Central Virginia Metropolitan Planning Organization
Region 2000 Regional Commission

# LYNCHBURG AREA LONG-RANGE TRANSPORTATION PLAN YEAR 2025

# TECHNICAL REPORT

*Developed by the*
**Central Virginia Metropolitan Planning Organization**
*in cooperation with the*
**Virginia Department of Transportation,**
**Federal Highway Administration,**
**and the Federal Transit Administration**

***Adopted January 18, 2001***

*The contents of this report reflect the views of the author(s), who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the Federal Highway Administration (FHWA) or the Commonwealth Transportation Board. This report does not constitute a standard, specification, or regulation. FHWA acceptance of this report as evidence of fulfillment of the objectives of this planning study does not constitute approval of location and design or a commitment to fund any such improvements. Additional, project-level environmental impact assessments and/or studies of alternatives will generally be necessary.*

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## Chapter 1 – Executive Summary

An effective, efficient transportation system is vital to Central Virginia's economic growth and the preservation of its high quality of life. The Lynchburg region's transportation system provides for the movement of people and goods by road, local transit, intercity bus, bicycle, walkways, air, and rail. Enhancing the quality and interconnectivity of these transportation systems is the goal of the *Lynchburg Area Long-Range Transportation Plan – Year 2025* (the Transportation Plan). This Transportation Plan provides the blueprint of a transportation system that is expected to serve the multi-modal needs of the Lynchburg region through the year 2025.

The Transportation Plan was developed by the Region 2000 Regional Commission. The Region 2000 Regional Commission is comprised of local elected and appointed officials, along with representatives from the following agencies:

- Virginia Department of Transportation
- Virginia Department of Rail and Public Transportation
- Federal Highway Administration
- Federal Transit Administration
- Federal Aviation Administration
- Greater Lynchburg Transit Company

The study area includes all of the City of Lynchburg along with the adjacent, "urbanized" portions of Amherst, Bedford, and Campbell counties. The identification of these urbanized areas is performed by the U.S. Census Bureau based on total population and population density.

This Transportation Plan was developed in cooperation with the Virginia Department of Transportation and the Federal Highway and Federal Transit Administrations, and in accordance with current federal transportation legislation, the Transportation Equity Act for the 21st Century (TEA-21). Based on expected funding streams, the transportation improvements in this Transportation Plan can be funded by the year 2025, thereby meeting federal planning requirements for a financially constrained transportation plan.

A number of transportation projects in the Lynchburg urbanized area are currently programmed for funding and construction in the Virginia Transportation Development Plan (Fiscal Year 2000-2001). The following table shows these projects, including project description and the segment length.

**Exhibit 1**
Projects Programmed for Construction

**Lynchburg**

| Roadway | Description | Link Length |
|---|---|---|
| Route 460 Interchange at Odd Fellows Road Extension | New grade-separated interchange | NA |
| Route 460 Interchange at Odd Fellows Road Extension | New grade-separated interchange | NA |
| Route 501 (Candlers Mountain Road) – Woodall Road to Mayflower Drive | Widen to 6 lanes (includes bridge over railroad) | NA |

| Roadway | Description | Link Length |
|---|---|---|
| Route 501 (Lynchburg Expressway) Interchange at Route 221 (Lakeside Drive) | Construct interchange | 0.3 |
| Breezewood Drive – Route 501 to Route 221 (Lakeside Drive) | Extend to Lakeside Drive | 0.5 |
| Enterprise Drive – Laxton Road to NW Railroad | Construct 4 lanes on new alignment | 1.9 |
| Cross-Town Connector – Old Forest Road to Route 501 Expressway | Widen to 4 lanes | 2.4 |
| Cross-Town Connector – Route 29 Expressway to Old Forest Road | Widen to 4 lanes | 2 |

**Amherst County**

| Roadway | Description | Link Length |
|---|---|---|
| Route 29 (Madison Heights Bypass) – Lynchburg Corporate Limits to Study Area Boundary | Construct 4 lanes on new alignment | 8.8 |
| Route 130 Connector – Route 29 to Route 29 Bypass | Construct 4 lanes on new alignment (5 lanes at Route 29) | 1.9 |
| Route 210 Connector – Route 29 to Route 29 Bypass (including Route 622 Connector) | Construct 4 lanes on new alignment | 1.8 |
| Route 210 Interchange at Route 29/210 (Colony Road at the Route 210 Connector) | Reconstruct interchange | NA |
| Route 604 (Bob White Road) – Route 663 to Route 670 | Widen pavement to 22 feet | 1.7 |
| Route 652 (Cedar Gate Road) – Route 657 to Route 675 | Widen pavement to 24 feet | 2.4 |
| Route 652 (Cedar Gate Road) – Route 675 to Route 130 | Replace bridge at Graham Creek | NA |
| Route 657 (Cedar Gate Road) – Route 652 to Route 636 | Widen pavement to 20 feet | 0.5 |
| Route 663 (North Coolwell Road) – Route 29 South to Route 670 | Widen pavement to 22 feet (including railroad structure) | 3.5 |
| Route 683 (Thomas Road) – Route 685 to Route 766 | Widen pavement to 22 feet | 3.5 |
| Route 795 (Winridge Drive) – Route 130 to Route 675 | Widen pavement to 24 feet | 0.8 |
| River Road Alternate (New Location) – Route 130 to Route 29 Business at Route 210 | Construct 2 lanes on new alignment (including new bridge) | 3.5 |

**Bedford County**

| Roadway | Description | Link Length |
|---|---|---|
| Route 221 (Forest Road) – 0.5 miles west of Route 663 to 0.5 miles west of NS Railroad | Widen to 4 lanes | 2.9 |
| Route 501 (Boonsboro Road) – Bedford County Corporate Limits to Study Area Boundary | Spot improvements (prorated cost) | 4.8 |
| Route 621 (Cotton Town Road) – Route 1201 to 0.25 miles west of Route 884 | Widen pavement to 24 feet, improve bridge at Ivy Creek | 1.7 |
| Route 644 (Coffee Road) – Route 665 North to Route 665 South | Improve bridges and approaches | NA |
| Route 645 (Trent's Ferry Road) – Route 794 South to Bedford County Corporate Limits | Improve bridges and approaches | NA |
| Route 658 (Walnut Hollow Road) – Route 624 to Bedford County Corporate Limits | Widen pavement to 22 feet | 1.3 |

| Roadway | Description | Link Length |
|---|---|---|
| Route 660 (Hawkins Mill Road) at Ivy Creek | Replace bridge and approaches | NA |
| Route 662 (Hooper Road) at Ivy Creek | Construct new bridge | 0.9 |
| Route 663 (Perrowville Road) – Route 662 to 0.62 miles north of Route 221 | Widen to 4 lanes | 0.4 |
| Route 761 (Holcomb Rock Road) – Route 501 to Route 645 | Widen pavement to 24 feet | 1.7 |
| Route 811 (Thomas Jefferson Road) – Route 622 to Route 623 | Reconstruct 2 lane roadway | 1.8 |
| Route 811 (New London Road) south of Route 460 | Intersection improvements | 0.1 |

**Campbell County**

| Roadway | Description | Link Length |
|---|---|---|
| Route 29 Interchange at Route 460 (Wards Road) | Construct full interchange | NA |
| Route 29 (Madison Heights Bypass) – Route 460 to Campbell County Corporate Limits | Construct 4 lanes on new alignment, includes bridges | 1.4 |
| Route 29 Bypass South – Route 460 East to Route 29 at Yellow Branch | Construct 4 lanes on new alignment | NA |
| Route 460 (Richmond Highway) – Route 501 (Campbell Avenue) to Route 29 Bypass North | Develop new location (preliminary engineering) | 2.4 |
| Route 609 (Stage Road) – Route 726 to 0.4 miles east of Route 659 | Widen pavement to 22 feet, improve bridges at Beaver Creek and Archer Creek | 1.3 |
| Route 622 (Waterlick Road) – Route 682 to Route 683 | Widen pavement to 24 feet, improve bridge over NS railroad | 2.3 |
| Route 622 (Lynbrook Road) – Route 683 to Route 29 | Reconstruct 2 lane roadway | 2.53 |
| Route 684 (Buffalo Mill Road) – Route 682 to 0.8 miles west of Route 682 | Widen pavement to 22 feet | 0.08 |
| Route 684 (Buffalo Mill Road) – 0.8 miles west of Route 682 to 1.5 miles west of Route 682 | Reconstruct 2 lane roadway, includes bridge over Buffalo Creek | 0.7 |
| Enterprise Drive Extension/Bee Drive (Route 1415) – Laxton Road to Timberlake Road | Construct 3 lanes on new alignment | 0.1 |
| Route 29 Interchange at Route 460 (Wards Road) | Construct full interchange | NA |

The following table shows the recommended roadway improvements in the Year 2025 Transportation Plan, including the description of the project and the link length.

**Exhibit 2**
Recommended Year 2025 Roadway Improvements

**Lynchburg**

| Roadway | Description | Link Length |
|---|---|---|
| Route 29 Bypass – Route 29 South (Wards Road) to Route 501 (Campbell Avenue) | Widen to 6 lanes | 4.4 |
| Route 460 Business (Fort Avenue) – Memorial Avenue to 12th Street | Widen to 4 lanes (remove parking) | 1 |
| Route 501 (Candlers Mountain Road) – Woodall Road to Mayflower Drive | Widen to 6 lanes (includes bridge over railroad and interchange | 0.5 |

| Roadway | Description | Link Length |
|---|---|---|
| Route 501 (Lynchburg Expressway) – Lakeside Drive to Boonsboro Road | Widen to 4 lanes | 3 |
| Route 670 (Old Candlers Moutain Road) – Mayflower Drive to Route 460 | Widen to 4 lanes | 0.7 |
| Concord Turnpike – Rockwell Road to Kavanaugh Road | Add truck climbing lane for eastbound traffic at landfill | 0.5 |
| 5th Street (Route 29 Business) – Langhorne Road to Main Street | The type of specific capacity improvements on 5th Street will be determined by a future sub-area study. | 1.2 |
| Forest Brook Road – Old Forest Road to Lakeside Drive | Improve 2 lane section (including at-grade railroad crossing) | 1 |
| Fort Avenue – 12th Street to Park Avenue | Widen to 4 lanes (remove parking) | 0.38 |
| Greenview Drive (Route 678) – Lynchburg Corporate Limits to Leesville Road | Widen to 4 lanes | 1.3 |
| Langhorne Road (Route 501 Business) – Fort Avenue to Memorial Avenue | Widen to 4 lanes | 0.4 |
| Mayflower Drive (Route 128) – Candlers Mountain Road to Odd Fellows Road | Widen to 4 lanes | 1.3 |
| Old Graves Mill Road – Graves Mill Road to Timberlake Road | Widen to 4 Lanes (includes bridge) (Excludes 0.7 mile Section) | 1.7 |
| Odd Fellows Road – Lynchburg Expressway to Dead End | Widen to 4 lanes | 1.3 |
| Old Forest Road – Linkhorne Road to Lakeside Drive East | Improve 2 lane section | 1.2 |
| Virginia Episcopal School Road – Rivermont Road to Williams Road | Construct sidewalk | 0.9 |

**Amherst County**

| Roadway | Description | Link Length |
|---|---|---|
| Route 29 Business (South Amherst Highway) – Route 685 to Route 29 at Kmart | Widen to 4 lanes | 1.6 |
| Route 29 – Route 29 Business to Kmart | Signals study | NA |
| Route 622 (Wright Shop Road) – Route 210 to Route 833 | Widen to 4 lanes | 0.7 |
| Route 622 (Wright Shop Road) – Route 833 to Route 677 | Widen to 4 lanes | 1.8 |
| Route 652 (Cedar Gate Road) – Route 675 to Route 130 | Widen pavement to 22 feet | 2 |
| Route 670 (Izaak Walton Road) at Stovall's Creek and at South Fork | Improve bridges | NA |
| Route 677 (Dixie Airport Road) – Route 669 North to Route 29 | Widen to 4 lanes | 3 |

**Bedford County**

| Roadway | Description | Link Length |
|---|---|---|
| Route 221 (Forest Road) – Elk Creek to 0.05 miles west of Route 663 | Widen to 4 lanes | 0.6 |
| Route 501 (Boonsboro Road) at Route 647 | Relocate intersection, construct turn lane | 0.3 |
| Route 501 (Boonsboro Road) – Bedford County Corporate Limits to Judith Creek Bridge | Widen shoulder for bike lane | 1 |

| Roadway | Description | Link Length |
|---|---|---|
| Route 622 (Waterlick Road) – Route 811 to Bedford County Corporate Limits | Widen to 4 lanes | 0.9 |
| Route 660 (Hawkins Mill Road) – Route 621 to Route 659 | Reconstruct 2 lane roadway | 2.3 |
| Route 661 (Bateman Bridge Road) – Route 811 to Route 1440 | Widen to 4 lanes | 1.2 |
| Route 663 (Perrowville Road) – 0.62 miles north of Route 221 to Route 1431 | Widen to 4 lanes | 1.6 |
| Route 811 (Thomas Jefferson Road) – Route 460 to Route 221 | Widen to 4 lanes | 5 |

**Campbell County**

| Roadway | Description | Link Length |
|---|---|---|
| Route 29 (Wards Road) – South Route 738 to Campbell County Corporate Limits | Widen to 6 lanes | 3.5 |
| Route 460 (Richmond Highway) – Route 501 (Campbell Avenue) to Route 29 Bypass North | Widen to 6 lanes | 2.4 |
| Route 460 (Lynchburg Highway) – Route 726 to Route 752 | Widen to 6 lanes | 2 |
| Route 460 Business (Timberlake Road) – Route 460 to Campbell County Corporate Limits | Widen to 6 lanes | 3.4 |
| Route 622 (Waterlick Road) – Campbell County Corporate Limits to Route 1520 | Widen to 4 lanes | 1.1 |
| Route 622 (Waterlick Road) – Route 460 Business to Route 682 | Reconstruct 2 lane roadway | 0.9 |
| Route 623 (Town Fork Road) – Route 682 to Route 858 | Reconstruct 2 lane roadway | 2.5 |
| Route 659 (Cabin Field Road) – Route 609 to Route 460 | Widen shoulder for bike lane | 1.5 |
| Route 623 (Turkey Foot Road) – Route 858 to Campbell County Corporate Limits | Reconstruct 2 lane roadway | 1 |
| Route 664 (Old Rustburg Road) – Route 501 to Route 677 | Reconstruct 2 lane roadway | 1.3 |
| Route 670 (Sunnymeade Road) – Route 501 to Route 677 | Reconstruct 2 lane roadway (includes at-grade railroad crossing) | 2.8 |
| Route 670 (Candlers Mountain Road) – Lynchburg Corporate Limits to 677 | Reconstruct 2 lane roadway | 2 |
| Route 677(Sunnymeade Road) – Route 738 to Route 670 | Widen pavement to 24 feet | 2 |
| Route 677 (Camp Hydaway Road) – Route 670 to Route 664 | Reconstruct 2 lane roadway | 3.2 |
| Route 677 (Old Rustburg Road) – Route 664 to Campbell County Corporate Limits | Reconstruct 2 lane roadway | 1.1 |
| Route 680 (Suburban Road) – Route 738 to Route 501 | Reconstruct 2 lane roadway, excluding railroad crossing | 3.2 |
| Route 682 (Leesville Road) – Campbell County Corporate Limits to Route 460 | Widen to 4 lanes | 0.9 |
| Route 682 (Leesville Road) – Route 460 to Study Area Boundary | Widen pavement to 24 feet | 2.5 |
| Route 726 (Mt. Athos Road) – Six Mile Bridge to Route 609 | Widen shoulder for bike lane | 3.4 |
| Route 1520 (Rainbow Forest Road) – Route 622 to Route 1551 | Reconstruct 2 lane roadway | 2.1 |
| Enterprise Drive Extension – Timberlake Road to Greenview Drive | Construct 4 lanes on new alignment | 0.2 |

| Roadway | Description | Link Length |
|---|---|---|
| Route 681 (Sunburst Road) – Route 460 to Route 622 | Reconstruct 2-lane roadway | 2.7 |

The following table shows the recommended improvements to other modes, including public transportation, pedestrian/bicycle plans, intercity bus/rail/trucks/air plans, regional airport improvements and transportation enhancement projects:

**Exhibit 3**
Recommended Improvements to Other Modes

| **Public Transportation** |
|---|
| Capital cost of facilities (buildings) |
| Capital budget (rolling stock) |
| Conduct periodic studies (5-year intervals) of transit routes, on/off counts, productive versus nonproductive segments, and amenities such as shelters and benches |
| Conduct needs assessment for public transit within the MPO area |
| Establish regionalized transit system with all jurisdictions participating in the cost |
| Expand and coordinate specialized transit services to disadvantaged persons |
| Construct commuter parking lot on Route 29 North |
| Deploy ITS technologies on transit buses (e.g. smart media for collections) |
| **Pedestrian / Bicycle** |
| Construct sidewalks on roads/streets where transit service is provided or projected (e.g. River Ridge Mall & Liberty University areas) |
| Complete construction of trail from Percival Island adjacent to the James River to Campbell County with grant money |
| Conduct feasibility study of constructing bike route connection from Campbell County to Blackwater Creek trail in the city via existing roadways |
| Establish ride-sharing options/alternatives and telecommuting |
| **Intercity Bus/Rail/Trucks/Air** |
| Expand train service to local industry via siding locations |
| Implement piggy-back service to reduce truck travel on roadways |
| Implement regional jet service for passengers and cargo |
| Create regional transportation authority with participation by all jurisdictions |
| Improve roadway signage to general and commercial aviation facilities |
| Study feasibility of combined regional airport with Roanoke |
| City of Lynchburg – Relocate Kemper Street Station (TEA -21 High Priority Funding) |
| Implement TransDominion Rail service |
| **Regional Airport** |
| Construct general aviation terminal and parking lot |
| Construct State Police hangar |
| Construct rental car service facility |
| Purchase snow removal equipment and runway de-icer |
| Install Multiple User Flight Information Display System (MUFIDS) |
| Overlay general aviation apron |
| Rehabilitate taxiway "B" |

| |
|---|
| Design Runway 3-21 drainage rehabilitation |
| Runway 3-21 drainage rehabilitation |
| Update Master Plan |
| Environmental assessment for Runway 3 extension (1201 feet by 150 feet) |
| Acquire 54 acres of land for Runway 3 extension |
| Design Runway 3 extension |
| Construct Runway 3 extension |
| **Transportation Enhancement Projects** |
| City of Lynchburg/Amherst Co. – Conversion of "rails to trails" |
| City of Lynchburg – Riverfront revitalization |
| City of Lynchburg – Point of Honor access improvement |
| City of Lynchburg – Kemper Street Amtrak Station with Connector Road |
| City of Lynchburg – Construction of trail linking Point of Honor with Black Water Creek Bikeway |

# Chapter 2 – Study Background

The Lynchburg area's 2025 Transportation Plan provides a blueprint for a transportation system that is intended to serve regional transportation needs to the year 2025. This Transportation Plan was developed through an effort that identified existing transportation needs, determined future transportation needs using a computerized transportation model, and developed and refined transportation solutions in cooperation with local governments and the general public. The Transportation Plan was developed in conformity with all Federal and State transportation planning requirements. This technical report describes the methodologies used to develop the Transportation Plan and provides details on the elements of the Plan. The Transportation Plan is summarized with maps and tables of the transportation improvements in the wall map summary document, *Lynchburg Area Long-Range Transportation Plan – Year 2025.*

Recommended improvements to the regional transportation system were developed based on a transportation needs assessment using both quantitative and qualitative planning methods. Quantitative methods included updating and refining the regional computerized transportation model and the development of year 2025 traffic forecasts. These forecasts were based on land use projections developed by Region 2000 in cooperation with local jurisdictions. Qualitative methods included random telephone surveys of study area residents; interviews with civic, government, and business leaders; and obtaining citizen input at public meetings that were held early and throughout the study process. Through each of these input mechanisms, the study team tabulated a comprehensive list of regional transportation needs. The recommended improvements included in this Plan were developed to respond to these needs and were tested, where appropriate, using the regional transportation model. The recommended improvements cover all modes of travel in the region.

## 2.1 Scope of the Transportation Plan

The development of the Transportation Plan included the following elements:

- Surveys of local citizens and public officials to assess transportation issues and concerns
- Development of a computerized regional transportation model using a compiled database of traffic counts, travel data, and land use data
- Development of demographic (population and employment) and travel forecasts for the year 2025
- Development of long-range transportation improvement recommendations
- Assessment of the social and environmental impacts of the transportation plan recommendations
- Estimation of project costs and long-range regional transportation funding in order to develop a financially constrained set of transportation recommendations

This Transportation Plan also includes elements that support each of the seven planning factors mandated in the Transportation Equity Act for the 21st Century (TEA-21). These planning factors require that transportation plans maximize the efficiency and equity of transportation systems and minimize adverse impacts.

## 2.2 Study Area

This Transportation Plan covers the City of Lynchburg and the surrounding urbanized portions of Amherst, Bedford, and Campbell counties (see Exhibit 5 at the end of this chapter). Urbanized areas are defined by the U.S. Bureau of the Census as contiguous areas with population densities of 1,000 persons or more per square mile, and were developed based on the 1990 Census. The urbanized area is a subset of the Lynchburg Metropolitan Statistical Area (MSA). The table below shows the population and area for both the urbanized area and the MSA. The boundaries of the urbanized area had not yet been defined for the 2000 Census when analysis was conducted.

**Exhibit 4**
Demographic Data of Study Area

| Area Description | 1990 | | 2000 | |
|---|---|---|---|---|
| | Population | Land Area (sq. miles) | Population | Land Area (sq. miles) |
| Lynchburg MSA * | 193,928 | 1,790.8 | 214,911 | 1,790.8 |
| Lynchburg Region Urbanized Area | 142,199 | 1,029.2 | Not yet available | Not yet available |

** Includes the cities of Lynchburg and Bedford and the counties of Amherst, Bedford, and Campbell.*

## 2.4 Existing Transportation System

This study and the resulting Transportation Plan address all modes of travel within the Lynchburg region's urbanized area. In terms of roadways, the focus of the Transportation Plan is Lynchburg's thoroughfare network. This thoroughfare network consists of primary routes and major secondary routes, as well as other principal streets in the study area. U.S. primary routes through the study area include: Route 29 and Business Route 29; Route 221; Route 460 and Business Route 460; and Route 501 and Business Route 501. Virginia Primary Route 130 also passes through the study area. The thoroughfare system also includes numerous Virginia secondary routes as well as principal arterial roads within the City of Lynchburg.

Travel into and through the Lynchburg region can also be made by local transit, rail, and air; as well as on a network of sidewalks and paths for walking and/or bicycling. Goods movement takes place by truck, rail, and air.

- The Greater Lynchburg Transit Company (GLTC) provides local transit within Lynchburg and Madison Heights. GLTC also operates a van service for the disabled.
- Greyhound Lines provides inter-city transit throughout Central Virginia with connections throughout the United States. Nine Greyhound buses per day currently serve Lynchburg.
- Passenger rail service in the region is provided by AMTRAK. The Southern Crescent stops at the Kemper Street Station in downtown Lynchburg twice daily en route to New York and New Orleans.
- Regional air service is provided at the Lynchburg Regional Airport, located in Campbell County, just south of the Lynchburg city limits. United Express, USAir Express and Atlantic Southeast Airlines operate out of the airport. These commercial airline services

provide connecting flights to larger hubs, such as Washington, Pittsburgh, Atlanta and Charlotte.

- Charter flight service is provided at Falwell Airport, located east of the interchange of Routes 460 and 501 in Campbell County. This airport serves Virginia Aviation, which provides landing and fuel services at the airport.
- Pedestrian and bicycle travel is facilitated by sidewalks that are located within the Lynchburg downtown, Madison Heights, and other commercial and neighborhood areas. Recreational travel is provided on the Blackwater Creek trail system.
- Two rail lines, Norfolk Southern and CSX, use Lynchburg as a freight interchange and junction point. The rail lines pass through downtown Lynchburg and follow through northern and northeastern Lynchburg to Amherst and Appomattox Counties.

## Chapter 3 – Identification of Transportation Needs

Transportation needs for the Lynchburg region were developed using a combination of telephone surveys; interviews with local officials, businesses, and civic associations; mailback questionnaires; and travel demand modeling and traffic operations analysis. This section summarizes the methodologies and findings for each of these techniques.

### 3.1 Telephone Interviews

Telephone interviews were performed for this study in October 1998 to identify regional travel patterns (for use in developing the regional transportation model) and to identify existing issues and concerns about Lynchburg's transportation system. A total of 310 interviews were performed; 104 of the interviews included questions about the Lynchburg region's transportation system. Random telephone numbers across the study area were used for these surveys to remove any potential bias. Detailed results of this survey are shown in Appendix A.

Participants in the transportation issues survey were provided with a list of 15 potential transportation issues and asked to indicate the extent to which they believed the issue was a problem. If the respondents indicated a particular issue was a moderate or serious problem, they were then asked to indicate a location where the problem exists. The issues presented for comment were:

- Roadway maintenance and roadway conditions (including whether or not the roadway is paved)
- Traffic congestion during rush hours
- Traffic congestion during midday or on weekends
- Placement or operation of traffic lights and road signs
- Adequacy of the roadway system
- The number of commercial trucks on area roads
- The level of truck or traffic noise
- Tourist or non-resident traffic
- Adequacy of access to downtown
- Too much or too little on-street parking
- Adequacy of sidewalks and bike paths
- Adequacy of local bus service
- Adequacy of long-distance bus service, such as Greyhound
- Adequacy of passenger rail service
- Adequacy of air service

For the last four questions, respondents were also asked whether they had used the particular mode of travel (i.e., taken an AMTRAK train) within the past two years. Respondents were also given the opportunity to indicate concerns not within the 15 areas cited above. Finally, respondents were asked to indicate which issue they believed to be the most serious problem for the Lynchburg region.

**Exhibit 6**

Summary of Telephone Survey Responses

| Issue | Percentage of respondents who believed that the issue is: | | | Areas where issue is a problem |
|---|---|---|---|---|
| | Serious Problem | Moderate Problem | Not a Problem [1] | |
| Roadway maintenance and roadway conditions | 11% | 32% | 57% | Lynchburg Expressway, Fort Avenue, Boonsboro Road, Wiggington Road |
| Rush hour traffic congestion | 30% | 41% | 29% | Madison Heights (Route 29), Timberlake Road, Candlers Mountain Road, Route 221 |
| Mid-day/weekend traffic congestion | 17% | 21% | 62% | Madison Heights (Route 29), Timberlake Road, River Ridge Mall area |
| Placement/operation of traffic lights/road signs | 10% | 11% | 79% | Madison Heights (Route 29), Timberlake Road, Fort Avenue |
| Adequacy of the roadway system | 11% | 21% | 68% | Madison Heights (Route 29), acceleration lanes on Lynchburg Expressway |
| Number of commercial trucks on area roads | 11% | 25% | 64% | Madison Heights (Route 29), Lynchburg Expressway, Graves Mill and Old Graves Mill Roads |
| Level of truck or traffic noise | 6% | 6% | 88% | Madison Heights (Route 29), Waterlick Road, Route 460 Bypass, Boonsboro Road, Wards Road |
| Tourist or non-resident traffic | 2% | 10% | 88% | Wards Road, Candlers Mountain Road, Route 221, Route 29 in Amherst County |
| Adequacy of access to downtown | 3% | 12% | 85% | One-way streets, lack of parking, lack of alternatives to the Lynchburg Expressway |
| Amount of on-street parking | 15% | 18% | 64% | Too little overall parking |
| Adequacy of sidewalks and bike paths | 13% | 19% | 68% | Fort Avenue, Route 221, Timberlake Road |
| Adequacy of local bus service | 14% [2]<br>2% [3] | | 86%<br>6% [3] | Expand service to the suburbs |
| Adequacy of long-distance bus service | 12% [2]<br>1% [3] | | 88%<br>5% [3] | Bus station not accessible (station since moved) |
| Adequacy of passenger rail service | 19% [2]<br>3% [3] | | 81%<br>3% [3] | Schedule and frequency of service, condition of station (renovation ongoing) |
| Adequacy of air service | 38% [2]<br>22% [3] | | 62%<br>24% [3] | Lack of direct flights, high costs |

*Notes: [1] Includes respondents who did not answer; [2] Combines serious and moderate; [3] Percentage of respondents who indicated that they had used the service in the two years prior to the survey.*

The transportation problems that respondents cited as worst include congestion in Madison Heights on Route 29 and on Candlers Mountain Road, as well as inadequate local bus service, air service, and lack of downtown parking.

## 3.2 Personal Interviews

A total of 22 interviews were performed with local officials and interest groups in the Lynchburg region. Those interviewed included the Lynchburg city manager and county administrators from each of the three counties. Interviews were also conducted with representatives of the airport, the Greater Lynchburg Transit Company, AMTRAK, Greyhound, the Norfolk Southern Railroad, and various chambers of commerce, as well as representatives of groups advocating historic preservation, hiking trails, and social service transportation. Each interview consisted of questions in the following areas:

- Existing transportation problems and locations (travel speed, accidents, signal systems, maintenance, signage, parking)
- Truck traffic problem areas and/or routes
- Needed transportation improvements (including any changes in transportation needs based on industry expansion/change). Includes:
  - Roads
  - Sidewalks and trails
  - Transit (fixed route and demand responsive)
  - Taxi
  - Intercity bus
  - Rail
  - Air
  - Recreational/institutional
- Socio-economic conditions and outlook (population, employment, land use)
- Environmental issues in transportation (air quality, noise, water quality, historic and scenic resources)

Details on the responses are included in Appendix A. Some of the most frequently cited issues are summarized below:

***Existing Transportation Problems:***

- Lynchburg Expressway (Route 29): speed and accidents, need acceleration and deceleration lanes, inadequate ramps at Main Street
- Candlers Mountain Road: signals, accidents, congestion
- Route 29 through Madison Heights: congestion
- Route 221 Corridor: congestion, accidents
- Need for Interstate route in the area
- Route 501 North Corridor: poor alignment, trucks
- Memorial Avenue and 5th Street: congestion
- Route 130 (Elon Road): no passing zones, slow, congested
- Secondary roads: too narrow and need better pavement
- No easy east-west way to get across town
- Downtown employees use two-hour parking spaces
- Inadequate signage to general and commercial aviation facilities
- Poor vertical sight distance at intersection of Odd Fellows Road and Carroll Avenue
- Area colleges need better directional signage on Routes 29, 29 Expressway, and 460

*Needed Improvements:*

- Complete Route 29 (Madison Heights Bypass)
- Need interstate route
- Route 221: widen to four through lanes
- Route 460/Odd Fellows Road: need interchange
- Route 501 (Candlers Mt. Road): railroad bridge and Route 29 interchange
- Upgrade signage (areawide) to direct tourist and business traffic to significant sites (airport, historic areas, major businesses, colleges, bus station)
- Construct Crosstown Connector: from Route 221 to Kemper Street
- Provide sidewalks on roads without shoulders and coordinate with transit
- Provide sidewalks on all new road projects and connect parks; promote Blackwater Creek trail (hike & bike)
- City transit should be extended to new Wal-Mart store in Madison Heights (currently stops at Seminole Center) and Bedford
- Need transit service in county (Forest and Madison Heights)
- Need Bristol-Lynchburg-Richmond-D.C. passenger service
- Air travel too expensive and limited connecting cities: reconsider joint facility with Roanoke

*Other Issues:*

- Modest growth in population and employment expected area-wide
- Movement is to Bedford and Campbell counties
- No significant air quality and noise problems at present
- Good water supply available throughout area (critical to future growth)
- James River watershed should be protected and maintained
- Protect and maintain historic/scenic areas
- Amherst County: Fort Riverview (Civil War fort), Madison Heights along north side of James River, Indian burial grounds on Route 622, tribal home of Monacan Indians near intersection of Routes 643 and 645
- Road improvements should be designed to be more "transit friendly"
- Need to update study on regional social services transportation facilities
- Improve county/city communications for airport funding, etc.
- 5th Street & 12th Street provide access to the city's downtown revitalization effort

## 3.3 Return-Mail Questionnaires

Additional input was sought by this study through questionnaires that were available to the public at a self-standing information kiosk that was installed at several public buildings in the Lynchburg region. The questionnaire was attached to the kiosk and was designed as a "report card" that the public could use to rate Lynchburg's transportation system and mail back to the study team. The questionnaire, shown in Exhibit 7, included pre-paid postage and a business-reply address on its reverse. The information kiosk was rotated between locations that included Lynchburg City Hall, the AMTRAK station, the Greyhound station, the Lynchburg Public Library, and River Ridge Mall during the months of January through April 1999. The kiosk was also installed at the advertised public meetings held at River Ridge Mall (afternoon) and City Hall/Galleria (evening) on February 18, 1999.

**Exhibit 7**
Report Card

# Lynchburg Area Transportation Study
# Report Card

To plan more effectively for future transportation needs, your input is needed to find out what aspects of transportation in the Lynchburg area need to be improved. As a user of this transportation system, please take a few moments to grade the system in the following areas. Once you have completed this "report card," simply fold and mail. Thank you for participating in this stage of an important planning study to help determine the future direction of the Lynchburg area's transportation system.

**1.** For the various aspects of the Lynchburg area transportation system listed below, place a grade in the appropriate box indicating whether you perceive it as severe (S) or moderate (M) problem, or not a problem (N). If you can, provide a specific location for each problem that you have observed.

| | S | M | N |
|---|---|---|---|
| A. Roadway maintenance and roadway conditions: | ☐ | ☐ | ☐ |
| B. Traffic congestion during rush hours: | ☐ | ☐ | ☐ |
| C. Traffic congestion during midday or on weekends: | ☐ | ☐ | ☐ |
| D. Location or operation of traffic lights and road signs: | ☐ | ☐ | ☐ |
| E. Adequacy of the roadway system: | ☐ | ☐ | ☐ |
| F. The number of commercial trucks on area roads: | ☐ | ☐ | ☐ |
| G. The level of truck or traffic noise: | ☐ | ☐ | ☐ |
| H. Tourist or non-resident traffic: | ☐ | ☐ | ☐ |
| I. Adequacy of bus system: | ☐ | ☐ | ☐ |
| J. Too much or too little on-street parking: | ☐ | ☐ | ☐ |

**2.** List up to three other additional transportation problems not mentioned above.

| | | | | |
|---|---|---|---|---|
| A. Additional Problem #1:_____ | ☐ | ☐ | ☐ |
| B. Additional Problem #2:_____ | ☐ | ☐ | ☐ |
| C. Additional Problem #3:_____ | ☐ | ☐ | ☐ |

**3.** Of these problems, including any that you have added, list the three that you believe are the most serious (in descending order, beginning with the worst).

I. _____ II. _____ III. _____

**4.** Do you have any suggestions for improving any of the above problems? (Feel free to use additional paper if you need more room.)

_____
_____
_____
_____

**5.** Would you like to be added to our mailing list so that you will be notified of upcoming opportunities for involvement in the Lynchburg Area Transportation Study? YES NO
If yes, provide your mailing address below.

Mr. ☐ Mrs. ☐ Ms. ☐ Dr. ☐ Rev. ☐
Name:_____
Address:_____
County:_____ City:_____ State:_____ Zip Code:_____
E-mail:_____ (optional) Telephone:_____ (optional)

A total of 85 questionnaires were returned. In general, the Lynchburg transportation system received a grade of C (based on traditional A through F grading). The physical condition of the roads, safety, traffic congestion, traffic signal system, roadway signs, quantity of roads, and freight rail service were all ranked slightly above this average. Taxi service, passenger rail service, inter-city bus service, and sidewalks ranked slightly below average. Parking, local bus service, air service, and bicycle trails were ranked as average.

In general, specific comments received from the questionnaires mirrored those from the telephone and personal interviews. Details of the responses are included in Appendix A. A sampling of responses is shown below:

- Acceleration lanes needed at ramps on the Route 29 Expressway
- Lakeside Drive traffic very slow in rush hours—new lights not a help
- Buses needed in more remote areas
- Buses need to run more often, especially on Sundays
- More bus service needed at the Virginia Employment Commission
- More seating and shelter at bus stops needed
- Use smaller, more efficient buses
- Taxi services not reliable—perhaps increase number of cabs
- Existing sidewalks too hilly—problem for those with arthritis
- Regional airport needed
- Build a cross-town, 4-lane highway
- Low income complexes have no access to public transportation which keeps them away from better job opportunities
- Build bridges and highways before the population demands it
- Adopt regional bike and pedestrian plan
- Signage is difficult to understand—consider color-coding major corridors linking specific areas
- Interstate needed in the area
- Build more one-way through streets for better access to downtown
- Enhance downtown parking
- Trains block crossing for long periods of time—need an overpass to avoid crossing the railroad
- Bike lanes needed as part of all new road construction plans

### 3.4 Regional Transportation Model

In order to quantify the effects of changes in land use and development patterns in the Lynchburg region, a computerized model of the thoroughfare roadway system was developed. This model was a comprehensive update of the model originally developed for the region in the 1960's. The model was developed using industry-standard modeling software (TRANPLAN) and was validated for both the a.m. and p.m. peak hours. This peak-hour model allows for analysis of traffic operations during the weekday peak periods for which transportation improvements are typically designed. Because the bulk of the data (primarily traffic counts) available for model validation was dated 1990, this year was used as the base year for the model. Demographic and traffic forecasts were developed for the year 2025, the horizon year for this long-range

transportation plan. Details on the development and validation of the model are included in Appendix C.

Increases in travel are largely a function of increases in population and employment – more homes and jobs mean more regional travel. The distribution of population and employment will also affect regional travel. For example, large increases in employment in one area (such as downtown Lynchburg) accompanied with large increases in homes in another (such as suburban Bedford or Campbell County) will create substantial increases in commuting travel on roads that connect these two areas. In order to accurately predict changes in traffic for the year 2025, the Lynchburg urbanized area was divided into 235 transportation analysis zones (TAZ). Population and employment was estimated for each of these zones by the Region 2000 staff in close cooperation with planning staff from Lynchburg and each of the surrounding counties. The demographic data for 1990 and 2025 are included in Appendix B. A summary of this data by jurisdiction is shown below:

**Exhibit 8**
Summary of Urbanized Area Demographics – 1990 and 2025

| | Year | City of Lynchburg | Amherst County* | Bedford County* | Campbell County* | TOTALS |
|---|---|---|---|---|---|---|
| Population | 1990 | 66,049 | 18,587 | 10,468 | 20,134 | 115,238 |
| | 2025 | 70,268 | 28,877 | 22,803 | 30,523 | 152,471 |
| Housing | 1990 | 27,233 | 6,655 | 4,217 | 8,090 | 46,195 |
| Units | 2025 | 29,276 | 11,044 | 9,202 | 11,635 | 61,157 |
| Students | 1990 | 36,615 | 2,300 | 2,439 | 2,810 | 44,164 |
| | 2025 | 32,204 | 2,514 | 5,686 | 5,265 | 45,669 |
| Total | 1990 | 49,190 | 6,360 | 2,785 | 9,106 | 67,441 |
| Employment | 2025 | 81,231 | 9,815 | 5,392 | 15,997 | 112,435 |
| Retail | 1990 | 8,618 | 1,524 | 473 | 1,295 | 11,910 |
| Employment | 2025 | 11,674 | 3,214 | 1,045 | 2,497 | 18,430 |

** -- Includes the urbanized portion of these counties only.*

## 3.5 Year 2025 Transportation Deficiencies

A planning-level assessment of transportation deficiencies was developed based on the traffic forecasts for the year 2025 p.m. peak hour (for most locations in the region, weekday traffic volumes are highest during the p.m. peak hour). In order to assess roadway operational deficiencies (i.e., levels of traffic congestion), traffic engineers evaluate the traffic operations of roads based on the concept of level of service. The analysis rates traffic operations as a level of service rating from A to F, with A representing excellent traffic flow with minimal delays and F representing failure in traffic operations and very high levels of delay. For most areas in the state, VDOT rates levels of service A, B, or C as acceptable and levels of service D, E, or F as unacceptable. For the planning-level approach used for this study, the maximum volume of vehicles that could be accommodated at level of service C was calculated for all thoroughfares based on road type and number of lanes. Those roadways that are projected to carry traffic volumes in excess of this level of service C capacity were highlighted as candidates for improvement. These candidate roadway segments are shown in the table below:

**Exhibit 9**

Projected Roadway Segments with Capacity Deficiencies – Year 2025

**Lynchburg**

| Roadway | From | To |
|---|---|---|
| Old Graves Mill Road | 0.5 mile south of Graves Mill Road | Graves Mill Road |
| Wiggington Road | Davis Cup Drive | Route 221 |
| Trents Ferry Road | Route 768 | Route 1006 |
| Route 460 Business | Leesville Road | Route 501 |
| Route 29 | Harvard Street | Route 501 |
| Route 460 Business | Perrymont Avenue | Memorial Avenue |
| Park Street | Kemper Street | 8th Street |
| 8th Street | Federal Street | Clay Street |
| Route 501 | Holcomb Rock Road | Route 651 |
| Route 460 | Airport Road | Concord Turnpike |
| Greenview Drive | 0.5 mile west of Leesville Road | Leesville Road |
| Route 501 | Route 501 Business | Carter's Grove Lane |
| Laxton Road | Enterprise Drive | Timberlake Road |
| Route 460 Business | Woods Road | Old Graves Mill Road |
| Route 685 | Route 29 Business | Thomas Road |
| Route 29 | Route 29 Business | Route 1054 |
| Route 1054 | Route 29 | Route 1002 |
| 5th Street | Court Street | Church Street |
| Florida Avenue | Route 501 Business | Winston Ridge Road |

**Amherst County**

| Roadway | From | To |
|---|---|---|
| Dillard Road | Route 29 | Route 130 |
| Route 833 | Route 681 | Wright Shop Road |
| Route 833 | Wright Shop Road | Route 1032 |
| Route 130 | Dillard Road | Route 705 |
| Route 130 | Route 705 | Route 795 |
| Wright Shop Road | Route 29 | Route 677 |
| Route 677 | Wright Shop Road | Route 29 |
| Route 669 | Route 677 | Route 1329 |
| Phyllis Lee Road | Route 805 | Route 29 |
| Route 677 | Route 622 | Route 670 |
| Izaak Walton Road | Route 677 | Eastern Study Limit |
| Route 681 | Route 29 | Route 833 |
| Route 29 Business | Route 685 | Route 29 |

**Bedford County**

| Roadway | From | To |
|---|---|---|
| Thomas Jefferson Road | Waterlick Road | Route 221 |
| Bateman Bridge Road | Thomas Jefferson Road | Route 221 |
| Route 221 | Perrowville Road | Cotton Town Road |
| Perrowville Road | Route 1430 | Route 662 |
| Route 221 | Forest Brook Road | Route 501 Expressway |
| Coffee Road | Route 624 | Route 501 |
| Cotton Town Road | Route 1209 | Route 221 |

**Campbell County**

| Roadway | From | To |
|---|---|---|
| Route 29 | Lynbrook Road | English Tavern Road |

| Roadway | From | To |
|---|---|---|
| Waterlick Road | Route 460 | Lawyers Road |
| Waterlick Road | Thomas Jefferson Road | Leesville Road |
| Town Fork Road | Route 460 | Bedford County Line |
| Camp Hydaway Road | Candlers Mountain Road | Old Rustburg Road |
| Leesville Road | Route 668 | Sunburst Road |
| Leesville Road | Route 847 | Town Fork Road |
| Route 726 | Route 460 | End of Route 726 |
| Route 460 | Madison Heights Bypass | Route 726 |

# Chapter 4 – Year 2025 Transportation Recommendations

The recommendations for improvements to the transportation system in the Lynchburg area were developed using a multi-faceted approach that incorporated analysis of projected future year deficiencies along with input from local citizens and governing bodies. Recommendations from previous transportation planning documents developed for the Lynchburg area were also considered in the development of improvement recommendations. In addition, the federal metropolitan planning factors (discussed in Chapter 5) were considered in both the development and analysis of improvements.

## 4.1 Compilation of Transportation Needs

A comprehensive set of transportation needs was compiled based on the surveys and analysis described in Chapter 3, projects in previous regional transportation plans, as well as projects that are currently programmed in the Virginia Department of Transportation's Transportation Development Plan (Fiscal Year 2000-2001). All of the needs were compiled into a single summary document for review. This compilation, included in Appendix D, includes projects identified in the following sources:

- *Lynchburg Area Year 2015 Interim Constrained Long-Range Transportation Plan* (March 1995)
- *Lynchburg Urbanized Area Short-Range Transportation Plan* (March 1998)
- *Region 2000 Bicycle Plan*
- Ongoing needs identified in the VDOT State Highway Planning System (SHIPS)
- Surveys, interviews, and questionnaires from this study

Through a series of meetings that were held from August through November of 2000 with the Region 2000 Transportation Technical Committee, these projects were reviewed in the context of existing transportation conditions as well as projected traffic volumes in the year 2025. The result of these meetings and associated analysis was a final listing of 136 recommended transportation improvement projects for the region. Based on estimates of transportation funds that might reasonably expected in the region over the next 25 years, projects were further divided into higher priority projects to be included in the financially constrained plan and lower priority projects to be included in the vision plan. The development of project costs and projected funding streams are described in the next section.

## 4.2 Cost Considerations

To comply with federal transportation planning requirements, the Lynchburg Area Long-Range Transportation Plan – Year 2025 must be financially constrained. This requirement is intended to enhance the Transportation Plan's usefulness by making it more realistic. Projects that are judged to be needed, but are a lower priority, can be included in a vision plan.

Estimates of the total available funding for transportation was developed in cooperation with VDOT. Available funding sources for roadway and roadway-related projects in the Lynchburg region include Surface Transportation Program (STP), National Highway System (NHS), and

other state and federal highway funds. Secondary system funds are also available for construction and maintenance of secondary roads in Amherst, Bedford, and Campbell Counties. State and federal transportation funds are also available for transit as well as the airport. Yearly estimates of roadway improvement funds to the year 2025 are shown in Exhibit 10. As the table shows, a total of $642.8 million is anticipated to be available over the 25-year period. The Greater Lynchburg Transit Company estimates a 25-year funding stream of $74.4 million. The Lynchburg Regional Airport's current 6-year Capital Improvement Program contains $13,804,000 (no projections beyond this 6-year timeframe were available). The resulting estimate is $731 million in total transportation funding for the region. All funding estimates are in year 2000 dollars.

Total transportation needs for the Lynchburg region were calculated to be $935.4 million. This includes $378.1 million in projects that are already included in the Virginia Transportation Development Plan (FY 2000-2001). Projects developed for this Transportation Plan (both constrained and vision) were estimated to cost $557.3 million. As with the estimates of available funds, all cost estimates are in year 2000 dollars.

In cooperation with the Transportation Technical Committee and local planning officials, projects were categorized with respect to priority. Parameters that were taken into consideration in developing the priorities include total travel demand on the particular facility, degree of relief to other facilities that the improvement would provide, conformance to federal planning factors, estimated cost, and estimated level of natural and community impact. Public input on the designation of projects as either in the financially constrained plan or the vision plan was also solicited at a public meeting held in October 2000.

Exhibit 11 provides a summary of the estimates for available funding and the required funding to construct the recommended projects. The programmed and constrained projects represent the Year 2025 Financially Constrained Transportation Plan for the Lynchburg urbanized area.

### 4.3 Programmed Projects

A total of 42 transportation projects in the Lynchburg urbanized area are currently in the Virginia Transportation Development Plan (TDP) for FY 2000-2001. The TDP represents VDOT's funding allocation process for Interstate, primary, urban, and secondary projects. These TDP projects, shown in Exhibit 12, are estimated to cost $389.1 million, of which $99.2 million is already funded. Transit and airport improvements, shown in Exhibit 13, are expected to be funded within the monies that have been programmed.

### 4.4 Bicycle and Pedestrian Routes

The Transportation Plan includes the creation of a number of bicycle routes in the Lynchburg area. These are based on the Region 2000 Bicycle Plan, and are shown in Exhibit 14.

## 4.5 Transportation Recommendations – Financially Constrained Plan

Additional transportation projects that are recommended in this Transportation Plan and that can be implemented based on the expected transportation funding stream are shown in Exhibit 15. The total estimated cost for these improvements is $363.3 million.

## 4.6 Transportation Recommendations – Vision Plan

Projects that were identified that would address local or regional transportation needs, but are expected to be beyond the financial wherewithal of the region to implement, are included in the Vision Plan. These projects are recommended to be implemented should funding become available. Vision plan projects are shown in Exhibit 16. The total estimated cost for these improvements is $194.1 million.

## 4.7 Plan Adoption

The Region 2000 Regional Commission (Central Virginia Metropolitan Planning Organization) adopted the Lynchburg Area Long-Range Transportation Plan – Year 2025 on January 18, 2001.

## Exhibit 10
## Estimated Roadway Transportation Funding Stream -- 2001 to 2025

| Year | Funds from Existing Sources (Year 2000 Dollars) [1] [2] | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | NHS Non-Interstate [3] | TEA -21 High Priority [3] | General [3] | Priority Trans-portation [3] | Primary System [3] | Urban System [3] | Secondary System [3] | Amherst County [4] | Bedford County [4] | Campbell County [4] | TOTALS |
| 2001 | $0 | $1,784,000 | $5,422,000 | $1,828,000 | $8,147,000 | $4,835,000 | $3,491,112 | $932,705 | $1,264,066 | $1,294,341 | $25,507,112 |
| 2002 | $0 | $1,785,000 | $0 | $2,700,000 | $8,269,205 | $4,907,525 | $3,677,143 | $996,681 | $1,384,248 | $1,296,214 | $21,338,873 |
| 2003 | $0 | $2,456,000 | $0 | $2,467,000 | $8,393,243 | $4,981,138 | $3,664,470 | $1,013,508 | $1,414,727 | $1,236,236 | $21,961,851 |
| 2004 | $2,000,000 | $0 | $0 | $2,186,000 | $8,519,142 | $5,055,855 | $3,945,061 | $1,054,718 | $1,486,512 | $1,403,831 | $21,706,058 |
| 2005 | $2,000,000 | $0 | $0 | $12,853,000 | $8,646,929 | $5,131,693 | $4,380,357 | $1,148,725 | $1,682,161 | $1,549,472 | $33,011,979 |
| 2006 | $0 | $0 | $5,235,551 | $14,002,000 | $8,776,633 | $5,208,668 | $4,541,286 | $1,148,725 | $1,682,161 | $1,710,400 | $37,764,138 |
| 2007 | $1,000,000 | $285,000 | $0 | $1,000,000 | $9,908,282 | $5,286,798 | $4,609,405 | $1,165,956 | $1,707,393 | $1,736,056 | $22,089,486 |
| 2008 | $1,015,000 | $289,275 | $0 | $1,015,000 | $10,056,907 | $5,366,100 | $4,678,546 | $1,183,445 | $1,733,004 | $1,762,097 | $22,420,828 |
| 2009 | $1,030,225 | $293,614 | $0 | $1,030,225 | $10,207,760 | $5,446,592 | $4,748,725 | $1,201,197 | $1,758,999 | $1,788,528 | $22,757,140 |
| 2010 | $1,045,678 | $298,018 | $0 | $1,045,678 | $10,360,877 | $5,528,291 | $4,819,955 | $1,219,215 | $1,785,384 | $1,815,356 | $23,098,498 |
| 2011 | $1,061,364 | $302,489 | $0 | $1,061,364 | $10,516,290 | $5,611,215 | $4,892,255 | $1,237,503 | $1,812,165 | $1,842,587 | $23,444,975 |
| 2012 | $1,077,284 | $307,026 | $0 | $1,077,284 | $10,674,034 | $5,695,383 | $4,965,639 | $1,256,066 | $1,839,348 | $1,870,225 | $23,796,650 |
| 2013 | $1,093,443 | $311,631 | $0 | $1,093,443 | $10,834,145 | $5,780,814 | $5,040,123 | $1,274,907 | $1,866,938 | $1,898,279 | $24,153,599 |
| 2014 | $1,109,845 | $316,306 | $0 | $1,109,845 | $10,996,657 | $5,867,526 | $5,115,725 | $1,294,030 | $1,894,942 | $1,926,753 | $24,515,903 |
| 2015 | $1,126,493 | $321,050 | $0 | $1,126,493 | $11,161,607 | $5,955,539 | $5,192,461 | $1,313,441 | $1,923,366 | $1,955,654 | $24,883,642 |
| 2016 | $1,143,390 | $325,866 | $0 | $1,143,390 | $11,329,031 | $6,044,872 | $5,270,348 | $1,333,142 | $1,952,217 | $1,984,989 | $25,256,897 |
| 2017 | $1,160,541 | $330,754 | $0 | $1,160,541 | $11,498,966 | $6,135,545 | $5,349,403 | $1,353,139 | $1,981,500 | $2,014,764 | $25,635,750 |
| 2018 | $1,177,949 | $335,715 | $0 | $1,177,949 | $11,671,451 | $6,227,578 | $5,429,644 | $1,373,436 | $2,011,222 | $2,044,985 | $26,020,286 |
| 2019 | $1,195,618 | $340,751 | $0 | $1,195,618 | $11,846,522 | $6,320,992 | $5,511,089 | $1,394,038 | $2,041,391 | $2,075,660 | $26,410,591 |
| 2020 | $1,213,552 | $345,862 | $0 | $1,213,552 | $12,024,220 | $6,415,807 | $5,593,755 | $1,414,949 | $2,072,011 | $2,106,795 | $26,806,749 |
| 2021 | $1,231,756 | $351,050 | $0 | $1,231,756 | $12,204,583 | $6,512,044 | $5,677,661 | $1,436,173 | $2,103,092 | $2,138,397 | $27,208,851 |
| 2022 | $1,250,232 | $356,316 | $0 | $1,250,232 | $12,387,652 | $6,609,725 | $5,762,826 | $1,457,715 | $2,134,638 | $2,170,473 | $27,616,983 |
| 2023 | $1,268,986 | $361,661 | $0 | $1,268,986 | $12,573,467 | $6,708,870 | $5,849,269 | $1,479,581 | $2,166,658 | $2,203,030 | $28,031,238 |
| 2024 | $1,288,020 | $367,086 | $0 | $1,288,020 | $12,762,069 | $6,809,504 | $5,937,008 | $1,501,775 | $2,199,157 | $2,236,075 | $28,451,707 |
| 2025 | $1,307,341 | $372,592 | $0 | $1,307,341 | $12,953,500 | $6,911,646 | $6,026,063 | $1,524,301 | $2,232,145 | $2,269,617 | $28,878,482 |
| TOTALS | $25,796,716 | $12,237,064 | $10,657,551 | $57,832,716 | $266,720,170 | $145,354,719 | $124,169,329 | $31,709,071 | $46,129,445 | $46,330,814 | $642,768,265 |

*Notes:*

*[1] -- Transportation funds are allocated based on local needs, not by each locality. Estimates of available funds are based on the average amounts historically allocated to the two VDOT construction districts that are included in the Lynchburg region.*

*[2] -- Growth assumptions are 1.5 percent per year.*

*[3] -- Includes Surface Transportation Program (STP), National Highway System (NHS), and other state and federal highway legislation (ISTEA and TEA-21) funds, where applicable. It is assumed that these funding programs, or successor programs, will be maintained through the year 2025.*

*[4] -- This includes a proportion of the total secondary funds for the county. This proportion was estimated to encompass only the urbanized section of the county.*

## Exhibit 11
## Summary of Project Funding and Requirements

| Funding Category | Estimated 25 Year Funding Stream | Estimated Funding Requirements | | | | |
|---|---|---|---|---|---|---|
| | | Programmed * | Constrained | P+C [2] | Vision | Totals |
| Primary System (NHS/TEA-21/GEN/PRIORITY) | $373,244,218 | 192,874,756 | 186,677,227 | 379,551,983 | 9,698,643 | 389,250,626 |
| Urban System | $145,354,719 | 60,149,000 | 87,438,872 | 147,587,872 | 145,380,300 | 292,968,172 |
| *Amherst County Secondary* | *$31,709,071* | *10,665,000* | *21,821,200* | *32,486,200* | *12,711,638* | *45,197,838* |
| *Bedford County Secondary* | *$46,129,445* | *15,318,000* | *30,464,250* | *45,782,250* | *25,765,306* | *71,547,556* |
| *Campbell County Secondary* | *$46,330,814* | *10,876,619* | *36,891,424* | *47,768,043* | *0* | *47,768,043* |
| Total Secondary System | $124,169,331 | 36,859,619 | 89,176,874 | 126,036,493 | 38,476,944 | 164,513,437 |
| **ROADWAY SUBTOTALS** | **$642,768,267** | **$289,883,375** | **$363,292,973** | **$653,176,348** | **$193,555,887** | **$846,732,235** |
| Public transit | $74,400,000 | 74,400,000 | 0 | 74,400,000 | 500,000 | 74,900,000 |
| Airport Improvements | $13,804,000 | 13,804,000 | 0 | 13,804,000 | 0 | 13,804,000 |
| **OVERALL TOTALS** | **$730,972,267** | **$378,087,375** | **$363,292,973** | **$741,380,348** | **$194,055,887** | **$935,436,235** |

Notes:

[1] -- There are projects that are currently in the Virginia Transportation Development Plan (FY 2000-2001). The amounts shown here reflect only the unfunded portion of the projects.

[2] -- Sum of the unfunded portions of programmed projects and the Financially Constrained Plan projects.

## Exhibit 12
## Roadway Projects -- Virginia Transportation Development Plan (FY 2000-2001)

| Juris-diction | Roadway -- From/To | Segment Length | Proposed Typical Section [1] | Estimated 2025 Daily Traffic [2] | Estimated Project Cost [3] | Remaining Funds Required [4] | Remarks |
|---|---|---|---|---|---|---|---|
| Lynchburg | Route 460 Interchange at Odd Fellows Road Extension | NA | NA | NA | $1,000,000 | $1,000,000 | New grade-separated interchange |
| Lynchburg | Route 460 Interchange at Odd Fellows Road Extension | NA | NA | NA | $16,700,000 | $16,700,000 | New grade-separated interchange |
| Lynchburg | Route 501 (Candlers Mountain Road) -- Woodall Road to Mayflower Drive | NA | U6 | 54,100 | $1,700,000 | $1,200,000 | Widen to 6 lanes (includes bridge over railroad) |
| Lynchburg | Route 501 (Lynchburg Expressway) Interchange at Route 221 (Lakeside Drive) | 0.3 | NA | NA | $20,881,000 | $20,881,000 | Construct interchange |
| Lynchburg | Breezewood Drive -- Route 501 to Route 221 (Lakeside Drive) | 0.5 | U3 | NA | $1,444,000 | $844,000 | Extend to Lakeside Drive |
| Lynchburg | Enterprise Drive -- Laxton Road to NW Railroad | 1.9 | U4 | 43,200 | $10,277,000 | $3,300,000 | Construct 4 lanes on new alignment |
| Lynchburg | Cross-Town Connector -- Old Forest Road to Route 501 Expressway | 2.4 | U4 | 42,800 | $9,198,000 | $6,873,000 | Widen to 4 lanes |
| Lynchburg | Cross-Town Connector -- Route 29 Expressway to Old Forest Road | 2 | U4 | 21,400 | $16,128,000 | $11,351,000 | Widen to 4 lanes |
| Amherst County | Route 29 (Madison Heights Bypass) -- Lynchburg Corporate Limits to Study Area Boundary | 8.8 | R4D | 22,600 | $133,983,056 | $110,579,056 | Construct 4 lanes on new alignment |
| Amherst County | Route 130 Connector -- Route 29 to Route 29 Bypass | 1.9 | R4 | 13,700 | $11,680,000 | $7,178,000 | Construct 4 lanes on new alignment (5 lanes at Route 29) |
| Amherst County | Route 210 Connector -- Route 29 to Route 29 Bypass (including Route 622 Connector) | 1.8 | R4 | 19,800 | $15,617,000 | $12,677,000 | Construct 4 lanes on new alignment |
| Amherst County | Route 210 Interchange at Route 29/210 (Colony Road at the Route 210 Connector) | NA | NA | NA | $12,984,000 | $5,294,000 | Reconstruct interchange |
| Amherst County | Route 604 (Bob White Road) -- Route 663 to Route 670 | 1.7 | R2 | NA | $1,625,000 | $620,000 | Widen pavement to 22 feet |
| Amherst County | Route 652 (Cedar Gate Road) -- Route 657 to Route 675 | 2.4 | R2 | 2,300 | $1,636,000 | $1,470,000 | Widen pavement to 24 feet |
| Amherst County | Route 652 (Cedar Gate Road) -- Route 675 to Route 130 | NA | NA | 5,000 | $300,000 | $300,000 | Replace bridge at Graham Creek |
| Amherst County | Route 657 (Cedar Gate Road) -- Route 652 to Route 636 | 0.5 | R2 | 2,200 | $505,000 | $505,000 | Widen pavement to 20 feet |
| Amherst County | Route 663 (North Coolwell Road) -- Route 29 South to Route 670 | 3.5 | R2 | 1,900 | $1,755,000 | $1,755,000 | Widen pavement to 22 feet (including railroad structure) |
| Amherst County | Route 683 (Thomas Road) -- Route 685 to Route 766 | 3.5 | NA | NA | $1,985,000 | $1,985,000 | Widen pavement to 22 feet |

## Exhibit 12
## Roadway Projects -- Virginia Transportation Development Plan (FY 2000-2001)

| Juris-diction | Roadway -- From/To | Segment Length | Proposed Typical Section [1] | Estimated 2025 Daily Traffic [2] | Estimated Project Cost [3] | Remaining Funds Required [4] | Remarks |
|---|---|---|---|---|---|---|---|
| Amherst County | Route 795 (Winridge Drive) -- Route 130 to Route 675 | 0.8 | R2 | 1,300 | $630,000 | $630,000 | Widen pavement to 24 feet |
| Amherst County | River Road Alternate (New Location) -- Route 130 to Route 29 Business at Route 210 | 3.5 | R2 | NA | $3,400,000 | $3,400,000 | Construct 2 lanes on new alignment (including new bridge) |
| Bedford County | Route 221 (Forest Road) -- 0.5 miles west of Route 663 to 0.5 miles west of NS Railroad | 2.9 | U4 | 36,400 | $12,165,000 | $9,195,000 | Widen to 4 lanes |
| Bedford County | Route 501 (Boonsboro Road) -- Bedford County Corporate Limits to Study Area Boundary | 4.8 | NA | 7,600 | $564,000 | $68,000 | Spot improvements (prorated cost) |
| Bedford County | Route 621 (Cotton Town Road) -- Route 1201 to 0.25 miles west of Route 884 | 1.7 | R2 | 12,100 | $3,390,000 | $3,075,000 | Widen pavement to 24 feet, improve bridge at Ivy Creek |
| Bedford County | Route 644 (Coffee Road) -- Route 665 North to Route 665 South | NA | NA | NA | $875,000 | $833,000 | Improve bridges and approaches |
| Bedford County | Route 645 (Trent's Ferry Road) -- Route 794 South to Bedford County Corporate Limits | NA | NA | 4,900 | $800,000 | $800,000 | Improve bridges and approaches |
| Bedford County | Route 658 (Walnut Hollow Road) -- Route 624 to Bedford County Corporate Limits | 1.3 | R2 | NA | $2,580,000 | $2,290,000 | Widen pavement to 22 feet |
| Bedford County | Route 660 (Hawkins Mill Road) at Ivy Creek | NA | NA | NA | $2,310,000 | $2,245,000 | Replace bridge and approaches |
| Bedford County | Route 662 (Hooper Road) at Ivy Creek | 0.9 | NA | NA | $610,000 | $575,000 | Construct new bridge |
| Bedford County | Route 663 (Perrowville Road) -- Route 662 to 0.62 miles north of Route 221 | 0.4 | R4 | 10,000 | $700,000 | $700,000 | Widen to 4 lanes |
| Bedford County | Route 761 (Holcomb Rock Road) -- Route 501 to Route 645 | 1.7 | R2 | 3,200 | $4,000,000 | $4,000,000 | Widen pavement to 24 feet |
| Bedford County | Route 811 (Thomas Jefferson Road) -- Route 622 to Route 623 | 1.8 | R2 | 3,700 | $3,305,000 | $800,000 | Reconstruct 2 lane roadway |
| Bedford County | Route 811 (New London Road) south of Route 460 | 0.1 | NA | 300 | $250,000 | $0 | Intersection improvements |
| Campbell County | Route 29 Interchange at Route 460 (Wards Road) | NA | NA | NA | $31,127,000 | $29,623,700 | Construct full interchange |

## Exhibit 12
## Roadway Projects -- Virginia Transportation Development Plan (FY 2000-2001)

| Juris-diction | Roadway -- From/To | Segment Length | Proposed Typical Section [1] | Estimated 2025 Daily Traffic [2] | Estimated Project Cost [3] | Remaining Funds Required [4] | Remarks |
|---|---|---|---|---|---|---|---|
| Campbell County | Route 29 (Madison Heights Bypass) -- Route 460 to Campbell County Corporate Limits | 1.4 | R4D | 22,600 | $45,424,000 | $14,760,000 | Construct 4 lanes on new alignment, includes bridges |
| Campbell County | Route 29 Bypass South -- Route 460 East to Route 29 at Yellow Branch | NA | NA | NA | $1,800,000 | $1,300,000 | Construct 4 lanes on new alignment |
| Campbell County | Route 460 (Richmond Highway) -- Route 501 (Campbell Avenue) to Route 29 Bypass North | 2.4 | R6 | 53,000 | $250,000 | $0 | Develop new location (preliminary engineering) |
| Campbell County | Route 609 (Stage Road) -- Route 726 to 0.4 miles east of Route 659 | 1.3 | R2 | NA | $2,944,040 | $2,590,702 | Widen pavement to 22 feet, improve bridges at Beaver Creek and Archer Creek |
| Campbell County | Route 622 (Waterlick Road) -- Route 682 to Route 683 | 2.3 | R2 | 7,700 | $5,101,092 | $1,282,578 | Widen pavement to 24 feet, improve bridge over NS railroad |
| Campbell County | Route 622 (Lynbrook Road) -- Route 683 to Route 29 | 2.53 | R2 | 4,000 | $5,050,000 | $5,050,000 | Reconstruct 2 lane roadway |
| Campbell County | Route 684 (Buffalo Mill Road) -- Route 682 to 0.8 miles west of Route 682 | 0.08 | R2 | NA | $167,000 | $41,339 | Widen pavement to 22 feet |
| Campbell County | Route 684 (Buffalo Mill Road) -- 0.8 miles west of Route 682 to 1.5 miles west of Route 682 | 0.7 | R2 | NA | $2,052,000 | $1,912,000 | Reconstruct 2 lane roadway, includes bridge over Buffalo Creek |
| Lynchburg | Enterprise Drive Extension/Bee Drive (Route 1415) -- Laxton Road to Timberlake Road | 0.1 | U3 | 45,700 | $200,000 | $200,000 | Construct 3 lanes on new alignment |

Notes:

[1] -- R=rural cross section; U=urban cross section; 2, 4, or 6=number of lanes; NA=not applicable

[2] -- Daily traffic in 2025 as forecast using the computerized regional transportation model.

[3] -- Total estimated project costs in year 2000 dollars.

[4] -- Currently unfunded portion of the total project cost. For completed projects, the amount shown here reflects completion of funding allocation to project.

# Exhibit 13
# Other Modes Projects -- Year 2025

### Public Transportation Improvements

| | |
|---|---|
| Ongoing Capital Cost of Facilities (Buildings) | $40,900,000 |
| Ongoing Capital Budget (Rolling Stock) | $23,000,000 |
| Conduct periodic studies (5-year intervals) of transit routes, on/off counts, productive versus nonproductive segments, and amenities such as shelters and benches | $500,000 |
| Conduct needs assessment for public transit within the MPO area | NA |
| Establish regionalized transit system with all jurisdictions participating in the cost | NA |
| Expand and coordinate specialized transit services to disadvantaged persons | NA |
| Construct commuter parking lot on Route 29 North | $180,000 |
| Deploy ITS technologies on transit buses (e.g. Smart media for collections) | $10,500,000 |

### Pedestrian/Bicycle Transportation Improvements

| | |
|---|---|
| Construct sidewalks on roads/streets where transit service is provided or projected (River Ridge Mall & Liberty University areas) | $2,000,000 |
| Complete construction of trail from Percival Island adjacent to the James River to Campbell County | $1,000,000 |
| Conduct feasibility study of constructing bike route connection from Campbell County to Blackwater Creek trail in the city via existing roadways | $100,000 |
| Establish ride-sharing options/alternatives and telecommuting | $1,000,000 |

### Intercity Bus/Rail/Trucks/Air Transportation Improvements

| | | |
|---|---|---|
| Expand train service to local industry via siding locations | NA | [1] |
| Implement piggy-back service to reduce truck travel on roadways | NA | [1] |
| Implement regional jet service for passengers and cargo | NA | [1] |
| Create regional transportation authority with participation by all jurisdictions | $1,000,000 | [2] |
| Improve roadway signage to general and commercial aviation facilities | $50,000 | |
| Study feasibility of combined regional airport with Roanoke | $100,000 | |
| City of Lynchburg - Kemper Street Station - (TEA - 21 High Priority Funding) | $1,500,000 | |
| Implement TransDominion Rail service | | [3] |

### Regional Airport Transportation Improvements [4]

| | |
|---|---|
| Construct general aviation terminal and parking lot | $800,000 |
| Construct State Police hangar | $1,000,000 |
| Construct rental car service facility | $1,044,000 |
| Purchase snow removal equipment and runway de-icer | $150,000 |
| Install Multiple User Flight Information Display System (MUFIDS) | $120,000 |
| Overlay general aviation apron | $300,000 |
| Rehabilitate taxiway "B" | $800,000 |
| Design Runway 3-21 drainage rehabilitation | $100,000 |
| Runway 3-21 drainage rehabilitation | $1,000,000 |
| Update Master Plan | $200,000 |
| Environmental assessment for Runway 3 extension (1201' x 150') | $200,000 |
| Acquire 54 acres of land for Runway 3 extension | $540,000 |
| Design Runway 3 extension | $550,000 |
| Construct Runway 3 extension | $7,000,000 |

### Transportation Enhancement Improvements

| | |
|---|---|
| City of Lynchburg/Amherst County -- Conversion of rails to trails | $930,000 |
| City of Lynchburg - Riverfront Revitalization | $348,000 |
| City of Lynchburg - Point of Honor Access Improvement | $150,000 |
| City of Lynchburg - Kemper Street Amtrak Station with Connector Road | $3,513,000 |
| City of Lynchburg - Construction of a trail to link Point of Honor with Black Water Creek Bikeway | $325,000 |

Notes:

[1] -- These projects will be implemented primarily through private industry efforts. Government participation may include some level of subsidy, but such costs were not calculated and are not included.

[2] -- The cost shown here is for a study of the issues related to a regional authority and the feasibilty of instituting such an authority.

[3] -- The cost of implementing the TransDominion Rail Service is a statewide cost and is, therefore, not included here.

[4] -- Costs shown for airport improvements are based on the Lynchburg Regional Airport's 6-Year Capital Improvement Plan. They reflect a 6-year rather than a 25-year horizon.

