

SALTVILLE 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 SALTVILLE**

August 2000

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

INTRODUCTION

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

Improved transportation systems remain vital to Virginia's, as well as to the local area's, continued economic growth and development. The provision for the effective, safe and efficient movement of people and goods is a basic goal of all transportation programs in the Commonwealth of Virginia. It is with this basic goal in mind, and with further consideration of environmental issues and local desires, that this transportation plan has been developed.

The Virginia Department of Transportation will use this plan when evaluating requests from the local governments for specific transportation projects and/or for implementing projects on the roadway system (VA Routes 91 and 107) maintained by the Department. The list of recommendations will also be used in the statewide transportation planning process in order that the statewide magnitude of needs can be better quantified.

STUDY AREA AND THOROUGHFARE SYSTEM

Saltville is located on the line between Smyth and Washington counties approximately nine miles north of Interstate Highway 81. The Town is crossed by the North Fork of the Holston River and lies at the intersection of State Primary Routes 107 and 91. The Town of Saltville lies at an elevation of approximately 1,760 feet and encompasses 5,523.2 acres. A finite urban area has been established for purposes of this transportation study. Commonly called the cordon line, the study area boundary coincides with the corporate limits of the Town of Saltville.

Inside the study area limits, a specific set of highways that have been approved by the Virginia Department of Transportation, the Federal Highway Administration and the Town of Saltville have been selected and designated as the area's urban thoroughfares. The urban thoroughfare system is identified as roads that are functionally classified as collectors or arterials. The arterial roads are major traffic carrying roadways in the area. The collector roads carry a lesser volume of traffic and feed the arterial roadways. The subsequent analysis and recommendations will be limited to those designated roadways, with the exception of any recommended facility on new location, and those improvements that have been requested by the government officials of Saltville on the local unclassified street system. In addition, improvements to the following other modes of transportation have been evaluated; parking, bicycle / pedestrian facilities, intercity rail, bus and air travel, transit, paratransit, taxi and goods movement.

DEMOGRAPHIC OVERVIEW

Between 1980 and the beginning of this study, the population of the Town of Saltville has remained at approximately 2,300 inhabitants. This long period of stable population is in contrast to the ten-year period between 1970 and 1980 when the Town's population decreased by six percent, from 2,527 to 2,376, which followed the closing of the Town's largest employer, Olin Mathieson, Incorporated in 1972.

PHASE ONE: BASE YEAR (2000) RECOMMENDATIONS

Roadway Improvements

Route 91

Provide new roadway alignment away from the potential subsidence impact area caused by the closing of the gypsum quarry near Plasterco. The existing roadway length through this area is 0.5 miles (from the western corporate limits of Saltville to the Smyth / Washington County line). The new roadway alignment should consist of an urban two-lane cross section with 30 feet of pavement width. Assuming that the new alignment length is no greater than 50 percent longer than the existing alignment, the proposed cost for this new alignment would include \$1,575,000 for new roadway¹ and approximately \$394,000 for right of way². The total cost would be approximately \$2 million.

Route 107

Widen and improve roadway to provide increased capacity from the intersection of Route 91 to the southern corporate limits (2.7 miles). The base year improvement should include addition of truck climbing lanes on steep incline sections of the roadway (one additional lane on alternating sides for approximately 1 mile). The proposed roadway cost for this improvement is \$600,000.³ The right of way and utilities cost for this improvement is \$150,000.⁴ The total cost for approximately one-mile of new truck climbing lanes is approximately \$750,000.

PHASE TWO: INTERIM YEAR (2010) RECOMMENDATIONS

Roadway Improvements

Route 91

Reconstruct Route 91 from Route 107 to the north corporate limits of Saltville. This section of the road is approximately 2 miles long. Currently the roadway is narrow (approximately 20 ft. pavement width) and has sight distance limitations. The road also experienced the highest number of vehicle accidents in the last three years. While roadway widening may not completely eliminate this problem, the additional pavement width may reduce the occurrence of sideswipe accidents. The proposed typical section for this improvement is a two-lane urban roadway (U2) with a pavement width of 30 feet. The roadway cost of this improvement is \$4,200,000.⁵ The right of way and utilities cost for this improvement is \$2,100,000.⁶ The total cost for this improvement is thus \$6,300,000.

Palmer Avenue

Widen and improve the roadway to a two-lane rural typical section from the southern corporate limits to the intersection of Wiley Place, a distance of 1.4 miles. The current pavement width on this section of roadway is between 16 and 18 feet. Additionally, the numerous curves and the steep grades of the southern section of the roadway reduces sight distance. The roadway cost of this reconstruction and widening improvement is \$1,400,000.⁷ The right of way and utility costs totals \$700,000.⁸ Total cost of this recommended improvement is \$2,100,000.

