STRASBURG 2020
TRANSPORTATION PLAN

DEVELOPED BY THE
TRANSPORTATION PLANNING DIVISION

OF THE

VIRGINIA DEPARTMENT OF TRANSPORTATION

IN COOPERATION WITH

THE U.S. DEPARTMENT OF TRANSPORTATION, FEDERAL HIGHWAY ADMINISTRATION

&

THE TOWN OF STRASBURG

February 2002

This report does not constitute a standard specification, regulation or provide a funding mechanism for the included transportation recommendations.

INTRODUCTION

The Strasburg 2020 Transportation Plan was developed as a joint effort between the Virginia Department of Transportation and the Town of Strasburg. The purpose of the study was to evaluate the transportation system in the Strasburg Area and recommend a set of transportation improvements that could best satisfy the existing and future transportation needs of the Town. This study identified needs based upon capacity, roadway safety, geometric conditions, and land use.

Transportation system improvements remain vital to the continued economic growth and development of the state of Virginia, as well as the local areas. The provision of the safe and efficient movement of people and goods is a basic goal of the State transportation program. It is with this objective in mind, and with further consideration of environmental issues and local desires, that this transportation plan has been developed.

The Virginia Department of Transportation (VDOT) will use this plan when evaluating requests from local governments for specific transportation projects and/or the implementation of Department initiated projects. The list of recommendations will also be used in the statewide transportation planning process to measure the statewide magnitude of needs.

STUDY AREA THOROUGHFARE SYSTEM

The Town of Strasburg is located in Shenandoah County, along I-81. U.S. Route 11 and State Route 55 meet in the center of Town. The North Fork of the Shenandoah River forms the southern boundary of the corporate limits. A finite urban area within the corporate limits was established for purposes of this transportation study. Additionally, in January 2000, the Town annexed an area north of Route 11 and Route 55. This area was incorporated in the study limits for this transportation plan.

Inside the study area, a specific set of roadways have been selected and designated as the area's urban thoroughfares. These roads have been approved by the Virginia Department of Transportation, the Federal Highway Administration, and the Town of Strasburg. The urban thoroughfare system consists of roads that are functionally classified as collectors or arterials. The subsequent analysis and recommendations were limited to those designated roadways comprising the urban thoroughfare system, any new roadways proposed by this plan, and any local unclassified road segments specifically requested by representatives of the Town of Strasburg. In addition to the automobile, the following modes of transportation were also evaluated: bicycle and pedestrian facilities; intercity rail; bus and air travel; transit, paratransit, and taxi; and goods movement.

DEMOGRAPHIC OVERVIEW

The population in the Town of Strasburg has increased from 3,750 in 1990 to about 4,000 in the year 2000. Population forecasts show the number of people in the Strasburg area continuing to increase into the future. At this time, manufacturing is the largest employment group in Strasburg, with professional and related services as the second largest group. Continued commercial and residential development is anticipated within the corporate limits.

PHASE ONE: BASE YEAR ROADWAY RECOMMENDATIONS

Massanutten Street

From Route 55 (John Marshall Highway) to East Thompson Street:
Eliminate parking and provide a center turn lane.

From East Thompson Street to just south of Lee Street:
The section of Massanutten Street from E. Thompson Street to just south of Lee Street will need to be widened to accommodate three lanes.

The total estimated cost of this Phase I recommendation is $525,900 ($328,700 for construction and $197,200 for right-of-way).

Intersection of Massanutten Street and Washington Street

Install a traffic signal and coordinate with existing signals on Massanutten Street from State Route 11 to King Street. The projected cost for installing a signal at this location is $180,000.

Stover Avenue / U.S. Route 11

Re-stripe Stover Ave from the western corporate limits to Capon Street to provide a center turn lane. The segment length is 0.44 miles in length. The total cost for this recommendation is $42,300.

Capon Street

Reconstruct Capon Street from King Street to Route 55 to a standard two-lane roadway with a minimum pavement width of 30 feet, curb, gutters, and sidewalks. This improvement has a total length of 0.63 miles and the total cost for the reconstruction will be $1,984,500 ($1,323,000 for the construction and $661,500 for the right-of-way).

Washington Street

Reconstruct Washington Street, from Massanutten Street to Eberly Street, to a standard two-lane cross-section. The total pavement width should be 30 feet. The improvement will be over 0.61 miles and the total cost will be $1,921,500 ($1,281,000 for the construction and $640,500 for the right-of-way).

