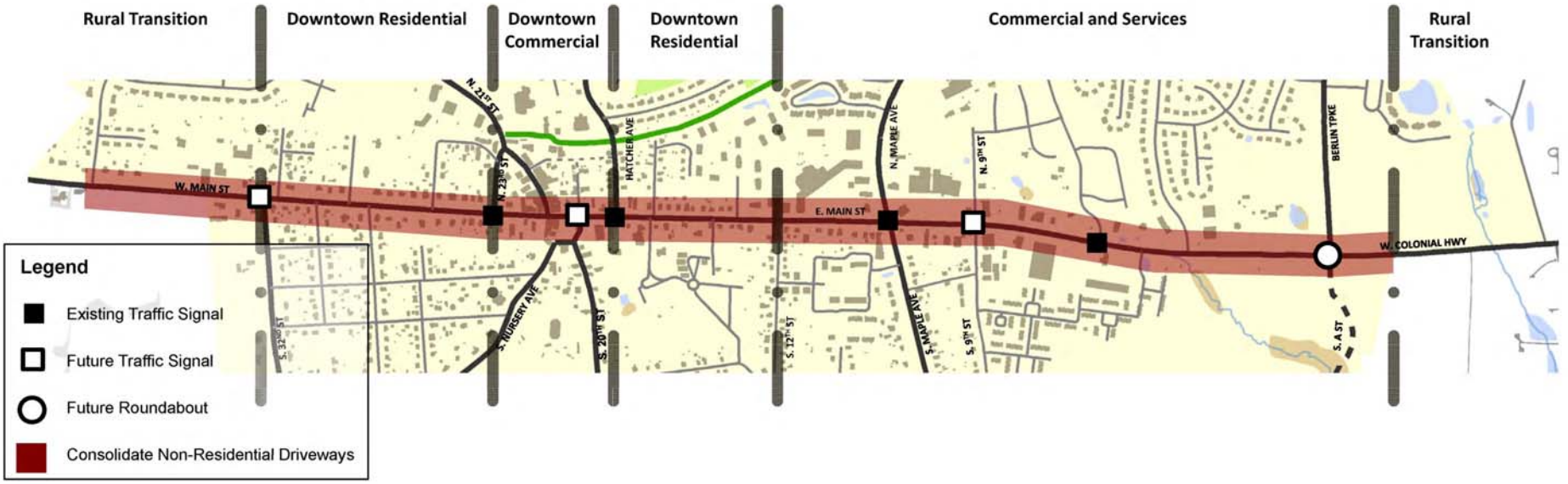
- **Rural transition.** Western PUGAMP Boundary to 32nd Street.
- **Historic downtown (residential and commercial).** 32nd Street to 12th Street.
- **Commercial and services.** 12th Street to 450 feet east of Berlin Turnpike
- **Rural transition.** 450 feet east of Berlin Turnpike to Eastern PUGAMP Boundary.

Based on information collected at public meetings and from discussions among Project Advisory Committee members, it is understood that it is important to the citizens of Purcellville that Main Street is not widened in the future. To accommodate future travel demand, pedestrians and bicycles, and the character of areas along Main Street will require careful implementation of enhancements over time.

In general, recommendations for Main Street maintain the existing cross-section of two travel lanes with the future provision of bicycle lanes and sidewalk enhancements. To improve traffic flow and mitigate existing traffic congestion, some intersection modifications are recommended in addition to an overarching effort to consolidate and organize access (driveways) to property. To improve conditions for non-vehicular users and transit riders, additional bus shelters, sidewalks, landscaping, lighting, and bicycle facilities are recommended.

Conceptual shared parking and access consolidation for E. Main Street between 12th Street and Maple Avenue

Figure 4.9: Main Street Character Areas



Rural Transition

Rural transition segments of Main Street are located from the Western PUGAMP Boundary to 32nd Street and from 450 feet east of Berlin Turnpike to the Eastern PUGAMP Boundary. Along these portions of Main Street, land use and development patterns are primarily rural character, although there has been some infiltration of suburban style development. Fitting the rural development character, Main Street is a two-lane corridor without curb and gutter, sidewalks, or street lighting.

In the future, Main Street from the Western PUGAMP Boundary to 32nd Street is forecasted to carry approximately 8,800 vehicles per day. Main Colonial Highway from 450 feet east of Berlin Turnpike to the Eastern PUGAMP Boundary is forecasted to carry approximately 11,400 vehicles per day. Recommendations for this section of Main Street include the following:

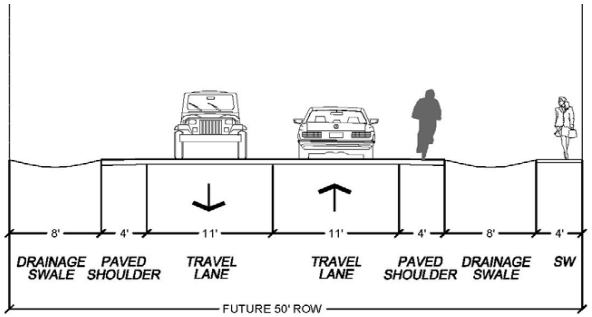
- Two travel lanes
- Left-turn lanes at intersections of significant public streets and major driveways
- Shoulder section (ditch section)
- Sidewalk on the south side of the street
- Striped shoulders to accommodate bicyclists
- Consideration of additional pavement markings to designate currently unmarked pavement on eastbound Main Street approaching 32nd Street

In addition to cross-sectional elements, a roundabout is recommended at the Main Street/Colonial Highway/Berlin Turnpike/Southern Collector intersection. The roundabout to be located at the Main Street/Colonial Highway/Berlin Turnpike/Southern Collector intersection would be initially constructed with a single circulating lane; however, it would be designed for an expansion to two lanes when Route 287 is widened.

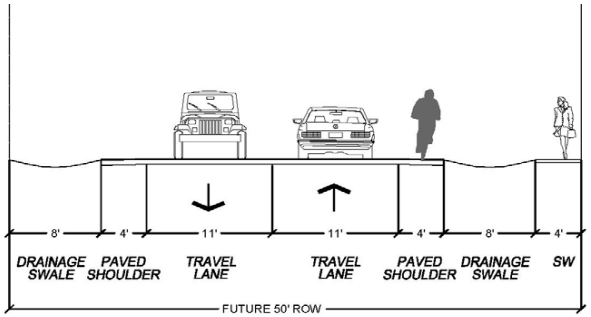
When warranted or justified by an engineering study, a traffic signal is recommended at the Main Street/32nd Street intersection. When a traffic signal is installed at this location, consideration should be given to the implementation of other enhancements at the intersection including the following:

- Crosswalks
- Curb ramps
- Sidewalks
- Curb radius improvements
- Gateway median

Looking east along Main Street near 32nd Street



Idealized recommended typical cross-section for Main Street between western PUGAMP area boundary and 32nd Street



Idealized recommended typical cross-section for Main Street between approximately 450 feet east of Berlin Turnpike and eastern PUGAMP area boundary

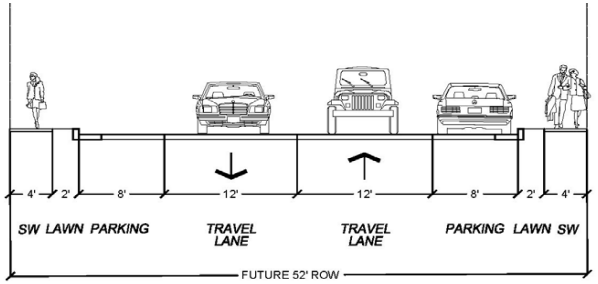
Historic Downtown: Residential District

These two sections of Main Street extend from 32nd Street to 23rd Street and from Hatcher Avenue to 12th Street. Typical of a small town's main historic thoroughfare, the character, configuration, and age of development along Main Street varies tremendously. In this section, Main Street is mostly lined with old homes fronting the street.

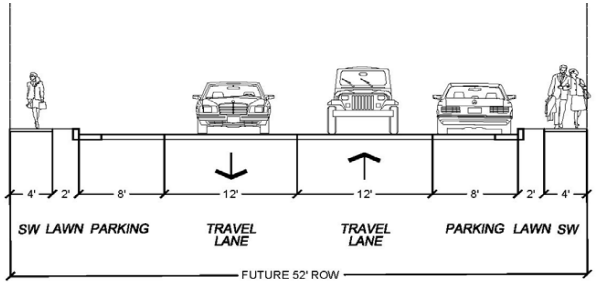
The overall width of Main Street is reasonably consistent throughout this section; however, the configuration of the road varies to accommodate turn lanes and tapers at Hatcher Avenue and 23rd Street. In some sections on-street parking is permitted, while in others it is not allowed due to the need for a left-turn lane or the presence of a driveway or intersection. Sidewalks are provided on both sides from Hatcher Avenue to 12th Street, but limited between 23rd Street and 32nd Street. Recommendations for this section of Main Street include the following:

- Two travel lanes
- On-street parking where possible
- Continuous curb and gutter
- Sidewalks on both sides of the street
- Sharrows to indicate the desired shared bicycle/vehicle lane configuration

Main Street looking east near 28th Street



Idealized recommended typical cross-section for Main Street between 32nd Street and 23rd Street



Idealized recommended typical cross-section for Main Street between Hatcher Avenue and 12th Street

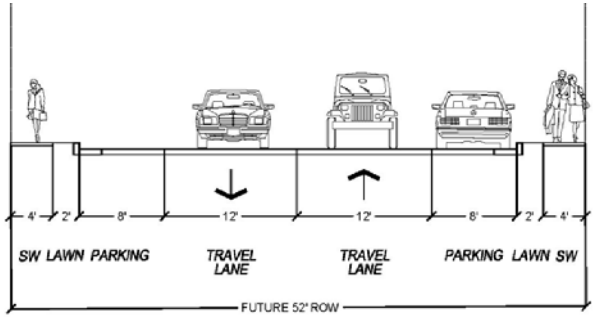
Historic Downtown: Commercial District

This section of Main Street extends from 23rd Street to Hatcher Avenue. In the area, businesses are the primary development fixture. In downtown, 23rd Street, 21st Street, Nursery Avenue, 20th Street, and Hatcher Avenue all intersect Main Street in the span of a few short blocks, adding to the area's charm, but also creating challenges with traffic operations.

The overall width of Main Street is consistent throughout this section; however, laneage varies from intersection to intersection based on need. A left-turn currently exists on Main Street at 23rd Street and at Hatcher Avenue. In some sections, on-street parking is permitted, while in others is not allowed due to the need for a left-turn lane. Sidewalks are provided uniformly along both sides of the street. Recommendations for this section of Main Street include the following:

- Two travel lanes
- Left-turn lanes at important intersections and driveways
- Continuous curb and gutter
- On-street parking where possible
- Sharrows to indicate the desired shared bicycle/vehicle lane configuration

Main Street looking east toward 21st Street



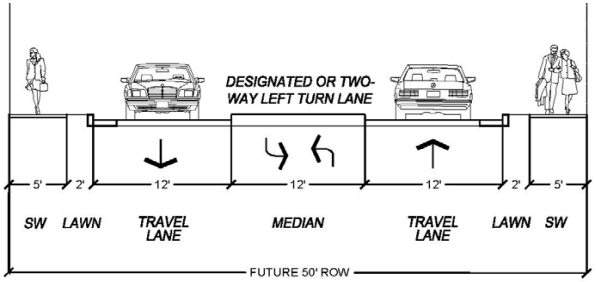
Idealized recommended typical cross-section for Main Street between 23rd Street and Hatcher Avenue

Commercial and Services

This section of Main Street extends from 12th Street to 450 feet east of Berlin Turnpike (Route 287). Primarily characterized by more recent development, along the majority of this section are retailers and other services Purcellville's residents visit on a regular basis. For the most part, buildings in this section are set back from the right-of-way by surface parking lots. An incomplete sidewalk network makes pedestrian access difficult in some sections and limits the ability for people to walk between destinations along Main Street. The existing cross-section is primarily two lanes; however, at some key intersections and major driveways left- and right-turn lanes are provided. Recommendations for this section of Main Street include the following:

- Two travel lanes
- Left-turn lanes at important intersections and driveways
- Right-turn lanes at important driveways and intersections
- Continuous curb and gutter
- "Share the Road" signage to alert motorists that bicycles may be encountered along this section of Main Street

Looking east along Main Street, west of Maple Avenue



Idealized recommended typical cross-section for Main Street from 12th Street to 450 feet east of Berlin Turnpike

Berlin Turnpike (Route 287)

This corridor is the primary north/south route in eastern Purcellville. It connects Purcellville with Route 7 Bypass and in doing so, much of the Washington region. Berlin Turnpike is an important county connector and runs between Purcellville and Lovettsville. Ultimately, it also connects to Brunswick, MD on the north.

Travel demand on Berlin Turnpike is forecasted to increase significantly in the future. To accommodate the projected increase in travel demand, it is recommended to widen the roadway from its current two-lane configuration to a four-lane cross-section with a landscaped median. Recommendations for Berlin Turnpike include the following:

General

- Construct an 8- to 10-foot-wide multiuse path along the west side of Route 287 from Main Street/Colonial Highway to Hirst Road
- Evaluate traffic signal warrants at Route 7 Bypass/Berlin Turnpike eastbound ramps intersection and consider installing a signal if determined appropriate by an engineering study
- Install significant gateway type landscaping in the median of Route 287

Short-term

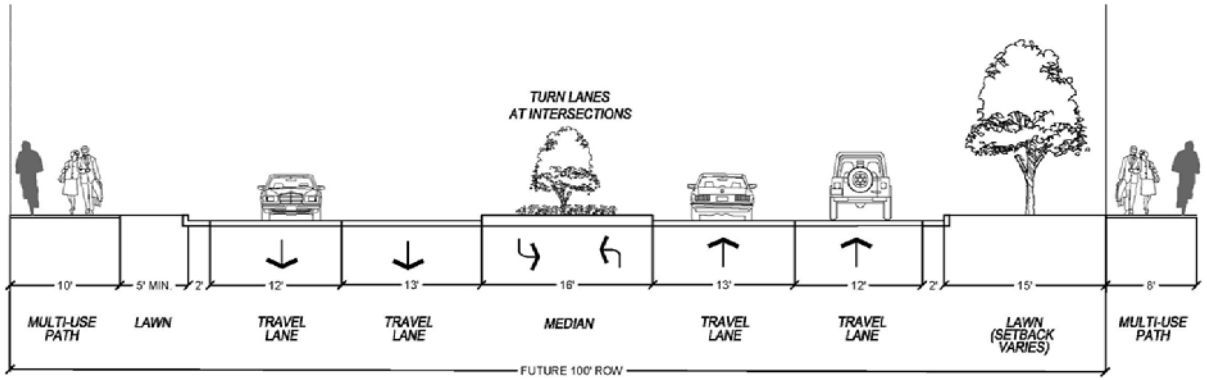
- **Berlin Turnpike/Main Street/Colonial Highway intersection:** Construct a single-lane roundabout that has the capability to be expanded to a two-lane roundabout when Berlin Turnpike is widened or additional intersection capacity is needed
- **Berlin Turnpike/Hirst Road:** Construct an exclusive left-turn lane on Hirst Road
- **Berlin Turnpike/Route 7 Bypass:** Construct the following:
  - An exclusive southbound right-turn lane at Route 7 Bypass westbound on-ramp
  - An exclusive northbound left-turn lane at Route 7 Bypass westbound on-ramp
  - An additional exclusive left-turn lane on Route 7 Bypass westbound off-ramp
  - An exclusive southbound left-turn lane at Route 7 Bypass eastbound on-ramp
  - An additional exclusive right-turn lane on Route 7 Bypass eastbound off-ramp

Long-term

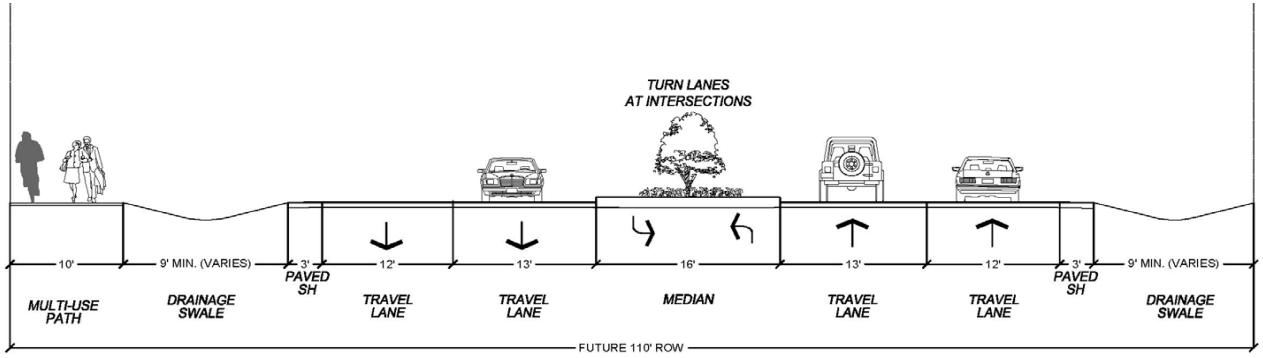
- Widen Berlin Turnpike to a four-lane roadway with a landscaped median from Main Street/Colonial Highway to the northern Boundary of the PUGAMP area
- Reconstruct the Route 287/Main Street roundabout to two lanes
- Construct an 8- to 10-foot wide multiuse path along the west side of Route 287 from Route 7 Bypass westbound on-ramp to the northern PUGAMP area boundary

Looking north along Berlin Turnpike toward Hirst Road

Looking north on Berlin Turnpike toward Allder School Road



Idealized recommended typical cross-section for Berlin Turnpike between Main Street and Hirst Road



Idealized recommended typical cross-section for Berlin Turnpike between Hirst Road and the northern PUGAMP area boundary

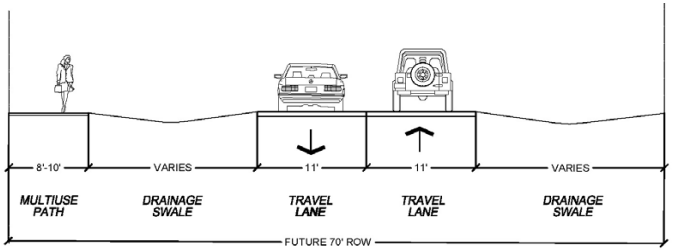
A Street (Southern Collector)

It is recommended to reclassify the section of A Street between 32nd Street and its current northern terminus as a collector street when A Street is extended to Main Street. The Southern Collector will be an important east/west collector street in Purcellville. Connecting 32nd Street, 20th Street, and Maple Avenue, it will provide additional east/west mobility for southern Purcellville and help relieve Main Street. As town growth continues, the corridor will become increasingly important.

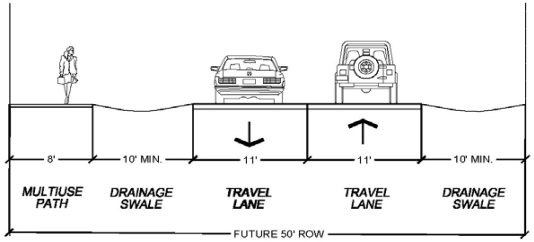
Consistent with Purcellville's comprehensive plan and Loudoun County's transportation plan, it is recommended that A Street be extended from its current terminus to Main Street/Colonial Highway. The extension will complete the corridor and will be a critical link in the Town's street network. Currently, to reach Berlin Turnpike (Route 287) from the south, vehicles travel through the center of Purcellville, ultimately ending up on Main Street, Maple Avenue, and Hirst Road. While this travel pattern is desirable because it brings people to downtown businesses, it also creates unwanted traffic congestion on the aforementioned streets. The extension of A Street will offer through travelers the option of connecting directly with Berlin Turnpike, instead of traveling through town.

With the recommended extension of A Street as the Southern Collector, traffic volumes are forecasted to increase. To serve anticipated travel demand as well as pedestrians and bicyclists, the following are recommended:

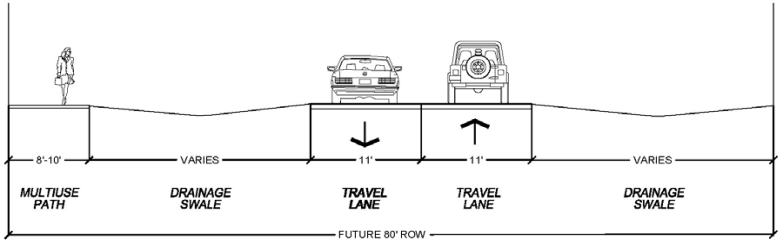
- Reclassify A Street as a collector street
- Extend A Street as the Southern Collector from its current northern terminus to Main Street/Colonial Highway to tie directly to the recommended roundabout at Berlin Turnpike
- Construct the street extension with two lanes and reserve right-of-way to construct it as a four-lane corridor if needed in the future
- Construct single-lane roundabouts at the intersections of the Southern Collector and 32nd Street, 20th Street, and Maple Avenue
- Construct sections of multiuse path to complete the non-vehicular pathway network along the north side of the Southern Collector from 32nd Street to Main Street/Colonial Highway



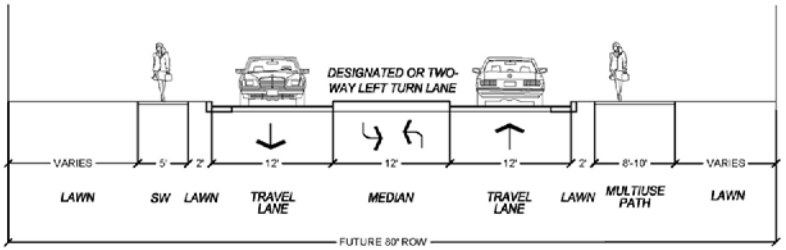
Idealized recommended typical cross-section for A Street between 32nd Street and 20th Street



Idealized recommended typical cross-section for A Street between 20th Street and Maple Avenue



Idealized recommended typical cross-section for A Street between Maple Avenue and the Southern Southern Collector Extension



Idealized recommended typical cross-section for A Street for the Southern Collector Extension

Route 611

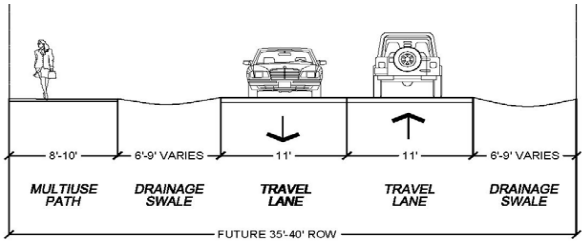
Route 611 is a significant north/south route that runs through the center of Purcellville. It connects Route 50 to the south to Morrisonville to the north. South of Main Street in Purcellville, it follows Telegraph Springs Road and 20th Street. North of Main Street, it follows Hatcher Avenue to Hirst Road and then Purcellville Road northward. Route 611 crosses Route 7 Bypass via a grade separation (bridge with no access to Route 7 Bypass) north of Hirst Road.