## Exhibit 15
## Roadway Projects -- Financially Constrained Transportation Plan -- Year 2025

| Juris-diction | Roadway -- From/To | Segment Length | Proposed Typical Section [1] | Estimated 2025 Daily Traffic [2] | Estimated Project Cost [3] | Remarks |
|---|---|---|---|---|---|---|
| Lynchburg/ Campbell Co. | Route 29 Bypass -- Route 29 South (Wards Road) to Route 501 (Campbell Avenue) | 4.4 | R6 | 49,700 | $105,373,600 | Widen to 6 lanes |
| Lynchburg | Route 460 Business (Fort Avenue) -- Memorial Avenue to 12th Street | 1 | U4 | 21,400 | $550,000 | Widen to 4 lanes (remove parking) |
| Lynchburg | Route 501 (Candlers Mountain Road) -- Woodall Road to Mayflower Drive | 0.5 | U6 | 54,100 | $11,100,000 | Widen to 6 lanes (includes bridge over railroad and interchange |
| Lynchburg | Route 501 (Lynchburg Expressway) -- Lakeside Drive to Boonsboro Road | 3 | U4 | 23,900 | $23,142,000 | Widen to 4 lanes |
| Lynchburg | Route 670 (Old Candlers Moutain Road) -- Mayflower Drive to Route 460 | 0.7 | U4 | 16,900 | $3,710,000 | Widen to 4 lanes |
| Lynchburg | Concord Turnpike -- Rockwell Road to Kavanaugh Road | 0.5 | NA | 5,200 | $1,575,000 | Add truck climbing lane for eastbound traffic at landfill |
| Lynchburg | 5th Street (Route 29 Business) -- Langhorne Road to Main Street | 1.2 | NA | 30,200 | $13,022,400 | The type of specific capacity improvements on 5th Street will be determined by a future sub-area study. |
| Lynchburg | Forest Brook Road -- Old Forest Road to Lakeside Drive | 1 | U2 | 5,700 | $3,150,000 | Improve 2 lane section (including at-grade railroad crossing) |
| Lynchburg | Fort Avenue -- 12th Street to Park Avenue | 0.38 | U4 | 13,300 | $3,021,000 | Widen to 4 lanes (remove parking) |
| Lynchburg | Greenview Drive (Route 678) -- Lynchburg Corporate Limits to Leesville Road | 1.3 | U4 | 18,600 | $6,890,000 | Widen to 4 lanes |
| Lynchburg | Langhorne Road (Route 501 Business) -- Fort Avenue to Memorial Avenue | 0.4 | U4 | 15,000 | $3,180,000 | Widen to 4 lanes |
| Lynchburg | Mayflower Drive (Route 128) -- Candlers Mountain Road to Odd Fellows Road | 1.3 | U4 | 10,100 | $9,937,500 | Widen to 4 lanes |

## Exhibit 15
## Roadway Projects -- Financially Constrained Transportation Plan -- Year 2025

| Juris-diction | Roadway -- From/To | Segment Length | Proposed Typical Section [1] | Estimated 2025 Daily Traffic [2] | Estimated Project Cost [3] | Remarks |
|---|---|---|---|---|---|---|
| Lynchburg | Old Graves Mill Road -- Graves Mill Road to Timberlake Road | 1.7 | U4 | 14,400 | $4,050,000 | Widen to 4 Lanes (includes bridge) (Excludes 0.7 Mile Section) |
| Lynchburg | Odd Fellows Road -- Lynchburg Expressway to Dead End | 1.3 | U4 | 11,300 | $12,208,000 | Widen to 4 lanes |
| Lynchburg | Old Forest Road -- Linkhorne Road to Lakeside Drive East | 1.2 | U2 | 10,200 | $2,940,000 | Improve 2 lane section |
| Lynchburg | Virginia Episcopal School Road -- Rivermont Road to Williams Road | 0.9 | NA | 3,300 | $62,972 | Construct sidewalk |
| Amherst County | Route 29 Business (South Amherst Highway) -- Route 685 to Route 29 at Kmart | 1.6 | U4 | 33,300 | $4,541,488 | Widen to 4 lanes |
| Amherst County | Route 29 -- Route 29 Business to Kmart | NA | NA | 42,900 | $200,000 | Signals study |
| Amherst County | Route 622 (Wright Shop Road) -- Route 210 to Route 833 | 0.7 | R4 | 20,400 | $3,587,500 | Widen to 4 lanes |
| Amherst County | Route 622 (Wright Shop Road) -- Route 833 to Route 677 | 1.8 | R4 | 14,100 | $6,075,000 | Widen to 4 lanes |
| Amherst County | Route 652 (Cedar Gate Road) -- Route 675 to Route 130 | 2 | R2 | 5,000 | $1,193,700 | Widen pavement to 22 feet |
| Amherst County | Route 670 (Izaak Walton Road) at Stovall's Creek and at South Fork | NA | NA | NA | $840,000 | Improve bridges |
| Amherst County | Route 677 (Dixie Airport Road) -- Route 669 North to Route 29 | 3 | R4 | 5,700 | $10,125,000 | Widen to 4 lanes |
| Bedford County | Route 221 (Forest Road) -- Elk Creek to 0.05 miles west of Route 663 | 0.6 | R4 | 20,200 | $3,780,000 | Widen to 4 lanes |
| Bedford County | Route 501 (Boonsboro Road) at Route 647 | 0.3 | NA | NA | $312,500 | Relocate intersection, construct turn lane |
| Bedford County | Route 501 (Boonsboro Road) -- Bedford County Corporate Limits to Judith Creek Bridge | 1 | NA | 7,300 | $138,400 | Widen shoulder for bike lane |
| Bedford County | Route 622 (Waterlick Road) -- Route 811 to Bedford County Corporate Limits | 0.9 | R4 | 7,200 | $3,037,500 | Widen to 4 lanes |

## Exhibit 15
## Roadway Projects -- Financially Constrained Transportation Plan -- Year 2025

| Juris-diction | Roadway -- From/To | Segment Length | Proposed Typical Section [1] | Estimated 2025 Daily Traffic [2] | Estimated Project Cost [3] | Remarks |
|---|---|---|---|---|---|---|
| Bedford County | Route 660 (Hawkins Mill Road) -- Route 621 to Route 659 | 2.3 | R2 | NA | $2,319,750 | Reconstruct 2 lane roadway |
| Bedford County | Route 661 (Bateman Bridge Road) -- Route 811 to Route 1440 | 1.2 | R4 | 9,000 | $3,240,000 | Widen to 4 lanes |
| Bedford County | Route 663 (Perrowville Road) -- 0.62 miles north of Route 221 to Route 1431 | 1.6 | R4 | 10,000 | $4,320,000 | Widen to 4 lanes |
| Bedford County | Route 811 (Thomas Jefferson Road) -- Route 460 to Route 221 | 5 | R4 | 10,700 | $17,547,000 | Widen to 4 lanes |
| Campbell County | Route 29 (Wards Road) -- South Route 738 to Campbell County Corporate Limits [5] | 3.5 | U6 | 55,200 | $20,474,439 | Widen to 6 lanes |
| Campbell County | Route 460 (Richmond Highway) -- Route 501 (Campbell Avenue) to Route 29 Bypass North | 2.4 | R6 | 53,000 | $9,976,800 | Widen to 6 lanes |
| Campbell County | Route 460 (Lynchburg Highway) -- Route 726 to Route 752 | 2 | R6 | 27,700 | $11,400,000 | Widen to 6 lanes |
| Campbell County | Route 460 Business (Timberlake Road) -- Route 460 to Campbell County Corporate Limits | 3.4 | U6 | 51,400 | $19,380,000 | Widen to 6 lanes |
| Campbell County | Route 622 (Waterlick Road) -- Campbell County Corporate Limits to Route 1520 | 1.1 | R4 | 10,600 | $3,712,500 | Widen to 4 lanes |
| Campbell County | Route 622 (Waterlick Road) -- Route 460 Business to Route 682 | 0.9 | R2 | 16,700 | $1,350,000 | Reconstruct 2 lane roadway |
| Campbell County | Route 623 (Town Fork Road) -- Route 682 to Route 858 | 2.5 | R2 | 5,900 | $2,148,500 | Reconstruct 2 lane roadway |
| Campbell County | Route 659 (Cabin Field Road) -- Route 609 to Route 460 | 1.5 | NA | NA | $106,568 | Widen shoulder for bike lane |
| Campbell County | Route 623 (Turkey Foot Road) -- Route 858 to Campbell County Corporate Limits | 1 | R2 | 5,500 | $100,000 | Reconstruct 2 lane roadway |
| Campbell County | Route 664 (Old Rustburg Road) -- Route 501 to Route 677 | 1.3 | R2 | 300 | $1,278,500 | Reconstruct 2 lane roadway |

## Exhibit 15
## Roadway Projects -- Financially Constrained Transportation Plan -- Year 2025

| Juris-diction | Roadway -- From/To | Segment Length | Proposed Typical Section [1] | Estimated 2025 Daily Traffic [2] | Estimated Project Cost [3] | Remarks |
|---|---|---|---|---|---|---|
| Campbell County | Route 670 (Sunnymeade Road) -- Route 501 to Route 677 | 2.8 | R2 | 2,300 | $3,776,000 | Reconstruct 2 lane roadway (includes at-grade railroad crossing) |
| Campbell County | Route 670 (Candlers Mountain Road) -- Lynchburg Corporate Limits to 677 | 2 | R2 | 2,500 | $1,450,000 | Reconstruct 2 lane roadway |
| Campbell County | Route 677(Sunnymeade Road) -- Route 738 to Route 670 | 2 | R2 | 1,700 | $6,125,000 | Widen pavement to 24 feet |
| Campbell County | Route 677 (Camp Hydaway Road) -- Route 670 to Route 664 | 3.2 | R2 | 2,800 | $797,500 | Reconstruct 2 lane roadway |
| Campbell County | Route 677 (Old Rustburg Road) -- Route 664 to Campbell County Corporate Limits | 1.1 | R2 | 1,900 | $1,100,000 | Reconstruct 2 lane roadway |
| Campbell County | Route 680 (Suburban Road) -- Route 738 to Route 501 | 3.2 | R2 | 1,600 | $3,200,000 | Reconstruct 2-lane roadway, excluding railroad crossing |
| Campbell County | Route 682 (Leesville Road) -- Campbell County Corporate Limits to Route 460 | 0.9 | R4 | 22,000 | $3,037,500 | Widen to 4 lanes |
| Campbell County | Route 682 (Leesville Road) -- Route 460 to Study Area Boundary | 2.5 | R2 | 6,700 | $3,125,000 | Widen pavement to 24 feet |
| Campbell County | Route 726 (Mt. Athos Road) -- Six Mile Bridge to Route 609 | 3.4 | NA | 13,700 | $237,356 | Widen shoulder for bike lane |
| Campbell County | Route 1520 (Rainbow Forest Road) -- Route 622 to Route 1551 | 2.1 | U2 | NA | $1,827,000 | Reconstruct 2 lane roadway |
| Campbell County | Enterprise Drive Extension -- Timberlake Road to Greenview Drive | 0.2 | U4 | 17,200 | $820,000 | Construct 4 lanes on new alignment |
| Campbell County | Route 681 (Sunburst Road) -- Route 460 to Route 622 | 2.7 | R2 | 17,200 | $2,700,000 | Reconstruct 2-lane roadway |

Notes:

[1] -- R=rural cross section; U=urban cross section; 2, 4, or 6=number of lanes; NA=not applicable

[2] -- Daily traffic in 2025 as forecast using the computerized regional transportation model.

[3] -- Total estimated project costs in year 2000 dollars.

## Exhibit 16
## Roadway Projects -- Vision Plan -- Year 2025

| Jurisdiction | Roadway | (From - To) | Segment Length | Proposed Typical Section [1] | Estimated Project Cost [2] | Remarks |
|---|---|---|---|---|---|---|
| Lynchburg | Route 460 Bus. (Timberlake Road) | Lynchburg SCL - Expressway (Route 501) | 2.3 | U6 | $25,392,000 | Widen to 6 lanes |
| Lynchburg | Route 501 (Boonsboro Road) | Lynchburg WCL - Lynchburg Expressway | 1.8 | U4 | $14,310,000 | Widen to 4 lanes |
| Lynchburg | Route 501 Bus. (Boonsboro Road) | Lynchburg Expressway - Link Road | 3 | U4 | $23,850,000 | Widen to 4 lanes |
| Lynchburg | Florida Avenue | Grace Street - Campbell Avenue | 2.3 | U2 | $7,245,000 | Improve 2 lane section |
| Lynchburg | Langhorne Road (Route 501 Bus.) | Tate Springs Road - Cranehill Drive | 1 | U4 | $8,480,000 | Widen to 4 lanes |
| Lynchburg | Main Street Extension | Main Street - Concorde Turnpike | 0.8 | U2 | $4,071,600 | Construct 2 lanes on new alignment |
| Lynchburg | Mayflower Drive (Route 128) | Odd Fellows Road - Campbell Avenue | 1.43 | U2 | $4,504,500 | Improve 2 lane section |
| Lynchburg | Memorial Avenue | Fort Avenue - Langhorne Road | 1.3 | U4 | $10,335,000 | Widen to 4 lanes |
| Lynchburg | Oakley Avenue | Lakeside Drive - Fort Avenue | 0.9 | U4 | $7,155,000 | Widen to 4 lanes |
| Lynchburg | Park Avenue | Kemper Street - 5th Street | 0.72 | U4 | $43,200 | Widen to 4 lanes (remove parking) |
| Lynchburg | Rivermont Avenue | Link Road - 5th Street | 3.2 | NA | $192,000 | Widen to 4 lanes (remove parking) |
| Lynchburg | Wards Road | Lynchburg SCL - Fort Avenue | 2.4 | U6 | $33,792,000 | Widen to 6 lanes |
| Lynchburg | Ericsson Drive Extension (new location) | Existing Ericsson Drive - Route 29 | 0.5 | U4 | $6,010,000 | Construct 4-lane roadway (with RR bridge) on new alignment |
| Amherst Co. | Route 29 | Route 29 - Route 677(SAB) | 9.79 | NA | $677,468 | Widen for bike lane |
| Amherst Co. | Route 210 (Colony Road) | Route 29 Bus. - Route 1034 | 0.3 | U4 | $810,000 | Widen to 4 lanes |
| Amherst Co. | Route 334 (Colony Rd.) | Route 1013 - Route 210 | 0.5 | NA | $34,600 | Widen curb for bike use |

## Exhibit 16
## Roadway Projects -- Vision Plan -- Year 2025

| Jurisdiction | Roadway | (From - To) | Segment Length | Proposed Typical Section [1] | Estimated Project Cost [2] | Remarks |
|---|---|---|---|---|---|---|
| Amherst Co. | Route 653 (Ambrose Rucker Road) | Route 130 - Graham Creek | 0.5 | NA | $362,500 | Widen pavement to 20 feet |
| Amherst Co. | Route 657 (Cedar Gate Road) | Route 652 - Route 29 | 2.8 | R2 | $2,415,000 | Widen pavement to 22 feet |
| Amherst Co. | Route 669 (Amelon Road) | Route 1314 - Route 677 | 1.6 | R2 | $2,400,000 | Widen pavement to 24 feet |
| Amherst Co. | Route 670 (Izaak Walton Road) | Route 669 - Study Boundary | 1.25 | NA | $86,500 | Widen shoulder for bike lane |
| Amherst Co. | Route 675 (Winesap Road) | Route 652 - Route 795 | 3.1 | R2 | $2,673,750 | Widen pavement to 22 feet |
| Amherst Co. | Route 681 Alt. | Route 29 - Route 677 | 1.7 | U2 | $3,570,000 | Construct 2 lanes on new alignment |
| Amherst Co. | Route F894 | Route 210 - Route 622 | 0.45 | NA | $31,140 | Widen shoulder for bike lane (local road) |
| Amherst Co. | Route 1013 | Riverwalk Trail - Route 334 | 0.69 | NA | $47,748 | Widen shoulder for bike lane (local road) |
| Amherst Co. | Route 1054 (Lakeview Drive) | East of Route 29 - Route 681 | 0.9 | U2 | $1,125,000 | Widen pavement to 24 feet |
| Bedford Co. | Route 501 (Boonesboro Road) | Judith Creek Bridge to Route 657 | 3.1 | R2 | $4,509,375 | Reconstruct 2 lane roadway, plus climbing lanes |
| Bedford Co. | Route 501 (Boonesboro Road) | Route 501 at Judith Creek Road | NA | NA | $487,200 | Bridge improvements |
| Bedford Co. | Route 609 (Golf Course Rd/Rustic Village Dr)) | Route 811 - Route 1239 | 1.75 | NA | $121,625 | Widen shoulder for bike lane |
| Bedford Co. | Route 621 (Cotton Town Road) | Route 1240 - Route 660 | 0.16 | NA | $1,771 | Widen shoulder for bike lane |
| Bedford Co. | Route 621 (Cotton Town Road) | Route 644 (Coffee Road) - Route 884 | 4.9 | R2 | $3,552,500 | Reconstruct 2 lane roadway |
| Bedford Co. | Route 623 (Turkey Foot Road) | Route 811 - Campbell CL | 1.2 | NA | $1,500,000 | Widen pavement to 24 feet |
| Bedford Co. | Route 644 (Coffee Road) | Route 665 North - Lynchburg WCL | 3.58 | R2 | $4,475,000 | Reconstruct 2 lane roadway |
| Bedford Co. | Route 645 (Trent's Ferry Road) | Lynchburg NCL - Route 761 | 3.2 | R2 | $3,200,000 | Reconstruct 2 lane roadway |

## Exhibit 16
## Roadway Projects -- Vision Plan -- Year 2025

| Jurisdiction | Roadway | (From - To) | Segment Length | Proposed Typical Section [1] | Estimated Project Cost [2] | Remarks |
|---|---|---|---|---|---|---|
| Bedford Co. | Route 659 (Hawkins Mill Road) | Route 660 - Lynchburg WCL | 1.46 | R2 | $2,161,000 | Reconstruct 2 lane roaday |
| Bedford Co. | Route 661 (Homestead Drive) | Route 1440 - Route 1415 (Enterprise Drive) | 2.1 | U4 | $5,670,000 | Widen to 4 lanes |
| Bedford Co. | Route 663 (Perrowville Road) | Route1431- Route 644 | 2.1 | R2 | $918,750 | Reconstruct 2 lane roadway |
| Bedford Co. | Route 761 (Holcomb Rock Road) | Route 645 S - Route 645 N | 0.8 | R2 | $1,000,000 | Widen pavement to 24 feet |
| Bedford Co. | Route 1239 (Spring Lake Road) | Route 609 - Route 1240 | 0.6 | NA | $41,520 | Widen shoulder for bike lane |
| Bedford Co. | Route 1240 (Lake Vista Drive) | Route 1239 - Route 621 | 1.57 | NA | $108,644 | Widen shoulder for bike lane |
| Bedford Co. | Route 621 (Cotton Town Road) | Route 221 - Route 660 | 1 | U4 | $3,014,496 | Widen to 4 lanes |
| Lynchburg | Harvard Street (Route 368) | Wards Ferry Road - Wards Road (Route 29 Bus.) | 0.4 | U4 | $3,180,000 | Widen to 4 lanes |

Notes:

[1] -- R=rural cross section; U=urban cross section; 2, 4, or 6=number of lanes; NA=not applicable

[2] -- Total estimated project costs in year 2000 dollars.

## Chapter 5 – Federal Planning Requirements

The Transportation Equity Act for the 21st Century (TEA-21), enacted by the U.S. Congress in June 1998, requires that transportation plans consider all transportation modes, the environmental and social impacts of transportation projects, and plan for the future through such actions as early preservation of transportation rights-of-way. In metropolitan areas, seven planning factors must be considered in the development of transportation plans. These factors are listed below along with a description of how these factors have been considered and analyzed in the development of the Lynchburg Area Long-Range Transportation Plan.

### 5.1 Support the Economic Vitality of the Metropolitan Area, Especially by Enabling Global Competitiveness, Productivity, and Efficiency

Throughout the development of the Transportation Plan, the economic vitality of the Lynchburg region and its relationship to the transportation system was the focus of public input into the process and the development of transportation improvements. Major roadway projects, such as the Route 29 Bypass (programmed in Amherst County, under study in Campbell County), will enhance roadway connections to the rest of Virginia and the eastern United States. Improvements to the Lynchburg Regional Airport as well as improvements to roads that access the airport (Route 29 South and Route 460) will also enhance the economic vitality of the region. In addition, the overall transportation plan will increase regional productivity and competitiveness through reduced congestion, fewer travel delays, and greater travel mode choice. Some of the other specific transportation plan elements that support the economic vitality of the Lynchburg region include:

- *Route 460 Interchange at Odd Fellows Road (industrial access)*
- *Improvements to Candler's Mountain Road (commercial and industrial access)*
- *Cross-Town Connector (improved east-west travel and reduction in congestion)*
- *Route 221 – Forest Road (improved travel and reduction in congestion)*
- *Route 460 – Timberlake Road (improved travel and reduction in congestion)*
- *Route 29 in Amherst and Campbell Counties (improvements to major gateway corridors)*
- *South Lynchburg Bypass*
- *Lynchburg Riverfront Revitalization (downtown revitalization)*
- *Support for increased freight rail (enhance modal choice for goods movement)*
- *Study of regional airport (enhance long-term viability of air service to region)*
- *Airport improvements, TransDominion rail service (enhance modal choice for travel)*

### 5.2 Increase the Safety and Security of the Transportation System for Motorized and Non-Motorized Users

Travel safety and security for motorists, transit riders, pedestrians, and bicycles were addressed in the development of this Transportation Plan. Improvements to the Kemper Street rail station, co-location of the bus station with the train station, and improved access to the station will all increase traveler safety. Transit rider and pedestrian safety is addressed through recommendations to add sidewalks in areas where transit service is currently provided or planned. Bicycle safety is enhanced through the recommendations to implement the regional

bicycle plan. Motorist safety is enhanced through improvements to roadways that do not meet current standards as well as the construction of routes, such as the Route 29 Bypass, that divert through traffic from congested streets such as the Lynchburg Expressway. Other safety improvements include improvements to railroad crossing or crossing structures (Route 663 in Amherst County and Route 670 in Campbell County).

## 5.3 Increase the Accessibility and Mobility Options Available to People and for Freight

Accessibility and mobility options will be increased by the multi-modal elements of this Transportation Plan. Improved roadway access serves cars, buses, social service transportation, and trucks. Substantial increases in accessibility are provided by several road projects in this plan, including the Route 460 interchange at Odd Fellows Road, improved roads leading to downtown Lynchburg (Fort Avenue, Cross-Town Connector), new connecting roads in southern Lynchburg and Campbell County (Enterprise Drive Extension), and improvements to roads in major commercial areas (Candler's Mountain Road, Route 29). Mobility options will be increased by improvements to the Kemper Street station and inter-city bus service at this location. Inter-city mobility will also be improved by the TransDominion Rail service and improvements to the airport. Sidewalk and transit improvements will also serve to enhance the overall mobility of the Lynchburg region's residents.

Freight options will be improved by major improvements that increase accessibility to key industrial areas (Odd Fellows Road interchange at Route 460) as well as ways to increase mobility into and through the region (Route 29 Bypass, widening of Routes 460 and 221). Improved access to the downtown (Cross-Town Connector, widening of Concord Turnpike) will enhance both accessibility to downtown businesses for their goods, but also improve access to rail service in the area.

## 5.4 Protect and Enhance the Environment, Promote Energy Conservation, and Improve Quality of Life

By alleviating congestion and improving multi-modal transportation service and connections, the Transportation Plan will promote energy conservation and improve the quality of life in the Lynchburg region. Upgraded roadways will reduce congestion, enhance travel safety, and improve access to and use of non-automotive modes of travel. Reduced congestion, along with upgrades to transit service, will reduce fuel consumption and improve air quality. Removing through traffic from downtown Lynchburg by constructing the Route 29 Bypass will increase the safety, community cohesion, and quality of life for those living along currently congested roadways.

The environment will also be protected and enhanced by projects that seek to enhance the viability of areas in the region that are already developed. The recommended actions and policies of this Plan were developed, in part, to consider the effects of transportation policy decisions on land use and development and to support regional land use plans. Examples of projects that support overall land use goals include those that improve access to the Lynchburg downtown and other developed areas such as Candler's Mountain Road, the Odd Fellows Road corridor, and Route 29 in Amherst and Campbell Counties. Other projects, such as Enterprise

Drive and the Enterprise Drive Extension, will reduce overall travel in the region by providing shorter connections between major areas of development. Projects on new alignment, such as the Route 29 Bypass, will be limited access facilities, allowing growth to be focused at interchange areas.

All of the Transportation Plan projects have been subjected to a planning-level review of social, economic, energy, and environmental impacts (documented in Chapter 6). In addition, as part of the development of both the vision and constrained plans, those projects that were judged to have unacceptably high environmental or community impacts were removed from consideration. Prior to construction, all projects will be subjected to more detailed studies with respect to their impacts on the natural and man-made environment.

## 5.5 Enhance the Integration and Connectivity of the Transportation System, Across and Between Modes, for People and Freight

Recommended Transportation Plan improvements will enhance the integration and connectivity of the various travel modes in the Lynchburg region. Access to the Lynchburg Regional Airport will be improved through the construction of the Route 29 Bypass. Improvements to the Cross-Town Connector will upgrade access to the Kemper Street Station for rail and bus travelers. Sidewalks in areas where transit service is provided will enhance the safety of connections to transit travel. Other recommendations to construct a park-and-ride lot on Route 29 North and to support ridesharing and telecommuting will also enhance travel options and connectivity.

Transportation connections within the region and to areas outside of the region will be enhanced through improvements to Route 29 in Amherst and Campbell Counties, as well as improvements to Route 221 and Route 460. Connections to areas outside of the region will be improved by the construction of the Route 29 Bypass.

## 5.6 Promote Efficient System Management and Operation

The Transportation Plan's recommendations will increase the efficiency of management and operations of the Lynchburg area transportation system. Patronage of the transportation system across all modes will increase, based on better connections between travel modes and more choices for various types of travel. Several recommendations, including periodic studies of transit routes and operations, regional transit needs assessment, and the establishment of a regionalized transit system would improve system management and operations. Roadway operations will be better managed through several Intelligent Transportation Systems (ITS) recommendations, including video-based traffic signal actuation, as well as a traffic flow and signals study on Route 29 in Amherst County (additional detail on ITS recommendations is included in Section 5.9).

## 5.7 Emphasize the Preservation of the Existing Transportation System

The Transportation Plan recommended improvements will preserve and enhance the regional transportation system. Roadway widenings and spot improvements will allow the existing roadway network to better and more safely serve transportation needs. Other specific projects,

such as the ongoing improvements to the Kemper Street Rail station, are intended to preserve and enhance existing transportation facilities. Both transit and air transportation improvements include funds to both preserve the existing service as well as to enhance its efficiency. The projected funding stream to the year 2025 includes ongoing and steadily increasing funds for VDOT to maintain and preserve the existing transportation system.

## 5.8 Environmental Justice

This Transportation Plan was developed as part of a process that takes into account the requirements of Presidential Executive Order 12898 on Environmental Justice. This order was signed in 1994 and augments Title VI of the Civil Rights Act of 1964 by providing additional specifics on prohibiting discrimination based on race, color, and national origin. The Executive Order applies to persons belonging to Black, Hispanic, Asian American, American Indian, Alaskan Native, as well as low-income groups. Environmental Justice principles require that all potentially affected communities participate in the decision-making process; minority and low-income populations are not prevented from receiving the benefits of transportation improvements; and disproportionately high and adverse impacts on minority and low-income populations are avoided, minimized, or mitigated.

Throughout the development of this Transportation Plan, efforts were made to reach out to minority and low-income groups by advertising meetings in all local media outlets, including minority media outlets, and meetings were held at locations that were accessible to all citizens by transit, walking, or car. Meeting locations over the course of the study included the River Ridge Mall, Downtown Galleria (behind City Hall), and the Lynchburg Public Library. In addition, an information kiosk was placed in public locations, including both the same locations as for the public meetings, along with the Kemper Street station, the Greyhound bus station, and City Hall.

Executive Order 12898 also requires that transportation planning efforts avoid, minimize, or mitigate disproportionately high and adverse human health and environmental effects, including social and economic effects, on minority and low-income populations. Many projects in this Plan, including those suggested by the general public early in the study, were developed to increase accessibility to minority and low-income areas while being sensitive to the potential impacts of these projects. Such projects include those that increase accessibility to the downtown, as well as those that extend transit service and develop a regional transit service. These projects will serve to increase mobility options for low-income and transit-dependent populations.

To the maximum extent possible, projects that were judged, at a planning level, to have disproportionately high impacts on minority and low-income neighborhoods were dropped from consideration, thus avoiding the impacts. As part of the environmental overview process for all Transportation Plan recommendations, the potential impacts of transportation projects were identified and are documented in this Technical Report (see Section 6.5). As these projects are implemented, Environmental Justice principles will be applied throughout the project development and design process to minimize and/or mitigate disproportionately high impacts on minority and low-income groups.

## 5.9 Intelligent Transportation Systems

Intelligent transportation systems (ITS) is the coordination of new technologies, improvements in information and communications systems, and conventional surface transportation infrastructure. ITS improvements have the potential to improve the efficiency and safety of the regional transportation system, sometimes at significantly less cost and/or with fewer negative impacts. ITS recommendations for roadways in Central Virginia include continued implementation of traffic signal improvements such as video-based signal actuation and provision of traffic information to motorists through variable message signing at key locations. A traffic flow and signals study is included in the Transportation Plan for Route 29 in Amherst County. ITS technologies for traffic signals and traveler information can improve traffic flow and safety in this corridor. For transit, ITS technologies have the potential to increase the efficiency of fare collection, allow for real-time tracking of bus movements, and to convey this information to the general public through information kiosks, bus stop signs, and/or through the Internet. The Transportation Plan specifically recommends the deployment of ITS on transit through the use of electronic debit cards for fare collection and continued study of the potential and cost-benefit of other transit ITS technologies for the regional transit system.

## Chapter 6 – Environmental Overview

The improvement recommendations in the LATS Long-Range Plan have been subjected to a review of the potential for environmental effects. This overview included the following:

- Natural resources (including problem soils, prime and unique farmlands; rare, threatened and endangered species; and natural heritage resources)
- Water resources (including wetlands, floodplains, resource protection and management areas, trout streams, and wild and scenic rivers)
- Air quality
- Noise
- Population, housing and community facilities, and economics and business
- Cultural and historic resources
- Land use (state and federal parklands including open space easements and agricultural/forestal districts)
- Hazardous materials

An environmental overview of projects in the Year 2025 Financially Constrained Long-Range Plan is shown in Exhibit 17.

Information for the environmental overview was gathered during site visits and through literature searches and agency consultations. Identification of potential business or residential displacement, potential hazardous materials sites were made by visual observation. Identifications of potential historic or archaeological sites, wildlife refuges and other special sites were made through consultations with local agencies.

The environmental overview serves as an initial checklist of potential impacts and environmental issues associated with the transportation recommendations. More detailed assessments of impacts would be determined as part of the project development and design process.

### 6.1 Natural Resources

#### Prime and Unique Farmlands

The Farmland Protection Policy Act of 1981 (FPPA) authorizes the Department of Agriculture to develop criteria for identifying the effects of federal programs on the conversion of farmland to nonagricultural uses. Farmland protected by FPPA is either prime farmland, which is not already committed to urban development or water storage, or unique farmland, which is of state or local importance, as determined by the appropriate state or local government agency with the concurrence of the Secretary of Agriculture.

The soil surveys for Amherst and Bedford counties indicate that prime farmlands exist within the study area (see Exhibit 18). The 1997 *Soil Survey of Campbell County and the City of Lynchburg, Virginia* does not report prime and unique farmlands; however, soil series that are known prime farmland soils occur within and adjacent to the City of Lynchburg.

Each proposed transportation project was located on the soil survey for Amherst County, Bedford County, or Campbell County and the City of Lynchburg (1) and a determination was made if the project crossed through soils designated as prime or unique farmlands. Each project that crossed through soils designated as prime or unique farmlands would potentially convert the land's use from farmland to non-agricultural uses and thus would require further analysis and possible agency coordination. The results of this analysis are presented in Exhibit 17. For the Transportation Plan proposed roadway improvements, 69 would potentially impact soils designated as prime or unique farmlands.

## Soils

Analyses of soil types indicate that problem and hydric soils exist within the study area. Exhibit 18 presents lists of the specific problem/hydric soils found in the study area. Problem soils are unstable and pose difficulties during construction. The problem soils in the study area exhibit high shrink/swell potential, clayey subsoils, slope limitations, and frequent flooding. Hydric soils indicate the presence of wetlands or former wetlands in the study area. A detailed soils analysis should be conducted during later planning phases for these improvements.

**Exhibit 18**
Prime and Unique Farmland

| County | USDA Mapping Code | Soil Series and Type | Slope (%) |
|---|---|---|---|
| **Amherst** | | | |
| | 7B | Meadowville loam | 2-7 |
| | 26B | Hayesville loam | |
| | 44B | Minnieville loam | 2-7 |
| | 102B | Wintergreen loam | |
| | 105B | Unison loam | 2-7 |
| | 152A | Wingina loam | 0-4, occasionally flooded |
| | 160A | Galtsmill fine sandy loam | 0-4, occasionally flooded |
| | 166B | Elsinboro loam | 2-7, rarely flooded |
| | 168B | Delanco loam | 2-7, rarely flooded |
| **Bedford** | | | |
| | 1B | Altavista fine sandy loam | 2-7 |
| | 4B | Braddock fine sandy loam | 2-7 |
| | 7B | Cecil fine sandy loam | 2-7 |
| | 9B | Cullen loam | 2-7 |
| | 18B | Helena fine sandy loam | 2-7 |
| | 23B | Mattaponi sandy loam | 2-7 |
| | 24B | Mecklenburg loam | 2-7 |
| | 28B | State fine sandy loam | 2-7 |
| | 32A | Toccoa sandy loam | 0-2 |
| | 33B | Turbeville fine sandy loam | 2-7 |
| | 34B | Vance fine sandy loam | 2-7 |
| **Campbell** | | | |
| | CcB2 | Cecil fine sandy loam | 2-6 eroded |
| | Ch | Chewacla loam | |
| | CuB | Cullen loam | 2-6 |

1 Note: the City of Lynchburg is included in the Campbell County soil survey.

| County | USDA Mapping Code | Soil Series and Type | Slope (%) |
|---|---|---|---|
| | MzB2 | Mecklenburg loam | 2-6 eroded |
| | StB | State fine sandy loam | 0-2 |
| | To | Toccoa fine sandy loam | |
| | TuB | Turbeville fine sandy loam | 2-6 |

Sources: USDA, Soil Conservation Service, *Soil Survey of Amherst County, Virginia.* 2000 (preliminary data).
USDA, Soil Conservation Service, *Soil Survey of Bedford County, Virginia.* 1989.
USDA, Soil Conservation Service, *Soil Survey of Campbell County and the City of Lynchburg, Virginia.* 1977.

### Rare, Threatened, and Endangered Species and Natural Heritage Resources

The following agencies were contacted to identify potential rare, threatened, and endangered species and natural heritage resources in the study area:

- United States Fish and Wildlife Service
- Virginia Department of Conservation and Recreation
- Virginia Department of Game and Inland Fisheries
- Virginia Department of Agriculture and Conservation

The U.S. Fish and Wildlife Service noted that the study area contains habitat for rare, threatened, or endangered species. Appendix E presents correspondence from this agency. The Virginia Department of Conservation and Recreation (VDCR) noted that natural heritage resources exist in the study area. VDCR identifies natural heritage resources as the "habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geological formations."

Transportation Plan roadway improvements that would pass through the resource areas described above were identified, and it was determined that eight of the improvements would pass through these areas and potentially affect rare, threatened, or endangered species.

A field survey would be required during later stages of planning and design of each proposed improvement to determine the presence of rare, threatened, or endangered plant and animal species and any potential effects on them.

## 6.2 Water Resources

The study area contains water resources including wetlands and streams that are tributaries of the James River. This section summarizes the water resources within the study area, their characteristics, and the regulations that govern them. The James River flows from northwest to southeast through the study area, which lies entirely within the James River Drainage Basin. Portions of five of the James River's subwatersheds lie within the improvement area. Exhibit 19 presents each watershed with its aquifers, major rivers, and streams.

**Exhibit 19**
Watersheds Draining Study Area

| Drainage Basin: James River | | | |
|---|---|---|---|
| Watershed | USGS Cataloging Unit | Aquifers | Rivers and Streams |
| Upper James | 02080201 | Valley and Ridge | James River |
| | | Valley and Ridge carbonate-rock | |
| | | Some areas served by no principal aquifers | |
| Maury | 02080202 | Valley and Ridge carbonate-rock | Buffalo Creek |
| | | Valley and Ridge | James River |
| | | Some areas served by no principal aquifer | South Buffalo Creek |
| Middle James-Buffalo | 02080203 | Some areas served by no principal aquifer | Buffalo River |
| | | Early Mesozoic basin | Harris Creek |
| | | Valley and Ridge | Ivy Creek, James River |
| Upper Roanoke | 03010101 | Some areas served by no principal aquifer | Elk Creek |
| | | Valley and Ridge carbonate-rock | Flat Creek |
| | | Valley and Ridge | Tomahawk Creek, James River |
| Middle Roanoke | 03010102 | Some areas served by no principal aquifer | James River |
| | | Early Mesozoic basin | |

Source: www.epa.gov/surf3/hucs

The Virginia Department of Environmental Quality (VDEQ) classifies streams in the study area as Class III waters—non-tidal waters of the Coastal and Piedmont Zones. Class III streams are defined as:

> "Streams which contain a fair population of wild trout with carrying capacity depressed by natural factors, more commonly man-related land-use practices. Land use activities may result in heavy siltation of stream, destruction of banks and fish cover, water quality degradation, increased water temperature etc. Most streams would be considered to be in the active state of degradation or recovery from degradation. Alteration in land-use practices would generally improve carrying capacity of the stream." 2

Class III standards address temperature, pH, dissolved oxygen and fecal coliform. For the Transportation Plan roadway improvements, 53 cross tributaries of the James River and may potentially impact streams (see Exhibit 17).

2 Definition of Class III streams from the State Water Control Board, 9 VAC 25-260-5 et seq. Water Quality Standards. Statutory Authority: § 62.1-44.15(3a) of the Code of Virginia. Effective Date: December 10, 1997.

## Wetlands

Numerous wetlands are present in the study area, according to the National Wetland Inventory (NWI). NWI data has limited resolution on the location of specific wetlands because it is developed through air photography. It does, however, provide an indicator of the general presence of wetlands in the study area. Each study area wetland performs valuable functions in the natural system, such as providing habitat, groundwater interchange, and sediment/shoreline stabilization.

Each proposed roadway project in Amherst County, Bedford County, and Campbell County and the City of Lynchburg was located on NWI wetland mapping in a Geographic Information System format to determine if the project would cross NWI wetlands. Prior to conducting detailed design studies, field investigations to determine whether wetlands are present in the project area should be done. If wetlands are present, the project analysis should include wetland delineation, planning to avoid or minimize impacts, a jurisdictional determination, and permitting through the State of Virginia and the U.S. Army Corps of Engineers. For the Transportation Plan roadway improvements, 36 may potentially impact wetlands.

## Floodplains

Major floodplain areas are associated with the James River and Blackwater Creek and their tributaries. The GIS data set provided with this report contains full floodplain locations for Bedford County and Campbell County and the City of Lynchburg. Amherst County floodplain information is not available in GIS format. Projects that occur within floodplains are subject to permitting.

Each proposed project in Bedford County and Campbell County and the City of Lynchburg was located on GIS floodplain mapping. Due to lack of electronic data for Amherst County, SES located each proposed project was located on the floodplain map for Amherst County to determine if the alternative crossed through floodplains. Each alternative that crossed through floodplains would require further analysis and permitting through the U.S. Army Corps of Engineers. For the Transportation Plan roadway improvements, 34 could potentially impact floodplains (see Exhibit 17).

## Resource Protection/Resource Management Areas

Virginia established a Chesapeake Bay Local Assistance Board with the charge of developing criteria and regulatory approaches to protect water quality in the Chesapeake Bay. The Board has designated certain lands in Tidewater Virginia as Resource Preservation Areas. Since the City of Lynchburg, Amherst County, Bedford County, and Campbell County are neither part of Tidewater Virginia nor have they adopted any provisions of the Chesapeake Bay Preservation Act, there are no Resource Protection or Resource Management Areas within the study area.

### Trout Streams

Based on information obtained from the Virginia Department of Game and Inland Fisheries (VDGIF) (2), several streams in the study area support trout fishing. Furthermore, the Virginia Department of Environmental Quality (VDEQ) has designated study area streams as Class III waters, which contain a fair population of wild trout. Therefore, the same 53 proposed improvements that are noted to cross streams also, by definition, cross trout waters (see Exhibit 17).

### Wild and Scenic Rivers

Based on information obtained from VDGIF (3) no wild and scenic rivers flow within the study area. The closest Wild and Scenic River is the New River, which is approximately 95 miles west of the Lynchburg area.

## 6.3 Air Quality

The U.S. Environmental Protection Agency (EPA) established national air quality criteria, known as the National Ambient Air Quality Standards (NAAQS) for the criteria pollutants nitrogen oxides ($NO_x$), sulfur oxides ($SO_x$), carbon monoxide (CO), particulate matter equal to or less than 2.5 microns ($PM_{2.5}$) , lead, and ozone. The criteria include both primary and secondary standards. Primary standards protect against adverse health effects; secondary standards protect against welfare effects such as damage to crops, ecosystems, vegetation and buildings, and decreased visibility. Areas that do not meet the primary standards are called "nonattainment areas." Nonattainment areas are classified as "marginal," "moderate," "serious," "severe," or "extreme," based upon the area's measured levels of a criteria pollutant compared to the federal standard. EPA has designated the Lynchburg metropolitan area as in attainment for all criteria pollutants.

To determine existing air quality in the study area, the study team examined data from VDEQ. In the Lynchburg metropolitan area VDEQ has been collecting $PM_{2.5}$ data at the following location since January 28, 1999: Station No. 51-680-0014, Central Virginia Community College, Lynchburg, Virginia. VDEQ data indicate that the $PM_{2.5}$ standard has not been violated at the Central Virginia Community College station since the monitor was installed in January 1999.

Roadway projects that increase congestion or vehicle miles traveled have the potential to increase air pollution. SES identified three general types of projects in the proposed roadway improvement alternatives that may have an effect on air pollution:

- Projects constructed on new alignments
- Widening projects
- Improvement/reconstruction projects

2 www.dgif.state.va.us/fishing/trout2k.html
3 www.dgif.state.va.us

Planning phases for each improvement should include comprehensive studies to determine its potential impact on regional air quality.

## 6.4 Noise

The construction of a new highway or the physical alteration of an existing highway that changes its horizontal or vertical alignment or increases the number of through traffic lanes requires the Virginia Department of Transportation (VDOT) to determine whether noise mitigation is needed, reasonable, and feasible. All Virginia highway projects fitting the preceding definition must follow the Federal Highway Administration's (FHWA's) established noise standards. The standards include Noise Abatement Criteria (see Exhibit 20), which apply to areas having regular human use where lower noise levels are desirable. These areas include residences, parks, places of worship, and various community facilities. Many of these uses are identified in other sections of this technical memorandum. The criteria do not apply to an entire tract of land, but only the portion where noise sensitive sites are located.

**Exhibit 20**
FHWA Noise Abatement Criteria

| Activity Category | $L_{eq}$ (h) (dB[A]) | Description of Activity Category |
|---|---|---|
| A | 57 *Exterior* | Lands on which serenity and quiet are of extraordinary significance and serve an important public need, and where the preservation of those qualities is essential if the area is to continue to serve its intended purpose. |
| B | 67 *Exterior* | Picnic areas, recreation areas, playgrounds, active sports areas, parks, residences, motels, hotels, schools, churches, libraries, and hospitals. |
| C | 72 *Exterior* | Developed lands, properties, or activities not included in Categories A or B. |
| D | -- | Undeveloped land. |
| E | 52 *Interior* | Residences, motels, hotels, public meeting rooms, schools, churches, libraries, hospitals, and auditoriums. |

Source: *Title 23 Code of Federal Regulations (CFR) Section 772, Procedures for Abatement of Highway Traffic Noise and Construction Noise.*

A traffic noise impact occurs when predicted design-year noise levels resulting from a project approach (defined as being one decibel less than the criterion), are equal to, or exceed the criterion for the applicable activity category. A noise impact also occurs if the design-year noise levels are substantially greater (i.e., an increase of 10 decibels or more) than existing levels. If impacts occur, the agency sponsoring the project must consider noise abatement strategies, such as noise barriers.

Federal Transit Administration (FTA) guidance (3) can be used to evaluate areas for potential noise and vibration effects associated with transit. FTA uses FHWA's noise abatement criteria as well as its own vibration criteria. Land uses potentially sensitive to noise are included in Exhibit 20. Land uses sensitive to vibration include historic buildings and facilities containing vibration-sensitive equipment.

3 United States Department of Transportation, Federal Transit Administration. April 1995. *Transit Noise and Vibration Impact Assessment Guidance Manual.*

The determination as to whether a project would potentially impact noise sensitive areas depends on whether the project involves either the addition of one or more traffic lanes or the construction of a new facility. Numerous projects in the study area would meet these criteria. During planning phases for these types of projects, noise impacts should be considered and investigated if sensitive receptors lie close to the facility.

## 6.5 Population, Housing, Community Facilities, and Economics and Business

### Population

Minority and low-income populations in the project study area were identified using guidance provided in the Council on Environmental Quality's *(CEQ's) Environmental Justice Guidance Under the National Environmental Policy Act* (4). CEQ is the organization that oversees Federal government compliance with Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations* (5). The primary objective of this order is to ensure that the federal government does not support programs, policies, and activities that have a disproportionate effect on minority and low-income populations.

Using 1990 Census data, study area Census tract block groups (which are the smallest unit for which the Census provides data) with significant environmental justice populations (e.g. minority or low income populations) were identified. For purposes of this analysis, significant was defined as comprising 50 percent of the overall population. The statistical data sets used were P*opulation by Race,* and *Poverty Status in 1989 by Age*. Not every set of block group data contained enough information to determine the number of persons below the poverty level. Exhibit 21 presents a list of the census tract block groups within the study area that contain significant minority or low-income populations.

**Exhibit 21**
Potential Environmental Justice Populations within Study Area

| Census Tract/Block Group | Population Information | Type of Population |
|---|---|---|
| 516800005982 | 65.6% below Poverty Level | Low-income |
| 516800000063 | 61.1% below Poverty Level | Low-income |
| 516800000071 | 52.7% below Poverty Level | Low-income |
| 510090106001 | 63% African American | Minority |
| 516800004001 | 50% African American | Minority |
| 516800004004 | 82% African American | Minority |
| 516800004003 | 76% African American | Minority |
| 516800004002 | 72% African American | Minority |
| 516800006001 | 77% African American | Minority |
| 516800007001 | 98% African American | Minority |
| 516800005981 | 91% African American | Minority |
| 516800005982 | 53% African American | Minority |
| 516800005983 | 64% African American | Minority |
| 516800006002 | 93% African American | Minority |

4 Council on Environmental Quality, April 10, 1997. *Environmental Justice Guidance Under the National Environmental Policy Act.*

5 Executive Order 12898 of February 11, 1994. *Federal Actions to Address Environmental Justice in Minority and Low-Income Populations.*

| Census Tract/Block Group | Population Information | Type of Population |
|---|---|---|
| 516800006003 | 90% African American | Minority |
| 516800007002 | 59% African American | Minority |
| 516800006005 | 95% African American | Minority |
| 516800006004 | 89% African American | Minority |
| 516800011001 | 68% African American | Minority |
| 516800012003 | 82% African American | Minority |
| 516800012001 | 60% African American | Minority |
| 516800012002 | 81% African American | Minority |
| 516800011003 | 97% African American | Minority |
| 516800011002 | 95% African American | Minority |
| 516800013001 | 85% African American | Minority |

Sources: ESRI, 1999. U.S. Census, 1990 data.
1990 Census of Population and Housing, *http//factfinder.census.gov.*

Roadway improvement projects that would pass through these census tracts were identified. Several projects would pass through low-income and significantly minority areas. The results of this analysis are presented in the summary table (see Exhibit 17). Future studies of these improvements should include consideration of the most current census data available, analysis to block group level, and community knowledge of the presence of these populations.

## Housing

A variety of housing types exist in the Lynchburg area. Many units are located next to proposed transportation improvements. The criterion used in this study to identify potential housing impacts was whether a house could potentially be displaced by a proposed improvement. This identification was accomplished through windshield surveys conducted on November 28-30, 2000. For this planning-level analysis, certain dimensions were assumed for each type of project, shown in Exhibit 22. If houses appeared to lie within these dimensions, the team considered them to be potentially affected. The results of this analysis are presented in the summary table (see Exhibit 17). As shown in that table, 26 of the improvement projects have the potential to impact 150 homes.

**Exhibit 22**
Residential and Business Displacement Analysis

| Type of Improvement | Width of Impact Analysis Zone (feet) |
|---|---|
| Reconstruction of roadway | 24 |
| Improve two lane section | 24 |
| Widen to four lanes | 70 (urban)<br>180 (rural) |
| Widen to six lanes | 130 (urban)<br>200 (rural) |
| Construct sidewalk | 4 |
| Widen for bikepath | 4 |
| Bridge construction/improvements | Dependent on site |
| Construct roadway on new alignment | Dependent on type of roadway |
| Intersection improvements | Based on connecting roadways |

### Community Facilities

In addition to housing, schools and public facilities were identified that could potentially be displaced by a proposed roadway improvement. This identification was accomplished through the November 2000 windshield survey, using the method described for housing. The results of this analysis, presented in the summary table (see Exhibit 17) indicated that three proposed roadway improvement projects could potentially impact four community facilities.

### Economics and Business

In addition to housing and community facilities, the potential for businesses to be displaced by a proposed improvement was identified. This identification was accomplished through the November 2000 windshield survey, using the method described for housing. The results of this analysis presented in the summary table (see Exhibit 17) indicate that 14 of the roadway improvement projects have the potential to impact 58 businesses.

## 6.6 Cultural and Historic Resources

Based on information from the Virginia Department of Historic Resources and the National Register of Historic Places (4), historic resources in the study area were identified. A list of these resources is provided in Appendix E. Cultural and historic resources on or eligible for the National Register of Historic Places are protected by Section 106 of the National Historic Preservation Act of 1966.

Eight of the proposed transportation improvements have the potential to impact either historic structure or a historic property. The team identified potential impacts to historic resources by identifying the location of the resource in relation to the proposed improvement. If the public address of the resource (identified in either the *Guide to the Historic Districts of Lynchburg, VA,* www.switchboard.com, or provided by the Virginia Department of Historic Resources) was on proposed road improvement, it was identified as being potentially impacted. Eight of the proposed improvements may impact cultural and historic resources (see Exhibit 17).

## 6.7 Land Use

To conduct this analysis, the following published data was reviewed to identify land use patterns and parklands:

- Land use maps provided by City of Lynchburg, Amherst and Campbell Counties
- Campbell County's Comprehensive Land Use Plan
- Bedford County Zoning District map
- City Map of Lynchburg

Existing land use in the project study area consists primarily of residential and agricultural uses. Residential areas exist within the City of Lynchburg and in each of the surrounding counties along major roadways and in suburban towns. These areas are linked by a series of highways

4 www.nr.nps.gov

and major arterial roads, including U.S. Route 29, U.S. Route 501, and U.S. Route 460. Agricultural and low-density residential areas fill most of the remaining land area, with several exceptions:

- Smaller commercial areas that serve neighborhoods with grocery stores, dry cleaners, etc.
- Public lands, such as parks, schools, and community facilities
- Roadways and open land to support utilities and other infrastructure
- Open areas associated with public facilities and utilities

All projects that would be constructed on new alignment were identified as having a land-use impact because they would cause a change in land use from non-transportation to transportation use. Exhibit 23 presents the results of this analysis.

**Exhibit 23**
Projects on New Alignment

| Location | Type of Action | Location |
|---|---|---|
| U.S. Route 460 (Odd Fellows Rd interchange) | New grade-separated interchange | Lynchburg |
| U.S. Route 501 (Lynchburg Expressway) | Construct interchange | Lynchburg |
| Breezewood Drive | Extend to Lakeside Drive | Lynchburg |
| U.S. Route 29 Bypass | Construct 4 lanes on new alignment | Amherst |
| VA Route 130 Connector | Construct 4 lanes on new alignment & 5 lanes @ Route 130 | Amherst |
| VA Route 210 Connector | Construct 4 lanes on new alignment | Amherst |
| U.S. Route 460 (Timberlake Road) | Implement TransAmerica Corridor Study recommendations | Bedford |
| VA Route 622 (Waterlick Road) | Construct 4 lanes on new alignment | Bedford |
| U.S. Route 29 Bypass | Construct 4 lanes on new alignment | Campbell |
| U.S. Route 29 Bypass – South | Construct 4 lanes on new alignment | Campbell |
| Enterprise Drive Extension (Bee Drive) | Construct 3 lanes on new alignment | Campbell |

**Agricultural/Forestal Districts**

The study area contains no state or federal forests. However, the counties surrounding the City of Lynchburg contain several areas zoned as agricultural. If a proposed roadway improvement would cross areas designated as agricultural, it was identified as having a potential affect on agricultural districts. The results of this analysis, presented in Exhibit 17, indicate that seventeen of the improvement projects have the potential to impact agricultural districts.

### Parklands

The study area contains no state or federal parks. However, it does contain numerous local parks that serve a variety of functions, including providing fields and other facilities for active sports and recreation, natural areas for passive recreation, and buffers for streams that prevent soil erosion. All of the parks identified within the study area lie within the City of Lynchburg:

- Riverside Park
- Peaks View Park
- Blackwater Creek Natural Area
- Miller Park
- Sandusky Park
- Perrymont Park
- Younger Park

Parkland that could potentially be altered or displaced by a proposed roadway improvement was identified. This identification was accomplished through the November 2000 windshield survey, using the method described for housing. The results of this analysis, presented in Exhibit 17, indicate that two projects would potentially impact parks.

## 6.8 Hazardous Materials

U.S. Environmental Protection Agency (EPA) records were reviewed to determine the potential presence of superfund sites within the study area. These records are available to the general public at: www.epa.gov/oerrpage/superfund/resources. Superfund sites are the worst hazardous waste sites in the nation. The federal Superfund Program provides technical and financial resources in cooperation with individual states to locate, investigate, and clean up these sites.

Since there are no superfund sites in the study area, there is no potential for disturbing this type of site. However, at any given property in the project study area, there is a potential for hazardous waste to be present at lower than superfund site levels. Detailed studies for each project should include additional research to determine recognized environmental conditions or the presence of any hazardous substance or petroleum products on properties within the study area that will be affected by the proposed road improvements. Hazardous waste/materials investigations involve appropriate inquiries into previous property ownership and uses consistent with good commercial or customary practice as defined by the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

Such an investigation could include:

- On-site inspections
- Review of historical information
- Searches of additional federal and state environmental databases
- Review of topographic and geologic information

# Appendix A – Public Participation

## A.1 Telephone Surveys

- 11 (**11%**) respondents indicated that roadway maintenance or condition is a severe problem;
- 33 (**32%**) indicated that it is a moderate problem;
- 60 (**57%**) indicated that it is not a problem or did not answer.

Locations where roadway respondents said maintenance or condition is a problem include the Expressway, Fort Avenue, Boonsboro Road, and Wiggington Road.

- 31 (**30%**) respondents indicated that traffic congestion during rush hour is a severe problem;
- 43 (**41%**) indicated that it is a moderate problem;
- 30 (**29%**) indicated that it is not a problem or did not answer.

Locations where respondents said rush hour traffic congestion is a problem include Madison Heights, Timberlake Road, Candlers Mountain Road, and Route 221.

- 18 (**17%**) respondents indicated that midday or weekend traffic congestion is a severe problem;
- 22 (**21%**) indicated that it is a moderate problem;
- 64 (**62%**) indicated that it is not a problem or did not answer.

Locations where respondents said midday or weekend traffic congestion is a problem include Madison Heights, Timberlake Road, and the area around River Ridge Mall.

- 10 (**10%**) respondents indicated that the placement or operation of traffic lights or road signs is a severe problem;
- 12 (**11%**) indicated that it is a moderate problem;
- 82 (**79%**) indicated that it is not a problem or did not answer.

Locations where respondents said the placement or operation of traffic lights or road signs is a problem include Madison Heights, Timberlake Road, and Fort Avenue.

- 11 (**11%**) respondents indicated that the adequacy of the roadway system is a severe problem;
- 22 (**21%**) indicated that it is a moderate problem;
- 71 (**68%**) indicated that it is not a problem or did not answer.

One location where respondents said the roadway system is inadequate is Madison Heights. Other issues raised include the lack of acceleration/deceleration lanes on the Expressway.

- 11 (**11%**) respondents indicated that the number of commercial trucks on the road is a severe problem;
- 26 (**25%**) indicated that it is a moderate problem;
- 67 (**64%**) indicated that it is not a problem or did not answer.

Locations where respondents said the number of commercial trucks on the road is a problem include Madison Heights, the Expressway, and Graves Mill/Old Graves Mill Road.

- 6 (**6%**) respondents indicated that truck or traffic noise is a severe problem;
- 6 (**6%**) indicated that it is a moderate problem;
- 92 (**88%**) indicated that it is not a problem or did not answer.

Locations where respondents said truck or traffic noise is a problem include Madison Heights, Waterlick Road, Route 460 Bypass, Boonsboro Road, and Wards Road.

- 2 (**2%**) respondents indicated that tourist or non-resident traffic is a severe problem;
- 10 (**10%**) indicated that it is a moderate problem;
- 92 (**88%**) indicated that it is not a problem or did not answer.

Locations where respondents said tourist or non-resident traffic is a problem include Wards Road, Candlers Mountain Road, Route 221, and Route 29 through Amherst County.

- 3 (**3%**) respondents indicated that access to downtown is a severe problem;
- 13 (**12%**) indicated that it is a moderate problem;
- 88 (**85%**) indicated that it is not a problem or did not answer.

Issues raised by respondents with regard to access to downtown include too many one-way streets, too-little parking, and the lack of alternate routes to the Expressway.

- 16 (**15%**) respondents indicated that on-street parking is a severe problem;
- 19 (**18%**) indicated that it is a moderate problem;
- 67 (**64%**) indicated that it is not a problem or did not answer.

Respondents generally indicated that there is too little on-street parking in the downtown area.

- 13 (**13%**) respondents indicated that the adequacy of sidewalks and bikepaths is a severe problem;
- 20 (**19%**) indicated that it is a moderate problem;
- 71 (**68%**) indicated that it is not a problem or did not answer.

Locations where respondents said sidewalks are inadequate include Fort Avenue, Route 221, and Timberlake Route.

- 15 (**14%**) respondents indicated that the adequacy of local bus service is a severe or moderate problem, 2 of whom had ridden the local bus within the past two years;
- 89 (**86%**) indicated that it is not a problem or did not answer, 6 of whom had ridden the local bus within the past two years;
- In total, 8 (**8%**) respondents had ridden the local bus within the past 2 years.

Respondents indicated a general need to expand the service area of the local bus service to the suburbs and surrounding counties.

- 12 (**12%**) respondents indicated that the adequacy of long-distance bus service is a severe or moderate problem, 1 of whom had traveled by long-distance bus within the past two years;
- 92 (**88%**) indicated that it is not a problem or did not answer, 5 of whom had traveled by long-distance bus within the past two years;
- In total, 6 (**6%**) respondents had traveled by long-distance bus within the past 2 years.

Respondents generally indicated that the long-distance bus station is not centrally located nor easily accessible.

- 20 (**19%**) respondents indicated that the adequacy of passenger rail is a severe or moderate problem, 3 of whom had traveled by passenger rail within the past two years;
- 84 (**81%**) indicated that it is not a problem or did not answer, 3 of whom had traveled by passenger rail within the past two years;
- In total, 6 (**6%**) respondents had traveled by passenger rail within the past 2 years.

The schedule and frequency of the passenger rail service were cited as problems, as was the general condition of the station.

- 39 (**37.5%**) respondents indicated that the adequacy of air travel is a severe or moderate problem, 23 of whom had traveled by air within the past two years;
- 65 (**62.5%**) indicated that it is not a problem or did not answer, 25 of whom had traveled by air within the past two years;
- In total, 48 (**46%**) respondents had traveled by air into or out of Lynchburg within the past 2 years.

When asked to indicate the worst problem(s), the most often problems/locations cited by respondents included congestion in Madison Heights and Candlers Mountain Road, the inadequacy of the local bus service and air travel into and out of Lynchburg, and the lack of parking in the downtown area.

### A.2 Personal Interviews

Interviews were conducted in 1998 with 22 residents of the Lynchburg area, representing various organizations and government agencies. This section is a summary of their responses to questions regarding transportation needs in the Lynchburg area.

**Exhibit A-1**
Interviewed Individuals

| Name | Organization | Date |
|---|---|---|
| Mr. Charles Church | Lynchburg City Manager | 11/04/98 |
| Mr. Stewart Shanner | Amherst County Administrator | 10/14/98 |
| Mr. William Rolfe | Bedford County Administrator | 10/19/98 |
| Mr. David Laurrell | Campbell County Administrator | 10/19/98 |
| Mr. Bill Hibbert | CVPDC (MPO) | 10/20/98 |
| Ms. Kelly Baker | Lynchburg Regional Airport | 10/29/98 |
| Mr. Mike Carroll | Greater Lynchburg Transit Company | 10/21/98 |
| Mr. Mike Wagoner | Chamber of Commerce | 10/27/98 |
| Mr. Skipper Holt | Chamber of Commerce | 10/20/98 |
| Ms. Amy Ray | Chamber of Commerce | 10/21/98 |
| Mr. Will Mams | Chamber of Commerce | 10/16/98 |
| Mr. Stan Goldsmith | Virginia Region 2000 | 10/23/98 |
| Mr. Lee Cobb | Virginia Region 2000 | 10/21/98 |
| Mr. Ed Page | Hiking Trails | 10/20/98 |
| Mr. Ray Booth | Lynchburg Director of Public Works | 10/22/98 |
| Ms. Heidi James | Lynchburg Historic Foundation | 10/29/98 |
| Mr. Robert Ringo | Greyhound Bus | 11/04/98 |
| Mr. Patterson | Norfolk Southern Railroad | 11/06/98 |
| Mr. Ken Young | Agency on Aging | 11/04/98 |
| Mr. T.L. Gilbert | Amtrak | 11/04/98 |
| Mr. Baldwin | Citizen, no affiliation | 11/06/98 |
| Anonymous | Anonymous (written comments) | 11/06/98 |

## Existing Traffic Problems/Issues

***Problems/issues most frequently cited (in order of frequency):***

- Route 29 - Lynchburg Expressway: speed and accidents, need accel/decel lanes, ramps at Main Street
- Candlers Mountain Road: signals, accidents, congestion
- Route 29 through Madison Heights: congestion
- Route 221 Corridor: congestion, accidents
- Need for interstate route in the area
- Route 501 North Corridor: poor alignment, slow (study underway); too many trucks from Route 29/Route 460 south)
- Memorial Avenue and 5th Street: congestion
- Intersection of Route 29/Route 130: signal timing causes congestion, accidents
- Old Forest Road and Route 501 Expressway: congested at traffic light
- Intersection of Route 221/Route 501: poor alignment on Northbound approach
- Langhorne Road and Hill Street: no signal (traffic backups)
- Graves Mill Road and Mill Race Drive: no signal (traffic backups)
- Completion of Route 29 bypass is a temporary solution
- Inadequate signage for tourists and to industrial sites
- Need to improve signage on streets with overlapping route numbers
- Route 29/Route 460 interchange construction causes delay
- Traffic signal at Lakeside Drive and Wyndale Drive needs to be returned

***Other problems/issues cited:***

- Route 130 (Elon Rd.): no passing zones, slow, congested
- Secondary roads: too narrow and need better pavement
- Intersection of Route 460/Leesville Road/Richland Drive: poor signal timing
- Route 622/Route 811 Corridor: alignment and pavement width (Route 221 to Route 460)
- Routes 659/660/621: alignment and pavement (Route 221 to Route 501)
- Fort Avenue and Wythe Road: poor signal timing (traffic backups)
- No easy east-west way to get across town
- Downtown employees use two-hour parking spaces
- Long-term parkers use 30-minute spaces at Chamber of Commerce Visitor Center
- No sidewalks for transit patrons in Liberty University and River Ridge Mall areas
- Inadequate signage to general and commercial aviation facilities
- Poor vertical sight distance at intersection of Oddfellows Road and Carrol Avenue
- Too many slow drivers use left lane on dual lane roads
- Route 501/Route 29 Expressway exit has unnecessary merge to left lane (should maintain two lanes to Route 29B)
- Area colleges need better directional signage on Routes 29, 29 Expressway, and 460.
- Location of State facilities (e.g., DMV) frequently creates problems for local service such as transit
- Signal at Randolph Macon Women's College from Boonesboro needs improvement
- Difficult to find parking in downtown area
- Overhead road signs should be illuminated

**Truck Traffic**

***Problems/issues most frequently cited (in order of frequency):***

- Route 501 North to Big Island: slow trucks on winding road with narrow pavement
- Trucks using Route 501 Business through city causes congestion
- Downtown area: trucks create problems on narrow streets
- Candlers Mountain Road: congestion interferes with goods movement (truck traffic) to and from Mayflower Drive
- Route 29: increase in number of trucks adds to congestion
- Trucks from/to Frito-Lay plant cause congestion in the Lakeside Drive/Old Forest Road/Lynchburg Expressway area

***Other problems/issues cited:***

- Route 29 (Wards Road)/Route 501(Expressway): entrance ramp (NE quad) too tight; wood haulers (tractor trailer) overturn on ramp.
- Route 130 (Leon Road): Trucks haul clay to brick factory and travel to Glasgow via Routes 622/613 and others. Industrial park south of Route 130 has an access road to Route 29; it is not used due to steep grades. Park is served by rail (freight) line.
- Route 130 Connector (Amelon Road: Route 29B to Route 29 Bypass, new industrial sites will attract truck traffic

**Needed Improvements**

***Improvements most frequently cited (in order of frequency):***

- Complete Route 29 (Madison Heights Bypass) with Route 460 overlap west of airport, then south on Route 29 (all limited access right-of-way)
- Need interstate route (e.g., Routes 29, 73, 460)
- Route 221: widen to four through lanes
- Route 460/Oddfellows Road: need interchange
- Route 501 (Candlers Mountain Road): railroad bridge and Route 29 interchange
- Upgrade signage (areawide) to direct tourist and business traffic to significant sites (airport, historic areas, major businesses, colleges, bus station)
- Crosstown Connector: from Route 221 to Kemper Street
- Route 501 and Graves Mill Road: improve access with new shopping center
- Route 29 (Expressway): need accel/decel lanes
- Route 501 (North Corporate Limit to Big Island): provide passing zones and truck lanes
- Western Bypass (new facility): locate a new river crossing between Bedford and Amherst Counties
- Memorial Avenue and 5th Street: widen to four through lanes
- Enterprise Drive Extension: complete as soon as possible
- Concord Turnpike: (downtown to Route 460 East): upgrade and add signage
- Fort Avenue/12th Street: access to downtown for tourist traffic
- Restore cobblestone pavement in Downtown Historic Area

***Other improvements cited:***

- Route 29 (Madison Heights): signal and safety improvements
- Route 501 (Expressway): Route 221 to the north - complete limited access facility
- Construct commuter lot in Forest area (near intersection of Routes 221 and 811)
- Improve access to Kemper Street Station rehabilitation project
- "ALL" future roadways should include pedestrian/bike facilities
- New sidewalks and street lighting needed in downtown
- Construct sidewalks on V.E.S. Road
- Routes 622/811 Corridor: from Route 460 to Route 221
- Routes 621/659/660 Corridor: from Route 221 to Route 501
- Separate truck traffic from autos
- Route 460: clustered locations of industry with access to Route 460 will impact Route 460 bypass
- Amherst County: industrial development along proposed Route 29 Bypass might require new roads to accommodate future demand
- Chamber of Commerce supports Routes 29-460-29S route for bypass if Route 460 can be improved to handle traffic adequately
- Routes 130 and 210 extensions to bypass needed to support commercial sites' traffic
- Need Transamerica Corridor to support economic growth
- Old Forest Road

**Other Transportation Modes: Issues/Needs**

***Pedestrians/Bicycles***:

- Provide sidewalks on roads without shoulders and coordinate with transit
- Provide sidewalks on all new road projects and connect parks; promote Blackwater Creek trail (hike & bike)
- Complete construction of trail from Percival Island along to river to Campbell County ($1 million grant)
- Combine sidewalks and bikepaths
- Plan update should recognize work done on existing bike/hike paths
- Use Norfolk Southern right of way for trail

***Transit:***

- City transit should be extended to new Wal Mart store in Madison Heights (currently stops at Seminole Center) and Bedford
- Need transit service in counties (Forest and Madison Heights)
- Transit under used
- Transit should be a regional system with all jurisdictions participating in cost
- Transit for elderly and handicapped in county provided by Area Agency on Aging
- Area Agency on Aging may require additional vans to meet demands from increasing older segment of area population and increase in construction of retirement and nursing homes
- Consider using transit to transport school children (to reduce capital cost of yellow bus purchase and maintenance)
- Install signal priority-activation on all city buses
- Need to think beyond region and work with Danville and Charlottesville
- Need more service to Greyhound Bus station (currently two in a.m. and two in p.m.); extend mall lines to bus station, DMV, and post office
- GLTC (Greater Lynchburg Transit Company) provides only curb-to-curb service; need door-to-door service for elderly and handicapped to relieve demand on CVAAA within GLTC service area
- Outer-county service reduced due to high demand in immediate city area
- CVAAA serves population over age 59 and handicapped persons of all ages
- State grant money to CVAAA for home-to-work may soon be eliminated
- More money needed by transit company to expand service/system
- Need policy statements for cost and service efficiency for future service to senior population

***Taxi:***

- Existing service not appealing to general population. Service available; however, hotels use shuttle service and airport uses limo/sedan service.

***Intercity Bus:***

- Greyhound station will relocate to Kemper Street Station site. Current hours are 8:30 a.m. to 6:30 p.m., with 12 scheduled buses (3 to Richmond). Annual arrivals and departures each total 9,600 passengers.
- Needs to be more intermodal

***Rail:***

- Need Bristol-Lynchburg-Richmond-D.C. passenger service
- Kemper Street rehabilitation project will enhance terminal facility
- Good freight service exists area-wide
- Schedule needs improvement: existing northbound at 5:00 a.m. and southbound at 10:00 p.m.
- Use piggyback service to take trucks off roadways
- Amtrak is frequently late in both directions
- Include rail stop at Forest for the Bristol-D.C. passenger service
- Station hours are 9:00 p.m. to 6:00 a.m. Facility is of poor quality and lacks ADA access, food vending, and air conditioning. Serves approximately 35 passengers per day.

***Air:***

- Cost too high and not enough connecting cities (competition and demand will determine service offered)
- Some passengers go to Roanoke or Richmond for better connections
- Reconsider combined facility with Roanoke
- Additional runway lengths required to accommodate future growth in cargo shipping
- Need regional jet service for passengers and cargo
- Route 29 (Madison Heights) congestion makes it difficult for patrons in Amherst County to access the airport
- A good roadway network required to facilitate goods movement for cargo industry
- Current connections: US Air to Pittsburgh & Charlotte, United Express to Dulles, Delta to Atlanta

***Future improvements at facility:***

- Within 10 to 15 years: new general aviation terminal
- New T-hangars (some existing hangars from 1940s and 50s)
- Consider creation of a regional authority with participation by all jurisdictions
- Integrate with rail and bus services
- Proposed industrial sites (Campbell Co.) will create traffic around airport
- Airport Master Plan update needed socio-economics

***Population:***

- Modest growth area-wide
- Lynchburg: minimal growth, but City is revamping zoning, etc., to encourage growth in middle income families
- Amherst County expects minor growth
- Campbell County expects modest growth
- Bedford County growing at 3 percent/year (in study area)
- People are moving to Bedford and Campbell counties

***Employment:***

- City has very high percentage of manufacturing jobs
- Amherst residents work in Lynchburg
- Some commercial growth in Bedford County, but most residents commute to Roanoke or Lynchburg for jobs

- Counties are aggressive (proactive) in development of industrial parks and attracting industry
- Future might be in cottage industry
- City established enterprise zones in older part of city

***Land Use:***

- Modest changes expected area-wide
- Amherst to concentrate development along sewer/water lines
- Bedford County in process of adopting new land use/zoning plan
- City has little available space for expansion or development
- Residential in northwest, industrial on Mayflower Drive, and redevelopment of vacant buildings
- Bedford County to concentrate growth in Forest area (Route 221 Corridor)
- Inconsistent land use policy/zoning in the study area
- Campbell County to direct growth along locally proposed Route 29 bypass southwest of airport
- Redevelop Lower Basin area (long range)
- Provide access with redevelopment in Lower Basin
- Bring residential units to downtown with amenities such as shopping (grocery stores, etc.)
- Develop bluffs on both sides of James River with hotels, etc.
- Concentrate on education, arts & crafts for tourists to replace future decreases in industry sector
- Convert training center into an educational facility
- Develop recreational facilities in the Basin Area (e.g., golf course)
- Planning for the Basin Area should be done now for the next 20- to 30-year period
- Rezoning request in the city will consider transit needs
- Encourage rehabilitation (Virginia government policy) of existing structures
- Access important to new development; e.g., proposed shopping center on Graves Mill Road

**Environmental Issues**

***Air:***

- Attainment area with no current problems

***Noise:***

- No recent complaints in airport area
- No significant problems at present

***Water:***

- Good water supply available throughout area (critical to future growth)
- James River watershed (e.g., Black Creek) should be protected and maintained
- Water and sewer lines need to be expanded to accommodate development

***Historic and Scenic Areas:***

- Bedford County: Poplar Forest and old railroad station at Forest (other - Appomattox and Red Hill)

- Protect and maintain historic/scenic areas
- Amherst County: Fort Riverview (Civil War fort), Madison Heights along north side of James River, Indian burial grounds near eastern study area boundary on Route 622, tribal home of Monacan Indians near intersection of Routes 643 and 645
- Natural scenery (view) around the area should be protected, including wildlife and recreation, and maintained in current pristine condition
- Historic structures along Memorial Avenue and 5th Street should be protected from roadway improvements and traffic demand
- Historic farm on Old Graves Mill Road should be protected from negative impacts of proposed shopping center
- City should establish and define difference between "old" and "historic" structures
- Scenic overlays used on corridors in the city
- Historic/scenic properties should be linked with transportation facilities
- Downtown area
- Access is good to historical/scenic properties such as: city historic districts, Appomattox, Bedford, Poplar Forest, and Civil War cemetery.