PHASE TWO: INTERIM YEAR (2010) ROADWAY RECOMMENDATIONS

Massanutten Street / U.S. Route 11

Reconstruct US Route 11 from just south of Lee Street to the northern corporate limits from a two-lane roadway with a center turn lane to a four-lane roadway with a raised median. The length of the reconstruction is approximately 0.83 miles. The total estimated cost of the reconstruction is $6,598,500 ($4,399,000 is the cost for the reconstruction and the right-of-way will cost $2,199,500).

Queen Street Extension

Extend Queen Street from Sharpe Street to Stover Avenue (0.06 miles). This project will require a bridge approximately 300 feet long to cross the small ravine between Sharpe Street and Stover Avenue. The new section will be a standard two-lane cross-section and will reduce traffic volumes on King Street and Holliday Street by providing an alternate route through town. Tractor-trailers will be prohibited from using Queen Street. The projected cost of this project is $1,200,000 ($1,011,000 for the bridge construction, $126,000 for construction of the roadway, and $63,000 for the right-of-way).

Route 11 & Route 55 Bypass

Provide bypass between U.S. Route 11 and State Route 55. The proposed roadway will be approximately 0.36 miles in length, and will connect with Route 11 at the intersection of Massanutten Street and Crystal Lane. It is recommended that a signal be installed at the intersection of Massanutten Street and Crystal Lane. Additionally, the bypass should intersect Route 55 at Capon Street. This improvement will create a four-legged intersection and will improve traffic flow on Route 11 and at the intersection of Massanutten Street and John Marshall Highway. The total estimated cost is $1,314,000 ($756,000 for the construction, $378,000 for the right-of-way, and $180,000 for the installation of the signal).

Eastern Bypass

Extend Crim Drive north to connect with Crystal Lane. The new roadway will have a standard urban two-lane cross-section, and truck prohibition. This project, in combination with the previously mentioned Capon Street and Route 11/Route 55 Bypass recommendations, will provide a bypass around the northern half of the downtown area. It will enable many local trips to avoid congestion in the downtown area (in particular Massanutten between Washington and John Marshall Highway, and King between Massanutten and Capon). The Bypass will improve traffic conditions on US Route 11 (Massanutten Street), Washington Street and through the downtown area. This improvement will also include the reconstruction of Crim Drive (from Laurie Drive to Washington Street) and Marshall Street (from Washington Street to King Street) to standard two-lane roadways. Additional intersection improvements to realign the intersection of Crim Drive / Marshall Street and Washington Street will be required to complete the bypass. The estimated cost for this improvement is $1,260,000 ($839,000 for the construction of the new road and reconstruction of the local roads and $420,000 for the total right-of-way).

PHASE THREE: STUDY YEAR (2020) ROADWAY RECOMMENDATIONS

Intersection of King Street and Holliday Street

Provide southbound and eastbound right turn lanes along with northbound and westbound left turn lanes (approximately 120 feet of parking will be removed). Adjust signal timing for this intersection to coordinate with signals on King Street. The total cost for this recommendation is $120,000.

Intersection of Massanutten Street and King Street

Readjust signal timing for this intersection and coordinate signals on King Street and Massanutten Street to improve traffic flow. Signal coordination will ensure maximum flow of vehicles. The total cost for this recommendation is $120,000.

Intersection of Massanutten Street and John Marshall Highway

Improve traffic flow by installing a traffic signal at the intersection of Massanutten Street (US Route 11) and John Marshall Highway (State Route 55). Provide a left turn lane eastbound on State Route 55. The signals on Massanutten Street from State Route 11 to King Street should be coordinated to provide maximum flow of vehicles on this road segment. The total cost of installing a signal at this location is $315,000.

OTHER MODES OF TRANSPORTATION

Parking

Parking needs in the Town of Strasburg are met through municipal off-street parking facilities. In the downtown area, along US 11, parallel on-street parking is provided. Two of the recommendations (the intersection of King Street and Holliday Street and the intersection of Massanutten Street and John Marshall Highway) require the removal of on-street parking from short stretches of Massanutten Street, King Street, and Holliday Street.

Bicycle / Pedestrian

There are no recommendations related to bicycle and pedestrian access. However, pedestrian access will be improved as roadway locations are upgraded to an urban cross-section. Sidewalks will be included in the widening at these locations.

Transit, Paratransit, and Taxi

Paratransit service exists as on-demand transit for elderly and disabled persons. There are no other transit or taxi services in Strasburg. Park-and-ride activities occur in the municipal parking lots. No recommendations are being made for transit, paratransit, and taxi services as part of this transportation plan.