In general, Route 611 is recommended to retain its two-lane cross section in the future; however, focused modifications are recommended to better accommodate all users of the corridor. In the future, consideration should be given to reclassifying Route 611 as a collector street. The following describe recommended modifications to Telegraph Springs Road, Hatcher Avenue, and Purcellville Road.

Telegraph Springs Road

Travel demand is forecast to increase along Telegraph Springs Road. To accommodate future travel demand and pedestrians and bicyclists, the following are recommended:

- Retain the existing two-lane cross section
- Construct a single-lane roundabout at the Telegraph Springs/20th Street/A Street intersection
- Construct an 8- to 10-foot wide multiuse path along the west side of Telegraph Spring Road from the southern PUGAMP area boundary to A Street



Idealized recommended typical cross-section for Telegraph Springs Road from southern PUGAMP are boundary to A Street

20th Street

Travel demand is forecast to increase along 20th Street. To accommodate future travel demand, continue to maintain on-street parking, and provide facilities for pedestrians and bicyclists, the following are recommended:

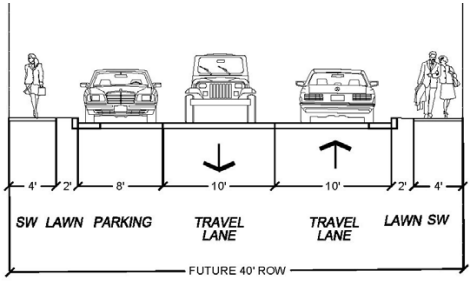
Between A Street and E Street

- Retain a two-lane cross-section
- Construct an 8- to 10-foot-wide multiuse path along the west side of 20th Street from 150 feet south of E Street to E Street
- Provide a sidewalk along the east side of 20th Street

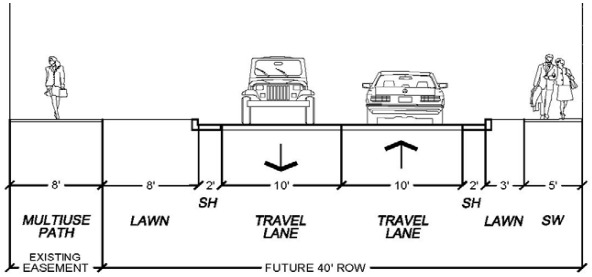
Between E Street and Main Street

- Retain a two-lane cross-section
- Provide a sidewalk on both sides of 20th Street
- Provide on-street parking on one side of the street
- Reconfigure the Main Street/20th Street/Nursery Avenue intersection as described later in this chapter
- Install "Share the Road" signage to alert motorist that cyclists may be encountered along this section of roadway

Looking north along 20th Street approaching Main Street and "Teardrop"



Idealized recommended typical cross-section for 20th Street from E Street to Main Street



Idealized recommended typical cross-section for 20th Street from A Street to E Street

Hatcher Avenue

Similar to Telegraph Springs Road and 20th Street, traffic will increase on Hatcher Avenue in the future. Increases in traffic will be due to the combination of growth within and outside of Purcellville. To accommodate projected traffic increases, parking needs, and pedestrians and bicyclists, the following are recommended:

Between Main Street and the W&OD Trail

- Maintain the existing two-lane cross-section
- Construct/maintain a sidewalk on one side of the street (this may not be possible in the section where Hirst Road crosses the creek unless a parallel structure or bridge modification is completed)
- Install "Share the Road" signage and sharrow pavement markings

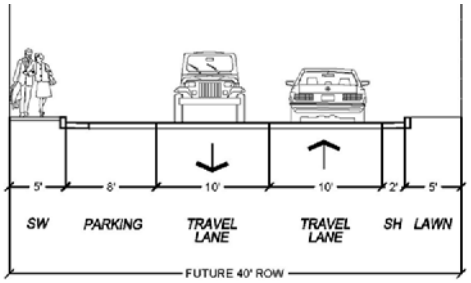
Between the W&OD Trail and Hirst Road

- Maintain a two-lane cross-section
- Narrow travel lanes and the roadway at Loudoun Valley Drive and reallocate space for a striped bike lane and realigned sidewalks
- Reconfigure the street to provide striped bicycle lanes
- Install a traffic signal and at the Hirst Road/Hatcher Avenue intersection when justified by an engineering study and approved
- Restripe the existing crosswalk on Hatcher Avenue at the post office
- Construct a southbound left-turn lane and a westbound right-turn lane at the Hirst Road/Hatcher Avenue intersection (modification associated with Woodgrove High School)

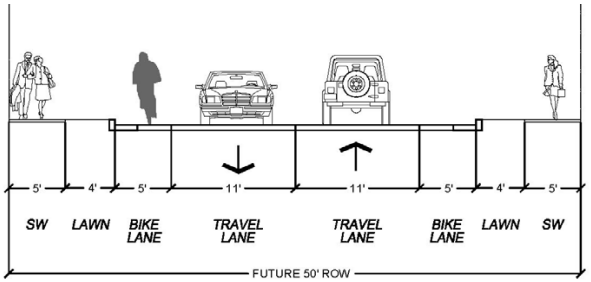
Between the Hirst Road and the north side of the Bridge

- Maintain a two-lane cross-section
- Install "Share the Road" signage and sharrow pavement markings
- Narrow travel lanes and the roadway at Loudoun Valley Drive and reallocate space for a striped bike lane and realigned sidewalks

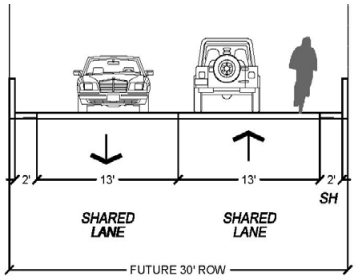
Looking north along Hatcher Avenue toward the W&OD Trail



Idealized recommended typical cross-section for Hatcher Avenue between Main Street and the W&OD Trail



Idealized recommended typical cross-section for Hatcher Avenue between the W&OD Trail and Hirst Road

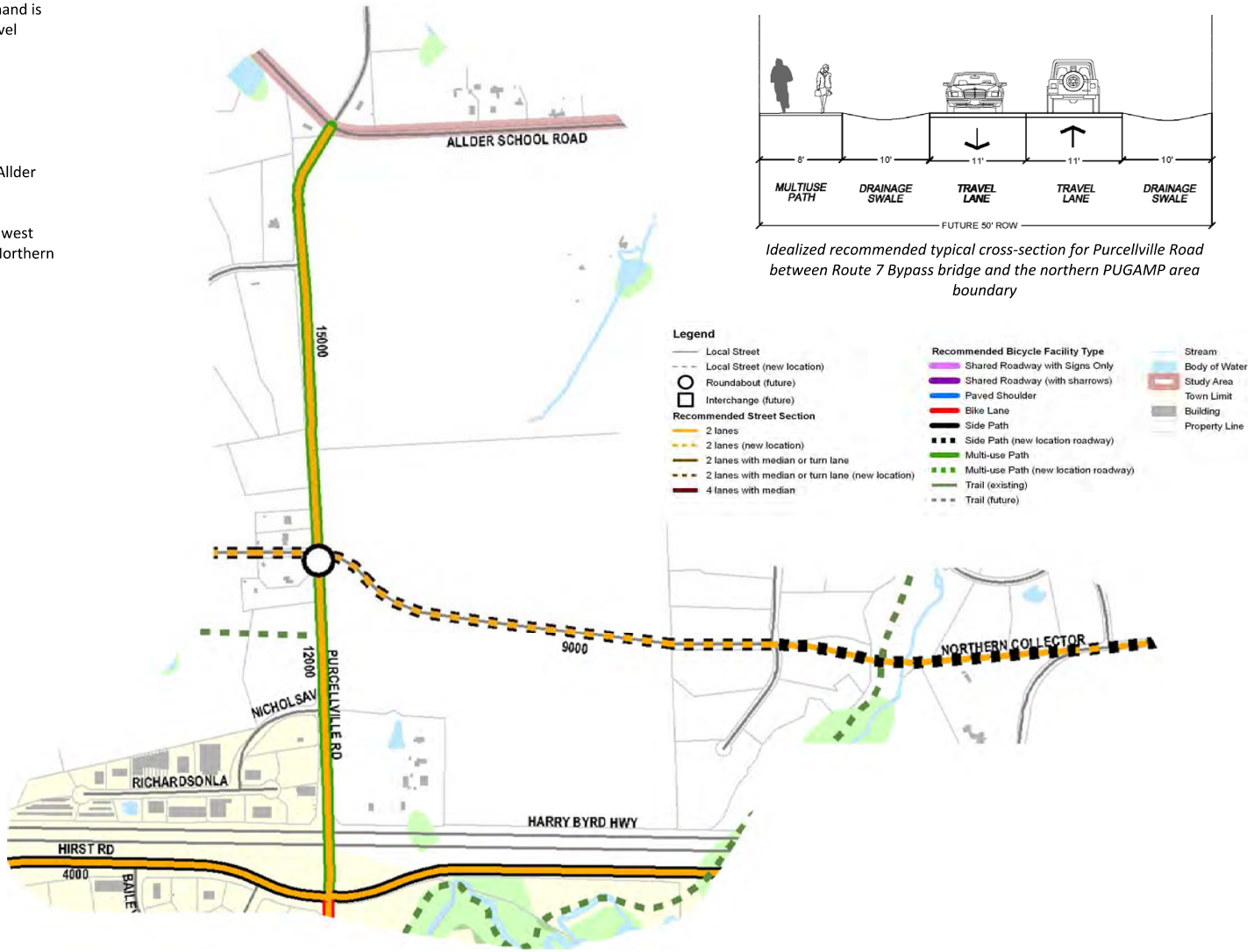


Idealized recommended typical cross-section for Hatcher Avenue between Hirst Road and the north side of the Hatcher Avenue bridge over Route 7 Bypass

Purcellville Road

Similar to the other streets in the Route 611 corridor, travel demand is projected to increase on Purcellville Road. To accommodate travel demand as well as pedestrians and bicyclists, the following are recommended:

- Maintain a two-lane cross section
- Construct a single-lane roundabout at the Purcellville Road/Northern Collector Road intersection
- Construct an exclusive eastbound right-turn lane at the Allder School Road/Purcellville Road intersection (modification associated with Woodgrove High School)
- Construct an 8- to 10-foot-wide multiuse path along the west side of Purcellville Road from Route 7 Bypass bridge to Northern Collector Road



Idealized recommended typical cross-section for Purcellville Road between Route 7 Bypass bridge and the northern PUGAMP area boundary

Route 690

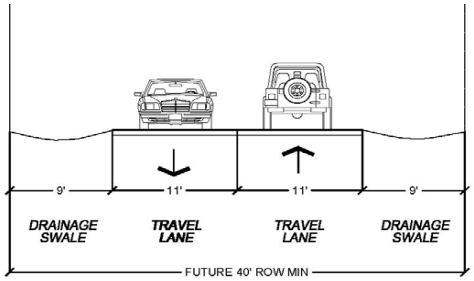
Route 690 is a significant north/south route that runs along the west side of Purcellville. It connects Route 611 and the Snickersville Turnpike to the south to Hillsboro and Route 9 to the north. As Route 690 traverses Purcellville, it follows Silcott Springs Road, 32nd Street, and Nursery Avenue south of Main Street. North of Main Street, it follows 21St Street until reaching Route 7 Bypass where it changes names to Hillsboro Road. Although not formally a part of Route 690, 23rd Street is an integral link for Route 690. The turn restriction (no left-turn from 21st Street to Main Street) and traffic signal at the 23rd Street/Main Street intersection combine to make 23rd Street an essential portion of Route 690 through Purcellville.

A priority project for the Town, an interchange has long been discussed and is recommended to be constructed on Route 690, consistent with Loudoun County's transportation plan and Purcellville's comprehensive plan. With an interchange recommended at Route 7 Bypass, modifications will need to be constructed to sections of Route 690 north and south of Route 7 Bypass. South of Hirst Road, other enhancements should be constructed to improve vehicular conditions as well as conditions for pedestrians and bicyclists. The following describe recommendations for each section of Route 690.

Silcott Springs Road

As growth continues in southwestern Loudoun County and Purcellville reinforces its status as a center of commerce in western Loudoun County, travel demand is forecast to increase on Silcott Springs Road. The following are recommended to accommodate increases in travel demand as well as accommodate bicycles and pedestrians:

- Retain a two-lane cross section
- Construct a single-lane roundabout at the Silcott Springs Road/A Street intersection



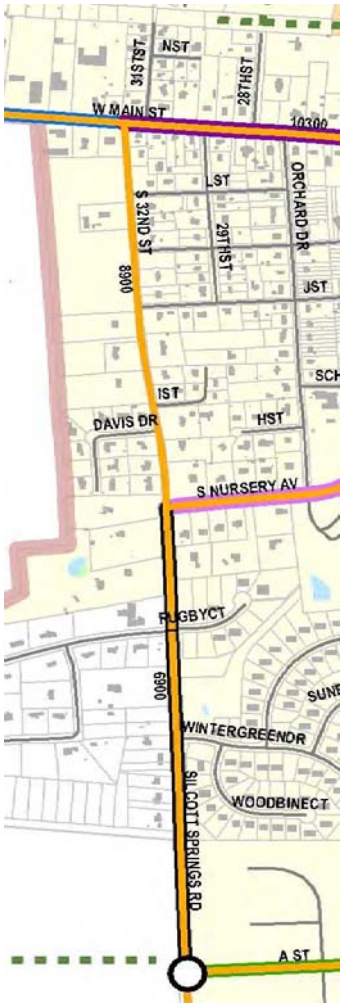
Idealized recommended typical cross-section for Silcott Springs Road between the southern PUGAMP area boundary and A Street

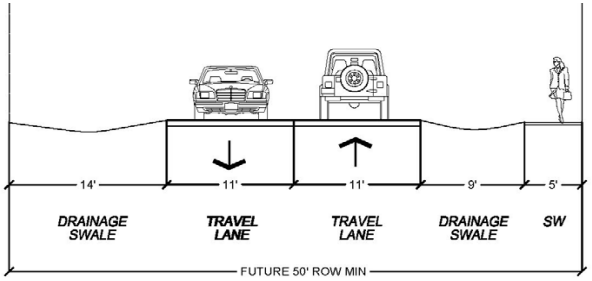
32nd Street

Similar to other streets in town, travel demand is forecast to increase on 32nd Street. To better accommodate all travelers and serve the needs of the Town, the following are recommended:

- Provide a side path or sidewalk along the east side of the street from A Street to Main Street (recognizing the Franklin Park Trail connection that will begin in the vicinity of A Street along 32nd Street)
- As redevelopment/development plans are considered for land adjacent to (primarily north and west of) the 32nd Street/Main Street intersection, evaluate the appropriateness of installing a traffic signal at the intersection through an engineering study

Looking north along 32nd Street at Rugby Court and Glendale Street





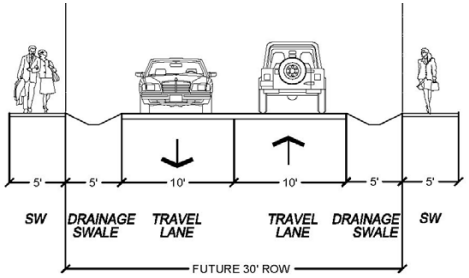
Idealized recommended typical cross-section for 32nd Street between A Street and Main Street

Nursery Avenue

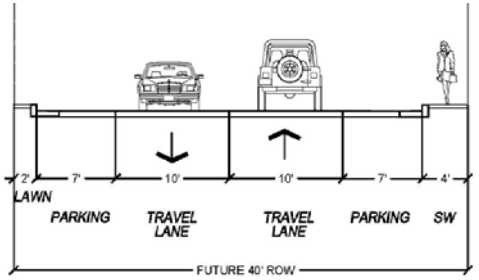
Currently, Nursery Avenue connects directly to Main Street at the intersection referred to as the "teardrop." The "teardrop," which is the confluence of Main Street, Nursery Avenue, and 20th Street is a confusing and dysfunctional intersection. To improve intersection conditions for vehicular and non-vehicular traffic, it is recommended to reconfigure the northern terminus of Nursery Avenue and tie it directly to 20th Street, approximately 150 feet south of Main Street. In addition to the aforementioned realignment of Nursery Avenue, the following are recommended:

- Retain a two-lane cross section
- Complete the sidewalk system on at least one side of Nursery Avenue between 32nd Street and 20th Street
- Provide on-street parking on both sides of the street between J Street and 20th Street
- Install "Share the Road" signage to alert motorists to the possibility of encountering cyclists along Nursery Avenue

Looking north along Nursery Avenue south of J Street



Idealized recommended typical cross section for Nursery Avenue between 32nd Street and J Street



Idealized recommended typical cross section for Nursery Avenue between J Street and 20th Street

23rd Street in Downtown

23rd Street is the primary north/south through street in Purcellville's downtown. With the turn restriction on 21st Street and the traffic signal at the 23rd Street/Main Street intersection, most traffic traveling north/south is attracted to 23rd Street. To accommodate increases in travel demand as well as pedestrians and bicyclists, the following are recommended:

- Retain a two-lane cross-section
- Reconstruct the 23rd Street/21st Street intersection consistent with the current (2009) streetscape project for downtown Purcellville, focused on 21st Street and 23rd Street
- Construct sidewalk along both sides of the street from Main Street to 21st Street
- Install "Share the Road" signage and sharrows to designate the section as shared between bicyclists and automobiles

21st Street in Downtown

21st Street is the primary business street in downtown Purcellville. The turn restriction at the 21st Street/Main Street intersection has reduced traffic volumes on the street, but it remains busy. The parallel parking is full on weekends and it isn't infrequent to see people strolling between businesses. To accommodate future increases in traffic as well as pedestrians and bicycles, the following are recommended on 21st Street between Main Street and 23rd Street:

- Retain a two-lane cross-section
- Realign 21st at 23rd Street to emphasize 23rd Street as the through street
- Construct streetscape and intersection modifications as identified in the current (2009) streetscape project for downtown Purcellville, focused on 21st Street and 23rd Street
- Maintain turn restrictions at the 21st Street/Main Street intersection
- Maintain two-way traffic flow
- Install "Share the Road" signage and sharrows to designate the section as shared between bicyclists and automobiles

Looking north on 21st Street in downtown Purcellville

Schematic Plan for streetscape Improvements on 21st and 23rd Streets

Legend

- Local Street
- Local Street (new location)
- Roundabout (future)
- Interchange (future)

Recommended Street Section

- 2 lanes
- 2 lanes (new location)
- 2 lanes with median or turn lane
- 2 lanes with median or turn lane (new location)
- 4 lanes with median

Recommended Bicycle Facility Type

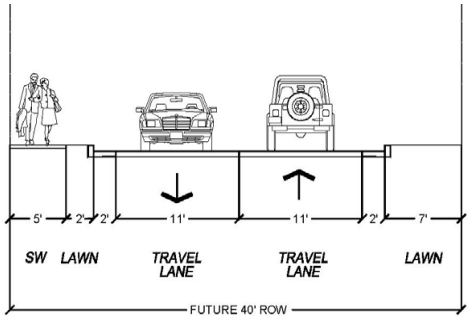
- Shared Roadway with Signs Only
- Shared Roadway (with sharrows)
- Paved Shoulder
- Bike Lane
- Side Path
- Side Path (new location roadway)
- Multi-use Path
- Multi-use Path (new location roadway)
- Trail (existing)
- Trail (future)

- Stream
- Body of Water
- Study Area
- Town Limit
- Building
- Property Line

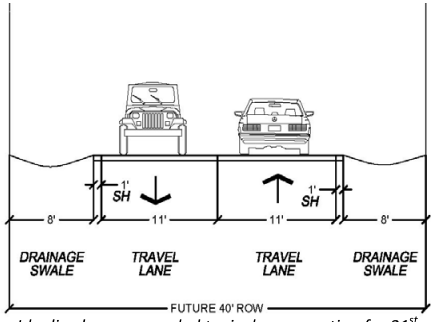
21st Street North of Downtown

With the construction of an interchange on 21st Street at Route 7 Bypass, traffic volumes are anticipated to increase on 21st Street between downtown Purcellville and Route 7 Bypass. To accommodate the increase in traffic as well as pedestrians and bicycles, the following are recommended:

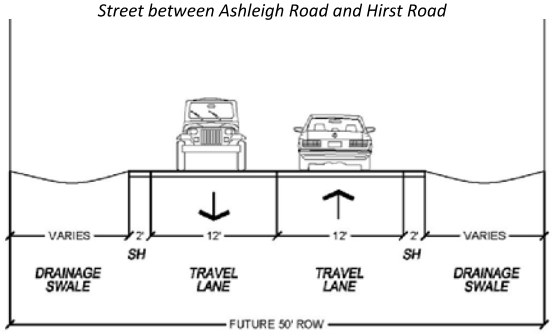
- Retain a two-lane cross-section
- Construct sidewalks along the south (west) side of 21st Street from 23rd Street to Ashleigh Road
- Connect to the existing nature trail (and sections of multiuse path) along the north side of 21st Street to connect with the side path along Hirst Road (an appropriate bridge will be necessary to cross Catoctin Creek)
- Provide a dedicated pedestrian and bicycle facility across Route 7 Bypass (either a bridge or a facility on a future structure that would be a part of the Route 7 Bypass/Route 690 interchange)



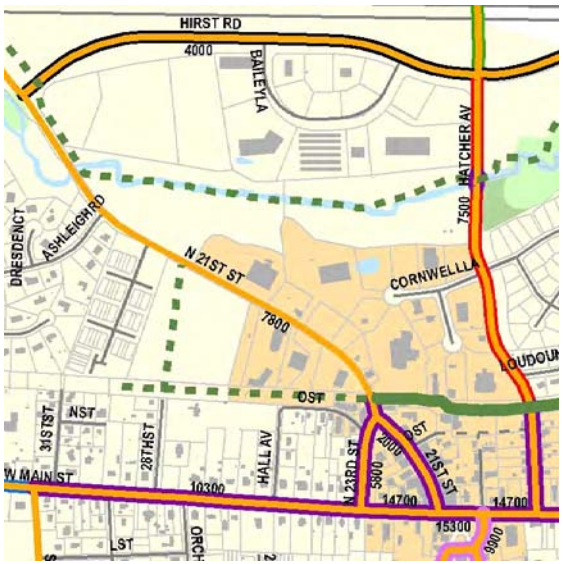
Idealized recommended typical cross-section for 21st Street between 23rd Street and Ashleigh Road



Idealized recommended typical cross-section for 21st Street between Ashleigh Road and Hirst Road



Idealized recommended typical cross-section for 21st Street between Hirst Road and Route 7 Bypass

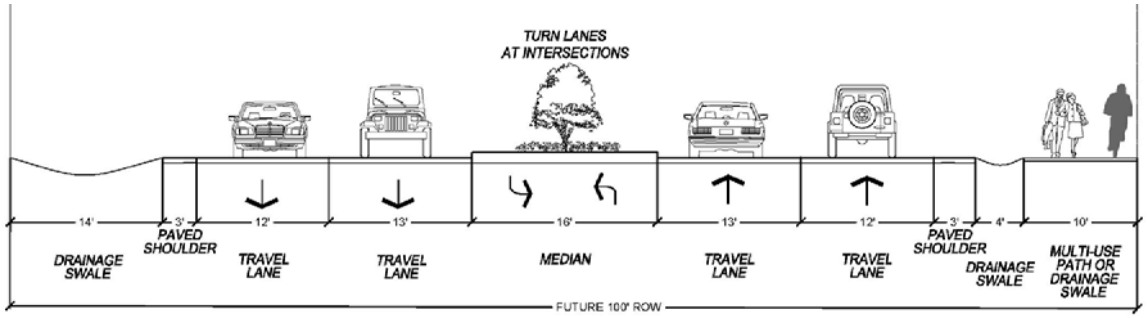


Hillsboro Road

Hillsboro Road is expected to experience a significant increase in travel demand in the future. With the recommended construction of a new interchange on Route 690 at Route 7 Bypass, a considerable volume of traffic will be attracted to Route 690 from other major roadways, including Route 9. To accommodate these travelers, as well as those who will continue to travel into Purcellville, the following are recommended:

- Evaluate existing posted speed limits and the transition of the speed limit from 55 mph to 35 mph and consider lengthening the speed reduction zone
- Widen Hillsboro Road from two lanes to a four-lane median divided cross-section from the northern boundary of the PUGAMP area to Route 7 Bypass (and the future interchange at Route 7 Bypass/Route 690)
- Construct turn lanes at major intersections and driveways
- Construct a right-turn lane at the ULYFL driveway (responsibility of County)
- Construct a roundabout at the intersection of Hillsboro Road and Allder School Road (responsibility of Woodgrove High School). Design such that roundabout can be widened to accommodate future four-lane cross section
- Construct an 8- to 10-foot wide multiuse path along the east side of Hillsboro Road between Route 7 Bypass and the trail system planned as a part of Woodgrove High School
- Construct a roundabout at the Allder School Road/Route 690 (Hillsboro Road) intersection (associated with Woodgrove High School)

Looking north along Hillsboro Road north of Route 7 Bypass



Idealized recommended typical cross-section for Hillsboro Road between Route 7 Bypass and Allder School Road

Route 722

Route 722, like many of the other routes in Purcellville, follows several different streets as it traverses the Town. Running north/south, it follows Hirst Road from Berlin Turnpike (Route 287) to Maple Avenue and then follows Maple Avenue to A Street where it transitions to Lincoln Road as it extends into Loudoun County. Consideration should be given to reclassifying the corridor as a collector street in the future.