**Other Concerns**

- Close gap in limited access right-of-way on Route 460 (near Falwell Airport) as part of current Route 29 Bypass construction
- Study area boundary should be expanded in Bedford County
- Coordination and results of various segmented traffic studies underway in the study area
- Study should include strategic planning with goals and objectives facilitation
- Need better coordination between State and City traffic engineers
- Road improvements should be designed to be more "transit friendly"
- Consider use of alternative-fuel vehicles in the area (percentage of total vehicles): propane gas, electric solar, etc.
- Co-generators might become a problem as they burn coal and wood to produce energy
- City spends +/-$20 million per year on coordinated sewage program to separate and upgrade sewer and stormwater facilities
- Need to update study on regional social services transportation facilities
- Control water spray from large truck tires that impairs visibility for drivers of smaller vehicles
- Improve county/city communications for airport funding, etc.
- 5th Street/Memorial Avenue provides access to city government, and between Route 29 North and Routes 221/501 West
- Previous plans to widen 5th Street/Memorial Avenue are on hold
- 5th Street & 12th Street provide access to the city's downtown revitalization effort
- Need innovative funding mechanism to advance construction of Madison Heights Bypass, rather than wait until state funds 60% of the construction cost
- A good transportation system is essential for economic growth and market expansion
- Localities need to ensure a trained workforce for future jobs in advancing technology

## A.3 Questionnaires

The following aspects of the transportation system were graded by Lynchburg residents with a scale of A (excellent) to F (failing):

| | | | |
|---|---|---|---|
| Physical condition of roads | C- | Local taxis | D+ |
| Safety of the roads | C | Passenger rail service | D+ |
| Levels of traffic congestion | C- | Inter-city bus (Greyhound) | D+ |
| Traffic signal system | C+ | Air service (airport) | C |
| Roadway signs | B- | Sidewalks | C- |
| Location and number of roads | B+ | Bicycle trails | C- |
| Parking | C- | Freight rail service | C+ |
| Local bus system | C- | | |

*Specific problems or concerns:*

- Acceleration lanes needed at some exit ramps—dangerous merging
- Drivers don't merge properly on and off ramps
- Lakeside Drive traffic very slow in rush hours—new lights not a help
- Buses needed in more remote areas
- Buses need to run more often, especially on Sundays
- More bus service at the Virginia Employment Commission
- More seating and shelter at bus stops needed
- Use smaller, more efficient buses
- Lack of specialized transportation
- Trucks in left lane hold up traffic on Route 29 North
- Bypass needed in Madison Heights
- Expressway ramp to 460 East at University Boulevard needed
- Dog-leg ramp behind Applebee's is awkward
- Taxi services not reliable—perhaps increase number of cabs
- Need roadway signs and/or flashing lights on 29 at merge areas to slow traffic and warn of possible driving hazards
- Congestion in Madison Heights—additional lanes needed
- Sidewalks needed on major roads
- Existing sidewalks too hilly—problem for those with arthritis
- Regional airport needed
- Construction causes terrible delays—employ night crews
- Greyhound buses need to run more often; have an employee in the office whenever a bus is coming or going. Phones are often locked inside.
- Expand train schedules
- Straighten and widen McConville Road, Wiggington Road, Allegheny Road, Route 622, and Graves Mill Road
- Traffic signals at 501 and Graves Mill Road
- Build a cross-town, 4-lane highway
- Police officers do not direct traffic around accidents—adds to delay
- Center turning lane on Langhorne Road in front of social service office is very dangerous because drivers do not use it properly

- Low income complexes have no access to public transportation which keeps them away from better job opportunities
- Build bridges and highways before the population demands it
- Traffic signal at Hill Street and Langhorne
- Establish park-and-ride along major corridors
- Adopt regional bike and pedestrian plan
- Signage is difficult to understand—consider color-coding major corridors linking specific areas
- West is NOT best—build a bypass around the area
- Interstate needed in the area
- Build more one-way through streets for better access to downtown
- Enhance downtown parking
- Trains block crossing for long periods of time—need an overpass to avoid crossing the railroad
- Install signal at E. C. Glass
- Curbs need to be painted better
- Create intersection with Odd Fellows Road and 460 to relieve pressure on Candlers Mountain Road
- Pedestrians and cars sometimes given right-of-way by lights at the same time along crossing paths—very dangerous
- Bike lanes needed as part of all new road construction plans
- Need bus service to Virginia Employment Commission and Department of Motor Vehicles on Odd Fellows Road.
- Need bus service to Timberlake Road
- Extend weekend hours of bus service into evenings
- Need train service to Richmond
- Link Road needs safe travel areas for bicycles and pedestrians
- Traffic congestion on Wards Road
- Need increased bus service for handicapped persons, including service outside of the city
- Improve air service to Lynchburg
- Need public transportation outside of city to surrounding counties

## A.4 Public Input on the Plan

Public input was solicited at key milestones in the development of this Transportation Plan. At the commencement of the study, a press release was sent to all local media outlets describing the study process, upcoming telephone interviews, along with information on how the public could participate in the study. In January 1999, project staff publicized the study through appearances on local radio talk shows and on the Good Morning Virginia television show. A public information kiosk was set up in the same month and was rotated between the following locations: River Ridge Mall, City Hall and the downtown Galleria, the Lynchburg Public Library, Kemper Street railroad station, and the Greyhound bus station. The kiosk included postage-paid questionnaires for those who were interested in providing the study team with their input. A public meeting, advertised in all local media, was held on February 18, 1999 at the River Ridge Mall and the downtown Galleria. Following the development of the regional computerized transportation model and compilation of existing and year 2025 transportation

needs, preliminary recommendations were developed in conjunction with the Region 2000 Transportation Technical Committee. These committee meetings are open to the general public and were attended by representatives of several interest groups in the region.

A set of refined preliminary recommendations were presented for public comment at an advertised meeting held on October 24, 2000 at the Lynchburg Public Library. This meeting was held prior to determining which projects were to be included in the financially constrained plan. Meeting participants were presented with information on the estimated transportation funding stream as well as total estimated costs for the set of preliminary recommendations.

Following refinement of the preliminary recommendations and the development of a draft of the financially constrained transportation plan, a public hearing was held on December 12, 2000 at the downtown Galleria. A total of 26 persons signed the attendance roster at this public hearing. Eleven persons provided comments (two of these provided oral comments on tape). The following summarizes comments from this hearing:

- Concern was expressed about whether the Plan would solve problems on the Route 29 Expressway.
- Support was expressed on transportation investments to route traffic around Lynchburg (i.e., the Route 29 Bypass).
- The Plan should emphasize aesthetic improvements such as curb and gutter on roads, sidewalks, and attractive medians.
- The Plan should emphasize bicycle riding.
- Opposition to widening Boonsboro Road was expressed.
- Support was expressed for Plan recommendations for improvements in the Candler's Mountain Road area.
- The Cross-Town Connectors should include on-street parking, a landscape median strip, and should emphasize aesthetics.
- The Plan should encourage more access to the Downtown, but reduce through vehicle traffic.
- The Plan should include a new structure across the James River to serve as a focal point and community assembly area.
- Fifth Street should not be widened. There would be major impacts on federally protected historic areas and the loss of business establishments that could result from the widening is unacceptable.
- Memorial Avenue should not be widened.
- A new interchange at Route 460 and Odd Fellows Road is badly needed.
- Rivermont Avenue should not be widened.
- Access to Poplar Forest should be emphasized.

In response to these comments, the Plan recommendation for the Fifth Street corridor was modified to ensure that alternatives to widening Fifth Street were considered prior to any further project development. Projected 2025 traffic forecasts indicated that this corridor will continue to be a major transportation corridor for the region. The project study team and the Region 2000 Transportation Technical Committee believed that other comments could be addressed when projects are advanced to detailed study and design.

The Region 2000 Regional Commission (Central Virginia Metropolitan Planning Organization) adopted the Transportation Plan (as amended) on January 18, 2001.

## Appendix B -- Demographic Data for the Lynchburg Urbanized Area

| Transportation Analysis Zone | POPULATION | | | | | HOUSING UNITS | | | | | GROUP QUARTERS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 |
| 1 | 4 | 4 | 4 | 4 | 4 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 |
| 2 | 364 | 363 | 376 | 381 | 386 | 234 | 244 | 253 | 256 | 259 | 30 | 30 | 30 | 30 | 30 |
| 3 | 194 | 193 | 201 | 203 | 206 | 126 | 131 | 136 | 138 | 140 | 0 | 0 | 0 | 0 | 0 |
| 4 | 2221 | 2213 | 2297 | 2326 | 2355 | 932 | 970 | 1007 | 1020 | 1033 | 246 | 246 | 246 | 246 | 246 |
| 5 | 484 | 482 | 501 | 507 | 513 | 204 | 212 | 220 | 223 | 226 | 0 | 0 | 0 | 0 | 0 |
| 6 | 1543 | 1537 | 1596 | 1616 | 1636 | 656 | 683 | 709 | 718 | 727 | 125 | 125 | 125 | 125 | 125 |
| 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 8 | 460 | 458 | 476 | 482 | 488 | 189 | 197 | 204 | 207 | 209 | 110 | 110 | 110 | 110 | 110 |
| 9 | 645 | 643 | 667 | 675 | 684 | 259 | 270 | 280 | 283 | 287 | 0 | 0 | 0 | 0 | 0 |
| 10 | 569 | 567 | 588 | 596 | 603 | 251 | 261 | 271 | 275 | 278 | 0 | 0 | 0 | 0 | 0 |
| 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 12 | 903 | 900 | 1142 | 1165 | 1188 | 405 | 422 | 532 | 542 | 552 | 0 | 0 | 0 | 0 | 0 |
| 13 | 72 | 72 | 71 | 71 | 71 | 43 | 45 | 45 | 45 | 45 | 0 | 0 | 0 | 0 | 0 |
| 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 15 | 518 | 516 | 510 | 510 | 510 | 215 | 224 | 224 | 224 | 224 | 57 | 57 | 57 | 57 | 57 |
| 16 | 543 | 541 | 535 | 535 | 535 | 237 | 247 | 247 | 247 | 247 | 0 | 0 | 0 | 0 | 0 |
| 17 | 504 | 502 | 496 | 496 | 496 | 244 | 254 | 254 | 254 | 254 | 0 | 0 | 0 | 0 | 0 |
| 18 | 504 | 502 | 496 | 496 | 496 | 186 | 194 | 194 | 194 | 194 | 0 | 0 | 0 | 0 | 0 |
| 19 | 193 | 192 | 190 | 190 | 190 | 88 | 92 | 92 | 92 | 92 | 0 | 0 | 0 | 0 | 0 |
| 20 | 292 | 291 | 288 | 288 | 288 | 124 | 129 | 129 | 129 | 129 | 0 | 0 | 0 | 0 | 0 |
| 21 | 428 | 426 | 422 | 422 | 422 | 185 | 193 | 193 | 193 | 193 | 0 | 0 | 0 | 0 | 0 |
| 22 | 51 | 51 | 50 | 50 | 50 | 20 | 21 | 21 | 21 | 21 | 0 | 0 | 0 | 0 | 0 |
| 23 | 463 | 461 | 456 | 456 | 456 | 229 | 238 | 238 | 238 | 238 | 0 | 0 | 0 | 0 | 0 |
| 24 | 306 | 305 | 301 | 301 | 301 | 137 | 143 | 143 | 143 | 143 | 0 | 0 | 0 | 0 | 0 |
| 25 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 26 | 19 | 19 | 19 | 19 | 19 | 9 | 9 | 10 | 10 | 10 | 0 | 0 | 0 | 0 | 0 |
| 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 29 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 0 | 0 | 0 | 0 | 0 |
| 30 | 191 | 190 | 188 | 188 | 188 | 3 | 3 | 3 | 3 | 3 | 181 | 181 | 181 | 181 | 181 |
| 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 32 | 74 | 74 | 73 | 73 | 73 | 34 | 35 | 35 | 35 | 35 | 0 | 0 | 0 | 0 | 0 |
| 33 | 141 | 140 | 139 | 139 | 139 | 70 | 73 | 73 | 73 | 73 | 0 | 0 | 0 | 0 | 0 |
| 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 35 | 32 | 32 | 32 | 32 | 32 | 16 | 17 | 17 | 17 | 17 | 0 | 0 | 0 | 0 | 0 |
| 36 | 212 | 211 | 209 | 209 | 209 | 101 | 105 | 105 | 105 | 105 | 0 | 0 | 0 | 0 | 0 |
| 37 | 340 | 339 | 335 | 335 | 335 | 177 | 184 | 184 | 184 | 184 | 0 | 0 | 0 | 0 | 0 |
| 38 | 0 | 10 | 10 | 10 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 10 | 10 | 10 | 10 |
| 39 | 28 | 28 | 28 | 28 | 28 | 13 | 14 | 14 | 14 | 14 | 0 | 0 | 0 | 0 | 0 |
| 40 | 266 | 265 | 262 | 262 | 262 | 108 | 112 | 112 | 112 | 112 | 0 | 0 | 0 | 0 | 0 |
| 41 | 334 | 333 | 329 | 329 | 329 | 151 | 157 | 157 | 157 | 157 | 0 | 0 | 0 | 0 | 0 |
| 42 | 286 | 285 | 282 | 282 | 282 | 126 | 131 | 131 | 131 | 131 | 0 | 0 | 0 | 0 | 0 |
| 43 | 439 | 437 | 432 | 432 | 432 | 203 | 211 | 211 | 211 | 211 | 0 | 0 | 0 | 0 | 0 |
| 44 | 755 | 752 | 744 | 744 | 744 | 360 | 375 | 375 | 375 | 375 | 0 | 0 | 0 | 0 | 0 |
| 45 | 349 | 348 | 344 | 344 | 344 | 201 | 209 | 209 | 209 | 209 | 0 | 0 | 0 | 0 | 0 |

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| Transportation Analysis Zone | POPULATION | | | | | HOUSING UNITS | | | | | GROUP QUARTERS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 |
| 46 | 1572 | 1566 | 1558 | 1558 | 1558 | 676 | 704 | 704 | 704 | 704 | 278 | 282 | 288 | 288 | 288 |
| 47 | 805 | 802 | 802 | 802 | 802 | 359 | 374 | 374 | 374 | 374 | 0 | 0 | 0 | 0 | 0 |
| 48 | 1904 | 1897 | 1875 | 1875 | 1875 | 929 | 967 | 967 | 967 | 967 | 0 | 0 | 0 | 0 | 0 |
| 49 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 0 | 0 | 0 | 0 | 0 |
| 50 | 277 | 276 | 273 | 273 | 273 | 131 | 136 | 136 | 136 | 136 | 0 | 0 | 0 | 0 | 0 |
| 51 | 799 | 796 | 787 | 787 | 787 | 385 | 401 | 401 | 401 | 401 | 0 | 0 | 0 | 0 | 0 |
| 52 | 1195 | 1190 | 1177 | 1177 | 1177 | 531 | 553 | 553 | 553 | 553 | 0 | 0 | 0 | 0 | 0 |
| 53 | 492 | 490 | 485 | 485 | 485 | 223 | 232 | 232 | 232 | 232 | 0 | 0 | 0 | 0 | 0 |
| 54 | 1144 | 1140 | 1127 | 1127 | 1127 | 489 | 509 | 509 | 509 | 509 | 0 | 0 | 0 | 0 | 0 |
| 55 | 1481 | 1475 | 1459 | 1459 | 1459 | 637 | 663 | 663 | 663 | 663 | 15 | 15 | 15 | 15 | 15 |
| 56 | 548 | 546 | 540 | 540 | 540 | 266 | 277 | 277 | 277 | 277 | 0 | 0 | 0 | 0 | 0 |
| 57 | 516 | 514 | 508 | 508 | 508 | 235 | 245 | 245 | 245 | 245 | 0 | 0 | 0 | 0 | 0 |
| 58 | 150 | 149 | 148 | 148 | 148 | 74 | 77 | 77 | 77 | 77 | 0 | 0 | 0 | 0 | 0 |
| 59 | 1049 | 1045 | 1033 | 1033 | 1033 | 18 | 19 | 19 | 19 | 19 | 984 | 1031 | 1101 | 1136 | 1168 |
| 60 | 43 | 43 | 42 | 42 | 42 | 17 | 18 | 18 | 18 | 18 | 0 | 0 | 0 | 0 | 0 |
| 61 | 254 | 253 | 283 | 294 | 305 | 110 | 115 | 128 | 133 | 138 | 0 | 0 | 0 | 0 | 0 |
| 62 | 527 | 525 | 519 | 519 | 519 | 247 | 257 | 257 | 257 | 257 | 0 | 0 | 0 | 0 | 0 |
| 63 | 87 | 87 | 86 | 86 | 86 | 35 | 36 | 36 | 36 | 36 | 0 | 0 | 0 | 0 | 0 |
| 64 | 698 | 695 | 687 | 687 | 687 | 309 | 322 | 322 | 322 | 322 | 0 | 0 | 0 | 0 | 0 |
| 65 | 497 | 495 | 489 | 489 | 489 | 283 | 295 | 295 | 295 | 295 | 15 | 15 | 15 | 15 | 15 |
| 66 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 67 | 80 | 80 | 79 | 79 | 79 | 44 | 46 | 46 | 46 | 46 | 0 | 0 | 0 | 0 | 0 |
| 68 | 263 | 262 | 259 | 259 | 259 | 124 | 129 | 129 | 129 | 129 | 0 | 0 | 0 | 0 | 0 |
| 69 | 294 | 293 | 290 | 290 | 290 | 126 | 131 | 131 | 131 | 131 | 0 | 0 | 0 | 0 | 0 |
| 70 | 204 | 203 | 201 | 201 | 201 | 90 | 94 | 94 | 94 | 94 | 0 | 0 | 0 | 0 | 0 |
| 71 | 36 | 36 | 35 | 35 | 35 | 16 | 17 | 17 | 17 | 17 | 0 | 0 | 0 | 0 | 0 |
| 72 | 247 | 246 | 243 | 243 | 243 | 118 | 123 | 123 | 123 | 123 | 0 | 0 | 0 | 0 | 0 |
| 73 | 445 | 443 | 438 | 438 | 438 | 194 | 202 | 202 | 202 | 202 | 0 | 0 | 0 | 0 | 0 |
| 74 | 2965 | 5683 | 5700 | 5700 | 5700 | 0 | 0 | 0 | 0 | 0 | 2965 | 5683 | 5700 | 5700 | 5700 |
| 75 | 868 | 865 | 855 | 855 | 855 | 429 | 447 | 447 | 447 | 447 | 34 | 34 | 34 | 34 | 34 |
| 76 | 835 | 832 | 822 | 822 | 822 | 387 | 403 | 403 | 403 | 403 | 0 | 0 | 0 | 0 | 0 |
| 77 | 1150 | 1146 | 1133 | 1133 | 1133 | 489 | 509 | 509 | 509 | 509 | 0 | 0 | 0 | 0 | 0 |
| 78 | 14 | 14 | 14 | 14 | 14 | 8 | 8 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 |
| 79 | 856 | 853 | 843 | 843 | 843 | 397 | 413 | 413 | 413 | 413 | 0 | 0 | 0 | 0 | 0 |
| 80 | 1679 | 1673 | 1654 | 1654 | 1654 | 813 | 846 | 846 | 846 | 846 | 60 | 60 | 60 | 60 | 60 |
| 81 | 384 | 383 | 383 | 383 | 383 | 163 | 170 | 170 | 170 | 170 | 0 | 0 | 0 | 0 | 0 |
| 82 | 614 | 612 | 605 | 605 | 605 | 4 | 4 | 4 | 4 | 4 | 611 | 627 | 650 | 662 | 672 |
| 83 | 1128 | 1124 | 1111 | 1111 | 1111 | 693 | 721 | 721 | 721 | 721 | 0 | 0 | 0 | 0 | 0 |
| 84 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 85 | 384 | 383 | 378 | 378 | 378 | 275 | 286 | 286 | 286 | 286 | 0 | 0 | 0 | 0 | 0 |
| 86 | 757 | 754 | 754 | 754 | 754 | 210 | 219 | 219 | 219 | 219 | 201 | 201 | 201 | 201 | 201 |
| 87 | 601 | 599 | 592 | 592 | 592 | 218 | 227 | 227 | 227 | 227 | 33 | 33 | 33 | 33 | 33 |
| 88 | 971 | 967 | 956 | 956 | 956 | 367 | 382 | 382 | 382 | 382 | 0 | 0 | 0 | 0 | 0 |
| 89 | 1382 | 1377 | 1361 | 1361 | 1361 | 581 | 605 | 605 | 605 | 605 | 0 | 0 | 0 | 0 | 0 |
| 90 | 1323 | 1318 | 1303 | 1303 | 1303 | 637 | 663 | 663 | 663 | 663 | 0 | 0 | 0 | 0 | 0 |

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| Transportation Analysis Zone | POPULATION | | | | | HOUSING UNITS | | | | | GROUP QUARTERS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 |
| 91 | 31 | 31 | 31 | 31 | 31 | 15 | 16 | 16 | 16 | 16 | 0 | 0 | 0 | 0 | 0 |
| 92 | 999 | 995 | 995 | 995 | 995 | 367 | 382 | 382 | 382 | 382 | 0 | 0 | 0 | 0 | 0 |
| 93 | 210 | 209 | 209 | 209 | 209 | 76 | 79 | 79 | 79 | 79 | 0 | 0 | 0 | 0 | 0 |
| 94 | 352 | 351 | 347 | 347 | 347 | 130 | 135 | 135 | 135 | 135 | 0 | 0 | 0 | 0 | 0 |
| 95 | 373 | 372 | 372 | 372 | 372 | 147 | 153 | 153 | 153 | 153 | 0 | 0 | 0 | 0 | 0 |
| 96 | 288 | 287 | 284 | 284 | 284 | 124 | 129 | 129 | 129 | 129 | 9 | 9 | 9 | 9 | 9 |
| 97 | 881 | 878 | 878 | 878 | 878 | 390 | 406 | 406 | 406 | 406 | 0 | 0 | 0 | 0 | 0 |
| 98 | 137 | 136 | 135 | 135 | 135 | 65 | 68 | 68 | 68 | 68 | 0 | 0 | 0 | 0 | 0 |
| 99 | 102 | 102 | 100 | 100 | 100 | 46 | 48 | 48 | 48 | 48 | 0 | 0 | 0 | 0 | 0 |
| 100 | 282 | 281 | 278 | 278 | 278 | 106 | 110 | 110 | 110 | 110 | 0 | 0 | 0 | 0 | 0 |
| 101 | 233 | 232 | 232 | 232 | 232 | 81 | 84 | 84 | 84 | 84 | 0 | 0 | 0 | 0 | 0 |
| 102 | 14 | 14 | 14 | 14 | 14 | 7 | 7 | 7 | 7 | 7 | 0 | 0 | 0 | 0 | 0 |
| 103 | 95 | 95 | 94 | 94 | 94 | 43 | 45 | 45 | 45 | 45 | 0 | 0 | 0 | 0 | 0 |
| 104 | 0 | 0 | 23 | 23 | 23 | 0 | 0 | 10 | 10 | 10 | 0 | 0 | 0 | 0 | 0 |
| 105 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| 106 | 60 | 60 | 59 | 59 | 59 | 25 | 26 | 26 | 26 | 26 | 0 | 0 | 0 | 0 | 0 |
| 107 | 69 | 69 | 68 | 68 | 68 | 25 | 26 | 26 | 26 | 26 | 0 | 0 | 0 | 0 | 0 |
| 108 | 1706 | 1700 | 1700 | 1700 | 1700 | 687 | 715 | 715 | 715 | 715 | 33 | 33 | 33 | 33 | 33 |
| 109 | 462 | 460 | 460 | 460 | 460 | 169 | 176 | 176 | 176 | 176 | 0 | 0 | 0 | 0 | 0 |
| 110 | 249 | 248 | 245 | 245 | 245 | 101 | 105 | 105 | 105 | 105 | 0 | 0 | 0 | 0 | 0 |
| 111 | 7 | 7 | 7 | 7 | 7 | 5 | 5 | 6 | 6 | 6 | 0 | 0 | 0 | 0 | 0 |
| 112 | 835 | 832 | 822 | 822 | 822 | 342 | 356 | 356 | 356 | 356 | 0 | 0 | 0 | 0 | 0 |
| 113 | 230 | 229 | 266 | 280 | 294 | 104 | 108 | 126 | 132 | 139 | 0 | 0 | 0 | 0 | 0 |
| 114 | 688 | 685 | 796 | 836 | 879 | 276 | 287 | 334 | 351 | 368 | 0 | 56 | 140 | 224 | 308 |
| 115 | 529 | 527 | 612 | 643 | 676 | 164 | 171 | 198 | 208 | 219 | 0 | 0 | 0 | 0 | 0 |
| 116 | 267 | 266 | 298 | 309 | 321 | 115 | 120 | 134 | 139 | 144 | 0 | 0 | 0 | 0 | 0 |
| 117 | 65 | 65 | 365 | 365 | 365 | 24 | 25 | 156 | 156 | 156 | 0 | 0 | 0 | 0 | 0 |
| 118 | 415 | 413 | 462 | 480 | 498 | 199 | 207 | 232 | 241 | 250 | 0 | 0 | 0 | 0 | 0 |
| 119 | 175 | 174 | 195 | 202 | 210 | 69 | 72 | 80 | 83 | 87 | 0 | 0 | 0 | 0 | 0 |
| 120 | 13 | 13 | 13 | 13 | 13 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 0 |
| 121 | 161 | 160 | 159 | 159 | 159 | 70 | 73 | 73 | 73 | 73 | 0 | 0 | 0 | 0 | 0 |
| 122 | 1883 | 1876 | 1855 | 1855 | 1855 | 798 | 831 | 831 | 831 | 831 | 12 | 12 | 12 | 12 | 12 |
| 123 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 124 | 439 | 437 | 432 | 432 | 432 | 180 | 187 | 187 | 187 | 187 | 0 | 0 | 0 | 0 | 0 |
| 125 | 408 | 406 | 402 | 402 | 402 | 213 | 222 | 222 | 222 | 222 | 0 | 0 | 0 | 0 | 0 |
| 126 | 132 | 132 | 130 | 130 | 130 | 52 | 54 | 54 | 54 | 54 | 0 | 0 | 0 | 0 | 0 |
| 127 | 272 | 271 | 268 | 268 | 268 | 141 | 147 | 147 | 147 | 147 | 0 | 0 | 0 | 0 | 0 |
| 128 | 48 | 48 | 47 | 47 | 47 | 25 | 26 | 26 | 26 | 26 | 0 | 0 | 0 | 0 | 0 |
| 129 | 2386 | 2377 | 2377 | 2377 | 2377 | 1200 | 1249 | 1249 | 1249 | 1249 | 0 | 0 | 0 | 0 | 0 |
| 130 | 973 | 969 | 1084 | 1126 | 1168 | 350 | 364 | 408 | 423 | 439 | 0 | 0 | 92 | 92 | 92 |
| 131 | 491 | 489 | 484 | 484 | 484 | 291 | 303 | 303 | 303 | 303 | 0 | 0 | 0 | 0 | 0 |
| 132 | 99 | 99 | 98 | 98 | 98 | 49 | 51 | 51 | 51 | 51 | 0 | 0 | 0 | 0 | 0 |
| 133 | 487 | 485 | 480 | 480 | 480 | 176 | 183 | 183 | 183 | 183 | 0 | 0 | 0 | 0 | 0 |
| 134 | 1511 | 1505 | 1684 | 1748 | 1814 | 556 | 579 | 648 | 672 | 698 | 0 | 0 | 0 | 0 | 0 |
| 135 | 438 | 436 | 431 | 431 | 431 | 237 | 247 | 247 | 247 | 247 | 0 | 0 | 0 | 0 | 0 |

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| Transportation Analysis Zone | POPULATION | | | | | HOUSING UNITS | | | | | GROUP QUARTERS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 |
| 136 | 300 | 299 | 295 | 295 | 295 | 102 | 106 | 106 | 106 | 106 | 0 | 0 | 0 | 0 | 0 |
| 137 | 603 | 634 | 680 | 697 | 715 | 225 | 245 | 263 | 269 | 276 | 0 | 0 | 0 | 0 | 0 |
| 138 | 192 | 404 | 432 | 444 | 450 | 77 | 162 | 174 | 178 | 182 | 0 | 0 | 0 | 0 | 0 |
| 139 | 186 | 392 | 420 | 432 | 444 | 66 | 160 | 172 | 176 | 180 | 0 | 0 | 0 | 0 | 0 |
| 140 | 199 | 209 | 224 | 230 | 236 | 85 | 89 | 96 | 99 | 101 | 0 | 0 | 0 | 0 | 0 |
| 141 | 1600 | 1686 | 1808 | 1851 | 1894 | 635 | 671 | 719 | 736 | 753 | 0 | 0 | 0 | 0 | 0 |
| 142 | 114 | 558 | 600 | 615 | 630 | 51 | 243 | 261 | 267 | 273 | 0 | 0 | 0 | 0 | 0 |
| 143 | 285 | 293 | 314 | 323 | 332 | 123 | 150 | 161 | 165 | 169 | 0 | 0 | 0 | 0 | 0 |
| 144 | 1112 | 1740 | 1767 | 1772 | 1776 | 494 | 777 | 783 | 785 | 788 | 0 | 0 | 0 | 0 | 0 |
| 145 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 146 | 1414 | 2244 | 2451 | 2528 | 2605 | 509 | 855 | 932 | 959 | 987 | 0 | 0 | 0 | 0 | 0 |
| 147 | 341 | 1935 | 2020 | 2040 | 2060 | 148 | 855 | 880 | 889 | 897 | 0 | 0 | 0 | 0 | 0 |
| 148 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 149 | 850 | 902 | 982 | 1011 | 1040 | 341 | 362 | 394 | 406 | 417 | 0 | 0 | 0 | 0 | 0 |
| 150 | 447 | 470 | 504 | 516 | 528 | 176 | 185 | 198 | 203 | 207 | 0 | 0 | 0 | 0 | 0 |
| 151 | 956 | 1008 | 1081 | 1107 | 1133 | 353 | 371 | 398 | 408 | 417 | 0 | 0 | 0 | 0 | 0 |
| 152 | 937 | 985 | 1056 | 1081 | 1107 | 356 | 374 | 401 | 411 | 420 | 0 | 0 | 0 | 0 | 0 |
| 153 | 548 | 1140 | 1206 | 1228 | 1249 | 213 | 444 | 468 | 476 | 485 | 0 | 0 | 0 | 0 | 0 |
| 154 | 66 | 69 | 73 | 74 | 75 | 23 | 24 | 25 | 25 | 26 | 0 | 0 | 0 | 0 | 0 |
| 155 | 517 | 1054 | 1074 | 1084 | 1093 | 185 | 380 | 390 | 393 | 397 | 0 | 0 | 0 | 0 | 0 |
| 156 | 0 | 207 | 219 | 223 | 227 | 0 | 74 | 78 | 79 | 81 | 0 | 0 | 0 | 0 | 0 |
| 157 | 537 | 559 | 590 | 602 | 614 | 217 | 235 | 249 | 254 | 259 | 0 | 0 | 0 | 0 | 0 |
| 158 | 25 | 25 | 600 | 800 | 1000 | 10 | 10 | 200 | 300 | 400 | 0 | 0 | 0 | 0 | 0 |
| 159 | 413 | 430 | 454 | 462 | 470 | 141 | 147 | 155 | 158 | 161 | 0 | 0 | 0 | 0 | 0 |
| 160 | 1994 | 1594 | 1610 | 1622 | 1634 | 277 | 280 | 285 | 287 | 288 | 1337 | 634 | 211 | 145 | 100 |
| 161 | 846 | 889 | 954 | 978 | 1001 | 358 | 376 | 404 | 414 | 424 | 0 | 0 | 0 | 0 | 0 |
| 162 | 636 | 682 | 753 | 779 | 805 | 287 | 308 | 340 | 352 | 364 | 0 | 0 | 0 | 0 | 0 |
| 163 | 210 | 219 | 231 | 235 | 239 | 92 | 96 | 101 | 103 | 105 | 0 | 0 | 0 | 0 | 0 |
| 164 | 721 | 1172 | 1265 | 1286 | 1308 | 276 | 467 | 491 | 499 | 507 | 0 | 0 | 0 | 0 | 0 |
| 165 | 281 | 458 | 483 | 493 | 503 | 104 | 168 | 179 | 182 | 186 | 0 | 0 | 0 | 0 | 0 |
| 166 | 573 | 580 | 600 | 609 | 618 | 109 | 115 | 120 | 122 | 123 | 0 | 0 | 0 | 0 | 0 |
| 167 | 131 | 138 | 148 | 153 | 157 | 50 | 80 | 85 | 87 | 89 | 0 | 0 | 0 | 0 | 0 |
| 168 | 153 | 159 | 168 | 172 | 175 | 59 | 61 | 65 | 66 | 68 | 55 | 55 | 55 | 55 | 55 |
| 169 | 327 | 340 | 369 | 379 | 388 | 123 | 129 | 139 | 143 | 146 | 0 | 0 | 0 | 0 | 0 |
| 170 | 250 | 395 | 423 | 433 | 442 | 96 | 152 | 162 | 166 | 169 | 0 | 0 | 0 | 0 | 0 |
| 171 | 227 | 247 | 261 | 266 | 271 | 79 | 86 | 91 | 93 | 95 | 0 | 0 | 0 | 0 | 0 |
| 172 | 692 | 1080 | 1142 | 1165 | 1189 | 248 | 405 | 429 | 437 | 446 | 0 | 0 | 0 | 0 | 0 |
| 173 | 204 | 212 | 448 | 456 | 465 | 69 | 72 | 152 | 155 | 158 | 0 | 0 | 0 | 0 | 0 |
| 174 | 1693 | 1839 | 1860 | 1938 | 2019 | 689 | 747 | 757 | 789 | 822 | 0 | 0 | 0 | 0 | 0 |
| 175 | 856 | 993 | 1016 | 1098 | 1185 | 363 | 421 | 431 | 465 | 502 | 0 | 0 | 0 | 0 | 0 |
| 176 | 56 | 56 | 56 | 56 | 56 | 24 | 24 | 24 | 24 | 24 | 0 | 0 | 0 | 0 | 0 |
| 177 | 434 | 434 | 496 | 496 | 557 | 176 | 176 | 201 | 201 | 226 | 0 | 0 | 0 | 0 | 0 |
| 178 | 56 | 56 | 118 | 118 | 180 | 19 | 19 | 40 | 40 | 61 | 0 | 0 | 0 | 0 | 0 |
| 179 | 102 | 102 | 159 | 159 | 216 | 45 | 45 | 70 | 70 | 95 | 0 | 0 | 0 | 0 | 0 |
| 180 | 68 | 204 | 204 | 408 | 816 | 25 | 75 | 75 | 150 | 300 | 0 | 0 | 0 | 0 | 0 |

## Appendix B -- Demographic Data for the Lynchburg Urbanized Area

| Transportation Analysis Zone | POPULATION | | | | | HOUSING UNITS | | | | | GROUP QUARTERS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 |
| 181 | 413 | 413 | 460 | 460 | 507 | 174 | 174 | 194 | 194 | 214 | 0 | 0 | 0 | 0 | 0 |
| 182 | 694 | 750 | 750 | 780 | 812 | 309 | 334 | 334 | 348 | 362 | 0 | 0 | 0 | 0 | 0 |
| 183 | 548 | 798 | 798 | 980 | 1203 | 219 | 319 | 319 | 392 | 481 | 0 | 0 | 0 | 0 | 0 |
| 184 | 901 | 1032 | 1032 | 1108 | 1187 | 343 | 393 | 393 | 422 | 452 | 14 | 14 | 14 | 14 | 14 |
| 185 | 723 | 842 | 2204 | 2658 | 3112 | 305 | 355 | 385 | 417 | 635 | 0 | 0 | 500 | 500 | 500 |
| 186 | 178 | 240 | 240 | 281 | 327 | 72 | 97 | 97 | 114 | 133 | 0 | 0 | 0 | 0 | 0 |
| 187 | 128 | 128 | 128 | 128 | 128 | 54 | 54 | 54 | 54 | 54 | 0 | 0 | 0 | 0 | 0 |
| 188 | 377 | 437 | 860 | 929 | 1002 | 156 | 181 | 356 | 385 | 415 | 0 | 0 | 0 | 0 | 0 |
| 189 | 719 | 719 | 760 | 760 | 801 | 348 | 348 | 368 | 368 | 388 | 0 | 0 | 0 | 0 | 0 |
| 190 | 371 | 371 | 416 | 416 | 461 | 164 | 164 | 184 | 184 | 204 | 0 | 0 | 0 | 0 | 0 |
| 191 | 381 | 432 | 432 | 461 | 491 | 150 | 170 | 170 | 181 | 193 | 0 | 0 | 0 | 0 | 0 |
| 192 | 2164 | 2228 | 2385 | 2420 | 2455 | 744 | 766 | 820 | 832 | 844 | 0 | 0 | 0 | 0 | 0 |
| 193 | 1956 | 2149 | 2397 | 2515 | 2639 | 790 | 868 | 968 | 1016 | 1066 | 0 | 0 | 0 | 0 | 0 |
| 194 | 671 | 792 | 940 | 1024 | 1116 | 322 | 380 | 451 | 492 | 536 | 0 | 0 | 0 | 0 | 0 |
| 195 | 1324 | 1472 | 1654 | 1746 | 1843 | 518 | 576 | 647 | 683 | 721 | 0 | 0 | 0 | 0 | 0 |
| 196 | 2957 | 3092 | 3160 | 3232 | 3305 | 1093 | 1143 | 1168 | 1195 | 1222 | 0 | 0 | 0 | 0 | 0 |
| 197 | 143 | 143 | 548 | 683 | 818 | 67 | 67 | 217 | 267 | 317 | 0 | 0 | 0 | 0 | 0 |
| 198 | 198 | 198 | 198 | 198 | 198 | 75 | 75 | 75 | 75 | 75 | 0 | 0 | 0 | 0 | 0 |
| 199 | 150 | 150 | 174 | 174 | 198 | 62 | 62 | 72 | 72 | 82 | 0 | 0 | 0 | 0 | 0 |
| 200 | 52 | 52 | 83 | 83 | 114 | 25 | 25 | 40 | 40 | 55 | 0 | 0 | 0 | 0 | 0 |
| 201 | 54 | 54 | 83 | 83 | 112 | 22 | 22 | 34 | 34 | 46 | 0 | 0 | 0 | 0 | 0 |
| 202 | 98 | 98 | 98 | 98 | 98 | 34 | 34 | 34 | 34 | 34 | 0 | 0 | 0 | 0 | 0 |
| 203 | 302 | 302 | 332 | 332 | 362 | 100 | 100 | 110 | 110 | 120 | 0 | 0 | 0 | 0 | 0 |
| 204 | 832 | 918 | 1025 | 1078 | 1132 | 388 | 428 | 478 | 503 | 528 | 0 | 100 | 100 | 100 | 100 |
| 205 | 227 | 328 | 479 | 586 | 715 | 90 | 130 | 190 | 232 | 283 | 0 | 0 | 0 | 0 | 0 |
| 206 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 207 | 308 | 308 | 333 | 333 | 358 | 125 | 125 | 135 | 135 | 145 | 0 | 0 | 0 | 0 | 0 |
| 208 | 1069 | 1467 | 1671 | 1748 | 1835 | 393 | 539 | 614 | 643 | 675 | 0 | 0 | 0 | 0 | 0 |
| 209 | 321 | 499 | 676 | 756 | 847 | 143 | 223 | 301 | 337 | 377 | 0 | 0 | 0 | 0 | 0 |
| 210 | 97 | 136 | 214 | 255 | 415 | 32 | 45 | 71 | 84 | 137 | 0 | 0 | 0 | 0 | 0 |
| 211 | 130 | 235 | 334 | 382 | 435 | 62 | 112 | 159 | 182 | 207 | 0 | 0 | 0 | 0 | 0 |
| 212 | 89 | 140 | 162 | 171 | 181 | 44 | 69 | 80 | 84 | 88 | 0 | 0 | 0 | 0 | 0 |
| 213 | 97 | 183 | 203 | 210 | 216 | 43 | 81 | 90 | 93 | 96 | 0 | 0 | 0 | 0 | 0 |
| 214 | 508 | 650 | 744 | 780 | 819 | 193 | 247 | 283 | 296 | 311 | 0 | 0 | 0 | 0 | 0 |
| 215 | 123 | 203 | 289 | 329 | 375 | 54 | 89 | 127 | 145 | 165 | 0 | 0 | 0 | 0 | 0 |
| 216 | 669 | 1197 | 1378 | 1448 | 1520 | 242 | 433 | 499 | 524 | 550 | 0 | 0 | 0 | 0 | 0 |
| 217 | 291 | 402 | 490 | 526 | 563 | 125 | 173 | 210 | 226 | 244 | 0 | 0 | 0 | 0 | 0 |
| 218 | 643 | 992 | 1157 | 1221 | 1294 | 328 | 506 | 590 | 623 | 660 | 0 | 0 | 0 | 0 | 0 |
| 219 | 323 | 607 | 1177 | 1545 | 2024 | 159 | 299 | 579 | 760 | 996 | 0 | 0 | 0 | 0 | 0 |
| 220 | 128 | 153 | 184 | 197 | 211 | 66 | 79 | 95 | 101 | 107 | 0 | 0 | 0 | 0 | 0 |
| 221 | 46 | 174 | 193 | 200 | 208 | 18 | 68 | 76 | 78 | 80 | 0 | 0 | 0 | 0 | 0 |
| 222 | 172 | 295 | 308 | 313 | 319 | 70 | 120 | 125 | 127 | 130 | 0 | 0 | 0 | 0 | 0 |
| 223 | 318 | 1451 | 1842 | 2007 | 2188 | 100 | 456 | 579 | 631 | 688 | 0 | 0 | 0 | 0 | 0 |
| 224 | 323 | 344 | 367 | 375 | 383 | 153 | 163 | 174 | 178 | 182 | 0 | 0 | 0 | 0 | 0 |
| 225 | 707 | 723 | 738 | 744 | 751 | 288 | 294 | 301 | 303 | 306 | 0 | 0 | 0 | 0 | 0 |

## Appendix B -- Demographic Data for the Lynchburg Urbanized Area

| Transportation Analysis Zone | POPULATION | | | | | HOUSING UNITS | | | | | GROUP QUARTERS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 |
| 226 | 1226 | 1372 | 1400 | 1425 | 1450 | 453 | 507 | 518 | 527 | 537 | 0 | 0 | 0 | 0 | 0 |
| 227 | 40 | 57 | 125 | 150 | 175 | 22 | 32 | 42 | 50 | 58 | 0 | 0 | 0 | 0 | 0 |
| 228 | 856 | 1166 | 1429 | 1537 | 1660 | 325 | 443 | 543 | 584 | 631 | 0 | 0 | 0 | 0 | 0 |
| 229 | 207 | 410 | 600 | 825 | 950 | 83 | 164 | 240 | 330 | 380 | 0 | 0 | 0 | 0 | 0 |
| 230 | 229 | 262 | 273 | 277 | 280 | 89 | 102 | 106 | 108 | 110 | 0 | 0 | 0 | 0 | 0 |
| 231 | 496 | 568 | 585 | 591 | 597 | 220 | 252 | 259 | 262 | 265 | 0 | 0 | 0 | 0 | 0 |
| 232 | 226 | 337 | 576 | 712 | 883 | 97 | 145 | 247 | 305 | 375 | 0 | 0 | 0 | 0 | 0 |
| 233 | 64 | 106 | 156 | 187 | 235 | 29 | 48 | 85 | 106 | 133 | 0 | 0 | 0 | 0 | 0 |
| 234 | 814 | 1031 | 1321 | 1445 | 1575 | 281 | 356 | 456 | 499 | 544 | 0 | 0 | 0 | 0 | 0 |
| 235 | 256 | 295 | 361 | 387 | 414 | 105 | 121 | 148 | 159 | 170 | 0 | 0 | 0 | 0 | 0 |
| Totals | 115238 | 131235 | 141812 | 146624 | 152470 | 46195 | 53022 | 56910 | 58731 | 61156 | 7405 | 9653 | 10022 | 10087 | 10168 |

| | POPULATION | | | | | HOUSING UNITS | | | | | GROUP QUARTERS | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 |
| **Lynchburg Totals (1-136)** | 66049 | 68541 | 69571 | 69916 | 70271 | 27233 | 28351 | 28982 | 29126 | 29275 | 5999 | 8850 | 9142 | 9273 | 9399 |
| **Amherst Totals (137-173)** | 18587 | 25109 | 27410 | 28146 | 28873 | 6655 | 9608 | 10440 | 10742 | 11044 | 1392 | 689 | 266 | 200 | 155 |
| **Campbell Totals (174-207)** | 20134 | 22130 | 25878 | 27819 | 30523 | 8090 | 8897 | 9891 | 10518 | 11635 | 14 | 114 | 614 | 614 | 614 |
| **Bedford Totals (208-235)** | 10468 | 15455 | 18953 | 20743 | 22803 | 4217 | 6166 | 7597 | 8345 | 9202 | 0 | 0 | 0 | 0 | 0 |
| Totals | 115238 | 131235 | 141812 | 146624 | 152470 | 46195 | 53022 | 56910 | 58731 | 61156 | 7405 | 9653 | 10022 | 10087 | 10168 |

## Appendix B -- Demographic Data for the Lynchburg Urbanized Area

| Transportation Analysis Zone | AUTOMOBILES | | | | | TOTAL STUDENTS | | | | | TOTAL EMPLOYMENT | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 |
| 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2704 | 3062 | 3697 | 3942 | 4186 |
| 2 | 116 | 129 | 134 | 136 | 138 | 0 | 0 | 0 | 0 | 0 | 2739 | 3102 | 3745 | 3993 | 4241 |
| 3 | 65 | 73 | 75 | 76 | 77 | 0 | 0 | 0 | 0 | 0 | 271 | 1107 | 1336 | 1425 | 1513 |
| 4 | 767 | 856 | 889 | 900 | 911 | 0 | 0 | 0 | 0 | 0 | 465 | 498 | 551 | 570 | 590 |
| 5 | 146 | 163 | 169 | 171 | 173 | 0 | 0 | 0 | 0 | 0 | 288 | 308 | 341 | 353 | 365 |
| 6 | 687 | 767 | 796 | 806 | 816 | 1141 | 1117 | 1081 | 1069 | 1058 | 469 | 502 | 556 | 575 | 595 |
| 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 67 | 72 | 79 | 82 | 85 |
| 8 | 191 | 214 | 222 | 225 | 227 | 0 | 0 | 0 | 0 | 0 | 128 | 137 | 152 | 157 | 162 |
| 9 | 326 | 364 | 378 | 383 | 388 | 0 | 0 | 0 | 0 | 0 | 540 | 578 | 640 | 662 | 685 |
| 10 | 288 | 322 | 334 | 338 | 342 | 124 | 129 | 136 | 139 | 141 | 192 | 205 | 228 | 235 | 243 |
| 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1368 | 1368 | 1368 | 1368 | 1368 |
| 12 | 309 | 345 | 459 | 475 | 493 | 0 | 0 | 0 | 0 | 0 | 168 | 180 | 199 | 206 | 213 |
| 13 | 32 | 36 | 39 | 40 | 40 | 0 | 0 | 0 | 0 | 0 | 64 | 68 | 76 | 78 | 81 |
| 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 140 | 150 | 166 | 172 | 178 |
| 15 | 286 | 320 | 345 | 352 | 359 | 0 | 0 | 0 | 0 | 0 | 111 | 119 | 132 | 136 | 141 |
| 16 | 338 | 377 | 407 | 415 | 424 | 0 | 0 | 0 | 0 | 0 | 615 | 658 | 729 | 754 | 780 |
| 17 | 298 | 333 | 359 | 367 | 374 | 0 | 0 | 0 | 0 | 0 | 119 | 127 | 141 | 146 | 151 |
| 18 | 365 | 408 | 440 | 449 | 458 | 25 | 25 | 25 | 25 | 25 | 41 | 44 | 49 | 50 | 52 |
| 19 | 107 | 120 | 129 | 132 | 134 | 50 | 40 | 50 | 50 | 50 | 16 | 17 | 19 | 20 | 20 |
| 20 | 201 | 224 | 242 | 247 | 252 | 0 | 0 | 0 | 0 | 0 | 20 | 21 | 24 | 25 | 25 |
| 21 | 265 | 296 | 319 | 326 | 332 | 0 | 0 | 0 | 0 | 0 | 69 | 74 | 82 | 85 | 87 |
| 22 | 29 | 32 | 35 | 35 | 36 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 5 | 5 | 5 |
| 23 | 250 | 279 | 301 | 307 | 313 | 0 | 0 | 0 | 0 | 0 | 476 | 509 | 564 | 584 | 604 |
| 24 | 205 | 229 | 247 | 252 | 257 | 0 | 0 | 0 | 0 | 0 | 36 | 39 | 44 | 45 | 47 |
| 25 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 525 | 567 | 637 | 663 | 689 |
| 26 | 12 | 14 | 15 | 15 | 15 | 0 | 0 | 0 | 0 | 0 | 109 | 109 | 109 | 109 | 1550 |
| 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1430 | 1430 | 1430 | 1430 | 2302 |
| 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 992 | 992 | 992 | 992 | 992 |
| 29 | 7 | 8 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 1077 | 1077 | 1077 | 1077 | 1077 |
| 30 | 10 | 11 | 12 | 12 | 13 | 0 | 0 | 0 | 0 | 0 | 392 | 392 | 392 | 392 | 392 |
| 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1905 | 2054 | 2309 | 2401 | 2494 |
| 32 | 1 | 1 | 1 | 1 | 2 | 0 | 0 | 0 | 0 | 0 | 1634 | 1634 | 1634 | 1634 | 1635 |
| 33 | 130 | 145 | 157 | 160 | 163 | 0 | 0 | 0 | 0 | 0 | 129 | 129 | 129 | 129 | 129 |
| 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 501 | 501 | 501 | 501 | 501 |
| 35 | 59 | 65 | 71 | 72 | 73 | 0 | 0 | 0 | 0 | 0 | 1977 | 1977 | 2864 | 3240 | 3666 |
| 36 | 164 | 184 | 198 | 202 | 206 | 0 | 207 | 432 | 457 | 457 | 6 | 6 | 6 | 6 | 6 |
| 37 | 231 | 257 | 278 | 283 | 289 | 0 | 0 | 0 | 0 | 0 | 457 | 494 | 555 | 577 | 599 |
| 38 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50 | 72 | 82 | 93 |
| 39 | 24 | 27 | 29 | 30 | 31 | 0 | 0 | 0 | 0 | 0 | 443 | 479 | 538 | 560 | 581 |
| 40 | 230 | 257 | 278 | 283 | 289 | 0 | 0 | 0 | 0 | 0 | 601 | 649 | 730 | 759 | 788 |
| 41 | 254 | 284 | 307 | 313 | 319 | 0 | 0 | 0 | 0 | 0 | 138 | 149 | 168 | 174 | 181 |
| 42 | 241 | 269 | 290 | 296 | 302 | 368 | 397 | 440 | 456 | 473 | 215 | 230 | 255 | 264 | 273 |
| 43 | 625 | 698 | 754 | 769 | 784 | 0 | 0 | 0 | 0 | 0 | 362 | 387 | 429 | 444 | 459 |
| 44 | 298 | 333 | 359 | 366 | 374 | 0 | 0 | 0 | 0 | 0 | 52 | 56 | 62 | 64 | 66 |
| 45 | 200 | 223 | 241 | 245 | 250 | 0 | 0 | 0 | 0 | 0 | 2956 | 4067 | 6725 | 8045 | 9365 |

## Appendix B -- Demographic Data for the Lynchburg Urbanized Area

| Transportation Analysis Zone | AUTOMOBILES | | | | | TOTAL STUDENTS | | | | | TOTAL EMPLOYMENT | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 |
| 46 | 496 | 553 | 600 | 612 | 625 | 300 | 300 | 300 | 300 | 300 | 1112 | 1499 | 2497 | 2987 | 3477 |
| 47 | 399 | 445 | 445 | 445 | 544 | 121 | 131 | 145 | 145 | 145 | 745 | 1037 | 1728 | 2068 | 2407 |
| 48 | 1354 | 1511 | 1632 | 1665 | 1698 | 1296 | 1338 | 1400 | 1422 | 1444 | 305 | 326 | 361 | 374 | 387 |
| 49 | 46 | 51 | 51 | 51 | 51 | 0 | 0 | 0 | 0 | 0 | 168 | 180 | 199 | 206 | 213 |
| 50 | 240 | 267 | 289 | 294 | 300 | 0 | 0 | 0 | 0 | 0 | 7 | 7 | 8 | 9 | 9 |
| 51 | 633 | 707 | 763 | 778 | 794 | 0 | 0 | 0 | 0 | 0 | 296 | 320 | 359 | 374 | 388 |
| 52 | 810 | 905 | 977 | 996 | 1016 | 459 | 459 | 460 | 460 | 460 | 74 | 79 | 88 | 91 | 94 |
| 53 | 338 | 377 | 407 | 416 | 424 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 54 | 828 | 924 | 998 | 1017 | 1038 | 751 | 944 | 1233 | 1359 | 1498 | 99 | 106 | 117 | 121 | 126 |
| 55 | 889 | 992 | 1072 | 1093 | 1115 | 0 | 0 | 0 | 0 | 0 | 40 | 43 | 47 | 49 | 51 |
| 56 | 354 | 395 | 427 | 435 | 444 | 0 | 0 | 0 | 0 | 0 | 135 | 144 | 160 | 166 | 171 |
| 57 | 180 | 201 | 217 | 222 | 226 | 0 | 0 | 0 | 0 | 0 | 661 | 707 | 783 | 811 | 838 |
| 58 | 127 | 142 | 154 | 157 | 160 | 195 | 177 | 150 | 142 | 135 | 210 | 225 | 249 | 258 | 266 |
| 59 | 654 | 730 | 788 | 804 | 820 | 2446 | 2448 | 2450 | 2451 | 2452 | 548 | 586 | 649 | 672 | 695 |
| 60 | 66 | 73 | 79 | 81 | 82 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 61 | 201 | 225 | 251 | 261 | 271 | 0 | 0 | 0 | 0 | 0 | 134 | 145 | 163 | 169 | 176 |
| 62 | 172 | 192 | 207 | 211 | 215 | 0 | 0 | 0 | 0 | 0 | 58 | 62 | 69 | 71 | 74 |
| 63 | 33 | 37 | 40 | 41 | 42 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 64 | 385 | 430 | 464 | 474 | 483 | 0 | 0 | 0 | 0 | 0 | 477 | 510 | 565 | 585 | 605 |
| 65 | 281 | 314 | 339 | 346 | 352 | 260 | 270 | 300 | 300 | 300 | 126 | 136 | 153 | 159 | 165 |
| 66 | 2 | 2 | 2 | 2 | 3 | 1351 | 1351 | 1351 | 1351 | 1351 | 386 | 446 | 557 | 601 | 644 |
| 67 | 51 | 57 | 62 | 63 | 64 | 0 | 0 | 0 | 0 | 0 | 893 | 965 | 1084 | 1128 | 1171 |
| 68 | 132 | 148 | 159 | 163 | 166 | 350 | 510 | 750 | 868 | 1004 | 326 | 377 | 470 | 507 | 544 |
| 69 | 186 | 207 | 224 | 228 | 233 | 0 | 0 | 0 | 0 | 0 | 72 | 77 | 85 | 88 | 91 |
| 70 | 104 | 116 | 126 | 128 | 131 | 0 | 0 | 0 | 0 | 0 | 281 | 301 | 333 | 345 | 356 |
| 71 | 27 | 30 | 32 | 33 | 33 | 0 | 0 | 0 | 0 | 0 | 112 | 120 | 133 | 137 | 142 |
| 72 | 121 | 135 | 146 | 149 | 152 | 0 | 0 | 0 | 0 | 0 | 527 | 564 | 624 | 646 | 668 |
| 73 | 183 | 205 | 221 | 225 | 230 | 0 | 0 | 0 | 0 | 0 | 44 | 47 | 52 | 54 | 56 |
| 74 | 1968 | 3772 | 3783 | 3859 | 3936 | 5198 | 9970 | 10000 | 10000 | 10000 | 335 | 358 | 397 | 411 | 425 |
| 75 | 477 | 533 | 575 | 587 | 598 | 100 | 110 | 125 | 131 | 131 | 102 | 109 | 121 | 125 | 129 |
| 76 | 413 | 461 | 497 | 507 | 517 | 60 | 70 | 88 | 96 | 96 | 457 | 457 | 457 | 457 | 457 |
| 77 | 828 | 924 | 998 | 1018 | 1038 | 0 | 0 | 0 | 0 | 0 | 28 | 30 | 33 | 34 | 36 |
| 78 | 10 | 11 | 12 | 13 | 13 | 0 | 0 | 0 | 0 | 0 | 24 | 26 | 28 | 29 | 30 |
| 79 | 419 | 468 | 505 | 515 | 525 | 0 | 0 | 0 | 0 | 0 | 161 | 172 | 191 | 197 | 204 |
| 80 | 1173 | 1310 | 1414 | 1442 | 1471 | 0 | 0 | 0 | 0 | 0 | 131 | 140 | 155 | 161 | 166 |
| 81 | 325 | 363 | 363 | 363 | 438 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 4 | 4 | 4 |
| 82 | 406 | 453 | 489 | 499 | 509 | 691 | 719 | 761 | 776 | 791 | 408 | 437 | 483 | 500 | 517 |
| 83 | 716 | 800 | 863 | 881 | 898 | 0 | 0 | 0 | 0 | 0 | 84 | 90 | 100 | 103 | 107 |
| 84 | 4 | 4 | 5 | 5 | 5 | 0 | 0 | 0 | 0 | 0 | 38 | 41 | 45 | 47 | 48 |
| 85 | 145 | 162 | 175 | 179 | 182 | 0 | 0 | 0 | 0 | 0 | 333 | 356 | 395 | 408 | 422 |
| 86 | 468 | 523 | 523 | 523 | 653 | 0 | 0 | 0 | 0 | 0 | 150 | 161 | 178 | 184 | 190 |
| 87 | 470 | 524 | 566 | 578 | 589 | 0 | 0 | 0 | 0 | 0 | 64 | 68 | 76 | 78 | 81 |
| 88 | 770 | 859 | 928 | 946 | 965 | 0 | 0 | 0 | 0 | 0 | 1621 | 2257 | 3561 | 4260 | 4959 |
| 89 | 1087 | 1214 | 1311 | 1337 | 1364 | 396 | 434 | 490 | 511 | 533 | 273 | 380 | 633 | 758 | 882 |
| 90 | 1053 | 1176 | 1270 | 1295 | 1321 | 182 | 183 | 185 | 185 | 185 | 52 | 56 | 62 | 64 | 66 |

## Appendix B -- Demographic Data for the Lynchburg Urbanized Area

| Transportation Analysis Zone | AUTOMOBILES | | | | | TOTAL STUDENTS | | | | | TOTAL EMPLOYMENT | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 |
| 91 | 24 | 26 | 28 | 29 | 29 | 0 | 0 | 0 | 0 | 0 | 294 | 318 | 357 | 371 | 386 |
| 92 | 871 | 972 | 927 | 927 | 1226 | 447 | 421 | 382 | 370 | 359 | 108 | 116 | 128 | 132 | 137 |
| 93 | 174 | 195 | 248 | 248 | 266 | 0 | 0 | 0 | 0 | 0 | 8 | 9 | 9 | 10 | 10 |
| 94 | 317 | 354 | 382 | 389 | 397 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 3 |
| 95 | 299 | 334 | 334 | 334 | 525 | 1559 | 1547 | 1529 | 1523 | 1517 | 386 | 413 | 457 | 473 | 489 |
| 96 | 254 | 283 | 306 | 312 | 318 | 0 | 0 | 0 | 0 | 0 | 263 | 284 | 319 | 332 | 345 |
| 97 | 676 | 755 | 755 | 755 | 921 | 0 | 0 | 0 | 0 | 0 | 183 | 198 | 222 | 231 | 240 |
| 98 | 91 | 102 | 110 | 112 | 114 | 0 | 0 | 0 | 0 | 0 | 58 | 62 | 69 | 71 | 74 |
| 99 | 65 | 72 | 78 | 79 | 81 | 0 | 0 | 0 | 0 | 0 | 20 | 21 | 64 | 66 | 68 |
| 100 | 297 | 331 | 357 | 365 | 372 | 0 | 0 | 0 | 0 | 0 | 58 | 62 | 152 | 157 | 162 |
| 101 | 145 | 162 | 162 | 162 | 203 | 0 | 0 | 0 | 0 | 0 | 62 | 66 | 205 | 212 | 219 |
| 102 | 10 | 11 | 12 | 13 | 13 | 0 | 0 | 0 | 0 | 0 | 16 | 17 | 19 | 20 | 20 |
| 103 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 265 | 307 | 382 | 412 | 442 |
| 104 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 51 | 55 | 62 | 64 | 67 |
| 105 | 5 | 6 | 6 | 6 | 6 | 0 | 0 | 0 | 0 | 0 | 84 | 91 | 102 | 106 | 110 |
| 106 | 60 | 67 | 72 | 74 | 75 | 0 | 0 | 0 | 0 | 0 | 337 | 548 | 616 | 641 | 665 |
| 107 | 44 | 49 | 53 | 54 | 55 | 4000 | 4410 | 5025 | 5259 | 5503 | 290 | 310 | 344 | 356 | 368 |
| 108 | 1177 | 1313 | 1313 | 1313 | 1591 | 0 | 0 | 0 | 0 | 0 | 108 | 116 | 128 | 132 | 137 |
| 109 | 356 | 397 | 397 | 397 | 490 | 1410 | 1517 | 1677 | 1736 | 1797 | 409 | 438 | 485 | 502 | 519 |
| 110 | 161 | 180 | 194 | 198 | 202 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 111 | 17 | 19 | 21 | 21 | 21 | 0 | 0 | 0 | 0 | 0 | 337 | 364 | 409 | 426 | 442 |
| 112 | 731 | 815 | 881 | 898 | 916 | 0 | 0 | 0 | 0 | 0 | 301 | 325 | 365 | 380 | 395 |
| 113 | 212 | 236 | 274 | 288 | 303 | 0 | 0 | 0 | 0 | 0 | 279 | 301 | 339 | 352 | 366 |
| 114 | 596 | 665 | 773 | 812 | 853 | 0 | 0 | 0 | 0 | 0 | 294 | 294 | 341 | 359 | 377 |
| 115 | 239 | 266 | 309 | 325 | 342 | 0 | 0 | 0 | 0 | 0 | 5 | 5 | 58 | 60 | 63 |
| 116 | 196 | 219 | 245 | 254 | 264 | 0 | 0 | 0 | 0 | 0 | 38 | 41 | 46 | 48 | 50 |
| 117 | 55 | 61 | 322 | 322 | 346 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 5 | 5 | 5 |
| 118 | 331 | 369 | 413 | 429 | 445 | 0 | 0 | 0 | 0 | 0 | 57 | 61 | 119 | 123 | 128 |
| 119 | 106 | 118 | 132 | 137 | 142 | 0 | 0 | 0 | 0 | 0 | 43 | 46 | 136 | 141 | 145 |
| 120 | 26 | 29 | 32 | 32 | 33 | 0 | 0 | 0 | 0 | 0 | 44 | 247 | 274 | 283 | 293 |
| 121 | 139 | 155 | 167 | 170 | 174 | 0 | 0 | 0 | 0 | 0 | 296 | 1250 | 1423 | 1487 | 1552 |
| 122 | 1251 | 1396 | 1507 | 1538 | 1568 | 0 | 0 | 0 | 0 | 0 | 148 | 160 | 180 | 187 | 194 |
| 123 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 147 | 159 | 178 | 186 | 193 |
| 124 | 215 | 240 | 259 | 264 | 270 | 0 | 0 | 0 | 0 | 0 | 201 | 217 | 244 | 254 | 264 |
| 125 | 285 | 318 | 343 | 350 | 357 | 0 | 0 | 0 | 0 | 0 | 497 | 497 | 497 | 497 | 497 |
| 126 | 147 | 164 | 177 | 181 | 185 | 0 | 0 | 0 | 0 | 0 | 52 | 56 | 63 | 66 | 68 |
| 127 | 176 | 197 | 213 | 217 | 221 | 0 | 0 | 0 | 0 | 0 | 159 | 172 | 193 | 201 | 209 |
| 128 | 27 | 30 | 32 | 33 | 34 | 0 | 0 | 0 | 0 | 0 | 113 | 122 | 137 | 143 | 148 |
| 129 | 1424 | 1589 | 1589 | 1589 | 2117 | 0 | 0 | 0 | 0 | 0 | 343 | 407 | 534 | 552 | 571 |
| 130 | 801 | 894 | 1000 | 1038 | 1077 | 0 | 0 | 0 | 0 | 0 | 550 | 759 | 934 | 967 | 1000 |
| 131 | 261 | 291 | 315 | 321 | 327 | 0 | 0 | 0 | 0 | 0 | 967 | 967 | 1047 | 1047 | 1047 |
| 132 | 80 | 89 | 96 | 98 | 100 | 0 | 0 | 0 | 0 | 0 | 117 | 698 | 728 | 728 | 728 |
| 133 | 199 | 222 | 240 | 245 | 249 | 0 | 0 | 0 | 0 | 0 | 1811 | 3038 | 3199 | 3199 | 3199 |
| 134 | 1247 | 1391 | 1556 | 1616 | 1677 | 0 | 0 | 0 | 0 | 0 | 215 | 232 | 261 | 272 | 282 |
| 135 | 341 | 381 | 411 | 419 | 428 | 0 | 0 | 0 | 0 | 0 | 47 | 50 | 56 | 58 | 60 |

## Appendix B -- Demographic Data for the Lynchburg Urbanized Area

| Transportation Analysis Zone | AUTOMOBILES | | | | | TOTAL STUDENTS | | | | | TOTAL EMPLOYMENT | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 |
| 136 | 241 | 269 | 290 | 296 | 302 | 0 | 0 | 0 | 0 | 0 | 12 | 13 | 14 | 15 | 15 |
| 137 | 455 | 533 | 616 | 684 | 759 | 325 | 341 | 317 | 311 | 308 | 10 | 11 | 15 | 16 | 17 |
| 138 | 145 | 680 | 784 | 868 | 964 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 139 | 140 | 164 | 190 | 211 | 235 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 3 | 3 |
| 140 | 121 | 142 | 163 | 182 | 202 | 0 | 0 | 0 | 0 | 0 | 156 | 177 | 232 | 248 | 263 |
| 141 | 1153 | 1353 | 1563 | 1735 | 1922 | 0 | 0 | 0 | 0 | 0 | 269 | 355 | 451 | 481 | 511 |
| 142 | 83 | 435 | 507 | 561 | 624 | 0 | 0 | 0 | 0 | 0 | 247 | 280 | 368 | 392 | 417 |
| 143 | 207 | 238 | 274 | 306 | 340 | 0 | 0 | 0 | 0 | 0 | 275 | 411 | 510 | 544 | 578 |
| 144 | 874 | 1526 | 1683 | 1839 | 2007 | 0 | 0 | 0 | 0 | 0 | 444 | 503 | 662 | 705 | 749 |
| 145 | 0 | 0 | 0 | 0 | 0 | 0 | 515 | 479 | 469 | 465 | 267 | 302 | 398 | 424 | 451 |
| 146 | 1025 | 1811 | 2124 | 2371 | 2641 | 0 | 0 | 0 | 0 | 0 | 27 | 81 | 90 | 96 | 102 |
| 147 | 226 | 1418 | 1602 | 1759 | 1931 | 1303 | 1368 | 1272 | 1247 | 1234 | 423 | 479 | 1261 | 1344 | 1427 |
| 148 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 313 | 354 | 466 | 497 | 528 |
| 149 | 562 | 664 | 776 | 865 | 963 | 0 | 0 | 0 | 0 | 0 | 4 | 5 | 6 | 6 | 7 |
| 150 | 272 | 319 | 368 | 408 | 452 | 0 | 0 | 0 | 0 | 0 | 8 | 51 | 62 | 66 | 70 |
| 151 | 707 | 830 | 959 | 1065 | 1180 | 0 | 0 | 0 | 0 | 0 | 45 | 101 | 117 | 125 | 132 |
| 152 | 693 | 812 | 937 | 1040 | 1153 | 0 | 562 | 523 | 512 | 507 | 336 | 405 | 526 | 561 | 596 |
| 153 | 367 | 852 | 972 | 1074 | 1186 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 179 | 191 | 202 |
| 154 | 44 | 51 | 59 | 64 | 71 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 155 | 346 | 788 | 873 | 958 | 1050 | 0 | 0 | 0 | 0 | 0 | 5 | 6 | 7 | 8 | 8 |
| 156 | 0 | 107 | 117 | 127 | 139 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 157 | 400 | 464 | 529 | 586 | 648 | 0 | 0 | 0 | 0 | 0 | 113 | 128 | 168 | 180 | 191 |
| 158 | 19 | 21 | 557 | 809 | 1102 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 600 | 800 | 1000 |
| 159 | 320 | 372 | 424 | 468 | 517 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 160 | 1334 | 682 | 776 | 870 | 974 | 264 | 0 | 0 | 0 | 0 | 2798 | 1825 | 1032 | 833 | 1042 |
| 161 | 419 | 491 | 567 | 630 | 698 | 0 | 0 | 0 | 0 | 0 | 73 | 83 | 109 | 116 | 123 |
| 162 | 516 | 615 | 728 | 815 | 909 | 263 | 0 | 0 | 0 | 0 | 330 | 374 | 492 | 524 | 557 |
| 163 | 139 | 162 | 184 | 203 | 224 | 0 | 0 | 0 | 0 | 0 | 8 | 9 | 12 | 13 | 13 |
| 164 | 545 | 984 | 1142 | 1262 | 1392 | 0 | 0 | 0 | 0 | 0 | 47 | 53 | 70 | 75 | 79 |
| 165 | 179 | 324 | 369 | 409 | 452 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 166 | 349 | 395 | 443 | 488 | 538 | 145 | 0 | 0 | 0 | 0 | 17 | 19 | 25 | 27 | 29 |
| 167 | 76 | 89 | 103 | 115 | 128 | 0 | 0 | 0 | 0 | 0 | 12 | 14 | 18 | 19 | 20 |
| 168 | 112 | 130 | 148 | 164 | 182 | 0 | 0 | 0 | 0 | 0 | 69 | 78 | 103 | 110 | 116 |
| 169 | 199 | 231 | 269 | 299 | 332 | 0 | 0 | 0 | 0 | 0 | 24 | 27 | 36 | 38 | 40 |
| 170 | 152 | 267 | 309 | 342 | 379 | 0 | 0 | 0 | 0 | 0 | 29 | 33 | 63 | 67 | 71 |
| 171 | 138 | 167 | 190 | 210 | 232 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 172 | 421 | 733 | 836 | 926 | 1024 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 3 | 3 | 3 |
| 173 | 151 | 175 | 399 | 441 | 487 | 0 | 0 | 0 | 0 | 0 | 4 | 30 | 412 | 439 | 467 |
| 174 | 1350 | 1626 | 1792 | 2015 | 2259 | 0 | 0 | 0 | 0 | 0 | 524 | 593 | 781 | 832 | 943 |
| 175 | 683 | 874 | 972 | 1124 | 1290 | 0 | 0 | 0 | 0 | 0 | 160 | 281 | 338 | 361 | 409 |
| 176 | 37 | 41 | 45 | 49 | 54 | 0 | 0 | 0 | 0 | 0 | 5 | 6 | 7 | 8 | 9 |
| 177 | 289 | 324 | 394 | 429 | 468 | 0 | 0 | 0 | 0 | 0 | 0 | 5 | 10 | 11 | 12 |
| 178 | 49 | 55 | 114 | 124 | 135 | 0 | 0 | 0 | 0 | 0 | 12 | 14 | 18 | 19 | 22 |
| 179 | 68 | 76 | 121 | 132 | 144 | 0 | 0 | 0 | 0 | 0 | 0 | 25 | 30 | 32 | 36 |
| 180 | 59 | 184 | 201 | 396 | 608 | 0 | 0 | 0 | 0 | 0 | 0 | 35 | 40 | 43 | 48 |