¹ Urban 2-lane typical section cost per mile is \$2.1 million.

² Assuming a rural area right of way and utilities cost base of 25 percent.

³ No unit cost estimate was developed for a truck-climbing lane. This figure (\$600,000 per mile) is approximately the cost of providing a new or reconstructed R2 typical section with 20ft. pavement width. This additional pavement would provide a 12-ft. climbing lane and an 8ft. shoulder.

⁴ Assuming a rural area right of way and utilities cost base of 25 percent.

⁵ U2 typical section unit cost is \$2.1 million per mile.

⁶ Assuming a residential suburban low-density right of way and utilities cost base of 50 percent.

⁷ R2 typical section unit cost is \$1.0 million per mile.

⁸ Assuming a residential suburban low-density right of way and utilities cost base of 50 percent.

From north of Lake Drive to Main Street provide access management improvements to reduce the incidence of traffic accidents at commercial driveways. To accomplish the access management, the current open-ditch drainage along the roadway should be converted to curb and gutter. Access points can be created at specific commercial establishments. Along the new curb and gutter sections, sidewalks should be provided for additional pedestrian connections through the downtown. This section of roadway is approximately 0.2 miles long. The proposed cost of these access management improvements is \$215,000.⁹

PHASE THREE: STUDY YEAR (2020) RECOMMENDATIONS

Roadway Improvements

Main Street

Provide intersection improvement at First Avenue / Allison Gap Road. Improvement should upgrade traffic signal device and improve turning radius for trucks and other large vehicles. The cost of these improvements is \$145,000.¹⁰

Parking

There is no lack of parking accommodations for the present amount of tourists and visitors to Saltville. Special event parking for fairs and festivals is coordinated in grass fields and vacant lots within the town. No additional parking facilities are recommended at this time.

Bicycle / Pedestrian

In Saltville no dedicated bicycle facilities exist within the corporate limits. Although bicycles may be ridden on all streets and highways within Saltville, there are no routes or paths designed specifically for bicycles.

The current VDOT Transportation Development Plan includes the development of a trail system to connect the various historic sites through Saltville. No additional pedestrian and bicycle facilities are recommended at this time.

Intercity Rail, Bus and Air Travel

Currently, there is no passenger rail service, bus service or air service located in, or directly adjacent to, the Town of Saltville. The nearest passenger bus service is available from Greyhound Bus Lines in Marion, VA. Air travel is available commercially at the Tri-City Regional Airport near Blountville, Tennessee, which is located approximately 50 miles southwest of Saltville. In addition, the Virginia Highlands Airport located near Abingdon, provides general aviation services to Washington County as well as the Virginia State Police. There is no passenger rail service located in Southwest Virginia. Due to the lack of intercity rail, bus or air travel in the vicinity of Saltville, no improvements are recommended at this time.

Transit, Paratransit and Taxi

Rural transportation service to elderly and disabled Saltville residents is provided by the Area Agency on Aging, District Three Governmental Cooperative. Routes are available to provide congregate meals at senior centers, access to shopping centers, and to home deliver meals. Additionally, two privately owned taxicab businesses serve Saltville. Three other taxi businesses operate in Smyth County, one in Chilhowie, and two in Marion. In combination, these businesses provide multiple passenger and package services to the area. Provision of additional services is not recommended at this time.

Goods Movement

Roadway freight shipment to the Town of Saltville is available via one of the two main primary highways that access the town, Route 107 and Route 91. Both of these routes provide access to Interstate 81, the major truck route in southwest Virginia. No roadway segments were identified that would impede the movement of truck traffic. There is no existing rail service providing goods movement to the Town of Saltville, however, the Town should seek to re-establish a rail freight link to the Town using the currently unused railroad spur to Glade Spring.

⁹ Providing curb and gutter unit cost is \$1.0 million per mile. The unit cost of providing a 5ft. sidewalk is \$64,000 per mile.

¹⁰ Unit cost for improving traffic signal phasing is \$120,000. The unit cost for improving turning radius is \$25,000.

LOCAL PROJECTS¹¹

There is one local project of interest to the Town of Saltville involving a road that is not a part of the VDOT thoroughfare highway system. Buckeye Street is located in the eastern half of the Town off of Route 91 (East Main Street). A portion of the street is located near a steep slope. The project should stabilize or relocate Buckeye Street away from this slope to improve drainage and reduce erosion of the hillside.