Goods Movement

Goods movement will be influenced by roadway recommendations including the Eastern Bypass, which will prohibit tractor-trailers in the residential area in the eastern section of town. As stated in the Town of Strasburg Comprehensive Plan (1991), two railroads connect in Strasburg. One is owned and operated by Norfolk-Southern and the other by CSX. The rail lines are solely used for freight. Truck traffic is excluding from Queen Street, from Holliday Street to Aileen Avenue. There are no explicit recommendations made for goods movement.

Intercity Rail, Bus and Air Travel

Currently, there is no passenger rail service, bus service or air service located in the Town of Strasburg. Greyhound Bus Lines provides passenger bus service from Winchester or Harrisonburg, Virginia. Air travel is available at the Winchester Regional Airport, 18 miles from Strasburg, which provides a mix of private and corporate services. Dulles International Airport is located 60 miles east of Strasburg in Chantilly, Virginia, and provides commercial domestic and international air service. No improvements for intercity rail, bus or air travel are recommended at this time.

LOCAL ROADWAY PROJECTS

Dickenson Lane
A local project to extend Dickenson Lane to Crystal Lane as a two-lane rural roadway to provide an additional route to a residential area on the eastern side of Strasburg. The proposed road segment will be 0.05 miles in length and have a total cost of $75,000 ($50,000 for construction and $25,000 for right-of-way).

Local Road
Two facilities, a new water treatment plant and a parking lot for school related activities, will be constructed along the southern corporate limits of the Town. A local road to the east of the new facilities will be constructed to provide access into and out of this area. It will provide an alternative entrance/exit to the high school when events are held there. The cost of building the new roadway will be $225,000.

ENVIRONMENTAL OVERVIEW

An environmental overview was conducted for the widening (providing additional travel lanes) and new roadway recommendations identified in this plan. The results of the environmental overview were included in the analysis of the recommended improvements for the Strasburg 2020 Transportation Plan Technical Report.

LOCAL COORDINATION & CITIZEN PARTICIPATION

The development of the Strasburg 2020 Transportation Plan included several coordination meetings with local staff members of the Town and included a public meeting held with VDOT representatives, PDC representatives, Town officials, and residents of Strasburg. For information on all thoroughfare roadways, contact the Town of Strasburg or visit the project web site at http://www.vdoturbanplans.com.

The coordination meetings consisted of a kick-off meeting, two existing conditions meetings, and a draft recommendations meeting. The kick-off meeting, held in November 1999, enabled the project team to discuss with local staff the purpose and scope of the study, the schedule for data collection and plan preparation, and the coordination process. A baseline condition meeting was held to discuss the existing conditions in December 2000. The existing conditions meetings allowed the project team to present the results of baseline and horizon year traffic analysis and the local staff to communicate desired transportation needs. The draft recommendations meeting was held in July 2001; there the project team presented and discussed the draft 2020 Transportation recommendations with Town officials. Input was provided by Town staff and used to prepare the final recommendations.

A public meeting was held at the Strasburg Town Offices on King Street on January 8, 2002. The purpose of this meeting was to present the recommendations to Town officials, citizens, and other interested parties, and to receive comments on the plan.

PLAN ADOPTION

The Strasburg Town Council adopted the Strasburg 2020 Transportation Plan at the Town Council meeting on February 12, 2002.

ADDITIONAL INFORMATION

More details on the development of the Strasburg 2020 Transportation Plan and the study recommendations are available in the Strasburg 2020 Transportation Plan Technical Report and the Strasburg 2020 Transportation Plan website, http://www.vdoturbanplans.com/strasburg.htm.