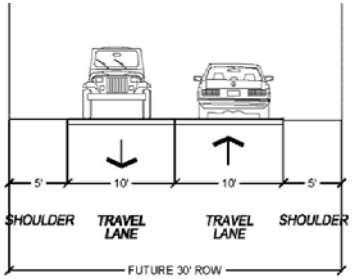
Currently, the corridor is mostly a two-lane street. Edge treatments vary from a typical rural shoulder section, to an urban section with curb-and-gutter and on-street parking. The following sections identify recommended modifications to the corridor to serve projected increases in vehicular travel demand as well as pedestrians and bicyclists.

Lincoln Road

Travel demand is projected to increase on Lincoln Road to the south of town; however, increases will be minimal. To accommodate vehicular traffic and dramatically improve conditions for pedestrians and bicyclists, the following are recommended:

- Maintain a two-lane cross-section
- Construct a single-lane roundabout at the Lincoln Road/Maple Avenue/A Street intersection

Looking north along Lincoln Road toward A Street



Idealized recommended typical cross-section for Lincoln Road from the southern PUGAMP area boundary to A Street

Maple Avenue

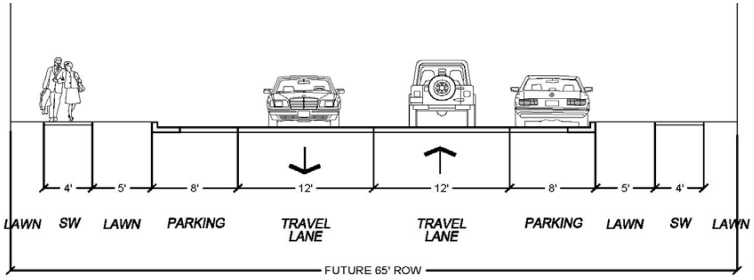
Maple Avenue connects newer areas of town to historic downtown and primary commercial areas. Also significant, Loudoun Valley High School and two large commercial centers are accessed from Maple Avenue. To accommodate future travel demand and improve conditions for pedestrians and bicycles, the following are recommended:

Maple Avenue from A Street to 9th Street

- Maintain a two-lane cross-section
- Maintain existing on-street parking
- Install "Share the Road" signage and sharrows to designate the section as shared between bicyclists and automobiles

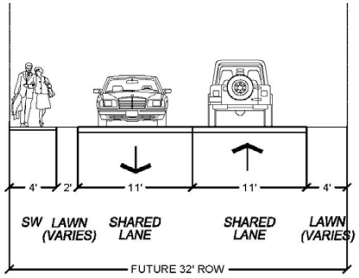
Maple Avenue from 9th Street to Main Street

- Maintain a two-lane cross-section
- Incorporate planned Main Street/Maple Avenue intersection modifications as currently (2008/9 plans) designed
- Install "Share the Road" signage and sharrows to designate the section as shared between bicyclists and automobiles
- Maintain on-street parking where there is sufficient right-of-way



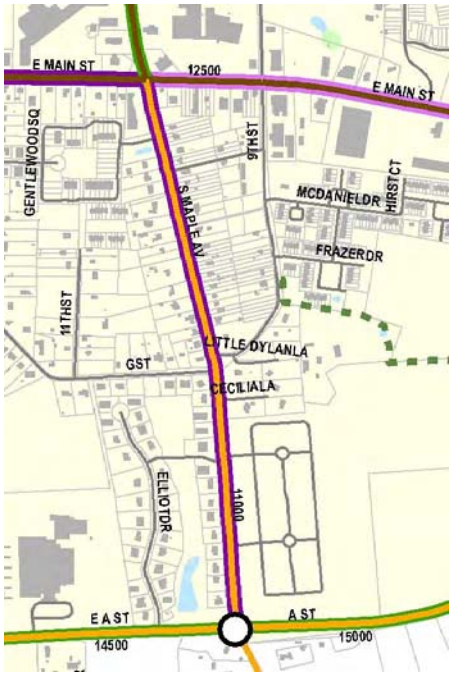
Idealized recommended typical cross-section for Maple Avenue between A Street and 9th Street

Looking north along Maple Avenue from A Street



Idealized recommended typical cross-section for Maple Avenue between 9th Street and Main Street

Looking north along Maple Avenue north of 9th Street



Maple Avenue from Main Street to Dominion Terrace

- Reconfigure the roadway to provide a three-lane cross-section (two-lane with a two-way left-turn lane)
- As redevelopment occurs, eliminate minor driveways and curb cuts to consolidate access, especially on the east side of the street
- Incorporate planned Main Street/Maple Avenue intersection modifications as currently (2008/2009 plans) designed
- Construct an 8- to 10-foot wide multiuse path on the east side of the street consistent with the North Maple Avenue trail plans

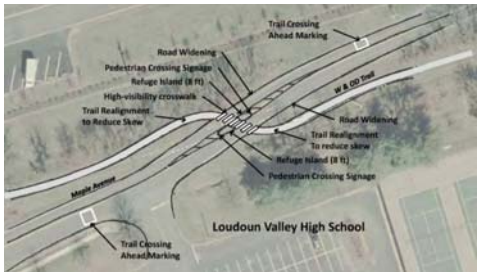
Maple Avenue from Dominion Terrace to the W&OD Trail

- Maintain a two-lane cross-section with turn lanes at major intersections
- Minimize the width and number of driveways as practicable
- Work with Loudoun Valley High School to modify the schools existing driveways and circulation pattern to minimize traffic impacts and points of conflict along Maple Avenue
- Realign the W&OD Trail to reduce the existing skew and improve crossing sight distance
- Install refuge islands, additional pavement markings, and signage on Maple Avenue at the W&OD trail to improve pedestrian safety

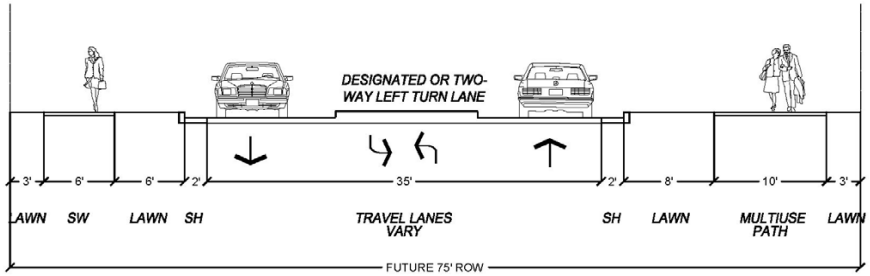
Maple Avenue from the W&OD Trail to Hirst Road

- Maintain a two-lane cross-section
- Provide an exclusive westbound left-turn lane, an exclusive eastbound right-turn lane, and exclusive northbound right-turn lane at the Hirst Road/Maple Avenue intersection (modifications associated with Woodgrove High School) or;
- Construct a single-lane roundabout at the Maple Avenue/Hirst Road intersection

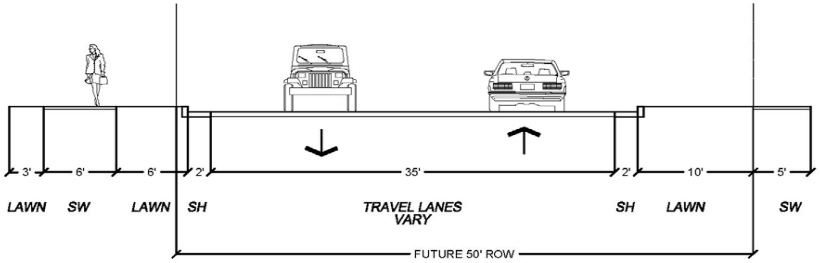
The aforementioned intersection improvements at the Maple Avenue/Hirst Road intersection will need to be reviewed in greater detail with the Safety Center, Town of Purcellville, and Loudoun County.



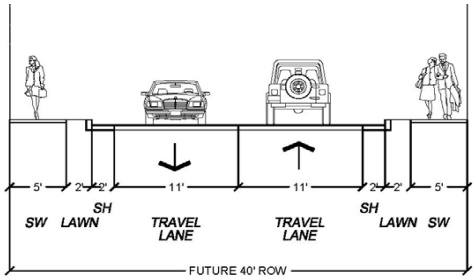
Recommended W&OD Trail Modifications at Maple Avenue



Idealized recommended typical cross-section for Maple Avenue between Main Street and Dominion Terrace



Idealized recommended typical cross-section for Maple Avenue between Dominion Terrace and the W&OD Trail

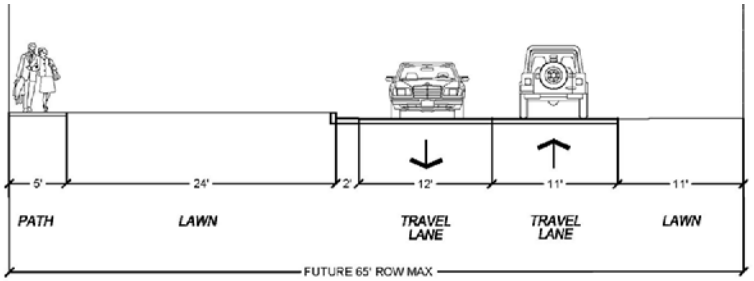


Idealized recommended typical cross-section for Maple Avenue between the W&OD Trail and Hirst Road

Hirst Road (Route 692)

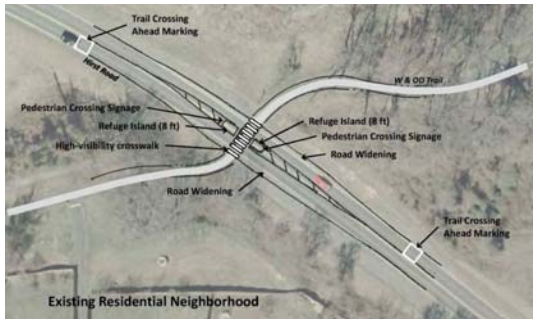
This corridor is an essential east/west route for Purcellville. It serves local trips to a growing commercial development area in north Purcellville, provides local mobility parallel to Route 7 Bypass, and is a primary route for traffic ultimately travelling to Route 690 (Hillsboro Road) to the north. Consistent with other corridors throughout Purcellville, modifications should be constructed to better accommodate projected vehicular traffic, also while improving conditions for pedestrians and bicyclists. The following are recommended for Hirst Road:

- Maintain a two-lane cross-section
- Exclusive left-turn lanes on Hirst Road at 21st Street and Hatcher Avenue as well as at major development driveways, as needed
- Exclusive eastbound right-turn lanes to serve development entrances as needed
- Exclusive left- and right-turn lanes at Route 287 intersection
- Single-lane roundabout at the Hirst Road/Maple Avenue intersection or;
- Traffic signal and exclusive turn lanes
- Additional pavement markings and advance warning signage to alert drivers to the all-way stop condition at the Hirst Road/Hatcher Avenue intersection
- Traffic signal and at the Hirst Road/Hatcher Avenue intersection when warranted or determined to be appropriate based on an engineering study
- Continuous side path along the south side of the corridor from 21st Street to Berlin Turnpike
- Refuge islands, additional pavement markings, and signage on Hirst Road at the W&OD trail to improve pedestrian safety
- Construct a southbound left-turn lane and a westbound right-turn lane at the Hirst Road/Hatcher Avenue intersection (modification associated with Woodgrove High School)
- Construct an eastbound right-turn lane, a westbound left-turn lane, and a northbound right-turn lane at the Hirst Road/Maple Avenue intersection (modifications associated with Woodgrove High School)

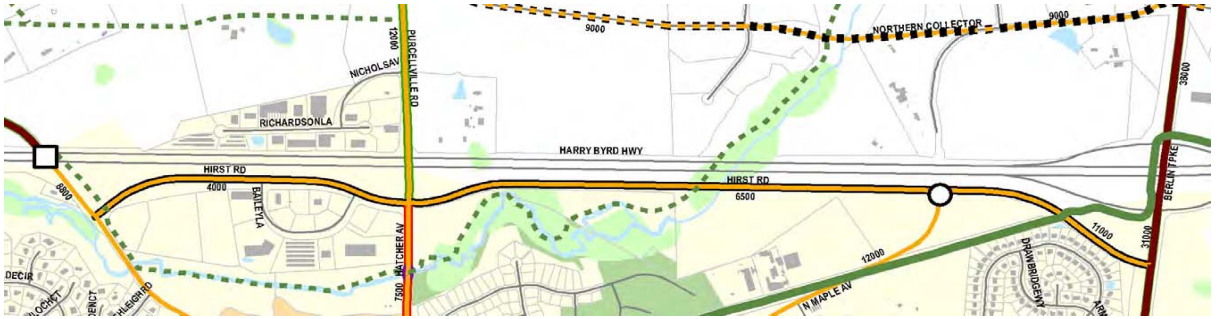


Idealized recommended typical cross-section for Hirst Road between 21st Street and Berlin Turnpike

Looking east along Hirst Road east of Hatcher Avenue



Recommended W&OD Trail Modifications at Hirst Road



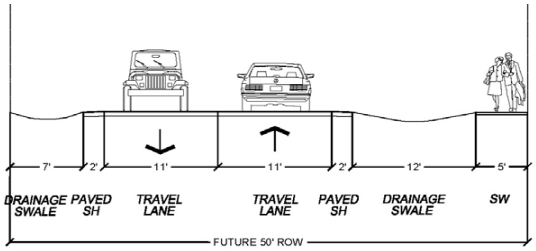
Allder School Road (Route 711)

Allder School Road runs along the northern boundary of the PUGAMP area. This existing unpaved road carries little traffic; however, it is an important connector in the area's transportation network. With future development including Woodgrove High School, Allder School Road will become an important local connector in helping to relieve other east/west routes in the area. To serve future travel demand, remedy existing safety and geometric issues, and accommodate pedestrians and bicyclists, the following are recommended:

- Improve the two-lane cross-section by widening the roadway to two standard width lanes and providing an asphalt surface
- Replace existing bridges and culverts to accommodate the road widening
- Provide exclusive left-turn lanes at public street intersections
- Construct a sidewalk along the south side of the street between Hillsboro Road to Berlin Turnpike

Specific improvements that are conditions of approval for Woodgrove High School include the following:

- Exclusive westbound left-turn lane at the Allder School Road/Main School entrance intersection
- Exclusive eastbound right-turn lane at the Allder School Road/Purcellville Road intersection
- Roundabout at the Allder School Road/Route 690 (Hillsboro Road) intersection
- Reconstruction of Allder School Road to address surface and vertical alignment conditions (reconstruction and paving of the roadway, subject to funding availability between Route 611 and Route 287)



Idealized recommended typical cross-section for A Street between Hillsboro Road (Route 690) and Berlin Turnpike (Route 287)

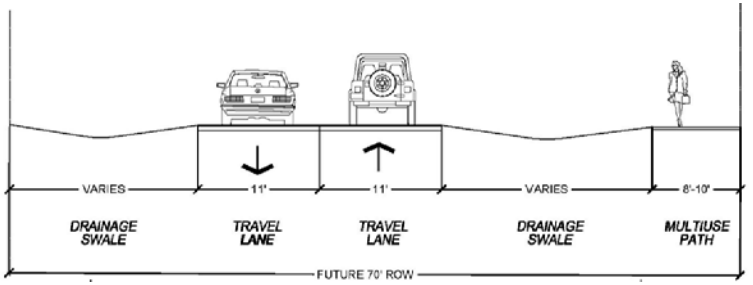
Northern Collector Road

West of 21st Street and north of Route 7 Bypass, Purcellville is not well-served by local streets. As the Town and surrounding areas continue to grow, additional cross-town street connections will benefit Purcellville and unincorporated areas at its fringes. Additionally, when a new interchange is constructed with Route 7 Bypass on the west side of Purcellville, the Northern Collector Road will help route traffic to the interchange without the use of very constrained streets in downtown Purcellville.

Included in Loudoun County's transportation plan and Purcellville's comprehensive plan, the Northern Collector Road will increase east/west mobility north of Route 7 Bypass. Through the Wright Farm subdivision, portions of the corridor's right-of-way already have been reserved. The connection shown in the recommended plan represents a connection, not an engineered alignment. Further studies will need to be completed to develop an acceptable alignment.

When completed, the Northern Collector Road will connect Berlin Turnpike to Hillsboro Road. The Northern Collector Road would help relieve Hirst Road, better distribute east/west trips, and provide access to land for development. Travel demand forecasts indicate that this corridor will carry a considerable volume of traffic. To accommodate projected traffic volumes as well as pedestrians and bicyclists, the following are recommended:

- Conduct an engineering study to develop a feasible alignment for the Northern Collector
- Construct the corridor as a two-lane roadway with left-turn lanes at major development entrances and public streets
- Construct a single-lane roundabout at the Northern Collector Road/Purcellville Road intersection
- Construct an 8- to 10-foot multiuse path along the south side of the corridor



Idealized recommended typical cross-section for the Northern Collector between Hillsboro Road and Berlin Turnpike

Collector Street Guidelines

The idealized recommended typical sections for corridors will be applicable to many sections of Purcellville's collector street network. However, there will be instances where flexibility will be necessary. The following provides guidance as to dimensions and arrangement of elements on collector streets. Minimum refers to minimum dimensional requirements, desirable to the preferred dimension, and maximum the largest dimension. Some minimums shown do not meet VDOT standards set forth in the *Road Design Manual* and Purcellville's facilities manual.

Cartway Elements

Travel Lane Width (feet)

	Area Type			
	Downtown Commercial	Downtown Residential	Suburban	Rural
Minimum	10 feet	10 feet	10 feet	10 feet
Desirable	11 feet	11 feet	11 feet	11 feet
Maximum	12 feet	12 feet	12 feet	12 feet

Parking Treatment

	Area Type			
	Downtown Commercial	Downtown Residential	Suburban	Rural
Parallel	7 to 8 feet	7 to 8 feet	Not applicable	
Angle (reverse-in only)	18 to 20 feet		Not applicable	
Perpendicular	Not applicable			

Other Elements

Edge Elements

	Area Type			
	Downtown Commercial	Downtown Residential	Suburban	Rural
Curb and Gutter Sections				
Standard	VDOT CG-2 and/or CG-6			No C&G
Shoulder Sections				
Paved Shoulder	Not Applicable			≥4 feet
Ditch/Swale	Not Applicable			Varies

Street-Side Buffers

	Area Type			
	Downtown Commercial	Downtown Residential	Suburban	Rural
Buffer with Trees*				
Minimum	6 feet			
Desirable	≥8 feet			
Treatment	Planted or Hardscaped**		Planted	N/A
Buffer without Trees				
Minimum	2 feet			
Desirable	≥6 feet			
Treatment	Planted or Hardscaped**		Planted	N/A

Street-Side Buffers

	Area Type			
	Downtown Commercial	Downtown Residential	Suburban	Rural

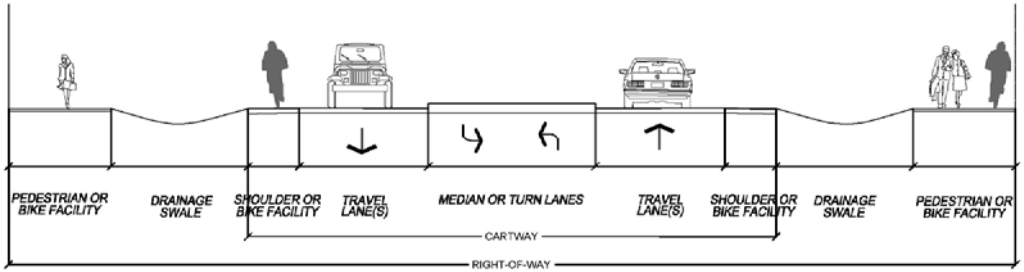
*Assumes that VDOT clear zone requirements do not need to be met.
**Level of pedestrian activity is a primary consideration. Areas with a high volume of pedestrian traffic and significant sidewalk activity may warrant hardscape treatments to reduce maintenance.