ENVIRONMENTAL OVERVIEW

An environmental overview was conducted for the Saltville roadway recommendations that included widening (providing additional travel lanes) or development of new roadway facilities. There were no environmental features identified in Saltville that would preclude the implementation of the included recommendations.

LOCAL COORDINATION AND CITIZEN PARTICIPATION

The development of the Saltville 2020 Transportation Plan included several coordination meetings with local staff members from the Town and a public meeting held with VDOT representatives, Town officials and residents from Saltville.

The coordination meetings consisted of a kick-off meeting, an existing conditions meeting and a draft recommendations meeting. The kick-off meeting, held in April, 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. The second meeting (existing conditions), held in October, 1999, allowed the project team to present the results of baseline and horizon year traffic analysis and also allowed local staff to communicate desired transportation needs. Finally, at the draft recommendations meeting, held in May, 2000, the project team presented and discussed with Town officials the draft 2020 Transportation recommendations. Input was provided by Town staff that was then used to draft the final recommendations.

After the series of coordination meetings held with members of the project team and local staff, a public meeting was held at the Saltville Town Hall on July 25, 2000. The purpose of this meeting was to present the recommendations to Town officials, citizens and other interested parties, to receive comments on the plan, and to allow the Town council to consider the plan for adoption

PLAN ADOPTION

The Saltville Town Council approved the Saltville 2020 Transportation Plan on August 8, 2000.

ADDITIONAL INFORMATION

More details on the development of the Saltville 2020 Transportation Plan and the study recommendations are available in the Saltville 2020 Transportation Plan Technical Report. Copies of the Technical Report are located at the Saltville Town Library or are available at the Saltville Town Hall. They are also available in Richmond, Virginia at the central office of the Virginia Department of Transportation, Transportation Planning Division as well as the Bristol District office in Bristol, Virginia and the residency office in Abingdon, Virginia.

Projects included in the Virginia Transportation Development Plan (VTDP) are not part of this recommendations package. The VTDP can be reviewed online at <http://www.vdot.state.va.us/proj/projects.html>. VTDP projects in the Town of Saltville are found by selecting Volume I, then selecting 'Urban System' under the Bristol District.

Information on VTDP projects for the Town of Saltville can also be found by contacting the VDOT Resident Engineer at the Bristol Residency Office in Abingdon, Virginia (540-676-5593).

¹¹ Local recommendations are included for information purposes only and are not necessarily supported by VDOT.

SALTVILLE TRANSPORTATION RECOMMENDATIONS¹²

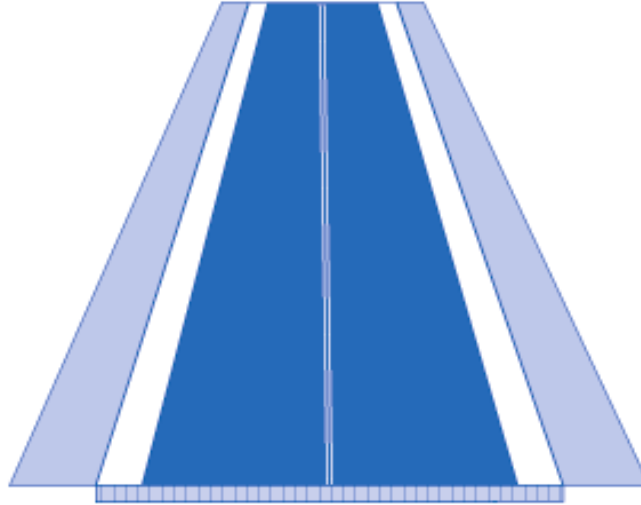
| Route | Facility Name | From | To | Road Segment Length | Recommendation | Cost (Yr 2000 \$) | Existing Typical Section (Width) | Recom. Typical Section (Width) | Average Daily Traffic (ADT) | | |
|--------------|--------------------------|-----------------------------------|---------------------------------|---------------------|--|-------------------|----------------------------------|--------------------------------|-----------------------------|-----------|-----------|
| | | | | | | | | | Year 2000 | Year 2010 | Year 2020 |
| VA 91 | W. Main Street | Western Corp. Limits of Saltville | Smyth / Washington County Line | 0.5 | Year 2000 realignment of Main Street | 2,000,000 | R2 (20') | U2 (30') | 7,500 | 9,100 | 10,600 |
| VA 91 | Main Street | Smyth / Washington County Line | Palmer Avenue | 1.2 | Year 2020 reconstruct / widen to urban 2-lane | 3,780,000 | R2 (22') | U2 (30') | 4,200 | 5,100 | 6,000 |
| VA 91 | E. Main Street | Palmer Avenue | Allison Gap Road (RT 634) | 0.1 | Year 2020 restripe Main Street to provide left-turn bay to Allison Gap Road | 6,000 | U2 (42') | U2 (42') | 12,300 | 15,000 | 17,400 |
| VA 91 | E. Main Street | Worthy Blvd (RT 107) | North Corp. Limits of Saltville | 2 | Year 2010 widening to urban 2-lane | 6,300,000 | R2 (20') | U2 (30') | 4,450 | 5,400 | 6,300 |
| VA 107 | Worthy Blvd | South Corp. Limits of Saltville | Main Street (RT 91) | 2.7 | Year 2000 provision of truck climbing lanes | 750,000 | R2 (24') | R2 (24') | 5,050 | 6,200 | 7,200 |
| | Palmer Ave | South Corp. Limits of Saltville | Wiley Place | 1.4 | Year 2010 widening to rural 2-lane | 2,100,000 | R2 (16') | R2 (24') | 1,300 | 1,600 | 1,800 |
| | Palmer Ave | .32 Miles North of Lake Drive | Main Street (RT 91) | 0.2 | Year 2010 provision of curb & gutter, sidewalks, and improve access points | 215,000 | U2 (34') | U2 (34') | 4,650 | 5,700 | 6,600 |
| | Intersection Improvement | First Avenue | Allison Gap Road (RT 634) | N/A | Year 2020 upgrade of traffic signal device and improvement of turning radius for trucks and other large vehicles | 145,000 | N/A | N/A | N/A | N/A | N/A |
| Total | | | | | | 15,296,000 | | | | | |