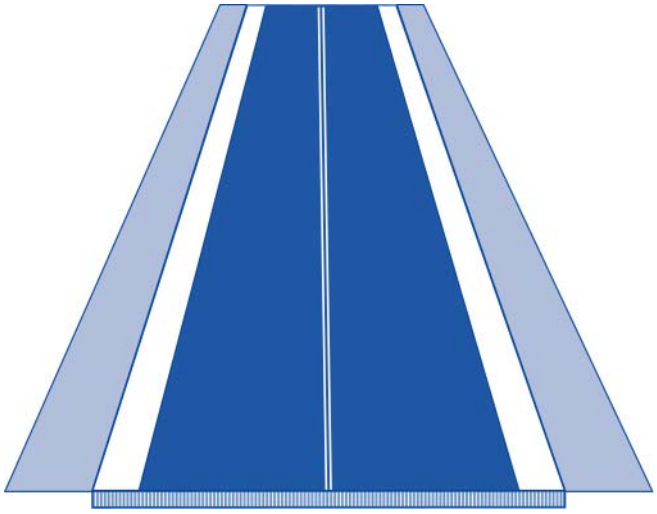
In addition to this 2020 transportation plan for the Town of Strasburg, the Virginia Transportation Development Plan (VTDP) also addresses transportation needs. The VTDP is a comprehensive listing of transportation projects scheduled for construction or improvement over the next six fiscal years, as well as anticipated funding allocations. Projects included in the Virginia Transportation Development Plan (VTDP) are not part of this recommendations package. The VTDP can be reviewed online at VDOT's website, http://virginiadot.org/. Information on VTDP projects for the Town of Strasburg can also be found by contacting the VDOT Resident Engineer at the Edinburg Residency Office in Edinburg, Virginia (540-328-9331).

STRASBURG TRANSPORTATION RECOMMENDATIONS

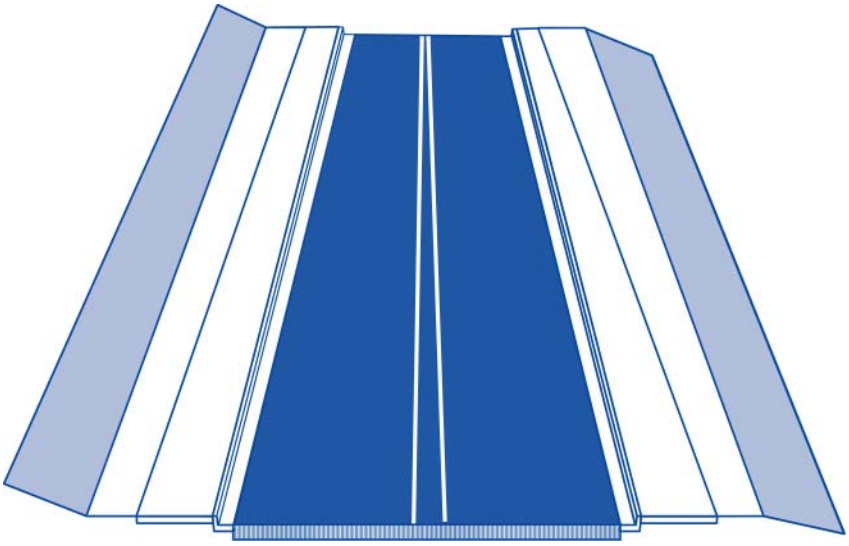
Route	Facility Name	From	To	Road Segment Length (miles)	Recommendation	Cost * (Year 2000 $)	Existing Typical Section (Width)	Recommended Typical Section (Width)	Average Daily Traffic Volume	
									Year 2000	Year 2020
US 11	Stover Ave	WCL Strasburg	Capon St	0.44	Re-stripe to provide center-turn lane (base year)	42,300	U2 (36')	U3 (36')	9,490	16,130
US 11	Massanutten St	N Rt 55	E Thompson St	0.09	Re-stripe to provide a center-turn lane (base year)	8,700	U2 (39')	U3 (39')	13,670	25,560
US 11	Massanutten St	E Thompson St	Lee St	0.08	Widen and re-stripe to provide a center-turn lane (base year)	517,200	R2 (31')	U3 (39')	11,000	18,700
US 11	Massanutten St	Lee St	NCL Strasburg	0.83	Widen to a four-lane roadway with a raised median (year 2010)	6,598,500	R3 (31')	U4D (48')	11,000	18,700
	Capon St	King St	Branch St	0.14	Reconstruct to a standard urban two-lane roadway (base year)	441,000	R2 (23')	U2 (30')	1,990	2,920
	Capon St	Branch St	N Rt 55	0.49	Reconstruct to a standard urban two-lane roadway (base year)	1,543,500	R2 (22')	U2 (30')	1,790	3,100
	Washington St	Eberly St	Virginia St	0.18	Reconstruct to a standard urban two-lane roadway (base year)	567,000	R2 (20')	U2 (30')	590	860
	Washington St	Virginia St	Massanutten St	0.43	Reconstruct to a standard urban two-lane roadway (base year)	1,354,500	R2 (21')	U2 (30')	1,640	2,300
	Rt 11/Rt 55 Byp	Rt 11	N Rt 55	0.36	Construct bypass as a standard two-lane roadway (year 2010)	1,134,000	NA	U2 (30')	NA	NA
	Eastern Byp	Crim Dr	Crystal Ln	0.12	Extend Crim Drive to Crystal Ln as a standard two-lane roadway. (year 2010)	378,000	NA	U2 (30')	NA	NA
	Queen St	Stover Ave	Sharpe St	0.06	Extend Queen St as a standard two-lane roadway (year 2010)	1,200,000	NA	U2 (30')	NA	NA
	Crim Dr	Laurie Dr	Washington St	0.23	Reconstruct as a standard two-lane urban roadway in conjunction with Eastern Bypass (year 2010)	724,500	NA	U2 (30')	NA	NA
	Marshall St	Washington St	Rt 55	0.05	Reconstruct as a two-lane urban roadway in conjunction with Eastern Bypass (year 2010)	110,250	NA	U2 (30')	NA	NA
Local Road	Dickenson Ln	Laurie Dr	Crystal Ln	0.05	Extend Dickenson Rd to Crystal Ln as a standard two-lane rural roadway. (base year)	75,000	NA	R2 (24')	NA	NA
Local Road	New roadway	Proposed Water Treatment Plant	Aileen Ave	0.15	Construct a standard two-lane urban roadway connecting the proposed Water Treatment Plant to Aileen Ave (base year)	225,000	NA	U2 (30')	NA	NA
	Intersection	Massanutten St	Washington St	NA	Signalize intersection (base year)	180,000	NA	NA	NA	NA
	Intersection	Massanutten St	N Rt 55	NA	Signalize intersection and add eastbound left turn lane (year 2020)	315,000	NA	NA	NA	NA
	Intersection	King St	Massanutten St	NA	Improve signal phasing and coordinate signals on Massanutten St (year 2020)	120,000	NA	NA	NA	NA
	Intersection	King St	Holliday St	NA	Provide SB and EB right turn lanes and NB and WB left turn lanes by removing parking. Improve signal phasing and coordinate signals on King St (year 2020)	120,000	NA	NA	NA	NA
	Intersection	Crim Dr	Marshall St	NA	Realign intersection in conjunction with Eastern Bypass (year 2010)	47,250	NA	NA	NA	NA
	Intersection	Rt 11	Crystal Lane	NA	Signalize intersection in conjunction with Rt 11/Rt 55 Bypass (year 2010)	180,000	NA	NA	NA	NA
Total (Local projects not included)						$15,581,700				