On-Street Bicycle Treatment

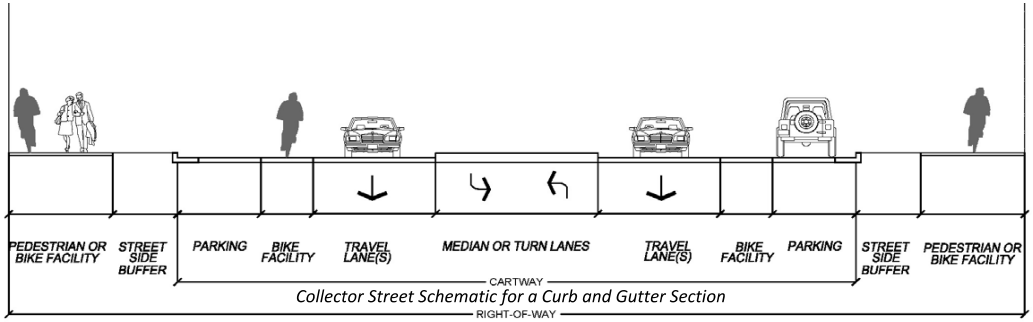
	Area Type			
	Downtown Commercial	Downtown Residential	Suburban	Rural
Striped Lane				
On-Street Parking	5 feet		Not applicable	
No On-Street Parking	Curb & Gutter (2-foot gutter): 5 feet No Curb & Gutter: 4-feet			
Shared Lane (overall travel lane width)				
On-Street Parking	13 to 14 feet		Not applicable	
No On-Street Parking	10 to 13 feet			Not applicable
Signed Route	No dimensional requirement			

Pedestrian and Off-Street Bicycle Elements

	Area Type			
	Downtown Commercial	Downtown Residential	Suburban	Rural
Sidewalk				
Minimum	5 feet		4 feet	
Desirable	>5 feet		≥5 feet	
Multi use Paths				
Minimum	8 feet			
Desirable	≥10 feet			
Side Path				
Minimum	5 feet			
Desirable	≥8 feet			
Soft Path				
Minimum	4 feet			
Desirable	≥5 feet			



Collector Street Schematic for a Shoulder Section



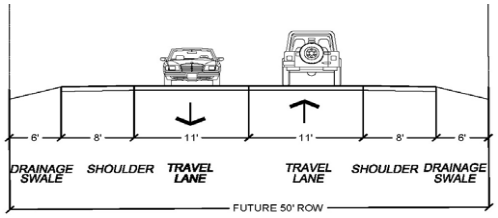
Collector Street Schematic for a Curb and Gutter Section

Local Streets

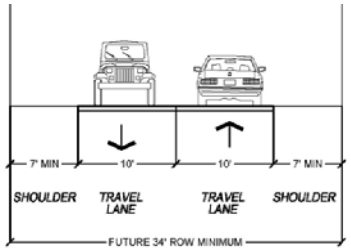
As Purcellville continues to grow, standards should be established for the local street network to ensure that as new streets are constructed and existing streets reconstructed, they meet the needs of Purcellville. Street standards should be incorporated into the Town's facilities design manual. Ideally, local streets should be planned and developed in an interconnected pattern, particularly in the town core of Purcellville.

Potential opportunities for new local street connections are shown in **Figures 4.1, 4.4**, and **4.5.** Other connections not shown in these figures are likely to arise as development and redevelopment occur. Like collector streets, local streets need to be planned within the context of their surroundings. Local streets within the town core of Purcellville need to focus on moving people and should offer accommodations for on-street parking. In rural areas, streets will have a larger emphasis on moving vehicles and less emphasis on being overtly pedestrian-friendly. The typical sections shown at right illustrate VDOT acceptable local street sections as well as tertiary street sections that would not be fully VDOT compliant.

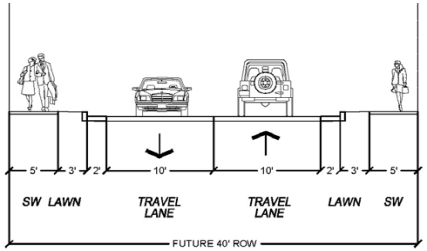
To the extent practicable, the O Street extension should comply with cross-section D, where parking is not permitted and cross-section E, where parking is permitted.



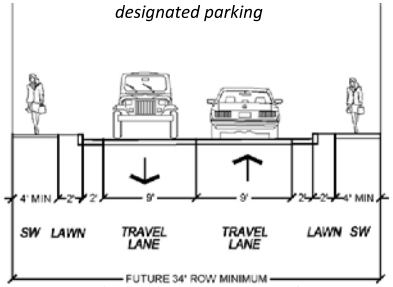
A. *Idealized VDOT Compliant Typical Residential Street Section (without curb and gutter) without designated parking*



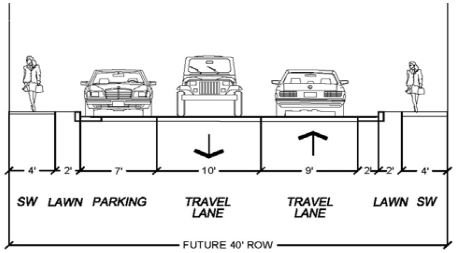
B. *Idealized Non-VDOT Compliant Typical Residential Street Section (without curb and gutter) without designated parking*



C. *Idealized VDOT Compliant Typical Residential Street Section (with curb and gutter) without designated parking*



D. *Idealized Non-VDOT Compliant Typical Residential Street Section (with curb and gutter) without designated parking*



E. *Idealized Minimum (VDOT compliant) Typical Residential Street Section (with curb and gutter) with designated parking*

Local Street Guidelines

The idealized recommended typical sections for local streets will be applicable to many sections of Purcellville's street network; however, there will be instances where flexibility will be necessary. The following provides guidance as to dimensions and arrangement of elements on local streets. The Town's facilities manual will provide additional guidance. Minimum refers to minimum dimensional requirements, desirable to the preferred dimension, and maximum the largest dimension. Some minimum dimensions shown do not meet minimum VDOT standards set forth in the *Road Design Manual*.

Cartway Elements

Travel Lane Width (feet)

	Area Type	
	Curb and Gutter Section	Shoulder Section
Minimum	9	9
Desirable	9	10
Maximum	12	12

*For curb and gutter sections, widths exclude gutter pan (assumed to be 2 feet).
*Where vertical curb is used (no gutter pan), width should be increased by 2 feet.
*For shoulder section, width excludes paved shoulder.

Parking Treatment

	Area Type		
	Curb and Gutter Section		Shoulder Section
Parallel	7 to 8 feet	7 to 8 feet	Not applicable
Angle (reverse-in only)	Not applicable		
Perpendicular	Not applicable		

Other Elements

Edge Elements

Curb and Gutter Section	
Standard	VDOT CG-2 and/or CG-6
Shoulder Section	
Paved Shoulder	0 to 4 feet
Ditch/Swale	7 to 14 feet

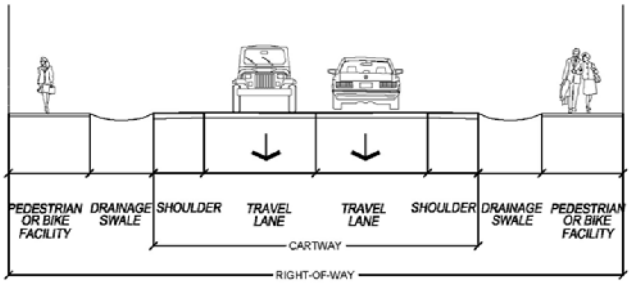
Street-Side Buffers

	Area Type	
	Curb and Gutter Section	Shoulder Section
Buffer with Trees*		
Minimum	5 feet	
Desirable	≥6 feet	
Treatment	Planted or Hardscaped**	N/A
Buffer without Trees		
Minimum	2 feet	
Desirable	≥3 feet	
Treatment	Planted	N/A

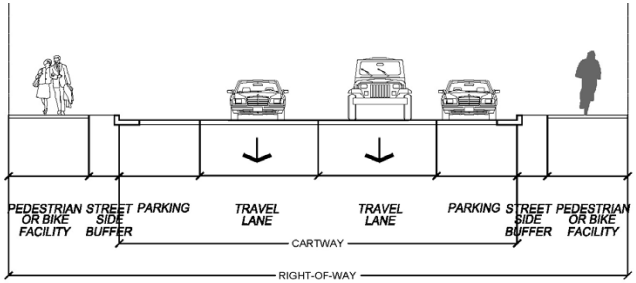
*Assumes that VDOT clear zone requirements do not need to be met.
**Level of pedestrian activity is a primary consideration. Areas with a high volume of pedestrian traffic and significant sidewalk activity may warrant hardscape treatments to reduce maintenance.

Pedestrian and Off-Street Bicycle Elements

	Area Type	
	Curb and Gutter Section	Shoulder Section
Sidewalk		
Minimum	4 feet	
Desirable	≥5 feet	
Multi use Paths		
Minimum	8 feet	
Desirable	≥10 feet	
Side Path		
Minimum	6 feet	
Desirable	≥8 feet	
Soft Path		
Minimum	4 feet	
Desirable	≥5 feet	



Local Street Schematic for a Shoulder Section



Local Street Schematic for a Curb and Gutter Section

Intersection Modifications

Modifications to intersections are provided as a means to mitigate safety concerns and operational issues under existing and anticipated conditions. This section focuses on the impact of the improvements on vehicular travel and on bicycle and pedestrian mobility and safety.

Intersection modifications are recommended at locations where there are existing safety issues and/or congestion, where future congestion is anticipated, and where roadway widening or modifications are recommended. As noted, many of the improvements identified are projects the Town is already working on, projects that have been identified as part of development-related traffic impact studies, short-term, low-cost adjustments, and long-term modifications.

Roundabouts are recommended at locations throughout Purcellville to manage traffic speeds and volume as well as to act as gateways to Purcellville. There has been considerable debate in the last 10 years about the accommodation of pedestrians and bicycles at roundabouts. The following are general notes on the safe and efficient accommodation of pedestrians and bicyclists at roundabouts:

- **Pedestrians:** Roundabouts can be designed to safely and conveniently accommodate pedestrians. At a roundabout, pedestrians navigate the circle by following a sidewalk provided around the roundabout's periphery. Pedestrians do not cross by traversing through the center island. Splitter islands are provided at each approach to a roundabout and offer refuge to people crossing the street at each leg (street) of the roundabout. Experience with smaller-sized roundabouts in the United States has shown that vehicles entering and exiting a roundabout will and do stop for pedestrians crossing and waiting to cross the street. Differing slightly from single-lane roundabouts, pedestrian crossing standards for roundabouts with two or more lanes are being considered with regard to the placement of pedestrian-actuated traffic signals on legs to the roundabout.

- **Bicyclists:** Roundabouts can be designed to safely and conveniently accommodate bicyclists. Bicyclists have two choices to safely navigate a roundabout. They can follow the path of a pedestrian, navigating the outside of the circle on foot or bike, depending on the width of the sidewalk. The other choice they have is to navigate the circle in the same way that a car would, following the entering roadway to the circulating roadway and then exiting the circle at an appropriate location. Typically, experienced cyclists follow the same path and rules as vehicular traffic and child cyclists and other less experienced bicyclists follow the pedestrian path.

The suggested intersection modifications are intended to serve as a guideline for future recommended improvements. Not all intersection modifications will be the responsibility of the Town. As new development and redevelopment occur, proposed improvements will be constructed in phases by many different entities.

Future Levels of Service

The traffic volumes at the study intersections were derived by applying growth factors from the regional travel demand model and other adjustments to existing turning movement counts. The growth factors were developed from the projected traffic volumes for the recommended roadway network. The future traffic volumes were used to help better define intersection-level improvements such as turn lanes and signalization that may be needed in the future. Future intersection traffic control, laneage, and levels of service are shown in **Figure 4.10**. Future (2030) intersection levels of service with proposed recommendations in place are shown in **Table 4.1**

The level of service (LOS) rating is used to describe operating conditions for motorists. LOS A denotes good performance with little to no delay. Signalized intersections where the average delay exceeds 85 seconds of delay per vehicle would be considered failing (LOS F). Purcellville streets operating at LOS C or better are considered acceptable from a general town's perspective; however, the town acknowledges that in limited instances, level of service D may be considered acceptable if improvements required to maintain a LOS C in a peak hour are prohibitive.

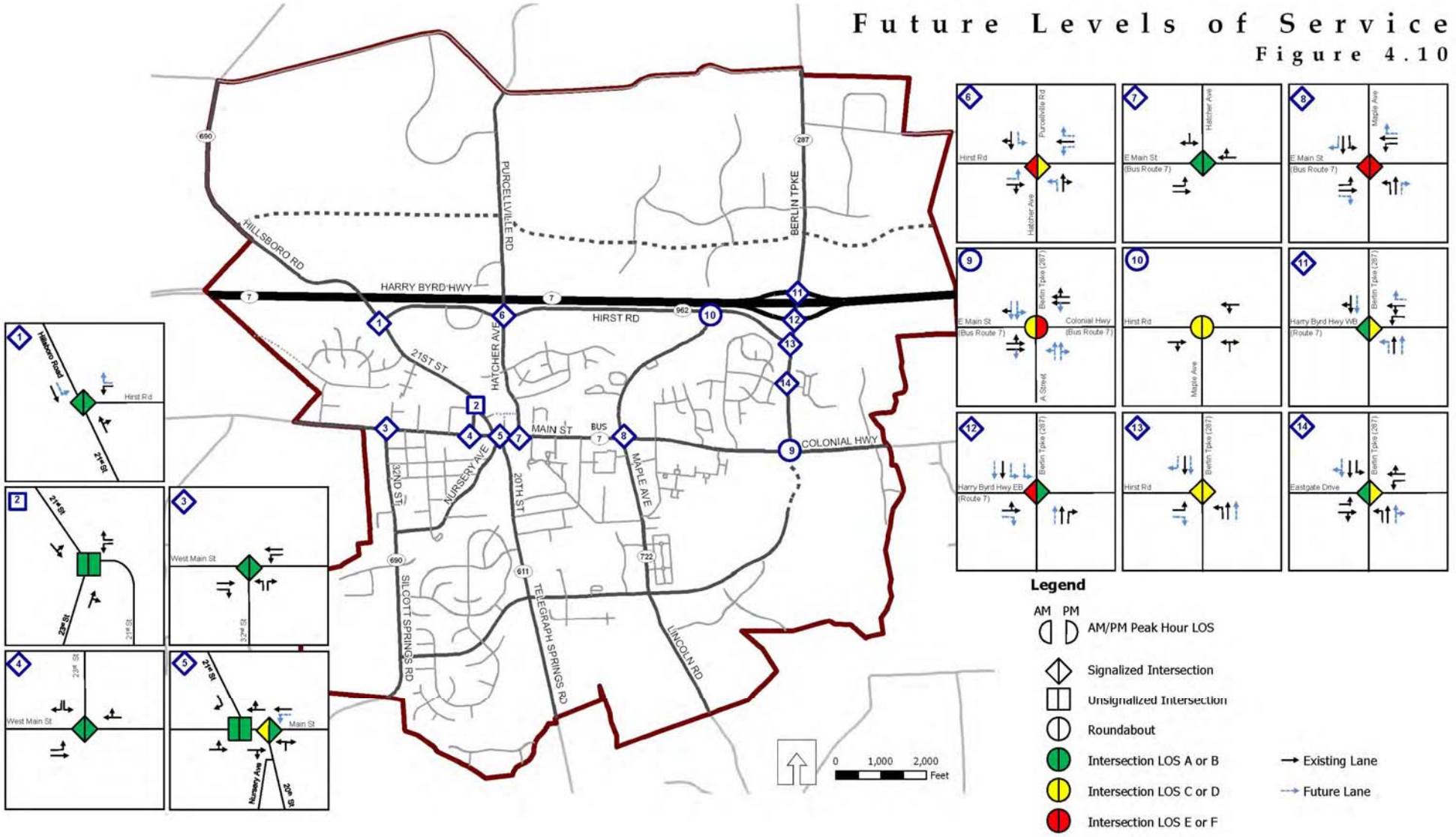
Table 4.1: Future Intersection Levels of Service (LOS)

Intersection	AM Peak Hour LOS	PM Peak Hour LOS
Eastgate Drive and Route 287	B	C
Hirst Road and Hatcher Ave/Purcellville Road	E	C
Hirst Road and N. 21st Street/Hillsboro Road	A	B
Hirst Road and N. Maple Avenue	D	B
Hirst Road and Route 287	C	D
E. Main St/W. Colonial Highway and Route 287	D	F
E. Main Street and Hatcher Avenue	B	B
E. Main Street and Maple Avenue	F	E
Main Street and S. 20th Street	C	B
Route 7 Bypass EB Ramps and Route 287	E	B
Route 7 Bypass WB Ramps and Route 287	B	D
W. Main Street and N. 21st Street	A	A
W. Main Street and N. 23rd Street	B	B
W. Main Street and S. 32nd Street	D	B
N. 21st Street and N. 23rd Street	A	B

Table reflects future intersection levels of service with recommendations in place.

Future Levels of Service

Figure 4.10



Berlin Turnpike/Route 7 Bypass Ramps/Hirst Road

This area is critical to accessing Route 7 Bypass. This section of Route 287 has three major intersections within approximately 1,000 feet of one another and carries the highest traffic volume in the study area. The Berlin Turnpike/Route 7 Bypass westbound ramp intersection operates at LOS C and F during the weekday AM and PM peak hours, respectively. The intersection of Route 287 and Hirst Road operates at LOS E during the weekday AM and PM peak hours. This segment also was one of the highest crash locations in the study area and many of the crashes observed were attributed to congestion. Placing a high-priority on protecting and enhancing roadway capacity at the interchange and along Route 287, Purcellville has requested an allocation of state funds from the Commonwealth Transportation Board for the improvement of the interchange.

In the immediate-term, striping and signage can be installed to improve traffic conditions in the area. The following are recommended:

Berlin Turnpike

- Construct an additional southbound through lane from the westbound ramp to the eastbound ramp
- Construct an exclusive southbound right-turn trap lane (ties to aforementioned through lane) to serve Hirst Road

Route 7 Bypass westbound off-ramp

- Construct an additional exclusive left-turn lane

Hirst Road intersection

- Construct an exclusive eastbound right-turn lane on Hirst Road

In the mid-term, Berlin Turnpike is recommended to be widened to a four-lane median divided roadway to the south of Route 7 Bypass. Mid-term modifications include the following:

Berlin Turnpike

- Construct an additional southbound through lane approaching westbound ramps
- Construct an additional northbound and southbound through lane between Main Street and the eastbound ramps

Berlin/Turnpike/Route 7 Bypass westbound ramps intersection

- Construct an exclusive northbound left-turn lane

Berlin/Turnpike/Route 7 Bypass eastbound ramps intersection

- Construct an exclusive southbound left-turn lane

In the long-term, capacity would be further increased by widening Berlin Turnpike to a four-lane roadway consistent with plan recommendations.

Figure 4.11 shows a concept of the recommended long-term configuration. To accommodate future travel demand, the following are recommended:

Berlin Turnpike

- Construct an exclusive right-turn lane on northbound Berlin Pike to serve the eastbound on-ramp
- Complete the widening of Berlin Turnpike between the westbound ramps and Allder School Road

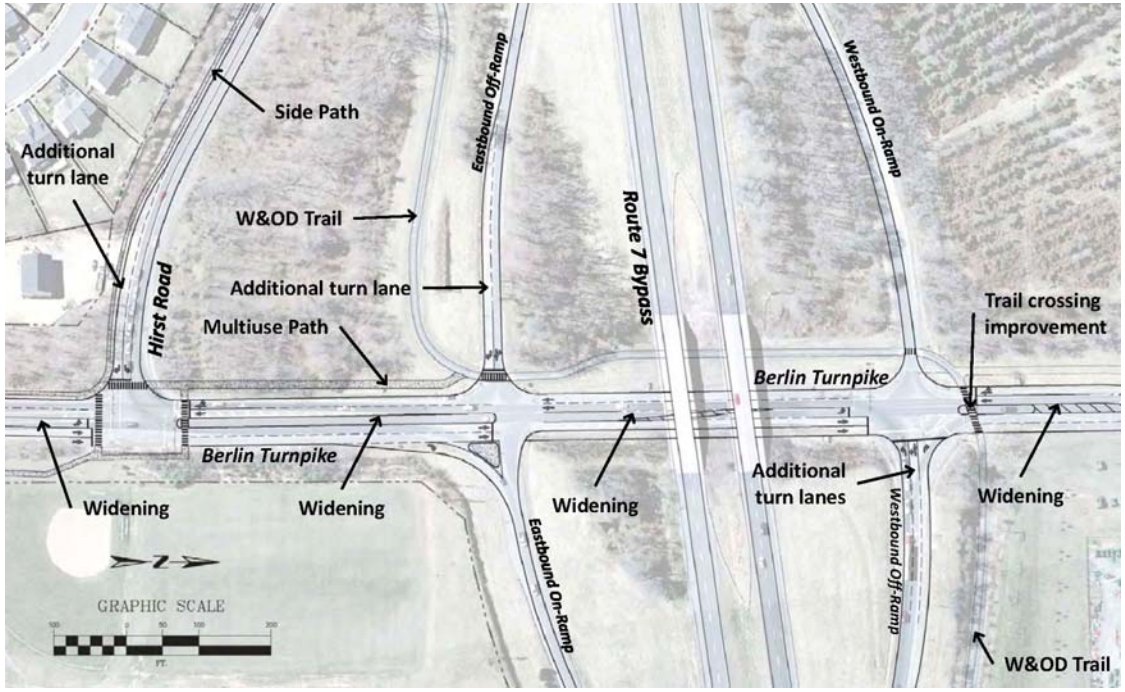


Figure 4.11: Conceptual Long-Term Improvement Scenario for Berlin Turnpike, Hirst Road, and Route 7 Bypass Ramps

Main Street/Berlin Turnpike

In the future, it is recommended that the Southern Collector (A Street) be extended to the Main Street/Berlin Turnpike intersection. To serve traffic movements at the intersection in the long-term, a two-lane roundabout is recommended for the Main Street/Berlin Turnpike intersection. In the short-term, prior to the widening of Berlin Turnpike (or need for further intersection improvements), Purcellville Gateway will construct a single-lane roundabout at the Main Street/Berlin Turnpike intersection that has the capability to be modified to two lanes.

Main Street/Maple Avenue

The Town of Purcellville is currently developing construction documents for improvements at this intersection. Proposed modifications include exclusive right-turn lanes, new signal timings, driveway consolidation, a multiuse path, and sidewalks. The modifications will improve safety and operations at the intersection.