## Appendix B -- Demographic Data for the Lynchburg Urbanized Area

| Transportation Analysis Zone | AUTOMOBILES | | | | | TOTAL STUDENTS | | | | | TOTAL EMPLOYMENT | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 |
| 181 | 275 | 308 | 367 | 400 | 436 | 0 | 0 | 0 | 0 | 0 | 10 | 11 | 15 | 16 | 18 |
| 182 | 501 | 602 | 656 | 737 | 825 | 0 | 0 | 0 | 0 | 0 | 20 | 23 | 30 | 32 | 36 |
| 183 | 449 | 708 | 772 | 990 | 1229 | 0 | 0 | 0 | 0 | 0 | 6 | 18 | 20 | 21 | 24 |
| 184 | 598 | 757 | 825 | 949 | 1085 | 0 | 0 | 0 | 0 | 0 | 51 | 58 | 76 | 81 | 92 |
| 185 | 543 | 697 | 1378 | 1605 | 1832 | 0 | 0 | 0 | 0 | 0 | 204 | 333 | 663 | 773 | 883 |
| 186 | 134 | 197 | 214 | 265 | 320 | 0 | 0 | 0 | 0 | 0 | 15 | 67 | 72 | 77 | 87 |
| 187 | 104 | 116 | 127 | 138 | 151 | 0 | 0 | 0 | 0 | 0 | 170 | 193 | 253 | 270 | 306 |
| 188 | 283 | 362 | 712 | 828 | 955 | 0 | 0 | 0 | 0 | 0 | 116 | 131 | 173 | 184 | 209 |
| 189 | 583 | 653 | 745 | 812 | 885 | 483 | 815 | 1031 | 1122 | 1213 | 416 | 471 | 620 | 661 | 748 |
| 190 | 301 | 337 | 404 | 441 | 480 | 0 | 0 | 0 | 0 | 0 | 427 | 484 | 636 | 678 | 768 |
| 191 | 309 | 387 | 422 | 483 | 550 | 0 | 0 | 0 | 0 | 0 | 43 | 99 | 114 | 122 | 138 |
| 192 | 1700 | 1954 | 2254 | 2484 | 2735 | 0 | 0 | 0 | 0 | 0 | 60 | 68 | 89 | 95 | 108 |
| 193 | 1537 | 1873 | 2236 | 2531 | 2851 | 2327 | 2722 | 3444 | 3748 | 4052 | 1306 | 1479 | 1946 | 2075 | 2349 |
| 194 | 538 | 699 | 881 | 1028 | 1189 | 0 | 0 | 0 | 0 | 0 | 486 | 550 | 724 | 772 | 874 |
| 195 | 1062 | 1308 | 1572 | 1787 | 2023 | 0 | 0 | 0 | 0 | 0 | 70 | 79 | 104 | 111 | 126 |
| 196 | 2223 | 2591 | 2876 | 3189 | 3530 | 0 | 0 | 0 | 0 | 0 | 106 | 170 | 208 | 222 | 251 |
| 197 | 108 | 121 | 391 | 481 | 571 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 198 | 147 | 165 | 179 | 196 | 213 | 0 | 0 | 0 | 0 | 0 | 7 | 8 | 10 | 11 | 13 |
| 199 | 113 | 127 | 156 | 170 | 186 | 0 | 0 | 0 | 0 | 0 | 4 | 5 | 6 | 6 | 7 |
| 200 | 39 | 44 | 71 | 77 | 84 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 201 | 41 | 46 | 72 | 79 | 86 | 0 | 0 | 0 | 0 | 0 | 6 | 7 | 9 | 10 | 11 |
| 202 | 74 | 83 | 90 | 98 | 107 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 203 | 227 | 254 | 300 | 327 | 356 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 204 | 660 | 807 | 969 | 1094 | 1234 | 0 | 0 | 0 | 0 | 0 | 1281 | 1451 | 1909 | 2035 | 2305 |
| 205 | 180 | 282 | 427 | 550 | 684 | 0 | 0 | 0 | 0 | 0 | 37 | 42 | 55 | 59 | 67 |
| 206 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3497 | 3960 | 4122 | 4395 | 4977 |
| 207 | 261 | 292 | 340 | 370 | 403 | 0 | 0 | 0 | 0 | 0 | 67 | 78 | 100 | 106 | 121 |
| 208 | 766 | 1143 | 1392 | 1573 | 1777 | 0 | 0 | 0 | 0 | 0 | 35 | 40 | 52 | 56 | 60 |
| 209 | 287 | 481 | 682 | 815 | 978 | 347 | 406 | 513 | 559 | 609 | 188 | 288 | 280 | 299 | 320 |
| 210 | 73 | 111 | 180 | 227 | 286 | 0 | 0 | 0 | 0 | 0 | 32 | 36 | 48 | 51 | 54 |
| 211 | 104 | 200 | 298 | 363 | 443 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 212 | 71 | 121 | 149 | 169 | 191 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 213 | 78 | 157 | 186 | 209 | 234 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 214 | 406 | 568 | 694 | 786 | 888 | 386 | 452 | 571 | 622 | 678 | 80 | 91 | 119 | 127 | 136 |
| 215 | 98 | 173 | 257 | 313 | 382 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 216 | 497 | 949 | 1169 | 1326 | 1498 | 0 | 0 | 0 | 0 | 0 | 6 | 107 | 132 | 141 | 151 |
| 217 | 216 | 324 | 419 | 483 | 555 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 218 | 478 | 795 | 989 | 1126 | 1284 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 219 | 240 | 480 | 946 | 1305 | 1801 | 0 | 0 | 0 | 0 | 0 | 694 | 886 | 1095 | 1167 | 1249 |
| 220 | 103 | 135 | 173 | 198 | 226 | 450 | 540 | 702 | 772 | 849 | 42 | 48 | 63 | 67 | 71 |
| 221 | 37 | 144 | 173 | 194 | 217 | 282 | 677 | 981 | 1000 | 1000 | 438 | 496 | 653 | 696 | 745 |
| 222 | 123 | 226 | 255 | 282 | 313 | 0 | 0 | 0 | 0 | 0 | 122 | 213 | 263 | 281 | 301 |
| 223 | 256 | 1199 | 1621 | 1900 | 2223 | 0 | 750 | 800 | 825 | 850 | 10 | 11 | 15 | 16 | 17 |
| 224 | 240 | 284 | 327 | 362 | 402 | 0 | 0 | 0 | 0 | 0 | 219 | 248 | 326 | 348 | 372 |
| 225 | 526 | 601 | 667 | 731 | 804 | 0 | 0 | 0 | 0 | 0 | 485 | 649 | 802 | 855 | 915 |

## Appendix B -- Demographic Data for the Lynchburg Urbanized Area

| Transportation Analysis Zone | AUTOMOBILES | | | | | TOTAL STUDENTS | | | | | TOTAL EMPLOYMENT | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 |
| 226 | 878 | 1088 | 1266 | 1408 | 1563 | 0 | 0 | 0 | 0 | 0 | 39 | 44 | 58 | 62 | 66 |
| 227 | 32 | 50 | 57 | 64 | 72 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 228 | 690 | 1023 | 1327 | 1533 | 1778 | 974 | 1286 | 1500 | 1600 | 1700 | 163 | 185 | 243 | 259 | 277 |
| 229 | 185 | 1037 | 1500 | 1803 | 2164 | 0 | 0 | 0 | 0 | 0 | 186 | 411 | 507 | 541 | 579 |
| 230 | 184 | 232 | 262 | 289 | 318 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 231 | 413 | 522 | 583 | 641 | 705 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 232 | 181 | 292 | 509 | 664 | 863 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 233 | 57 | 101 | 183 | 241 | 318 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 4 |
| 234 | 727 | 1008 | 1358 | 1590 | 1860 | 0 | 0 | 0 | 0 | 0 | 45 | 51 | 67 | 71 | 75 |
| 235 | 205 | 261 | 337 | 389 | 447 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Totals | 78718 | 100306 | 115675 | 125604 | 138620 | 30829 | 39658 | 43098 | 44368 | 45670 | 67441 | 79196 | 97289 | 104141 | 114745 |

| | AUTOMOBILES | | | | | TOTAL STUDENTS | | | | | TOTAL EMPLOYMENT | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 | 1990 | 2000 | 2015 | 2020 | 2025 |
| **Lynchburg Totals (1-136)** | 42153 | 48626 | 52101 | 53088 | 56035 | 23280 | 29224 | 30965 | 31581 | 32205 | 49190 | 58446 | 70891 | 76033 | 83544 |
| **Amherst Totals (137-173)** | 12889 | 19025 | 22540 | 25154 | 28037 | 2300 | 2786 | 2591 | 2539 | 2514 | 6360 | 6201 | 8496 | 8951 | 9812 |
| **Campbell Totals (174-207)** | 15525 | 18950 | 23075 | 26378 | 29958 | 2810 | 3537 | 4475 | 4870 | 5265 | 9106 | 10744 | 13178 | 14118 | 15997 |
| **Bedford Totals (208-235)** | 8151 | 13705 | 17959 | 20984 | 24590 | 2439 | 4111 | 5067 | 5378 | 5686 | 2785 | 3805 | 4724 | 5039 | 5392 |
| Totals | 78718 | 100306 | 115675 | 125604 | 138620 | 30829 | 39658 | 43098 | 44368 | 45670 | 67441 | 79196 | 97289 | 104141 | 114745 |

## Appendix B -- Demographic Data for the Lynchburg Urbanized Area

| Transportation Analysis Zone | RETAIL EMPLOYMENT | | | | |
|---|---|---|---|---|---|
| | 1990 | 2000 | 2015 | 2020 | 2025 |
| 1 | 176 | 190 | 214 | 222 | 231 |
| 2 | 271 | 293 | 329 | 342 | 356 |
| 3 | 107 | 116 | 130 | 135 | 140 |
| 4 | 66 | 71 | 80 | 83 | 87 |
| 5 | 17 | 18 | 21 | 21 | 22 |
| 6 | 37 | 40 | 45 | 47 | 49 |
| 7 | 0 | 0 | 0 | 0 | 0 |
| 8 | 0 | 0 | 0 | 0 | 0 |
| 9 | 0 | 0 | 0 | 0 | 0 |
| 10 | 9 | 10 | 11 | 11 | 12 |
| 11 | 0 | 0 | 0 | 0 | 0 |
| 12 | 11 | 12 | 13 | 14 | 14 |
| 13 | 5 | 5 | 6 | 6 | 7 |
| 14 | 77 | 83 | 93 | 97 | 101 |
| 15 | 34 | 37 | 41 | 43 | 45 |
| 16 | 30 | 32 | 36 | 38 | 39 |
| 17 | 15 | 16 | 18 | 19 | 20 |
| 18 | 0 | 0 | 0 | 0 | 0 |
| 19 | 0 | 0 | 0 | 0 | 0 |
| 20 | 9 | 10 | 11 | 11 | 12 |
| 21 | 11 | 12 | 13 | 14 | 14 |
| 22 | 0 | 0 | 0 | 0 | 0 |
| 23 | 48 | 52 | 58 | 61 | 63 |
| 24 | 21 | 23 | 25 | 27 | 28 |
| 25 | 411 | 444 | 499 | 519 | 539 |
| 26 | 3 | 3 | 4 | 4 | 4 |
| 27 | 63 | 68 | 76 | 80 | 83 |
| 28 | 2 | 2 | 2 | 3 | 3 |
| 29 | 162 | 175 | 197 | 205 | 213 |
| 30 | 146 | 158 | 177 | 184 | 192 |
| 31 | 1633 | 1764 | 1983 | 2062 | 2142 |
| 32 | 0 | 0 | 0 | 0 | 0 |
| 33 | 0 | 0 | 0 | 0 | 0 |
| 34 | 16 | 17 | 19 | 20 | 21 |
| 35 | 15 | 16 | 18 | 19 | 20 |
| 36 | 6 | 6 | 7 | 8 | 8 |
| 37 | 0 | 0 | 0 | 0 | 0 |
| 38 | 0 | 50 | 54 | 55 | 57 |
| 39 | 201 | 217 | 244 | 254 | 264 |
| 40 | 501 | 541 | 608 | 633 | 657 |
| 41 | 70 | 76 | 85 | 88 | 92 |
| 42 | 43 | 46 | 52 | 54 | 56 |
| 43 | 304 | 328 | 369 | 384 | 399 |
| 44 | 11 | 12 | 13 | 14 | 14 |
| 45 | 63 | 68 | 76 | 80 | 83 |

## Appendix B -- Demographic Data for the Lynchburg Urbanized Area

| Transportation Analysis Zone | RETAIL EMPLOYMENT | | | | |
|---|---|---|---|---|---|
| | 1990 | 2000 | 2015 | 2020 | 2025 |
| 46 | 124 | 134 | 151 | 157 | 163 |
| 47 | 25 | 27 | 30 | 32 | 33 |
| 48 | 86 | 93 | 104 | 109 | 113 |
| 49 | 110 | 119 | 134 | 139 | 144 |
| 50 | 0 | 0 | 0 | 0 | 0 |
| 51 | 152 | 164 | 185 | 192 | 199 |
| 52 | 0 | 0 | 0 | 0 | 0 |
| 53 | 0 | 0 | 0 | 0 | 0 |
| 54 | 13 | 14 | 16 | 16 | 17 |
| 55 | 0 | 0 | 0 | 0 | 0 |
| 56 | 101 | 109 | 123 | 128 | 132 |
| 57 | 121 | 131 | 147 | 153 | 159 |
| 58 | 47 | 51 | 57 | 59 | 62 |
| 59 | 2 | 2 | 2 | 3 | 3 |
| 60 | 0 | 0 | 0 | 0 | 0 |
| 61 | 100 | 108 | 121 | 126 | 131 |
| 62 | 0 | 0 | 0 | 0 | 0 |
| 63 | 0 | 0 | 0 | 0 | 0 |
| 64 | 97 | 105 | 118 | 123 | 127 |
| 65 | 71 | 77 | 86 | 90 | 93 |
| 66 | 15 | 16 | 18 | 19 | 20 |
| 67 | 643 | 695 | 781 | 812 | 843 |
| 68 | 6 | 6 | 7 | 8 | 8 |
| 69 | 2 | 2 | 2 | 3 | 3 |
| 70 | 39 | 42 | 47 | 49 | 51 |
| 71 | 35 | 38 | 42 | 44 | 46 |
| 72 | 0 | 0 | 0 | 0 | 0 |
| 73 | 6 | 6 | 7 | 8 | 8 |
| 74 | 0 | 0 | 0 | 0 | 0 |
| 75 | 2 | 2 | 2 | 3 | 3 |
| 76 | 14 | 15 | 17 | 18 | 18 |
| 77 | 4 | 4 | 5 | 5 | 5 |
| 78 | 0 | 0 | 0 | 0 | 0 |
| 79 | 4 | 4 | 5 | 5 | 5 |
| 80 | 22 | 24 | 27 | 28 | 29 |
| 81 | 0 | 0 | 0 | 0 | 0 |
| 82 | 49 | 53 | 59 | 62 | 64 |
| 83 | 67 | 72 | 81 | 85 | 88 |
| 84 | 0 | 0 | 0 | 0 | 0 |
| 85 | 0 | 0 | 0 | 0 | 0 |
| 86 | 0 | 0 | 0 | 0 | 0 |
| 87 | 0 | 0 | 0 | 0 | 0 |
| 88 | 4 | 4 | 5 | 5 | 5 |
| 89 | 47 | 51 | 57 | 59 | 62 |
| 90 | 3 | 3 | 4 | 4 | 4 |

## Appendix B -- Demographic Data for the Lynchburg Urbanized Area

| Transportation Analysis Zone | RETAIL EMPLOYMENT | | | | |
|---|---|---|---|---|---|
| | 1990 | 2000 | 2015 | 2020 | 2025 |
| 91 | 225 | 243 | 273 | 284 | 295 |
| 92 | 9 | 10 | 11 | 11 | 12 |
| 93 | 0 | 0 | 0 | 0 | 0 |
| 94 | 0 | 0 | 0 | 0 | 0 |
| 95 | 4 | 4 | 5 | 5 | 5 |
| 96 | 158 | 171 | 192 | 200 | 207 |
| 97 | 147 | 159 | 178 | 186 | 193 |
| 98 | 25 | 27 | 30 | 32 | 33 |
| 99 | 15 | 16 | 19 | 20 | 21 |
| 100 | 6 | 6 | 8 | 8 | 8 |
| 101 | 31 | 33 | 39 | 41 | 43 |
| 102 | 0 | 0 | 0 | 0 | 0 |
| 103 | 0 | 0 | 0 | 0 | 0 |
| 104 | 84 | 91 | 102 | 106 | 110 |
| 105 | 51 | 55 | 62 | 64 | 67 |
| 106 | 25 | 27 | 30 | 32 | 33 |
| 107 | 10 | 11 | 12 | 13 | 13 |
| 108 | 5 | 5 | 6 | 6 | 7 |
| 109 | 6 | 6 | 7 | 8 | 8 |
| 110 | 0 | 0 | 0 | 0 | 0 |
| 111 | 50 | 54 | 61 | 63 | 66 |
| 112 | 150 | 162 | 182 | 189 | 197 |
| 113 | 73 | 79 | 89 | 92 | 96 |
| 114 | 144 | 156 | 225 | 255 | 288 |
| 115 | 0 | 0 | 175 | 182 | 189 |
| 116 | 33 | 36 | 40 | 42 | 43 |
| 117 | 4 | 4 | 5 | 5 | 5 |
| 118 | 9 | 10 | 11 | 11 | 12 |
| 119 | 0 | 0 | 0 | 0 | 0 |
| 120 | 0 | 0 | 0 | 0 | 0 |
| 121 | 21 | 33 | 37 | 38 | 40 |
| 122 | 142 | 153 | 172 | 179 | 186 |
| 123 | 71 | 77 | 86 | 90 | 93 |
| 124 | 80 | 86 | 97 | 101 | 105 |
| 125 | 47 | 51 | 57 | 59 | 62 |
| 126 | 34 | 37 | 41 | 43 | 45 |
| 127 | 36 | 39 | 44 | 45 | 47 |
| 128 | 39 | 42 | 47 | 49 | 51 |
| 129 | 40 | 43 | 49 | 51 | 52 |
| 130 | 78 | 84 | 95 | 99 | 102 |
| 131 | 63 | 68 | 76 | 80 | 83 |
| 132 | 0 | 0 | 0 | 0 | 0 |
| 133 | 0 | 0 | 0 | 0 | 0 |
| 134 | 72 | 84 | 94 | 98 | 102 |
| 135 | 25 | 27 | 30 | 32 | 33 |

## Appendix B -- Demographic Data for the Lynchburg Urbanized Area

| Transportation Analysis Zone | RETAIL EMPLOYMENT | | | | |
|---|---|---|---|---|---|
| | 1990 | 2000 | 2015 | 2020 | 2025 |
| 136 | 1 | 1 | 1 | 1 | 1 |
| 137 | 10 | 11 | 13 | 14 | 15 |
| 138 | 0 | 0 | 0 | 0 | 0 |
| 139 | 0 | 0 | 0 | 0 | 0 |
| 140 | 0 | 0 | 0 | 0 | 0 |
| 141 | 40 | 45 | 51 | 55 | 58 |
| 142 | 0 | 0 | 0 | 0 | 0 |
| 143 | 142 | 161 | 182 | 194 | 206 |
| 144 | 204 | 231 | 262 | 279 | 296 |
| 145 | 241 | 273 | 309 | 330 | 350 |
| 146 | 3 | 3 | 4 | 4 | 4 |
| 147 | 197 | 223 | 505 | 539 | 572 |
| 148 | 110 | 125 | 141 | 150 | 160 |
| 149 | 0 | 0 | 0 | 0 | 0 |
| 150 | 0 | 0 | 0 | 0 | 0 |
| 151 | 22 | 25 | 28 | 30 | 32 |
| 152 | 234 | 265 | 300 | 320 | 340 |
| 153 | 2 | 2 | 103 | 109 | 116 |
| 154 | 0 | 0 | 0 | 0 | 0 |
| 155 | 0 | 0 | 0 | 0 | 0 |
| 156 | 0 | 0 | 0 | 0 | 0 |
| 157 | 22 | 25 | 56 | 60 | 64 |
| 158 | 0 | 0 | 200 | 300 | 400 |
| 159 | 0 | 0 | 0 | 0 | 0 |
| 160 | 4 | 5 | 5 | 5 | 6 |
| 161 | 39 | 44 | 50 | 53 | 57 |
| 162 | 143 | 162 | 183 | 196 | 208 |
| 163 | 8 | 9 | 10 | 11 | 12 |
| 164 | 7 | 8 | 9 | 10 | 10 |
| 165 | 0 | 0 | 0 | 0 | 0 |
| 166 | 2 | 2 | 3 | 3 | 3 |
| 167 | 0 | 0 | 0 | 0 | 0 |
| 168 | 67 | 76 | 86 | 92 | 97 |
| 169 | 24 | 27 | 31 | 33 | 35 |
| 170 | 0 | 0 | 0 | 0 | 0 |
| 171 | 0 | 0 | 0 | 0 | 0 |
| 172 | 0 | 0 | 0 | 0 | 0 |
| 173 | 3 | 3 | 154 | 164 | 174 |
| 174 | 350 | 410 | 519 | 562 | 608 |
| 175 | 20 | 23 | 30 | 32 | 35 |
| 176 | 0 | 0 | 0 | 0 | 0 |
| 177 | 0 | 0 | 0 | 0 | 0 |
| 178 | 6 | 7 | 9 | 10 | 10 |
| 179 | 0 | 0 | 0 | 0 | 0 |
| 180 | 0 | 0 | 0 | 0 | 0 |

## Appendix B -- Demographic Data for the Lynchburg Urbanized Area

| Transportation Analysis Zone | RETAIL EMPLOYMENT | | | | |
|---|---|---|---|---|---|
| | 1990 | 2000 | 2015 | 2020 | 2025 |
| 181 | 0 | 0 | 0 | 0 | 0 |
| 182 | 7 | 8 | 10 | 11 | 12 |
| 183 | 3 | 4 | 4 | 5 | 5 |
| 184 | 4 | 5 | 6 | 6 | 7 |
| 185 | 91 | 107 | 287 | 347 | 407 |
| 186 | 2 | 2 | 3 | 3 | 3 |
| 187 | 7 | 8 | 10 | 11 | 12 |
| 188 | 38 | 44 | 56 | 61 | 66 |
| 189 | 42 | 49 | 62 | 67 | 73 |
| 190 | 72 | 84 | 107 | 116 | 125 |
| 191 | 3 | 4 | 4 | 5 | 5 |
| 192 | 4 | 5 | 6 | 6 | 7 |
| 193 | 217 | 254 | 322 | 348 | 377 |
| 194 | 93 | 109 | 138 | 149 | 162 |
| 195 | 23 | 27 | 34 | 37 | 40 |
| 196 | 26 | 30 | 39 | 42 | 45 |
| 197 | 0 | 0 | 0 | 0 | 0 |
| 198 | 4 | 5 | 6 | 6 | 7 |
| 199 | 2 | 2 | 3 | 3 | 3 |
| 200 | 0 | 0 | 0 | 0 | 0 |
| 201 | 5 | 6 | 7 | 8 | 9 |
| 202 | 0 | 0 | 0 | 0 | 0 |
| 203 | 0 | 0 | 0 | 0 | 0 |
| 204 | 276 | 323 | 409 | 443 | 479 |
| 205 | 0 | 0 | 0 | 0 | 0 |
| 206 | 0 | 0 | 0 | 0 | 0 |
| 207 | 0 | 0 | 0 | 0 | 0 |
| 208 | 25 | 29 | 37 | 40 | 43 |
| 209 | 0 | 75 | 95 | 103 | 111 |
| 210 | 11 | 13 | 16 | 18 | 20 |
| 211 | 0 | 0 | 0 | 0 | 0 |
| 212 | 0 | 0 | 0 | 0 | 0 |
| 213 | 0 | 0 | 0 | 0 | 0 |
| 214 | 0 | 0 | 0 | 0 | 0 |
| 215 | 0 | 0 | 0 | 0 | 0 |
| 216 | 6 | 7 | 9 | 10 | 11 |
| 217 | 0 | 0 | 0 | 0 | 0 |
| 218 | 0 | 0 | 0 | 0 | 0 |
| 219 | 86 | 101 | 128 | 138 | 149 |
| 220 | 0 | 0 | 0 | 0 | 0 |
| 221 | 26 | 30 | 39 | 42 | 45 |
| 222 | 0 | 75 | 95 | 103 | 111 |
| 223 | 5 | 6 | 7 | 8 | 9 |
| 224 | 70 | 82 | 104 | 112 | 121 |
| 225 | 241 | 282 | 358 | 387 | 418 |

## Appendix B -- Demographic Data for the Lynchburg Urbanized Area

| Transportation Analysis Zone | RETAIL EMPLOYMENT | | | | |
|---|---|---|---|---|---|
| | 1990 | 2000 | 2015 | 2020 | 2025 |
| 226 | 2 | 2 | 3 | 3 | 3 |
| 227 | 0 | 0 | 0 | 0 | 0 |
| 228 | 0 | 0 | 0 | 0 | 0 |
| 229 | 0 | 0 | 0 | 0 | 0 |
| 230 | 0 | 0 | 0 | 0 | 0 |
| 231 | 0 | 0 | 0 | 0 | 0 |
| 232 | 0 | 0 | 0 | 0 | 0 |
| 233 | 1 | 1 | 1 | 2 | 4 |
| 234 | 0 | 0 | 0 | 0 | 0 |
| 235 | 0 | 0 | 0 | 0 | 0 |
| Totals | 11910 | 13316 | 16403 | 17416 | 18435 |

| | RETAIL EMPLOYMENT | | | | |
|---|---|---|---|---|---|
| | 1990 | 2000 | 2015 | 2020 | 2025 |
| **Lynchburg Totals (1-136)** | 8618 | 9372 | 10755 | 11221 | 11678 |
| **Amherst Totals (137-173)** | 1524 | 1725 | 2685 | 2951 | 3215 |
| **Campbell Totals (174-207)** | 1295 | 1516 | 2071 | 2278 | 2497 |
| **Bedford Totals (208-235)** | 473 | 703 | 892 | 966 | 1045 |
| Totals | 11910 | 13316 | 16403 | 17416 | 18435 |

## Appendix C – Transportation Model Development

As part of the Lynchburg Area Transportation Study (LATS), and to support the development of the *Lynchburg Area Long-Range Transportation Plan – Year 2025*, the regional computerized transportation model was updated and traffic forecasts were developed for the horizon year of 2025.

The initial transportation model for the Lynchburg region was developed in 1965 to forecast traffic for the 1985 horizon year, and has been updated several times since. The previous models forecast daily trips. This model update incorporated the following changes:

- The model was revalidated against base year 1990 traffic volumes
- Trip information gathered from a regional telephone trip survey and a cordon origin-destination survey was used so that the model could better replicate actual trip behavior
- The model was converted from a daily model to one that replicates a.m. and p.m. peak hour trips
- The model was converted from MINUTP software to TRANPLAN software
- The modeled area covers the urbanized area as defined by the 1990 Census

The LATS base year (1990) model was developed and validated using information collected on the existing transportation network and on current study area demographics (population, employment, etc.). The transportation model as developed and validated includes 990 two-way links and eight one-way links, encompassing all roadways in the urbanized area classified as collector and above. The model includes 248 zones, of which 235 are internal zones. The LATS modeling effort included three of the traditional four steps in transportation modeling – trip generation, trip distribution, and traffic assignment. The step not utilized, mode split, was not included based on the limited use of transit in the Lynchburg region.

All of the data sets, network files, trip tables, etc. that were used and/or developed for this study are included on a compact disk attached to this report. The computer files are in one of the following formats:

- TRANPLAN files are those with the following extensions: .NET, .LOD, .TRP
- DBase files have the .DBF extension
- ASCII text files have the following extensions: .TXT or .PRN
- Microsoft Excel files have an .XLS extension
- Adobe portable document format files have a .PDF extension

All of the computer files referenced in the discussion following are included on the compact disk.

## C.1 Network Development

The previous LATS model, as updated by the Virginia Department of Transportation (VDOT), was the starting point for the current model. The model was reviewed for accuracy, updated to incorporate recent changes to the road network, and simplifications were made to reduce the overall number of links. In general, initial modifications to the network were minimal – most of the changes were made as part of the process of calibrating the model to 1990 traffic volumes. Traffic volumes were provided by VDOT for the a.m. and p.m. periods (converted to a common year of 1990) and were entered as link characteristics for use in the calibration process. Where only daily traffic volumes were available, peak hour volumes were derived by using the peak to daily traffic ratios from nearby and/or similar roadways. The TRANPLAN network files BASEAM.NET and BASEPM.NET include all of link characteristics such as distance, speeds, capacities, facility type, and base year peak hour traffic count. The field names for these network files are described in Exhibit C-1.

**Exhibit C-1**
Network Field Names

| Field Name | Description | Definition of Codes |
|---|---|---|
| Assignment Group | Facility Type | 0=Centroid connector<br>1=Not used<br>2=Urban Principal Arterial<br>3=Rural Principal Arterial<br>4=Urban Minor Arterial<br>5=Rural Minor Arterial<br>6=Urban Collector<br>7=Rural Major Collector<br>8=Freeway/Expressway<br>9=Rural Minor Collector |
| Distance | Length of link in miles | |
| Speed 1 | Free-flow speed on link | |
| Speed 2 | Alternate speed field (not used) | |
| Direction Code | (Not used) | |
| Link Group 1 | Jurisdiction | 5=Amherst County<br>9=Bedford County<br>15=Campbell County<br>18=City of Lynchburg |
| Link Group 2 | Lanes | Number of lanes in each direction |
| Link Group 3 | Calibration Field | Used for calibration purposes (does not contain useful information in .NET file) |
| Capacity | Link Capacity | Total directional hourly capacity of the roadway |
| Volume (or capacity 2 field) | Base year directional traffic count | Volumes are a.m. peak in BASEAM.NET and p.m. peak in BASEPM.NET |

Free-flow speeds on roadways are generally based on posted speed limits, roadside development, and roadway classification. Link capacity was based on roadway classification, lane and shoulder widths, and number of lanes. Link speeds and capacities were modified slightly during the network calibration process; the final base year networks incorporate these modified speeds and capacities.

While models were developed and validated for both the a.m. and p.m. peak hour periods, the highest volumes of traffic in the Lynchburg region on a typical weekday occur during the afternoon peak. For this reason, the validated process was carried furthest for the p.m. peak and, to date, traffic forecasts to the year 2025 have been developed only for the p.m. peak period.

Roadway volumes were also input into the network. These traffic counts are for 1990 conditions. Some counts, taken in other years, were modified to reflect 1990 conditions. The existing count volumes were used for validation of the model during the calibration process. As indicated above, these existing volumes were entered into the base year model files and were used as a target to determine the accuracy of the base year transportation model.

Connections to and from the loading points for trips, termed centroid connectors, were also coded in the network. These links connect the 235 zones to the coded network of roads. Initially, all centroid connectors were coded with a free-flow speed of 20 mph and a capacity of 10,000 vehicles per hour (representing totally unconstrained access). Based on the calibration process, the speeds and capacities of some centroid connectors were modified. The resulting values for these parameters, as well as the connector lengths, are incorporated into the final base year networks.

A critical factor in the accuracy of a transportation model, particularly for the roadways directly connected to centroids, is the number and location of centroid connectors. In reality, connections from land uses to the street network take place at individual driveways at hundreds of locations within a zone. In an ideal model, each building would be a transportation zone and each driveway would be a centroid connector. The constraints of the modeling process require that land uses be aggregated into zones and that centroid connectors be simplified to two or three centroid loading points. This simplification results in discontinuities in traffic volumes at the centroid loading points. By adding additional loading points, the discontinuities can be reduced. When more centroid loading points are introduced, however, difficulties are encountered in making the model predict greater usage of one loading point over another. One way to replicate greater use of one loading point over another is by placing capacity constraints on centroid connectors. This has the effect of "spreading out" the volumes across the various connectors. These capacity constraints must be used with caution, however, as they are artificial constraints (the actual loadings are determined by relative densities of land uses within each zone) and could introduce inaccuracies in future year model assignments.

The Lynchburg regional model, as built, includes several centroid loading points for most zones in the network; it also includes capacity constraints on a limited number of centroid connector segments to replicate the differences at each loading point. Such techniques helped to make the model accurately replicate base year traffic volumes on the network. The link capacities on the connectors reflect a minimum amount of capacity constraint while ensuring that the link volumes predicted by the model are reasonable.

The Lynchburg region's urbanized area is subdivided into 235 traffic analysis zones (TAZ's). Of these 235 TAZ's, 136 are in the City of Lynchburg, 37 are in Amherst County, 28 are in Bedford County, and 34 are in Campbell County. An additional 13 zones are designated as external and represent locations where major thoroughfare roads extend beyond the urbanized area. For purposes of modeling traffic, all trips begin or end at one of these TAZ's. In the trip generation process, estimates are made of the total number of trips starting and ending in each TAZ. In the trip distribution process, where these trips go to and from are estimated. Finally, in the assignment process, these trips are loaded onto the computer network of roads. The following sections describe each of these steps as they apply to the development of the LATS traffic forecasting process.

## C.2 Trip Generation

Once the transportation model is built, the first step in the modeling process is estimating the number of trips that are made for each TAZ in the urbanized area. Transportation models traditionally make use of a number of parameters, established over many years of studies, to estimate trip-making. The parameters used for the Lynchburg model were initially developed for the 1965 model and were refined over the years. As part of the process of further refining the model for this transportation plan, these parameters were further refined based on a home telephone survey. The trip generation parameters were also developed to estimate peak hour trips (a.m. and p.m. peak hour) using the home telephone survey data. As part of the model validation process, the parameters were then adjusted to best replicate existing travel in the Lynchburg region.

In keeping with the previous model, the revised model makes use of six different trip purposes. Different trip purposes are used because different types of trips will typically have different characteristics (e.g., someone will typically drive further to work than they will to shop). The trip purposes used are:

- Home-Based Work (HBW) – work trips with one end at home, typically a commuting trip
- Home-Based Other (HBO) – non-work trips with one end at home, such as going from home to shopping
- Non-Home Based (NHB) – trips that do not start or end at home, such as going from work to the store
- Internal to External Trips, External to Internal Trips (I-X, X-I) – trips with one end outside of the modeled area
- Truck – Commercial truck trips

The final trip generation parameters for these trip purposes are shown below (the daily trip generation parameters from the previous version of the model are shown for informational purposes).

<u>Home-Based Work Productions</u>
A.M. Peak: (Autos * 0.168) + 0.390
P.M. Peak: (Autos * 0.108) + 0.237
Daily (from previous model): (Autos * 1.047) + 2.3

Home-Based Work Attractions
A.M. Peak: (Total Employment * 0.120) - 0.930
P.M. Peak: (Total Employment * 0.079) - 1.163
Daily (from previous model): (Total Employment * 0.764) – 7.2

Home-Based Other Productions
A.M. Peak: (Autos * 0.095) + 0.952
P.M. Peak: (Autos * 0.117) + 1.142
Daily (from previous model): (Autos * 2.447) + 24

Home-Based Other Attractions
A.M. Peak: (Dwelling Units * 0.040) + (Retail Employment * 0.106) + (School Attendance * 0.006) + 2.21
P.M. Peak: (Dwelling Units * 0.048) + (Retail Employment * 0.158) + (School Attendance * 0.008) + 2.939
Daily (from previous model): (Dwelling Units * 1.0) + (Retail Employment * 3.32) + (School Attendance * 0.164) + 61.8

Non-Home Based Productions and Attractions
A.M. Peak: (Dwelling Units * 0.019) + (Retail Employment * 0.101) + (School Attendance * 0.010) + 4.750
P.M. Peak: (Dwelling Units * 0.042) + (Retail Employment * 0.219) + (School Attendance * 0.013) + 5.047
Daily (from previous model): (Dwelling Units * 0.875) + (Retail Employment * 4.491) + (School Attendance * 0.285) + 103.4

Special Generators: Home-Based Other Attractions
A.M. Peak: (Retail Employment * 0.253) + 18.500
P.M. Peak: (Retail Employment * 0.361) + 86.749
Daily (from previous model): (Retail Employment * 7.598) + 1824

Special Generators: Non-Home-Based Productions and Attractions
A.M. Peak: (Retail Employment * 0.117) + 12.43
P.M. Peak: (Retail Employment * 0.250) + 56.035
Daily (from previous model): (Retail Employment * 5.121) + 1148

Trucks: Productions and Attractions
A.M. Peak: (Dwelling Units * 0.013) + (Total Employment * 0.008) – 0.839
P.M. Peak: (Dwelling Units * 0.013) + (Total Employment * 0.008) – 0.839
Daily (from previous model): (Dwelling Units * 0.277) + (Total Employment * 0.173) – 11.0

Internal to External Attractions
A.M. Peak: (Dwelling Units * 0.016) + (Total Employment * 0.033) + 3.192
P.M. Peak: (Dwelling Units * 0.016) + (Total Employment * 0.033) + 3.192

Daily (from previous model): (Dwelling Units * 0.253) + (Total Employment * 0.526) + 51.0

The input demographic data by TAZ is shown in Exhibit C-2. Resulting productions and attractions by TAZ are shown in Exhibit C-3.

**Exhibit C-2**
Demographic Data by TAZ

| TAZ | POPULATION | | HOUSING UNITS | | AUTOMOBILES | | STUDENTS | | TOTAL EMPLOYMENT | | RETAIL EMPLOYMENT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1990 | 2025 | 1990 | 2025 | 1990 | 2025 | 1990 | 2025 | 1990 | 2025 | 1990 | 2025 |
| 1 | 4 | 4 | 2 | 2 | 0 | 0 | 0 | 0 | 2704 | 4186 | 176 | 231 |
| 2 | 364 | 386 | 234 | 259 | 116 | 138 | 0 | 0 | 2739 | 4241 | 271 | 356 |
| 3 | 194 | 206 | 126 | 140 | 65 | 77 | 0 | 0 | 271 | 1513 | 107 | 140 |
| 4 | 2221 | 2355 | 932 | 1033 | 767 | 911 | 0 | 0 | 465 | 590 | 66 | 87 |
| 5 | 484 | 513 | 204 | 226 | 146 | 173 | 0 | 0 | 288 | 365 | 17 | 22 |
| 6 | 1543 | 1636 | 656 | 727 | 687 | 816 | 1141 | 1058 | 469 | 595 | 37 | 49 |
| 7 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 67 | 85 | 0 | 0 |
| 8 | 460 | 488 | 189 | 209 | 191 | 227 | 0 | 0 | 128 | 162 | 0 | 0 |
| 9 | 645 | 684 | 259 | 287 | 326 | 388 | 0 | 0 | 540 | 685 | 0 | 0 |
| 10 | 569 | 603 | 251 | 278 | 288 | 342 | 124 | 141 | 192 | 243 | 9 | 12 |
| 11 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1368 | 1368 | 0 | 0 |
| 12 | 903 | 1188 | 405 | 552 | 309 | 493 | 0 | 0 | 168 | 213 | 11 | 14 |
| 13 | 72 | 71 | 43 | 45 | 32 | 40 | 0 | 0 | 64 | 81 | 5 | 7 |
| 14 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 140 | 178 | 77 | 101 |
| 15 | 518 | 510 | 215 | 224 | 286 | 359 | 0 | 0 | 111 | 141 | 34 | 45 |
| 16 | 543 | 535 | 237 | 247 | 338 | 424 | 0 | 0 | 615 | 780 | 30 | 39 |
| 17 | 504 | 496 | 244 | 254 | 298 | 374 | 0 | 0 | 119 | 151 | 15 | 20 |
| 18 | 504 | 496 | 186 | 194 | 365 | 458 | 25 | 25 | 41 | 52 | 0 | 0 |
| 19 | 193 | 190 | 88 | 92 | 107 | 134 | 50 | 50 | 16 | 20 | 0 | 0 |
| 20 | 292 | 288 | 124 | 129 | 201 | 252 | 0 | 0 | 20 | 25 | 9 | 12 |
| 21 | 428 | 422 | 185 | 193 | 265 | 332 | 0 | 0 | 69 | 87 | 11 | 14 |
| 22 | 51 | 50 | 20 | 21 | 29 | 36 | 0 | 0 | 4 | 5 | 0 | 0 |
| 23 | 463 | 456 | 229 | 238 | 250 | 313 | 0 | 0 | 476 | 604 | 48 | 63 |
| 24 | 306 | 301 | 137 | 143 | 205 | 257 | 0 | 0 | 36 | 47 | 21 | 28 |
| 25 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 525 | 689 | 411 | 539 |
| 26 | 19 | 19 | 9 | 10 | 12 | 15 | 0 | 0 | 109 | 1550 | 3 | 4 |
| 27 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1430 | 2302 | 63 | 83 |
| 28 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 992 | 992 | 2 | 3 |
| 29 | 4 | 4 | 4 | 4 | 7 | 9 | 0 | 0 | 1077 | 1077 | 162 | 213 |
| 30 | 191 | 188 | 3 | 3 | 10 | 13 | 0 | 0 | 392 | 392 | 146 | 192 |
| 31 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1905 | 2494 | 1633 | 2142 |
| 32 | 74 | 73 | 34 | 35 | 1 | 2 | 0 | 0 | 1634 | 1635 | 0 | 0 |
| 33 | 141 | 139 | 70 | 73 | 130 | 163 | 0 | 0 | 129 | 129 | 0 | 0 |
| 34 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 501 | 501 | 16 | 21 |
| 35 | 32 | 32 | 16 | 17 | 59 | 73 | 0 | 0 | 1977 | 3666 | 15 | 20 |
| 36 | 212 | 209 | 101 | 105 | 164 | 206 | 0 | 457 | 6 | 6 | 6 | 8 |
| 37 | 340 | 335 | 177 | 184 | 231 | 289 | 0 | 0 | 457 | 599 | 0 | 0 |
| 38 | 0 | 10 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 93 | 0 | 57 |
| 39 | 28 | 28 | 13 | 14 | 24 | 31 | 0 | 0 | 443 | 581 | 201 | 264 |
| 40 | 266 | 262 | 108 | 112 | 230 | 289 | 0 | 0 | 601 | 788 | 501 | 657 |
| 41 | 334 | 329 | 151 | 157 | 254 | 319 | 0 | 0 | 138 | 181 | 70 | 92 |
| 42 | 286 | 282 | 126 | 131 | 241 | 302 | 368 | 473 | 215 | 273 | 43 | 56 |
| 43 | 439 | 432 | 203 | 211 | 625 | 784 | 0 | 0 | 362 | 459 | 304 | 399 |
| 44 | 755 | 744 | 360 | 375 | 298 | 374 | 0 | 0 | 52 | 66 | 11 | 14 |
| 45 | 349 | 344 | 201 | 209 | 200 | 250 | 0 | 0 | 2956 | 9365 | 63 | 83 |
| 46 | 1572 | 1558 | 676 | 704 | 496 | 625 | 300 | 300 | 1112 | 3477 | 124 | 163 |
| 47 | 805 | 802 | 359 | 374 | 399 | 544 | 121 | 145 | 745 | 2407 | 25 | 33 |
| 48 | 1904 | 1875 | 929 | 967 | 1354 | 1698 | 1296 | 1444 | 305 | 387 | 86 | 113 |
| 49 | 4 | 4 | 3 | 3 | 46 | 51 | 0 | 0 | 168 | 213 | 110 | 144 |
| 50 | 277 | 273 | 131 | 136 | 240 | 300 | 0 | 0 | 7 | 9 | 0 | 0 |
| 51 | 799 | 787 | 385 | 401 | 633 | 794 | 0 | 0 | 296 | 388 | 152 | 199 |
| 52 | 1195 | 1177 | 531 | 553 | 810 | 1016 | 459 | 460 | 74 | 94 | 0 | 0 |
| 53 | 492 | 485 | 223 | 232 | 338 | 424 | 0 | 0 | 0 | 0 | 0 | 0 |
| 54 | 1144 | 1127 | 489 | 509 | 828 | 1038 | 751 | 1498 | 99 | 126 | 13 | 17 |
| 55 | 1481 | 1459 | 637 | 663 | 889 | 1115 | 0 | 0 | 40 | 51 | 0 | 0 |
| 56 | 548 | 540 | 266 | 277 | 354 | 444 | 0 | 0 | 135 | 171 | 101 | 132 |
| 57 | 516 | 508 | 235 | 245 | 180 | 226 | 0 | 0 | 661 | 838 | 121 | 159 |

**Exhibit C-2**
Demographic Data by TAZ

| TAZ | POPULATION | | HOUSING UNITS | | AUTOMOBILES | | STUDENTS | | TOTAL EMPLOYMENT | | RETAIL EMPLOYMENT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1990 | 2025 | 1990 | 2025 | 1990 | 2025 | 1990 | 2025 | 1990 | 2025 | 1990 | 2025 |
| 58 | 150 | 148 | 74 | 77 | 127 | 160 | 195 | 135 | 210 | 266 | 47 | 62 |
| 59 | 1049 | 1033 | 18 | 19 | 654 | 820 | 2446 | 2452 | 548 | 695 | 2 | 3 |
| 60 | 43 | 42 | 17 | 18 | 66 | 82 | 0 | 0 | 0 | 0 | 0 | 0 |
| 61 | 254 | 305 | 110 | 138 | 201 | 271 | 0 | 0 | 134 | 176 | 100 | 131 |
| 62 | 527 | 519 | 247 | 257 | 172 | 215 | 0 | 0 | 58 | 74 | 0 | 0 |
| 63 | 87 | 86 | 35 | 36 | 33 | 42 | 0 | 0 | 0 | 0 | 0 | 0 |
| 64 | 698 | 687 | 309 | 322 | 385 | 483 | 0 | 0 | 477 | 605 | 97 | 127 |
| 65 | 497 | 489 | 283 | 295 | 281 | 352 | 260 | 300 | 126 | 165 | 71 | 93 |
| 66 | 0 | 0 | 0 | 0 | 2 | 3 | 1351 | 1351 | 386 | 644 | 15 | 20 |
| 67 | 80 | 79 | 44 | 46 | 51 | 64 | 0 | 0 | 893 | 1171 | 643 | 843 |
| 68 | 263 | 259 | 124 | 129 | 132 | 166 | 350 | 1004 | 326 | 544 | 6 | 8 |
| 69 | 294 | 290 | 126 | 131 | 186 | 233 | 0 | 0 | 72 | 91 | 2 | 3 |
| 70 | 204 | 201 | 90 | 94 | 104 | 131 | 0 | 0 | 281 | 356 | 39 | 51 |
| 71 | 36 | 35 | 16 | 17 | 27 | 33 | 0 | 0 | 112 | 142 | 35 | 46 |
| 72 | 247 | 243 | 118 | 123 | 121 | 152 | 0 | 0 | 527 | 668 | 0 | 0 |
| 73 | 445 | 438 | 194 | 202 | 183 | 230 | 0 | 0 | 44 | 56 | 6 | 8 |
| 74 | 2965 | 5700 | 0 | 0 | 1968 | 3936 | 5198 | 10000 | 335 | 425 | 0 | 0 |
| 75 | 868 | 855 | 429 | 447 | 477 | 598 | 100 | 131 | 102 | 129 | 2 | 3 |
| 76 | 835 | 822 | 387 | 403 | 413 | 517 | 60 | 96 | 457 | 457 | 14 | 18 |
| 77 | 1150 | 1133 | 489 | 509 | 828 | 1038 | 0 | 0 | 28 | 36 | 4 | 5 |
| 78 | 14 | 14 | 8 | 9 | 10 | 13 | 0 | 0 | 24 | 30 | 0 | 0 |
| 79 | 856 | 843 | 397 | 413 | 419 | 525 | 0 | 0 | 161 | 204 | 4 | 5 |
| 80 | 1679 | 1654 | 813 | 846 | 1173 | 1471 | 0 | 0 | 131 | 166 | 22 | 29 |
| 81 | 384 | 383 | 163 | 170 | 325 | 438 | 0 | 0 | 3 | 4 | 0 | 0 |
| 82 | 614 | 605 | 4 | 4 | 406 | 509 | 691 | 791 | 408 | 517 | 49 | 64 |
| 83 | 1128 | 1111 | 693 | 721 | 716 | 898 | 0 | 0 | 84 | 107 | 67 | 88 |
| 84 | 0 | 0 | 0 | 0 | 4 | 5 | 0 | 0 | 38 | 48 | 0 | 0 |
| 85 | 384 | 378 | 275 | 286 | 145 | 182 | 0 | 0 | 333 | 422 | 0 | 0 |
| 86 | 757 | 754 | 210 | 219 | 468 | 653 | 0 | 0 | 150 | 190 | 0 | 0 |
| 87 | 601 | 592 | 218 | 227 | 470 | 589 | 0 | 0 | 64 | 81 | 0 | 0 |
| 88 | 971 | 956 | 367 | 382 | 770 | 965 | 0 | 0 | 1621 | 4959 | 4 | 5 |
| 89 | 1382 | 1361 | 581 | 605 | 1087 | 1364 | 396 | 533 | 273 | 882 | 47 | 62 |
| 90 | 1323 | 1303 | 637 | 663 | 1053 | 1321 | 182 | 185 | 52 | 66 | 3 | 4 |
| 91 | 31 | 31 | 15 | 16 | 24 | 29 | 0 | 0 | 294 | 386 | 225 | 295 |
| 92 | 999 | 995 | 367 | 382 | 871 | 1226 | 447 | 359 | 108 | 137 | 9 | 12 |
| 93 | 210 | 209 | 76 | 79 | 174 | 266 | 0 | 0 | 8 | 10 | 0 | 0 |
| 94 | 352 | 347 | 130 | 135 | 317 | 397 | 0 | 0 | 2 | 3 | 0 | 0 |
| 95 | 373 | 372 | 147 | 153 | 299 | 525 | 1559 | 1517 | 386 | 489 | 4 | 5 |
| 96 | 288 | 284 | 124 | 129 | 254 | 318 | 0 | 0 | 263 | 345 | 158 | 207 |
| 97 | 881 | 878 | 390 | 406 | 676 | 921 | 0 | 0 | 183 | 240 | 147 | 193 |
| 98 | 137 | 135 | 65 | 68 | 91 | 114 | 0 | 0 | 58 | 74 | 25 | 33 |
| 99 | 102 | 100 | 46 | 48 | 65 | 81 | 0 | 0 | 20 | 68 | 15 | 21 |
| 100 | 282 | 278 | 106 | 110 | 297 | 372 | 0 | 0 | 58 | 162 | 6 | 8 |
| 101 | 233 | 232 | 81 | 84 | 145 | 203 | 0 | 0 | 62 | 219 | 31 | 43 |
| 102 | 14 | 14 | 7 | 7 | 10 | 13 | 0 | 0 | 16 | 20 | 0 | 0 |
| 103 | 95 | 94 | 43 | 45 | 2 | 2 | 0 | 0 | 265 | 442 | 0 | 0 |
| 104 | 0 | 23 | 0 | 10 | 0 | 0 | 0 | 0 | 51 | 67 | 84 | 110 |
| 105 | 1 | 1 | 1 | 1 | 5 | 6 | 0 | 0 | 84 | 110 | 51 | 67 |
| 106 | 60 | 59 | 25 | 26 | 60 | 75 | 0 | 0 | 337 | 665 | 25 | 33 |
| 107 | 69 | 68 | 25 | 26 | 44 | 55 | 4000 | 5503 | 290 | 368 | 10 | 13 |
| 108 | 1706 | 1700 | 687 | 715 | 1177 | 1591 | 0 | 0 | 108 | 137 | 5 | 7 |
| 109 | 462 | 460 | 169 | 176 | 356 | 490 | 1410 | 1797 | 409 | 519 | 6 | 8 |
| 110 | 249 | 245 | 101 | 105 | 161 | 202 | 0 | 0 | 0 | 0 | 0 | 0 |
| 111 | 7 | 7 | 5 | 6 | 17 | 21 | 0 | 0 | 337 | 442 | 50 | 66 |
| 112 | 835 | 822 | 342 | 356 | 731 | 916 | 0 | 0 | 301 | 395 | 150 | 197 |
| 113 | 230 | 294 | 104 | 139 | 212 | 303 | 0 | 0 | 279 | 366 | 73 | 96 |
| 114 | 688 | 879 | 276 | 368 | 596 | 853 | 0 | 0 | 294 | 377 | 144 | 288 |

**Exhibit C-2**
Demographic Data by TAZ

| TAZ | POPULATION | | HOUSING UNITS | | AUTOMOBILES | | STUDENTS | | TOTAL EMPLOYMENT | | RETAIL EMPLOYMENT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1990 | 2025 | 1990 | 2025 | 1990 | 2025 | 1990 | 2025 | 1990 | 2025 | 1990 | 2025 |
| 115 | 529 | 676 | 164 | 219 | 239 | 342 | 0 | 0 | 5 | 63 | 0 | 189 |
| 116 | 267 | 321 | 115 | 144 | 196 | 264 | 0 | 0 | 38 | 50 | 33 | 43 |
| 117 | 65 | 365 | 24 | 156 | 55 | 346 | 0 | 0 | 4 | 5 | 4 | 5 |
| 118 | 415 | 498 | 199 | 250 | 331 | 445 | 0 | 0 | 57 | 128 | 9 | 12 |
| 119 | 175 | 210 | 69 | 87 | 106 | 142 | 0 | 0 | 43 | 145 | 0 | 0 |
| 120 | 13 | 13 | 8 | 8 | 26 | 33 | 0 | 0 | 44 | 293 | 0 | 0 |
| 121 | 161 | 159 | 70 | 73 | 139 | 174 | 0 | 0 | 296 | 1552 | 21 | 40 |
| 122 | 1883 | 1855 | 798 | 831 | 1251 | 1568 | 0 | 0 | 148 | 194 | 142 | 186 |
| 123 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 147 | 193 | 71 | 93 |
| 124 | 439 | 432 | 180 | 187 | 215 | 270 | 0 | 0 | 201 | 264 | 80 | 105 |
| 125 | 408 | 402 | 213 | 222 | 285 | 357 | 0 | 0 | 497 | 497 | 47 | 62 |
| 126 | 132 | 130 | 52 | 54 | 147 | 185 | 0 | 0 | 52 | 68 | 34 | 45 |
| 127 | 272 | 268 | 141 | 147 | 176 | 221 | 0 | 0 | 159 | 209 | 36 | 47 |
| 128 | 48 | 47 | 25 | 26 | 27 | 34 | 0 | 0 | 113 | 148 | 39 | 51 |
| 129 | 2386 | 2377 | 1200 | 1249 | 1424 | 2117 | 0 | 0 | 343 | 571 | 40 | 52 |
| 130 | 973 | 1168 | 350 | 439 | 801 | 1077 | 0 | 0 | 550 | 1000 | 78 | 102 |
| 131 | 491 | 484 | 291 | 303 | 261 | 327 | 0 | 0 | 967 | 1047 | 63 | 83 |
| 132 | 99 | 98 | 49 | 51 | 80 | 100 | 0 | 0 | 117 | 728 | 0 | 0 |
| 133 | 487 | 480 | 176 | 183 | 199 | 249 | 0 | 0 | 1811 | 3199 | 0 | 0 |
| 134 | 1511 | 1814 | 556 | 698 | 1247 | 1677 | 0 | 0 | 215 | 282 | 72 | 102 |
| 135 | 438 | 431 | 237 | 247 | 341 | 428 | 0 | 0 | 47 | 60 | 25 | 33 |
| 136 | 300 | 295 | 102 | 106 | 241 | 302 | 0 | 0 | 12 | 15 | 1 | 1 |
| 137 | 603 | 715 | 225 | 276 | 455 | 759 | 325 | 308 | 10 | 17 | 10 | 15 |
| 138 | 192 | 450 | 77 | 182 | 145 | 964 | 0 | 0 | 0 | 0 | 0 | 0 |
| 139 | 186 | 444 | 66 | 180 | 140 | 235 | 0 | 0 | 2 | 3 | 0 | 0 |
| 140 | 199 | 236 | 85 | 101 | 121 | 202 | 0 | 0 | 156 | 263 | 0 | 0 |
| 141 | 1600 | 1894 | 635 | 753 | 1153 | 1922 | 0 | 0 | 269 | 511 | 40 | 58 |
| 142 | 114 | 630 | 51 | 273 | 83 | 624 | 0 | 0 | 247 | 417 | 0 | 0 |
| 143 | 285 | 332 | 123 | 169 | 207 | 340 | 0 | 0 | 275 | 578 | 142 | 206 |
| 144 | 1112 | 1776 | 494 | 788 | 874 | 2007 | 0 | 0 | 444 | 749 | 204 | 296 |
| 145 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 465 | 267 | 451 | 241 | 350 |
| 146 | 1414 | 2605 | 509 | 987 | 1025 | 2641 | 0 | 0 | 27 | 102 | 3 | 4 |
| 147 | 341 | 2060 | 148 | 897 | 226 | 1931 | 1303 | 1234 | 423 | 1427 | 197 | 572 |
| 148 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 313 | 528 | 110 | 160 |
| 149 | 850 | 1040 | 341 | 417 | 562 | 963 | 0 | 0 | 4 | 7 | 0 | 0 |
| 150 | 447 | 528 | 176 | 207 | 272 | 452 | 0 | 0 | 8 | 70 | 0 | 0 |
| 151 | 956 | 1133 | 353 | 417 | 707 | 1180 | 0 | 0 | 45 | 132 | 22 | 32 |
| 152 | 937 | 1107 | 356 | 420 | 693 | 1153 | 0 | 507 | 336 | 596 | 234 | 340 |
| 153 | 548 | 1249 | 213 | 485 | 367 | 1186 | 0 | 0 | 3 | 202 | 2 | 116 |
| 154 | 66 | 75 | 23 | 26 | 44 | 71 | 0 | 0 | 0 | 0 | 0 | 0 |
| 155 | 517 | 1093 | 185 | 397 | 346 | 1050 | 0 | 0 | 5 | 8 | 0 | 0 |
| 156 | 0 | 227 | 0 | 81 | 0 | 139 | 0 | 0 | 0 | 0 | 0 | 0 |
| 157 | 537 | 614 | 217 | 259 | 400 | 648 | 0 | 0 | 113 | 191 | 22 | 64 |
| 158 | 25 | 1000 | 10 | 400 | 19 | 1102 | 0 | 0 | 0 | 1000 | 0 | 400 |
| 159 | 413 | 470 | 141 | 161 | 320 | 517 | 0 | 0 | 0 | 0 | 0 | 0 |
| 160 | 1994 | 1634 | 277 | 288 | 1334 | 974 | 264 | 0 | 2798 | 1042 | 4 | 6 |
| 161 | 846 | 1001 | 358 | 424 | 419 | 698 | 0 | 0 | 73 | 123 | 39 | 57 |
| 162 | 636 | 805 | 287 | 364 | 516 | 909 | 263 | 0 | 330 | 557 | 143 | 208 |
| 163 | 210 | 239 | 92 | 105 | 139 | 224 | 0 | 0 | 8 | 13 | 8 | 12 |
| 164 | 721 | 1308 | 276 | 507 | 545 | 1392 | 0 | 0 | 47 | 79 | 7 | 10 |
| 165 | 281 | 503 | 104 | 186 | 179 | 452 | 0 | 0 | 0 | 0 | 0 | 0 |
| 166 | 573 | 618 | 109 | 123 | 349 | 538 | 145 | 0 | 17 | 29 | 2 | 3 |
| 167 | 131 | 157 | 50 | 89 | 76 | 128 | 0 | 0 | 12 | 20 | 0 | 0 |
| 168 | 153 | 175 | 59 | 68 | 112 | 182 | 0 | 0 | 69 | 116 | 67 | 97 |
| 169 | 327 | 388 | 123 | 146 | 199 | 332 | 0 | 0 | 24 | 40 | 24 | 35 |
| 170 | 250 | 442 | 96 | 169 | 152 | 379 | 0 | 0 | 29 | 71 | 0 | 0 |
| 171 | 227 | 271 | 79 | 95 | 138 | 232 | 0 | 0 | 0 | 0 | 0 | 0 |

**Exhibit C-2**
Demographic Data by TAZ

| TAZ | POPULATION | | HOUSING UNITS | | AUTOMOBILES | | STUDENTS | | TOTAL EMPLOYMENT | | RETAIL EMPLOYMENT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1990 | 2025 | 1990 | 2025 | 1990 | 2025 | 1990 | 2025 | 1990 | 2025 | 1990 | 2025 |
| 172 | 692 | 1189 | 248 | 446 | 421 | 1024 | 0 | 0 | 2 | 3 | 0 | 0 |
| 173 | 204 | 465 | 69 | 158 | 151 | 487 | 0 | 0 | 4 | 467 | 3 | 174 |
| 174 | 1693 | 2019 | 689 | 822 | 1350 | 2259 | 0 | 0 | 524 | 943 | 350 | 608 |
| 175 | 856 | 1185 | 363 | 502 | 683 | 1290 | 0 | 0 | 160 | 409 | 20 | 35 |
| 176 | 56 | 56 | 24 | 24 | 37 | 54 | 0 | 0 | 5 | 9 | 0 | 0 |
| 177 | 434 | 557 | 176 | 226 | 289 | 468 | 0 | 0 | 0 | 12 | 0 | 0 |
| 178 | 56 | 180 | 19 | 61 | 49 | 135 | 0 | 0 | 12 | 22 | 6 | 10 |
| 179 | 102 | 216 | 45 | 95 | 68 | 144 | 0 | 0 | 0 | 36 | 0 | 0 |
| 180 | 68 | 816 | 25 | 300 | 59 | 608 | 0 | 0 | 0 | 48 | 0 | 0 |
| 181 | 413 | 507 | 174 | 214 | 275 | 436 | 0 | 0 | 10 | 18 | 0 | 0 |
| 182 | 694 | 812 | 309 | 362 | 501 | 825 | 0 | 0 | 20 | 36 | 7 | 12 |
| 183 | 548 | 1203 | 219 | 481 | 449 | 1229 | 0 | 0 | 6 | 24 | 3 | 5 |
| 184 | 901 | 1187 | 343 | 452 | 598 | 1085 | 0 | 0 | 51 | 92 | 4 | 7 |
| 185 | 723 | 3112 | 305 | 635 | 543 | 1832 | 0 | 0 | 204 | 883 | 91 | 407 |
| 186 | 178 | 327 | 72 | 133 | 134 | 320 | 0 | 0 | 15 | 87 | 2 | 3 |
| 187 | 128 | 128 | 54 | 54 | 104 | 151 | 0 | 0 | 170 | 306 | 7 | 12 |
| 188 | 377 | 1002 | 156 | 415 | 283 | 955 | 0 | 0 | 116 | 209 | 38 | 66 |
| 189 | 719 | 801 | 348 | 388 | 583 | 885 | 483 | 1213 | 416 | 748 | 42 | 73 |
| 190 | 371 | 461 | 164 | 204 | 301 | 480 | 0 | 0 | 427 | 768 | 72 | 125 |
| 191 | 381 | 491 | 150 | 193 | 309 | 550 | 0 | 0 | 43 | 138 | 3 | 5 |
| 192 | 2164 | 2455 | 744 | 844 | 1700 | 2735 | 0 | 0 | 60 | 108 | 4 | 7 |
| 193 | 1956 | 2639 | 790 | 1066 | 1537 | 2851 | 2327 | 4052 | 1306 | 2349 | 217 | 377 |
| 194 | 671 | 1116 | 322 | 536 | 538 | 1189 | 0 | 0 | 486 | 874 | 93 | 162 |
| 195 | 1324 | 1843 | 518 | 721 | 1062 | 2023 | 0 | 0 | 70 | 126 | 23 | 40 |
| 196 | 2957 | 3305 | 1093 | 1222 | 2223 | 3530 | 0 | 0 | 106 | 251 | 26 | 45 |
| 197 | 143 | 818 | 67 | 317 | 108 | 571 | 0 | 0 | 0 | 0 | 0 | 0 |
| 198 | 198 | 198 | 75 | 75 | 147 | 213 | 0 | 0 | 7 | 13 | 4 | 7 |
| 199 | 150 | 198 | 62 | 82 | 113 | 186 | 0 | 0 | 4 | 7 | 2 | 3 |
| 200 | 52 | 114 | 25 | 55 | 39 | 84 | 0 | 0 | 0 | 0 | 0 | 0 |
| 201 | 54 | 112 | 22 | 46 | 41 | 86 | 0 | 0 | 6 | 11 | 5 | 9 |
| 202 | 98 | 98 | 34 | 34 | 74 | 107 | 0 | 0 | 0 | 0 | 0 | 0 |
| 203 | 302 | 362 | 100 | 120 | 227 | 356 | 0 | 0 | 0 | 0 | 0 | 0 |
| 204 | 832 | 1132 | 388 | 528 | 660 | 1234 | 0 | 0 | 1281 | 2305 | 276 | 479 |
| 205 | 227 | 715 | 90 | 283 | 180 | 684 | 0 | 0 | 37 | 67 | 0 | 0 |
| 206 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3497 | 4977 | 0 | 0 |
| 207 | 308 | 358 | 125 | 145 | 261 | 403 | 0 | 0 | 67 | 121 | 0 | 0 |
| 208 | 1069 | 1835 | 393 | 675 | 766 | 1777 | 0 | 0 | 35 | 60 | 25 | 43 |
| 209 | 321 | 847 | 143 | 377 | 287 | 978 | 347 | 609 | 188 | 320 | 0 | 111 |
| 210 | 97 | 415 | 32 | 137 | 73 | 286 | 0 | 0 | 32 | 54 | 11 | 20 |
| 211 | 130 | 435 | 62 | 207 | 104 | 443 | 0 | 0 | 0 | 0 | 0 | 0 |
| 212 | 89 | 181 | 44 | 88 | 71 | 191 | 0 | 0 | 0 | 0 | 0 | 0 |
| 213 | 97 | 216 | 43 | 96 | 78 | 234 | 0 | 0 | 0 | 0 | 0 | 0 |
| 214 | 508 | 819 | 193 | 311 | 406 | 888 | 386 | 678 | 80 | 136 | 0 | 0 |
| 215 | 123 | 375 | 54 | 165 | 98 | 382 | 0 | 0 | 0 | 0 | 0 | 0 |
| 216 | 669 | 1520 | 242 | 550 | 497 | 1498 | 0 | 0 | 6 | 151 | 6 | 11 |
| 217 | 291 | 563 | 125 | 244 | 216 | 555 | 0 | 0 | 0 | 0 | 0 | 0 |
| 218 | 643 | 1294 | 328 | 660 | 478 | 1284 | 0 | 0 | 0 | 0 | 0 | 0 |
| 219 | 323 | 2024 | 159 | 996 | 240 | 1801 | 0 | 0 | 694 | 1249 | 86 | 149 |
| 220 | 128 | 211 | 66 | 107 | 103 | 226 | 450 | 849 | 42 | 71 | 0 | 0 |
| 221 | 46 | 208 | 18 | 80 | 37 | 217 | 282 | 1000 | 438 | 745 | 26 | 45 |
| 222 | 172 | 319 | 70 | 130 | 123 | 313 | 0 | 0 | 122 | 301 | 0 | 111 |
| 223 | 318 | 2188 | 100 | 688 | 256 | 2223 | 0 | 850 | 10 | 17 | 5 | 9 |
| 224 | 323 | 383 | 153 | 182 | 240 | 402 | 0 | 0 | 219 | 372 | 70 | 121 |
| 225 | 707 | 751 | 288 | 306 | 526 | 804 | 0 | 0 | 485 | 915 | 241 | 418 |
| 226 | 1226 | 1450 | 453 | 537 | 878 | 1563 | 0 | 0 | 39 | 66 | 2 | 3 |
| 227 | 40 | 175 | 22 | 58 | 32 | 72 | 0 | 0 | 0 | 0 | 0 | 0 |
| 228 | 856 | 1660 | 325 | 631 | 690 | 1778 | 974 | 1700 | 163 | 277 | 0 | 0 |

**Exhibit C-2**
Demographic Data by TAZ

| TAZ | POPULATION | | HOUSING UNITS | | AUTOMOBILES | | STUDENTS | | TOTAL EMPLOYMENT | | RETAIL EMPLOYMENT | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 1990 | 2025 | 1990 | 2025 | 1990 | 2025 | 1990 | 2025 | 1990 | 2025 | 1990 | 2025 |
| 229 | 207 | 950 | 83 | 380 | 185 | 2164 | 0 | 0 | 186 | 579 | 0 | 0 |
| 230 | 229 | 280 | 89 | 110 | 184 | 318 | 0 | 0 | 0 | 0 | 0 | 0 |
| 231 | 496 | 597 | 220 | 265 | 413 | 705 | 0 | 0 | 0 | 0 | 0 | 0 |
| 232 | 226 | 883 | 97 | 375 | 181 | 863 | 0 | 0 | 0 | 0 | 0 | 0 |
| 233 | 64 | 235 | 29 | 133 | 57 | 318 | 0 | 0 | 1 | 4 | 1 | 4 |
| 234 | 814 | 1575 | 281 | 544 | 727 | 1860 | 0 | 0 | 45 | 75 | 0 | 0 |
| 235 | 256 | 414 | 105 | 170 | 205 | 447 | 0 | 0 | 0 | 0 | 0 | 0 |
| Totals | 115238 | 152470 | 46195 | 61156 | 78718 | 138620 | 30829 | 45670 | 67441 | 114745 | 11910 | 18435 |
| **Lynchburg Totals (1-136)** | 66049 | 70271 | 27233 | 29275 | 42153 | 56035 | 23280 | 32205 | 49190 | 83544 | 8618 | 11678 |
| **Amherst Totals (137-173)** | 18587 | 28873 | 6655 | 11044 | 12889 | 28037 | 2300 | 2514 | 6360 | 9812 | 1524 | 3215 |
| **Campbell Totals (174-207)** | 20134 | 30523 | 8090 | 11635 | 15525 | 29958 | 2810 | 5265 | 9106 | 15997 | 1295 | 2497 |
| **Bedford Totals (208-235)** | 10468 | 22803 | 4217 | 9202 | 8151 | 24590 | 2439 | 5686 | 2785 | 5392 | 473 | 1045 |
| Totals | 115238 | 152470 | 46195 | 61156 | 78718 | 138620 | 30829 | 45670 | 67441 | 114745 | 11910 | 18435 |