¹² Only thoroughfare roadways with recommendations are shown. For a complete listing of thoroughfare roadways, please refer to the Saltville 2020 Transportation Plan Technical Report or the Saltville 2020 Transportation Plan website, www.vdoturbanplans.com/saltville.htm.

TYPICAL SECTIONS¹³

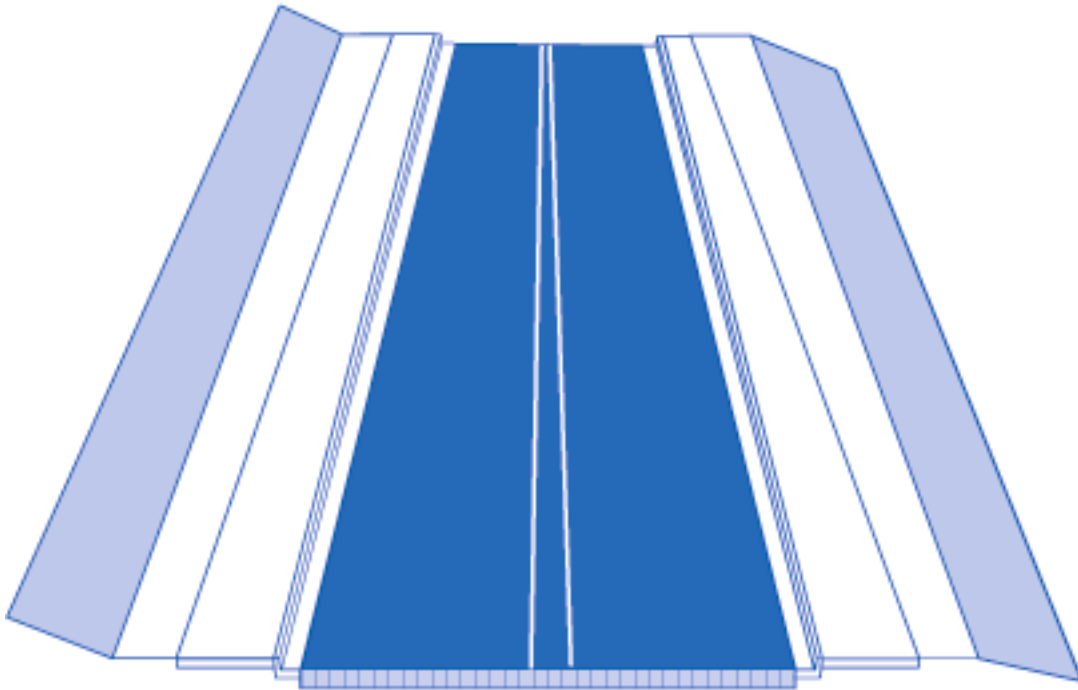
R2

Rural two-lane roadway with standard shoulders and ditches



U2

Urban two-lane roadway with curb and gutter



¹³ Recommended typical sections assume 12' wide travel lanes