Modifications Associated with Woodgrove High School

A number of roadway and intersection modifications were included as conditions of approval for Woodgrove High School. These recommended modifications are summarized in the following and their implementation by Loudoun County is tied to the approval of the school:

- Exclusive westbound left-turn lane at the Allder School Road/Main School entrance intersection
- Exclusive eastbound right-turn lane at the Allder School Road/Purcellville Road intersection
- Roundabout at the Allder School Road/Route 690 (Hillsboro Road) intersection
- Reconstruction of Allder School Road to address surface and vertical alignment conditions (reconstruction and paving of the roadway)
- Exclusive eastbound right-turn lane, westbound left-turn lane, and northbound right-turn lane at the Hirst Road/Maple Avenue intersection
- Exclusive southbound left-turn lane and westbound right-turn lane at the Hirst Road/Hatcher Avenue intersection

23rd Street, 21st Street, the "Teardrop," and Hatcher Avenue

Downtown is the center of activity in town. It isn't infrequent to encounter pedestrians, bicyclists, and some level of traffic congestion while in Purcellville's active downtown area. Currently, the intersections along Main Street between 23rd Street and Hatcher Avenue are closely spaced and operate at or near capacity during the busiest periods of the day. To mitigate some congestion on Main Street, left turns have been restricted at the Main Street/21st Street intersection.

While this turn restriction has improved conditions along Main Street, the "teardrop," the Nursery Avenue/20th Street/Main Street intersection remains downtown's most significant circulation issue. While traffic back-ups are frequent and the intersection has some history of crashes, one of the most heard complaints about the intersection is that it is confusing.

At the east edge of downtown, the Main Street/Hatcher Avenue intersection operates at LOS F and D during the weekday AM and PM peak hours, respectively. The intersection is currently signalized and a left-turn lane is provided on Main Street.

Responding to the numerous issues and challenges in the downtown area, the 2005 Downtown Master Plan provided a framework for redevelopment and transportation improvements in the area. Numerous concepts were developed to address existing traffic issues in downtown as a part of this plan. Concepts developed in the Downtown Master Plan were reviewed and additional concepts were developed to address circulation issues associated with the "teardrop" intersection. The recommended concept uses ideas from the Downtown Master Plan and includes several new ideas to resolve traffic issues.

Advantages and disadvantages of the existing condition, the Downtown Master Plan recommended concept, and this transportation plan's recommended concept are described in the following graphics. As a summary, to improve operations and safety, the following are recommended:

- Extend O Street to the east to Hatcher Avenue
- Reconfigure the "teardrop" intersection by tying Nursery Avenue into 20th Street to the south of Main Street
- Realign the section of 20th Street north of Main Street to tie into the future relocated 20th Street south of Main Street (would require close coordination with property/business owners and may not be possible unless redevelopment occurs)
- Extend 20th Street to the north to the proposed O Street
- Install a traffic signal at the new Main Street/20th Street intersection when warranted or determined to be appropriate or feasible based on an engineering study

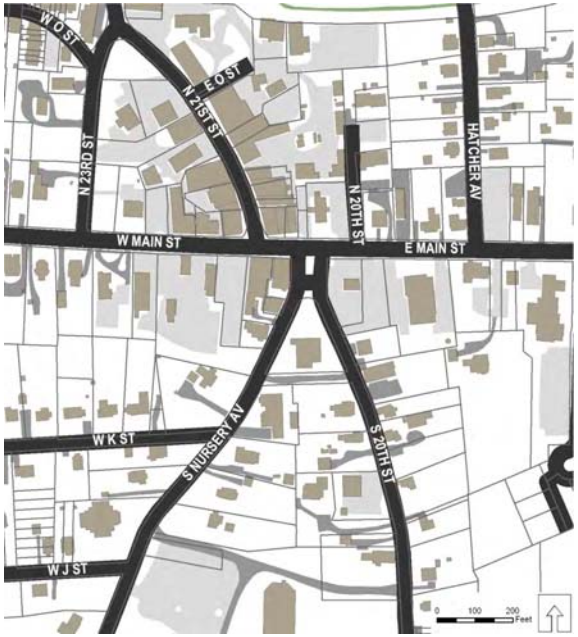
Existing Conditions

Advantages

- Does not impact existing properties and buildings
- Maintains the historic traffic pattern

Disadvantages

- Southbound left-turn from 21st Street to Main Street is currently prohibited and reduces mobility and access in the area
- Irregular "teardrop" intersection of Nursery Avenue/20th Street and Main Street is confusing and has some crash history
- No direct north/south access across Main Street in provided in this area
- Left-turn conflicts exist along Main Street
- Difficult to turn from 20th Street and S. Nursery Avenue
- Substantive crash history on Main Street
- Challenging to cross the street



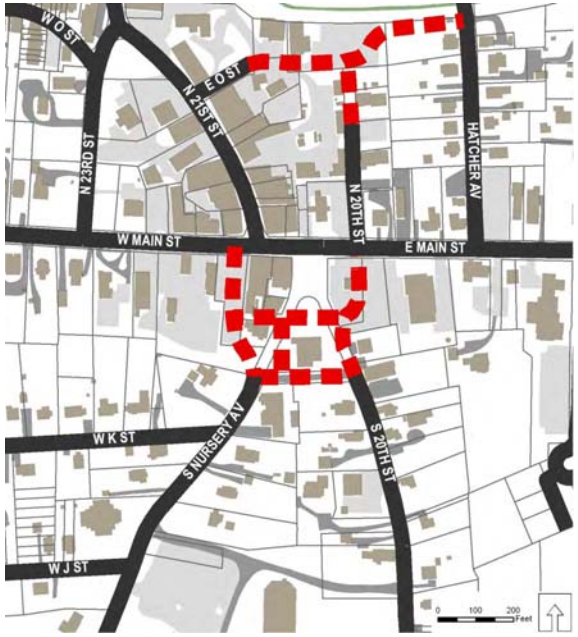
Downtown Master Plan

Advantages

- Increases access to Main Street and creates new blocks for development
- Direct north-south access across Main Street at 20th Street
- New street connections provide additional mobility in downtown
- Nursery Avenue directly connects to Main Street

Disadvantages

- Requires right-of-way and property acquisition
- Offset Nursery Avenue/ 21st Street and Main Street intersections increases number of turn conflicts
- Challenging to signalize new intersection
- Requires significant new infrastructure



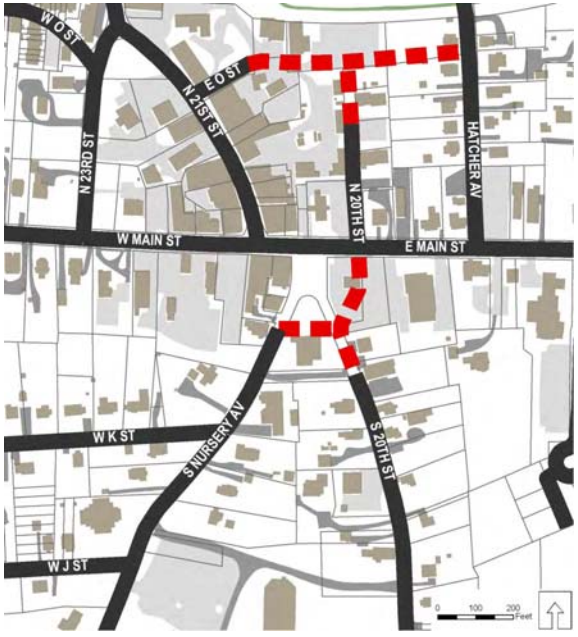
Recommended Plan

Advantages

- Consolidates access along Main Street
- Possible to permit southbound left-turn from 21St Street to Main Street
- Direct north-south access across Main Street at 20th Street
- New street connections provide additional mobility and frontage in downtown
- Creates opportunity for signalization
- Creates development or open space opportunity in "teardrop" area

Disadvantages

- Requires right-of-way and property acquisition
- Nursery Avenue indirectly connects to Main Street



Bike and Pedestrian Recommendations

This plan identifies a coordinated and strategic approach to the development of a system of pedestrian and bicycle facilities in Purcellville to serve the transportation and recreation needs of residents and visitors. The plan seeks to improve conditions for pedestrians and create a comprehensive network of bicycle facilities that connects all parts of town. It identifies opportunities and constraints for proposed pedestrian and bicycle facilities, particularly in locations identified as being critical needs.

Recommendations for a bicycle route network are included where facilities can be incorporated through routine accommodations, through re-striping projects during road resurfacing, and those that are anticipated to involve more costly retrofit projects. The plan also includes recommendations for improving the pedestrian network throughout Purcellville. In doing so, it supports local, regional, and state planning efforts to encourage multimodal transportation.

Over the past 15 years, many policies and plans have been developed at the state, regional, and local levels that provide support for improving pedestrian and bicycle transportation and recreation in Purcellville. While local jurisdictions play a large role in establishing transportation priorities in Virginia, VDOT is the agency responsible for constructing and maintaining many of the primary and secondary roads throughout the Commonwealth.

Statewide Actions

On March 18, 2004 the Commonwealth Transportation Board adopted the *VDOT Policy for Integrating Bicycle and Pedestrian Accommodations,* a policy for integrating pedestrian and bicycle facilities into roadway projects. These bikeways and sidewalks, often termed "incidental" improvements, are built as part of new roadway construction or roadway reconstruction. The policy states that "VDOT will initiate all highway construction projects with the presumption that the projects shall accommodate bicycling and walking." The policy provides a number of conditions under which additional emphasis will be placed on the need for such facilities, requiring bikeways and sidewalks whenever a roadway project occurs in an urban or suburban area.

Through the *Roadway Design Manual,* VDOT has established standards for the physical layout of roadways. The updated version of the manual has incorporated the policy discussed above. Several sections of the manual describe in detail how pedestrians and bicyclists should be included in roadway projects. It describes various methods for accommodating bicyclists, such as bicycle lanes, paved shoulders, and wide outside lanes. It also includes specifications for shared use paths, sidewalks, buffers between sidewalks and roadways, and curb ramps to improve the pedestrian environment. VDOT is currently developing a Virginia Bicycle Policy Plan to facilitate greater implementation of its *Policy for Integrating Bicycle and Pedestrian Accommodations*.

Virginia's statewide long range multimodal transportation plan, *VTrans2035*, is currently being developed by the Secretary of Transportation through the five state transportation agencies in conjunction with the Federal Highway Administration and regional planning bodies. The plan will look at pressing transportation issues across the entire state and across all modes, including pedestrian and bicycle transportation.

County Actions

In addition to state policies, there are a number of county and town documents that support the goal of improving conditions for pedestrians and bicyclists in Purcellville. In July 2001, the Loudoun County Board of Supervisors adopted the *Revised General Plan* and *Revised Countywide Transportation Plan*, providing a development framework based on smart growth principles. The *Revised General Plan* calls for completion of a *Countywide Bicycle and Pedestrian Mobility Master Plan* to help implement the County's vision of a transportation system that recognizes the intrinsic value of bicycling and walking, and advances bicycle and pedestrian mobility as a cornerstone transportation goal.

The resulting *Loudoun County Bicycle and Pedestrian Mobility Master Plan* envisions "a place where pedestrians and bicyclists of all abilities have a safe, secure, and convenient alternative transportation network of walkways and bikeways that enable everyone to move efficiently to and from such places as work, school, transit, shopping, libraries, parks, and recreation."

Town Actions

Purcellville also has noted the importance of pedestrian and bicycle connections in local planning and policy documents, as noted below.

- The Purcellville Urban Growth Area Management Plan provides guidance to the public and private sectors in coordinating land development activity, and capital facility investments, while documenting community land-use goals and priorities.
- The Purcellville Comprehensive Plan contains policies and guidelines for the physical development and future use of land. One of the goals in the plan is that "Purcellville will be recognized for its effective inter-modal transportation system and quality bicycle and pedestrian accommodations."
- The design guidelines for the Town of Purcellville include provisions for pedestrian access, sidewalks, lighting, and other features that impact the pedestrian environment.
- The Purcellville Downtown Master Plan outlines design and development elements that will impact the pedestrian and bicycle experience in the historic downtown area of Purcellville.

Runner along the W&OD Trail in Purcellville

The Importance of Pedestrian and Bicycle Transportation in Purcellville

Purcellville continues to experience growth around its traditional downtown and in the areas that transition into Loudoun County. Efforts should be made to ensure that people on foot and bicycle are accommodated as part of this growth and development. Transportation improvements should be designed to preserve the ability for people to walk and bicycle for recreation and transportation throughout town.

- ***Improving pedestrian and bicycle facilities will make conditions more comfortable and convenient for all residents of Purcellville.*** Pedestrian and bicycle improvements will make walking and bicycling safer for all ages and abilities of pedestrians and bicyclists. Improvements will enhance mobility and accessibility for all pedestrians, including persons with disabilities. This is important because all residents are pedestrians, including people walking to work, to school, or to the park, as well as people who drive and park in Downtown Purcellville. Bicycle improvements will ensure that bicyclists of all skill levels have convenient and comfortable places to ride.

- ***Better facilities for pedestrians and bicyclists will provide a valuable recreational resource.*** Walking for fitness or recreation has consistently been ranked as the number one outdoor recreational activity by U.S. adults for the past decade, and bicycling has been consistently ranked among the top ten activities[1]. The Town's residents will be more likely to use bicycles for transportation if there are safe places to ride.

- ***Walking and bicycling play a vital role in improving the health of residents of Purcellville.*** Residents of Purcellville need opportunities to meet the Surgeon General's recommendation of 30 minutes of physical activity per day. Efforts to integrate physical activity into people's daily routines (such as opportunities to walk and bicycle) are critically important[2]. Today, there are nearly twice as many overweight children and almost three times as many overweight adolescents in the U.S. as there were in 1980. In Virginia, the prevalence of obesity doubled in the ten years between 1991 and 2001, increasing from 10.1 percent to 20.0 percent of residents[3]. Research conducted in 1999 by the Centers for Disease Control found that "obesity and overweight are linked to the nation's number one killer – heart disease – as well as diabetes and other chronic conditions". The report also states that one reason for Americans' sedentary lifestyle is that "walking and cycling have been replaced by automobile travel for all but the shortest distances."[4]

- ***Developing a network of pedestrian and bikeway facilities will help support tourism and economic development in Purcellville.*** Pedestrian and bicycle improvements can contribute to economic development goals. Pedestrian improvements will foster a vibrant walkable environment Downtown, while improvements to trails such as the W & OD trail, and the roads accessing them can encourage visitors that will support the local economy through the purchase of goods and accommodations.

- ***More greenways and increased levels of walking and bicycling can help to reduce the negative impacts of automobile emissions on air and water quality.*** Vehicle emissions and other motor vehicle pollutants contribute to air and water pollution. Increased levels of walking and bicycling can play an important role in reducing air pollution. National data show that 43.2% of all automobile trips are less than three miles in length[5]. By bicycling or walking instead of driving to a nearby grocery store, park, or workplace, area residents can help reduce the amount of pollutants generated by automobiles. In addition, 60 percent of the pollution created by automobile emissions is emitted in the first few minutes of operation, before pollution control devices begin to work effectively.

- ***Improving pedestrian and bicycle facilities increases the transportation options available to Purcellville residents.*** Walking and bicycling provide transportation for residents who cannot or do not drive. This includes people who are too old or young to drive, people who do not have the means to own and operate an automobile, people who choose to live without an automobile, and many people with disabilities. Bicycling is also an extremely affordable option when compared to the expense of owning and operating an automobile ($120 per year compared to over $5,000 per year).

Recommendations

The recommendations in this section are aimed at creating an interconnected network of sidewalks, bikeways, and roadway crossings so that people have the convenient and comfortable option of bicycling and walking for recreation and transportation.

Pedestrians

Figure 4.2 shows existing, planned, and proposed sidewalks and pedestrian facilities throughout Town. This plan proposes additional sidewalks to make connections to important destinations. The following briefly summarizes the sidewalk network for the Town:

- Existing sidewalks: 22 miles
- Recently constructed or under construction: 12 miles
- Proposed (recommended) sidewalks: 12 miles (approximate)
- **Total sidewalks: 46 miles**

In addition to the sidewalk projects discussed above, crossing improvements are recommended as a part of the transportation plan. Nine additional crosswalks and one new signal are recommended, which are outlined in the following:

- Existing crosswalks: 21 locations
- Improvements to existing crosswalks: seven locations
- New crosswalks: nine locations
- New traffic signals to serve pedestrian crossing: one location

Bicycles

Figure 4.3 shows the locations of existing and proposed paths and on-road bicycle facilities such as bike lanes and shared lane markings. Paths are intended to be shared by pedestrians, bicyclists, and other users. The on-road bicycle facilities are for bicyclists only. The following summarizes existing and future bicycle facilities in Purcellville under the recommended plan:

- Bike lanes: 0.4 miles
- Shared lane facilities: 2 miles
- Shared roadway: 5.75 miles
- Sidepaths: 5.2 miles
- Multiuse paths: 6 miles
- Striped shoulders (proposed): 0.7 miles
- Other trails: 6.7 miles

[1] *National Survey on Recreation and the Environment Version 1-8*, United States Department of Agriculture, 2001
[2] 1998 report of the American Medical Association.
[3] Centers for Disease Control and Injury Prevention.
[4] *Journal of the American Medical Association*, October 1999.
[5] Source: *National Household Travel Survey*, United States Department of Transportation, Bureau of Transportation Statistics, 2001.

Crossings

The Town should look for additional opportunities to improve pedestrian and bicycle conditions at all intersections. Pedestrian crossing islands should be encouraged where sufficient right-of-way and unused roadway pavement exists to reduce crossing distances. Where possible, turning radii should be designed to slow turning vehicles and signals should be timed to accommodate bicyclists and pedestrians.

The Town also should evaluate potential pedestrian crossing islands on Maple Avenue near Loudoun Valley High School. While crossing improvements were added along some stretches of Maple Avenue, students were observed to be crossing at different locations. Pedestrian crossing islands should be considered at locations with high crossing volumes based on a more detailed needs assessment.

Policies

The most efficient way to improve conditions for walking and bicycling is to incorporate pedestrian and bicycle facilities into community design from the outset. It is much more expensive to retrofit pedestrian and bicycle facilities into communities that were originally designed only for automobile access. One of the keys to achieving this is for the Town to ensure that the VDOT *Policy for Integrating Bicycle and Pedestrian Accommodations* is applied to all projects that involve VDOT right-of-way or utilize funds that flow through VDOT.

A critical step in providing convenient and safe options for pedestrian and bicycle transportation and recreation in Purcellville lies in having a strategic plan that is supported by design guidelines, ordinances and other regulations necessary to steer community design and roadway construction. Policies have been adopted at all levels of government to ensure that the community is designed to support walking and bicycling. Additional policies that could be considered are noted below.

Ensure that new developments (both commercial and residential) are safe for walking and bicycling and that the non-motorized transportation and recreation facilities identified in this plan (and other local plans) are constructed during development projects.

The Town should ensure that redevelopment of properties contributes to the Town's long-term vision. It should require future developers to construct the pedestrian and bicycle facilities that are identified in this plan as a part of their developments. Developers should be encouraged to provide connector trails in order to provide access from their developments to surrounding areas. Over time, this will help address concerns about disconnected sidewalks.

Language in regulations could be considered to obtain right-of-way for pedestrian and bike facilities and to tie frontage improvements for developments to the sidewalk, trail, and bicycle needs identified in this plan. Provisions also could be considered to ensure that the proffer system considers pedestrian and bicycle needs. The number of parking spaces that are required in the Zoning Regulations could be reduced to limit unnecessarily large parking lots and provide space for bicycle parking. Regulations could be added to require bicycle parking as part of construction and reconstruction. As part of this, the Town also could develop a policy for bicycle rack placement.

Establish an institutional framework and oversight structure necessary to implement the recommendations of this Plan.

This plan serves as a starting point to provide direction for improving walking and bicycling conditions throughout the Town. It also encourages residents to perform further investigation into opportunities to construct pedestrian and bicycle facilities. A variety of agencies, boards, committees and individuals will play a role in the oversight of future bicycle, pedestrian, and greenway programs and projects.

Develop a maintenance and management program that ensures that facilities are maintained in good repair, both through routine seasonal maintenance and spot repairs.

Since Purcellville will own only portions of the system of recommended pedestrian and bicycle facilities, ensuring good maintenance will require coordination with a variety of other parties. This includes VDOT, developers, and other organizations. VDOT will maintain (e.g., replace and repair) "sidewalks, shared use paths, and bicycle paths built within department right-of-way, built to department standards, and accepted for maintenance" (as per *VDOT Policy for Integrating Bicycle and Pedestrian Accommodations*). This does not include snow and ice removal on sidewalks and shared use paths and does not preclude previous maintenance agreements.

Provide focused training to local agency staff to ensure that pedestrian, bicycle, and greenway needs are incorporated into planning, design, construction, and maintenance procedures for roadway and land use development.

Purcellville should work to provide focused training on pedestrian and bicycle issues. This training will help local agency staff responsible for development reviews and for coordinating with VDOT on transportation projects understand requirements for pedestrian and bicycle accommodation. Providing training on how to incorporate pedestrian and bicycle needs into the planning, design, construction, and maintenance phases of roadway and land development processes is supported by the *VDOT Policy for Integrating Bicycle and Pedestrian Accommodations*. This type of training has been conducted in other Virginia communities and has been funded by VDOT in the past.

Pursue additional grant sources and capital funding as necessary to supplement developer-financed pedestrian and bicycle facilities.

There are a wide variety of grant sources available to support the development of pedestrian and bicycle facilities. The Town should include yearly budget items for pedestrian and bike improvements in order to provide matching funds for future successful grants and to complete special projects that are not grant-funded.

Build Partnerships

The Town should seek to build partnerships with other stakeholders to identify facility needs and implement education and encouragement programs. Transportation planning efforts should be coordinated with other efforts such as the Town's Health, Safety and Wellness Committee, and funding should be pursued jointly. Recommendations from this plan should be incorporated in other local plans, such as the update to the Parks and Recreation Master Plan. The Town also should work to encourage schools to lift any policies that do not allow or discourage students from walking or bicycling to school.

Education, Enforcement, and Encouragement Programs

The physical improvements to pedestrian and bicycle facilities in Purcellville should be complemented by education, enforcement, and encouragement programs. When new sidewalks, shoulders, bike lanes, and pathways are constructed, pedestrians and bicyclists of all skill levels should be educated on how to use these facilities safely. Drivers should be expected to treat pedestrians and bicyclists as legitimate users of the road and operate safely around these non-motorized modes. Unsafe behavior by pedestrians, bicyclists, or drivers should be targeted through law enforcement. At the same time, promotional efforts, such as Walk and Bike to Work Day and developing a public walking and bicycling map can help advertise walking and bicycling fun, healthy forms of recreation and transportation in Purcellville. Additional information on these programs is provided below.