**Exhibit C-3**

Base Year (1990) AM and PM Peak Hour Productions and Attractions by TAZ

| | AM Peak | | | | | | | | | | PM Peak | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TAZ | HBW Prods | HBW Attrs | HBO Prods | HBO Attrs | NHB Prods | NHB Attrs | Ext Prods | Ext Attrs | Truck Prods | Truck Attrs | HBW Prods | HBW Attrs | HBO Prods | HBO Attrs | NHB Prods | NHB Attrs | Ext Prods | Ext Attrs | Truck Prods | Truck Attrs |
| 1 | 0 | 545 | 1 | 37 | 23 | 23 | 0 | 188 | 21 | 21 | 0 | 351 | 1 | 48 | 44 | 44 | 0 | 191 | 21 | 21 |
| 2 | 20 | 552 | 12 | 71 | 37 | 37 | 0 | 199 | 24 | 24 | 13 | 355 | 15 | 88 | 74 | 74 | 0 | 202 | 24 | 24 |
| 3 | 11 | 53 | 7 | 34 | 18 | 18 | 0 | 29 | 3 | 3 | 7 | 33 | 9 | 40 | 34 | 34 | 0 | 29 | 3 | 3 |
| 4 | 129 | 92 | 74 | 81 | 29 | 29 | 0 | 69 | 15 | 15 | 83 | 59 | 91 | 89 | 59 | 59 | 0 | 69 | 15 | 15 |
| 5 | 25 | 57 | 15 | 21 | 10 | 10 | 0 | 32 | 4 | 4 | 16 | 36 | 18 | 23 | 17 | 17 | 0 | 32 | 4 | 4 |
| 6 | 116 | 93 | 66 | 69 | 32 | 32 | 0 | 58 | 11 | 11 | 74 | 59 | 82 | 75 | 56 | 56 | 0 | 61 | 11 | 11 |
| 7 | 0 | 12 | 1 | 4 | 5 | 5 | 0 | 9 | 0 | 0 | 0 | 7 | 1 | 5 | 5 | 5 | 0 | 9 | 0 | 0 |
| 8 | 32 | 24 | 19 | 18 | 8 | 8 | 0 | 23 | 3 | 3 | 21 | 15 | 23 | 18 | 13 | 13 | 0 | 23 | 3 | 3 |
| 9 | 55 | 108 | 32 | 23 | 10 | 10 | 0 | 52 | 7 | 7 | 35 | 69 | 39 | 23 | 16 | 16 | 0 | 52 | 7 | 7 |
| 10 | 49 | 37 | 28 | 25 | 12 | 12 | 0 | 29 | 4 | 4 | 31 | 23 | 35 | 26 | 19 | 19 | 0 | 29 | 4 | 4 |
| 11 | 0 | 275 | 1 | 4 | 5 | 5 | 0 | 98 | 10 | 10 | 0 | 177 | 1 | 5 | 5 | 5 | 0 | 101 | 10 | 10 |
| 12 | 52 | 32 | 30 | 35 | 14 | 14 | 0 | 32 | 6 | 6 | 34 | 20 | 37 | 37 | 24 | 24 | 0 | 32 | 6 | 6 |
| 13 | 6 | 11 | 4 | 7 | 6 | 6 | 0 | 12 | 0 | 0 | 5 | 6 | 5 | 9 | 8 | 8 | 0 | 14 | 0 | 0 |
| 14 | 0 | 27 | 1 | 85 | 34 | 34 | 0 | 17 | 0 | 0 | 0 | 16 | 1 | 200 | 97 | 97 | 0 | 17 | 0 | 0 |
| 15 | 48 | 21 | 28 | 25 | 12 | 12 | 0 | 20 | 3 | 3 | 31 | 13 | 35 | 29 | 22 | 22 | 0 | 23 | 3 | 3 |
| 16 | 57 | 123 | 33 | 26 | 12 | 12 | 0 | 55 | 7 | 7 | 37 | 78 | 41 | 29 | 22 | 22 | 0 | 55 | 7 | 7 |
| 17 | 50 | 22 | 29 | 25 | 11 | 11 | 0 | 23 | 3 | 3 | 32 | 14 | 36 | 26 | 19 | 19 | 0 | 23 | 3 | 3 |
| 18 | 62 | 7 | 36 | 18 | 9 | 9 | 0 | 17 | 2 | 2 | 40 | 3 | 44 | 18 | 13 | 13 | 0 | 17 | 2 | 2 |
| 19 | 18 | 2 | 11 | 11 | 7 | 7 | 0 | 9 | 0 | 0 | 12 | 0 | 14 | 12 | 9 | 9 | 0 | 9 | 0 | 0 |
| 20 | 34 | 2 | 20 | 14 | 8 | 8 | 0 | 12 | 1 | 1 | 22 | 1 | 25 | 15 | 17 | 17 | 0 | 14 | 1 | 1 |
| 21 | 45 | 12 | 26 | 19 | 9 | 9 | 0 | 17 | 2 | 2 | 29 | 7 | 32 | 21 | 15 | 15 | 0 | 17 | 2 | 2 |
| 22 | 5 | 0 | 4 | 5 | 5 | 5 | 0 | 6 | 0 | 0 | 3 | 0 | 5 | 6 | 6 | 6 | 0 | 6 | 0 | 0 |
| 23 | 42 | 95 | 25 | 28 | 14 | 14 | 0 | 46 | 6 | 6 | 27 | 60 | 30 | 34 | 25 | 25 | 0 | 46 | 6 | 6 |
| 24 | 35 | 6 | 20 | 18 | 9 | 9 | 0 | 12 | 1 | 1 | 22 | 3 | 25 | 20 | 15 | 15 | 0 | 14 | 1 | 1 |
| 25 | 1 | 105 | 1 | 81 | 46 | 46 | 0 | 43 | 3 | 3 | 0 | 67 | 1 | 104 | 95 | 95 | 0 | 43 | 3 | 3 |
| 26 | 2 | 20 | 2 | 5 | 5 | 5 | 0 | 12 | 0 | 0 | 2 | 12 | 3 | 6 | 6 | 6 | 0 | 14 | 0 | 0 |
| 27 | 0 | 287 | 1 | 16 | 11 | 11 | 0 | 104 | 11 | 11 | 0 | 185 | 1 | 20 | 19 | 19 | 0 | 104 | 11 | 11 |
| 28 | 0 | 199 | 1 | 4 | 5 | 5 | 0 | 75 | 7 | 7 | 0 | 128 | 1 | 5 | 5 | 5 | 0 | 75 | 7 | 7 |
| 29 | 2 | 216 | 2 | 35 | 21 | 21 | 0 | 78 | 8 | 8 | 1 | 139 | 2 | 45 | 41 | 41 | 0 | 81 | 8 | 8 |
| 30 | 2 | 78 | 2 | 32 | 20 | 20 | 0 | 32 | 2 | 2 | 1 | 49 | 2 | 40 | 37 | 37 | 0 | 32 | 2 | 2 |
| 31 | 0 | 383 | 1 | 1071 | 373 | 373 | 0 | 136 | 14 | 14 | 0 | 247 | 1 | 1439 | 827 | 827 | 0 | 136 | 14 | 14 |
| 32 | 1 | 329 | 1 | 7 | 5 | 5 | 0 | 116 | 13 | 13 | 5 | 211 | 1 | 8 | 6 | 6 | 0 | 121 | 13 | 13 |
| 33 | 22 | 25 | 13 | 9 | 6 | 6 | 0 | 17 | 1 | 1 | 9 | 15 | 16 | 9 | 8 | 8 | 0 | 17 | 1 | 1 |
| 34 | 0 | 100 | 1 | 7 | 6 | 6 | 0 | 38 | 3 | 3 | 0 | 63 | 1 | 8 | 9 | 9 | 0 | 43 | 3 | 3 |

**Exhibit C-3**

Base Year (1990) AM and PM Peak Hour Productions and Attractions by TAZ

| | AM Peak | | | | | | | | | | PM Peak | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TAZ | HBW Prods | HBW Attrs | HBO Prods | HBO Attrs | NHB Prods | NHB Attrs | Ext Prods | Ext Attrs | Truck Prods | Truck Attrs | HBW Prods | HBW Attrs | HBO Prods | HBO Attrs | NHB Prods | NHB Attrs | Ext Prods | Ext Attrs | Truck Prods | Truck Attrs |
| 35 | 10 | 398 | 7 | 7 | 7 | 7 | 0 | 139 | 15 | 15 | 7 | 256 | 8 | 9 | 9 | 9 | 0 | 144 | 15 | 15 |
| 36 | 28 | 0 | 17 | 12 | 7 | 7 | 0 | 9 | 1 | 1 | 18 | 0 | 20 | 14 | 11 | 11 | 0 | 9 | 1 | 1 |
| 37 | 39 | 91 | 23 | 16 | 8 | 8 | 0 | 43 | 5 | 5 | 25 | 58 | 28 | 17 | 12 | 12 | 0 | 43 | 5 | 5 |
| 38 | 0 | 0 | 1 | 4 | 5 | 5 | 0 | 6 | 0 | 0 | 0 | 0 | 1 | 5 | 5 | 5 | 0 | 6 | 0 | 0 |
| 39 | 4 | 88 | 3 | 42 | 25 | 25 | 0 | 35 | 3 | 3 | 3 | 56 | 4 | 54 | 50 | 50 | 0 | 35 | 3 | 3 |
| 40 | 39 | 120 | 23 | 106 | 57 | 57 | 0 | 52 | 5 | 5 | 25 | 76 | 28 | 134 | 119 | 119 | 0 | 52 | 5 | 5 |
| 41 | 43 | 26 | 25 | 28 | 15 | 15 | 0 | 20 | 2 | 2 | 28 | 16 | 31 | 32 | 27 | 27 | 0 | 20 | 2 | 2 |
| 42 | 41 | 42 | 24 | 25 | 15 | 15 | 0 | 26 | 3 | 3 | 26 | 26 | 29 | 29 | 25 | 25 | 0 | 26 | 3 | 3 |
| 43 | 105 | 72 | 60 | 76 | 39 | 39 | 0 | 38 | 5 | 5 | 37 | 45 | 74 | 94 | 80 | 80 | 0 | 40 | 5 | 5 |
| 44 | 50 | 9 | 29 | 32 | 13 | 13 | 0 | 23 | 4 | 4 | 63 | 5 | 36 | 34 | 23 | 23 | 0 | 23 | 4 | 4 |
| 45 | 34 | 596 | 20 | 30 | 15 | 15 | 0 | 214 | 25 | 25 | 22 | 384 | 25 | 35 | 27 | 27 | 0 | 214 | 25 | 25 |
| 46 | 84 | 223 | 48 | 78 | 33 | 33 | 0 | 104 | 17 | 17 | 54 | 143 | 59 | 88 | 64 | 64 | 0 | 104 | 17 | 17 |
| 47 | 67 | 149 | 39 | 35 | 15 | 15 | 0 | 69 | 10 | 10 | 43 | 95 | 48 | 38 | 27 | 27 | 0 | 69 | 10 | 10 |
| 48 | 228 | 60 | 130 | 99 | 44 | 44 | 0 | 58 | 14 | 14 | 146 | 38 | 160 | 109 | 80 | 80 | 0 | 58 | 14 | 14 |
| 49 | 8 | 32 | 5 | 25 | 16 | 16 | 0 | 20 | 1 | 1 | 1 | 20 | 7 | 31 | 29 | 29 | 0 | 20 | 1 | 1 |
| 50 | 41 | 0 | 24 | 12 | 7 | 7 | 0 | 9 | 1 | 1 | 26 | 0 | 29 | 14 | 11 | 11 | 0 | 14 | 1 | 1 |
| 51 | 107 | 58 | 61 | 60 | 27 | 27 | 0 | 38 | 7 | 7 | 69 | 37 | 75 | 69 | 55 | 55 | 0 | 40 | 7 | 7 |
| 52 | 136 | 13 | 78 | 46 | 19 | 19 | 0 | 29 | 7 | 7 | 92 | 8 | 96 | 49 | 33 | 33 | 0 | 29 | 7 | 7 |
| 53 | 57 | 0 | 33 | 19 | 9 | 9 | 0 | 12 | 2 | 2 | 37 | 0 | 41 | 21 | 14 | 14 | 0 | 14 | 2 | 2 |
| 54 | 139 | 18 | 80 | 49 | 23 | 23 | 0 | 29 | 6 | 6 | 90 | 11 | 98 | 52 | 38 | 38 | 0 | 29 | 6 | 6 |
| 55 | 150 | 7 | 85 | 49 | 17 | 17 | 0 | 29 | 8 | 8 | 96 | 3 | 105 | 52 | 32 | 32 | 0 | 29 | 8 | 8 |
| 56 | 60 | 26 | 35 | 42 | 20 | 20 | 0 | 26 | 4 | 4 | 38 | 16 | 43 | 49 | 38 | 38 | 0 | 26 | 4 | 4 |
| 57 | 31 | 132 | 18 | 42 | 21 | 21 | 0 | 58 | 8 | 8 | 20 | 84 | 22 | 51 | 41 | 41 | 0 | 58 | 8 | 8 |
| 58 | 22 | 41 | 13 | 19 | 13 | 13 | 0 | 23 | 2 | 2 | 14 | 25 | 16 | 23 | 21 | 21 | 0 | 23 | 2 | 2 |
| 59 | 110 | 109 | 63 | 32 | 30 | 30 | 0 | 46 | 4 | 4 | 71 | 70 | 78 | 37 | 38 | 38 | 0 | 46 | 4 | 4 |
| 60 | 11 | 0 | 7 | 5 | 5 | 5 | 0 | 6 | 0 | 0 | 7 | 0 | 9 | 6 | 6 | 6 | 0 | 6 | 0 | 0 |
| 61 | 34 | 26 | 20 | 30 | 17 | 17 | 0 | 20 | 2 | 2 | 22 | 16 | 25 | 37 | 32 | 32 | 0 | 20 | 2 | 2 |
| 62 | 29 | 10 | 17 | 21 | 9 | 9 | 0 | 20 | 3 | 3 | 19 | 6 | 21 | 23 | 15 | 15 | 0 | 20 | 3 | 3 |
| 63 | 6 | 0 | 4 | 7 | 5 | 5 | 0 | 6 | 0 | 0 | 4 | 0 | 5 | 8 | 7 | 7 | 0 | 6 | 0 | 0 |
| 64 | 65 | 95 | 38 | 44 | 20 | 20 | 0 | 49 | 7 | 7 | 42 | 60 | 46 | 51 | 39 | 39 | 0 | 49 | 7 | 7 |
| 65 | 48 | 24 | 28 | 41 | 20 | 20 | 0 | 23 | 4 | 4 | 31 | 15 | 34 | 46 | 32 | 32 | 0 | 26 | 4 | 4 |
| 66 | 1 | 76 | 1 | 21 | 20 | 20 | 0 | 32 | 2 | 2 | 0 | 48 | 1 | 25 | 26 | 26 | 0 | 32 | 2 | 2 |
| 67 | 9 | 179 | 6 | 127 | 71 | 71 | 0 | 69 | 7 | 7 | 6 | 115 | 7 | 164 | 148 | 148 | 0 | 69 | 7 | 7 |
| 68 | 23 | 64 | 13 | 18 | 11 | 11 | 0 | 32 | 3 | 3 | 14 | 41 | 17 | 20 | 16 | 16 | 0 | 32 | 3 | 3 |

**Exhibit C-3**

Base Year (1990) AM and PM Peak Hour Productions and Attractions by TAZ

| | AM Peak | | | | | | | | | | PM Peak | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TAZ | HBW Prods | HBW Attrs | HBO Prods | HBO Attrs | NHB Prods | NHB Attrs | Ext Prods | Ext Attrs | Truck Prods | Truck Attrs | HBW Prods | HBW Attrs | HBO Prods | HBO Attrs | NHB Prods | NHB Attrs | Ext Prods | Ext Attrs | Truck Prods | Truck Attrs |
| 103 | 1 | 52 | 1 | 7 | 6 | 6 | 0 | 26 | 2 | 2 | 7 | 33 | 1 | 8 | 7 | 7 | 0 | 26 | 2 | 2 |
| 104 | 0 | 9 | 1 | 19 | 13 | 13 | 0 | 9 | 0 | 0 | 0 | 0 | 1 | 25 | 5 | 5 | 0 | 6 | 0 | 0 |
| 105 | 1 | 15 | 1 | 14 | 10 | 10 | 0 | 12 | 0 | 0 | 1 | 9 | 2 | 17 | 16 | 16 | 0 | 14 | 0 | 0 |
| 106 | 10 | 67 | 7 | 11 | 8 | 8 | 0 | 29 | 2 | 2 | 7 | 74 | 8 | 12 | 60 | 60 | 0 | 46 | 4 | 4 |
| 107 | 8 | 57 | 5 | 49 | 46 | 46 | 0 | 26 | 2 | 2 | 5 | 36 | 6 | 58 | 60 | 60 | 0 | 26 | 2 | 2 |
| 108 | 198 | 20 | 113 | 53 | 18 | 18 | 0 | 35 | 9 | 9 | 127 | 12 | 139 | 57 | 35 | 35 | 0 | 35 | 9 | 9 |
| 109 | 60 | 81 | 35 | 32 | 23 | 23 | 0 | 38 | 5 | 5 | 39 | 51 | 43 | 35 | 31 | 31 | 0 | 40 | 5 | 5 |
| 110 | 27 | 0 | 16 | 11 | 7 | 7 | 0 | 9 | 0 | 0 | 18 | 0 | 20 | 12 | 9 | 9 | 0 | 9 | 0 | 0 |
| 111 | 3 | 67 | 3 | 14 | 10 | 10 | 0 | 29 | 2 | 2 | 2 | 42 | 3 | 17 | 16 | 16 | 0 | 29 | 2 | 2 |
| 112 | 123 | 59 | 70 | 56 | 26 | 26 | 0 | 38 | 6 | 6 | 79 | 37 | 87 | 66 | 52 | 52 | 0 | 40 | 6 | 6 |
| 113 | 36 | 55 | 21 | 25 | 14 | 14 | 0 | 29 | 3 | 3 | 23 | 34 | 26 | 29 | 25 | 25 | 0 | 29 | 3 | 3 |
| 114 | 101 | 58 | 58 | 51 | 25 | 25 | 0 | 35 | 5 | 5 | 65 | 36 | 71 | 60 | 48 | 48 | 0 | 35 | 5 | 5 |
| 115 | 41 | 0 | 24 | 16 | 8 | 8 | 0 | 12 | 1 | 1 | 26 | 0 | 29 | 17 | 12 | 12 | 0 | 14 | 1 | 1 |
| 116 | 33 | 6 | 20 | 18 | 10 | 10 | 0 | 12 | 1 | 1 | 21 | 3 | 24 | 21 | 17 | 17 | 0 | 14 | 1 | 1 |
| 117 | 10 | 0 | 6 | 7 | 6 | 6 | 0 | 6 | 0 | 0 | 6 | 0 | 8 | 8 | 7 | 7 | 0 | 6 | 0 | 0 |
| 118 | 56 | 10 | 32 | 19 | 9 | 9 | 0 | 17 | 2 | 2 | 36 | 6 | 40 | 21 | 15 | 15 | 0 | 17 | 2 | 2 |
| 119 | 18 | 7 | 11 | 9 | 6 | 6 | 0 | 12 | 0 | 0 | 12 | 4 | 14 | 9 | 8 | 8 | 0 | 14 | 0 | 0 |
| 120 | 5 | 7 | 3 | 5 | 5 | 5 | 0 | 9 | 0 | 0 | 3 | 4 | 4 | 5 | 5 | 5 | 0 | 9 | 0 | 0 |
| 121 | 24 | 58 | 14 | 12 | 8 | 8 | 0 | 29 | 2 | 2 | 15 | 37 | 17 | 15 | 13 | 13 | 0 | 29 | 2 | 2 |
| 122 | 211 | 28 | 120 | 86 | 34 | 34 | 0 | 43 | 11 | 11 | 135 | 17 | 148 | 98 | 70 | 70 | 0 | 43 | 11 | 11 |
| 123 | 0 | 28 | 1 | 81 | 33 | 33 | 0 | 17 | 0 | 0 | 0 | 17 | 1 | 193 | 95 | 95 | 0 | 17 | 0 | 0 |
| 124 | 37 | 39 | 21 | 32 | 16 | 16 | 0 | 26 | 3 | 3 | 23 | 24 | 26 | 37 | 30 | 30 | 0 | 26 | 3 | 3 |
| 125 | 48 | 99 | 28 | 28 | 14 | 14 | 0 | 49 | 6 | 6 | 31 | 63 | 34 | 32 | 24 | 24 | 0 | 49 | 6 | 6 |
| 126 | 25 | 9 | 15 | 14 | 9 | 9 | 0 | 12 | 0 | 0 | 16 | 5 | 18 | 17 | 15 | 15 | 0 | 14 | 0 | 0 |
| 127 | 30 | 31 | 18 | 21 | 11 | 11 | 0 | 23 | 2 | 2 | 19 | 19 | 22 | 23 | 19 | 19 | 0 | 23 | 2 | 2 |
| 128 | 5 | 21 | 4 | 12 | 9 | 9 | 0 | 17 | 0 | 0 | 3 | 13 | 4 | 15 | 15 | 15 | 0 | 17 | 0 | 0 |
| 129 | 240 | 68 | 136 | 95 | 32 | 32 | 0 | 69 | 18 | 18 | 154 | 43 | 168 | 103 | 64 | 64 | 0 | 69 | 18 | 18 |
| 130 | 135 | 110 | 77 | 42 | 19 | 19 | 0 | 55 | 8 | 8 | 87 | 70 | 95 | 49 | 37 | 37 | 0 | 55 | 8 | 8 |
| 131 | 44 | 194 | 26 | 37 | 17 | 17 | 0 | 81 | 11 | 11 | 28 | 124 | 32 | 41 | 31 | 31 | 0 | 81 | 11 | 11 |
| 132 | 14 | 22 | 9 | 7 | 6 | 6 | 0 | 17 | 1 | 1 | 9 | 13 | 11 | 8 | 7 | 7 | 0 | 17 | 1 | 1 |
| 133 | 34 | 364 | 20 | 16 | 8 | 8 | 0 | 133 | 16 | 16 | 22 | 234 | 24 | 17 | 12 | 12 | 0 | 136 | 16 | 16 |
| 134 | 210 | 42 | 119 | 56 | 23 | 23 | 0 | 38 | 8 | 8 | 135 | 26 | 147 | 63 | 44 | 44 | 0 | 40 | 8 | 8 |
| 135 | 58 | 8 | 33 | 25 | 12 | 12 | 0 | 17 | 3 | 3 | 37 | 4 | 41 | 28 | 20 | 20 | 0 | 17 | 3 | 3 |
| 136 | 41 | 1 | 24 | 11 | 7 | 7 | 0 | 9 | 1 | 1 | 27 | 0 | 29 | 12 | 10 | 10 | 0 | 9 | 1 | 1 |

**Exhibit C-3**

Base Year (1990) AM and PM Peak Hour Productions and Attractions by TAZ

| | AM Peak | | | | | | | | | | PM Peak | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TAZ | HBW Prods | HBW Attrs | HBO Prods | HBO Attrs | NHB Prods | NHB Attrs | Ext Prods | Ext Attrs | Truck Prods | Truck Attrs | HBW Prods | HBW Attrs | HBO Prods | HBO Attrs | NHB Prods | NHB Attrs | Ext Prods | Ext Attrs | Truck Prods | Truck Attrs |
| 137 | 77 | 0 | 44 | 25 | 13 | 13 | 0 | 12 | 2 | 2 | 49 | 0 | 54 | 28 | 21 | 21 | 0 | 17 | 2 | 2 |
| 138 | 25 | 0 | 15 | 9 | 6 | 6 | 0 | 9 | 0 | 0 | 16 | 0 | 18 | 11 | 8 | 8 | 0 | 9 | 0 | 0 |
| 139 | 24 | 0 | 14 | 9 | 6 | 6 | 0 | 9 | 0 | 0 | 15 | 0 | 18 | 9 | 8 | 8 | 0 | 9 | 0 | 0 |
| 140 | 21 | 30 | 12 | 11 | 6 | 6 | 0 | 20 | 2 | 2 | 13 | 18 | 15 | 11 | 9 | 9 | 0 | 20 | 2 | 2 |
| 141 | 194 | 53 | 110 | 56 | 21 | 21 | 0 | 46 | 10 | 10 | 125 | 33 | 136 | 61 | 40 | 40 | 0 | 46 | 10 | 10 |
| 142 | 14 | 48 | 9 | 7 | 6 | 6 | 0 | 26 | 2 | 2 | 9 | 30 | 11 | 8 | 7 | 7 | 0 | 26 | 2 | 2 |
| 143 | 35 | 54 | 21 | 39 | 21 | 21 | 0 | 29 | 3 | 3 | 23 | 34 | 25 | 48 | 43 | 43 | 0 | 29 | 3 | 3 |
| 144 | 147 | 88 | 84 | 78 | 35 | 35 | 0 | 52 | 9 | 9 | 95 | 56 | 103 | 91 | 70 | 70 | 0 | 52 | 9 | 9 |
| 145 | 0 | 52 | 1 | 49 | 29 | 29 | 0 | 26 | 1 | 1 | 0 | 33 | 1 | 63 | 58 | 58 | 0 | 26 | 1 | 1 |
| 146 | 173 | 4 | 98 | 41 | 15 | 15 | 0 | 26 | 6 | 6 | 111 | 2 | 121 | 43 | 27 | 27 | 0 | 26 | 6 | 6 |
| 147 | 38 | 84 | 22 | 65 | 40 | 40 | 0 | 38 | 4 | 4 | 25 | 53 | 28 | 80 | 71 | 71 | 0 | 40 | 4 | 4 |
| 148 | 0 | 62 | 1 | 106 | 41 | 41 | 0 | 29 | 2 | 2 | 0 | 39 | 1 | 224 | 113 | 113 | 0 | 29 | 2 | 2 |
| 149 | 95 | 0 | 54 | 28 | 11 | 11 | 0 | 20 | 4 | 4 | 61 | 0 | 67 | 29 | 19 | 19 | 0 | 20 | 4 | 4 |
| 150 | 46 | 0 | 27 | 16 | 8 | 8 | 0 | 12 | 2 | 2 | 30 | 0 | 33 | 17 | 12 | 12 | 0 | 14 | 2 | 2 |
| 151 | 119 | 8 | 68 | 34 | 14 | 14 | 0 | 23 | 4 | 4 | 77 | 4 | 84 | 35 | 25 | 25 | 0 | 23 | 4 | 4 |
| 152 | 117 | 66 | 67 | 72 | 35 | 35 | 0 | 43 | 6 | 6 | 75 | 42 | 82 | 88 | 71 | 71 | 0 | 43 | 6 | 6 |
| 153 | 62 | 0 | 36 | 19 | 9 | 9 | 0 | 12 | 2 | 2 | 40 | 0 | 44 | 20 | 14 | 14 | 0 | 14 | 2 | 2 |
| 154 | 8 | 0 | 5 | 5 | 5 | 5 | 0 | 6 | 0 | 0 | 5 | 0 | 6 | 6 | 6 | 6 | 0 | 6 | 0 | 0 |
| 155 | 59 | 0 | 34 | 18 | 8 | 8 | 0 | 12 | 2 | 2 | 38 | 0 | 42 | 18 | 13 | 13 | 0 | 14 | 2 | 2 |
| 156 | 0 | 0 | 1 | 4 | 5 | 5 | 0 | 6 | 0 | 0 | 0 | 0 | 1 | 5 | 5 | 5 | 0 | 6 | 0 | 0 |
| 157 | 68 | 21 | 39 | 23 | 11 | 11 | 0 | 23 | 3 | 3 | 43 | 13 | 48 | 26 | 19 | 19 | 0 | 23 | 3 | 3 |
| 158 | 4 | 0 | 3 | 5 | 5 | 5 | 0 | 6 | 0 | 0 | 2 | 0 | 3 | 5 | 5 | 5 | 0 | 6 | 0 | 0 |
| 159 | 54 | 0 | 31 | 14 | 7 | 7 | 0 | 9 | 1 | 1 | 35 | 0 | 39 | 15 | 11 | 11 | 0 | 9 | 1 | 1 |
| 160 | 225 | 564 | 128 | 26 | 13 | 13 | 0 | 205 | 25 | 25 | 44 | 363 | 157 | 29 | 21 | 21 | 0 | 208 | 25 | 25 |
| 161 | 71 | 13 | 41 | 37 | 15 | 15 | 0 | 23 | 4 | 4 | 45 | 8 | 50 | 40 | 29 | 29 | 0 | 23 | 4 | 4 |
| 162 | 87 | 65 | 50 | 53 | 27 | 27 | 0 | 38 | 6 | 6 | 56 | 41 | 62 | 63 | 52 | 52 | 0 | 40 | 6 | 6 |
| 163 | 24 | 0 | 14 | 12 | 7 | 7 | 0 | 9 | 0 | 0 | 15 | 0 | 17 | 14 | 11 | 11 | 0 | 9 | 0 | 0 |
| 164 | 92 | 8 | 53 | 25 | 11 | 11 | 0 | 20 | 3 | 3 | 59 | 4 | 65 | 26 | 18 | 18 | 0 | 20 | 3 | 3 |
| 165 | 30 | 0 | 18 | 11 | 7 | 7 | 0 | 9 | 1 | 1 | 20 | 0 | 22 | 12 | 9 | 9 | 0 | 9 | 1 | 1 |
| 166 | 59 | 2 | 34 | 14 | 8 | 8 | 0 | 9 | 1 | 1 | 38 | 0 | 42 | 15 | 12 | 12 | 0 | 9 | 1 | 1 |
| 167 | 13 | 1 | 8 | 7 | 6 | 6 | 0 | 9 | 0 | 0 | 8 | 0 | 10 | 8 | 7 | 7 | 0 | 9 | 0 | 0 |
| 168 | 19 | 12 | 12 | 21 | 13 | 13 | 0 | 12 | 0 | 0 | 12 | 7 | 14 | 25 | 22 | 22 | 0 | 14 | 0 | 0 |
| 169 | 34 | 3 | 20 | 18 | 10 | 10 | 0 | 12 | 1 | 1 | 22 | 1 | 24 | 20 | 15 | 15 | 0 | 14 | 1 | 1 |
| 170 | 26 | 4 | 15 | 11 | 7 | 7 | 0 | 12 | 1 | 1 | 17 | 2 | 19 | 12 | 9 | 9 | 0 | 14 | 1 | 1 |

**Exhibit C-3**

Base Year (1990) AM and PM Peak Hour Productions and Attractions by TAZ

| | AM Peak | | | | | | | | | | PM Peak | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TAZ | HBW Prods | HBW Attrs | HBO Prods | HBO Attrs | NHB Prods | NHB Attrs | Ext Prods | Ext Attrs | Truck Prods | Truck Attrs | HBW Prods | HBW Attrs | HBO Prods | HBO Attrs | NHB Prods | NHB Attrs | Ext Prods | Ext Attrs | Truck Prods | Truck Attrs |
| 171 | 24 | 0 | 14 | 9 | 6 | 6 | 0 | 9 | 0 | 0 | 15 | 0 | 17 | 11 | 8 | 8 | 0 | 9 | 0 | 0 |
| 172 | 71 | 0 | 41 | 21 | 9 | 9 | 0 | 17 | 2 | 2 | 46 | 0 | 50 | 23 | 15 | 15 | 0 | 17 | 2 | 2 |
| 173 | 26 | 0 | 15 | 9 | 6 | 6 | 0 | 9 | 0 | 0 | 17 | 0 | 19 | 11 | 9 | 9 | 0 | 9 | 0 | 0 |
| 174 | 227 | 104 | 129 | 118 | 53 | 53 | 0 | 64 | 12 | 12 | 146 | 66 | 159 | 140 | 111 | 111 | 0 | 66 | 12 | 12 |
| 175 | 115 | 31 | 66 | 34 | 14 | 14 | 0 | 29 | 5 | 5 | 74 | 19 | 81 | 37 | 25 | 25 | 0 | 29 | 5 | 5 |
| 176 | 7 | 0 | 4 | 5 | 5 | 5 | 0 | 6 | 0 | 0 | 4 | 0 | 5 | 6 | 6 | 6 | 0 | 6 | 0 | 0 |
| 177 | 49 | 0 | 28 | 16 | 8 | 8 | 0 | 12 | 1 | 1 | 31 | 0 | 35 | 17 | 12 | 12 | 0 | 14 | 1 | 1 |
| 178 | 9 | 1 | 6 | 7 | 6 | 6 | 0 | 6 | 0 | 0 | 6 | 0 | 7 | 8 | 7 | 7 | 0 | 6 | 0 | 0 |
| 179 | 12 | 0 | 7 | 7 | 6 | 6 | 0 | 6 | 0 | 0 | 8 | 0 | 9 | 8 | 7 | 7 | 0 | 6 | 0 | 0 |
| 180 | 10 | 0 | 7 | 5 | 5 | 5 | 0 | 6 | 0 | 0 | 7 | 0 | 8 | 6 | 6 | 6 | 0 | 6 | 0 | 0 |
| 181 | 47 | 0 | 27 | 16 | 8 | 8 | 0 | 12 | 2 | 2 | 30 | 0 | 33 | 17 | 12 | 12 | 0 | 14 | 2 | 2 |
| 182 | 85 | 2 | 49 | 26 | 11 | 11 | 0 | 20 | 3 | 3 | 54 | 1 | 60 | 29 | 20 | 20 | 0 | 20 | 3 | 3 |
| 183 | 76 | 0 | 44 | 19 | 9 | 9 | 0 | 12 | 2 | 2 | 49 | 0 | 54 | 21 | 15 | 15 | 0 | 14 | 2 | 2 |
| 184 | 101 | 9 | 58 | 28 | 12 | 12 | 0 | 23 | 4 | 4 | 65 | 5 | 71 | 31 | 20 | 20 | 0 | 23 | 4 | 4 |
| 185 | 92 | 40 | 53 | 42 | 20 | 20 | 0 | 29 | 5 | 5 | 59 | 25 | 65 | 49 | 38 | 38 | 0 | 29 | 5 | 5 |
| 186 | 23 | 1 | 14 | 9 | 6 | 6 | 0 | 9 | 0 | 0 | 15 | 0 | 17 | 11 | 9 | 9 | 0 | 9 | 0 | 0 |
| 187 | 18 | 33 | 11 | 9 | 6 | 6 | 0 | 20 | 1 | 1 | 11 | 20 | 13 | 11 | 9 | 9 | 0 | 20 | 1 | 1 |
| 188 | 48 | 22 | 28 | 21 | 12 | 12 | 0 | 20 | 2 | 2 | 31 | 13 | 34 | 25 | 20 | 20 | 0 | 20 | 2 | 2 |
| 189 | 98 | 82 | 56 | 41 | 20 | 20 | 0 | 46 | 7 | 7 | 63 | 52 | 69 | 46 | 35 | 35 | 0 | 46 | 7 | 7 |
| 190 | 51 | 85 | 30 | 28 | 15 | 15 | 0 | 43 | 5 | 5 | 33 | 54 | 36 | 34 | 28 | 28 | 0 | 43 | 5 | 5 |
| 191 | 52 | 7 | 30 | 16 | 8 | 8 | 0 | 12 | 1 | 1 | 34 | 4 | 37 | 17 | 12 | 12 | 0 | 14 | 1 | 1 |
| 192 | 286 | 11 | 162 | 56 | 19 | 19 | 0 | 35 | 9 | 9 | 184 | 6 | 200 | 60 | 37 | 37 | 0 | 35 | 9 | 9 |
| 193 | 259 | 262 | 147 | 125 | 65 | 65 | 0 | 121 | 20 | 20 | 166 | 168 | 181 | 144 | 123 | 123 | 0 | 124 | 20 | 20 |
| 194 | 91 | 97 | 52 | 44 | 20 | 20 | 0 | 49 | 7 | 7 | 58 | 61 | 64 | 51 | 39 | 39 | 0 | 52 | 7 | 7 |
| 195 | 179 | 13 | 102 | 44 | 17 | 17 | 0 | 29 | 6 | 6 | 115 | 7 | 125 | 48 | 32 | 32 | 0 | 29 | 6 | 6 |
| 196 | 374 | 20 | 212 | 86 | 28 | 28 | 0 | 49 | 14 | 14 | 240 | 12 | 261 | 92 | 57 | 57 | 0 | 49 | 14 | 14 |
| 197 | 19 | 0 | 11 | 9 | 6 | 6 | 0 | 9 | 0 | 0 | 12 | 0 | 14 | 9 | 8 | 8 | 0 | 9 | 0 | 0 |
| 198 | 25 | 0 | 15 | 11 | 7 | 7 | 0 | 9 | 0 | 0 | 16 | 0 | 18 | 11 | 9 | 9 | 0 | 9 | 0 | 0 |
| 199 | 19 | 0 | 12 | 9 | 6 | 6 | 0 | 9 | 0 | 0 | 12 | 0 | 14 | 9 | 8 | 8 | 0 | 9 | 0 | 0 |
| 200 | 7 | 0 | 5 | 5 | 5 | 5 | 0 | 6 | 0 | 0 | 4 | 0 | 6 | 6 | 6 | 6 | 0 | 6 | 0 | 0 |
| 201 | 7 | 0 | 5 | 7 | 6 | 6 | 0 | 6 | 0 | 0 | 5 | 0 | 6 | 8 | 7 | 7 | 0 | 6 | 0 | 0 |
| 202 | 13 | 0 | 8 | 7 | 5 | 5 | 0 | 6 | 0 | 0 | 8 | 0 | 10 | 8 | 6 | 6 | 0 | 6 | 0 | 0 |
| 203 | 39 | 0 | 23 | 11 | 7 | 7 | 0 | 9 | 0 | 0 | 25 | 0 | 28 | 12 | 9 | 9 | 0 | 9 | 0 | 0 |
| 204 | 111 | 257 | 64 | 83 | 40 | 40 | 0 | 107 | 14 | 14 | 72 | 165 | 78 | 100 | 82 | 82 | 0 | 107 | 14 | 14 |

**Exhibit C-3**

Base Year (1990) AM and PM Peak Hour Productions and Attractions by TAZ

| | AM Peak | | | | | | | | | | PM Peak | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TAZ | HBW Prods | HBW Attrs | HBO Prods | HBO Attrs | NHB Prods | NHB Attrs | Ext Prods | Ext Attrs | Truck Prods | Truck Attrs | HBW Prods | HBW Attrs | HBO Prods | HBO Attrs | NHB Prods | NHB Attrs | Ext Prods | Ext Attrs | Truck Prods | Truck Attrs |
| 205 | 31 | 6 | 18 | 11 | 6 | 6 | 0 | 12 | 1 | 1 | 20 | 3 | 22 | 11 | 9 | 9 | 0 | 14 | 1 | 1 |
| 206 | 0 | 705 | 1 | 4 | 5 | 5 | 0 | 243 | 27 | 27 | 0 | 454 | 1 | 5 | 5 | 5 | 0 | 243 | 27 | 27 |
| 207 | 44 | 12 | 26 | 12 | 7 | 7 | 0 | 17 | 1 | 1 | 28 | 7 | 32 | 14 | 16 | 16 | 0 | 17 | 1 | 1 |
| 208 | 129 | 6 | 74 | 37 | 15 | 15 | 0 | 23 | 5 | 5 | 83 | 3 | 91 | 40 | 27 | 27 | 0 | 23 | 5 | 5 |
| 209 | 49 | 36 | 28 | 18 | 11 | 11 | 0 | 23 | 3 | 3 | 31 | 23 | 35 | 20 | 16 | 16 | 0 | 23 | 3 | 3 |
| 210 | 13 | 5 | 8 | 9 | 6 | 6 | 0 | 9 | 0 | 0 | 8 | 2 | 10 | 9 | 9 | 9 | 0 | 9 | 0 | 0 |
| 211 | 18 | 0 | 11 | 9 | 6 | 6 | 0 | 9 | 0 | 0 | 11 | 0 | 13 | 9 | 8 | 8 | 0 | 9 | 0 | 0 |
| 212 | 12 | 0 | 8 | 7 | 6 | 6 | 0 | 6 | 0 | 0 | 8 | 0 | 9 | 8 | 7 | 7 | 0 | 6 | 0 | 0 |
| 213 | 13 | 0 | 8 | 7 | 6 | 6 | 0 | 6 | 0 | 0 | 9 | 0 | 10 | 8 | 7 | 7 | 0 | 6 | 0 | 0 |
| 214 | 69 | 15 | 40 | 21 | 12 | 12 | 0 | 20 | 2 | 2 | 44 | 9 | 49 | 23 | 18 | 18 | 0 | 20 | 2 | 2 |
| 215 | 17 | 0 | 10 | 7 | 6 | 6 | 0 | 9 | 0 | 0 | 11 | 0 | 13 | 9 | 7 | 7 | 0 | 9 | 0 | 0 |
| 216 | 84 | 0 | 48 | 23 | 10 | 10 | 0 | 17 | 2 | 2 | 54 | 0 | 59 | 25 | 17 | 17 | 0 | 17 | 2 | 2 |
| 217 | 37 | 0 | 21 | 12 | 7 | 7 | 0 | 9 | 1 | 1 | 24 | 0 | 26 | 14 | 10 | 10 | 0 | 9 | 1 | 1 |
| 218 | 81 | 0 | 46 | 26 | 11 | 11 | 0 | 17 | 3 | 3 | 52 | 0 | 57 | 29 | 19 | 19 | 0 | 17 | 3 | 3 |
| 219 | 41 | 139 | 24 | 32 | 16 | 16 | 0 | 58 | 7 | 7 | 26 | 89 | 29 | 37 | 43 | 43 | 0 | 58 | 7 | 7 |
| 220 | 18 | 7 | 11 | 14 | 11 | 11 | 0 | 12 | 0 | 0 | 11 | 4 | 13 | 15 | 14 | 14 | 0 | 14 | 0 | 0 |
| 221 | 7 | 87 | 4 | 12 | 11 | 11 | 0 | 35 | 3 | 3 | 4 | 55 | 5 | 15 | 11 | 11 | 0 | 35 | 3 | 3 |
| 222 | 21 | 23 | 13 | 9 | 6 | 6 | 0 | 17 | 1 | 1 | 14 | 14 | 16 | 9 | 8 | 8 | 0 | 17 | 1 | 1 |
| 223 | 43 | 0 | 25 | 12 | 7 | 7 | 0 | 9 | 1 | 1 | 28 | 0 | 31 | 14 | 10 | 10 | 0 | 9 | 1 | 1 |
| 224 | 41 | 43 | 24 | 28 | 15 | 15 | 0 | 26 | 3 | 3 | 26 | 27 | 29 | 32 | 27 | 27 | 0 | 26 | 3 | 3 |
| 225 | 89 | 96 | 51 | 69 | 35 | 35 | 0 | 49 | 7 | 7 | 57 | 61 | 63 | 84 | 70 | 70 | 0 | 49 | 7 | 7 |
| 226 | 148 | 6 | 84 | 37 | 14 | 14 | 0 | 23 | 5 | 5 | 95 | 3 | 104 | 38 | 25 | 25 | 0 | 23 | 5 | 5 |
| 227 | 6 | 0 | 4 | 5 | 5 | 5 | 0 | 6 | 0 | 0 | 4 | 0 | 5 | 6 | 6 | 6 | 0 | 6 | 0 | 0 |
| 228 | 116 | 31 | 67 | 37 | 21 | 21 | 0 | 29 | 5 | 5 | 75 | 19 | 82 | 40 | 19 | 19 | 0 | 29 | 5 | 5 |
| 229 | 31 | 36 | 19 | 11 | 6 | 6 | 0 | 23 | 2 | 2 | 20 | 22 | 23 | 11 | 9 | 9 | 0 | 23 | 2 | 2 |
| 230 | 31 | 0 | 18 | 11 | 6 | 6 | 0 | 9 | 0 | 0 | 20 | 0 | 23 | 11 | 9 | 9 | 0 | 9 | 0 | 0 |
| 231 | 70 | 0 | 40 | 19 | 9 | 9 | 0 | 12 | 2 | 2 | 45 | 0 | 49 | 20 | 14 | 14 | 0 | 14 | 2 | 2 |
| 232 | 31 | 0 | 18 | 11 | 7 | 7 | 0 | 9 | 0 | 0 | 20 | 0 | 22 | 12 | 9 | 9 | 0 | 9 | 0 | 0 |
| 233 | 10 | 0 | 6 | 5 | 5 | 5 | 0 | 6 | 0 | 0 | 6 | 0 | 8 | 6 | 6 | 6 | 0 | 6 | 0 | 0 |
| 234 | 123 | 8 | 70 | 23 | 10 | 10 | 0 | 20 | 3 | 3 | 79 | 4 | 86 | 25 | 17 | 17 | 0 | 20 | 3 | 3 |
| 235 | 35 | 0 | 20 | 11 | 7 | 7 | 0 | 9 | 1 | 1 | 22 | 0 | 25 | 12 | 9 | 9 | 0 | 9 | 1 | 1 |
| 236 | 0 | 0 | 0 | 0 | 5 | 5 | 172 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 230 | 0 | 0 | 0 |
| 237 | 0 | 0 | 0 | 0 | 5 | 5 | 1207 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1207 | 0 | 0 | 0 |
| 238 | 0 | 0 | 0 | 0 | 5 | 5 | 16 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 234 | 0 | 0 | 0 |

**Exhibit C-3**

Base Year (1990) AM and PM Peak Hour Productions and Attractions by TAZ

| | AM Peak | | | | | | | | | | PM Peak | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TAZ | HBW Prods | HBW Attrs | HBO Prods | HBO Attrs | NHB Prods | NHB Attrs | Ext Prods | Ext Attrs | Truck Prods | Truck Attrs | HBW Prods | HBW Attrs | HBO Prods | HBO Attrs | NHB Prods | NHB Attrs | Ext Prods | Ext Attrs | Truck Prods | Truck Attrs |
| 239 | 0 | 0 | 0 | 0 | 5 | 5 | 995 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1211 | 0 | 0 | 0 |
| 240 | 0 | 0 | 0 | 0 | 5 | 5 | 502 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 298 | 0 | 0 | 0 |
| 241 | 0 | 0 | 0 | 0 | 5 | 5 | 212 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 344 | 0 | 0 | 0 |
| 242 | 0 | 0 | 0 | 0 | 5 | 5 | 1400 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1158 | 0 | 0 | 0 |
| 243 | 0 | 0 | 0 | 0 | 5 | 5 | 66 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 308 | 0 | 0 | 0 |
| 244 | 0 | 0 | 0 | 0 | 5 | 5 | 92 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 348 | 0 | 0 | 0 |
| 245 | 0 | 0 | 0 | 0 | 5 | 5 | 941 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 867 | 0 | 0 | 0 |
| 246 | 0 | 0 | 0 | 0 | 5 | 5 | 351 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1093 | 0 | 0 | 0 |
| 247 | 0 | 0 | 0 | 0 | 5 | 5 | 66 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 58 | 0 | 0 | 0 |
| 248 | 0 | 0 | 0 | 0 | 5 | 5 | 131 | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 269 | 0 | 0 | 0 |

**Abbreviations**: HBW=Home-based work, HBO=Home-based other, NHB=Non-home-based, Ext=External to internal or vice versa, Prods=Productions, Attrs=Attractions

The trip generation parameters described above were initially adjusted from the previous model based on the telephone surveys performed for this study. Further adjustments were made during the calibration process based on comparisons of the overall regional travel as predicted by the model and the actual regional travel as determined from existing count data. These comparisons were possible because 1990 count data was entered for each link in the network. (allowing a system-wide value for vehicle-miles traveled to be calculated). Exhibit C-4 shows the actual and model-predicted system-wide vehicle-miles-traveled (VMT) based on use of the trip generation parameters shown above. Note that the model-predicted VMT is based on distributing the calculated trips using the friction factors derived from the home interview surveys performed for this study (the distribution process is described in more detail in the next section).

**Exhibit C-4**
Actual and Predicted Vehicle-Miles Traveled (VMT)

| Time Period | VMT Based on Counts | Model-Predicted VMT | Percent Difference |
|---|---|---|---|
| AM Peak | 210,949 | 222,016 | 5.2% |
| PM Peak | 227,087 | 229,205 | 0.9% |

## C.3 Trip Distribution

While the trip generation process determines the total number of trips starting and ending in each TAZ, determining the origin and destination for each trip requires the process of trip distribution. The products of the trip distribution process are trip tables by trip purpose. The trip distribution process is shown in Exhibit C-5. External trips were developed based on VDOT surveys. Internal trips were developed using the gravity model. The gravity model is based on the principle of vehicular travelers making the shortest trip possible, and it is affected by the relative number of destinations of zones in the study area. For example, if two zones have the same number of destinations and one is closer than the other to the zone producing trips, the trip table will produce a larger number of trips traveling to the closer zone. Friction factors adjust this tendency, forcing some trips to be longer based on the knowledge that, within a particular area, trips tend to be longer than can be explained by a routing to the closest zone. Using the example above, a large friction factor for a shorter trip would result in more trips going to the zone that is further away. The benefit of using a telephone survey as the basis for developing friction factors is that both the average trip length and the distribution of trip lengths can be used to adjust the parameters of the gravity model so that it can replicate the pattern of trip lengths for a particular region. The friction factor curves developed for this study based on the telephone surveys are shown in Exhibit C-6.

In addition to friction factors, the gravity model requires as inputs travel times between zones and total productions and attractions for each zone. The ability of the gravity model to predict actual travel patterns is judged by comparing actual traffic counts across selected screenlines against what the gravity model predicts crosses those same screenlines. Eleven screenlines were developed for the Lynchburg area for use in assessing the effectiveness of the gravity model in replicating actual traffic. These screenlines are shown in Exhibit C-7.

**Exhibit C-5**
Trip Table Development Process

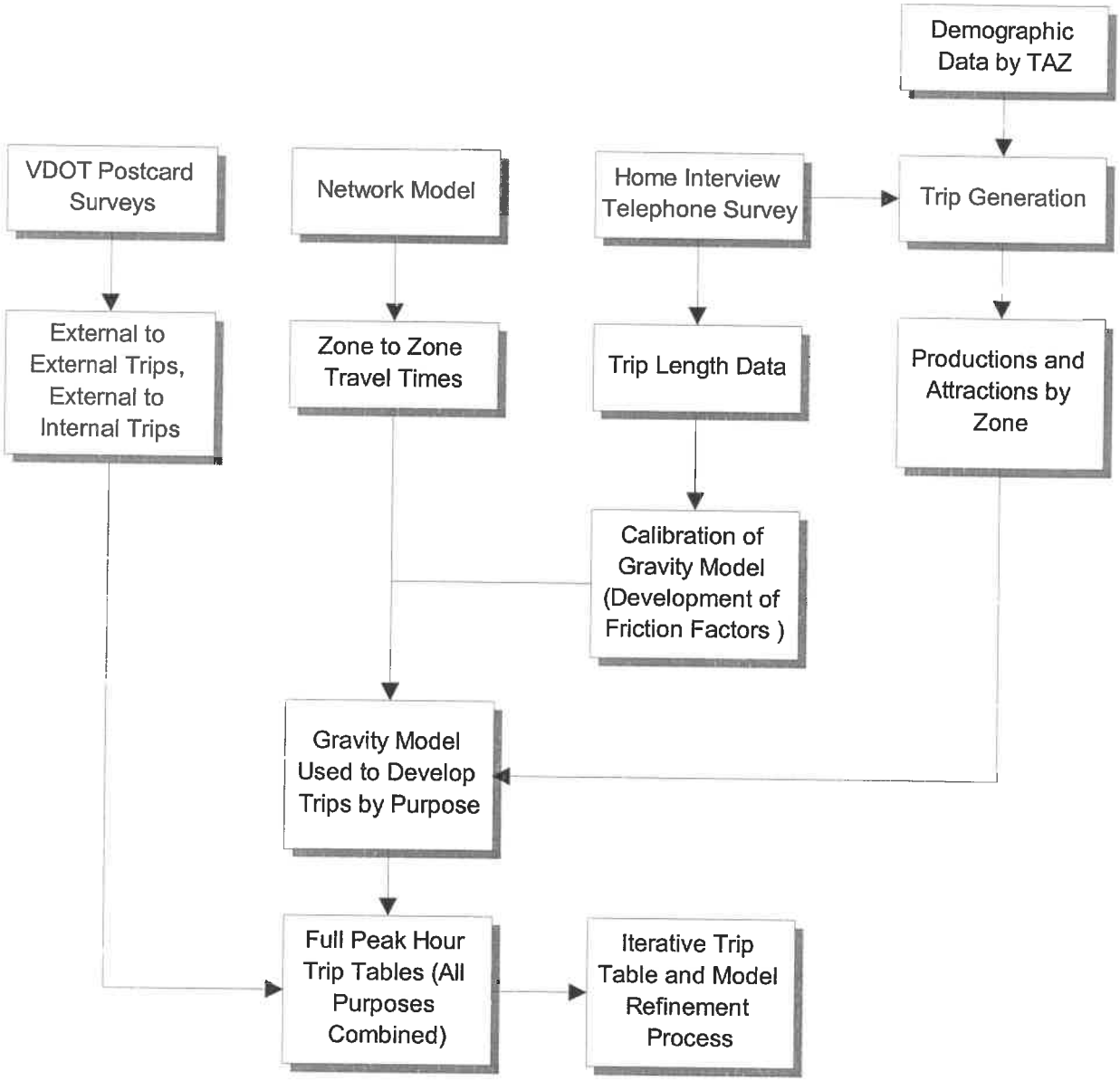


**Exhibit C-6**
Friction Factors

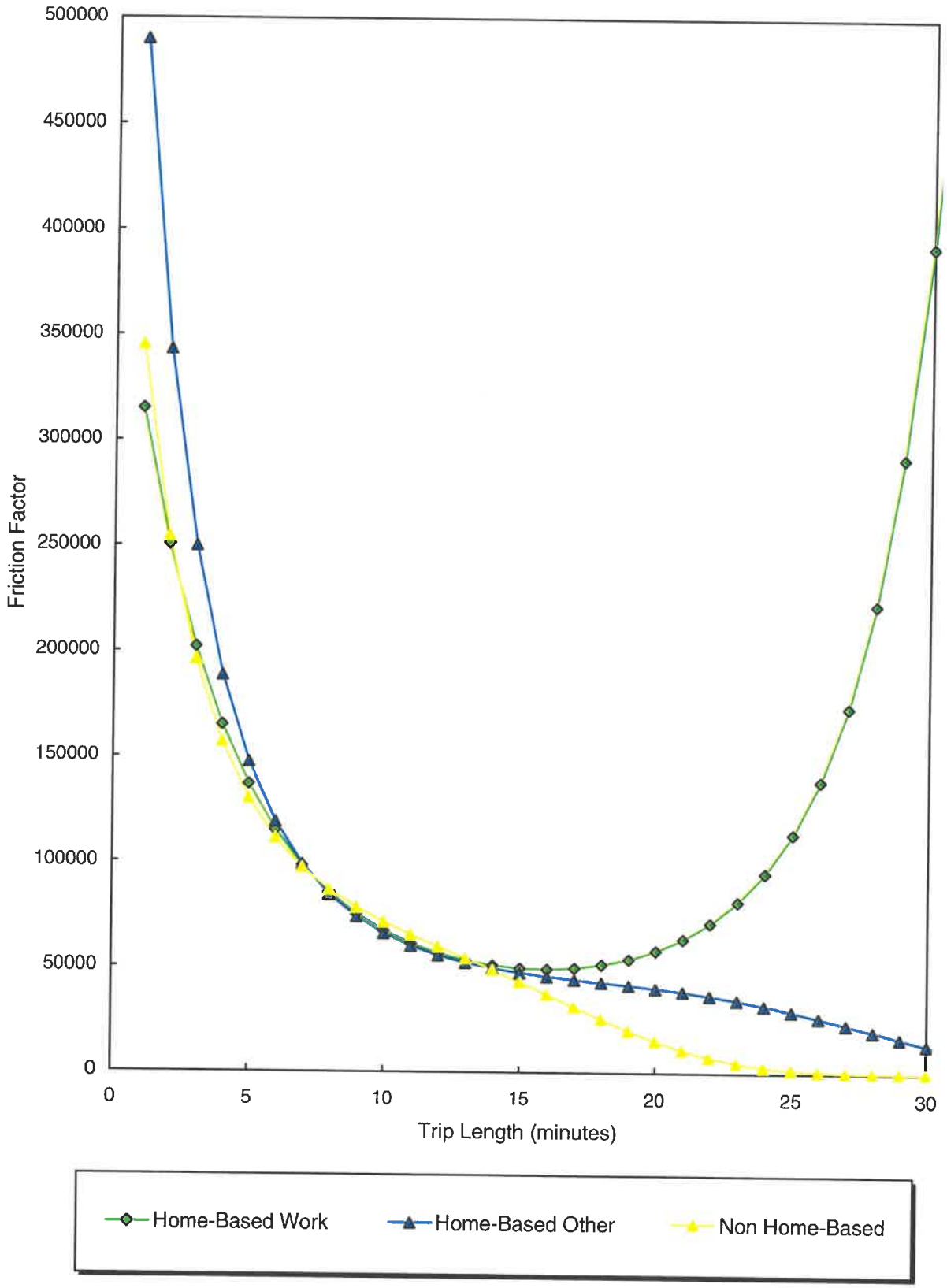


Exhibit C-8 shows the traffic counts across each screenline, the volumes predicted by the gravity model, and ratio of these two values. The goal for the gravity model trip distribution was to match actual counts at each screenline to within 10 percent (ratio between 0.90 and 1.10).

**Exhibit C-8**
Screenline Comparisons

| | AM Peak Volumes * | | | PM Peak Volumes * | | |
|---|---|---|---|---|---|---|
| Screenline Number and Description | Count | Model | Ratio | Model | Count | Ratio |
| 1 – Crosstown | 8227 | 7901 | 1.04 | 7732 | 8350 | 0.93 |
| 2 – James River Bridges | 4323 | 4629 | 0.93 | 4388 | 4008 | 1.09 |
| 3 – Amherst County | 4172 | 4553 | 0.92 | 3581 | 3270 | 1.10 |
| 4 – Campbell County | 9692 | 9841 | 0.98 | 11091 | 10807 | 1.03 |
| 5 – Lynchburg West | 3921 | 3685 | 1.06 | 3205 | 3459 | 0.93 |
| 6 – Lynchburg South | 7737 | 7786 | 0.99 | 8394 | 8764 | 0.96 |
| 7 – Rivermont | 2485 | 2417 | 1.03 | 2771 | 3187 | 0.87 |
| 8 – Lynchburg East | 1877 | 1867 | 1.01 | 1720 | 1880 | 0.91 |
| 9 – Lynchburg Central | 9647 | 10318 | 0.93 | 9636 | 9879 | 0.98 |
| 10 – Central Business District Loop | 5712 | 5394 | 1.06 | 5440 | 5280 | 1.03 |
| 11 – Lynchburg Northwest | 1805 | 1639 | 1.10 | 1553 | 1515 | 1.03 |
| * -- Total of traffic volume crossing screenline in both directions. | | | | | | |

Once the gravity model was developed to meet these validation specifications at the screenline level, the next step was to ensure that the model replicates existing traffic volumes at the individual link level. For this study, the goal was a high level of link volume replication: assigned link volumes on all principal and minor arterials should match counts to within +/-100 vehicles or 10 percent, whichever is less. Fine-tuning of the trip tables that were generated by the gravity model was required to achieve these validation goals. The process used for this trip table fine-tuning was a matrix estimation process. The matrix estimation algorithm modifies a matrix (in this case, a trip table) to meet a given requirement (in this case, to match link volumes). The Fast Matrix Calibration (FMC) software, which functions as a module in the TRANPLAN modeling software environment, was used for the matrix estimation in this study. As indicated earlier, the p.m. peak hour carries the highest traffic volumes of the day and was used for all analysis. The matrix estimation process to refine the base year trip table was, therefore, applied to the p.m. peak hour.

FMC works with a single matrix and allows count data on up to 450 one-way links to be used to guide the modification of the matrix for any given run. The single matrix was created by combining all five trip purposes plus the external trip table into a single p.m. peak hour trip table. Since the regional model includes 990 two-way links and eight one-way links (a total of 1988 one-way links), a subset of links was used for any given run to modify the trip table. The process used was to identify those links where the assigned volume was the most different from the actual count and use those as input for FMC. Traffic flows and geographic coverage were also considered in selecting links for each FMC run.

A total of 61 FMC runs were performed to develop the final base year p.m. peak hour trip table. This trip table is included on the attached CD as BASEPM.TRP.

## C.4 Assignment

The final step in the modeling process is the assignment of the trip table to the network. Trips are assigned to the network based on the assumption that motorists will take the shortest route between origin and destination. This model utilized a four-step assignment process whereby a portion of the trip table is assigned based on shortest time paths, travel times on all links are then recalculated based on the amount of traffic on the links, and then an additional portion of the trip table is assigned on the revised shortest time paths. The trip table was assigned in four steps with 50 percent loaded in the first iteration, 20 percent loaded in the second iteration, another 20 percent loaded in the third iteration, and the final 10 percent loaded in the fourth iteration. After each iteration, travel time on network links was recalculated based on the curves shown in Exhibit C-9.

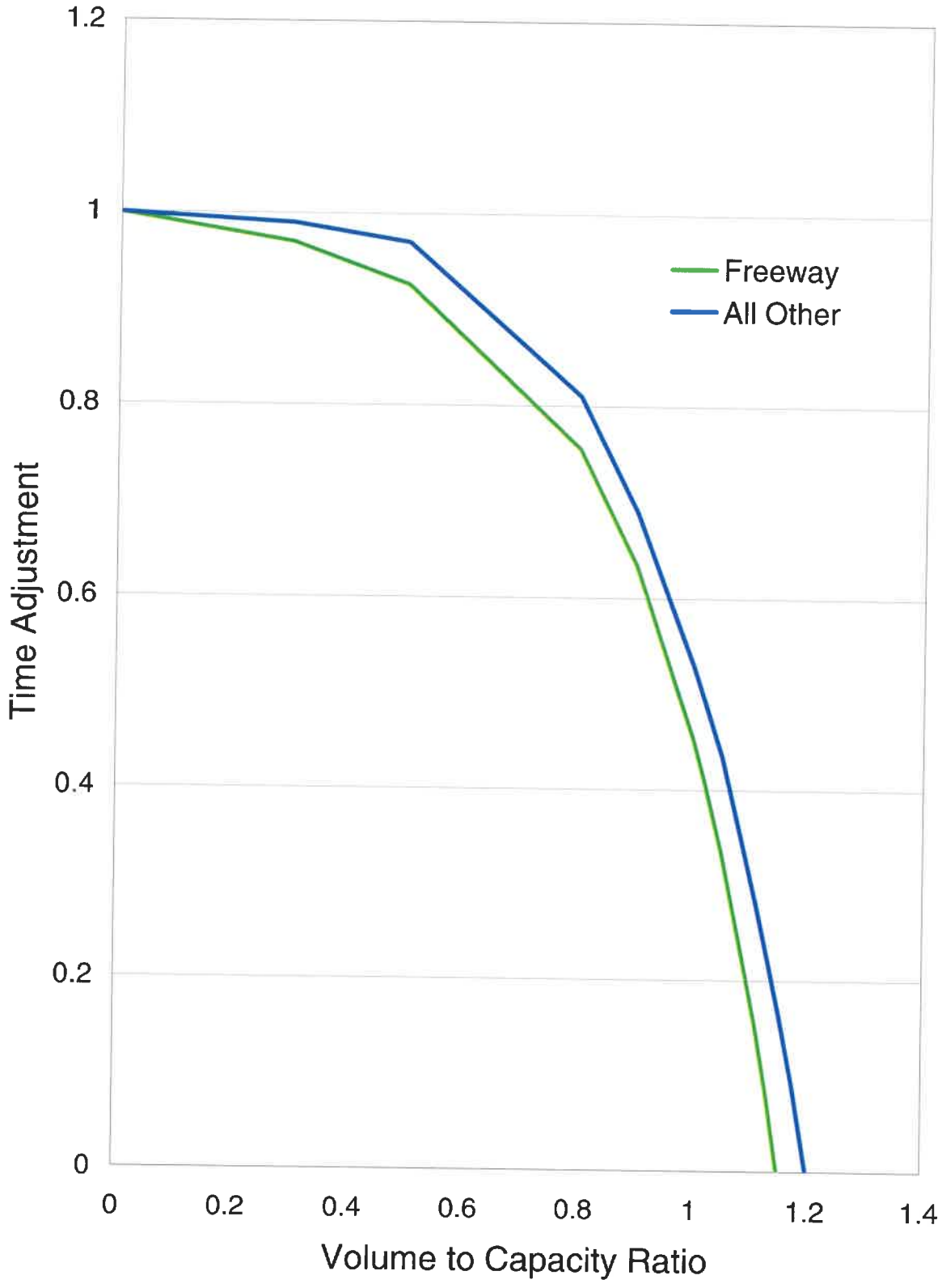
The final p.m. peak hour model calibration assignment matched actual network vehicle-miles traveled to within 5 percent. As shown in Exhibit C-8, all screenlines were matched to within 10 percent, with the exception of the Rivermont screenline which was within 15 percent. Overall model performance in terms of matching actual travel conditions was measured by calculating the percent root mean square error for all expressways, principal arterials, and minor arterials. In general, a percent root mean square error of 30 percent or lower is considered acceptable. The percent root mean square error for the Lynchburg p.m. peak hour model is 25.38 percent. The following lists the percent root mean square error by facility type:

- Expressway – 17.53 percent
- Urban Principal Arterial – 19.28 percent
- Rural Principal Arterial – 10.63 percent
- Urban Minor Arterial – 34.10 percent
- Rural Minor Arterial – 17.63

As a peak hour model, correct replication of overall direction distributions (i.e., matching peak travel into Lynchburg in the morning and out of Lynchburg in the afternoon) is important. The model replicated directionality on close to 90 percent of all links in the network. All of these statistics illustrate the good overall match between actual counts and the model assignment values. They also illustrate the difficulty that models have in replicating traffic on smaller roads in downtown areas (as evident by the urban minor arterial difference shown above). This is because the zone structure and limited number of centroid loading points on the network create large jumps in traffic volume whereas, in reality, traffic in denser urban areas loads at many individual driveways creating less drastic jumps in traffic volumes than models are able to replicate. At the next level of roadway (principal arterials) or in areas with less development density, models do a better job of replicating counts. As the statistics above show, the Lynchburg area model is no exception to these modeling constraints.

**Exhibit C-9**

Network Assignment Curves



## C.5 Modeling Validation Considerations

While the validation year for the Lynchburg model was 1990, the process of updating and validating the model occurred between mid-1999 and mid-2000. The telephone survey that was used to develop trip generation rates and trip length frequencies was performed in October 1998. Finally, origin-destination surveys that were used for reasonableness checks during the validation process were performed in 1999 and made available for use in the modeling process in early 2000. While the use of data across many years is not uncommon in the model development and maintenance process, the difference of nearly a decade between the count data that the model was being validated to replicate and some of the travel pattern data likely affected the results of the validation process. In addition, the scope of the validation process centered primarily on updating the previous model. The next major revision of the model should take a critical look at some of the structural aspects of the model such as zone loading points and the trip generation variables and equations, as well as make use of more current traffic count data for the validation process and improved data with respect to external trips.

## C.6 Future Year Modeling

With the conclusion of the base year model validation, the result was a calibrated trip table and a p.m. peak hour model. Future year modeling efforts included the development of a future year trip table and the testing of various future year roadway improvements.

The future year p.m. peak hour trip table for the Lynchburg model was developed using the FRATAR method of trip table expansion. This method uses estimates of growth in each TAZ and, based on an iterative balancing procedure, results in an expanded trip table. Since the basis for the future year trip table is a calibrated 1990 trip table, use of the FRATAR process allows for a high degree of confidence in the future year trip table. The trip table used for the FRATAR process was, therefore, the final base year modified trip table.

Demographic growth in each TAZ was developed by the Region 2000 Regional Commission in cooperation with planning staff in each of the local jurisdictions included in the model area (Lynchburg City, Amherst County, Bedford County, and Campbell County). This information is included in Appendix B and Exhibit C-2. The same trip generation process that was used for the base year was performed using the year 2025 demographic estimates. Trip ends (origins and destinations) were then compared against the base year trip ends to determine growth rates for each zone. Growth rates for external zones were determined based on analysis of historic traffic trends at these locations. These growth rates are shown in Exhibit C-10. Note in this exhibit that, for external zones, origins are trips going into the network and destinations are trips leaving the network.

The FRATAR trip table representing trip making for the year 2025 p.m. peak hour is included on the attached diskette as PM2025.TRP.