TYPICAL SECTIONS[1]

R2
Rural two-lane roadway with standard shoulders and ditches

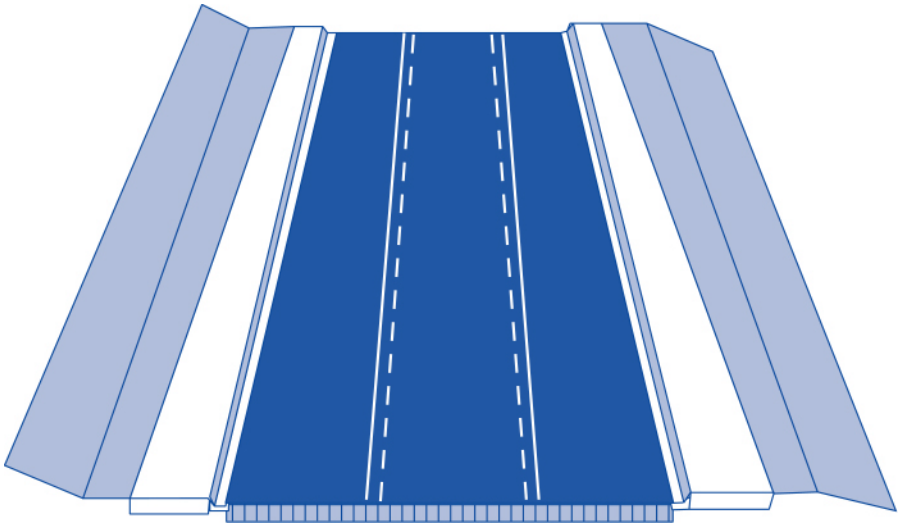


U2
Urban two-lane roadway with curb and gutter



[1] Recommended typical sections assume 12' wide travel lanes.

U3
Urban two-lane roadway with curb and gutter and center turn-lane



U4D
Urban four-lane roadway with curb and gutter and raised median