Bicycling and Walking Rodeos

Bicycling and walking rodeos are an opportunity for staff, police, and other leaders to teach safe bicycling and walking behaviors and give children hands-on experience to improve their bicycling skills. The rodeo site can be set up with mock streets, intersections, and houses/stores for the walking course and cones, stop signs, and play vehicles for a bicycle course. These rodeos should be offered several times each year, and could be coordinated with other events, such as running and bicycling races or community bicycle rides.

Pedestrian and Bicycle Safety Education Curriculum

There are a number of existing sources for funding and assistance in integrating pedestrian and bicycle safety education into schools. A potential source for pedestrian and bicycle safety education funding in Virginia is the Department of Motor Vehicle's Safety Grant.

Pedestrian and Bicycle Safety Materials

Purcellville should develop and distribute pedestrian and bicycle safety materials. Potential materials include safety tips on the Town Web site, brochures, handouts, and public safety messages. These materials can be provided at local businesses, schools, and public buildings. Information should be targeted at pedestrians and bicyclists as well as drivers. Important safety topics that should be discussed include:

- Rules of the road
- Road crossing safety
- Proper location and direction for bicycling on the roadway
- Pedestrian and bicyclist visibility to drivers at night
- Yielding to pedestrians and bicyclists at road crossings and giving bicyclists enough space when riding on the roadway
- The relationship between vehicle speeds and the severity of pedestrian and bicycle injuries

Expand Safe Routes to School Programs in Purcellville

The Town should expand Safe Routes to School (SRTS) programs at local schools. This grant source provides 100% (no match required) funding for engineering, education, enforcement, and encouragement programs within two miles of schools that serve kindergarten though the 8th grade. The pilot program could be based on existing models used in Charlottesville and elsewhere to plan physical improvements (including sidewalk construction and pedestrian crossing improvements) and implement safety education programs at interested schools. The goal would be to expand the SRTS program to other schools in the future.

Pedestrian and Bicycle Web site

The Town should develop a Web site to encourage more pedestrian and bicycle activity in Purcellville. The Web site should include maps of on- and off-road walking and bicycling facilities, and recommended bicycle touring routes that provide access to historic and cultural sites in Purcellville. Information also should be provided on pedestrian, bicycle, and driver safety tips. It also should include resources such as bicycle shops, running shoe stores, bicycle clubs, a calendar of events with information about events such as organized rides and walking tours, and links to other Web sites with information about walking, bicycling, and health.

Purcellville Bicycling and Walking Maps and Brochures

Purcellville should work with the Convention and Visitors Bureau to develop maps and brochures to show residents and visitors preferred routes for bicycling and walking. These materials would provide information about the benefits of non-motorized transportation and physical activity, pedestrian and bicycle safety tips, bicycling rules, bicycle parking, and information about local bicycling and walking organizations.

Community Events

Purcellville should work with the Chamber of Commerce, local volunteer groups, and local villages to sponsor events such as community bike rides for children, family bicycle tours, walk-a-thons, community trail walks, interactive historic walking tours, and guided walking and cycling tours for elected officials. The Town should work with local pedestrian and bicycle advocates to encourage individual localities to organize and participate in annual Walk- and Bike-to-Work Day activities.

Educational Campaign on the Benefits of Walking and Bicycling

Most people are aware of the environmental benefits of walking and bicycling instead of driving an automobile, yet do not fully realize the health benefits that walking and bicycling provide. This strategy encourages the development of bikeways, walkways, and trails to promote physical activity and wellness programs for people of all ages in Purcellville. The initiative should emphasize the links between walking and bicycling and weight loss, disease prevention, lower health care costs, and longer lives for all members of the community.

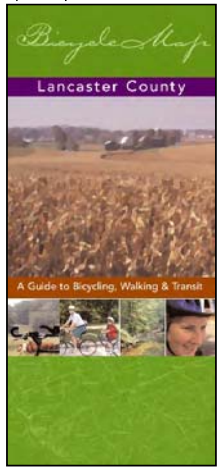
Employee Pedestrian and Bicycle Commute Incentive Programs

Purcellville should encourage pedestrian and bicycle commuting by providing information about economic benefits, health benefits, and potential commuting routes to employers and employees. Public agencies in Purcellville should be model employers by considering the following actions:

- Offering monetary incentives for employees who walk or bicycle to work
- Providing showers and lockers for employees
- Working with local bicycling and walking groups to provide "pedestrian and bicycle mentors" to demonstrate to employees who have always driven to work how it may be possible to bicycle or walk to work
- Encouraging employees who live in locations that are safe and convenient for walking and bicycling to work to participate in Walk- and Bike-to-Work Day.

Walk and Bicycle to School Day

Purcellville should work with local schools to increase participation in International Walk and Bicycle to School Day (held each year in October). Walk to School Days have been instituted at many schools throughout Virginia over the past decade. They increase awareness of bicycling and walking as fun, healthy transportation choices that can reduce automobile congestion and pollution near schools.



Pedestrian and Bicycle Education for Law Enforcement Officers

Purcellville should offer educational training to officers about pedestrian and bicyclist rights and responsibilities as well as aggressive motor vehicle behavior toward bicyclists and pedestrians. As a model, the Maryland Office of Highway Safety organizes safety training events for officers to raise awareness of rights, rules, and appropriate responses to incidents involving conflicts between

motor vehicles, bicycles, and pedestrians. Educating law enforcement officers can lead to increased enforcement of the following behaviors:

- Motorist not yielding to pedestrians in crosswalks
- Motorist speeding
- Motorist running red lights
- Unsafe pedestrian and bicycle behaviors

Purcellville should establish a Pedestrian and Bicycle Enforcement Hotline (this could be shared with a Maintenance Hotline) for pedestrians and bicyclists to use when they observe or are affected by unsafe driving behaviors.

Pedestrian and Bicycle Safety Awareness Programs

Purcellville should work with the Police Department to develop a pedestrian and bicycle safety awareness program. This type of program can result in significant improvements in motorist behavior at the local level. For example, the Laurel, MD Police Department holds an annual Pedestrian Safety Awareness Week in its downtown each year. Each day, they focus on a different theme, culminating in a Safety Saturday event aimed at raising general awareness of pedestrian issues. Weeklong activities include speed trailers on Main Street, targeted enforcement (drivers who do not yield to pedestrians at crosswalks are ticketed), and safety awareness messages.

Police Bicycle Patrols

The Purcellville Police Department should apply for grants and other resources to establish a bike patrol. Police bicycle patrols increase the visibility of law enforcement as well as bicycling in general. This also will help involve law enforcement more extensively in bicycling issues. Bicycle squad members should work with the local organizations to provide bike and pedestrian safety education through youth groups and schools, as well as simply talking with residents on their beats. Professional law enforcement also can be supplemented with volunteer and community-based patrols. This approach can be used with great success on multiuse trails, and along walking and biking routes to school. In the future, bike patrols can be provided in communities in other parts of Purcellville.

Transit Recommendations

A misconception in the civic debate is that public transportation is a solution for traffic congestion. Furthermore, the expectation that transit should "pay for itself" through fare box collections is an unfair measure of the value of the service. Adequate public transportation offers a choice in the way we travel. Transit cannot and should not be expected to remedy our lengthening commute times, worsening traffic congestion, or diminishing air quality; however, frequent and reliable transit service gives travelers a choice and provides a service that helps cities and regions remain economically competitive.

By definition, *public transportation* includes everything from taxis and shuttles to commercial airlines and intercity buses, all of which can have a greater or lesser impact on our lives on any given day. On the other hand, *public transit* is most often locally and regionally focused and greatly affects the daily lives of those who rely on it to get to and from work, to and from shopping, to and from entertainment, to and from medical appointments, to and from the grocery store—to and from any location that otherwise might be reached by private automobile.

> *"The mobility of the majority of the American population is greater than ever, and we remain the most mobile nation on earth. However, there are subgroups within the population that have significant mobility constraints and the gap between these groups and the general population is growing."*
>
> -Nationwide Personal Transportation Survey (NPTS), 1995 (page 30)

Improvements in public transportation can help bridge the mobility gap not only for those who rely on public transportation, but also for those who choose to use public transportation. Good—not just adequate—public transportation can bridge the gap between the mobility constrained and those who move about freely. Providing good public transportation is essential in creating communities that offer real travel choices.

Transit riders are generally separated into two groups—dependent or choice. Captive transit riders use transit because they must, typically due to lack of access to a personal vehicle or because of a physical challenge. On the other hand, choice riders leave their personal vehicle at home or a park-and-ride lot to use their travel time more wisely and perhaps spare the operational and parking costs associated with driving. In the past, transit operations and planning were focused mostly on serving captive riders. Modern transit planning seeks opportunities to build ridership by continuing to offer attractive services to dependent riders while encouraging choice riders to use transit more often.

This section provides recommendations to meet the transit needs of Purcellville and to fully integrate transit with the other modes of transportation in the Town. In many regards, Purcellville will continue to rely on other agencies, jurisdictions, and services, many of which are not entirely within the Town's control, to offer transit services. As planning occurs for transit in Loudoun County, it will be imperative that Purcellville's leadership is involved in decision-making processes that affect service to the Town.

Facility Recommendations

Within the Town's control are the facilities and other accommodations that are provided to transit riders. The Town already has a good start on an interconnected sidewalk network. Moving forward, the transportation plan identifies an enhanced bicycle and pedestrian network, designating the links essential to conveying transit riders to services and destinations.

Bus Shelters and Stops

In a similar effort, the Town has started to invest in amenities at bus stops with its relatively recent purchase and installation of a bus shelter and bench at the Town Hall, at 16th Street, and on Maple Avenue. Moving forward, the Town should continue to locate bus shelters in key areas of town as shown in **Figure 4.12** and summarized below:

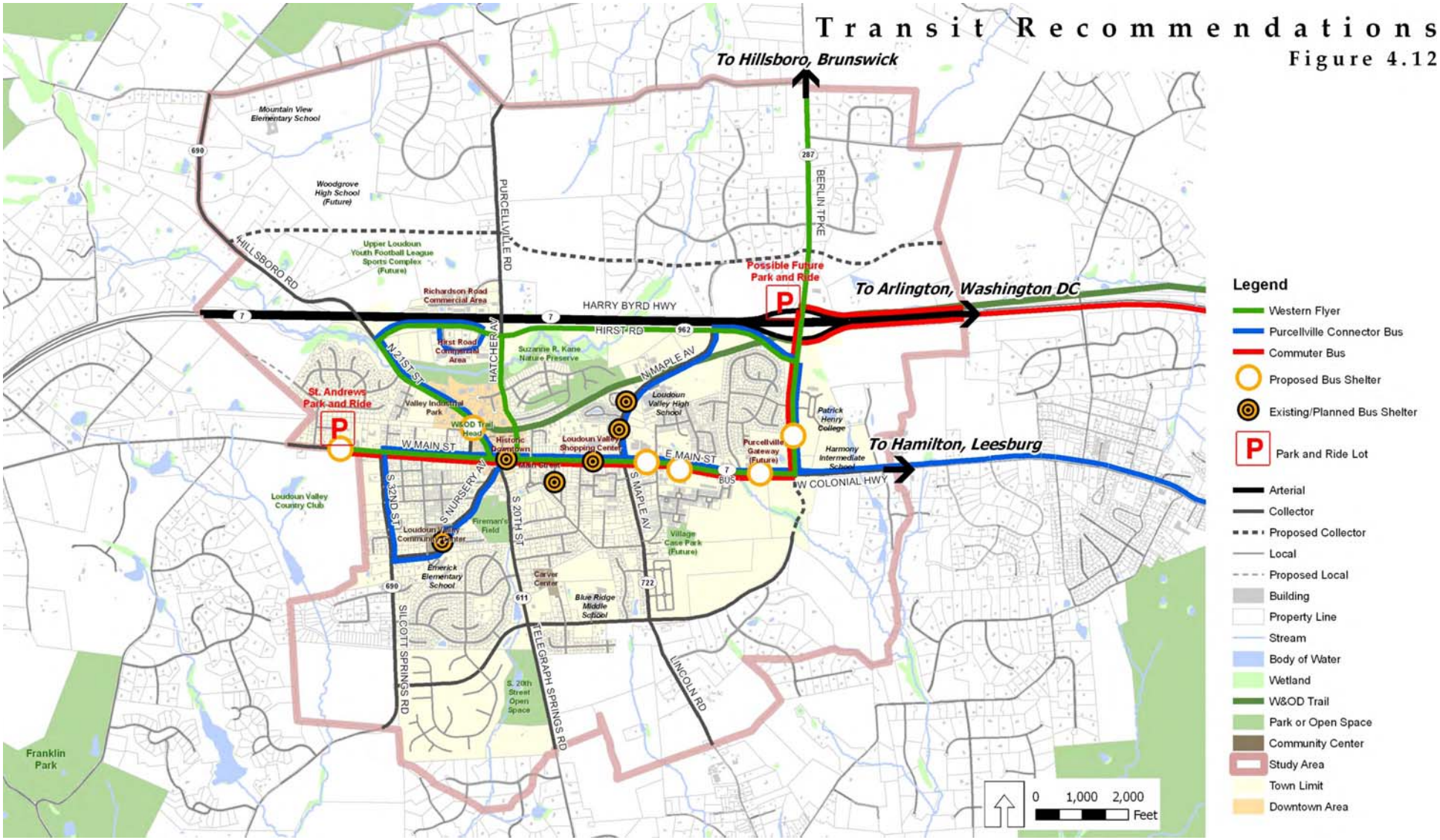
- Vicinity of the Main Street/Maple Avenue intersection on Main Street
- Vicinity of St. Andrews park-and-ride lot
- Vicinity of the Main Street/Berlin Turnpike intersection
- Downtown on 23rd or 21st Street
- On Nursery Avenue to serve the community center

Placement

As a starting point, it is recommended that Purcellville reference the county's location standards for bus shelters. According to the standards, 16-foot long shelters shall be provided at transfer points, commuter bus stops, and other locations where high boarding concentrations are anticipated. Smaller, 12-foot long shelters shall be provided in other priority locations. Shelter accessories should include solar lighting with both timer and motion detector options, benches, route information, and trash receptacles. Maintenance of shelters erected on private property shall be maintained by the property owner according to Loudoun County's standards (in Purcellville, shelters are maintained by VRT). Shelters located in VDOT or county right-of-way shall be the responsibility of Loudoun County. The county will supply appropriate route information.

Transit Recommendations

Figure 4.12

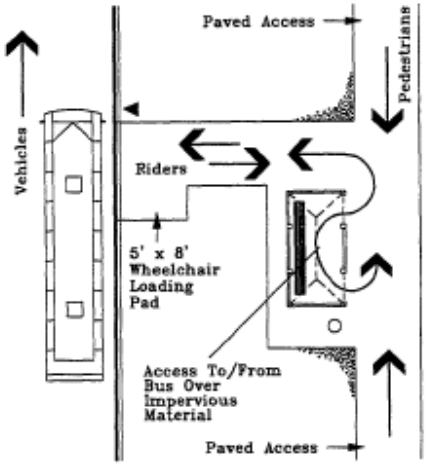


Legend

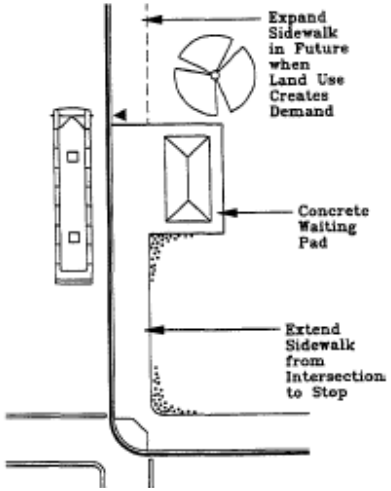
- Western Flyer
- Purcellville Connector Bus
- Commuter Bus
- Proposed Bus Shelter
- Existing/Planned Bus Shelter
- P Park and Ride Lot
- Arterial
- Collector
- Proposed Collector
- Local
- Proposed Local
- Building
- Property Line
- Stream
- Body of Water
- Wetland
- W&OD Trail
- Park or Open Space
- Community Center
- Study Area
- Town Limit
- Downtown Area

Configuration

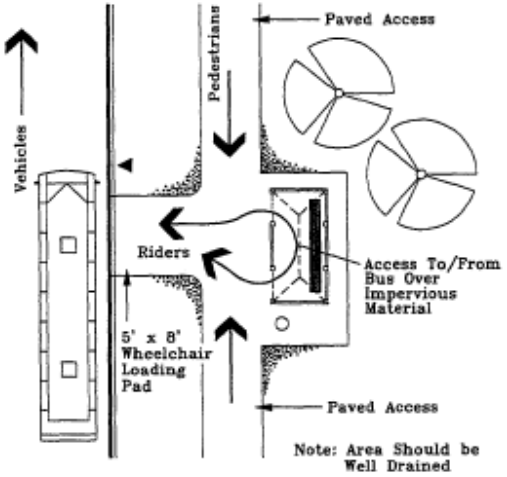
Further elaborating on these standards, the Transportation Research Board (TRB) provides good guidelines for the location and design of bus stops. The following illustrations show examples of proper configurations of bus stops with shelters placed in several different locations.



This illustration shows the placement of a shelter in the verge, adjacent to the sidewalk. It indicates the need for a paved, accessible connection to be constructed between the sidewalk and paved shelter pad to facilitate universal access to the transit service. In this instance, the open face of the shelter is turned away from the street and oriented toward the sidewalk. This configuration is typical for mid-block and intersection located bus stops.



This illustration shows the placement of a shelter at the back of a sidewalk that is located adjacent to the curb (no verge). In this configuration, the shelter is placed on a paved pad. Care should be taken in this shelter location/configuration to avoid the placement of the shelter near or within a "splash zone" (area where puddles in the road are frequent and likely to splash a waiting passenger. This configuration is typical for mid-block and intersection located bus stops. The sidewalk condition shown is typical for Purcellville in that many of the Town's sidewalks are not separated from the street by a landscaped verge.



This illustration shows the placement of a shelter on the back of a sidewalk that is separated from the street by a landscaped verge. It indicates the need for a paved, accessible connection to be constructed between the sidewalk and paved shelter pad to facilitate universal access to the transit service. In this instance, the open face of the shelter is turned toward the sidewalk and street. Care should be taken in this shelter location/configuration to avoid the placement of the shelter near or within a "splash zone" (area where puddles in the road are frequent and likely to splash a waiting passenger. This configuration is typical for mid-block and intersection located bus stops.

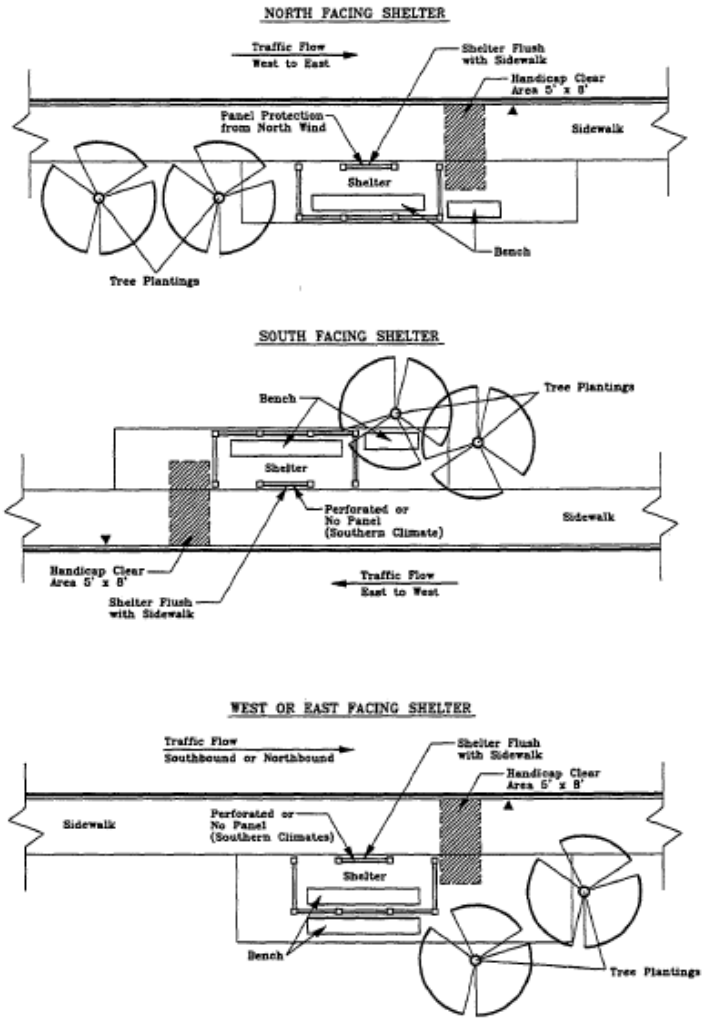
In addition to the general configuration of bus stops and the shelter placement, in each of the previously described conditions for configuration, the open face of shelters can be rotated. Deciding which face of the shelter is open depends on a variety of factors including the likelihood of a waiting passenger to be splashed by a passing vehicle, overall site constraints, environmental conditions (slopes, landscape, prevailing wind, sun exposure, shade, etc.), and size/type of shelter. The following illustrations show several bus stop and shelter layouts that take into consideration some environmental factors.

Park-and-Ride Lots

Park-and-ride lots should be designed to create a high-quality pedestrian-friendly environment and be located to take advantage of commuter traffic patterns. They should be located near major arterial and collector roads, near activity centers, linked to surrounding neighborhoods by sidewalks and bicycle facilities, have adequate lighting, waste receptacles, and appropriate landscaping. Park-and-ride lots should have priority consideration for the installation of bicycle lockers and racks. Within park-and-ride lots, boarding locations should be designated, signed, and provide service and other travel information. The provision of seating and weather protection should be evaluated and all relevant provisions of the Americans with Disabilities Act should be incorporated.

The park-and-ride lot at the St. Andrews Presbyterian Church will be served in the future by bicycle and pedestrian facilities planned for Main Street. Bike lanes and sidewalks are planned along Main Street and the parking lot also is close to the planned extension of the W&OD Trail west of its current terminus. As the park-and-ride lot also is along the route of the Purcellville connector, a shelter should be located to benefit both commuter and local bus services, but not to intrude on private property.

At some point in the future, Purcellville and Loudoun County may not have the opportunity to use the St. Andrews Church parking lot to serve park-and-ride needs. A long-term park-and-ride lot solution should begin to be studied for Purcellville area commuters. With the majority of peak-period travel oriented to and from the Route 7 Bypass, a location convenient to the Route 7 Bypass/Berlin Turnpike interchange should be targeted.