**Exhibit C-10**

PM Peak Hour FRATAR Factors

| Zone | 1990 | | 2025 | | FRATAR Factor | |
|---|---|---|---|---|---|---|
| | Origins | Destinations | Origins | Destinations | Origins | Destinations |
| 1 | 482 | 171 | 780 | 267 | 1.62 | 1.56 |
| 2 | 614 | 284 | 915 | 412 | 1.49 | 1.45 |
| 3 | 118 | 86 | 354 | 190 | 3.00 | 2.21 |
| 4 | 267 | 300 | 333 | 331 | 1.25 | 1.10 |
| 5 | 96 | 77 | 121 | 101 | 1.26 | 1.31 |
| 6 | 238 | 268 | 294 | 304 | 1.24 | 1.13 |
| 7 | 24 | 12 | 27 | 18 | 1.13 | 1.50 |
| 8 | 64 | 70 | 74 | 84 | 1.16 | 1.20 |
| 9 | 148 | 127 | 185 | 153 | 1.25 | 1.20 |
| 10 | 83 | 100 | 110 | 125 | 1.33 | 1.25 |
| 11 | 246 | 77 | 243 | 77 | 0.99 | 1.00 |
| 12 | 104 | 110 | 142 | 166 | 1.37 | 1.51 |
| 13 | 27 | 25 | 31 | 32 | 1.15 | 1.28 |
| 14 | 263 | 190 | 338 | 234 | 1.29 | 1.23 |
| 15 | 90 | 99 | 98 | 129 | 1.09 | 1.30 |
| 16 | 167 | 135 | 210 | 166 | 1.26 | 1.23 |
| 17 | 85 | 115 | 98 | 117 | 1.15 | 1.02 |
| 18 | 55 | 88 | 72 | 113 | 1.31 | 1.28 |
| 19 | 25 | 41 | 36 | 47 | 1.44 | 1.15 |
| 20 | 41 | 67 | 53 | 74 | 1.29 | 1.10 |
| 21 | 61 | 84 | 72 | 102 | 1.18 | 1.21 |
| 22 | 19 | 16 | 15 | 20 | 0.79 | 1.25 |
| 23 | 138 | 108 | 182 | 132 | 1.32 | 1.22 |
| 24 | 45 | 63 | 58 | 76 | 1.29 | 1.21 |
| 25 | 260 | 166 | 358 | 222 | 1.38 | 1.34 |
| 26 | 30 | 20 | 342 | 146 | 11.40 | 7.30 |
| 27 | 261 | 100 | 521 | 230 | 2.00 | 2.30 |
| 28 | 179 | 54 | 180 | 61 | 1.01 | 1.13 |
| 29 | 258 | 113 | 278 | 136 | 1.08 | 1.20 |
| 30 | 140 | 80 | 163 | 95 | 1.16 | 1.19 |
| 31 | 2091 | 1422 | 3058 | 2058 | 1.46 | 1.45 |
| 32 | 281 | 89 | 287 | 91 | 1.02 | 1.02 |
| 33 | 48 | 43 | 49 | 58 | 1.02 | 1.35 |
| 34 | 100 | 39 | 103 | 41 | 1.03 | 1.05 |
| 35 | 353 | 136 | 635 | 216 | 1.80 | 1.59 |
| 36 | 31 | 49 | 53 | 69 | 1.71 | 1.41 |
| 37 | 117 | 92 | 146 | 112 | 1.25 | 1.22 |
| 38 | 15 | 13 | 55 | 33 | 3.67 | 2.54 |
| 39 | 166 | 112 | 236 | 132 | 1.42 | 1.18 |
| 40 | 326 | 236 | 451 | 332 | 1.38 | 1.41 |
| 41 | 87 | 99 | 126 | 130 | 1.45 | 1.31 |
| 42 | 104 | 107 | 112 | 112 | 1.08 | 1.05 |
| 43 | 235 | 249 | 320 | 328 | 1.36 | 1.32 |
| 44 | 80 | 103 | 92 | 120 | 1.15 | 1.17 |
| 45 | 573 | 237 | 1660 | 587 | 2.90 | 2.48 |
| 46 | 351 | 260 | 797 | 427 | 2.27 | 1.64 |
| 47 | 211 | 165 | 522 | 272 | 2.47 | 1.65 |
| 48 | 288 | 406 | 373 | 511 | 1.30 | 1.26 |

**Exhibit C-10**
PM Peak Hour FRATAR Factors

| Zone | 1990 | | 2025 | | FRATAR Factor | |
|---|---|---|---|---|---|---|
| | Origins | Destinations | Origins | Destinations | Origins | Destinations |
| 49 | 89 | 66 | 106 | 70 | 1.19 | 1.06 |
| 50 | 41 | 66 | 47 | 80 | 1.15 | 1.21 |
| 51 | 192 | 211 | 248 | 274 | 1.29 | 1.30 |
| 52 | 118 | 219 | 159 | 264 | 1.35 | 1.21 |
| 53 | 53 | 94 | 66 | 112 | 1.25 | 1.19 |
| 54 | 153 | 232 | 185 | 286 | 1.21 | 1.23 |
| 55 | 138 | 231 | 157 | 281 | 1.14 | 1.22 |
| 56 | 118 | 128 | 160 | 181 | 1.36 | 1.41 |
| 57 | 186 | 127 | 258 | 154 | 1.39 | 1.21 |
| 58 | 92 | 77 | 113 | 94 | 1.23 | 1.22 |
| 59 | 185 | 209 | 223 | 235 | 1.21 | 1.12 |
| 60 | 12 | 21 | 18 | 22 | 1.50 | 1.05 |
| 61 | 94 | 89 | 129 | 125 | 1.37 | 1.40 |
| 62 | 61 | 66 | 68 | 81 | 1.11 | 1.23 |
| 63 | 21 | 19 | 18 | 21 | 0.86 | 1.11 |
| 64 | 185 | 167 | 226 | 197 | 1.22 | 1.18 |
| 65 | 109 | 133 | 146 | 149 | 1.34 | 1.12 |
| 66 | 114 | 52 | 148 | 80 | 1.30 | 1.54 |
| 67 | 406 | 247 | 569 | 347 | 1.40 | 1.40 |
| 68 | 105 | 76 | 157 | 111 | 1.50 | 1.46 |
| 69 | 42 | 64 | 56 | 75 | 1.33 | 1.17 |
| 70 | 85 | 60 | 112 | 75 | 1.32 | 1.25 |
| 71 | 43 | 34 | 67 | 52 | 1.56 | 1.53 |
| 72 | 107 | 59 | 142 | 87 | 1.33 | 1.47 |
| 73 | 58 | 73 | 67 | 83 | 1.16 | 1.14 |
| 74 | 270 | 465 | 498 | 920 | 1.84 | 1.98 |
| 75 | 104 | 148 | 120 | 167 | 1.15 | 1.13 |
| 76 | 147 | 145 | 180 | 170 | 1.22 | 1.17 |
| 77 | 116 | 212 | 131 | 254 | 1.13 | 1.20 |
| 78 | 16 | 16 | 15 | 15 | 0.94 | 0.94 |
| 79 | 106 | 122 | 122 | 166 | 1.15 | 1.36 |
| 80 | 192 | 308 | 227 | 373 | 1.18 | 1.21 |
| 81 | 46 | 82 | 60 | 106 | 1.30 | 1.29 |
| 82 | 134 | 128 | 168 | 162 | 1.25 | 1.27 |
| 83 | 165 | 241 | 207 | 281 | 1.25 | 1.17 |
| 84 | 20 | 11 | 17 | 11 | 0.85 | 1.00 |
| 85 | 97 | 77 | 123 | 95 | 1.27 | 1.23 |
| 86 | 79 | 126 | 98 | 153 | 1.24 | 1.21 |
| 87 | 75 | 115 | 92 | 144 | 1.23 | 1.25 |
| 88 | 361 | 256 | 931 | 472 | 2.58 | 1.84 |
| 89 | 199 | 284 | 336 | 398 | 1.69 | 1.40 |
| 90 | 149 | 293 | 181 | 338 | 1.21 | 1.15 |
| 91 | 150 | 86 | 203 | 122 | 1.35 | 1.42 |
| 92 | 126 | 218 | 150 | 289 | 1.19 | 1.33 |
| 93 | 29 | 52 | 36 | 67 | 1.24 | 1.29 |
| 94 | 41 | 82 | 51 | 90 | 1.24 | 1.10 |
| 95 | 139 | 120 | 180 | 184 | 1.29 | 1.53 |
| 96 | 148 | 135 | 178 | 161 | 1.20 | 1.19 |

**Exhibit C-10**

PM Peak Hour FRATAR Factors

| Zone | 1990 | | 2025 | | FRATAR Factor | |
|---|---|---|---|---|---|---|
| | Origins | Destinations | Origins | Destinations | Origins | Destinations |
| 97 | 170 | 229 | 245 | 303 | 1.44 | 1.32 |
| 98 | 41 | 42 | 52 | 61 | 1.27 | 1.45 |
| 99 | 27 | 31 | 37 | 40 | 1.37 | 1.29 |
| 100 | 56 | 80 | 76 | 97 | 1.36 | 1.21 |
| 101 | 46 | 58 | 93 | 81 | 2.02 | 1.40 |
| 102 | 13 | 15 | 18 | 18 | 1.38 | 1.20 |
| 103 | 66 | 23 | 87 | 37 | 1.32 | 1.61 |
| 104 | 53 | 41 | 67 | 50 | 1.26 | 1.22 |
| 105 | 40 | 24 | 52 | 35 | 1.30 | 1.46 |
| 106 | 79 | 45 | 149 | 75 | 1.89 | 1.67 |
| 107 | 144 | 110 | 214 | 147 | 1.49 | 1.34 |
| 108 | 171 | 292 | 210 | 375 | 1.23 | 1.28 |
| 109 | 144 | 139 | 180 | 179 | 1.25 | 1.29 |
| 110 | 34 | 52 | 35 | 55 | 1.03 | 1.06 |
| 111 | 90 | 45 | 122 | 55 | 1.36 | 1.22 |
| 112 | 183 | 228 | 258 | 306 | 1.41 | 1.34 |
| 113 | 108 | 96 | 137 | 115 | 1.27 | 1.20 |
| 114 | 169 | 192 | 284 | 309 | 1.68 | 1.61 |
| 115 | 42 | 68 | 154 | 182 | 3.67 | 2.68 |
| 116 | 54 | 65 | 68 | 86 | 1.26 | 1.32 |
| 117 | 18 | 25 | 48 | 89 | 2.67 | 3.56 |
| 118 | 64 | 89 | 83 | 123 | 1.30 | 1.38 |
| 119 | 30 | 36 | 44 | 44 | 1.47 | 1.22 |
| 120 | 17 | 19 | 69 | 35 | 4.06 | 1.84 |
| 121 | 83 | 57 | 318 | 142 | 3.83 | 2.49 |
| 122 | 252 | 380 | 302 | 460 | 1.20 | 1.21 |
| 123 | 253 | 177 | 322 | 221 | 1.27 | 1.25 |
| 124 | 101 | 104 | 135 | 125 | 1.34 | 1.20 |
| 125 | 150 | 122 | 158 | 135 | 1.05 | 1.11 |
| 126 | 44 | 53 | 58 | 67 | 1.32 | 1.26 |
| 127 | 73 | 69 | 96 | 86 | 1.32 | 1.25 |
| 128 | 52 | 39 | 64 | 48 | 1.23 | 1.23 |
| 129 | 286 | 405 | 394 | 569 | 1.38 | 1.40 |
| 130 | 216 | 247 | 333 | 335 | 1.54 | 1.36 |
| 131 | 242 | 145 | 280 | 173 | 1.16 | 1.19 |
| 132 | 40 | 40 | 136 | 70 | 3.40 | 1.75 |
| 133 | 346 | 151 | 578 | 214 | 1.67 | 1.42 |
| 134 | 191 | 320 | 281 | 446 | 1.47 | 1.39 |
| 135 | 75 | 109 | 86 | 129 | 1.15 | 1.18 |
| 136 | 35 | 58 | 39 | 69 | 1.11 | 1.19 |
| 137 | 64 | 117 | 102 | 195 | 1.59 | 1.67 |
| 138 | 32 | 38 | 82 | 204 | 2.56 | 5.37 |
| 139 | 24 | 45 | 54 | 77 | 2.25 | 1.71 |
| 140 | 57 | 46 | 89 | 67 | 1.56 | 1.46 |
| 141 | 213 | 314 | 334 | 479 | 1.57 | 1.53 |
| 142 | 68 | 51 | 171 | 178 | 2.51 | 3.49 |
| 143 | 131 | 106 | 247 | 184 | 1.89 | 1.74 |
| 144 | 261 | 302 | 489 | 588 | 1.87 | 1.95 |

**Exhibit C-10**

PM Peak Hour FRATAR Factors

| Zone | 1990 | | 2025 | | FRATAR Factor | |
|---|---|---|---|---|---|---|
| | Origins | Destinations | Origins | Destinations | Origins | Destinations |
| 145 | 134 | 83 | 248 | 147 | 1.85 | 1.77 |
| 146 | 128 | 253 | 291 | 588 | 2.27 | 2.32 |
| 147 | 219 | 168 | 786 | 743 | 3.59 | 4.42 |
| 148 | 324 | 208 | 473 | 292 | 1.46 | 1.40 |
| 149 | 80 | 137 | 120 | 221 | 1.50 | 1.61 |
| 150 | 44 | 78 | 73 | 116 | 1.66 | 1.49 |
| 151 | 104 | 185 | 170 | 286 | 1.63 | 1.55 |
| 152 | 235 | 260 | 396 | 405 | 1.69 | 1.56 |
| 153 | 57 | 90 | 218 | 325 | 3.82 | 3.61 |
| 154 | 13 | 19 | 18 | 28 | 1.38 | 1.47 |
| 155 | 49 | 88 | 112 | 238 | 2.29 | 2.70 |
| 156 | 13 | 13 | 32 | 43 | 2.46 | 3.31 |
| 157 | 87 | 117 | 151 | 189 | 1.74 | 1.62 |
| 158 | 15 | 18 | 487 | 430 | 32.47 | 23.89 |
| 159 | 45 | 88 | 62 | 121 | 1.38 | 1.38 |
| 160 | 546 | 427 | 268 | 263 | 0.49 | 0.62 |
| 161 | 96 | 131 | 149 | 213 | 1.55 | 1.63 |
| 162 | 171 | 183 | 285 | 306 | 1.67 | 1.67 |
| 163 | 35 | 46 | 38 | 64 | 1.09 | 1.39 |
| 164 | 86 | 140 | 163 | 311 | 1.90 | 2.22 |
| 165 | 27 | 48 | 58 | 119 | 2.15 | 2.48 |
| 166 | 45 | 85 | 54 | 118 | 1.20 | 1.39 |
| 167 | 21 | 32 | 26 | 37 | 1.24 | 1.16 |
| 168 | 57 | 58 | 91 | 89 | 1.60 | 1.53 |
| 169 | 42 | 62 | 66 | 102 | 1.57 | 1.65 |
| 170 | 39 | 52 | 63 | 96 | 1.62 | 1.85 |
| 171 | 28 | 41 | 37 | 64 | 1.32 | 1.56 |
| 172 | 62 | 110 | 122 | 235 | 1.97 | 2.14 |
| 173 | 30 | 54 | 224 | 202 | 7.47 | 3.74 |
| 174 | 372 | 449 | 640 | 741 | 1.72 | 1.65 |
| 175 | 117 | 177 | 232 | 323 | 1.98 | 1.82 |
| 176 | 12 | 17 | 18 | 26 | 1.50 | 1.53 |
| 177 | 42 | 74 | 70 | 128 | 1.67 | 1.73 |
| 178 | 23 | 23 | 30 | 42 | 1.30 | 1.83 |
| 179 | 23 | 32 | 38 | 49 | 1.65 | 1.53 |
| 180 | 18 | 22 | 85 | 150 | 4.72 | 6.82 |
| 181 | 46 | 72 | 56 | 113 | 1.22 | 1.57 |
| 182 | 80 | 138 | 115 | 207 | 1.44 | 1.50 |
| 183 | 62 | 114 | 143 | 292 | 2.31 | 2.56 |
| 184 | 84 | 154 | 135 | 246 | 1.61 | 1.60 |
| 185 | 139 | 169 | 513 | 597 | 3.69 | 3.53 |
| 186 | 30 | 42 | 57 | 90 | 1.90 | 2.14 |
| 187 | 51 | 44 | 74 | 64 | 1.45 | 1.45 |
| 188 | 71 | 91 | 175 | 241 | 2.46 | 2.65 |
| 189 | 171 | 195 | 288 | 297 | 1.68 | 1.52 |
| 190 | 142 | 121 | 231 | 207 | 1.63 | 1.71 |
| 191 | 48 | 81 | 82 | 123 | 1.71 | 1.52 |
| 192 | 193 | 388 | 275 | 602 | 1.42 | 1.55 |

**Exhibit C-10**

PM Peak Hour FRATAR Factors

| Zone | 1990 | | 2025 | | FRATAR Factor | |
|---|---|---|---|---|---|---|
| | Origins | Destinations | Origins | Destinations | Origins | Destinations |
| 193 | 532 | 528 | 939 | 953 | 1.77 | 1.80 |
| 194 | 197 | 180 | 352 | 384 | 1.79 | 2.13 |
| 195 | 141 | 276 | 237 | 456 | 1.68 | 1.65 |
| 196 | 270 | 516 | 398 | 793 | 1.47 | 1.54 |
| 197 | 24 | 39 | 87 | 151 | 3.63 | 3.87 |
| 198 | 30 | 52 | 34 | 61 | 1.13 | 1.17 |
| 199 | 22 | 34 | 30 | 51 | 1.36 | 1.50 |
| 200 | 17 | 22 | 24 | 33 | 1.41 | 1.50 |
| 201 | 16 | 18 | 25 | 28 | 1.56 | 1.56 |
| 202 | 19 | 31 | 26 | 35 | 1.37 | 1.13 |
| 203 | 33 | 56 | 48 | 92 | 1.45 | 1.64 |
| 204 | 410 | 321 | 733 | 547 | 1.79 | 1.70 |
| 205 | 35 | 49 | 90 | 164 | 2.57 | 3.35 |
| 206 | 591 | 173 | 843 | 260 | 1.43 | 1.50 |
| 207 | 57 | 75 | 66 | 108 | 1.16 | 1.44 |
| 208 | 108 | 205 | 216 | 431 | 2.00 | 2.10 |
| 209 | 78 | 87 | 224 | 283 | 2.87 | 3.25 |
| 210 | 26 | 34 | 56 | 82 | 2.15 | 2.41 |
| 211 | 23 | 37 | 59 | 116 | 2.57 | 3.14 |
| 212 | 16 | 24 | 31 | 56 | 1.94 | 2.33 |
| 213 | 20 | 26 | 36 | 57 | 1.80 | 2.19 |
| 214 | 75 | 119 | 125 | 214 | 1.67 | 1.80 |
| 215 | 24 | 29 | 52 | 89 | 2.17 | 3.07 |
| 216 | 62 | 117 | 203 | 364 | 3.27 | 3.11 |
| 217 | 40 | 64 | 70 | 124 | 1.75 | 1.94 |
| 218 | 77 | 134 | 161 | 313 | 2.09 | 2.34 |
| 219 | 192 | 123 | 502 | 542 | 2.61 | 4.41 |
| 220 | 43 | 47 | 63 | 79 | 1.47 | 1.68 |
| 221 | 103 | 49 | 209 | 129 | 2.03 | 2.63 |
| 222 | 44 | 41 | 140 | 141 | 3.18 | 3.44 |
| 223 | 41 | 72 | 234 | 494 | 5.71 | 6.86 |
| 224 | 102 | 99 | 168 | 162 | 1.65 | 1.64 |
| 225 | 252 | 238 | 435 | 365 | 1.73 | 1.53 |
| 226 | 111 | 212 | 165 | 358 | 1.49 | 1.69 |
| 227 | 18 | 16 | 27 | 25 | 1.50 | 1.56 |
| 228 | 128 | 184 | 268 | 454 | 2.09 | 2.47 |
| 229 | 48 | 63 | 256 | 464 | 5.33 | 7.37 |
| 230 | 31 | 55 | 38 | 74 | 1.23 | 1.35 |
| 231 | 53 | 101 | 84 | 169 | 1.58 | 1.67 |
| 232 | 31 | 54 | 107 | 214 | 3.45 | 3.96 |
| 233 | 14 | 19 | 47 | 86 | 3.36 | 4.53 |
| 234 | 78 | 172 | 177 | 407 | 2.27 | 2.37 |
| 235 | 26 | 57 | 41 | 95 | 1.58 | 1.67 |
| 236 | 121 | 163 | 181 | 222 | 1.50 | 1.36 |
| 237 | 611 | 620 | 928 | 938 | 1.52 | 1.51 |
| 238 | 124 | 122 | 187 | 184 | 1.51 | 1.51 |
| 239 | 613 | 619 | 931 | 931 | 1.52 | 1.50 |
| 240 | 156 | 149 | 233 | 240 | 1.49 | 1.61 |

**Exhibit C-10**

PM Peak Hour FRATAR Factors

| Zone | 1990 | | 2025 | | FRATAR Factor | |
|---|---|---|---|---|---|---|
| | Origins | Destinations | Origins | Destinations | Origins | Destinations |
| 241 | 180 | 182 | 272 | 265 | 1.51 | 1.46 |
| 242 | 586 | 589 | 891 | 894 | 1.52 | 1.52 |
| 243 | 163 | 163 | 242 | 244 | 1.48 | 1.50 |
| 244 | 180 | 175 | 271 | 268 | 1.51 | 1.53 |
| 245 | 441 | 445 | 669 | 673 | 1.52 | 1.51 |
| 246 | 553 | 554 | 839 | 835 | 1.52 | 1.51 |
| 247 | 35 | 35 | 50 | 53 | 1.43 | 1.51 |
| 248 | 140 | 141 | 210 | 205 | 1.50 | 1.45 |
| TOTALS | 33666 | 33666 | 54205 | 54205 | 1.61 | 1.61 |

The base year network was modified to include all roadway improvements programmed in the VDOT Six Year Improvement Program (FY 1999-2005). The network, termed the No-Build, consists of the existing network plus committed improvements. The following projects were included in the No-Build alternative:

- Madison Heights Bypass
- Route 130 Connector
- Route 210 Connector and improvements at Route 29 interchange
- Route 29 South Bypass
- Route 29/460 Interchange
- Route 460 reconstruction (1.3 miles west of Lynchburg to 2.4 miles west of Lynchburg)
- Route 501 widening to 6 lanes
- Crosstown Connector – 501 Expressway to 29 Expressway
- Enterprise Drive
- Percival's Island Connector (non-model)
- Downtown riverfront revitalization and trails (non-model)
- Train station rehabilitation (non-model)
- Purchase bus and capital equipment (non-model)
- Bus ridership incentive program (non-model)

Those projects indicated as non-model are not roadway improvements and were, therefore, not coded in the No-Build model. The 2020 trip table was loaded onto this 2020 No-Build network. Both the No-Build network file and the loaded network file are included on the attached compact disk as 2025NB.

# Appendix D – Travel Survey

In order to collect additional information for use in developing and validating the regional model, a travel survey was performed in October 1998. A total of 310 telephone interviews were conducted at a random sampling of households in the region. Households were chosen based on a random digit sampling of telephone numbers in the region. The surveys consisted of three parts:

1. Background demographic data
2. Data on all trips made by the survey respondent on the day prior to the survey
3. Identification of existing transportation issues and concerns in the region

The first two parts of the survey are summarized in this appendix. The third part, which was given to a subset of 104 of the 310 survey participants was described in Chapter 3.

The survey form is shown in Exhibit D-1.

## D.1 Demographic Data

As indicated above, a total of 310 random households were chosen for this survey. Any person answering the telephone who was a licensed driver and had made one or more trips by motor vehicle (including bus, taxi, etc.) was asked to participate in the survey. If the person answering the telephone did not meet these criteria, the interviewer asked to speak to someone in the household who matched the criteria. For the most part, therefore, the household member chosen to participate in the survey was random. All surveys contain some level of bias, and there was certainly some level of bias in this survey as more interview participants were women than there are in the general population (indicating, perhaps, that women in the area are more likely to answer the telephone). None of the biases in this survey were judged, however, to have a detrimental effect on the value of the data for modeling purposes. A summary of the survey participant demographics is shown below.

- 189 (**61%**) respondents were female
  121 (**39%**) were male

- 157 (**51%**) respondents lived in the City of Lynchburg
  61 (**20%**) lived in Bedford County
  60 (**19%**) lived in Campbell County
  32 (**10%**) lived in Amherst County

- Zip codes surveyed included: 24501, 24502, 24503, 24504, 24536, 24551, 24572

- 192 (**62%**) of the respondents identified themselves as being the head of the household
  116 (**37%**) identified themselves as not being the head of the household
  2 (**1%**) were unsure or did not answer

- The average household size was **2.7** persons
- There were an average of **2.0** licensed drivers per household
- There were an average of **2.3** motor vehicles available per household
- 206 (**66%**) respondents were employed outside the home
  104 (**34%**) were not employed outside the home
- The average age of respondents was **46.4** years

## D.2 Trip Data

The 310 survey participants made a total of 982 trips during the course of a typical weekday (an average of 3.17 trips per person). As indicated in Appendix C, this trip data was used to determine average trip lengths for various types of trip purposes (home-based work, home-based other, non-home-based, etc.) as well as the frequency of various length trips. This information allows the computerized model to better replicate travel behavior that may have characteristics that are unique to the Lynchburg region.

To determine trip length frequencies, survey participants were asked to provide information about where each trip started and ended. This information was used to assign each end of the trip to a particular transportation analysis zone (TAZ) in the region. Once this was done, a survey trip table was created. Trip length data was generated by using the computerized network to determine the travel time between various TAZs. This information was then combined with the survey trip table, and the results were used to create friction factors for the trip distribution process (see Appendix C for further information on the modeling process). A survey trip table, which includes the full day of surveyed trips, is included on the attached compact disk as SURVEY.TRP.

Additional information gleaned from the survey data on trips is summarized below.

- 815 (**83%**) trips had home as one of the trip ends (home-based)
  167 (**17%**) trips did not have home as either trip end (non-home-based)
- 941 (**96%**) trips were made by private motor vehicle
  18 (**2%**) were made by transit (bus or taxi)
  22 (**2%**) were made by non-motorized transportation (walking or bicycling)
- For 827 (**94%**) trips, the respondent was the driver
  For 96 (**10%**) trips, the respondent was a passenger
  For 59 (**6%**) trips, the respondent was unsure or did not answer
- The average vehicle occupancy (i.e., number of people in the car including the driver) for the trips was **1.5** persons

- 514 (**53%**) trips were social/recreational (shopping, personal business, etc.)
  364 (**37%**) were work-related
  60 (**6%**) were school-related
  41 (**4%**) were medical-related
  3 (**0%**) had no specified purpose

**Exhibit D-1**
Travel Survey

Initials:
Date:
Start:
End:

Sample Type: Short Form.....1
Long Form.....2

## Lynchburg Area Transportation Study Survey
## OCTOBER 1998

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Hello, my name is _____, and I'm calling on behalf of the Central Virginia Planning District Commission for the firm of De Leuw, Cather. We are developing a long-range transportation plan for the Lynchburg area, and, as part of this study, we're conducting a brief travel survey of people who live in either the City of Lynchburg or Amherst, Bedford or Campbell County. It should only take about 10-12 minutes. Do you live in either the City of Lynchburg or Amherst, Bedford or Campbell County?

**IF YES:** **CONTINUE.**
**IF NO:** **THANK AND END INTERVIEW.**

I need to speak with a licensed driver in your household who made one or more motor-vehicle trips yesterday, whether as a driver or a passenger, whether the trip was made by private car, van, motorcycle, truck, bus or taxi. Are you a licensed driver who made one or more motor-vehicle trips yesterday?

**IF YES:** **SKIP TO PART I, BELOW.**
**IF NO:** Is there a licensed driver at home that I may speak with who made one or more motor-vehicle trips yesterday?

**IF YES:** **SPEAK TO THAT PERSON; REPEAT INTRODUCTION; AND CONDUCT INTERVIEW.**
**IF NO:** **THANK AND END INTERVIEW.**

**RECORD RESPONDENT SEX:** MALE.....1 FEMALE.....2

**Exhibit D-1**
Travel Survey

**PART I**

First, I have a few brief questions about your household. Of course, the information that you give me will be strictly confidential and will be used for statistical purposes only.

**1a. Do you live in?**

| | |
|---|---|
| City of Lynchburg | 1 |
| Amherst County | 2 |
| Bedford County | 3 |
| Campbell County | 4 |

**1b. Are you a head of household?** YES.....1 NO.....2

**2. How many people, including yourself, live in your household?** _____ (people in household)

**3. How many of them are licensed drivers?** _____ (licensed drivers)

**4. How many private motor vehicles, including cars, vans, trucks, and motorcycles are available in your household for daily use?** _____ (motor vehicles)

**5. Are you employed outside of the home?** YES.....1 NO.....2

**6. Which of the following categories includes your age? Are you...**

17 to 24..... 1
25 to 44..... 2
45 to 64..... 3
65 or over.....4
*REFUSED.....9*

**PART II**

Now I'd like to ask you some questions about the trips you made yesterday, whether as a driver or a passenger, whether in a private vehicle, in a bus or taxi, on a bicycle or on foot.

For the purposes of this study, a round-trip to and from a destination is counted as two separate trips. For example, going to work in the morning would count as one trip, and coming home from work at night would count as a second trip; going to the grocery store would count as one trip, and coming home from the grocery store would count as a second trip; and so on.

Let's start with the first trip you made yesterday.

**FILL OUT A TRIP FORM FOR EACH TRIP MADE YESTERDAY.**

**AFTER THE FIRST TRIP:** Now I'd like to repeat the same set of questions for your second trip yesterday...

**Exhibit D-1**
Travel Survey

**PART II (cont.) DIARY FOR TRIP**

Trip #

7. **From what location did you begin your first trip?** Please give me the nearest street intersection or major landmark, such as a school, building or factory name. If this location was outside of the Lynchburg region, please give the town or city name.

   FROM: _____

8. **Where did that trip end?** Again, give me the nearest intersection or landmark.

   TO: _____

9. **Did that trip begin at your home?** YES .... 1 NO ..... 2

10. **Did that trip end at your home?** YES ..... 2 NO ..... 2

11. **What type of vehicle was used for this trip, or did you walk?**

| | | | |
|---|---|---|---|
| car | 1 | motorcycle | 2 |
| van | 3 | bus | 4 (SKIP to Q.13) |
| private truck | 5 | bicycle | 6 (SKIP to Q.13) |
| commercial truck | 7 | walk | 8 (SKIP to Q.13) |
| other | 9 | (SPECIFY OTHER: _____) | |

12. **Were you the driver or a passenger on that trip?**
    DRIVER.....1
    PASSENGER.....2

13. **How many people were in the vehicle on that trip, including you?** _____ (people)

14. **At what time of day did you start your first trip?** _____ AM PM (CIRCLE)

15. **What was the purpose of this trip? Was it?**

| | | | |
|---|---|---|---|
| to travel to work | 1 | for social/recreational purposes | 2 |
| to travel home from work | 3 | for medical purposes | 4 |
| company business | 5 | to go shopping | 6 |
| school related | 7 | | |
| for some other purpose | 8 | (SPECIFY OTHER: _____) | |

16. **Did you make any other trips outside your home yesterday?**

    **YES: COMPLETE ANOTHER TRIP FORM.**
    **NO: IF LONG FORM – PROCEED TO PART III.**
    **IF SHORT FORM – THANK AND TERMINATE.**

# Appendix E – Compilation of Transportation Needs

## E.1 Roadways – City of Lynchburg

| RECOMMENDATION | CITATION | | | | |
|---|---|---|---|---|---|
| | 1995 (1) | 1997 (2) | SHiPS (3) | Interview (4) | Survey (5) |
| Route 29 Bypass – Grace Street to Main Street, reconstruct to six lanes with raised median and curb and gutter | | | X | | |
| Route 29 Bypass – Campbell Avenue to Bocock Road Extended, six lane roadway on new location with depressed median and shoulders | | | X | | |
| Route 29 Bypass – Completion of bypass is a temporary solution | | | | X | |
| Route 29 Bypass – needs acceleration/deceleration lanes | | | | X | |
| Route 29 Bypass – Routes 130 and 210 extensions to bypass needed to support commercial sites' traffic | | | | X | |
| Route 29 Bypass – prefer an "eastern" route to bypass Lynchburg | | | | | X |
| Route 29 Bypass – at Route 460 interchange, construction causes delay | | | | X | |
| Route 29 Bypass – Bocock Road Extended to Route 460, six lane roadway on new location with depressed median and shoulders | | | X | | |
| Route 29 Bypass – Route 460 to Amherst County Line, four lane roadway on new location with depressed median and shoulders | | | X | | |
| Route 29 Bypass – Need roadway signs and/or flashing lights on Route 29 at merge areas to slow traffic and warn of possible driving hazards | | | | | X |
| Route 29 Bypass – South from its intersection with Route 501 at Candlers Mountain Road | | | | | X |
| Route 126 (Graves Mill Road) – At intersection with Mill Race Drive, there is no signal (causes traffic backups) | | | | X | |
| Route 221 (Lakeside Drive) – Lynchburg Expressway to Forest Brook Road, reconstruct to four lanes with raise median and curb and gutter | X | | | | X |
| Route 221 – Traffic signal at intersection with Wyndale Drive needs to be returned | | | | X | |
| Route 221 – Widen to four through lanes | | | | X | |
| Route 221 – Traffic very slow in rush hour, new traffic lights do not help | | | | | X |
| Route 221 – Congestion, accidents | | | | X | |

| RECOMMENDATION | CITATION | | | | |
|---|---|---|---|---|---|
| | 1995 (1) | 1997 (2) | SHiPS (3) | Interview (4) | Survey (5) |
| Route 221 – Provide a left turn lane along the southbound lane at intersection with Allegheny Avenue. Install traffic signals. Interconnect with existing traffic signal at the intersection of Lakeside Drive and Oakley Avenue. This is part of the Crosstown Connector where Lakeside Drive will be widened to four lanes. | | X | | | |
| Route 221 – Turning lanes need to be extended | | | | | X |
| Route 221 – Forest Brook Road to Old Forest Road East, reconstruct to four lanes with raise median and curb and gutter | X | | | | X |
| Route 221 – Old Forest Road East to Oakley Avenue, reconstruct to four lanes with raise median and curb and gutter | X | | | | X |
| Route 221 – Old Forest Road/Lynchburg Expressway interchange is quite congested during midday hours | | | | | X |
| Route 460 – Create intersection with Odd Fellows Road to relieve pressure on Candlers Mountain Road | | | | | X |
| Route 460 – Expressway ramp to Route 460 East at University Blvd needed | | | | | X |
| Route 460 – Intersection with Odd Fellows Road needs an interchange | | | | X | |
| Route 460 – Clustered locations of industry with access to Rte. 460 will impact Route 460 bypass | | | | X | |
| Route 460 – Improve the geometrics along the westbound lane between Campbell Avenue and Concord Turnpike | | X | | | |
| Route 460 – Campbell Avenue to ECL Lynchburg, TSM improvements | X | | | | X |
| Route 460 – Intersection with Leesville Road and Richland Drive: poor signal timing | | | | X | |
| Route 460 – East from its intersection with US 501 (Campbell Avenue) for approximately 1.2 miles east | | | | | X |
| Route 460 Business (Timberlake Road section) – Prohibition of Right turns during certain times of the day at Waterlick intersection | | | | | X |
| Route 460 Business (Timberlake Road section)– SCL Lynchburg to Old Graves Mills Road, reconstruct to six lanes with raised median and curb and gutter | | | X | | X |
| Route 460 Business (Timberlake Road section) – Old Graves Mill Road to Leesville Road, reconstruct to six lanes with raised median and curb and gutter | | | X | | X |
| Route 460 Business (Timberlake Road section) – Leesville Road to Wards Ferry Road, reconstruct to six lanes with raised median and curb and gutter | | | X | | X |

| RECOMMENDATION | CITATION | | | | |
|---|---|---|---|---|---|
| | 1995 (1) | 1997 (2) | SHiPS (3) | Interview (4) | Survey (5) |
| Route 460 Business (Timberlake Road section) – Wards Ferry Road to Lynchburg Expressway, reconstruct to six lanes with raised median and curb and gutter | | | X | | X |
| Route 460 Business (Fort Avenue section) – Memorial Avenue to Wythe Road, reconstruct to four lanes with curb and gutter | | | X | | X |
| Route 460 Business (Fort Avenue section) – Wythe Road to 12th Street | X | | | | |
| Route 460 Business (Fort Avenue section) – Widen to 48 feet of pavement (four lanes) from Perrymont Avenue to Memorial Avenue | | X | | | |
| Route 460 Business (Fort Avenue section) – 12th Street to Campbell Avenue | X | | | | |
| Route 460 Business (Fort Avenue section) – At intersection with Wythe Road, poor signal timing (causes traffic backups) | | | | X | |
| Route 460 Business (Fort Avenue Section) – The Perrymont Avenue to Memorial Avenue, reconstruct to four lanes with curb and gutter | | | X | | |
| Route 460 Business (Campbell Avenue section) – 12th Street to Lynchburg Expressway, reconstruct to four lanes with curb and gutter | | | X | | |
| Route 460 Business (Campbell Avenue section) – Replace bridge over Norfolk & Western Railway. Replacement bridge will have a width of 52 feet | | X | | | |
| Route 460 Business (Campbell Avenue section) – Lynchburg Expressway to Kemper Street, reconstruct to four lanes with curb and gutter | X | | | | |
| Route 460 Business (Campbell Avenue section) – 12th Street to Park Avenue | X | | | | |
| Route 501 (Lynchburg Expressway) – Kemper Street to Grace Street, reconstruct to six lanes with raised median and curb and gutter | | | X | | |
| Route 501 – Route 221 to the north, make this a complete limited access facility | | | | X | |
| Route 501 – Congested at traffic light at intersection with Old Forest Road | | | | X | |
| Route 501 – At intersection with Route 221, poor alignment on NB approach | | | | X | |
| Route 501 – Improve access with new shopping center at Graves Mill Road | | | | X | |
| Route 501 (NCL to Big Island) – provide passing zones and truck lanes | | | | X | |
| Route 501 – Graves Mill Road exit needs a traffic light | | | | | X |
| Route 501 – Lack of acceleration and deceleration lanes on Lynchburg Expressway | | | | | X |
| Route 501 – Four bridges at various locations | X | | | | |
| Route 501 – Widen to 72 feet of pavement (six lanes) with standard shoulders from Candlers Mountain Road to Woodall Road. This improvement includes four structures. (PE only) | | X | | | |

| RECOMMENDATION | CITATION | | | | |
|---|---|---|---|---|---|
| | 1995 (1) | 1997 (2) | SHiPS (3) | Interview (4) | Survey (5) |
| Route 501 – Lakeside Drive to Boonsboro Road | X | | | | |
| Route 501 (Candlers Mt. Road section) – Railroad bridge and Route 29 interchange | | | | X | |
| Rte. 501/Rte. 29 Expressway exit has unnecessary merge to left lane (should maintain two lanes to Route 29 Business) | | | | X | |
| Route 501 N. Corridor – poor alignment, slow (study underway); too many trucks from Rte. 29/Rte. 460 South | | | | X | |
| Route 501 Business (Boonsboro Road) – Signal at Randolph Macon Women's College needs improvement | | | | X | |
| Route 501 Business – Link Road to Trents Ferry Road, reconstruct to four lanes with curb and gutter | | | X | | |
| Route 501 Business – Trents Ferry Road to Burnt Bridge Road, reconstruct to four lanes with curb and gutter | | | X | | |
| Route 501 Business – Lynchburg Expressway to WCL Lynchburg, reconstruct to four lanes with curb and gutter | | | X | | X |
| Route 501 Business – Burnt Bridge Road to Lynchburg Expressway, reconstruct to four lanes with raised median and curb and gutter | | | X | | |
| Routes 659/660/621 – Alignment and pavement (Route 221 to Route 501) | | | | X | |
| Routes 621/659/660 Corridor – From Route 221 to Route 501 | | | | X | |
| Route 622/Route 812 Corridor – From Route 460 to Route 221 | | | | X | |
| Route 622/Route 811 Corridor – Alignment and pavement width (Route 221 to Route 460) | | | | X | |
| Route 670 (Candlers Mountain Road) – Mayflower Drive to Lynchburg Expressway, reconstruct to six lanes with raised median and curb and gutter. | X | | | | X |
| Route 670 – Wards Road to Woodall Road, reconstruct to six lanes with raised median and curb and gutter | | | X | | |
| Route 670 – Dogleg ramp behind Applebee's to Candlers Mountain Road is awkward | | | | | X |
| Route 670 – Woodall Road to Lynchburg Expressway, reconstruct to six lanes with raised median and curb and gutter. | X | | | | |
| Route 670 – Mayflower Drive to Route 460 Bypass, reconstruct to four lanes with raised median and curb and gutter | X | | | | |
| Route 670 – From Bedford County line to Route 501, widen to 22 feet of pavement, realign and provide standard shoulders | | X | | | |
| Route 670 – Signals, accidents, congestion | | | | X | |

| RECOMMENDATION | CITATION | | | | |
|---|---|---|---|---|---|
| | 1995 (1) | 1997 (2) | SHiPS (3) | Interview (4) | Survey (5) |
| Route 682 (Leesville Road) – Particularly severe congestion in mornings at Heritage Elementary School near Timberlake Road getting to Route 29 North | | | | | X |
| Breezewood Drive – Extend to Lakeside Drive. Connector will have a 22 feet pavement width. (This will be pat of the Crosstown Connector and should be built first.) | | X | | | |
| Concord Turnpike (downtown to Rte. 460 E) – Upgrade and add signage | | | | X | |
| Concord Turnpike – Provide a truck climbing lane, construct new Concord Turnpike/Main Street Connection | | X | | | |
| Enterprise Drive Extension – Complete as soon as possible | | | | X | |
| 5th Street – Langhorne Road to Park Avenue, reconstruct to four lanes with curb and gutter | X | | | | |
| 5th Street – Widen to four through lanes | | | | | |
| 5th Street – Park Avenue to Main Street, reconstruct to four lanes with curb and gutter | X | | | | |
| Florida Avenue – Grace Street to Campbell Avenue, reconstruct to two lanes with curb and gutter | | | X | | |
| Forest Brook Road – Old Forest Road to Lakeside Drive | X | | | | |
| Forest Brook Road – Widen to 48 feet of pavement (four lanes) from Lakeside Drive (Route 221) to Old Forest Road | | X | | | |
| Greenview Drive – Campbell County Line to ECL Lynchburg, reconstruct to four lanes with curb and gutter | X | | | | |
| Harvard Street – Wards Ferry Road to Wards Road, reconstruct to four lanes with curb and gutter | | | X | | |
| Kemper Street – 12th Street to Park Avenue, reconstruct to six lanes with raised median and curb and gutter | X | | | | |
| Kemper Street – Lynchburg Expressway to 12th Street, reconstruct to six lanes with raised median and curb and gutter | X | | | | X |
| Lakeside Drive – Oakley Avenue to Memorial Avenue, reconstruct to four lanes with raised median and curb and gutter | X | | | | |
| Langhorne Road – Park Avenue to Memorial Avenue, reconstruct to four lanes with curb and gutter | X | | | | X |
| Langhorne Road – At intersection with Hill Street, no signal (causes traffic backups) | | | | X | |
| Langhorne Road – Tate Springs Road to Hill Street, reconstruct to four lanes with curb and gutter | | | X | | X |

| RECOMMENDATION | CITATION | | | | |
|---|---|---|---|---|---|
| | 1995 (1) | 1997 (2) | SHiPS (3) | Interview (4) | Survey (5) |
| Langhorne Road – Hill Street to Cranehill Drive, reconstruct to four lanes with curb and gutter | | | X | | |
| Langhorne Road – Center turning lane in front of social service office is very dangerous because drivers do not use it properly | | | | | X |
| Langhorne Road – Traffic signal at Hill Street | | | | | X |
| Mayflower Drive – Odd Fellows Road to Campbell Avenue, reconstruct to four lane roadway with curb and gutter | | | X | | X |
| Memorial Avenue – Fort Avenue to Oakley Avenue, reconstruct to four lanes with curb and gutter | | | X | | |
| Memorial Avenue – intersection with 5th Street: congestion | | | | X | |
| Memorial Avenue – Remove parking at the intersection with Eldon Street and add turn lanes | | X | | | |
| Memorial Avenue – Widen to four through lanes | | | | X | |
| Memorial Avenue – Oakley Avenue to Park Avenue, reconstruct to four lanes with curb and gutter | | | X | | |
| Memorial Avenue – Park Avenue to Langhorne Road, reconstruct to four lanes with curb and gutter | X | | | | |
| Oakley Avenue – Lakeside Drive to Memorial Avenue, reconstruct to four lanes with curb and gutter | | | X | | X |
| Old Graves Mill Road – Graves Mill Road to Timberlake Road, reconstruct to two lanes with 24 feet of pavement | | | X | | |
| Old Graves Mill Road – Widen to 24 feet of pavement from Robin Drive to Tomahawk Industrial Park | | X | | | |
| Old Graves Mill Road – Widen to 24 feet of pavement from Timberlake Road to Willow Bend Drive | | X | | | |
| Odd Fellows Road – Lynchburg Expressway to Mayflower Drive, reconstruct to four lanes with curb and gutter | | | X | | |
| Odd Fellows Road – Poor vertical sight distance at intersection with Carrol Avenue | | | | X | |
| Odd Fellows Road – Mayflower Drive to Dead End, reconstruct to four lanes with curb and gutter | | | X | | |
| Odd Fellows Road Extension – Dead End to Route 460 | X | | | | |
| Old Forest Road – Widen both directions at the Dandridge Drive intersection to provide left turn lanes in both directions | | X | | | |

| RECOMMENDATION | CITATION | | | | |
|---|---|---|---|---|---|
| | 1995 (1) | 1997 (2) | SHiPS (3) | Interview (4) | Survey (5) |
| Old Forest Road – Linkhorne Road to Lakeside Drive East, reconstruct to two lanes with curb and gutter | | | X | | |
| Park Avenue – Memorial Avenue to 5th Street, reconstruct to four lanes with curb and gutter | X | | | | |
| Park Avenue – widen westbound to provide right turn lanes at Memorial Avenue. This is part of the Crosstown Connector where Park Avenue will be widened to four lanes | | X | | | |
| Rivermont Avenue – Rivermont Terrace to Bedford Avenue West, TSM improvement of four lanes with curb and gutter | | | X | | |
| Rivermont Avenue – Rivermont Terrace to Link Road, TSM improvement to four lanes with curb and gutter | | | X | | |
| Rivermont Avenue – Remove parking at the intersection with Bedford Avenue (both East and West) | | X | | | |
| Rivermont Avenue – Bedford Avenue East to 5th Street, TSM improvement of four lanes with curb and gutter | | | X | | |
| Seabury Avenue – Bridge over Norfolk Southern Railroad | X | | | | |
| Tate Springs Road/Atherholt Road – Extend to Lakeside Drive at the Allegheny Avenue intersection. The extension will have 24 feet of pavement | | X | | | |
| Wards Road – SCL Lynchburg to Lynchburg Expressway, reconstruct to six lanes with raised median and curb and gutter | | | X | | |
| Wards Road – Lynchburg Expressway to Fort Avenue, reconstruct to six lanes with raised median and curb and gutter | | | X | | |
| Wards Road – Noise pollution in adjacent residential neighborhoods adjacent due to "cruisers" especially on Friday and Saturday nights | | | | | X |
| Wyndale Road – Reconstruct at Lakeside Drive. This is part of the Crosstown Connector where Lakeside Drive will be widened to four lanes | | X | | | |
| Wyndale Road – Lakeside Drive to McConville Road, reconstruct to two lanes with curb and gutter | | | X | | |

1) *Lynchburg Area Year 2015 Interim Constrained Long-Range Transportation Plan* (March 1995)
2) *Lynchburg Urbanized Area Short-Range Transportation Plan* (March 1998)
3) Ongoing needs identified in the VDOT's State Highway Planning System (ShiPS)
4) Data from a 1998 survey of 104 Lynchburg area residents
5) Data from interviews conducted in 1998 with 22 local officials and interest groups

## E.2 Roadways – Amherst County (Urbanized Area)

| RECOMMENDATION | CITATION | | | | |
|---|---|---|---|---|---|
| | 1995 (1) | 1997 (2) | SHiPS (3) | Interview (4) | Survey (5) |
| Route 29 Bypass – Bypass needed in Madison Heights | | | | | X |
| Route 29 Bypass – Route 29 Business to Route 130, reconstruct to six lanes with raised median and curb and gutter | | | X | | |
| Route 29 Bypass – Through Madison Heights, congestion | | | | X | |
| Route 29 Bypass – Signal and safety improvements in Madison Heights | | | | X | |
| Route 29 Bypass – Congestion in Madison Heights, additional lanes needed | | | | | X |
| Route 29 Bypasss – At intersection with Route 130 (Elon Road), signal timing causes congestion, accidents | | | | X | |
| Route 29 Bypass – NCL Lynchburg to Route 29, construct four lanes with depressed median and shoulders on new location. | X | | | | |
| Route 29 Business – NCL Lynchburg to Route 29 North, reconstruct to four lanes with raised median and curb and gutter. | | | X | | |
| Route 130 (Elon Road.) – No passing zones, slow, congested | | | | X | |
| Route 210 (Bypass Connector)– Route 29 to Route 29 Bypass, construct four lanes with raised median and shoulders on new location | X | | | | |
| Route 210 – Route 29 Bypass to existing Route 210, construct four lanes with raised median and shoulders on new location | X | | | | |
| Route 210 – Route 29 to Route 29 Business, reconstruct to four lanes with curb and gutter | | | X | | |
| Route 604 – Route 663 north to Route 670, reconstruct to two lanes with 22 feet of pavement | X | | | | |
| Route 622 – From the property of the Route 210 Connector to Route 833 West | X | | | | |
| Route 622 – Route 833 East to Route 677, reconstruct to four lanes with curb and gutter | | | X | | |
| Route 650 – From 0.05 Mile west of Route 762 to Route 691 | X | | | | |
| Route 650 – From 0.10 Mile east of Route 695 to 0.85 Mile East Route 691 | X | | | | |
| Route 652 – Route 657 to Route 675 South, reconstruct to two lanes with 24 feet of pavement | | | X | | |
| Route 652 – Route 675 South to Route 130, reconstruct to two lanes with 22 feet of pavement | | | X | | |

| RECOMMENDATION | CITATION | | | | |
|---|---|---|---|---|---|
| | 1995 (1) | 1997 (2) | SHiPS (3) | Interview (4) | Survey (5) |
| Route 653 (Ambrose Rucker Road) – Route 130 to Graham Creek, reconstruct to two lanes with 20 feet of pavement | | | X | | |
| Route 657 – From Route 652 to Route 707 | X | | | | |
| Route 663 – Route 29 South to Route 661, reconstruct to two lanes with 24 feet of pavement | X | | | | |
| Route 663 – From Route 604 South to Route 670 South | X | | | | |
| Route 669 – Route 1314 to Route 677 North, reconstruct to four lanes with curb and gutter | X | | | | |
| Route 677 (Dixie Airport Road) – Route 669 North to Route 29, reconstruct to four lanes with curb and gutter | X | | | | |
| Route 681 (Seminole Drive) – Route 29 to Route 833, reconstruct to four lanes with curb and gutter | | | X | | |
| Route 685 (River Road) – Route 130 to Route 684, reconstruct to two lanes with 22 feet of pavement | X | | | | |
| Route 685 (River Road) – Route 684 to Route 29 Business, reconstruct to two lanes with 24 feet of pavement | X | | | | |
| Route 795 (Winridge Drive) – Route 130 to Route 675, reconstruct to two lanes with 24 feet of pavement | | | X | | |
| Cedar Gate Road – From Route 657 to Route 675 South, reconstruct to 20 feet of pavement | | X | | | |
| Cedar Gate Road – From Route 675 South to Route 1401, reconstruct to 22 feet of pavement | | X | | | |
| Cedar Gate Road – From Route 29 to Route 652, reconstruct to 22 feet of pavement | | X | | | |
| Coolwell Road – From Route 29 to Route 604 North intersection, reconstruct to 22 feet of pavement | | X | | | |
| Five Forks Road – Replace bridge over Southern Railway | | X | | | |
| Galts Mill Road – From Route 663 to Route 648, reconstruct to 24 feet of pavement, add guard rails | | X | | | |
| Izaak Walton Road – Improve geometrics and replace bridges at Stovall's Creek and South Fork Stovall's Creek | | X | | | |
| Lakeview Drive – From East of Route 29 to Route 681, reconstruct to 24 feet of pavement | | X | | | |
| Laurel Cliff Road – From Route 652 to Route 636, reconstruct to 22 feet of pavement | | X | | | |

| RECOMMENDATION | CITATION | | | | |
|---|---|---|---|---|---|
| | 1995 (1) | 1997 (2) | SHiPS (3) | Interview (4) | Survey (5) |
| Monroe Street/Francis Avenue – Improve access to Amtrak Station and provide off-street parking | | X | | | |
| River Road – From Route 130 to Southern RR, reconstruct to 20 feet of pavement | | X | | | |
| Seminole Drive – Add right and left turn lanes at Route 29 | | X | | | |
| Thomas Road – From Route 685 to Route 766, reconstruct to 22 feet of pavement | | X | | | |
| Winesap Road – From Route 652 South to Route 795, reconstruct to 22 feet of pavement | | X | | | |
| Winridge Drive – From Route 130 to Route 675, reconstruct to 22 feet of pavement | | X | | | |

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## E.3 Roadways – Bedford County (Urbanized Area)

| RECOMMENDATION | CITATION | | | | |
|---|---|---|---|---|---|
| | 1995 (1) | 1997 (2) | SHiPS (3) | Interview (4) | Survey (5) |
| Route 221 – Elk Creek to Route 621, reconstruct to four lanes with depressed median and shoulders | X | | | | |
| Route 501 – Route 761 to Route 657, reconstruct to two lanes with 24 feet of pavement | | | X | | |
| Route 621 – Route 884 to Route 1204, reconstruct to two lanes with 24 feet of pavement | X | | | | |
| Route 645 – Route 761 South to WCL Lynchburg, reconstruct to two lanes with 22 feet of pavement | | | X | | |
| Route 663 (Perrowville Road) – Route 221 to Route 1430, reconstruct to four lanes with depressed median and shoulders | | | X | | |
| Route 761 – Route 501 to Route 645, reconstruct to two lanes with 22 feet of pavement | X | | | | |
| Route 811 – Route 460 to Route 622 South, reconstruct to four lanes with depressed median and shoulders | X | | | | |
| Route 661 – From Route 1440 to Route 221 | X | | | | |
| Route 658 – From Route 624 to WCL Lynchburg | X | | | | |
| Route 660 – From Route 621 to Route1250 | X | | | | |
| Route 620 – From Route 221 to Route 661 | X | | | | |
| Abert Road – From Route 501 to Route 645 North, reconstruct to 24 feet of pavement, realign and provide standard shoulders | | X | | | |
| Bateman Bridge Road – Replace bridge over Norfolk & Southern Railway and resurface road between Route 221 and Route 661, improved roadway pavement width will be 24 feet | | X | | | |
| Coffee Road – Replace bridge and approaches over stream between Route 665 North and Route 665 South | | X | | | |
| Cotton Town Road – From Route 1240 to Route 884, reconstruct to 24 feet of pavement | | X | | | |
| Cotton Town Road – Replace bridge over Ivy Creek between Route 1240 and Route 884 | | X | | | |
| Hawkins Mill Road – Replace bridge and approaches over Ivy Creek, replacement bridge would have a width of 24 feet | | X | | | |
| Hawkins Mill Road – From Route 621 to Route 659, widen to 22 feet of pavement and resurface | | X | | | |

| RECOMMENDATION | CITATION | | | | |
|---|---|---|---|---|---|
| | 1995 (1) | 1997 (2) | SHiPS (3) | Interview (4) | Survey (5) |
| New London Road – From Route 460 to 0.3 miles south of Route 460, reconstruct intersection and realign roadway | | X | | | |
| Perrowville Road – From Route 644 to Route 1430, widen to 24 feet of pavement and resurface | | X | | | |
| Thomas Jefferson Road – From Route 622 north to 0.54 miles north of Route 623, reconstruct to 24 feet of pavement, realign and provide standard shoulders | | X | | | |
| Trents Ferry Road – Replace bridge and approaches over Judith Creek | | X | | | |
| Turkey Foot Road – From Route 811 to Campbell County Line, reconstruct to 24 feet of pavement | | X | | | |

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## E.4 Roadways – Campbell County (Urbanized Area)

| RECOMMENDATION | CITATION | | | | |
|---|---|---|---|---|---|
| | 1995 (1) | 1997 (2) | SHiPS (3) | Interview (4) | Survey (5) |
| Route 29 – Route 738 north to SCL Lynchburg, reconstruct to six lane divided roadway with curb and gutter | X | | | | |
| Route 29 Bypass (proposed road) – Route 460 to Route 29, construct four lanes with depressed median and shoulders on new location | | | X | | |
| Route 29 Bypass (proposed road) | X | | | | |
| Route 460 – Route 726 to Route 752, reconstruct to six lanes with depressed median and shoulders | | | X | | |
| Route 460 Business – Route 460 to WCL Lynchburg, reconstruct to divided six lane roadway with curb and gutter. | | | X | | |
| Route 609 – Route 726 to Appomattox County Line, reconstruct two lanes with 22 feet of pavement | X | | | | |
| Route 622 – Bedford County Line to Route 1520, reconstruct to four lanes with curb and gutter | X | | | | |
| Route 622 – Route 682 to Route 29, reconstruct to two lanes with 24 feet of pavement | X | | | | |
| Route 623 – Route 682 to Route 858, reconstruct to two lanes with 24 feet of pavement | X | | | | |
| Route 739 – Route 460 to WCL Lynchburg, reconstruct to four lanes with curb and gutter | X | | | | |
| Route 1520 (Rainbow Forest Road) – Route 622 to Route 1551, reconstruct to two lanes with curb and gutter | | | X | | |
| Route 664 – From Route 677 to Route 501 | X | | | | |
| Route 677 – From Route 664 to ECL Lynchburg | X | | | | |
| Route 726 – From Route 460 to Route 609 | X | | | | |
| Route 738 – North from Route 622 to Route 29 | X | | | | |
| Route 793 – From Route 609 to dead end | X | | | | |
| Route 1416 – From 0.06 mile south of Route 1408 to Route 679 | X | | | | |
| Route 1605 – From Route 622 to dead end | X | | | | |

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## E.5 Public Transportation

| RECOMMENDATION | CITATION | | | | |
|---|---|---|---|---|---|
| | 1995 (1) | 1997 (2) | SHiPS (3) | Interview (4) | Survey (5) |
| Bus service is needed in more remote areas | | | | | X |
| Buses need to run more often, especially on Sundays | | | | | X |
| More seating and shelter are needed at bus stops | | | | | X |
| GLTC should utilize smaller, more efficient buses | | | | | X |
| Lack of specialized transportation, such as service catering to the elderly or handicapped | | | | | X |
| Location of State facilities (e.g., DMV) frequently creates problems for local service such as transit | | | | X | |
| Taxi services are not reliable – perhaps need to increase number of cabs | | | | | X |
| Establish a regional transportation service for disabled from all areas of MPO into the City of Lynchburg. | | X | | | |
| Low-income complexes have no access to public transportation, which in turn keeps them away from better job opportunities | | | | | X |
| Lack of bus service out to DMV and VEC on Odd Fellows Road during business hours | | | | | X |
| Lack of bus service along Timberlake Road where numerous employment opportunities exist for those who can arrange transportation to that area | | | | | X |
| Extend weekend hours of bus service later into the evening since many weekend employment positions often extend beyond normal bus service hours of operation | | | | | X |
| Lack of city bus service from Amherst/Madison Heights to Lynchburg | | | | | X |
| Efficiency study of transit routes, i.e., on/off counts along routes, productive/unproductive segments, etc. | | X | | | |
| Study improvements to the transfer point at the Plaza Shopping Center. | | X | | | |
| Needs assessment for public transit within the MPO. | | X | | | |
| Construct commuter lot in Forest area (near intersection of Routes 221 and 811) | | | | X | |
| City transit should be extended to new Wal-Mart store in Madison Heights (currently stops at Seminole Center) and Bedford | | | | X | |
| Need GLTC service in county (Forest and Madison Heights) | | | | X | |
| Transit under used | | | | X | |
| Transit should be a regional system with all jurisdictions participating in cost | | | | X | |
| Transit for elderly and handicapped in county provided by Area Agency on Aging | | | | X | |

| RECOMMENDATION | CITATION | | | | |
|---|---|---|---|---|---|
| | 1995 (1) | 1997 (2) | SHiPS (3) | Interview (4) | Survey (5) |
| Area Agency on Aging may require additional vans to meet demands from increasing older segment of area population and increase in construction of retirement and nursing homes | | | | X | |
| Consider using transit to transport school children (to reduce capital cost of yellow bus purchase and maintenance) | | | | X | |
| Install signal priority-activation on all city buses | | | | X | |
| Need to think beyond region and work with Danville and Charlottesville | | | | X | |
| GLTC provides only curb-to-curb service; need door-to-door service for elderly and handicapped to relieve demand on CVAAA within GLTC service area | | | | X | |
| Outer-county service reduced due to high demand in immediate city area | | | | X | |
| CVAAA serves population over age 59 and handicapped persons of all ages | | | | X | |
| State grant money to CVAAA for home-to-work may soon be eliminated | | | | X | |
| More money needed by transit company to expand service/system | | | | X | |
| Need policy statements for cost and service efficiency for future service to senior population | | | | X | |
| Existing service not appealing to general population. Service available; however, hotels use shuttle service and airport uses limo/sedan service. | | | | X | |
| Route 221 – Car Pool Commuter parking lot (Park & Ride lot(s)). | | X | | | |
| Route 501 – Car Pool Commuter parking lot (Park & Ride lot(s)). | | X | | | |
| Route 460 – Car Pool Commuter parking lot (Park & Ride lot(s)). | | X | | | |

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## E.6 Pedestrian/Bicycle

| RECOMMENDATION | CITATION | | | | |
|---|---|---|---|---|---|
| | 1995 (1) | 1997 (2) | SHiPS (3) | Interview (4) | Survey (5) |
| "ALL" future roadways should include pedestrian/bike facilities | | | | X | |
| New sidewalks and street lighting needed in downtown | | | | X | |
| Construct sidewalks on V.E.S. Road | | | | X | |
| Provide sidewalks on roads without shoulders and coordinate with transit | | | | X | |
| Provide sidewalks on all new road projects and connect parks; promote Blackwater Creek trail (hike & bike) | | | | X | |
| Complete construction of trail from Percival Island along to river to Campbell County ($1 million grant) | | | | X | |
| Complete Bedford County bike plan by PDC | | | | X | |
| Combine sidewalks and bikepaths | | | | X | |
| Plan update should recognize work done on existing bike/hike paths | | | | X | |
| Use Norfolk Southern right of way for trail | | | | X | |
| Sidewalks needed along major thoroughfares | | | | | X |
| Existing sidewalks are too steep – this presents a problem for those with arthritis | | | | | X |
| Adopt regional bike and pedestrian plan | | | | | X |
| Pedestrians and cars sometimes given right-of-way by lights at the same time along crossing paths | | | | | X |
| Bike lanes needed as part of all new road construction plans | | | | | X |
| Investigate the use of walk/don't walk lights that signal for visually disabled; investigate the use of a longer pedestrian phase. | | X | | | |
| Bicycle Route connection from the western end of Campbell County to the Blackwater Creek bike trail system in the City of Lynchburg, following existing roadways. Feasible locations for a bicycle route/path should be studied for this connection. | | X | | | |
| Biking Connector from the Blackwater Creek Trail to Park Avenue. | | X | | | |
| Widen shoulders for bikes or bicycle lane construction from Lynchburg City Limits to Int. Route 644. | | X | | | |
| Widen shoulders for bikes or bicycle lane construction from Int. Route 659 to Int. US 501. | | X | | | |
| Extend the Regional ISTEA Rail-Trail from its planned terminus near Route 609 to allow connection to US 460, utilizing right-of-ways that may be deemed feasible for trail location. | | X | | | |

| RECOMMENDATION | CITATION | | | | |
|---|---|---|---|---|---|
| | 1995 (1) | 1997 (2) | SHiPS (3) | Interview (4) | Survey (5) |
| No sidewalks for transit patrons in Liberty University and River Ridge Mall areas | | | | X | |
| Considerations for shoulder widening, one side of roadway minimum for all routes where roadway improvements are planned. | | X | | | |
| Entire MPO Area – Installation of actuated traffic lights that sense bicycles as well as vehicles. | | X | | | |
| Route 29 – widen shoulders for bikes or bicycle lane construction from Lynchburg City Limits to Cordon Line. | | X | | | |
| Route 29 Business – widen shoulders for bikes or bicycle lane construction from Int. US 29 to Lynchburg City Limits. | | X | | | |
| Route 210 – widen shoulders for bikes or bicycle lane construction from Int. Route 29 Business to Int. US 29. | | X | | | |
| Route 604 – widen shoulders for bikes or bicycle lane construction from South Int. Route 663 to North Int. Route 663. | | X | | | |
| Route 621 – widen shoulders for bikes or bicycle lane construction from Int. US 221 to Int. Route 660. | | X | | | |
| Route 622 – widen shoulders for bikes or bicycle lane construction from US 29 Int. to Cordon Line. | | X | | | |
| Route 659 – widen shoulders for bikes or bicycle lane construction from Int. Route 660 to Lynchburg City Limits. | | X | | | |
| Route 660 – widen shoulders for bikes or bicycle lane construction from Int. Route 621 to Int. Route 659. | | X | | | |
| Route 663 – widen shoulders for bikes or bicycle lane construction from South Int. Route 670 to Int. Route 604. | | X | | | |
| Route 663 – widen shoulders for bikes or bicycle lane construction from Int. Route 604 to Int. US 29. | | X | | | |
| Route 669 – widen shoulders for bikes or bicycle lane construction from Route 677 Int. to Cordon Line. | | X | | | |
| Route 670 – widen shoulders for bikes or bicycle lane construction from Int. Route 669 to Int. Route 663. | | X | | | |
| Route 670 – widen shoulders for bikes or bicycle lane construction from North Int. Route 663 to Cordon Line. | | X | | | |
| Route 672 – widen shoulders for bikes or bicycle lane construction from Route 622 Int. to M.P. 1.98. | | X | | | |
| Route 677 – widen shoulders for bikes or bicycle lane construction from Route 622 Int. to Route 669 Int. | | X | | | |

| RECOMMENDATION | CITATION | | | | |
|---|---|---|---|---|---|
| | 1995 (1) | 1997 (2) | SHiPS (3) | Interview (4) | Survey (5) |
| Route 681 – widen shoulders for bikes or bicycle lane construction from US 29 Int. to Route 833. | | X | | | |
| Route 811 – widen shoulders for bikes or bicycle lane construction from Int. US 221 to Int. US 460. | | X | | | |
| Route 833 – widen shoulders for bikes or bicycle lane construction from North Int. Route 622 to South Int. Route 622. | | X | | | |
| Route 1034 – widen shoulders for bikes or bicycle lane construction from Int. Route 210 to Int. Route 1006. | | X | | | |
| Bike lane/bike route feasibility along proposed U.S. 29 Bypass. | | X | | | |
| Bike lane/bike route feasibility along proposed 130 Connector. | | X | | | |
| Bike lane/bike route feasibility along proposed 210 Connector. | | X | | | |

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## E.7 Intercity Bus/Rail/Trucks/Air

| RECOMMENDATION | CITATION | | | | |
|---|---|---|---|---|---|
| | 1995 (1) | 1997 (2) | SHiPS (3) | Interview (4) | Survey (5) |
| Travel needs to be more intermodal | | | | X | |
| Need more service to Greyhound Bus station (currently two in a.m. and two in p.m.); extend mall lines to bus station, DMV, and post office | | | | X | |
| Greyhound station will relocate to Kemper Street Station site. Current hours are 8:30 a.m. to 6:30 p.m., with 12 scheduled buses (3 to Richmond). Annual arrivals and departures each total 9,600 passengers. | | | | X | |
| Greyhound buses need to run more often; have an employee in the office whenever a bus is coming or going. Phones are often locked inside. | | | | | X |
| Expand train schedules | | | | | X |
| Trains block at-grade crossings for long periods of time – need overpasses to avoid crossing the railroad tracks | | | | | X |
| Need Bristol-Lynchburg-Richmond-D.C. passenger service | | | | X | |
| Kemper Street rehabilitation project will enhance terminal facility | | | | X | |
| Good freight service exists area-wide | | | | X | |
| Schedule needs improvement: existing NB at 5:00 a.m. and SB at 10:00 p.m. | | | | X | |
| Use piggyback service to take trucks off roadways | | | | X | |
| Amtrak is frequently late in both directions | | | | X | |
| Include rail stop at Forest for the Bristol-D.C. passenger service | | | | X | |
| Station hours are 9:00 p.m. to 6:00 a.m. Facility is of poor quality and lacks ADA access, food vending, and air conditioning. Serves approximately 35 passengers per day. | | | | X | |
| Need for increased passenger rail service east to Richmond and Norfolk, west to Bristol and Knoxville, north to DC and New England | | | | | X |
| Improve access to Kemper Street Station rehabilitation project | | | | X | |
| Routes and routing information put into a workable GIS format. | | X | | | |
| Restoration and multi-use of existing Amtrak Station at Kemper Street. Develop multimodalism opportunities in vicinity of station: Amtrak, GLTC, Greyhound Bus Co., automobiles, biking and hiking. | | X | | | |
| Route 501 N to Big Island: slow trucks on winding road with narrow pavement | | | | X | |
| Trucks in left lane hold up traffic on Route 29 North | | | | | X |
| Trucks using Rte. 501B through city causes congestion | | | | X | |
| Downtown area: trucks create problems on narrow streets | | | | X | |

| RECOMMENDATION | CITATION | | | | |
|---|---|---|---|---|---|
| | 1995 (1) | 1997 (2) | SHiPS (3) | Interview (4) | Survey (5) |
| Candlers Mt. Road: congestion interferes with goods movement (truck traffic) to and from Mayflower Drive | | | | X | |
| Route 29: increase in number of trucks adds to congestion | | | | X | |
| Trucks from/to Frito-Lay plant cause congestion in the Lakeside Drive/Old Forest Road/Lynchburg Expressway area | | | | X | |
| Rte. 29 (Wards Road)/Rte. 501(Expressway): entrance ramp (NE quad) too tight; wood haulers (T&T) overturn on ramp. | | | | X | |
| Rte. 130 (Leon Road): Trucks haul clay to brick factory and travel to Glasgow via Routes 622/64x/613. Industrial park south of Rte. 130 has an access road to Rte. 29; it is not used due to steep grades. Park is served by rail (freight) line. | | | | X | |
| Rte. 130 Conn. (Amelon Road: Rte. 29B to Route 29 Bypass, new industrial sites will attract truck traffic | | | | X | |
| Separate truck traffic from autos | | | | X | |
| Cost too high and not enough connecting cities (competition and demand will determine service offered) | | | | X | |
| Some passengers go to Roanoke or Richmond for better connections | | | | X | |
| Reconsider combined facility with Roanoke | | | | X | |
| Additional runway lengths required to accommodate future growth in cargo shipping | | | | X | |
| Need regional jet service for passengers and cargo | | | | X | |
| A good roadway network required to facilitate goods movement for cargo industry | | | | X | |
| Current connections: US Air to Pittsburgh & Charlotte, United Express to Dulles, Delta to Atlanta | | | | X | |
| Within 10 to 15 years: new general aviation terminal | | | | X | |
| New T-hangars (some existing hangars from 1940s and 50s) | | | | X | |
| Consider creation of a regional authority with participation by all jurisdictions | | | | X | |
| Route 29 (Madison Heights) congestion makes it difficult for patrons in Amherst County to access the airport | | | | X | |
| Integrate air with rail and bus services | | | | X | |
| Proposed industrial sites (Campbell Co.) will create traffic around airport | | | | X | |
| Inadequate signage to general and commercial aviation facilities | | | | X | |
| Regional airport needed – better airport system and increased airline service needed | | | | | X |

| RECOMMENDATION | CITATION | | | | |
|---|---|---|---|---|---|
| | 1995 (1) | 1997 (2) | SHiPS (3) | Interview (4) | Survey (5) |
| Airport Master Plan update needed | | | | X | |

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## E.8 Roadways – Miscellaneous, All Jurisdictions

| RECOMMENDATION | CITATION | | | | |
|---|---|---|---|---|---|
| | 1995 (1) | 1997 (2) | SHiPS (3) | Interview (4) | Survey (5) |
| Acceleration lanes needed at some exit ramps—dangerous merging | | | | | X |
| Drivers don't merge properly on and off ramps | | | | | X |
| Construction causes terrible delays—employ night crews | | | | | X |
| Build a cross-town, 4-lane highway | | | | | X |
| Police officers do not direct traffic around accidents—adds to delay | | | | | X |
| Build bridges and highways before the population demands it | | | | | X |
| Establish park-and-ride along major corridors | | | | | X |
| Signage is difficult to understand—consider color-coding major corridors linking specific areas | | | | | X |
| West is NOT best—build a bypass around the area | | | | | X |
| Interstate needed in the area | | | | | X |
| Build more one-way through streets for better access to downtown | | | | | X |
| Enhance downtown parking | | | | | X |
| Install signal at E. C. Glass High School | | | | | X |
| Curb painting needs to be more visible and thorough in the City | | | | | X |
| Neighborhood roads are utilized as arterial roads given the lack of main arterials connecting residential development areas | | | | | X |
| Need for a faster cross-town route from Route 29 and Lynchburg Expressway to Route 221 with fewer traffic lights | | | | | X |
| Changing speed limits in residential areas, particularly the Rivermont Avenue area, to 35 mph was not a wise action | | | | | X |
| Straighten and widen McConville Road, Wiggington Road, Allegheny Road, Route 622, and Graves Mill Road | | | | | X |
| Need for interstate route in the area | | | | X | |
| Inadequate signage for tourists and to industrial sites | | | | X | |
| Need to improve signage on streets with overlapping route numbers | | | | X | |
| Secondary roads: too narrow and need better pavement | | | | X | |
| Too many slow drivers use left lane on dual lane roads | | | | X | |
| Area colleges need better directional signage on Routes 29, 29 Expressway, and 460. | | | | X | |
| Overhead road signs should be illuminated | | | | X | |
| Need to know impact of final location of Rte. I-73 | | | | X | |
| Complete Route 29 (Madison Heights Bypass) with Rte. 460 overlap west of | | | | X | |

| RECOMMENDATION | CITATION | | | | |
|---|---|---|---|---|---|
| | 1995 (1) | 1997 (2) | SHiPS (3) | Interview (4) | Survey (5) |
| airport, then south on Route 29 (all limited access right-of-way) | | | | | |
| Need interstate route (e.g., Routes 29, 73, 460) | | | | X | |
| Upgrade signage (areawide) to direct tourist and business traffic to significant sites (airport, historic areas, major businesses, colleges, bus station) | | | | X | |
| Crosstown Connector: from Rte. 221 to Kemper Street | | | | X | |
| Western Bypass (new facility): locate a new river crossing between Bedford and Amherst Counties | | | | X | |
| Fort Avenue/12th Street: access to downtown for tourist traffic | | | | X | |
| Restore cobblestone pavement in Downtown Historic Area | | | | X | |
| | | | | | |
| Amherst County: industrial development along proposed Rte. 29 Bypass might require new roads to accommodate future demand | | | | X | |
| Chamber of Commerce supports Rtes. 29-460-29S route for bypass if Rte. 460 can be improved to handle traffic adequately | | | | X | |
| Need Transamerica Corridor to support economic growth | | | | X | |
| Rte. 29 and Lynchburg Expressway: speed and accidents, need accel/decel lanes, ramps at Main Street | | | | X | |
| No easy east-west way to get across town | | | | X | |
| Downtown employees use two-hour parking spaces | | | | X | |
| Long-term parkers use 30-minute spaces at Chamber of Commerce Visitor Center | | | | X | |
| Difficult to find parking in downtown area | | | | X | |
| Percival's Island Connector – Jefferson Street to Percival's Island. | X | | | | |
| Develop a hiking/biking trail to Percival's Island by relocating Concord Turnpike and Jefferson Street and building a connector to Percival's Island from relocated Jefferson Street to Percival's Island. | | X | | | |

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# Appendix F – Environmental Overview Addendum Material

## F.1 Soil Information

**Exhibit F-1**
Problem Soils in the Study Area

| County | USDA Mapping Code | Soil Series | Problem |
|---|---|---|---|
| Amherst | | | |
| | 182B | Jackland | High shrink/swell potential (10-15") |
| | | | Very high shrink/swell potential (15-40") |
| Bedford | | | |
| | 2D, 2E | Ashe | Slope |
| | 4C, 4D, 6C | Braddock | Low strength |
| | 9B, 9C, 9D | Cullen | Slope and low strength |
| | 14D, 14E | Grover | Slope |
| | 16D, 16E, 17C, 17D | Hayesville | Slope and low strength |
| | 18C | Helena | Low strength and high shrink/swell potential (13-59") |
| | 19B | Iredell | Low strength, high shrink/swell potential (27-37") and very high shrink/swell potential (11-27") |
| | 21D3, 21E3 | Madison | Slope and low strength |
| | 24B, 24C, 24D | Mecklenburg | Low strength |
| | 26D | Poindexter | Slope |
| | 32A | Toccoa | Flooding |
| | 33B, 33C, 33D | Turbeville | Low strength |
| | 34B | Vance | Low strength |
| | 35D, 35E | Wateree | Slope |
| Campbell | | | |
| | AxE2 | Appling | Slope |
| | Bu | Buncombe | Flooding |
| | CcB2, CcC2, CcE2, CdC, CeB3, CeD3, | Cecil | Slope |
| | CT | Chewacla-Toccoa complex | Too silty, flooding |
| | CuB, CuC2, CuE2, CxC3, CxE3 | Cullen | Clayey subsoil and slope |
| | EnB, EnC2 | Enon | Plastic-clayey subsoil |
| | FlB2, FlC2, FlE2 | Fluvanna | Clayey subsoil, slope (FlE2) |
| | Fo | Forestdale | Poorly drained, clayey subsoil, high shrink/swell potential (7-62"), flooding |
| | GeB2, GeC2, GeE2, GrB | Georgeville | Clayey subsoil |
| | GwB, GwC | Gwinnett | Clayey subsoil |
| | LoE | Louisburg | Slope |
| | MaB2, MaC2, MaE2 | Madison | Clayey subsoil, slope |
| | McD, McE, McF, MNE | Manteo | Bedrock at depth of 1-2' |
| | MpB, MpC, MrB, MrC, MsB2, MsC2, MtB | Masada | Clayey subsoil |

| County | USDA Mapping Code | Soil Series | Problem |
|---|---|---|---|
| | MzB2, MzC2, MzE2 | Mecklenburg | Clayey subsoil, slope (MzC2, MzE2) |
| | NaB, NaC, NaE | Nason | Clayey subsoil and slope (NaE) |
| | Re | Riverview | Flooding |
| | StA, StB | State | Flooding |
| | TaF | Tallapoosa | Slope |
| | TlB, TlC2, TlE2, TmD3, TmE3 | Tatum | Clayey subsoil, slope (TlE2, TmC3) |
| | To | Toccoa | Flooding |
| | TuB, TuC2 | Turbeville | Clayey subsoil |
| | VaB, VaB2, VaC2 | Vance | Clayey subsoil |
| | Wa | Wahee | Clayey subsoil, flooding |
| | WkB, WkD, WkE, WkF, WlE3 | Wilkes | Clayey subsoil, slope (WkE, WkF and WlE3) |
| | WoB | Worsham | Poorly drained, clayey subsoil, flooding |

Sources: USDA, Soil Conservation Service, *Soil Survey of Amherst County, Virginia.* 2000 (preliminary data).
USDA, Soil Conservation Service, *Soil Survey of Bedford County, Virginia.* 1989.
USDA, Soil Conservation Service, *Soil Survey of Campbell County and the City of Lynchburg, Virginia* 1977.