Two locations have been previously identified for a new park-and-ride lot in the Route 7 Bypass/Berlin Turnpike interchange vicinity—the southwest quadrant of the interchange and the northwest quadrant of the interchange. Both locations would be well-served by major area streets—Hirst Road, Route 7 Bypass, and Berlin Turnpike. Both locations also would be served by the W&OD trail. A general discussion of each location is provided in the following:

- **Southwest quadrant location:** This location would be bounded by Hirst Road on the south, Berlin Turnpike on the east, and the Route 7 Bypass eastbound off-ramp on the north. A right-in/right-out access could be provided on Berlin Turnpike; however, it would be very close to the off-ramp and to the Hirst Road/Berlin Turnpike intersection. This site would rely on Hirst Road for access, which would need to be located as far from Berlin Turnpike as possible.

- **Northwest quadrant location:** This location would be to the north of the Route 7 Bypass, just north of the westbound on-ramp as studied by VDOT in 2003. Primary access could be provided on Berlin Turnpike; however, it also could be provided on the planned future collector road shown on the transportation plan.

A park-and-ride lot in the southwest quadrant would well-serve the residents of Purcellville, but could further congest the Berlin Turnpike/Hirst Road intersection. A lot located in the northwest quadrant location also would serve Purcellville residents with the added benefit of providing easy access for commuters arriving from the north on Berlin Turnpike. When the Southern Collector Road is completed, the lot in the northwest quadrant would be able to intercept commuters traveling northward without those travelers having to divert into the town to reach a park-and-ride lot. Based on the current understanding of the park-and-ride lots and locations available, the northwest quadrant location is preferred and should be studied further.

Chapter 5

IMPLEMENTATION

Chapter 5: Implementation Plan

Introduction

The transportation plan for Purcellville identifies physical and policy-like recommendations to support the evolution of the transportation system as it responds to growth and change in the Town. The plan takes a multimodal approach to accommodating growth in travel demand—people's desire to travel from one place to another—focusing not singularly on the efficient movement of vehicles, but instead on the movement of people regardless of travel mode.

In the immediate- and short-term periods, the plan identifies measures to remedy existing transportation issues and basic mobility and access issues. Mindful of future growth, the plan also recommends additional study and policy discussions in order to establish the guiding framework to support the Town's continued growth.

Overview

To implement elements of the transportation plan will require the partnership of a number of entities including the Town, Loudoun County, the Virginia Department of Transportation, private transportation providers, neighborhood residents, elected officials, private land owners, developers, and other parties. Achieving success in Purcellville will require cooperation, coordination, compromise, and investment. Aspects of many of the recommendations contained in the plan will need to be further developed through comprehensive feasibility studies, designs, detailed concept planning, and public outreach. Key steps in implementation include the following:

- **Adoption:** the plan should be approved by the Transportation Committee and the Town Council. It should be included as a part of the Town's comprehensive plan. Projects of regional significance also should be incorporated into Loudoun County and other regional transportation plans.
- **Prioritization:** projects should be ranked according to factors such as funding availability, importance to the area, problem-solving capability, support (political, public, business, etc.), cost, and benefit.
- **Assignment of responsibility:** identification of the implementing agency, department, group, or individual.
- **Programming:** individual projects need to be designated to funding sources and included in appropriate programs.
- **Additional study/concept development:** many recommendations need further definition before proceeding to design.
- **Design**
- **Construction/Operation**

The following summary describes recommendations for all elements of the plan, identifies a subset of all available funding sources to implement projects, provides costs for key projects, and identifies the next steps in the plan implementation process.

Summary of Plan Recommendations

A summary of all plan recommendations is presented in **Table 5.1**. This table indicates the facility or plan element, a description of the recommended action, the general project type, responsible parties/organizations, follow-up action, relation to plan goals, and implementation timeframe. Immediate, short-, mid-, and long-term timeframes are described in the following:

- **Immediate-term (0 to 1 year):** includes mostly low-cost, easily implementable recommendations that set the stage for the future (planning, policy, and studies) or to improve minor physical and/or operation deficiencies at specific locations. Although addressing the items within this classification may require more than a year to complete, it is intended that the process for accomplishing these recommendations will begin within the timeframe specified.
- **Short-term (1 to 6 years):** includes more complex and expensive (time, effort, and money) projects. This group of projects starts to put infrastructure and services in-place to build ridership, shift travel patterns, and continue to support growth in town. The intent is that these projects will be programmed, have funding identified, and then be undertaken as funding becomes available with the short-term horizon.
- **Mid-term (7 to 15 years):** includes increasing complex and expensive (time, effort, and money) projects. To address many of these recommendations will require partnership among multiple entities. In addition to beginning to address town mobility needs, a number of these projects will include elements that will contribute to an appreciable shift in the transportation network, increasing the balance between vehicular and non-vehicular travel.
- **Long-term (beyond 15 years):** includes substantial projects of more significant complexity and expense (time, effort, and money). This group of recommendations will further affect the Town's transportation network. Some of these recommendations will need to have feasibility studies conducted and design, as well as partnership to proceed.

Objectives

Plan objectives are briefly summarized below for reference:

Purcellville's transportation system will…

A. Support community growth and maturation;
B. Provide facilities that function appropriately in serving vehicles, pedestrians, bicycles, and transit;
C. Provide a high-quality transportation experience for all users and modes of transportation;
D. Ensure transportation safety and security;
E. Improve community connectivity, preserve special community assets, and promote attractive environments; and
F. Educate and provide information to the public on available travel mode options.

Table 5.1: Summary of Plan Recommendations

	Element/Facility/Recommendation	Description	General Project Type	Responsibility	Follow-up Action	Related Objective(s)	Timeframe for Implementation			
							Immediate-term (< 1 year)	Short-term (1 to 6 years)	Mid-term (7 to 15 years)	Long-term (beyond 15 years)
	Intersections/Spots									
1	Main Street/Colonial Highway/Berlin Turnpike	Construct a single-lane roundabout that can be expanded to provide two circulating lanes in the future	Roundabout	Developer	Design and construction	A, B, C, D, E		✓		
2	Main Street/20th Street/Nursery Avenue	Install traffic signal	Signalization	Town/Developer	Feasibility study, design, and construction	A, B, C, D			✓	
3	Main Street/32nd Street	Install traffic signal	Signalization	Town	Feasibility study, design, and construction	A, B, C, D			✓	
4	Hirst Road/Berlin Turnpike	Install a right-turn lane on Hirst Road	Turn lane	Town	Feasibility study, design, and construction	A, B, C, D		✓		
5	Main Street/32nd Street	Construct a single-lane roundabout	Roundabout	Town/Developer	Feasibility study, design, and construction	A, B, C, D, E				✓
6	A Street/32nd Street	Construct a single-lane roundabout	Roundabout	Town/Developer	Feasibility study, design, and construction	A, B, C, D, E			✓	
7	A Street/20th Street	Construct a single-lane roundabout	Roundabout	Town/Developer	Feasibility study, design, and construction	A, B, C, D, E		✓		
8	A Street/Maple Avenue	Construct a single-lane roundabout	Roundabout	Town/Developer	Feasibility study, design, and construction	A, B, C, D, E			✓	
9	Main Street/Maple Avenue	Construct intersection improvements consistent with the current design underway	Intersection reconstruction	Town	Design and construction	A, B, C, D		✓		
10	Main Street/20th Street - Teardrop	Reconstruct the Teardrop and realign 20th Street south to intersection 20th Street north	Intersection reconstruction	Town/Developer	Feasibility study, design, and construction	A, B, C, D			✓	
11	Maple Avenue/Hirst Road	Reconstruct the intersection and provide an exclusive left-turn lane on Hirst Road (westbound), a right-turn lane on Hirst Road (eastbound), and a right-turn lane on Maple Avenue (northbound) or construct a single-lane roundabout	Intersection reconstruction	County (Woodgrove HS)	Feasibility study, design, and construction	A, B, C, D		✓		
12	Hillsboro Road/Allder School Road	Construct improvements identified in the Woodgrove High School plan	Intersection reconstruction	County (Woodgrove HS)	Feasibility study, design, and construction	A, B, C, D		✓		
13	Hirst Road/Hatcher Avenue	Construct an exclusive southbound (Hatcher Avenue) left-turn lane and an exclusive westbound right-turn lane (Hirst Road)	Roundabout	County (Woodgrove HS)	Feasibility study, design, and construction	A, B, C, D, E			✓	
14	Purcellville Road/Northern Collector	Construct a single-lane roundabout	Roundabout	Town/Developer	Feasibility study, design, and construction	A, B, C, D, E				✓
15	Hillsboro Road/Northern Collector	Construct a two-lane roundabout	Roundabout	Town/Developer	Feasibility study, design, and construction	A, B, C, D, E				✓
16	Allder School Road/Purcellville Road	Construct an eastbound (Purcellville Road) right-turn lane	Intersection reconstruction	County (Woodgrove HS)	Design and construction	A, B, C, D, E		✓		
	Corridors									
17	Main Street	Prepare a feasibility study/corridor study to identify a unified vision for the corridor from Berlin Turnpike to west of 32nd Street and identify specific physical improvements corridor-wide	Study	Town	Study	A	✓			
		West of 32nd Street and east of Berlin Turnpike, construct a two-lane cross-section with left-turn lanes at major intersections and wide paved shoulders for bicycles	Street widening	Town/Developer	Feasibility study, design, and construction	A, B, C, D			✓	
		Between Berlin Turnpike and 12th Street, construct a two-lane cross-section with left-turn lanes to serve major driveways and intersections	Street widening	Town/Developer	Feasibility study, design, and construction	A, B, C, D		✓		
		Between 32nd Street and 23rd Street and Hatcher Avenue and 12th Street, provide a two-lane section with left-turn lanes at key intersections and on-street parking where possible	Enhancement	Town/Developer	Feasibility study, design, and construction	A, B, C, D, E		✓		

Table 5.1: Summary of Plan Recommendations

	Element/Facility/Recommendation	Description	General Project Type	Responsibility	Follow-up Action	Related Objective(s)	Timeframe for Implementation			
							Immediate-term (< 1 year)	Short-term (1 to 6 years)	Mid-term (7 to 15 years)	Long-term (beyond 15 years)
		Between 23rd Street and Hatcher Avenue, provide a two-lane section with left-turn lanes at key intersections and on-street parking where possible	Enhancement	Town/Developer	Feasibility study, design, and construction	A, B, C, D, E		✓		
		Between 32nd Street and 23rd Street and Hatcher Avenue and 12th Street, maintain the existing cross-section and provide sharrows to indicate a shared lane condition	Enhancement	Town	Design and construction	A, B, C, D, E		✓		
17	Berlin Turnpike (Route 287)	Reconstruct the corridor as a four-lane boulevard from the northern PUGAMP area boundary to Main Street	Street widening	Town/VDOT/County	Feasibility study, design, and construction	A, B, C, D			✓	
18	A Street	Conduct a detailed review of safety conditions and consider the removal of all-way stop signs at Sturbridge Court and Devonshire Circle	Study	Town	Study	A, C, D	✓			
19	Southern Collector Road	Construct an extension of A Street from its current northeast terminus to Main Street as a two-lane road	Street extension	Town/VDOT/County	Feasibility study, design, and construction	A, B, C, D, E		✓		
20	20th Street	Realign 20th Street (south) in the vicinity of the Teardrop to align with 20th Street (north)	Realignment	Town/Developer	Feasibility study, design, and construction	A, B, C, D, E			✓	
		Realign the section of 20th Street north of Main Street to tie to the reconfigured Teardrop	Street reconfiguration	Town/Developer	Feasibility study, design, and construction	A, B, C, D, E			✓	
21	Hatcher Avenue	Reconfigure the street between the W&OD Trail and Hirst Road to provide striped bike lanes and two travel lanes	Street reconfiguration	Town	Feasibility study, design, and construction	A, B, C, D, E			✓	
22	Route 690 (32nd Street)	As development occurs, create a two-lane cross-section with graded shoulders and a side path on the east side from A Street to Main Street	Street widening	Town/County/Developer	Feasibility study, design, and construction	A, B, C, D	✓			
23	Nursery Avenue	Realign Nursery Avenue to tie directly to 20th Street, south of Main Street	Street realignment	Town	Feasibility study, design, and construction	A, B, C, D, E			✓	
24	23rd Street	Construct streetscape improvements	Enhancement	Town	Feasibility study, design, and construction	A, B, C, D, E		✓		
25	21st Street (Route 690)	Construct streetscape improvements	Enhancement	Town	Feasibility study, design, and construction	A, B, C, D, E		✓		
		Create a consistent two-lane cross-section from 23rd Street to Hirst Road	Street widening	Town	Feasibility study, design, and construction	A, B, C, D			✓	
26	Hillsboro Road	Widen to four lanes from Route 7 Bypass to Allder School Road	Street widening	Town/VDOT/County	Feasibility study, design, and construction	A, B, C, D				✓
27	Maple Avenue	Reconstruct the corridor with curb-and-gutter from the W&OD trail to Hirst Road	Street reconstruction	Town/Developer	Feasibility study, design, and construction	A, B, C, D			✓	
28	Hirst Road	Create a consistent two-lane cross-section with left-turn lanes at intersections, right-turn lanes at major driveways, and a continuous side path	Street reconstruction	Town/Developer	Feasibility study, design, and construction	A, B, C, D			✓	
29	Allder School Road	Create a consistent two-lane cross-section with left-turn lanes at intersections and a sidewalk on one side	Street reconstruction	Town/VDOT/County (Woodgrove HS)	Feasibility study, design, and construction	A, B, C, D		✓		
30	Northern Collector Road	Construct a new two-lane corridor from west of Berlin Turnpike to Hillsboro Road (Route 690)	New street	Town/VDOT/County/Developer	Feasibility study, design, and construction	A, B, C, D, E				✓
31	Western Collector Road	New collector roadway connecting between Main Street and Route 690 – include on Loudoun County's plan	New street – study	Loudoun County	Amend County Transportation Plan	A, B, C, D, E		✓		
32	O Street	Connect O Street between 21st Street and Hatcher Avenue	New street	Developer	Feasibility study, design, and construction	A, B, C, D, E		✓		
	Interchange									
33	Berlin Turnpike/Route 7 Bypass Ramps	Construct an additional through lane on southbound Berlin Turnpike between the westbound ramps and eastbound ramps	Turn lane	Town/VDOT/County	Feasibility study, design, and construction	A, B, C, D		✓		

Table 5.1: Summary of Plan Recommendations

	Element/Facility/Recommendation	Description	General Project Type	Responsibility	Follow-up Action	Related Objective(s)	Timeframe for Implementation			
							Immediate-term (< 1 year)	Short-term (1 to 6 years)	Mid-term (7 to 15 years)	Long-term (beyond 15 years)
		Construct an additional northbound through lane on Berlin Turnpike between the eastbound and westbound ramps	Turn lane	Town/VDOT/County	Feasibility study, design, and construction	A, B, C, D			✓	
		Construct an additional left-turn lane on the westbound off-ramp	Turn lane	Town/VDOT/County	Feasibility study, design, and construction	A, B, C, D		✓		
		Construct a left-turn lane on the eastbound off-ramp	Turn lane	Town/VDOT/County	Feasibility study, design, and construction	A, B, C, D			✓	
		Construct a northbound left-turn lane to serve the westbound on-ramp	Turn lane	Town/VDOT/County	Feasibility study, design, and construction	A, B, C, D			✓	
		Construct a southbound left-turn lane to serve the eastbound on-ramp	Turn lane	Town/VDOT/County	Feasibility study, design, and construction	A, B, C, D		✓		
		Construct a southbound left-turn lane to serve the westbound on-ramp	Turn lane	Town/VDOT/County	Feasibility study, design, and construction	A, B, C, D				✓
		Construct a northbound right-turn lane to serve the eastbound on-ramp	Turn lane	Town/VDOT/County	Feasibility study, design, and construction	A, B, C, D				✓
		Install a traffic signal when warranted at the Berlin Turnpike/eastbound ramp intersection	Traffic signal	Town/VDOT/County	Feasibility study, design, and construction	A, B, C, D		✓		
		Construct a left-turn lane on the eastbound off-ramp	Turn lane	Town/VDOT/County	Feasibility study, design, and construction	A, B, C, D			✓	
34	Route 7 Bypass/Route 690	Construct an interchange	Interchange	Town/VDOT/County	Feasibility study, design, and construction	A, B, C, D, E				✓
	Transit									
35	East Park-and-ride Lot	Develop concept plans for a park-and-ride lot on the east side of Purcellville in proximity to the Route 7 Bypass	Study	Town/County	Study	A	✓			
		Develop new park-and-ride lot on east side of town	Park-and-ride	Town/County	Design and construction	A, B, C, E		✓		
36	Bus shelters	Locate bus shelters in downtown near 21st/23rd intersection, at St. Andrews park-and-ride, near the Loudoun Valley Community Center, on Main Street near Maple Avenue, on Main Street near Purcellville Gateway, and on Berlin Turnpike near Purcellville Gateway	Bus shelter	Town/Developer	Location and installation	A, B, C, E		✓		
	Pedestrians and Bicycles									
37	Main Street	Provide wide paved shoulders west of 32nd Street and east of Berlin Turnpike	Bike facility	Town/Developer	Feasibility study, design, and construction	A, B, C, D, E			✓	
		Provide shared lane markings and signage between 32nd Street and 12th Street	Bike facility	Town	Feasibility study, design, and construction	A, B, C, D, E		✓		
		Install "Share the Road" signage between 12th Street and Berlin Turnpike	Signage	Town	Feasibility study, design, and construction	A, B, C, D, E		✓		
38	Berlin Turnpike	Provide an off-street multi-use path along the west side of the corridor from Main Street to Allder School Road	Multi-use trail	Town/Developer	Feasibility study, design, and construction	A, B, C, D, E			✓	
39	A Street	Extend the multi-use path along A Street to Main Street as a part of the Southern Collector Road completion	Multi-use trail	Town/Developer	Feasibility study, design, and construction	A, B, C, D, E		✓		
40	32nd Street	Complete the side path along the east side between A Street and Main Street	Side path	Town	Feasibility study, design, and construction	A, B, C, D, E		✓		
41	20th Street	Complete the multi-use path along the west side between A Street and E Street	Multi-use trail	Town	Feasibility study, design, and construction	A, B, C, D, E			✓	
		Provide shared lane markings and signage between E Street and Main Street	Bike facility	Town	Feasibility study, design, and construction	A, B, C, D, E			✓	
42	Maple Avenue	Provide shared lane markings and signage between A Street and Main Street	Bike facility	Town	Feasibility study, design, and construction	A, B, C, D, E		✓		

Table 5.1: Summary of Plan Recommendations

	Element/Facility/Recommendation	Description	General Project Type	Responsibility	Follow-up Action	Related Objective(s)	Timeframe for Implementation			
							Immediate-term (< 1 year)	Short-term (1 to 6 years)	Mid-term (7 to 15 years)	Long-term (beyond 15 years)
		Construct a multi-use trail between Main Street and Loudoun Valley High School consistent with the North Maple Avenue trail project	Bike facility	Town	Design and construction	A, B, C, D, E		✓		
		Realign the W&OD Trail at its crossing with Maple Avenue to reduce the existing skew and improve safety	Bike facility	Town/Park Authority	Feasibility study, design, and construction	A, B, C, D, E		✓		
43	Telegraph Springs Road	Provide an off-street multi-use path on one side from south of town to A Street	Bike facility	Developer/County	Feasibility study, design, and construction	A, B, C, D, E				✓
44	Northern Collector Road	Provide a side path on one side	Bike facility	Town/County	Feasibility study, design, and construction	A, B, C, D, E				✓
45	Allder School Road	Provide a sidewalk along one side from Hillsboro Road to Berlin Turnpike	Pedestrian facility	Town/County	Feasibility study, design, and construction	A, B, C, D, E		✓		
46	Hirst Road	Provide a side path along the south side (parts exist) from 21st Street to Berlin Turnpike	Bike facility	Town/Developer	Feasibility study, design, and construction	A, B, C, D, E			✓	
		Install refuge medians on Hirst Road at the W&OD Trail crossing to improve safety	Bike facility	Town/Park Authority	Feasibility study, design, and construction	A, B, C, D, E		✓		
47	Hatcher Avenue	Provide bike lanes on both sides from Hirst Road to the W&OD Trail	Bike facility	Town	Feasibility study, design, and construction	A, B, C, D, E			✓	
		Provide shared lane markings from the W&OD Trail to Main Street	Bike facility	Town	Feasibility study, design, and construction	A, B, C, D, E		✓		
48	Purcellville Road	Construct a multi-use path along the west side between the Route 7 Bypass bridge and the Northern Collector	Multi-use path	Town/County/Developer	Feasibility study, design, and construction	A, B, C, D, E				✓
49	Washington & Old Dominion Trail	Provide a trail extension from 21st Street to the vicinity of 28th Street	Bike facility	Town	Feasibility study, design, and construction	A, B, C, D, E		✓		
		Install refuge medians on Hirst Road at the W&OD Trail crossing to improve safety	Bike facility	Town/Park Authority	Feasibility study, design, and construction	A, B, C, D, E		✓		
		Realign the W&OD Trail at its crossing with Maple Avenue to reduce the existing skew and improve safety	Bike facility	Town/Park Authority	Feasibility study, design, and construction	A, B, C, D, E		✓		
50	Hillsboro Road	Provide an off-street multi-use path on one side from Route 7 Bypass to the Woodgrove High School trail system	Bike facility	Town/County	Feasibility study, design, and construction	A, B, C, D, E				✓
51	21st Street	Provide shared lane markings and signage between Main Street and 23rd Street	Bike facility	Town	Feasibility study, design, and construction	A, B, C, D, E		✓		
		Create connections to existing nature trails parallel to 21st Street north of 23rd Street	Path	Town	Feasibility study, design, and construction	A, B, C, D, E			✓	
52	Hillsboro Road	Construct a multi-use path between the Route 7 Bypass bridge and the ULYFC	Multi-use path	Town/County	Feasibility study, design, and construction	A, B, C, D, E			✓	
53	23rd Street	Provide shared lane markings and signage between Main Street and 21st Street	Bike facility	Town	Feasibility study, design, and construction	A, B, C, D, E		✓		
54	Hirst Road	Complete the existing side path system along the south side of Hirst Road	Bike facility	Town/Developer	Feasibility study, design, and construction	A, B, C, D, E			✓	
55	Nursery Avenue	Provide "Share the Road' signage	Signage	Town	Design and construction	A, B, C, D, E	✓			
56	Southern Collector Road	Provide a trail extension of A Street trail to connect to Main Street	Bike facility	Town/County	Feasibility study, design, and construction	A, B, C, D, E		✓		
57	Neighborhood Connectors	As shown on Recommended Bikeway Network	Signage/markings	Town/Neighborhood	Design and construction	A, B, C, D, E		✓	✓	✓
58	New off-street trails	As shown on Recommended Bikeway Network	Trail	Town	Feasibility study, design, and construction	A, B, C, D, E		✓	✓	✓
59	Bike and Pedestrian-related Policies	As indicated in Recommendations (Chapter 4)	Policy	Town	Action by Staff	F		✓		

Planned Short-Term Projects

A number of projects are already included in state and local programs for implementation. Planned short-term projects include improvements currently in the design phase or scheduled to begin in the next five to six years. The following identifies projects that are already programmed:

- **Main and Maple Intersection Improvements**
  - Intersection safety and traffic operations modifications (project also listed under VDOT 6-year plan)
- **Purcellville Gateway Improvements**
  - Signalization of site access with Main Street and Berlin Turnpike
  - Modification of Berlin Turnpike and West Main Street intersection into a roundabout
- **21st Street Streetscape**
  - Traffic calming measures and pedestrian improvements including sidewalks, crosswalks, lighting, and landscaping
- **23rd Street Streetscape**
  - Traffic calming measures and pedestrian improvements including sidewalks, crosswalks, lighting, and landscaping

Projects in VDOT 6-Year Plan

The following projects are state funded and budgeted for completion in the next six years.