**Exhibit F-2**
Hydric Soils in the Study Area

| County | USDA Mapping Code | Series | State List | National List |
|---|---|---|---|---|
| Amherst | | | | |
| | 11B | Chatuge loam | X | X |
| | 54A | Hatboro loam | X | X |
| | 76B | Pineywoods loam | X | X |
| | 156A | Batteau-Yogaville | X | X |
| Bedford | | | | |
| | 8A | Chewacla loam | X | X |
| Campbell | | | | |
| | Ch | Chewacla | X | X |
| | CT | Chewacla-Toccoa | X | |
| | Eb | Elbert | X | X |
| | Fo | Forestdale | X | X |
| | Ro | Roanoke | X | X |
| | Wd | Wehadkee | X | X |
| | WoB | Worsham | X | X |

## F.2 Natural Resource Correspondence

AUGHAN
IRONMENTAL
VICES, INC.

November 8, 2000

Mr. Ronald Hedlund, Director
Virginia Department of Conservation and Recreation
Division of Planning and Recreation Resources
203 Governor Street
Richmond, Virginia 23219

RE: Lynchburg Area Transportation Study

Dear Mr. Hedlund:

Straughan Environmental Services, Inc. is assisting the Parsons Transportation Group, Inc. with the preparation of the Lynchburg Area Transportation Study. The study area includes the city of Lynchburg and portions of the adjoining Amherst, Bedford and Campbell Counties.

Straughan Environmental Services, Inc. is collecting data regarding sensitive wildlife habitat water resources, and wetlands. During this preliminary phase of the study, we are asking you to provide us with mapping, data, relevant studies or other published materials you have regarding scenic rivers or potential scenic rivers and other sensitive natural resources within the study area.

A location map of the study area is attached. Please let me know if you have any questions regarding our request. I can be reached at (301) 989-3265. Thank you.

Sincerely,
STRAUGHAN ENVIRONMENTAL SERVICES, INC.

Leyla E. Lange

Leyla E. Lange
Senior Environmental Scientist

Attachment

cc: Joseph Springer, Parsons Transportation Group, Inc.

3905 NATIONAL DRIVE, SUIT
BURTONSVILLE, MARYLAND
301.989.3265 FAX 301.989

RAUGHAN
IRONMENTAL
VICES, INC.

November 8, 2000

Mr. Michael J. Foreman
Virginia Department of Forestry
P.O. Box 3758
Charlottesville, VA 22903

RE: Lynchburg Area Transportation Study

Dear Mr. Foreman:

Straughan Environmental Services, Inc. is assisting the Parsons Transportation Group, Inc. with the preparation of the Lynchburg Area Transportation Study.. The study area includes the city of Lynchburg and portions of the adjoining Amherst, Bedford and Campbell Counties.

Straughan Environmental Services, Inc. is collecting data regarding sensitive wildlife habitat water resources, and wetlands. To assist us in our evaluation, please provide any mapping or data you may have regarding sensitive wildlife habitats within the study area.

A location map of the study area is attached. Please let me know if you have any questions regarding our request. I can be reached at (301) 989-3265. Thank you.

Sincerely,
STRAUGHAN ENVIRONMENTAL SERVICES, INC.

Leyla E. Lange

Leyla E. Lange
Senior Environmental Scientist

Attachment

cc: Joseph Springer, Parsons Transportation Group, Inc.

3905 NATIONAL DRIVE, SU
BURTONSVILLE, MARYLAND
301.989.3265 FAX 301.9

RAUGHAN
IRONMENTAL
VICES, INC.

November 8, 2000

Ms. Lesa Berlinghoff
Virginia Division of Natural Heritage
1500 E. Main Street
Suit 312
Richmond, VA 23219

RE: Lynchburg Area Transportation Study

Dear Ms. Berlinghoff:

Straughan Environmental Services, Inc. is assisting the Parsons Transportation Group, Inc. with the preparation of the Lynchburg Area Transportation Study. The study area includes the city of Lynchburg and portions of the adjoining Amherst, Bedford and Campbell Counties.

Straughan Environmental Services, Inc. is collecting data regarding sensitive wildlife habitat and threatened and endangered species within the study area. During this phase of the study, we are asking you to provide us with any data you have regarding wildlife resources, threatened or endangered species, and other natural resources within the study area.

A location map of the study area is attached. Please let me know if you have any questions regarding our request. I can be reached at (301) 989-3265. Thank you.

Sincerely,
STRAUGHAN ENVIRONMENTAL SERVICES, INC.

Leyla E. Lange

Leyla E. Lange
Senior Environmental Scientist

Attachment

cc: Joseph Springer, Parsons Transportation Group, Inc.

3905 NATIONAL DRIVE, SU
BURTONSVILLE, MARYLAND
301.989.3265 FAX 301.9

RAUGHAN
IRONMENTAL
VICES, INC.

November 8, 2000

Ms. Cindy Schultz
U.S. Fish and Wildlife Service
P.O. Box 99
Gloucester, VA 23061

RE: Lynchburg Area Transportation Study

Dear Ms. Schultz:

Straughan Environmental Services, Inc. is assisting the Parsons Transportation Group, Inc. with the preparation of the Lynchburg Area Transportation Study. The study area includes the city of Lynchburg and portions of the adjoining Amherst, Bedford and Campbell Counties.

Straughan Environmental Services, Inc. is collecting data regarding sensitive wildlife habitat and threatened and endangered species within the study area. During this phase of the study, we are asking you to provide us with any data you have regarding wildlife resources and threatened or endangered species within the study area.

A location map of the study area is attached. Please let me know if you have any questions regarding our request. I can be reached at (301) 989-3265. Thank you.

Sincerely,
STRAUGHAN ENVIRONMENTAL SERVICES, INC.

Leyla E. Lange
Senior Environmental Scientist

Attachment

cc: Joseph Springer, Parsons Transportation Group, Inc.

3905 NATIONAL DRIVE, SUI
BURTONSVILLE, MARYLAND
301.989.3265 FAX 301.98

RAUGHAN
VIRONMENTAL
RVICES, INC.

November 8, 2000

Virginia Department of Conservation and Recreation
203 Governor Street, Suite 213
Richmond, Virginia 23219-2094

RE: Lynchburg Area Transportation Study

To whom it may concern:

Straughan Environmental Services, Inc. is assisting the Parsons Transportation Group, Inc. with the preparation of the Lynchburg Area Transportation Study. The study area includes the city of Lynchburg and portions of the adjoining Amherst, Bedford and Campbell Counties.

Straughan Environmental Services, Inc. is collecting data regarding sensitive wildlife habitat and threatened and endangered species within the study area. During this phase of the study, we are asking you to provide us with any data you have regarding wildlife resources and threatened or endangered species within the study area.

A location map of the study area is attached. Please let me know if you have any questions regarding our request. I can be reached at (301) 989-3265. Thank you.

Sincerely,
STRAUGHAN ENVIRONMENTAL SERVICES, INC.

Leyla E. Lange

Leyla E. Lange
Senior Environmental Scientist

Attachment

cc: Joseph Springer, Parsons Transportation Group, Inc.

3905 NATIONAL DRIVE, SUI
BURTONSVILLE, MARYLAND
301.989.3265 FAX 301.98

RAUGHAN
IRONMENTAL
VICES, INC.

November 8, 2000

Virginia Department of Game and Inland Fisheries
4010 West Broad Street
Richmond, Virginia 23230

RE: Lynchburg Area Transportation Study

To whom it may concern:

Straughan Environmental Services, Inc. is assisting the Parsons Transportation Group, Inc. with the preparation of the Lynchburg Area Transportation Study. The study area includes the city of Lynchburg and portions of the adjoining Amherst, Bedford and Campbell Counties.

Straughan Environmental Services, Inc. is collecting data regarding sensitive wildlife habitat and threatened and endangered species within the study area. During this phase of the study, we are asking you to provide us with any data you have regarding wildlife resources and threatened or endangered species within the study area.

A location map of the study area is attached. Please let me know if you have any questions regarding our request. I can be reached at (301) 989-3265. Thank you.

Sincerely,
STRAUGHAN ENVIRONMENTAL SERVICES, INC.

Leyla E. Lange

Leyla E. Lange
Senior Environmental Scientist

Attachment

cc: Joseph Springer, Parsons Transportation Group, Inc.

3905 NATIONAL DRIVE, SUI
BURTONSVILLE, MARYLAND
301.989.3265 FAX 301.98

# United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
6669 Short Lane
Gloucester, Virginia 23061

November 28, 2000

Ms. Leyla E. Lange
Straughan Environmental Services, Inc.
3905 National Drive, Suite 370
Burtonsville, Maryland 20866

Greetings:

The U.S. Fish and Wildlife Service has received your request to review the attached project for potential impacts to federally listed or proposed endangered and threatened species and designated critical habitat in Virginia pursuant to the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.). Attached are lists of species with federal status and species of concern that have been documented or may occur in the county(s) where your project is located. These lists were prepared by this office and are based on information obtained from previous surveys for rare and endangered species.

Due to the limited staff in this office, we are unable to review projects in a timely manner. Therefore, we request that you send the attached project to the following state agencies for review:

Plant Protection
Virginia Department of Agriculture and Consumer Services
P.O. Box 1163
Richmond, VA 23218
(804) 786-3515

Virginia Department of Game and Inland Fisheries
Environmental Services Section
P.O. Box 11104
Richmond, VA 23230
(804) 367-1000

Virginia Department of Conservation and Recreation
Division of Natural Heritage
217 Governor Street, 3rd Floor
Richmond, VA 23219
(804) 786-7951

It is recommended that all of the agencies named above review the project because each maintains a different database and has differing expertise and/or regulatory responsibility. **IF ANY OF THESE AGENCIES DETERMINES THAT YOUR PROJECT MAY IMPACT A FEDERALLY LISTED, PROPOSED, OR CANDIDATE SPECIES OR CRITICAL HABITAT, PLEASE CONTACT THIS OFFICE; OTHERWISE, FURTHER CONTACT WITH THIS OFFICE IS NOT NECESSARY.**

If you have any questions or need further assistance, please contact Eric Davis of this office at (804) 693-6694, extension 104.

Sincerely,

Karen L. Mayne

Karen L. Mayne
Supervisor
Virginia Field Office

Enclosures

AUGHAN
RONMENTAL
VICES, INC.

November 8, 2000

Ms. Cindy Schultz
U.S. Fish and Wildlife Service
P.O. Box 99
Gloucester, VA 23061

RE: Lynchburg Area Transportation Study

Dear Ms. Schultz:

Straughan Environmental Services, Inc. is assisting the Parsons Transportation Group, Inc. with the preparation of the Lynchburg Area Transportation Study. The study area includes the city of Lynchburg and portions of the adjoining Amherst, Bedford and Campbell Counties.

Straughan Environmental Services, Inc. is collecting data regarding sensitive wildlife habitat and threatened and endangered species within the study area. During this phase of the study, we are asking you to provide us with any data you have regarding wildlife resources and threatened or endangered species within the study area.

A location map of the study area is attached. Please let me know if you have any questions regarding our request. I can be reached at (301) 989-3265. Thank you.

Sincerely,
STRAUGHAN ENVIRONMENTAL SERVICES, INC.

Leyla E. Lange
Leyla E. Lange
Senior Environmental Scientist

Attachment

cc: Joseph Springer, Parsons Transportation Group, Inc.

3905 NATIONAL DRIVE, SUITE
BURTONSVILLE, MARYLAND 20
301.989.3265 FAX 301.989.3

## KEY

LE - federally listed endangered.

LT - federally listed threatened.

PE - federally proposed endangered.

PT - federally proposed threatened.

EX - believed to be extirpated in Virginia.

LE(S/A) - federally listed endangered due to similarity of appearance to a federally listed species.

LT(S/A) - federally listed threatened due to similarity of appearance to a federally listed species.

C - candidate species; the U.S. Fish and Wildlife Service has enough information to list the species as threatened or endangered, but this action is precluded by other listing activities.

SOC - species of concern; those species that have been identified as potentially imperiled or vulnerable throughout their range or a portion of their range. These species are not protected under the Endangered Species Act.

C2 - former U.S. Fish and Wildlife Service category 2 candidate species.

G - global rank; the species rarity throughout its total range.

G1 - extremely rare and critically imperiled with 5 or fewer occurrences or very few remaining individuals; or because of some factor(s) making it especially vulnerable to extinction.

G2 - very rare and imperiled with 6 to 20 occurrences or few remaining individuals; or because of some factor(s) making it vulnerable to extinction.

G3 - either very rare and local throughout its range or found locally (abundantly at some of its locations) in a restricted range; or vulnerable to extinction because of other factors. Usually fewer than 100 occurrences are documented.

G_T_ - signifies the rank of a subspecies or variety. For example, a G5T1 would apply to a subspecies of a species that is demonstrably secure globally (G5) but the subspecies warrants a rank of T1, critically imperiled.

G_Q - The taxon has a questionable taxonomic assignment.

## CAMPBELL COUNTY, VIRGINIA
### Federally Listed, Proposed, and Candidate Species

| SCIENTIFIC NAME | COMMON NAME | STATUS |
|---|---|---|
| VASCULAR PLANTS | | |
| Echinacea laevigata | Smooth coneflower | LE |

---

### Species of Concern

| | | |
|---|---|---|
| FISH | | |
| Noturus gilberti | Orangefin madtom | G2 |
| Scartomyzon ariommus | Bigeye jumprock | G2 |
| VASCULAR PLANTS | | |
| Monotropsis odorata | Sweet pine sap | G3 |
| Pycnanthemum torrei | Torrey's mountain-mint | G2 |

March 22, 1999
Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

## BEDFORD COUNTY, VIRGINIA
### Federally Listed, Proposed, and Candidate Species

| SCIENTIFIC NAME | COMMON NAME | STATUS |
|---|---|---|
| FISH | | |
| Percina rex | Roanoke logperch | LE |

---

### Species of Concern

| | | |
|---|---|---|
| AMPHIBIANS | | |
| Plethodon hubrichti | Peaks of Otter salamander | G2 |
| FISH | | |
| Scartomyzon ariommus | Bigeye jumprock | G2 |
| INVERTEBRATES | | |
| Diploperla kanawholensis | Little Kanawha perlodid stonefly | G1 |
| Fusconaia masoni | Atlantic pigtoe | G2 |
| Ophiogomphus incurvatus | Appalachian snaketail | G3 |
| Speyeria diana | Diana fritillary | G3 |
| Speyeria idalia | Regal fritillary | G3 |
| VASCULAR PLANTS | | |
| Buckleya distichophylla[1] | Piratebush | G3 |
| Carex schweinitzii[1] | Schweinitz's sedge | G3 |
| Iliamna remota | Kankakee globe-mallow | G1 |
| Lilium grayi | Gray's lily | G3 |
| Monotropsis odorata | Sweet pine sap | G3 |
| Phlox buckleyi | Sword-leaved phlox | G2 |

[1]This species has been documented in an adjacent county and may occur in this county.

March 22, 1999
Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

# AMHERST COUNTY, VIRGINIA
## Federally Listed, Proposed, and Candidate Species

| SCIENTIFIC NAME | COMMON NAME | STATUS |
|---|---|---|
| INVERTEBRATES | | |
| Pleurobema collina | James River spinymussel | LE |

---

## Species of Concern

| | | |
|---|---|---|
| INVERTEBRATES | | |
| Lasmigona subviridis | Green floater | G3 |
| VASCULAR PLANTS | | |
| Carex polymorpha | Variable sedge | G2G3 |
| Carex schweinitzii[1] | Schweinitz's sedge | G3 |
| Iliamna remota | Kankakee globe mallow | G1Q |

[1]This species has been documented in an adjacent county and may occur in this county.

March 22, 1999
Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

## CITY OF LYNCHBURG, VIRGINIA
### Federally Listed, Proposed, and Candidate Species

| SCIENTIFIC NAME | COMMON NAME | STATUS |
|---|---|---|
| None documented | | |

---

### Species of Concern

| | | |
|---|---|---|
| INVERTEBRATES | | |
| Lasmigona subviridis | Green floater | G3 |

March 22, 1999
Prepared by U.S. Fish and Wildlife Service, Virginia Field Office

# Smooth Coneflower

## *Echinacea laevigata*

L.W. Zettler

Description - The smooth coneflower occurs in Virginia, North Carolina, South Carolina, and Georgia. It no longer occurs in Pennsylvania. The smooth coneflower is a perennial herb with a single stem that grows up 59 inches in height. Stems are smooth with few leaves. The largest leaves are the elliptical leaves at the base of the plant which can reach a length of 7.8 inches. The petals of the flowers are light pink to purplish, usually drooping, and 1.9 to 3.1 inches in length. Flower heads are usually solitary.

Life History -This rare coneflower was formerly a plant of prairie-like habitats or oak savannahs maintained by fire and large herbivores such as elk and bison. Now, it is found in relatively open areas including dry woods, power line right-of-ways, dry limestone bluffs, roadsides, meadows, and clearcuts. Sites with bare soils rich in magnesium and/or calcium, abundant sunlight, and little competition from other plants are optimal. Flowering occurs from May through July.

Conservation - The smooth coneflower was federally listed as an endangered species on October 8, 1992. Currently, fire or some other suitable form of disturbance, such as well-timed mowing or the careful clearing of trees, is essential to maintaining the habitat remnants upon which this species depends. Loss of open habitat due to conversion to agriculture, silviculture, urbanization, and industrial development, as well as suppression of natural disturbances, such as fire, are a significant threat to this species. Other threats to this species include unauthorized collection, woody plant invasion, residential and industrial development, highway construction and improvement, herbicides, and roadside and power line right-of-way maintenance.

What You Can Do To Help - If you find a plant that appears to be the smooth coneflower, take note of the location and photograph the plant, if possible. Please do not remove the plant! Contact one of the following agencies for assistance:

Virginia Department of Agriculture and Consumer Services
Office of Plant Protection
P.O. Box 1163
Richmond, Virginia 23209
(804) 786-3515

Virginia Department of Conservation and Recreation
Division of Natural Heritage
217 Governor Street, 3rd Floor
Richmond, Virginia 23219
(804) 786-7951

U.S. Fish and Wildlife Service
Virginia Field Office
6669 Short Lane
Gloucester, Virginia 23061
(804) 693-6694

References

Gaddy, L.L. 1991. The status of *Echinacea laevigata* (Boynton and Beadle) Blake. Unpublished report to the U.S. Fish and Wildlife Service, Asheville, North Carolina.

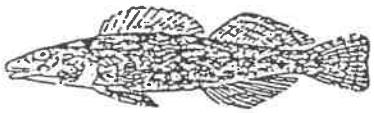
Lugwig, J.C. 1991. Smooth coneflower. Pages 144-145 in K. Terwilliger, ed. Virginia's Endangered Species, Proceedings of a Symposium. McDonald and Woodward Publishing Company, Blacksburg, Virginia.

U.S. Fish and Wildlife Service. 1995. Smooth coneflower recovery plan. Atlanta, Georgia.

U.S. Fish and Wildlife Service
Virginia Field Office
6669 Short Lane
Gloucester, Virginia 23061
(804) 693-6694
http://www.fws.gov
August 1999

**U.S. Fish & Wildlife Service**

# Roanoke Logperch



D.S. Jordan

## *Percina rex*

**Description** - The Roanoke logperch is found only in the Roanoke, Nottoway, and Meherrin River systems of Virginia. This small fish can grow up to 4.5 inches in length. Its back is dark green and its sides are greenish to yellowish, both with dark markings; the belly is white to yellowish.

**Life History** - The logperch typically inhabits medium-to-large, warm, usually clear streams and small rivers of moderate to low gradient. It avoids moderately and heavily silted areas except during winter periods of inactivity. Winter habitat appears to be deep pools under boulders. During warm and mild months, adults usually inhabit the main body of stream pools, runs, and riffles and typically associate with gravel and rubble. Young are usually found in slow runs and pools with clean sandy bottoms. They are rarely found in impoundments. Spawning occurs in April or May in deep runs over gravel and small cobble and logperch typically bury their eggs with no subsequent parental care. This species commonly lives five to six years.

U.S. Fish and Wildlife Service
Virginia Field Office
6669 Short Lane
Gloucester, Virginia 23061
(804) 693-6694
http://www.fws.gov
August 1999

Logperch actively feed during the warmer months by flipping over stones with their snout and ingesting the exposed prey that consists of bottom-dwelling insects.

**Conservation** - The Roanoke logperch was listed as an endangered species on August 18, 1989. It appears that massive habitat loss associated with the construction of the large impoundments of the Roanoke River Basin in the 1950s and 1960s (Roanoke Rapids, Gaston, Kerr, Leesville, Smith Mountain, and Philpott Reservoirs) was the original cause of significant population declines of this species. These reservoir systems resulted in major disruptions in the ability of this species to move throughout its historic range. This species presently occurs in five populations in widely separated segments of the upper Roanoke, Pigg, Smith, Nottoway, and Meherrin Rivers. The populations in the Roanoke and Nottoway basins probably represent remnants of much larger populations that once occupied much of the Roanoke and Nottoway River drainage upstream of the fall line. All the populations are small and no genetic exchange occurs among them because they are separated by large impoundments and wide river gaps. Each population is vulnerable because of its relatively low density and limited range. Current threats are nonpoint source pollution and spills and accidents associated with chemical releases and destruction and degradation of habitat. Small logperch populations could go extinct with minor habitat degradation. Water withdrawals may pose a serious threat to the species in the future as the human population of the Roanoke River basin increases.

**What You Can Do To Help** - If you own property that borders a stream or other waterway, avoid using chemicals or fertilizers. To help control erosion and reduce runoff, maintain a buffer of natural vegetation along the stream bank. Install fencing to prevent livestock from entering the stream, this will reduce siltation and input of waste products.

To find out more about the Roanoke logperch contact:

Virginia Department of Game and Inland Fisheries
P.O. Box 11104
Richmond, Virginia 23230
(804) 367-1000

References

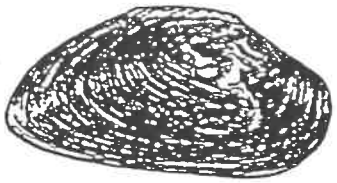
Jenkins, R.E. and N.M. Burkhead. 1993. Freshwater fishes of Virginia. American Fisheries Society, Bethesda, Maryland.

Simonson, T.D. and R.J. Neves. 1986. A status survey of the orangefin madtom and Roanoke logperch. Report to Virginia Commission of Game and Inland Fisheries, Richmond, Virginia.

U.S. Fish and Wildlife Service. 1992. Roanoke logperch (*Percina rex*) recovery plan. Newton Corner, Massachusetts.

# James River Spinymussel

## *Pleurobema collina*



**Description** - Prior to its decline, this freshwater mussel was found throughout the upper James River above Richmond and in all of its major upstream tributaries. The species has declined rapidly during the past two decades and now exists only in small, headwater tributaries of the upper James River basin in Virginia and West Virginia. The James River spinymussel is a small freshwater mussel slightly less than three inches in length. Adults have a dark brown shell with prominent growth rings and occasionally, short spines on each valve. Young mussels have a shiny yellow shell with or without one to three short spines.

**Life History** - Suitable habitat for this species includes free-flowing streams with a variety of flow regimes. The James River spinymussel is found in a variety of substrates that are free from silt. Like other freshwater mussels, this species is a filter feeder. It feeds on plankton collected from water that is passed over its gills. Reproduction occurs sexually. Females carry eggs in their gills. During spawning, the male releases sperm into the water column and the sperm is take into the female through the gills. The resulting larvae (known as glochidia) are released from the female into the water column and must attach to a fish host to survive. While attached to the fish host, development of the glochidia continues. Once metamorphosis is complete, the juvenile mussel drops off the fish host and continues to develop on the stream bottom. Known fish hosts for this species include the bluehead chub (*Nocomis leptocephalus*), rosyside dace (*Clinostomus funduloides*), blacknose dace (*Rhinichthys atratulus*), mountain redbelly dace (*Phoxinus oreas*), rosefin shiner (*Lythrurus ardens*), satinfin shiner (*Cyprinella analostana*), central stoneroller (*Campostoma anomalum*), and swallowtail shiner (*Notropis procne*).

**Conservation** - The James River spinymussel was federally listed as an endangered species on July 22, 1988. The primary reason for its decline is habitat loss and modification. Threats to this species include siltation, invasion of the non-native Asiatic clam (*Corbicula fluminea*), impoundment of waterways, water pollution, stream channelization, sewage discharge, agricultural runoff including pesticides and fertilizers, poor logging and road/bridge construction practices, and discharge of chlorine.

**What You Can Do To Help** - If you reside on property that borders a stream or other waterway, avoid using chemicals or fertilizers. To help control erosion and reduce runoff, maintain a buffer of natural vegetation along streambanks. Install fencing to prevent livestock from entering streams to reduce trampling of mussels, siltation, and input of waste products. Protecting water quality is the most effective way to conserve mussels.

To find out more about the James River spinymussel contact:

Virginia Department of Game and Inland Fisheries
P.O. Box 11104
Richmond, Virginia 23230
(804) 367-1000

**References**

Hove, M.C. and R.J. Neves. 1994. Life history of the endangered James spinymussel *Pleurobema collina* (Conrad, 1837) (Mollusca: Unionidae). American Malacological Bulletin 11(1):29-40.

Neves, R.J. 1991. James spinymussel. Pages 281-282 in K. Terwilliger, ed. Virginia's Endangered Species, Proceedings of a Symposium. McDonald and Woodward Publishing Company, Blacksburg, Virginia.

U.S. Fish and Wildlife Service. 1990. James spinymussel (*Pleurobema collina*) recovery plan. Newton Corner, Massachusetts.

U.S. Fish and Wildlife Service
Virginia Field Office
6669 Short Lane
Gloucester, Virginia 23061
(804) 693-6694
http://www.fws.gov
August 1999

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of Natural
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David G. Brickley
Director

# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF CONSERVATION AND RECREATION

217 Governor Street, 3rd Floor

TDD (804) 786-2121 Richmond, Virginia 23219 (804) 786-7951 FAX (804) 371-2674

http://www.state.va.us/~dcr/vahcr.html

November 21, 2000

Ms. Leyla Lange
Straughan Environmental Services, Inc.
3905 National Drive, Suite 370
Burtonsville, Maryland 20866

RE: General Location Maps

Dear Ms. Lange:

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biological and Conservation Data System (BCD) for occurrences of natural heritage resources documented within **the counties of Amherst, Bedford and Campbell (includes City of Lynchburg)**. Natural heritage resources are defined by the Virginia Natural Area Preserves Act as "the habitat of rare, threatened, or endangered plant and animal species, rare or state significant natural communities or geologic sites, and similar features of scientific interest" (sec. 10.1-209 et seq. of the Code of Virginia).

Please find enclosed the county reports and general location map for **the counties of Amherst, Bedford and Campbell(includes City of Lynchburg)**. The county reports identify the species name, rarity ranks, and protection status for each species documented within these counties, while the one minute location blocks (which represent approximately one square mile on the ground) contain documented locations of one or more natural heritage resources. Each block is color-coded to indicate the highest legal protection status for the natural heritage resources within that block. Blocks should act as indicators or "caution flags" for natural heritage resources during planning efforts. The center points should not be interpreted as resource locations, nor should blocks be considered buffer areas for resources reported within them.

The use of one minute blocks can facilitate project permitting by identifying biologically sensitive areas before projects are submitted to permitting authorities. For example, potential endangered species impacts can be identified early in the planning process, while there is still an opportunity to modify a project to avoid the impacts. Early coordination is key to ensuring protection of an area's natural heritage resources and accelerating the permit review process.

If ground-disturbing activities are proposed in the vicinity of the indicated one minute blocks, you may contact DCR for a site-specific review of the project area. A determination can then be made regarding potential impacts of the proposed work, if any, on occurrences of natural heritage resources. In most cases, our response letter can be sent back to you within five working days.

Any activities proposed in the vicinity of one minute blocks that contain threatened and endangered species should also be coordinated with the appropriate regulatory authorities. All federally protected species are regulated by the United States Fish and Wildlife Service (USFWS). State protected non-insect animals are regulated by the Virginia Department of Game and Inland Fisheries (VDGIF). The Virginia Department of Agriculture and Consumer Services (VDACS) has authority over state protected plants and insects.

Please credit DCR as the source of this information if it is used in any presentations or documents. Please send a copy of any documents which utilize the information to DCR. Do not hesitate to contact us if you have any questions regarding the use or interpretation of the data.

These data reflect the information currently available in BCD. Any absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources. New and updated information is continually added to BCD. Please contact DCR for an update on this natural heritage information if a significant amount of time passes before it is utilized.

A fee of $ 115.00 has been assessed for the service of providing this information. Please find enclosed an invoice for that amount. Please return one copy of the invoice along with your remittance made payable to the Treasurer of Virginia, Department of Conservation and Recreation, Post Office Box 721, Richmond, VA 23206-0721, ATTN: Financial Services. Payment is due within thirty days of the invoice date.

Should you have any questions or concerns, feel free to contact me at 804-371- 2708. Thank you for the opportunity to provide this information.

Sincerely,

S. René Hypes

S. René Hypes
Project Review Coordinator

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DEPARTMENT OF CONSERVATION & RECREATION
DIVISION OF NATURAL HERITAGE

NATURAL HERITAGE RESOURCES OF AMHERST COUNTY

| TIFIC NAME | COMMON NAME | GLOBAL RANK | STATE RANK | FEDERAL STATUS | STATE STATUS | *LAST SEEN IN CO SINCE 1980? |
|---|---|---|---|---|---|---|
| | RIVERSIDE PRAIRIE | | | | | Y |
| | MONTANE BASIC SEEPAGE SWAMP | | | | | Y |
| | HIGH ELEVATION OUTCROP BARREN | | | | | Y |
| ; | | | | | | |
| :GONA SUBVIRIDIS | GREEN FLOATER | G3 | S2 | | SC | No Date |
| :OBEMA COLLINA | JAMES SPINYMUSSEL | G1 | S1 | LE | LE | Y |
| ITS | | | | | | |
| GLOSSUM MUEHLENBERGII | GREAT INDIAN-PLANTAIN | G4 | S2 | | | Y |
| K POLYMORPHA | VARIABLE SEDGE | G3 | S2 | | LE | Y |
| K VESICARIA | INFLATED SEDGE | G5 | S1S2 | | | Y |
| RICUM ELLIPTICUM | PALE ST. JOHN'S-WORT | G5 | SH | | | N |
| MNA REMOTA | KANKAKEE GLOBE-MALLOW | G1Q | S1 | | | Y |
| ANTEERA GRANDIFLORA | LARGE PURPLE-FRINGE ORCHIS | G5 | S1 | | | Y |
| PALUDIGENA | BOG BLUEGRASS | G3 | S2 | | | Y |
| NISIA DODECANDRA SSP DODECANDRA | COMMON CLAMMY-WEED | G5T7 | S2 | | | Y |
| SETIGERA | PRAIRIE ROSE | G5 | S1 | | | Y |
| DAGO RANDII | RAND'S GOLDENROD | G5T4 | S2S3 | | | Y |

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least one occurrence in the county seen since 1980

DEPARTMENT OF CONSERVATION & RECREATION
DIVISION OF NATURAL HERITAGE

NATURAL HERITAGE RESOURCES OF BEDFORD COUNTY

| NTIFIC NAME | COMMON NAME | GLOBAL RANK | STATE RANK | FEDERAL STATUS | STATE STATUS | *LAST SEEN IN CO SINCE 19807 |
|---|---|---|---|---|---|---|
| THODON HUBRICHTI | PEAKS OF OTTER SALAMANDER | G2 | S2 | | SC | Y |
| | PIEDMONT/MOUNTAIN BOTTOMLAND FOREST | | | | | Y |
| | RIVERSIDE PRAIRIE | | | | | Y |
| | MOUNTAIN POND | | | | | Y |
| | EASTERN HEMLOCK FOREST | | | | | Y |
| | LOW ELEVATION BOULDERFIELD FOREST/WOODLAND | | | | | Y |
| | CHESTNUT OAK FOREST | | | | | Y |
| | CENTRAL APPALACHIAN SHALE BARREN | | | | | Y |
| RTOMYZON ARIOMMUS | BIGEYE JUMPROCK | G4 | S2 | | | Y |
| ES | | | | | | |
| PHUS PARVIDENS | PIEDMONT CLUBTAIL | G4 | S1 | | | Y |
| IOGOMPHUS INCURVATUS | APPALACHIAN SNAKETAIL | G3 | S1 | | | Y |
| CIODES BATESII | TAWNY CRESCENTSPOT | G4 | SH | | | N |
| LANTS | | | | | | |
| ATAEGUS PRUINOSA | A HAWTHORN | G5 | S1 | | | Y |
| YMUS CANADENSIS | NODDING WILD-RYE | G5 | S2? | | | Y |
| IAMNA REMOTA | KANKAKEE GLOBE-MALLOW | G1Q | S1 | | | Y |
| UCOTHOE FONTANESIANA | HIGHLAND DOG-HOBBLE | G5 | S1S2 | | | Y |
| LOX BUCKLEYI | SWORD-LEAVED PHLOX | G2 | S2 | | | Y |
| LANISIA DODECANDRA SSP DODECANDRA | COMMON CLAMMY-WEED | G5T? | S2 | | | Y |
| ARTINA PECTINATA | FRESHWATER CORDGRASS | G5 | S2 | | | Y |
| ERMACOCE GLABRA | SMOOTH BUTTONWEED | G4G5 | S1 | | | Y |
| CIA AMERICANA SSP AMERICANA | AMERICAN PURPLE VETCH | G5T5 | S1S2 | | | Y |

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t least one occurrence in the county seen since 1980

DEPARTMENT OF CONSERVATION & RECREATION
DIVISION OF NATURAL HERITAGE

NATURAL HERITAGE RESOURCES OF CAMPBELL COUNTY & CITY OF LYNCHBURG

| ENTIFIC NAME | COMMON NAME | GLOBAL RANK | STATE RANK | FEDERAL STATUS | STATE STATUS | *LAST SEEN IN CO SINCE 1980? |
|---|---|---|---|---|---|---|
| IYSTOMA TALPOIDEUM | MOLE SALAMANDER | G5 | S1 | | SC | Y |
| ; | | | | | | |
| | UPLAND DEPRESSION SWAMP | | | | | Y |
| | RICH COVE/MESIC SLOPE FOREST | | | | | Y |
| | EASTERN HEMLOCK FOREST | | | | | No Date |
| TURUS GILBERTI | ORANGEFIN MADTOM | G2 | S1S2 | | LT | Y |
| ARTOMYZON ARIOMMUS | BIGEYE JUMPROCK | G4 | S2 | | | Y |
| TES | | | | | | |
| LOCORDULIA SELYSII | SELYS' SUNDRAGON | G4 | S2 | | | Y |
| SMIGONA SUBVIRIDIS | GREEN FLOATER | G3 | S2 | | SC | N |
| LANTS | | | | | | |
| CHNERA AMERICANA | BLUE-HEARTS | G5? | S1S2 | | | Y |
| HINACEA LAEVIGATA | SMOOTH CONEFLOWER | G2 | S2 | LE | | Y |
| LOX PILOSA SSP PILOSA | DOWNY PHLOX | G5T5 | S2 | | | Y |
| CNANTHEMUM TORREI | TORREY'S MOUNTAIN-MINT | G2 | S2? | | | N |

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at least one occurrence in the county seen since 1980

## F.3 Cultural and Historical Information

Exhibit F-3 on the following pages, from the Virginia Department of Historic Resources, outlines the historic resources present in the Lynchburg Area Transportation Study. The LATS is concerned about those properties listed as V/N (listed on the state of Virginia/National Register) on the following USGS topographic maps:

- Lynchburg
- Rustburg
- Forest
- Big Island
- City Farm
- Kelly
- Boonsboro
- Tobacco Row Mountain

The information in Exhibit F-3 was received from Quatro Hubbard, Virginia Department of Historic Resources, December 5, 2000, (804-367-2323 ext. 125).

**Exhibit F-3**

Historical Resources In and Around the Lynchburg Study Area

| DHR # | Resource Name | City/County Name | Quad Name | V/N Easement | Comments | Eligible? | Date |
|---|---|---|---|---|---|---|---|
| 141-0001 | Avenel (Avenel Place) | Bedford | | V/N Ease. | See 141-0073 | | |
| 141-0005 | Bedford Historic Meeting House | Bedford | | V/N Ease. | | | |
| 141-0007 | Masonic Hall | Bedford | | | See 141-0073 | Y | 3/20/84 |
| 141-0014 | Ballard Place | Bedford | | V/N | See 141-0073 | | |
| 141-0027 | Burks-Guy-Hagan House | Bedford | | V/N Ease. | See 141-0073 | | |
| 141-0039 | Barmlett-Cauthorn Place (Cedar Hill) | Bedford | | | | Y | 6/11/82 |
| 141-0073 | Bedford Historic District | Bedford | | V/N | | | |
| 141-5001 | Wingfield House | Bedford | | | Criterion C | Y | 8/15/97 |
| 118-0225-007 | Dr. Johnson Waller House | Lynchburg | | | Criteria A,B | Y | 10/1/98 |
| 015-5103 | Oak Grove | Campbell | Straightstone N/M | | Criterion C | Y | 6/8/00 |
| 118-0226-007 | Daniel Statue | Lynchburg | N/M | | Criterion C | Y | 7/27/94 |
| 118-0226-019 | Gordon House | Lynchburg | N/M | | Criterion C | Y | 7/27/94 |
| 118-0225-021 | Robert E. Lee School (Payne Elementary) | Lynchburg | N/M | | Criteria A,C | Y | 7/27/94 |
| 118-5160 | Lynchburg General Hospital/ Tinbridge Manor | Lynchburg | | V/N | | | |
| 118-5098 | Knight Building, 612 12th Street | Lynchburg | | | Criteria A,C – See 118-0197 | Y | 6/25/95 |
| 118-0025 | First Baptist Church | Lynchburg | | V/N | | | |
| 118-0027 | Old City Cemetery | Lynchburg | | V/N | | | |
| 118-0033 | Price-Turner House | Lynchburg | | | | Y | 7/16/81 |
| 118-0001 | Academy of Music | Lynchburg | | V/N Ease. | | | |
| 118-5062 | Centerview, 1900 Memorial Ave. (Irvine-Morgan House) | Lynchburg | | | Criteria B,C | Y | 7/22/99 |
| 118-0201 | Rosedale | Lynchburg | | V/N | | | |
| 118-0203 | Rivermont | Lynchburg | | V/N | | | |
| 118-0204 | College Hill Baptist Church | Lynchburg | | | | Y | 1/18/84 |
| 118-0209 | James River and Kanawha Canal Sites (Thematic) | Lynchburg | | V | | | |
| 118-0210 | Montview (Carter-Glass House) | Lynchburg | | V/N | | | |
| 118-0211 | Lower Basic Historic District | Lynchburg | | V/N | | | |
| 118-0213 | Bridge #1849, Rt 501, crossing NS RR | Lynchburg | | | Undated VDOT bridge rating sheet | Y | 1/1/97 |
| 118-0149 | Randolph-Macon Women's College (Main Hall) | Lynchburg | | V/N | | | |

| DHR # | Resource Name | City/County Name | Quad Name | V/N Easement | Comments | Eligible? | Date |
|---|---|---|---|---|---|---|---|
| 118-0153 | Jones Memorial Library | Lynchburg | | V/N | | | |
| 118-0156 | Court Street Baptist Church | Lynchburg | | V/N | | | |
| 118-0169 | Erasmus Lee Bell House (Parks Funeral Home) | Lynchburg | | | | Y | 2/11/85 |
| 118-5063 | Peter Elliott House, 622 Harrison Street | Lynchburg | | | Criterion C | Y | 10/14/99 |
| 118-0200 | Lynchburg Hospital/Grace Lodge (Marshall Lodge Home) | Lynchburg | | | Contr. to Diamond Hill HD – Criteria | Y | 7/27/94 |
| 118-0219 | Locust Grove | Lynchburg | | V/N | | | |
| 118-0223 | Samuel Miller House | Lynchburg | | V/N | | | |
| 118-0224 | Virginia Episcopal School | Lynchburg | | V/N | | | |
| 118-0225 | Diamond Hill South Historic District | Lynchburg | | | Criteria A,C | Y | 7/27/94 |
| 118-0226 | College Hill Historic District | Lynchburg | | | Proposed – A,C | Y | 7/27/94 |
| 118-0176 | Bragassa's Toy Store | Lynchburg | | V/N | | | |
| 118-0177 | Kentucky Hotel (Langhorne-Terrill House; Lewe House) | Lynchburg | | V/N Ease. | | | |
| 118-0178 | Locust Thicket | Lynchburg | | | | Y | 3/12/84 |
| 118-0196 | Saint Paul's Church | Lynchburg | | V/N | | | |
| 118-0197 | Lynchburg Plate Glass | Lynchburg | | | | Y | 7/16/81 |
| 118-0198 | Daniel's Hill Historic District | Lynchburg | | V/N | | | |
| 118-0152 | Lynchburg College, Lakeside Drive (Hopewood Hall) | Lynchburg | | | | Y | 2/15/80 |
| 118-0155 | Miller Aviary Park | Lynchburg | | V/N | | | |
| 118-0130 | Kemper Street Station | Lynchburg | | | Criteria A,C – Orig. Rated Eligible 6/28/7? | Y | 7/14/92 |
| 118-0138 | Reusens Blast Furnace (Hydroplant) | Lynchburg | | V/N | Criterion A | Y | 1/2/91 |
| 118-0110 | Allied Arts Building | Lynchburg | | V/N | | | |
| 118-0026 | Garland Hill Historic District | Lynchburg | | V/N | | | |
| 118-0056 | Federal Hill Historic District | Lynchburg | | V/N | | | |
| 118-0060 | Diamond Hill Historic District | Lynchburg | | V/N | | | |
| 118-0061 | Anne Spencer House | Lynchburg | | V/N | | | |
| 118-0078 | St. Paul's Vestry House | Lynchburg | | V/N | | | |
| 118-0002 | Lynchburg Courthouse (Old Court House) | Lynchburg | | V/N | | | |
| 118-0006 | Carter Glass House | Lynchburg | | V/N/NHL | | | |
| 118-0009 | J.W. Wood Building (23-27 Ninth Street) | Lynchburg | | V/N | | | |
| 118-0012 | Miller-Clayton House | Lynchburg | | V/N | | | |
| 118-0014 | Point of Honor | Lynchburg | | V/N | | | |

| DHR # | Resource Name | City/County Name | Quad Name | V/N Easement | Comments | Eligible? | Date |
|---|---|---|---|---|---|---|---|
| 118-0015 | Quaker Meeting House (S. River Friends Meeting House) | Lynchburg | | V/N | | | |
| 118-0017 | Sandusky | Lynchburg | | V/N | | | |
| 118-0019 | Warwick House | Lynchburg | | V/N | | | |
| 118-0020 | Joseph Nichols Tavern (Western Hotel) | Lynchburg | | V/N | | | |
| 118-0332 | Bridge, Lakeside Drive and Blackwater Creek | Lynchburg | | | Criteria A,C | Y | 7/14/92 |
| 118-5162 | Fort Early | Lynchburg | Lynchburg N/M | | Criterion A | Y | 7/6/00 |
| 015-5163 | Court House Hill/Downtown Historic District | Lynchburg | | | Criteria A,C | Y | 7/8/99 |
| 015-0001 | Campbell County Courthouse | Campbell | Rustburg | V/N | | | |
| 015-0003 | Federal Hill | Campbell | Forest | V/N | | | |
| 015-0005 | Green Hill | Campbell | Long Island | V/N | | | |
| 015-0013 | Shady Grove | Campbell | Gladys | V/N | | | |
| 015-0015 | Solitude | Campbell | City Farm | | Criterion C | Y | 7/22/99 |
| 015-0019 | Mt. Athos and Robertson Cemetery | Campbell | Kelly | V/N | | | |
| 015-0066 | Blenheim | Campbell | Mike | V/N Ease. | | | |
| 015-5017 | Hege (Edge) Farm | Campbell | Rustburg | | Criterion C | Y | 4/27/00 |
| 015-0138 | Oaks Place (Oakes House) | Campbell | Gladys | | Criterion C | Y | 4/27/00 |
| 015-0140 | Kerr log cabin | Campbell | Castle Craig | | Criterion C | Y | 7/20/00 |
| 015-0165 | Webber Place | Campbell | City Farm | | Criterion C | Y | 4/27/00 |
| 015-0171 | Hearndon Farmsted | Campbell | Castle Craig | | Criterion C | Y | 7/20/00 |
| 015-0172 | R. Phillip House | Campbell | Castle Craig | | Criterion C | Y | 4/27/00 |
| 015-0217 | Cat Rock Sluice (Roanoke River) | Campbell | Brookneal | V/N | | | |
| 015-0218 | Mansion Truss Bridge | Campbell | Straightstone | V/N | | | |
| 015-0220 | The Grove | Campbell | Forest | | | Y | 2/27/81 |
| 015-0221 | The Grove Kitchen | Campbell | Forest | | | Y | 2/27/81 |
| 015-0224 | Stone Bridge | Campbell | Kelly | | | Y | 2/11/86 |
| 015-0261 | Good Shepherd Episcopal Church | Campbell | Lynch Station | | Criterion C | Y | 2/13/90 |
| 015-0352 | Six Mile Bridge | Campbell | Kelly | V/N | | | |
| 015-0378 | Avoca (Col. Lynch Homesite) | Campbell | Lynch Station | V/N | | | |
| 015-0393 | Beaver Creek Dairy | Campbell | Rustburg | | Criteria A,C | Y | 4/27/00 |
| 015-5012 | Walnut Hill (Moorman-Leftwich) | Campbell | City Farm | V/N | Criteria A,C | Y | 3/4/99 |
| 009-5063 | Read Moor | Bedford | Forest | | Criterion C | Y | 8/6/98 |
| 009-5064 | Merrywood | Bedford | Forest | | Criterion C | Y | 4/6/98 |
| 009-5144 | Thomas Chapel | Bedford | Smith Mtn Dam | | Criteria A,C | Y | 4/27/00 |
| 009-5187 | Key House | Bedford | Peaks of Otter | | Criterion C | Y | 9/3/98 |

| DHR # | Resource Name | City/County Name | Quad Name | V/N Easement | Comments | Eligible? | Date |
|---|---|---|---|---|---|---|---|
| 009-0043 | Hope Dawn | Bedford | Lynchburg | V/N Ease. | | | |
| 009-0046 | Mount Prospect | Bedford | Peaks of Otter | | | Y | 6/11/82 |
| 009-0047 | New London Academy | Bedford | Forest | V/N | | | |
| 009-0056 | Old Rectory (St. Stephen's) | Bedford | Boonsboro | V/N | | | |
| 009-0065 | Rothsay | Bedford | Forest | V/N | | | |
| 009-0411 | Battery Creek RR Bridge | Bedford | Big Island | | | Y | 11/30/93 |
| 009-5022 | Store in Thaxton, Rt. 831 | Bedford | Bedford | | Criterion C | Y | 4/6/98 |
| 009-5030 | Early-Wheat Farm | Bedford | Bedford | | Criteria A,B,C | Y | 4/6/98 |
| 009-5105 | Poindexter Farm | Bedford | Sedalia | | Criteria A,C | Y | 4/6/98 |
| 009-5201 | Hatcher House (Farm) | Bedford | Montvale | | Criteria A,C | Y | 10/14/99 |
| 009-5211 | New Prospect Church | Bedford | Montvale | V/N | | | |
| 009-5240 | Morgan Farm | Bedford | Moneta | | Criteria A,C | Y | 8/6/98 |
| 009-0002 | Aspen Grove | Bedford | Bedford | | Criterion C | Y | 4/6/98 |
| 009-0003 | Bellevue | Bedford | Forest | V/N | | | |
| 009-0006 | Elk Hill | Bedford | Boonsboro | V/N Ease. | | | |
| 009-0007 | Fancy Farm | Bedford | Peaks of Otter | V/N | | | |
| 009-0015 | Locust Grove | Bedford | Sedalia | | | Y | 8/3/89 |
| 009-0018 | Locust Level | Bedford | Montvale | V/N | | | |
| 009-0024 | Otterburn | Bedford | Goode | | Criteria A,B,C | Y | 5/27/99 |
| 009-0026 | Ivy Pillars | Bedford | Bedford | | Criterion C | Y | 8/6/98 |
| 009-0027 | Poplar Forest | Bedford | Forest | V/N/NHL | | | |
| 009-0029 | St. Stephen's Episcopal Church | Bedford | Boonsboro | V/N | | | |
| 009-0031 | Three Otters | Bedford | Bedford | V/N | | | |
| 009-0033 | Woodburne-Woodbourne | Bedford | Forest | V/N | | | |
| 009-0128 | Calvary School | Bedford | Bedford | | Criteria A,C | Y | 8/6/98 |
| 009-0150 | Pebbleton | Bedford | Boonsboro | | | Y | 6/11/82 |
| 009-1052 | Forbes Mill (Big Otter Mill) | Bedford | Peaks of Otter | V/N | | | |
| 009-0178 | Thomas Methodist Church | Bedford | Montvale | | Criterion C | Y | 8/6/98 |
| 009-0221 | Mount Airy (Mansion House) | Bedford | Leesville | V/N | | | |
| 009-0253 | Stone Signs (Greer's Ford & Hale's Ford), Route 654 & 805 | Bedford | Moneta | | Greer's originally 09-244 | Y | 4/6/90 |
| 009-0254 | Cifax Historic District | Bedford | Sedalia | V/N | | | |
| 009-0306 | Montvale Elementary School | Bedford | Montvale | | Former high school; Criteria A,C | Y | 8/6/98 |
| 009-0318 | Brook Hill Farm | Bedford | Forest | V/N | | | |
| 005-5001 | Ardeevin | Amherst | Lynchburg | | Criterion C; Durham – old file | Y | 1/15/91 |

| DHR # | Resource Name | City/County Name | Quad Name | V/N Easement | Comments | Eligible? | Date |
|---|---|---|---|---|---|---|---|
| 005-5013 | Cox-Mantiply Farm | Amherst | Kelly | | Criteria A,C; Durham – old file | Y | 3/20/00 |
| 163-0001 | Amherst County Courthouse | Amherst | Amherst | | Criterion A | Y | 5/4/93 |
| 163-0003 | Edgewood | Amherst | Amherst | | Criterion C | Y | 5/5/92 |
| 163-0007 | Thompson's Mill (Amherst Milling Co.) | Amherst | Amherst | | Criteria A,C | Y | 7/14/92 |
| 005-0002 | Brick House (Garland House) | Amherst | Piney Forest | | Criterion C | Y | 9/2/93 |
| 005-0007 | Geddes (Naked Creek) | Amherst | Arrington | V/N | | | |
| 005-0010 | The Glebe (Minor Hall) | Amherst | Amherst | | Elig. if Glebe is authentic | Y | 4/8/83 |
| 005-0011 | Spencer Plantation (Mountain View) | Amherst | Arrington | V/N | | | |
| 005-0014 | Red Hill Farm | Amherst | Big Island | V/N | | | |
| 005-0018 | Sweet Briar House | Amherst | Amherst | V/N | | | |
| 005-0021 | Winton | Amherst | Piney River | V/N | | | |
| 005-0036 | Galt's Mill | Amherst | Kelly | | | Y | 6/12/80 |
| 005-0058 | Hites Store (Lowesville Post Office) | Amherst | Piney River | V/N | | | |
| 005-0071 | N&W Bridge MP N 202.35 | Amherst | Kelly | | Criteria A,C | Y | 7/5/89 |
| 005-0117 | Mountain View | Amherst | Piney River | | Criterion C | Y | 7/25/95 |
| 005-0165 | Woodlawn (Royster C. Parr House) | Amherst | Piney River | | Criterion C | Y | 3/5/96 |
| 005-0185 | Fort Riverview Archaelogical Site | Amherst | Kelly | V/N | | | |
| 005-0218 | Nine Mile Bridge (CSX RR) | Amherst | Kelly | | Campbell County Line | Y | 8/11/92 |
| 005-0219 | Sweet Briar College Historic District | Amherst | Amherst | V/N | | | |
| 005-0230 | Bear Mountain Indian School | Amherst | Tobacco Row Mountain | V/N | | | |

## Appendix G

Lynchburg Road Segments

| JURISDICTION NAME | ROUTE NUMBER | ROUTE PREFIX | FACILITY NAME | SEGMENT FROM | SEGMENT TO | SEGMENT LENGTH (MILES) | NUM OF THRU LANES | PAVEMENT WIDTH (FT) | AVG LANE WIDTH (FT) | TERRAIN TYPE [1] | ACCESS CONTROL [2] | OPERATION TYPE | CURB/GUTTER [3] | MEDIAN TYPE [4] | MEDIAN WIDTH (FT) | PERCENT GRADE | RIGHT SHOULDER TYPE [5] | RIGHT SHLDR WIDTH (FT) | LEFT SHOULDER TYPE [5] | LEFT SHLDR WIDTH (FT) | NUMBER OF SIGNALS | NUMBER OF STRUCTURES | RR CROSSINGS | SIDEWALK [3] | BIKE FACILITY [3] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Amherst | 00029 | | | NCL LYNCHBURG | RTE 210 | 1.07 | 4 | 48 | 12 | R | F | 2W | N | J | 3 | 5 | G | 10 | N | 0 | 0 | 1 | 0 | R | N |
| Amherst | 00029 | | | RTE 210 | RTE 29 BUS UP | 0.6 | 4 | 48 | 12 | R | F | 2W | N | J | 3 | 4 | G | 10 | N | 0 | 0 | 0 | 0 | R | N |
| Amherst | 00029 | | | RTE 29 BUS UP | RTE 29 BUS | 0.38 | 4 | 62 | 12 | R | N | 2W | B | C | 14 | 4 | C | 0 | C | 0 | 1 | 0 | 0 | R | N |
| Amherst | 00029 | | RTE 29 | RTE 29 BUS | RTE 766 | 1.25 | 4 | 62 | 12 | R | N | 2W | B | C | 14 | 4 | C | 0 | C | 0 | 3 | 0 | 0 | N | N |
| Amherst | 00029 | | | RTE 766 | RTE 130 | 0.95 | 4 | 62 | 12 | R | N | 2W | B | C | 14 | 4 | C | 0 | C | 0 | 3 | 0 | 0 | N | N |
| Amherst | 00029 | | RTE 29 | RTE 130 | RTE 677 | 0.83 | 4 | 62 | 12 | R | N | 2W | B | C | 14 | 4 | C | 0 | C | 0 | 2 | 0 | 0 | R | N |
| Amherst | 00029 | | | RTE 677 | RTE 657 S | 1.28 | 4 | 62 | 12 | R | N | 2W | B | C | 14 | 4 | C | 0 | C | 0 | 3 | 0 | 0 | N | N |
| Amherst | 00029 | | | RTE 657 S | RTE 671 S | 0.89 | 4 | 48 | 12 | R | N | 2W | N | D | 20 | 4 | G | 6 | G | 6 | 0 | 0 | 0 | N | N |
| Amherst | 00029 | | | RTE 671 S | RTE 663 | 2.42 | 4 | 48 | 12 | R | N | 2W | N | D | 20 | 5 | G | 6 | G | 6 | 0 | 2 | 0 | N | N |
| Amherst | 00029 | | | RTE 663 | RTE 624 | 2.17 | 4 | 48 | 12 | R | N | 2W | N | D | 20 | 4 | G | 6 | G | 6 | 0 | 0 | 0 | N | N |
| Amherst | 00029 | BUS | RTE 29 BUS | NCL LYNCHBURG | RTE 210 | 0.69 | 2 | 30 | 10 | R | N | 2W | N | N | 0 | 4 | G | 4 | G | 4 | 0 | 0 | 0 | N | N |
| Amherst | 00029 | BUS | RTE 29 BUS | RTE 210 | RTE 29 N | 0.95 | 2 | 30 | 10 | R | N | 2W | N | N | 0 | 4 | P | 10 | G | 1 | 1 | 1 | 0 | R | N |
| Amherst | 00029 | NEW | | NCL LYNCHBURG | RTE 210 NEW | 1.75 | | | | | | | | | | | | | | | | | | | |
| Amherst | 00029 | NEW | | RTE 210 NEW | RTE 622 | 3.45 | | | | | | | | | | | | | | | | | | | |
| Amherst | 00029 | NEW | | RTE 622 | RTE 130 NEW | 2.51 | | | | | | | | | | | | | | | | | | | |
| Amherst | 00029 | NEW | | RTE 130 NEW | RTE 604 | 3.2 | | | | | | | | | | | | | | | | | | | |
| Amherst | 00029 | NEW | | RTE 604 | RTE 29 | 3.02 | | | | | | | | | | | | | | | | | | | |
| Amherst | 00130 | | | RTE 653 | RTE 652 S | 0.93 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 4 | G | 2 | G | 2 | 0 | 0 | 0 | N | N |
| Amherst | 00130 | | | RTE 652 S | RTE 685 | 1.86 | 2 | 22 | 11 | R | N | 2W | N | N | 0 | 4 | G | 2 | G | 2 | 0 | 0 | 0 | N | N |
| Amherst | 00130 | | | RTE 685 | RTE 795 | 1.44 | 2 | 22 | 11 | R | N | 2W | N | N | 0 | 4 | G | 2 | G | 2 | 0 | 2 | 0 | N | N |
| Amherst | 00130 | | | RTE 795 | SOUTHERN RR | 0.73 | 2 | 22 | 11 | R | N | 2W | N | N | 0 | 4 | G | 2 | G | 2 | 0 | 2 | 0 | N | N |
| Amherst | 00130 | | | SOUTHERN RR | RTE 766 | 1.1 | 2 | 22 | 11 | R | N | 2W | N | N | 0 | 4 | G | 2 | G | 2 | 0 | 0 | 0 | N | N |
| Amherst | 00130 | | RTE 130 | RTE 766 | RTE 29 | 0.78 | 2 | 22 | 11 | R | N | 2W | N | N | 0 | 4 | G | 2 | G | 2 | 1 | 0 | 0 | N | N |
| Amherst | 00130 | NEW | | RTE 29 | RTE 669 | 0.49 | | | | | | | | | | | | | | | | | | | |
| Amherst | 00130 | NEW | | RTE 669 | RTE 677 | 1.14 | | | | | | | | | | | | | | | | | | | |
| Amherst | 00130 | NEW | | RTE 677 | RTE 29 NEW | 1.54 | | | | | | | | | | | | | | | | | | | |
| Amherst | 00210 | NEW | | RTE 29 NEW | RTE 210 | 2.74 | | | | | | | | | | | | | | | | | | | |
| Amherst | 00210 | | | RTE 334 | RTE 29 | 0.53 | 2 | 40 | 20 | R | N | 2W | N | N | 0 | 4 | E | 4 | E | 4 | 0 | 1 | 0 | B | N |
| Amherst | 00210 | | | RTE 29 | RTE 1034 | 0.16 | 2 | 40 | 12 | R | N | 2W | L | N | 0 | 4 | E | 4 | P | 4 | 0 | 0 | 0 | B | N |
| Amherst | 00210 | | RTE 210 | RTE 1034 | RTE 29 BUS | 0.33 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 4 | G | 4 | G | 4 | 0 | 0 | 0 | B | N |
| Amherst | 00604 | | | RTE 29 | RTE 671 N | 1.42 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 4 | E | 2 | E | 2 | 0 | 0 | 0 | N | N |
| Amherst | 00604 | | | RTE 671 N | RTE 663 S | 1.7 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 4 | E | 2 | E | 2 | 0 | 0 | 0 | N | N |
| Amherst | 00604 | | | RTE 663 S | RTE 663 N | 0.57 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 4 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Amherst | 00604 | | | RTE 663 N | RTE 670 | 1.75 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 4 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Amherst | 00622 | NEW | WRIGHT SHOP RD | RTE 210 CONN | RTE 622 | 0.6 | | | | | | | | | | | | | | | | | | | |
| Amherst | 00622 | | | RTE 622 RELOCATED | RTE 833 W | 0.2 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 5 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Amherst | 00622 | | | RTE 833 W | RTE 833 E | 1.51 | 2 | 24 | 12 | R | N | 2W | N | N | 0 | 5 | E | 3 | E | 3 | 0 | 0 | 0 | N | N |
| Amherst | 00622 | | RTE 622 | RTE 833 E | RTE 677 | 0.29 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 4 | E | 3 | E | 3 | 0 | 0 | 0 | N | N |

## Appendix G

Lynchburg Road Segments

| JURISDICTION NAME | ROUTE NUMBER | ROUTE PREFIX | FACILITY NAME | SEGMENT FROM | SEGMENT TO | SEGMENT LENGTH (MILES) | NUM OF THRU LANES | PAVEMENT WIDTH (FT) | AVG LANE WIDTH (FT) | TERRAIN TYPE [1] | ACCESS CONTROL [2] | OPERATION TYPE | CURB/GUTTER [3] | MEDIAN TYPE [4] | MEDIAN WIDTH (FT) | PERCENT GRADE | RIGHT SHOULDER TYPE [5] | RIGHT SHLDR WIDTH (FT) | LEFT SHOULDER TYPE [5] | LEFT SHLDR WIDTH (FT) | NUMBER OF SIGNALS | NUMBER OF STRUCTURES | RR CROSSINGS | SIDEWALK [3] | BIKE FACILITY [3] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Amherst | 00622 | | | RTE 677 | RTE 663 | 2.04 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 5 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Amherst | 00622 | | | RTE 663 | RTE 648 | 3.04 | 2 | 16 | 8 | R | N | 2W | N | N | 0 | 10 | E | 1 | E | 1 | 0 | 1 | 0 | N | N |
| Amherst | 00652 | | | RTE 657 | RTE 675 S | 1.1 | 2 | 14 | 7 | R | N | 2W | N | N | 0 | 9 | E | 1 | E | 1 | 0 | 1 | 0 | N | N |
| Amherst | 00652 | | | RTE 675 S | RTE 130 | 2 | 2 | 16 | 8 | R | N | 2W | N | N | 0 | 7 | E | 1 | E | 1 | 0 | 1 | 0 | N | N |
| Amherst | 00653 | | AMBROSE RUCKER RD | RTE 130 | GRAHAM CREEK | 0.9 | 2 | 14 | 7 | M | N | 2W | N | N | 0 | 8 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Amherst | 00655 | | | RTE 671 | FALL ROCK CK | 1.12 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 8 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Amherst | 00657 | | LAUREL CLIFF RD | RTE 636 | RTE 652 | 0.5 | 2 | 14 | 7 | R | N | 2W | N | N | 0 | 3 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Amherst | 00657 | | CEDAR GATE RD | RTE 652 | RTE 707 | 2.26 | 2 | 14 | 7 | R | N | 2W | N | N | 0 | 10 | N | 0 | N | 0 | 0 | 1 | 0 | N | N |
| Amherst | 00657 | | | RTE 707 | RTE 29 S | 0.47 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 4 | E | 1 | E | 1 | 0 | 1 | 1 | N | N |
| Amherst | 00663 | | | RTE 29 S | RTE 661 | 0.56 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 4 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Amherst | 00663 | | | RTE 661 | RTE 604 | 0.73 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 3 | E | 1 | E | 1 | 0 | 1 | 0 | N | N |
| Amherst | 00663 | | | RTE 604 S | RTE 670 N | 2.15 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 5 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Amherst | 00663 | | IZAAK WALTON RD | RTE 670 N | RTE 670 S | 0.7 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 8 | N | 0 | N | 0 | 0 | 0 | 0 | N | N |
| Amherst | 00669 | | | RTE 130 NEW | RTE 1314 | 0.15 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 4 | E | 3 | E | 3 | 0 | 0 | 0 | N | N |
| Amherst | 00669 | | RTE 669 | RTE 1314 | RTE 677 N | 1.6 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 6 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Amherst | 00669 | | | RTE 677 S | RTE 670 | 0.64 | 2 | 16 | 8 | R | N | 2W | N | N | 0 | 5 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Amherst | 00670 | | IZAAK WALTON RD | RTE 669 | RTE 701 | 0.65 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 8 | G | 2 | G | 2 | 0 | 1 | 0 | N | N |
| Amherst | 00670 | | IZAAK WALTON RD | RTE 701 | RTE 663 S | 1.36 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 10 | G | 2 | G | 2 | 0 | 1 | 0 | N | N |
| Amherst | 00671 | | N FIVE FORKS RD | RTE 29 S | RTE 636 | 0.8 | 2 | 30 | 10 | R | N | 2W | N | L | 10 | 5 | E | 1 | E | 1 | 0 | 1 | 0 | N | N |
| Amherst | 00671 | | S FIVE FORKS RD | RTE 636 | RTE 29 N | 0.51 | 2 | 30 | 10 | R | N | 2W | N | L | 10 | 6 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Amherst | 00675 | | | RTE 652 S | RTE 795 | 3.07 | 2 | 14 | 7 | R | N | 2W | N | N | 0 | 5 | E | 1 | E | 1 | 0 | 1 | 0 | N | N |
| Amherst | 00675 | | WINESAP RD | RTE 795 | RTE 29 | 1.83 | 2 | 16 | 8 | R | N | 2W | N | N | 0 | 5 | E | 1 | E | 1 | 0 | 1 | 0 | N | N |
| Amherst | 00677 | | RTE 677 | RTE 622 | RTE 669 S | 0.85 | 2 | 22 | 11 | R | N | 2W | N | N | 0 | 5 | E | 3 | E | 3 | 0 | 0 | 0 | N | N |
| Amherst | 00677 | | | RTE 699 S | RTE 669 N | 0.45 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 5 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Amherst | 00677 | | DIXIE AIRPORT RD | RTE 669 N | RTE 29 | 2.6 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 5 | E | 2 | E | 2 | 0 | 0 | 0 | N | N |
| Amherst | 00681 | | SEMINOLE DR | RTE 29 | RTE 833 | 1.31 | 2 | 24 | 12 | R | N | 2W | N | N | 0 | 12 | N | 0 | N | 0 | 0 | 1 | 0 | N | N |
| Amherst | 00685 | | RIVER ROAD | RTE 130 | SOUTHERN RR | 3.82 | 2 | 16 | 8 | R | N | 2W | N | N | 0 | 8 | E | 1 | E | 1 | 0 | 0 | 1 | N | N |
| Amherst | 00685 | | RIVER ROAD | SOUTHERN RR | RTE 684 | 1.19 | 2 | 16 | 8 | R | N | 2W | N | N | 0 | 5 | E | 1 | E | 1 | 0 | 1 | 0 | N | N |
| Amherst | 00685 | | RIVER ROAD | RTE 684 | RTE 29 BUS | 1.3 | 2 | 16 | 8 | R | N | 2W | N | N | 0 | 4 | E | 1 | E | 1 | 0 | 2 | 0 | N | N |
| Amherst | 00766 | | DILLARD RD | RTE 29 | RTE 130 | 1.59 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 8 | E | 1 | E | 1 | 1 | 0 | 0 | N | N |
| Amherst | 00795 | | WINRIDGE DR | RTE 130 | RTE 675 | 0.8 | 2 | 15 | 7 | R | N | 2W | N | N | 0 | 6 | N | 0 | N | 0 | 0 | 0 | 0 | N | N |
| Amherst | 00833 | | OLD WRIGHT SHOP RD | RTE 622 S | RTE 681 | 0.53 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 5 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Amherst | 00833 | | OLD WRIGHT SHOP RD | RTE 681 | RTE 622 N | 0.88 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 10 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Amherst | 01054 | | LAKEVIEW DR | RTE 29 | RTE 681 | 0.86 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 5 | N | 0 | N | 0 | 1 | 0 | 0 | N | N |
| Amherst | 01202 | | LYNCHBURG AVE | RTE 1210 | RTE 1203 | 0.05 | 2 | 14 | 7 | R | N | 2W | N | N | 0 | 6 | N | 0 | N | 0 | 0 | 0 | 0 | N | N |
| Amherst | 01203 | | FRANCIS AVE | RTE 1202 | RTE 1214 | 0.58 | 2 | 16 | 8 | R | N | 2W | N | N | 0 | 8 | N | 0 | N | 0 | 0 | 0 | 0 | N | N |
| Amherst | 01210 | | LYNCHBURG AVE | RTE 29 | RTE 1202 | 0.25 | 2 | 16 | 8 | R | N | 2W | N | N | 0 | 9 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Amherst | 01214 | | | RTE 1203 | RTE 671 | 0.15 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 8 | E | 1 | E | 1 | 0 | 1 | 0 | N | N |