- Provide multiple sidewalk enhancements at various locations to be determined by the town of Purcellville
- Construct a sidewalk on north side of Main Street from 28th Street to 33rd Street
- Develop a 75-space commuter parking lot

Specific Bicycle and Pedestrian Plan Implementation Items

Short-Term Projects

Several of the project and program recommendations should be implemented soon after this plan is adopted. These short-term projects will improve pedestrian and bicycle conditions in specific areas, creating early successes for decision-makers to highlight and users to enjoy. These short-term projects will build momentum for the other recommendations contained in the plan.

Add bicycle facilities as part of the road resurfacing and road widening process

Ongoing transportation projects represent one of the most important opportunities for implementing the recommendations of this plan. All roadway resurfacing, repaving, widening, and improvement projects should be evaluated to determine whether it is possible to provide the pedestrian and bicycle facility recommendations included in this plan as part of the planned road project. The bicycle and pedestrian recommendations maps should be reviewed prior to the creation of the annual road resurfacing list.

Fill identified gaps in the pedestrian network

The Town should continue to fill gaps in the pedestrian and bicycle network in the near-term. Many projects are already in engineering and construction stages and the Town should continue to be aggressive in completing its sidewalk network. Filling these gaps will ensure that people can walk and bike along linear networks of connected facilities. For example, constructing new sidewalks along 21st Street would connect residential neighborhoods with sidewalks on Ashleigh Road and Glenmeade Circle to the existing sidewalks on Main Street.

Implement priority multi-use path connections

The Town should pursue priority multi-use path projects that enhance connections between the on-road bicycle network and the trail network. On-road bicycle facilities can fill gaps in the trail network and connect different trail segments. Trails can provide alternate routes to difficult roads and provide a bicycling environment that is more comfortable for children and less experienced bicyclists. Providing seamless connections between on-road bicycle facilities and greenways also supports the goal of making bicycling throughout the Town a more viable transportation choice. One example of a priority multi-use path connection is along A Street between Valley Springs and Elliott Drive.

Improve pedestrian and bicycle connections to schools

The Town should seek to enhance access to schools by constructing sidewalks, improving crossing conditions, and installing pedestrian-actuated signals. New sidewalks on A Street would enhance pedestrian connections in the vicinity of Blue Ridge Middle School. In addition, bike lanes on Maple Avenue would enhance bicycle connections in the vicinity of Loudoun Valley High School.

Improve pedestrian and bicycle connections to important destinations

The Town should seek to enhance access to destinations by constructing sidewalks, improving crossing conditions, and installing a wayfinding signage system. These pedestrian and bicycle improvements should be considered throughout Downtown, as well as to other destinations such as Franklin Park and the trail to Lovettsville.

Pursue a phased improvement strategy for Main Street

The Town should pursue a phased strategy for on-road bicycle facilities on Main Street. It should develop bicycle lanes on Main Street around Route 287 (Cole's Farm) and around the intersection of Nursery Street and 32nd Street where the existing roadway width allows, and install shared lane markings where it does not. For the sections that are not wide enough, the Town should ensure that future developments along Main Street push the curb back and/or preserve the right-of-way so that bicycle lanes can be added over time.

Implement a series of initial destination-based signed routes

Purcellville should develop a signed route system that provides a connected network of pedestrian and bike facilities. This route should provide a logical and efficient network of facilities throughout the Town to encourage walking and bicycling. In order for the signed route network to function well, signs should provide directional and wayfinding information. The signs should provide functional connections to link key destinations such as schools, greenways and shopping centers. Initial signed routes could highlight connections to the W &OD Trail and to Fireman's Field. These initial segments should serve as the skeleton of the emerging signed route system. Additional signed segments should be added over time that connect to and branch off of the initial signed routes so that in the future Purcellville's signed route system connects the entire Town.

Provide Bicycle Parking

Bicycle parking is an important but often overlooked part of a bicycle-friendly community. A bicycle network is not complete unless there is a place to safely, securely and conveniently park at the end of a trip. Bicycle parking is a unique part of the bicycle network in that it often does not occur in the public right-of-way. In lower-density areas where buildings are set back from the street, and in areas with constrained right-of-way, cooperation with private development is critical to ensure bicycle parking is provided in a safe, secure, and convenient location. The Town should consider a Bicycle Parking Partnership Program to offer the use of town-owned bicycle racks free of charge to businesses on the condition that they are installed and maintained privately.

Pursue Spot improvements

For the pedestrian and bicycle network to function properly, specific intersections will have to be improved to provide enhanced access. The Town will need to identify, design, and implement spot improvements such as adding bicycle detection at selected traffic lights and providing left-turn pockets for bicyclists, on

an ongoing basis. In many cases, these improvements should be completed prior to or in tandem with signing a route.

Long-Term Recommendations

Long-term recommendations include providing shoulders on many higher-volume rural roadways and constructing much of the trail system. While these recommendations may be included in the long-term category, there may be opportunities for implementing them sooner. For example, bicycle facilities could be included as a part of a new roadway project added to the Transportation Improvement Program or a new bicycle program could be provided by applying to a new grant funding source. The Town should take advantage of these opportunities for implementation.

As has been noted, upcoming transportation projects represent one of the most important considerations in implementing the recommendations of this plan. All resurfacing, repaving, and improvement projects should be evaluated to determine whether it is possible to provide the bicycle facility recommendations as part of the planned project.

Potential Funding Sources

Transportation improvements are expensive but essential, for both economic development and quality of life. Road, transit, pedestrian, and bicycle improvements in town will be integral to attracting new residents, maintaining quality of life, and in the long-term, maintaining a strong a stable community. The following is a sample of funds available to implement capital projects, programs, and services as well as execute policies in Purcellville.

Town Capital Improvement Program

The Capital Improvement Program (CIP) identifies the physical facilities and improvements planned for the Town to support and enhance neighborhoods, stimulate the Town's economy, and improve services to the town. CIP projects are generally permanent improvements to the Town's infrastructure, transportation, and otherwise. The process for planning capital improvements is continuous and evolves to address aging infrastructure and priorities.

There are a number of federal programs that fund transportation, some of which apply and are appropriate to recommendations identified in this plan. Federal transportation funding programs, most of which are administered through various VDOT programs include the following:

- Earmarks: allocations of funding for specific projects as identified in budgets approved by lawmakers
- Interstate Maintenance: funds the major rehabilitation of existing (not new) interstate facilities not adding additional capacity
- National Highway System: funds interstates, primary routes, and major highways
- Bridge: funds structure inspection
- Surface Transportation Program: funds are distributed based on federal rules, which include a population Equity Bonus to balance appropriation to individual states according the Appropriation Act
- Congestion Mitigation Air Quality (CMAQ): funds are distributed to areas with air quality issues for the purpose of reducing emissions through the mitigation of congestion
- Highway Safety Improvement Program (HSIP): funds are distributed based on need
- Transit: there are a variety of transit funds available for both operations and capital improvements
- Recreational trails programs
- Bicycle transportation and pedestrian walkways (NHS)

State

There are a number of state programs that fund transportation, some of which apply and are appropriate to recommendations identified in this plan. State transportation funding programs, administered by a number of departments for varying purposes, address vehicular and non-vehicular transportation. In addition to new construction and maintenance funds, funds also are available for varying degrees of study. A sample of programs relevant to the recommendations in this plan includes the following:

- Six-Year Plan: the state's primary program for transportation improvements statewide. It addresses the funding needs for all modes of transportation
- Enhancement Funds: primarily fund projects that benefit non-vehicular elements of the transportation system such as bikeways, streetscapes, and sidewalks
- Multimodal Planning Grants: are competitive and primarily focused on the preparation of multimodal plans that provide recommendations on more strongly linking land use and transportation
- Transportation Partnership Opportunity Fund (TPOF): encourages the funding of construction projects through the Public-Private Transportation Act (PPTA)

Public/Private

Though many large-scale public/private transportation initiatives and programs (PPTA and similar) do not apply to the recommendations in this plan, local mechanisms requiring private contributions to transportation infrastructure do apply. The proffer system as well as negotiated and voluntary contributions for the new construction and improvement of transportation infrastructure and services are important. In addition, as development continues to occur in the Town, internal street systems (the layout, configuration, and connectivity) created by development can contribute meaningfully to the completion of the overall town street network.

Tax Increment Financing

Tax increment financing (TIF) districts can be established within a geographically defined area to use future gains in real estate property taxes from a project to finance the public improvements associated with the project. As private development invests in areas of town and improves the public infrastructure, often there is an increase in the value of surrounding real estate, which can increase tax revenues. Increased revenue from a TIF district can then be used for studies, streetscape, public amenities and services, or other infrastructure.

Next Steps

While this plan is comprehensive in its approach to transportation, for individual elements to be implemented and for the Town to evolve in the long-visioned form and scale, further study and planning will need to occur. A comprehensive urban design plan needs to be developed with supporting regulatory policy documentation to explicitly guide public and private reinvestment in the Town and ensure a desirable pattern and form—scale, massing, appearance, and configuration—of development. More refined project schedules, candidate funding sources, and priorities (neighborhood, political, and functional) will need to be developed and identified for transportation projects and the development of policies and programs. Key items requiring further study are identified in **Table 5.1**.

Appendix A

PUBLIC WORKSHOP SUMMARY

Appendix A

Public Comments from Workshop 1

Things Citizens Liked about Purcellville

- Washington & Old Dominion (W&OD) Trail
- Easy access to the region
- Sense of community
- Size of the Town
- Services the Town provides
- The Town is just close enough to nearby cities and the metro area, but far enough to be individual
- Sidewalks
- Neighborhood and family friendly atmosphere
- Good economic conditions that contribute to quality of community
- Quality of schools

Citizens' Ideas about the Future of Transportation in Purcellville

- Interchange at Route 690/7 Bypass
- Consistent street lighting level, design, and theme
- Create ways to promote walking
- Build trail connections to the W&OD around town
- Provide opportunities for and encourage children to walk and bicycle to school
- Prepare a bike safety course to advocate safe bicycling in town
- Educate drivers regarding the rules of the road, especially with regard to bicyclists and pedestrians

Citizens' Ideas for Main Street

- Preserve Main Street's character
- Limit the number of traffic signals
- Maintain the existing number of travel lanes
- Limit sign clutter
- Implement practical improvements
- Features on Main Street should include:
  - Sidewalks on both sides
  - Covered bus stops
  - Gateway features
- Start a "Without a Doubt, Let Them Out" program
- Create shared off-street parking
- Reduce non-Purcellville through traffic volumes
- Improve signal timing at Hatcher Avenue and 23rd Street
- Install a traffic signal at Route 690 (21st Street)

King or Queen Exercise

For this exercise, participants were asked, "if I were King or Queen, I would improve transportation in Purcellville in the following ways." A summary of responses are the following:

Vehicular interests

- Improve Main Street
  - Fix the Main Street/Maple Avenue intersection
  - Fix the signal timing (better traffic progression)
  - Improve the streetscape (more pedestrian amenities, better landscaping, bury the utilities, provide for bicycles)
  - Install reversible lanes
- Construct an interchange with Route 7 at Route 690
- Construct the Southern Collector Road (A Street Extension)
- Install traffic calming measures on neighborhood streets
- Create a program to "mandate manners" for drivers
- Install measures to reduce vehicle travel speeds
- Extend O Street

Transit

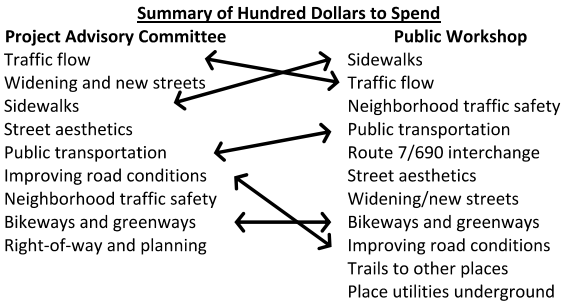
- Install benches at bus stops
- Install shelters at bus stops

Pedestrians and Bicycles

- Sidewalks
  - Complete the sidewalk network
  - Improve existing sidewalks
- Crosswalks
  - At Patrick Henry College
  - At other locations
- Trails
  - Create in-town connections
  - Create connections to destinations out-of-town (Round Hill, Franklin Park, Hillsboro)

One Hundred Dollars to Spend Exercise

For this exercise, participants were asked, "if you had $100 to spend on transportation improvements, how would you spend it? The money can be spent on one item or spread around." A summary comparison of responses from town citizens and the Project Advisory Committee is shown at right. The arrows indicate where there is correlation between the responses of the two groups.



Character Preference Survey

Workshop participants were asked to indicate their preference on characteristics shown in various snapshot photos using red and green sticky dots. Red dots indicated a dislike and green dots indicated a character that was liked. A summary of responses is shown below.

Public Comments from Workshop 2

Street Connection Starter Idea Exercise

Concepts for possible street connections were developed and are shown in **Figures A.1**, **A.2**, and **A.3**. Using these figures as a discussion aid, citizens were asked to comment on the connections and provide their input on other ideas for new streets, trails, or other connections. For ease of discussion, the Town was divided into three areas—downtown, north, and east. A summary of comments on the street connections shown for each area are the following:

Comments on Downtown Connections

- These are good ideas, but more connections are needed to overcome the cul-de-sacs
- O Street Connector was liked
- Option 2 or 3 of the Teardrop Connector was liked
- Teardrop options would help to get traffic off Main Street
- Option 3 of the Teardrop Connector streets east of Route 611 need to be connected
- Priorities for improvement
  - Main Street/Maple Avenue intersection
  - Southern Collector (A Street extension)
  - New interchange at Route 7/690
  - Main Street improvements
  - Allocate money on traffic improvements first, then spend money on beautification
  - Add left-turn phases at traffic signals and improve signal timing on Main Street, especially during school release
  - Deal with the core before the edges, more capacity and access is needed in downtown
  - More public street connections to major roads

Figure A.1: General Downtown Purcellville Street Connection Ideas Developed Prior to Public Workshop
(New streets shown only represent connections and not specific alignments)

Comments on Northern Purcellville Connections

- Allder School Road upgrade was liked
- Wright Farm Drive extension (any option) was liked
- Northern Collector Road was liked, but should be a low priority
- For Wright Farm Drive extension, Option 3 was preferred because it would best serve planned non-residential development and minimize the impact on existing and planned residential development
- Extend Option 3 to Route 287, south of existing residential development
- Extend Tranquility Road
- Want a new interchange with Route 7—Option A or B
- A new interchange on the west might add to downtown traffic
- Route 7/Route 690 interchange is the most important and is more important than the Southern Collector
  - Interchange could be paid for by developers
  - Option B maintains existing roads
  - Option A is much better than Option B because Option A does not impact wetlands
  - Option A will be a more usable interchange because it might be proffered and will mitigate traffic on 21st Street
  - Option B will affect wetlands

Comments on Southeast Purcellville Connections

- Like and need A Street Extension (four comments)
  - Like Options 2 and 3
  - Connection is important, but should not divide the farm, place sufficiently sized culvert to allow farm equipment to cross under the road
- Southern Collector route is not needed

Figure A.2: General Northern Purcellville Street Connection Ideas Developed Prior to Public Workshop
(New streets shown only represent connections and not specific alignments)

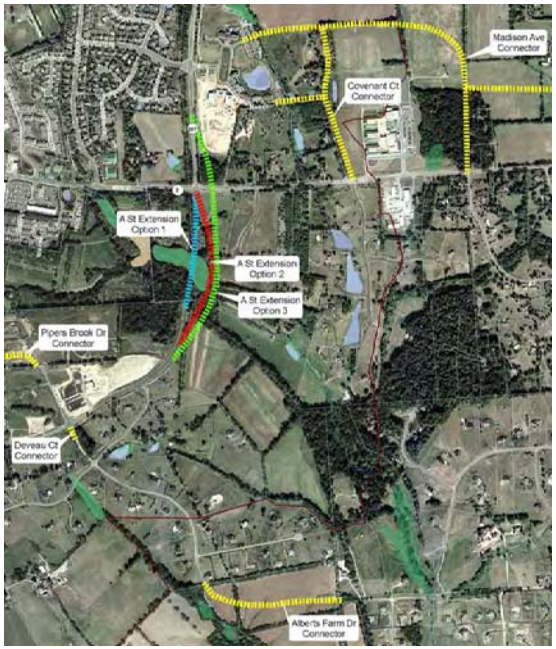


Figure A.3: General Southeast Purcellville Street Connection Ideas Developed Prior to Public Workshop
(New streets shown only represent connections and not specific alignments)

Be a Transportation Planner Exercise

In this input exercise, citizens were tasked with drawing their own future transportation systems—vehicular and non-vehicular—for the Town using an aerial map of the study area. For the vehicular network exercise, participants were encouraged to designate new street corridors, gateways, and interchanges. For the non-vehicular network exercise, participants were encouraged to draw the links they wanted that would complete the town's sidewalk, trail, and bicycle networks. A summary of the resulting vehicular and non-vehicular network ideas are shown in **Figures A.4** and **A.5**.

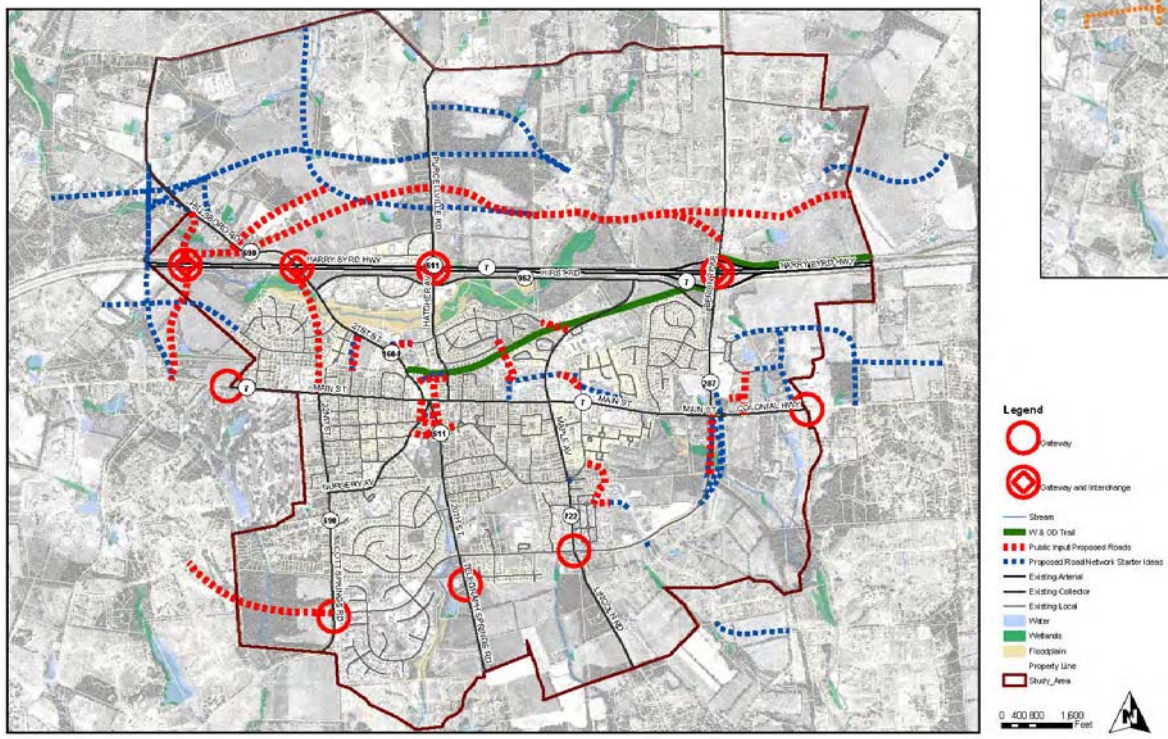
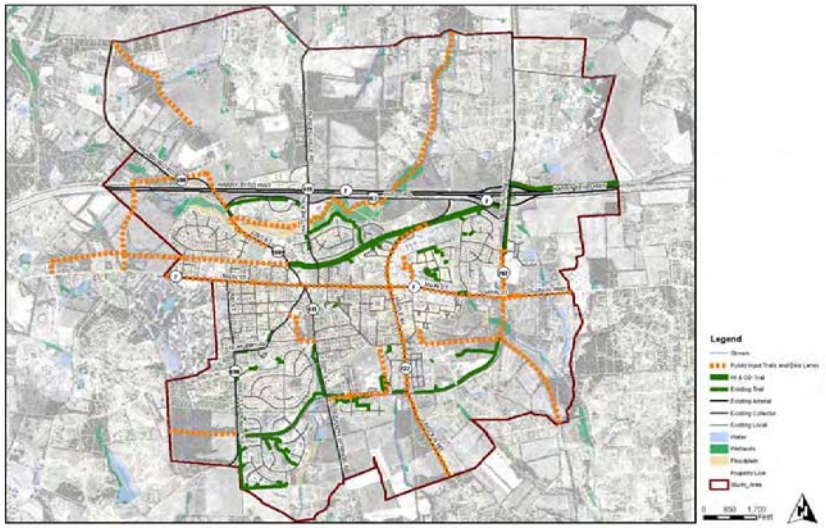


Figure A.4: Citizen Input on the Vehicular Transportation Network

Figure A.5: Citizen Input on the Non-vehicular Transportation Network



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STAFF REPORT
WORK SESSION ITEM

Item # 4

SUBJECT: Discussion of Upcoming Comprehensive Plan Workshops

DATE OF MEETING: September 22, 2016

STAFF CONTACT: Daniel Galindo, AICP – Senior Planner

SUMMARY:
Staff and the Planning Commission will discuss the upcoming Comprehensive Plan Workshops scheduled for:

1. Saturday, September 24th from 10AM to 12PM at the Carver Center,
2. Saturday, September 24th from 2PM to 4PM at the Carver Center, and
3. Thursday, September 29th from 7PM to 9PM at Town Hall.