## Appendix G

Lynchburg Road Segments

| JURISDICTION NAME | ROUTE NUMBER | ROUTE PREFIX | FACILITY NAME | SEGMENT FROM | SEGMENT TO | SEGMENT LENGTH (MILES) | NUM OF THRU LANES | PAVEMENT WIDTH (FT) | AVG LANE WIDTH (FT) | TERRAIN TYPE [1] | ACCESS CONTROL [2] | OPERATION TYPE | CURB/GUTTER [3] | MEDIAN TYPE [4] | MEDIAN WIDTH (FT) | PERCENT GRADE | RIGHT SHOULDER TYPE [5] | RIGHT SHLDR WIDTH (FT) | LEFT SHOULDER TYPE [5] | LEFT SHLDR WIDTH (FT) | NUMBER OF SIGNALS | NUMBER OF STRUCTURES | RR CROSSINGS | SIDEWALK [3] | BIKE FACILITY [3] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bedford | 00221 | | RTE 221 | ELK CREEK | RTE 663 | 1 | 2 | 24 | 12 | R | N | 2W | N | N | 0 | 4 | G | 3 | G | 3 | 1 | 0 | 0 | N | N |
| Bedford | 00221 | | | RTE 663 | RTE 811 | 0.71 | 2 | 24 | 12 | R | N | 2W | N | N | 0 | 2 | E | 5 | E | 1 | 2 | 0 | 0 | N | N |
| Bedford | 00221 | | RTE 221 | RTE 811 | RTE 621 | 3.5 | 2 | 24 | 12 | R | N | 2W | N | N | 0 | 5 | G | 2 | G | 1 | 4 | 1 | 0 | N | N |
| Bedford | 00221 | | RTE 221 | RTE 621 | WCL LYNCHBURG | 0.85 | 4 | 60 | 12 | R | N | 2W | N | F | 12 | 6 | G | 12 | G | 12 | 1 | 0 | 0 | N | N |
| Bedford | 00460 | | | .75MW RTE 811 | CAMPBELL CL | 1.73 | 4 | 48 | 12 | R | N | 2W | N | D | 40 | 5 | G | 6 | G | 6 | 0 | 0 | 0 | N | N |
| Bedford | 00501 | | | WCL LYNCHBURG | RTE 761 | 1.32 | 3 | 30 | 10 | M | N | 2W | N | C | 10 | 3 | E | 4 | E | 4 | 0 | 1 | 0 | N | N |
| Bedford | 00501 | | | RTE 761 | RTE 657 | 3.52 | 2 | 22 | 11 | M | N | 2W | N | N | 0 | 9 | G | 1 | G | 1 | 0 | 0 | 0 | N | N |
| Bedford | 00621 | | | RTE 644 | RTE 662 | 4.05 | 2 | 16 | 8 | R | N | 2W | N | N | 0 | 8 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Bedford | 00621 | | | RTE 662 | RTE 884 | 0.8 | 2 | 16 | 8 | R | N | 2W | N | N | 0 | 8 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Bedford | 00621 | | | RTE 884 | RTE 1204 | 1.55 | 2 | 16 | 8 | R | N | 2W | N | N | 0 | 6 | N | 0 | N | 0 | 0 | 1 | 0 | N | N |
| Bedford | 00621 | | RTE 621 | RTE 1204 | RTE 221 | 0.35 | 2 | 24 | 12 | R | N | 2W | N | N | 0 | 8 | N | 0 | N | 0 | 1 | 1 | 0 | N | N |
| Bedford | 00622 | | | RTE 811 | CAMPBELL CL | 0.9 | 2 | 24 | 12 | R | N | 2W | N | N | 0 | 2 | G | 1 | G | 1 | 0 | 0 | 0 | N | N |
| Bedford | 00644 | | | RTE 663 | RTE 657 | 2.4 | 2 | 16 | 8 | R | N | 2W | N | N | 0 | 8 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Bedford | 00644 | | | RTE 657 | RTE 621 | 0.97 | 2 | 16 | 8 | R | N | 2W | N | N | 0 | 11 | E | 1 | E | 1 | 0 | 1 | 0 | N | N |
| Bedford | 00644 | | | RTE 621 | WCL LYNCHBURG | 2.61 | 2 | 16 | 8 | R | N | 2W | N | N | 0 | 8 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Bedford | 00645 | | | RTE 761 S | WCL LYNCHBURG | 3.2 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 8 | E | 1 | E | 1 | 0 | 1 | 0 | N | N |
| Bedford | 00661 | | | RTE 811 | RTE 1440 | 1.23 | 2 | 22 | 11 | R | N | 2W | N | N | 0 | 2 | N | 0 | N | 0 | 0 | 0 | 0 | N | N |
| Bedford | 00661 | | | RTE 1440 | RTE 221 | 0.67 | 2 | 22 | 11 | R | N | 2W | N | N | 0 | 6 | G | 1 | G | 1 | 0 | 1 | 0 | N | N |
| Bedford | 00663 | | RTE 663 | RTE 221 | RTE 662 W | 0.9 | 2 | 24 | 12 | M | N | 2W | N | N | 0 | 3 | E | 1 | E | 1 | 1 | 0 | 0 | N | N |
| Bedford | 00663 | | PERROWVILLE RD | RTE 662 W | RT 1430 | 1.38 | 2 | 24 | 12 | M | N | 2W | N | N | 0 | 5 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Bedford | 00663 | | | RT 1430 | RTE 644 | 2.06 | 2 | 18 | 9 | M | N | 2W | N | N | 0 | 7 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Bedford | 00761 | | | RTE 501 | RTE 645 | 0.9 | 2 | 14 | 7 | R | N | 2W | N | N | 0 | 10 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Bedford | 00811 | | | CAMPBELL CL | RTE 709 | 1.18 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 5 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Bedford | 00811 | | | RTE 709 | RTE 460 | 1.57 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 4 | G | 1 | G | 1 | 0 | 0 | 0 | N | N |
| Bedford | 00811 | | RTE 811 | RTE 460 | RTE 622 S | 3.82 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 6 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Bedford | 00811 | | RTE 811 | S RTE 622 | RTE 221 | 1.59 | 2 | 22 | 11 | R | N | 2W | N | N | 0 | 3 | E | 1 | E | 1 | 1 | 1 | 0 | N | N |
| Bedford | 01425 | | GRAVES MILL RD | RTE 221 | WCL LYNCHBURG | 0.26 | 4 | 48 | 12 | R | N | 2W | B | N | 0 | 2 | C | 0 | C | 0 | 1 | 0 | 0 | N | N |
| Campbell | 00029 | | | RTE 622 N | RTE 738 N | 1.81 | 4 | 48 | 12 | R | N | 2W | N | D | 40 | 4 | G | 6 | G | 6 | 0 | 1 | 0 | N | N |
| Campbell | 00029 | | | RTE 738 N | RTE 683 | 0.51 | 4 | 48 | 12 | R | N | 2W | N | D | 30 | 3 | G | 6 | G | 6 | 1 | 0 | 0 | N | N |
| Campbell | 00029 | | SEMINOLE TRAIL | RTE 683 | RTE 678 | 1.22 | 4 | 48 | 12 | R | N | 2W | L | D | 16 | 3 | G | 4 | C | 0 | 4 | 2 | 0 | N | N |
| Campbell | 00029 | | | RTE 678 | SCL LYNCHBURG | 0.42 | 4 | 48 | 12 | R | P | 2W | B | D | 16 | 4 | C | 0 | C | 0 | 3 | 0 | 0 | N | N |
| Campbell | 00029 | NEW | | RTE 460 | RTE 29 | 14 | | | | | | | | | | | | | | | | | | | |
| Campbell | 00460 | | COLONIAL TRAIL | BEDFORD CL | RTE 460 BUS | 1.32 | 4 | 48 | 12 | R | N | 2W | N | D | 30 | 5 | G | 4 | G | 4 | 0 | 5 | 0 | N | N |
| Campbell | 00460 | | | RTE 460 BUS | RTE 682 | 1.8 | 4 | 48 | 12 | R | F | 2W | N | D | 30 | 4 | G | 8 | G | 4 | 0 | 0 | 0 | N | N |
| Campbell | 00460 | | | RTE 682 | RTE 622 | 0.8 | 4 | 48 | 12 | R | F | 2W | N | D | 30 | 2 | G | 8 | G | 4 | 0 | 0 | 0 | N | N |
| Campbell | 00460 | | | RTE 622 | RTE 678 | 1.6 | 4 | 48 | 12 | R | F | 2W | N | D | 30 | 4 | G | 8 | G | 4 | 0 | 0 | 0 | N | N |
| Campbell | 00460 | | | RTE 678 | RTE 29 | 1.5 | 4 | 48 | 12 | R | F | 2W | N | D | 30 | 4 | G | 8 | G | 4 | 0 | 2 | 0 | N | N |
| Campbell | 00460 | | | RTE 29 | SCL LYNCHBURG | 0.37 | 4 | 48 | 12 | R | F | 2W | N | D | 40 | 4 | G | 8 | G | 4 | 0 | 2 | 0 | N | N |

## Appendix G

Lynchburg Road Segments

| JURISDICTION NAME | ROUTE NUMBER | ROUTE PREFIX | FACILITY NAME | SEGMENT FROM | SEGMENT TO | SEGMENT LENGTH (MILES) | NUM OF THRU LANES | PAVEMENT WIDTH (FT) | AVG LANE WIDTH (FT) | TERRAIN TYPE [1] | ACCESS CONTROL [2] | OPERATION TYPE | CURB/GUTTER [3] | MEDIAN TYPE [4] | MEDIAN WIDTH (FT) | PERCENT GRADE | RIGHT SHOULDER TYPE [5] | RIGHT SHLDR WIDTH (FT) | LEFT SHOULDER TYPE [5] | LEFT SHLDR WIDTH (FT) | NUMBER OF SIGNALS | NUMBER OF STRUCTURES | RR CROSSINGS | SIDEWALK [3] | BIKE FACILITY [3] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Campbell | 00460 | | | ECL LYNCHBURG | RTE 726 | 1.46 | 4 | 48 | 12 | R | N | 2W | N | D | 20 | 6 | G | 3 | G | 3 | 0 | 2 | 0 | N | N |
| Campbell | 00460 | | | RTE 726 | RTE 752 | 2.23 | 4 | 48 | 12 | R | N | 2W | N | D | 30 | 6 | G | 3 | E | 2 | 0 | 2 | 0 | N | N |
| Campbell | 00460 | BUS | RTE 460 BUS | RTE 460 | RTE 622 | 1.81 | 4 | 48 | 12 | R | N | 2W | N | D | 16 | 4 | G | 3 | G | 3 | 1 | 0 | 0 | N | N |
| Campbell | 00460 | BUS | | RTE 622 | RTE 739 | 1.24 | 4 | 48 | 12 | R | N | 2W | N | D | 16 | 3 | G | 2 | G | 2 | 4 | 0 | 0 | N | N |
| Campbell | 00460 | BUS | RTE 460 BUS | RTE 739 | WCL LYNCHBURG | 0.18 | 4 | 48 | 12 | R | N | 2W | N | D | 4 | 3 | G | 2 | G | 2 | 2 | 0 | 0 | N | N |
| Campbell | 00501 | | | RTE 670 | RTE 667 | 0.92 | 4 | 48 | 12 | R | N | 2W | N | D | 40 | 5 | G | 4 | G | 4 | 0 | 0 | 0 | N | N |
| Campbell | 00501 | | | RTE 667 | RTE 664 | 0.7 | 4 | 48 | 12 | R | N | 2W | N | D | 40 | 5 | G | 6 | G | 2 | 0 | 2 | 0 | N | N |
| Campbell | 00501 | | | RTE 664 | ECL LYNCHBURG | 1.2 | 4 | 48 | 12 | R | N | 2W | N | D | 40 | 7 | G | 6 | G | 2 | 0 | 0 | 0 | N | N |
| Campbell | 00609 | | | RTE 726 | RTE 659 | 0.91 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 8 | E | 1 | E | 1 | 0 | 1 | 0 | N | N |
| Campbell | 00609 | | | RTE 659 | APPOMATOX CL | 3.3 | 2 | 16 | 8 | R | N | 2W | N | N | 0 | 9 | E | 1 | E | 1 | 0 | 1 | 0 | N | N |
| Campbell | 00622 | | | BEDFORD CL | RTE 1520 | 1.12 | 2 | 24 | 12 | R | N | 2W | N | N | 0 | 4 | E | 2 | E | 2 | 1 | 0 | 0 | N | N |
| Campbell | 00622 | | RTE 622 | RTE 1520 | RTE 460 BUS | 0.26 | 2 | 44 | 11 | R | N | 2W | B | N | 0 | 2 | C | 0 | C | 0 | 2 | 0 | 0 | N | N |
| Campbell | 00622 | | | RTE 460 BUS | RTE 682 | 0.93 | 2 | 24 | 12 | R | N | 2W | N | N | 0 | 4 | E | 3 | E | 3 | 1 | 0 | 0 | N | N |
| Campbell | 00622 | | | RTE 682 | RTE 683 | 2.31 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 12 | E | 1 | E | 1 | 1 | 1 | 1 | N | N |
| Campbell | 00622 | | | RTE 683 | RTE 29 | 2.53 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 7 | E | 1 | E | 1 | 0 | 1 | 0 | N | N |
| Campbell | 00623 | | | RTE 682 | RTE 625 | 1.7 | 2 | 16 | 8 | R | N | 2W | N | N | 0 | 8 | E | 2 | E | 2 | 0 | 1 | 0 | N | N |
| Campbell | 00623 | | | RTE 625 | RTE 858 | 1.2 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 5 | E | 1 | E | 1 | 0 | 1 | 0 | N | N |
| Campbell | 00664 | | RTE 664 | RTE 677 | RTE 501 | 1.3 | 2 | 16 | 8 | R | N | 2W | N | N | 0 | 5 | E | 1 | E | 1 | 0 | 1 | 0 | N | N |
| Campbell | 00670 | | RTE 670 | SCL LYNCHBURG | RTE 677E | 2 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 6 | E | 2 | E | 2 | 0 | 0 | 0 | N | N |
| Campbell | 00677 | | RTE 677 | RTE 738 | RTE 670 S | 1.92 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 6 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Campbell | 00677 | | | RTE 670 N | RTE 664 | 3.1 | 2 | 16 | 8 | R | N | 2W | N | N | 0 | 12 | E | 1 | E | 1 | 0 | 1 | 0 | N | N |
| Campbell | 00677 | | | RTE 664 | ECL LYNCHBURG | 1.2 | 2 | 16 | 8 | R | N | 2W | N | N | 0 | 10 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Campbell | 00678 | | | ECL LYNCHBURG | RTE 460 | 0.37 | 4 | 48 | 12 | R | N | 2W | N | N | 0 | 4 | E | 2 | E | 2 | 0 | 1 | 0 | N | N |
| Campbell | 00678 | | RTE 678 | RTE 460 | RTE 29 | 1.42 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 7 | E | 1 | E | 1 | 1 | 0 | 0 | N | N |
| Campbell | 00681 | | RTE 681 | RTE 682 | RTE 622 | 0.8 | | | | | | | | | | | | | | | | | | | |
| Campbell | 00682 | | | RTE 691 | RTE 668 | 1.42 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 4 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Campbell | 00682 | | | RTE 668 | RTE 681 | 1.08 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 4 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Campbell | 00682 | | RTE 682 | RTE 681 | RTE 1600 | 2.06 | 2 | 24 | 12 | R | N | 2W | N | N | 0 | 4 | E | 1 | E | 1 | 1 | 1 | 0 | N | N |
| Campbell | 00682 | | | RTE 1600 | SCL LYNCHBURG | 0.09 | 4 | 48 | 12 | R | N | 2W | B | N | 0 | 2 | C | 0 | C | 0 | 0 | 0 | 0 | N | N |
| Campbell | 00683 | | RTE 683 | RTE 622 | RTE 29 | 2.05 | 2 | 22 | 11 | R | N | 2W | N | N | 0 | 2 | E | 1 | E | 1 | 1 | 0 | 0 | N | N |
| Campbell | 00726 | | | RTE 460 | RTE 609 | 0.33 | 2 | 24 | 12 | R | N | 2W | N | N | 0 | 4 | E | 2 | E | 2 | 0 | 1 | 0 | N | N |
| Campbell | 00726 | | | RTE 609 | DEAD END | 3.43 | 2 | 16 | 8 | R | N | 2W | N | N | 0 | 12 | E | 2 | E | 2 | 0 | 1 | 0 | N | N |
| Campbell | 00738 | | | RTE 622 N | RTE 680 | 0.43 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 2 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Campbell | 00738 | | | RTE 680 | RTE 29 N | 1.62 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 4 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Campbell | 00739 | | RTE 739 | RTE 460 | WCL LYNCHBURG | 0.04 | 2 | 24 | 12 | R | N | 2W | N | N | 0 | 5 | E | 3 | E | 3 | 1 | 0 | 0 | N | N |
| Campbell | 00858 | | | RTE 623 W | RTE 1580 | 0.65 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 2 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Campbell | 00902 | NEW | BOCOCK RD EXT | ECL LYNCHBURG | RTE 677 | 0.14 | | | | | | | | | | | | | | | | | | | |
| Campbell | 01520 | | RTE 1520 | RTE 622 | RTE 1551 | 2.06 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 9 | E | 1 | E | 1 | 1 | 0 | 0 | N | N |

## Appendix G

Lynchburg Road Segments

| JURISDICTION NAME | ROUTE NUMBER | ROUTE PREFIX | FACILITY NAME | SEGMENT FROM | SEGMENT TO | SEGMENT LENGTH (MILES) | NUM OF THRU LANES | PAVEMENT WIDTH (FT) | AVG LANE WIDTH (FT) | TERRAIN TYPE [1] | ACCESS CONTROL [2] | OPERATION TYPE | CURB/GUTTER [3] | MEDIAN TYPE [4] | MEDIAN WIDTH (FT) | PERCENT GRADE | RIGHT SHOULDER TYPE [5] | RIGHT SHLDR WIDTH (FT) | LEFT SHOULDER TYPE [5] | LEFT SHLDR WIDTH (FT) | NUMBER OF SIGNALS | NUMBER OF STRUCTURES | RR CROSSINGS | SIDEWALK [3] | BIKE FACILITY [3] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Campbell | 01520 | | RAINBOW FOREST RD | RTE 1551 | RTE 460 BUS | 0.81 | 2 | 22 | 11 | R | N | 2W | N | N | 0 | 5 | E | 1 | E | 1 | 1 | 0 | 0 | N | N |
| Campbell | 01580 | | | RTE 858 | RTE 460 | 0.02 | 2 | 48 | 12 | R | N | 2W | N | F | 12 | 3 | E | 2 | E | 2 | 0 | 0 | 0 | N | N |
| Lynchburg | 00029 | | WARDS RD | SCL LYNCHBURG | LYNCHBURG EXP | 1.65 | 4 | 48 | 12 | R | N | 2W | N | D | 30 | 5 | P | 6 | P | 3 | 4 | 3 | 0 | N | N |
| Lynchburg | 00029 | | LYNCHBURG EXP | WARDS RD | CANDLERS MTN RD | 0.33 | 4 | 48 | 12 | R | F | 2W | N | J | 3 | 4 | G | 3 | N | 0 | 0 | 0 | 0 | N | N |
| Lynchburg | 00029 | | LYNCHBURG EXP | CANDLERS MTN RD | ODD FELLOWS RD | 1.4 | 4 | 48 | 12 | R | F | 2W | N | J | 3 | 2 | G | 3 | N | 0 | 0 | 0 | 0 | N | N |
| Lynchburg | 00029 | | LYNCHBURG EXP | ODD FELLOWS RD | KEMPER ST | 1.38 | 4 | 48 | 12 | R | F | 2W | N | J | 3 | 4 | G | 3 | N | 0 | 0 | 3 | 0 | N | N |
| Lynchburg | 00029 | | LYNCHBURG EXP | KEMPER ST | GRACE ST | 0.65 | 4 | 48 | 12 | R | F | 2W | N | J | 3 | 6 | G | 3 | N | 0 | 0 | 0 | 0 | N | N |
| Lynchburg | 00029 | | LYNCHBURG EXP | GRACE ST | MAIN ST | 0.49 | 4 | 48 | 12 | R | F | 2W | N | J | 3 | 4 | G | 3 | N | 0 | 0 | 0 | 0 | N | N |
| Lynchburg | 00029 | | LYNCHBURG EXP | MAIN ST | AMHERST CL | 0.18 | 4 | 48 | 12 | R | F | 2W | N | J | 3 | 3 | P | 1 | P | 1 | 0 | 0 | 0 | N | N |
| Lynchburg | 00029 | BUS | WARDS RD | LYNCHBURG EXP | FORT AVE | 0.78 | 4 | 64 | 12 | R | N | 2W | B | F | 16 | 5 | C | 0 | C | 0 | 3 | 1 | 0 | B | N |
| Lynchburg | 00029 | BUS | FORT AVE | WARDS RD | PERRYMONT AVE | 0.63 | 4 | 44 | 11 | R | N | 2W | B | N | 0 | 5 | C | 0 | C | 0 | 4 | 0 | 0 | B | N |
| Lynchburg | 00029 | BUS | FORT AVE | PERRYMONT AVE | MEMORIAL AVE | 0.54 | 2 | 36 | 12 | R | N | 2W | B | C | 12 | 4 | C | 0 | C | 0 | 2 | 0 | 0 | B | N |
| Lynchburg | 00029 | BUS | MEMORIAL AVE | FORT AVE | OAKLEY AVE | 0.52 | 2 | 24 | 12 | R | N | 2W | B | N | 0 | 2 | C | 0 | C | 0 | 3 | 0 | 0 | L | N |
| Lynchburg | 00029 | BUS | MEMORIAL AVE | OAKLEY AVE | PARK AVE | 0.47 | 2 | 36 | 12 | R | N | 2W | B | C | 12 | 2 | C | 0 | C | 0 | 3 | 0 | 0 | B | N |
| Lynchburg | 00029 | BUS | MEMORIAL AVE | PARK AVE | LANGHORNE RD | 0.33 | 3 | 45 | 12 | R | N | 2W | B | N | 0 | 3 | C | 0 | C | 0 | 2 | 0 | 0 | B | N |
| Lynchburg | 00029 | BUS | 05TH STREET | LANGHORNE RD | PARK AVE | 0.63 | 2 | 24 | 12 | R | N | 2W | B | N | 0 | 8 | C | 0 | C | 0 | 2 | 1 | 0 | B | N |
| Lynchburg | 00029 | BUS | 05TH STREET | PARK AVE | MAIN ST | 0.56 | 3 | 36 | 12 | R | N | 2W | B | N | 0 | 11 | C | 0 | C | 0 | 7 | 0 | 0 | B | N |
| Lynchburg | 00029 | BUS | 05TH STREET | MAIN ST | AMHERST CL | 0.43 | 4 | 72 | 12 | R | N | 2W | N | F | 4 | 11 | P | 10 | P | 10 | 2 | 1 | 0 | N | N |
| Lynchburg | 00029 | NEW | RTE 29 BYPASS | CAMPBELL AVE | BOCOCK RD EXT | 0.8 | | | | | | | | | | | | | | | | | | | |
| Lynchburg | 00029 | NEW | RTE 29 BYPASS | BOCOCK RD EXT | RTE 460 | 1.7 | | | | | | | | | | | | | | | | | | | |
| Lynchburg | 00029 | NEW | RTE 29 BYPASS | ROUTE 460 | AMHERST CL | 0.38 | | | | | | | | | | | | | | | | | | | |
| Lynchburg | 00128 | | MAYFLOWER DR | CANDLERS MTN RD | ODD FELLOWS RD | 1.25 | 2 | 24 | 12 | R | N | 2W | N | N | 0 | 9 | E | 1 | E | 1 | 2 | 0 | 2 | N | N |
| Lynchburg | 00128 | | MAYFLOWER DR | ODD FELLOWS RD | CAMPBELL AVE | 1.43 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 9 | N | 0 | N | 0 | 2 | 0 | 1 | N | N |
| Lynchburg | 00221 | | LAKESIDE DR | WCL LYNCHBURG | LYNCHBURG EXP | 0.53 | 4 | 60 | 12 | R | N | 2W | B | C | 12 | 2 | C | 0 | C | 0 | 1 | 0 | 0 | B | N |
| Lynchburg | 00221 | | LAKESIDE DR | LYNCHBURG EXP | FOREST BROOK RD | 0.88 | 2 | 30 | 10 | R | N | 2W | N | C | 10 | 4 | E | 2 | E | 2 | 1 | 0 | 0 | N | N |
| Lynchburg | 00221 | | LAKESIDE DR | FOREST BROOK RD | OLD FOREST RD E | 1.35 | 2 | 30 | 10 | R | N | 2W | N | C | 10 | 5 | E | 2 | E | 2 | 1 | 0 | 0 | N | N |
| Lynchburg | 00221 | | LAKESIDE DR | OLD FOREST RD E | OAKLEY AVE | 0.16 | 4 | 44 | 11 | R | N | 2W | B | N | 0 | 5 | C | 0 | C | 0 | 2 | 0 | 0 | B | N |
| Lynchburg | 00221 | | OAKLEY AVE | LAKESIDE DR | MEMORIAL AVE | 0.51 | 2 | 32 | 11 | R | N | 2W | B | N | 0 | 5 | C | 0 | C | 0 | 2 | 0 | 0 | B | N |
| Lynchburg | 00221 | | OAKLEY AVE | MEMORIAL AVE | WYTHE RD | 0.17 | 4 | 44 | 11 | R | N | 2W | B | N | 0 | 8 | C | 0 | C | 0 | 1 | 0 | 0 | B | N |
| Lynchburg | 00221 | | WYTHE RD | OAKLEY AVE | FORT AVE | 0.15 | 4 | 44 | 11 | R | N | 2W | B | N | 0 | 8 | C | 0 | C | 0 | 1 | 0 | 0 | B | N |
| Lynchburg | 00221 | | FORT AVE | WYTHE RD | 12TH STREET | 0.45 | 2 | 30 | 15 | R | N | 2W | B | N | 0 | 3 | C | 0 | C | 0 | 1 | 0 | 0 | B | N |
| Lynchburg | 00221 | | 12TH STREET | FORT AVE | CAMPBELL AVE | 0.22 | 2 | 30 | 10 | R | N | 2W | B | N | 0 | 8 | C | 0 | C | 0 | 1 | 0 | 0 | B | N |
| Lynchburg | 00460 | | RICHMOND HWY | SCL LYNCHBURG | CANDLERS MTN RD | 0.96 | 4 | 48 | 12 | R | F | 2W | N | D | 40 | 4 | G | 8 | G | 4 | 0 | 0 | 0 | N | N |
| Lynchburg | 00460 | | RICHMOND HWY | CANDLERS MTN RD | RTE 501 | 0.44 | 4 | 48 | 12 | R | F | 2W | N | D | 40 | 4 | G | 8 | G | 4 | 0 | 2 | 0 | N | N |
| Lynchburg | 00460 | | RICHMOND HWY | RTE 501 | CAMPBELL AVE | 2.08 | 4 | 48 | 12 | R | F | 2W | N | D | 40 | 5 | G | 8 | G | 4 | 0 | 2 | 0 | N | N |
| Lynchburg | 00460 | | RICHMOND HWY | CAMPBELL AVE | ECL LYNCHBURG | 2.58 | 4 | 48 | 12 | R | N | 2W | N | D | 16 | 5 | E | 2 | E | 2 | 0 | 2 | 0 | N | N |
| Lynchburg | 00460 | BUS | TIMBERLAKE RD | SCL LYNCHBURG | OLD GRAVES MILL RD | 0.52 | 4 | 48 | 12 | R | N | 2W | N | D | 20 | 2 | P | 4 | E | 1 | 1 | 1 | 0 | N | N |
| Lynchburg | 00460 | BUS | TIMBERLAKE RD | OLD GRAVES MILL RD | LEESVILLE RD | 1.13 | 4 | 48 | 12 | R | N | 2W | N | D | 20 | 6 | P | 4 | E | 1 | 2 | 1 | 0 | N | N |

## Appendix G

Lynchburg Road Segments

| JURISDICTION NAME | ROUTE NUMBER | ROUTE PREFIX | FACILITY NAME | SEGMENT FROM | SEGMENT TO | SEGMENT LENGTH (MILES) | NUM OF THRU LANES | PAVEMENT WIDTH (FT) | AVG LANE WIDTH (FT) | TERRAIN TYPE [1] | ACCESS CONTROL [2] | OPERATION TYPE | CURB/GUTTER [3] | MEDIAN TYPE [4] | MEDIAN WIDTH (FT) | PERCENT GRADE | RIGHT SHOULDER TYPE [5] | RIGHT SHLDR WIDTH (FT) | LEFT SHOULDER TYPE [5] | LEFT SHLDR WIDTH (FT) | NUMBER OF SIGNALS | NUMBER OF STRUCTURES | RR CROSSINGS | SIDEWALK [3] | BIKE FACILITY [3] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lynchburg | 00460 | BUS | TIMBERLAKE RD | LEESVILLE RD | WARDS FERRY RD | 0.2 | 4 | 48 | 12 | R | N | 2W | N | D | 20 | 2 | P | 4 | E | 1 | 2 | 0 | 0 | N | N |
| Lynchburg | 00460 | BUS | TIMBERLAKE RD | WARDS FERRY RD | LYNCHBURG EXP | 0.17 | 4 | 48 | 12 | R | N | 2W | N | D | 20 | 9 | P | 6 | E | 1 | 2 | 2 | 0 | N | N |
| Lynchburg | 00460 | BUS | FORT AVE | LYNCHBURG EXP | WARDS RD | 1.31 | 4 | 48 | 11 | R | N | 2W | B | F | 4 | 9 | C | 0 | C | 0 | 5 | 2 | 0 | N | N |
| Lynchburg | 00460 | DMY | FORT AVE | MEMORIAL AVE | WYTHE RD | 0.57 | 2 | 30 | 10 | R | N | 2W | B | N | 0 | 2 | C | 0 | C | 0 | 2 | 0 | 0 | B | N |
| Lynchburg | 00501 | | CAMPBELL AVE | SCL LYNCHBURG | BOCOCK RD EXT | 0.2 | 4 | 48 | 12 | R | N | 2W | N | D | 40 | 8 | P | 3 | G | 1 | 0 | 1 | 0 | N | N |
| Lynchburg | 00501 | | CAMPBELL AVE | BOCOCK RD EXT | RTE 460 | 0.72 | 4 | 48 | 12 | R | N | 2W | N | D | 40 | 8 | G | 6 | G | 1 | 0 | 2 | 0 | N | N |
| Lynchburg | 00501 | | RTE 501 | RTE 460 BYP | MAYFLOWER DR | 0.59 | 4 | 48 | 12 | R | F | 2W | N | N | 0 | 2 | G | 6 | E | 2 | 1 | 1 | 0 | N | N |
| Lynchburg | 00501 | | CANDLERS MTN RD | MAYFLOWER DR | LYNCHBURG EXP | 0.35 | 4 | 48 | 12 | R | N | 2W | B | N | 0 | 7 | C | 0 | C | 0 | 2 | 3 | 0 | N | N |
| Lynchburg | 00501 | | LYNCHBURG EXP | WARDS RD | TIMBERLAKE RD | 1.24 | 4 | 48 | 12 | R | F | 2W | N | D | 40 | 4 | P | 6 | G | 2 | 0 | 3 | 0 | N | N |
| Lynchburg | 00501 | | LYNCHBURG EXP | TIMBERLAKE RD | GRAVES MILL RD | 1.25 | 4 | 48 | 12 | R | F | 2W | N | D | 40 | 3 | P | 6 | G | 2 | 0 | 1 | 0 | N | N |
| Lynchburg | 00501 | | LYNCHBURG EXP | GRAVES MILL RD | LAKESIDE DR | 1.43 | 4 | 48 | 12 | R | F | 2W | N | D | 40 | 6 | P | 6 | E | 2 | 1 | 0 | 0 | N | N |
| Lynchburg | 00501 | | LYNCHBURG EXP | LAKESIDE DR | WIGGINGTON RD | 1.16 | 2 | 24 | 12 | R | F | 2W | N | N | 0 | 4 | G | 10 | G | 10 | 1 | 2 | 0 | N | N |
| Lynchburg | 00501 | | LYNCHBURG EXP | WIGGINGTON RD | BOONSBORO RD | 1.83 | 2 | 24 | 12 | R | F | 2W | N | N | 0 | 4 | G | 10 | G | 10 | 1 | 1 | 0 | N | N |
| Lynchburg | 00501 | | BOONSBORO RD | LYNCHBURG EXP | WCL LYNCHBURG | 1.76 | 2 | 30 | 10 | R | N | 2W | N | C | 10 | 5 | E | 2 | E | 2 | 1 | 0 | 0 | N | N |
| Lynchburg | 00501 | BUS | CAMPBELL AVE | RT 460 | FLORIDA AVE | 0.26 | 4 | 48 | 12 | R | N | 2W | N | D | 40 | 6 | P | 6 | G | 1 | 1 | 0 | 0 | N | N |
| Lynchburg | 00501 | BUS | CAMPBELL AVE | FLORIDA AVE | MAYFLOWER DR | 0.44 | 4 | 50 | 12 | R | N | 2W | B | F | 2 | 2 | C | 0 | C | 0 | 2 | 0 | 0 | B | N |
| Lynchburg | 00501 | BUS | CAMPBELL AVE | MAYFLOWER DR | KEMPER ST | 0.87 | 4 | 50 | 12 | R | N | 2W | B | F | 2 | 5 | C | 0 | C | 0 | 4 | 0 | 0 | B | N |
| Lynchburg | 00501 | BUS | KEMPER ST | CAMPBELL AVE | LYNCHBURG EXP | 0.38 | 4 | 52 | 12 | R | N | 2W | B | N | 0 | 8 | C | 0 | C | 0 | 0 | 2 | 0 | N | N |
| Lynchburg | 00501 | BUS | KEMPER ST | LYNCHBURG EXP | 12TH STREET | 0.42 | 2 | 26 | 13 | R | N | 2W | B | N | 0 | 6 | C | 0 | C | 0 | 2 | 0 | 0 | B | N |
| Lynchburg | 00501 | BUS | 12TH STREET | KEMPER ST | CAMPBELL AVE | 0.18 | 2 | 30 | 12 | R | N | 2W | B | N | 0 | 9 | C | 0 | C | 0 | 2 | 1 | 1 | B | N |
| Lynchburg | 00501 | BUS | CAMPBELL AVE | 12TH STREET | PARK AVE | 0.15 | 4 | 45 | 11 | R | N | 2W | B | N | 0 | 3 | C | 0 | C | 0 | 3 | 0 | 0 | B | N |
| Lynchburg | 00501 | BUS | LANGHORNE RD | PARK AVE | MEMORIAL AVE | 0.24 | 2 | 30 | 10 | R | N | 2W | B | N | 0 | 11 | C | 0 | C | 0 | 2 | 0 | 0 | B | N |
| Lynchburg | 00501 | BUS | LANGHORNE RD | MEMORIAL AVE | TATE SPRINGS RD | 0.73 | 4 | 60 | 11 | R | N | 2W | B | N | 0 | 3 | C | 0 | C | 0 | 4 | 0 | 0 | B | N |
| Lynchburg | 00501 | BUS | LANGHORNE RD | TATE SPRINGS RD | HILL ST | 0.67 | 2 | 32 | 11 | R | N | 2W | L | C | 10 | 8 | E | 1 | C | 0 | 2 | 0 | 0 | L | N |
| Lynchburg | 00501 | BUS | LANGHORNE RD | HILL ST | CRANEHILL DR | 0.35 | 2 | 32 | 11 | R | N | 2W | L | C | 10 | 6 | E | 0 | C | 0 | 2 | 2 | 0 | L | N |
| Lynchburg | 00501 | BUS | LANGHORNE RD | CRANEHILL DR | RIVERMONT TER | 1.35 | 2 | 22 | 11 | R | N | 2W | N | N | 0 | 6 | E | 1 | E | 1 | 1 | 0 | 0 | L | N |
| Lynchburg | 00501 | BUS | RIVERMONT TER | LANGHORNE RD | RIVERMONT AVE | 0.23 | 2 | 22 | 11 | R | N | 2W | B | N | 0 | 9 | C | 0 | C | 0 | 1 | 0 | 0 | R | N |
| Lynchburg | 00501 | BUS | RIVERMONT AVE | RIVERMONT TERR | LINK RD | 0.4 | 2 | 46 | 12 | R | N | 2W | B | N | 0 | 2 | C | 0 | C | 0 | 3 | 0 | 0 | B | N |
| Lynchburg | 00501 | BUS | BOONSBORO RD | LINK RD | TRENTS FERRY RD | 0.65 | 2 | 31 | 11 | R | N | 2W | B | N | 0 | 1 | C | 0 | C | 0 | 1 | 0 | 0 | L | N |
| Lynchburg | 00501 | BUS | BOONSBORO RD | TRENTS FERRY RD | BURNT BRIDGE RD | 1.03 | 2 | 30 | 10 | R | N | 2W | N | C | 10 | 5 | E | 4 | E | 4 | 0 | 0 | 0 | L | N |
| Lynchburg | 00501 | BUS | BOONSBORO RD | BURNT BRIDGE RD | LYNCHBURG EXP | 0.48 | 2 | 30 | 10 | R | N | 2W | N | C | 10 | 5 | E | 1 | E | 1 | 1 | 0 | 0 | L | N |
| Lynchburg | 00900 | DMY | 12TH STREET | MAIN ST | KEMPER ST | 0.97 | 2 | 24 | 10 | R | N | 2W | B | N | 0 | 12 | C | 0 | C | 0 | 5 | 0 | 0 | B | N |
| Lynchburg | 00901 | DMY | BEDFORD AVE | RIVERMONT AVE W | RIVERMONT AVE E | 1.12 | 2 | 44 | 11 | R | N | 2W | B | N | 0 | 11 | C | 0 | C | 0 | 2 | 1 | 0 | B | N |
| Lynchburg | 00902 | NEW | BOCOCK RD EXT | ECL LYNCHBURG | ROUTE 501 | 0.15 | | | | | | | | | | | | | | | | | | | |
| Lynchburg | 00902 | NEW | BOCOCK RD EXT | ROUTE 501 | ROUTE 460 | 1.04 | | | | | | | | | | | | | | | | | | | |
| Lynchburg | 00903 | DMY | BURNT BRIDGE RD | BOONSBORO RD | INDIAN HILL RD | 0.65 | 2 | 36 | 12 | R | N | 2W | B | N | 0 | 12 | C | 0 | C | 0 | 0 | 0 | 0 | N | N |
| Lynchburg | 00905 | DMY | CAMPBELL AVE | 12TH STREET | LYNCHBURG EXP | 0.3 | 2 | 33 | 10 | R | N | 2W | B | N | 0 | 9 | C | 0 | C | 0 | 1 | 1 | 0 | B | N |
| Lynchburg | 00905 | DMY | CAMPBELL AVE | LYNCHBURG EXP | KEMPER ST | 0.39 | 2 | 30 | 15 | R | N | 2W | B | N | 0 | 11 | C | 0 | C | 0 | 0 | 1 | 1 | L | N |

## Appendix G

Lynchburg Road Segments

| JURISDICTION NAME | ROUTE NUMBER | ROUTE PREFIX | FACILITY NAME | SEGMENT FROM | SEGMENT TO | SEGMENT LENGTH (MILES) | NUM OF THRU LANES | PAVEMENT WIDTH (FT) | AVG LANE WIDTH (FT) | TERRAIN TYPE [1] | ACCESS CONTROL [2] | OPERATION TYPE | CURB/GUTTER [3] | MEDIAN TYPE [4] | MEDIAN WIDTH (FT) | PERCENT GRADE | RIGHT SHOULDER TYPE [5] | RIGHT SHLDR WIDTH (FT) | LEFT SHOULDER TYPE [5] | LEFT SHLDR WIDTH (FT) | NUMBER OF SIGNALS | NUMBER OF STRUCTURES | RR CROSSINGS | SIDEWALK [3] | BIKE FACILITY [3] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lynchburg | 00907 | DMY | CANDLERS MTN RD | WARDS RD | WOODALL RD | 0.15 | 4 | 55 | 11 | R | N | 2W | B | C | 10 | 3 | C | 0 | C | 0 | 2 | 0 | 0 | N | N |
| Lynchburg | 00907 | DMY | CANDLERS MTN RD | WOODALL RD | LYNCHBURG EXP | 0.2 | 4 | 55 | 12 | R | N | 2W | B | N | 0 | 2 | C | 0 | C | 0 | 1 | 0 | 0 | N | N |
| Lynchburg | 00907 | DMY | CANDLERS MTN RD | MAYFLOWER DR | RTE 460 BYP | 0.66 | 2 | 30 | 10 | R | N | 2W | N | C | 10 | 8 | E | 1 | E | 1 | 3 | 0 | 0 | N | N |
| Lynchburg | 00907 | DMY | CANDLERS MTN RD | RTE 460 BYP | SCL LYNCHBURG | 1.13 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 12 | E | 1 | E | 1 | 0 | 1 | 0 | N | N |
| Lynchburg | 00908 | DMY | CHURCH ST | 5TH STREET | LYNCHBURG EXP | 0.72 | 2 | 32 | 10 | R | N | 1W | B | N | 0 | 11 | C | 0 | C | 0 | 6 | 0 | 0 | B | N |
| Lynchburg | 00909 | DMY | CLAY ST | 5TH STREET | 12TH STREET | 0.5 | 2 | 30 | 10 | R | N | 2W | B | N | 0 | 9 | C | 0 | C | 0 | 2 | 0 | 0 | B | N |
| Lynchburg | 00910 | DMY | COFFEE RD | BOONSBORO RD | WCL LYNCHBURG | 1.15 | 2 | 16 | 8 | R | N | 2W | N | N | 0 | 6 | E | 1 | E | 0 | 0 | 0 | 0 | N | N |
| Lynchburg | 00911 | DMY | COMMERCE ST | 5TH STREET | MAIN ST | 0.67 | 2 | 40 | 11 | R | N | 2W | B | N | 0 | 5 | C | 0 | C | 0 | 4 | 0 | 0 | B | N |
| Lynchburg | 00912 | DMY | CONCORD TPK | JEFFERSON ST | MAIN ST EXT | 1.31 | 2 | 20 | 11 | R | N | 2W | N | N | 0 | 4 | E | 1 | N | 0 | 0 | 0 | 8 | N | N |
| Lynchburg | 00912 | DMY | CONCORD TPK | MAIN ST EXT | ROCKWELL ST | 0.1 | 2 | 22 | 11 | R | N | 2W | N | N | 0 | 2 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Lynchburg | 00912 | DMY | CONCORD TPK | ROCKWELL ST | ROUTE 460 | 1.1 | 2 | 22 | 11 | R | N | 2W | N | N | 0 | 11 | E | 2 | E | 2 | 0 | 0 | 0 | N | N |
| Lynchburg | 00913 | DMY | COURT ST | 5TH STREET | 12TH STREET | 0.43 | 2 | 36 | 9 | R | N | 2W | B | N | 0 | 10 | C | 0 | C | 0 | 2 | 0 | 0 | B | N |
| Lynchburg | 00914 | DMY | CRANEHILL DR | LINK RD | LANGHORNE RD | 1.21 | 2 | 24 | 12 | R | N | 2W | N | N | 0 | 12 | N | 0 | N | 0 | 1 | 1 | 0 | N | N |
| Lynchburg | 00915 | DMY | EDGEWOOD AVE | FORT AVE | WARDS RD | 0.6 | 2 | 30 | 10 | R | N | 2W | B | N | 0 | 5 | C | 0 | C | 0 | 1 | 0 | 0 | N | N |
| Lynchburg | 00916 | DMY | ELDON ST | LANGHORNE LN | MEMORIAL AVE | 0.08 | 2 | 22 | 11 | R | N | 2W | B | N | 0 | 3 | C | 0 | C | 0 | 1 | 0 | 0 | B | N |
| Lynchburg | 00917 | DMY | EVERGREEN RD | INDIAN HILL RD | LINK RD | 0.26 | 2 | 22 | 11 | R | N | 2W | N | N | 0 | 10 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |
| Lynchburg | 00918 | DMY | FEDERAL ST | HOLLINS MILL RD | 5TH STREET | 0.38 | 2 | 33 | 11 | R | N | 2W | B | N | 0 | 5 | C | 0 | C | 0 | 1 | 0 | 0 | B | N |
| Lynchburg | 00919 | DMY | FENWICK DR | FORT AVE | SHEFFIELD DR | 0.21 | 2 | 26 | 13 | R | N | 2W | B | N | 0 | 4 | C | 0 | C | 0 | 1 | 0 | 0 | N | N |
| Lynchburg | 00920 | DMY | FLORIDA AVE | MAIN ST | GRACE ST | 0.35 | 2 | 30 | 12 | R | N | 2W | B | N | 0 | 11 | C | 0 | C | 0 | 0 | 0 | 0 | R | N |
| Lynchburg | 00920 | DMY | FLORIDA AVE | GRACE ST | CAMPBELL AVE | 1.57 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 10 | N | 0 | N | 0 | 1 | 2 | 0 | L | N |
| Lynchburg | 00921 | DMY | FOREST BROOK RD | OLD FOREST RD | LAKESIDE DR | 0.91 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 8 | N | 0 | N | 0 | 1 | 0 | 1 | N | N |
| Lynchburg | 00922 | DMY | FORT AVE | 12TH STREET | CAMPBELL AVE | 0.22 | 2 | 40 | 12 | R | N | 2W | B | N | 0 | 5 | C | 0 | C | 0 | 2 | 0 | 0 | B | N |
| Lynchburg | 00922 | DMY | FORT AVE | CAMPBELL AVE | PARK AVE | 0.16 | 2 | 40 | 10 | R | N | 2W | B | N | 0 | 5 | C | 0 | C | 0 | 2 | 1 | 0 | B | N |
| Lynchburg | 00923 | DMY | GRACE ST | 12TH STREET | LYNCHBURG EXP | 0.63 | 2 | 30 | 12 | R | N | 2W | B | N | 0 | 8 | C | 0 | C | 0 | 1 | 1 | 0 | B | N |
| Lynchburg | 00923 | DMY | GRACE ST | LYNCHBURG EXP | FLORIDA AVE | 0.26 | 2 | 28 | 11 | R | N | 2W | B | N | 0 | 5 | C | 0 | C | 0 | 0 | 0 | 0 | B | N |
| Lynchburg | 00924 | DMY | GRAVES MILL RD | WCL LYNCHBURG | OLD GRAVES MILL RD | 1.1 | 4 | 48 | 12 | R | N | 2W | B | N | 0 | 5 | C | 0 | C | 0 | 1 | 1 | 0 | N | N |
| Lynchburg | 00924 | DMY | GRAVES MILL RD | OLD GRAVES MILL RD | LYNCHBURG EXP | 0.23 | 4 | 48 | 12 | R | N | 2W | B | R | 16 | 2 | C | 0 | C | 0 | 1 | 1 | 0 | N | N |
| Lynchburg | 00924 | DMY | GRAVES MILL RD | LYNCHBURG EXP | MCCONVILLE RD | 0.04 | 4 | 48 | 12 | R | N | 2W | B | R | 16 | 5 | C | 0 | C | 0 | 0 | 0 | 0 | N | N |
| Lynchburg | 00924 | DMY | GRAVES MILL RD | MCCONVILLE RD | FORT AVE | 0.65 | 2 | 22 | 11 | R | N | 2W | N | N | 0 | 9 | E | 1 | E | 1 | 1 | 1 | 0 | N | N |
| Lynchburg | 00925 | DMY | GREENVIEW DR | CAMPBELL CL | ECL LYNCHBURG | 1.2 | 2 | 24 | 12 | R | N | 2W | N | N | 0 | 6 | G | 4 | G | 3 | 1 | 0 | 0 | N | N |
| Lynchburg | 00926 | DMY | GREENWOOD DR | SANDUSKY DR | THOMAS RD | 0.67 | 2 | 30 | 11 | R | N | 2W | B | N | 0 | 12 | C | 0 | C | 0 | 1 | 0 | 0 | R | N |
| Lynchburg | 00927 | DMY | HARVARD ST | WARDS FERRY RD | WARDS RD | 0.39 | 2 | 28 | 14 | R | N | 2W | B | N | 0 | 10 | C | 0 | C | 0 | 1 | 0 | 0 | N | N |
| Lynchburg | 00928 | DMY | HAWKINS MILL RD | COFFEE RD | WIGGINGTON RD | 0.3 | 2 | 16 | 8 | R | N | 2W | N | N | 0 | 11 | E | 1 | N | 0 | 0 | 0 | 0 | N | N |
| Lynchburg | 00929 | DMY | HILL ST | OLD FOREST RD | LANGHORNE RD | 0.61 | 2 | 30 | 15 | R | N | 2W | B | N | 0 | 12 | C | 0 | C | 0 | 0 | 1 | 0 | N | N |
| Lynchburg | 00930 | DMY | HOLLINS MILL RD | BEDFORD AVE | FEDERAL ST | 1.13 | 2 | 22 | 11 | R | N | 2W | N | N | 0 | 10 | N | 0 | N | 0 | 1 | 1 | 0 | N | N |
| Lynchburg | 00931 | DMY | INDIAN HILL RD | BURNT BRIDGE RD | EVERGREEN RD | 1.39 | 2 | 36 | 12 | R | N | 2W | B | N | 0 | 10 | C | 0 | C | 0 | 0 | 1 | 0 | N | N |
| Lynchburg | 00932 | DMY | JAMES ST | STADIUM DR | LYNCHBURG EXP | 0.16 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 12 | N | 0 | N | 0 | 0 | 0 | 0 | N | N |
| Lynchburg | 00933 | DMY | JEFFERSON ST | 9TH STREET | WASHINGTON ST | 0.38 | 2 | 30 | 15 | R | N | 2W | N | N | 0 | 8 | N | 0 | N | 0 | 0 | 0 | 0 | N | N |

## Appendix G

Lynchburg Road Segments

| JURISDICTION NAME | ROUTE NUMBER | ROUTE PREFIX | FACILITY NAME | SEGMENT FROM | SEGMENT TO | SEGMENT LENGTH (MILES) | NUM OF THRU LANES | PAVEMENT WIDTH (FT) | AVG LANE WIDTH (FT) | TERRAIN TYPE [1] | ACCESS CONTROL [2] | OPERATION TYPE | CURB/GUTTER [3] | MEDIAN TYPE [4] | MEDIAN WIDTH (FT) | PERCENT GRADE | RIGHT SHOULDER TYPE [5] | RIGHT SHLDR WIDTH (FT) | LEFT SHOULDER TYPE [5] | LEFT SHLDR WIDTH (FT) | NUMBER OF SIGNALS | NUMBER OF STRUCTURES | RR CROSSINGS | SIDEWALK [3] | BIKE FACILITY [3] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lynchburg | 00934 | DMY | KEMPER ST | 12TH STREET | PARK AVE | 0.1 | 2 | 26 | 13 | R | N | 2W | R | N | 0 | 4 | C | 0 | P | 1 | 2 | 0 | 0 | N | N |
| Lynchburg | 00935 | DMY | LAKESIDE DR | OAKLEY AVE | MEMORIAL AVE | 0.72 | 2 | 22 | 11 | R | N | 2W | R | N | 0 | 10 | C | 0 | E | 2 | 0 | 0 | 0 | R | N |
| Lynchburg | 00936 | DMY | LANGHORNE LN | THOMAS RD | ELDON ST | 0.33 | 2 | 30 | 10 | R | N | 2W | B | N | 0 | 2 | C | 0 | C | 0 | 0 | 0 | 0 | B | N |
| Lynchburg | 00937 | DMY | LEESVILLE RD | TIMBERLAKE RD | SCL LYNCHBURG | 2.24 | 4 | 44 | 11 | R | N | 2W | B | N | 0 | 4 | C | 0 | C | 0 | 2 | 0 | 0 | N | N |
| Lynchburg | 00938 | DMY | LINK RD | RIVERMONT AVE | CRANEHILL DR | 1.28 | 2 | 24 | 12 | R | N | 2W | N | N | 0 | 9 | N | 0 | N | 0 | 0 | 1 | 0 | N | N |
| Lynchburg | 00938 | DMY | LINK RD | CRANEHILL DR | OLD FOREST RD | 0.81 | 2 | 22 | 11 | R | N | 2W | N | N | 0 | 3 | E | 1 | E | 1 | 1 | 0 | 0 | N | N |
| Lynchburg | 00939 | DMY | LINKHORNE DR | OLD FOREST RD | CRANEHILL DR | 0.48 | 2 | 28 | 10 | R | N | 2W | B | C | 8 | 11 | C | 0 | C | 0 | 1 | 0 | 0 | B | N |
| Lynchburg | 00940 | DMY | MAIN ST | 5TH STREET | 12TH STREET | 0.44 | 2 | 44 | 11 | R | N | 1W | B | N | 0 | 8 | C | 0 | C | 0 | 8 | 0 | 0 | B | N |
| Lynchburg | 00940 | DMY | MAIN ST | 12TH STREET | LYNCHBURG EXP | 0.32 | 2 | 44 | 11 | R | N | 2W | B | N | 0 | 6 | C | 0 | C | 0 | 3 | 1 | 0 | B | N |
| Lynchburg | 00940 | DMY | MAIN ST | LYNCHBURG EXP | FLORIDA AVE | 0.21 | 2 | 40 | 10 | R | N | 2W | B | N | 0 | 6 | C | 0 | C | 0 | 0 | 0 | 0 | R | N |
| Lynchburg | 00940 | NEW | MAIN ST EXT | FLORIDA AVE | CONCORD TPK | 0.95 | | | | | | | | | | | | | | | | | | | |
| Lynchburg | 00941 | DMY | MARTIN ST | CAMPBELL AVE | ECL LYNCHBURG | 0.56 | 2 | 16 | 8 | R | N | 2W | N | N | 0 | 4 | E | 1 | E | 1 | 1 | 0 | 0 | N | N |
| Lynchburg | 00942 | DMY | MCCONVILLE RD | WYNDALE DR | GRAVES MILL RD | 1.78 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 12 | E | 1 | N | 0 | 0 | 1 | 0 | N | N |
| Lynchburg | 00943 | DMY | MURRELL RD | LAKESIDE DR | LANGHORNE RD | 0.38 | 2 | 36 | 12 | R | N | 2W | B | N | 0 | 5 | C | 0 | C | 0 | 1 | 0 | 0 | R | N |
| Lynchburg | 00946 | DMY | OLD GRAVES MILL RD | GRAVES MILL RD | TIMBERLAKE RD | 1.67 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 4 | N | 0 | N | 0 | 2 | 1 | 0 | N | N |
| Lynchburg | 00947 | DMY | ODD FELLOWS RD | LYNCHBURG EXP | MAYFLOWER DR | 0.64 | 2 | 24 | 12 | R | N | 2W | B | N | 0 | 1 | C | 0 | C | 0 | 1 | 2 | 0 | N | N |
| Lynchburg | 00947 | DMY | ODD FELLOWS RD | MAYFLOWER DR | DEAD END | 0.65 | 2 | 24 | 12 | R | N | 2W | N | N | 0 | 11 | N | 0 | N | 0 | 1 | 0 | 0 | N | N |
| Lynchburg | 00947 | NEW | ODD FELLOWS RD EXT | DEAD END | RTE 460 | 0.1 | | | | | | | | | | | | | | | | | | | |
| Lynchburg | 00948 | DMY | PARK AVE | MEMORIAL AVE | LANGHORNE RD | 0.31 | 2 | 30 | 15 | R | N | 2W | B | N | 0 | 2 | C | 0 | C | 0 | 2 | 0 | 0 | B | N |
| Lynchburg | 00948 | DMY | PARK AVE | LANGHORNE RD | KEMPER ST | 0.2 | 2 | 30 | 15 | R | N | 2W | B | N | 0 | 3 | C | 0 | C | 0 | 2 | 1 | 0 | B | N |
| Lynchburg | 00948 | DMY | PARK AVE | KEMPER ST | 5TH STREET | 0.72 | 2 | 34 | 14 | R | N | 2W | B | N | 0 | 7 | C | 0 | C | 0 | 2 | 1 | 0 | B | N |
| Lynchburg | 00949 | DMY | PAWNEE DR | LONG MEADOWS DR | SANDUSKY DR | 0.84 | 2 | 32 | 10 | R | N | 2W | B | N | 0 | 6 | C | 0 | C | 0 | 0 | 0 | 0 | N | N |
| Lynchburg | 00950 | DMY | PERRYMONT AVE | GREENWOOD DR | FORT AVE | 0.85 | 2 | 28 | 10 | R | N | 2W | B | N | 0 | 9 | C | 0 | C | 0 | 2 | 0 | 0 | R | N |
| Lynchburg | 00951 | DMY | RICHMOND ST | LANGHORNE LN | OAKLEY AVE | 0.38 | 2 | 22 | 11 | R | N | 2W | N | N | 0 | 12 | N | 0 | N | 0 | 1 | 0 | 0 | N | N |
| Lynchburg | 00952 | DMY | RIVERMONT AVE | RIVERMONT TER | BEDFORD AVE W | 1 | 2 | 46 | 15 | R | N | 2W | B | N | 0 | 2 | C | 0 | C | 0 | 3 | 0 | 0 | B | N |
| Lynchburg | 00952 | DMY | RIVERMONT AVE | BEDFORD AVE W | BEDFORD AVE E | 1.15 | 2 | 44 | 12 | R | N | 2W | B | N | 0 | 4 | C | 0 | C | 0 | 1 | 0 | 0 | B | N |
| Lynchburg | 00952 | DMY | RIVERMONT AVE | BEDFORD AVE E | 5TH STREET | 0.67 | 2 | 44 | 14 | R | N | 2W | B | N | 0 | 6 | C | 0 | C | 0 | 1 | 1 | 0 | B | N |
| Lynchburg | 00953 | DMY | SANDUSKY DR | FORT AVE | PAWNEE DR | 0.46 | 2 | 34 | 11 | R | N | 2W | B | N | 0 | 7 | C | 0 | C | 0 | 1 | 0 | 0 | N | N |
| Lynchburg | 00953 | DMY | SANDUSKY DR | PAWNEE DR | GREENWOOD DR | 0.63 | 2 | 34 | 11 | R | N | 2W | B | N | 0 | 12 | C | 0 | C | 0 | 0 | 0 | 0 | N | N |
| Lynchburg | 00954 | DMY | SHEFFIELD DR | FENWICK DR | WARDS RD | 0.7 | 2 | 30 | 9 | R | N | 2W | B | N | 0 | 12 | C | 0 | C | 0 | 1 | 0 | 0 | N | N |
| Lynchburg | 00955 | DMY | STADIUM DR | WYTHE ST | LYNCHBURG EXP | 0.37 | 2 | 33 | 16 | R | N | 2W | B | N | 0 | 2 | C | 0 | C | 0 | 0 | 0 | 0 | N | N |
| Lynchburg | 00956 | DMY | THOMAS RD | GREENWOOD DR | LANGHORNE LN | 0.75 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 11 | N | 0 | N | 0 | 2 | 0 | 0 | R | N |
| Lynchburg | 00957 | DMY | TRENTS FERRY RD | BEDFORD CL | BOONSBORO RD | 1.81 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 9 | N | 0 | N | 0 | 0 | 0 | 0 | N | N |
| Lynchburg | 00958 | DMY | VA EP SCH RD | WILLIAMS RD | RIVERMONT AVE | 0.91 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 10 | N | 0 | N | 0 | 1 | 0 | 0 | N | N |
| Lynchburg | 00959 | DMY | WASHINGTON ST | MAIN ST | JEFFERSON ST | 0.11 | 2 | 16 | 8 | R | N | 2W | L | N | 0 | 11 | N | 0 | C | 0 | 0 | 0 | 0 | L | N |
| Lynchburg | 00960 | DMY | WIGGINGTON RD | OLD FOREST RD | CRAIGMONT DR | 0.41 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 2 | E | 1 | E | 1 | 1 | 0 | 0 | N | N |
| Lynchburg | 00960 | DMY | WIGGINGTON RD | CRAIGMONT DR | LYNCHBURG EXP | 0.67 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 6 | E | 1 | E | 1 | 0 | 2 | 0 | N | N |
| Lynchburg | 00960 | DMY | WIGGINGTON RD | LYNCHBURG EXP | HAWKINS MILL RD | 2.41 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 3 | E | 1 | E | 1 | 0 | 0 | 0 | N | N |

## Appendix G

Lynchburg Road Segments

| JURISDICTION NAME | ROUTE NUMBER | ROUTE PREFIX | FACILITY NAME | SEGMENT FROM | SEGMENT TO | SEGMENT LENGTH (MILES) | NUM OF THRU LANES | PAVEMENT WIDTH (FT) | AVG LANE WIDTH (FT) | TERRAIN TYPE [1] | ACCESS CONTROL [2] | OPERATION TYPE | CURB/GUTTER [3] | MEDIAN TYPE [4] | MEDIAN WIDTH (FT) | PERCENT GRADE | RIGHT SHOULDER TYPE [5] | RIGHT SHLDR WIDTH (FT) | LEFT SHOULDER TYPE [5] | LEFT SHLDR WIDTH (FT) | NUMBER OF SIGNALS | NUMBER OF STRUCTURES | RR CROSSINGS | SIDEWALK [3] | BIKE FACILITY [3] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lynchburg | 00961 | DMY | WARDS FERRY RD | TIMBERLAKE RD | HARVARD ST | 1.25 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 8 | E | 1 | G | 1 | 0 | 0 | 0 | N | N |
| Lynchburg | 00961 | DMY | WARDS FERRY RD | HARVARD ST | WARDS RD | 1.03 | 2 | 20 | 10 | R | N | 2W | N | N | 0 | 6 | G | 1 | N | 0 | 0 | 0 | 0 | N | N |
| Lynchburg | 00962 | DMY | WYNDALE DR | LAKESIDE DR | MCCONVILLE RD | 0.24 | 2 | 18 | 9 | R | N | 2W | N | N | 0 | 3 | E | 2 | E | 2 | 0 | 0 | 0 | N | N |
| Lynchburg | 00963 | DMY | WYTHE RD | FORT AVE | STADIUM RD | 0.26 | 2 | 34 | 11 | R | N | 2W | B | N | 0 | 6 | C | 0 | C | 0 | 1 | 0 | 0 | L | N |
| Lynchburg | 00964 | DMY | 09TH STREET | CHURCH ST | JEFFERSON ST | 0.16 | 2 | 40 | 12 | R | N | 2W | B | N | 0 | 12 | C | 0 | C | 0 | 3 | 0 | 0 | B | N |
| Lynchburg | 00965 | DMY | ALTA LANE | WARDS FERRY RD | DELRAY CIRCLE | 0.85 | 2 | 22 | 11 | R | N | 2W | N | N | 0 | 10 | N | 0 | N | 0 | 0 | 0 | 0 | N | N |
| Lynchburg | 00966 | DMY | DELRAY CIRCLE | ALTA LANE | LEESVILLE RD | 0.15 | 2 | 22 | 11 | R | N | 2W | N | N | 0 | 7 | N | 0 | N | 0 | 0 | 0 | 0 | N | N |
| Lynchburg | 00967 | DMY | 08TH STREET | COURT ST | PARK AVE | 0.57 | 2 | 20 | 10 | R | N | 2W | B | N | 0 | 12 | C | 0 | C | 0 | 0 | 0 | 0 | B | N |
| Lynchburg | 00968 | DMY | LANGHORNE RD | RIVERMONT TER | RIVERMONT AVE | 0.26 | 2 | 20 | 10 | R | N | 2W | B | N | 0 | 2 | C | 0 | C | 0 | 0 | 0 | 0 | R | N |
| Lynchburg | 00969 | DMY | LONG MEADOWS DR | FORT AVE | PAWNEE DR | 0.72 | 2 | 32 | 10 | R | N | 2W | B | N | 0 | 10 | C | 0 | C | 0 | 1 | 0 | 0 | N | N |
| Lynchburg | 00970 | DMY | SUSSEX DR | PERRYMONT AVE | THOMAS RD | 0.78 | 2 | 24 | 12 | R | N | 2W | N | N | 0 | 11 | N | 0 | N | 0 | 1 | 0 | 0 | N | N |
| Lynchburg | 00971 | DMY | UNIVERSITY BLVD | CANDLERS MTN RD | LIBERTY MTN DR | 0.42 | 4 | 48 | 12 | R | N | 2W | B | R | 4 | 4 | C | 0 | C | 0 | 2 | 0 | 0 | L | N |
| Lynchburg | 00972 | DMY | IGLOE DR | SANDUSKY DR | LONG MEADOWS DR | 0.35 | 2 | 22 | 11 | R | N | 2W | B | N | 0 | 3 | C | 0 | C | 0 | 0 | 0 | 0 | N | N |
| Lynchburg | 00973 | DMY | OLD FOREST RD | LAKESIDE DR W | FOREST BROOK RD | 1.19 | 4 | 44 | 11 | R | N | 2W | B | N | 0 | 4 | C | 0 | C | 0 | 4 | 1 | 0 | N | N |
| Lynchburg | 00973 | DMY | OLD FOREST RD | FOREST BROOK RD | LINK RD | 0.35 | 4 | 44 | 11 | R | N | 2W | B | N | 0 | 2 | C | 0 | C | 0 | 3 | 0 | 0 | L | N |
| Lynchburg | 00973 | DMY | OLD FOREST RD | LINK RD | LINKHORNE DR | 0.21 | 4 | 44 | 11 | R | N | 2W | B | N | 0 | 2 | C | 0 | C | 0 | 2 | 0 | 0 | L | N |
| Lynchburg | 00973 | DMY | OLD FOREST RD | LINKHORNE DR | HILL ST | 1.02 | 2 | 22 | 11 | R | N | 2W | N | N | 0 | 4 | E | 0 | N | 0 | 1 | 1 | 0 | R | N |
| Lynchburg | 00973 | DMY | OLD FOREST RD | HILL ST | LAKESIDE DR E | 0.41 | 2 | 28 | 14 | R | N | 2W | N | N | 0 | 6 | E | 1 | E | 1 | 1 | 1 | 0 | L | N |
| Lynchburg | 00974 | NEW | LIBERTY RT460/29 CON | UNIVERSITY BLVD | RT 29 | 0.5 | | | | | | | | | | | | | | | | | | | |
| Lynchburg | 00975 | DMY | LIBERTY MTN DR | UNIVERSITY BLVD | CANDLER'S MTN RD | 0.42 | | | | | | | | | | | | | | | | | | | |
| Lynchburg | 00976 | DMY | UNIVERSITY BLVD EXT | UNIVERSITY BLVD | LIBERTY MTN DR | 0.42 | | | | | | | | | | | | | | | | | | | |
| Lynchburg | 09999 | DMY | LOCAL ROADS | TOLERABLE | | 242 | | | | | | | | | | | | | | | | | | | |

**Notes:**

[1] R= Rolling, M= Mountainous

[2] F= Full, N= None

[3] N= None, B= Both Sides, L= Left Side, R= Right Side

[4] R= Raised, D= Depressed, F= Flush, C= Center Turn Lanes, L= Alternating Left Turn Lanes, J= Jersey Barrier, N= None

[5] P= Paved, G= Gravel, E= Earth, C= Curb and Gutter, N= None

## Exhibit 17
## Summary of Environmental Overview

| Jurisdiction | Roadway | Description | Segment Length | Number of Residential Displacements | Number of Business Displacements | Number of Community Facilities Displaced | Minority/Low Income Neighborhoods Impacted | Historic Properties Impacted | Local Parks and Recreational Areas Impacted | Open Space Easements Impacted | Virginia Byways Impacted | National Forests Impacted | Agricultural/Forestal Districts Impacted | Prime Farmland Impacted | Hazardous Materials Impacted | Number of Wetlands Impacted | Floodplain Impacted | Number of Stream Crossings | Number of Trout Streams Crossed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Campbell Co. | Route 623 (Turkey Foot Road) -- Route 858 to Bedford County Corporate Limits | Reconstruct 2 lane roadway | ± | | | | | ✔ | | | | | | ✔ | | | ✔ | 1 | 1 |
| Campbell Co. | Route 664 (Old Rustburg Road) -- Route 677 to Route 501 | Reconstruct 2 lane roadway | 1.3 | 4 | | | | | | | | | | | | 2 | | | |
| Campbell Co. | Route 670 (Sunnymeade Road) -- Route 677 to Route 501 | Reconstruct 2 lane roadway (including at-grade RR crossing) | 2.8 | | | | | | | | | | ✔ | ✔ | | 2 | | | |
| Campbell Co. | Route 670 (Candlers Mountain Road) -- Lynchburg Corporate Limits to Route 677 | Reconstruct 2 lane roadway | 2 | | | | | | | | | | ✔ | | | | | | |
| Campbell Co. | Route 677 (Sunnymeade Road) -- Route 738 to Route 670 | Widen pavement to 24 feet | 2 | | 1 | | | | | | | | ✔ | ✔ | | | | | |
| Campbell Co. | Route 677 (Camp Hydaway Road) -- Route 670 to Route 664 | Reconstruct 2 lane roadway | 3.2 | 1 | | | | | | | | | ✔ | ✔ | | 2 | ✔ | 1 | 1 |
| Campbell Co. | Route 680 (Suburban Road) -- Route 738 to Route 501 | Reconstruct 2-Lane roadway (does not include RR crossing) | 3.2 | | | | | | | | | | ✔ | ✔ | | 1 | | | |
| Campbell Co. | Route 682 (Leesville Road) -- Lynchburg Corporate Limits to Route 460 | Widen to 4 lanes | 0.9 | 17 | 4 | | | | | | | | | ✔ | | | | | |
| Campbell Co. | Route 682 (Leesville Road) -- Route 460 to Study Area Boundary | Widen pavement to 24 feet | 2.5 | 5 | 1 | 2 | | | | | | | | ✔ | | | | | |
| Campbell Co. | Route 684 (Buffalo Mill Road) -- Route 682 to 0.8 Miles West of Route 682 | Widen pavement to 22 feet | 0.8 | | | | | | | | | | | ✔ | | | | | |
| Campbell Co. | Route 684 (Buffalo Mill Road) -- 0.8 Miles West of Route 682 to 1.5 Miles West of Route 682 | Reconstruct 2 lane roadway (including bridge over Buffalo Creek) | 0.7 | 1 | | | | | | | | | | | | 1 | ✔ | 1 | 1 |
| Campbell Co. | Route 726 (Mt. Athos Road) -- Six Mile Bridge to Route 609 | Widen shoulder for bike lane | 3.4 | | | | | | | | | | | | | | | | |
| Campbell Co. | Route 1520 (Rainbow Forest Road) -- Route 622 to Route 1551 | Reconstruct 2 lane roadway | 2.1 | 5 | | | | | | | | | | ✔ | | | | | |
| Campbell Co. | Enterprise Drive Extension -- Timberlake Road to Greenview Drive | Construct 4 lanes on new alighnment | 0.2 | | | | | | | | | | ✔ | ✔ | | | ✔ | 1 | 1 |
| Campbell Co. | Route 677 (Old Rustburg Road) -- Route 664 to Lynchburg Corporate Liimits | Reconstruct 2 lane roadway | 1.1 | | | | | | | | | | | | | 1 | | 1 | 1 |
| Campbell Co. | Route 681 (Sunburst Road) -- Route 460 to Route 622 | Reconstruct 2 lane roadway | 2.7 | 1 | | | | | | | | | | ✔ | | 1 | | | |

Notes: [1] Those improvements where potential impacts are indicated with "To Be Determined (TBD)" are included in the Transportation Plan as either an option or worst case scenario to address a particular transportation need; or a study to further develop a potential transportation project. "NA" under segment length indicates that the improvement is a spot improvement.

This environmental overview is based on information that was available as of June 1, 2001.

**Exhibit 17**

**Summary of Environmental Overview**

| Jurisdiction | Roadway | Description | Segment Length | Number of Residential Displacements | Number of Business Displacements | Number of Community Facilities Displaced | Minority/Low Income Neighborhoods Impacted | Historic Properties Impacted | Local Parks and Recreational Areas Impacted | Open Space Easements Impacted | Virginia Byways Impacted | National Forests Impacted | Agricultural/Forestal Districts Impacted | Prime Farmland Impacted | Hazardous Materials Impacted | Number of Wetlands Impacted | Floodplain Impacted | Number of Stream Crossings | Number of Trout Streams Crossed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bedford Co. | Route 658 (Walnut Hollow Road) -- Route 624 to Lynchburg Corporate Limits | Widen pavement to 22 feet | 1.3 | 1 | | | | | | | | | | ✔ | | | | | |
| Bedford Co. | Route 660 (Hawkins Mill Road) at Ivy Creek | Replace bridge and approaches | NA | | | | | | | | | | | ✔ | | | ✔ | 1 | 1 |
| Bedford Co. | Route 660 (Hawkins Mill Road) -- Route 621 to Route 659 | Reconstruct 2 lane roadway | 2.3 | | | | | | | | | | | ✔ | | 1 | ✔ | 2 | 2 |
| Bedford Co. | Route 661 (Bateman Bridge Road) -- Route 811 to Route 1440 | Widen to 4 lanes | 1.2 | 1 | | | | | | | | | ✔ | ✔ | | | | | |
| Bedford Co. | Route 662 (Hooper Road) at Ivy Creek | Construct new bridge | 0.9 | 69 | | | | | | | | | | ✔ | | | ✔ | 1 | 1 |
| Bedford Co. | Route 663 (Perrowville Road) -- 0.62 Miles North of Route 221 to Route 1431 | Widen to 4 lanes | 0.4 | | | | | | | | | | | ✔ | | | | | |
| Bedford Co. | Route 663 (Perrowville Road) --Route 622 to 0.62 Miles North of Route 221 | Widen to 4 lanes | 1.6 | 1 | | | | ✔ | | | | | | ✔ | | 1 | | | |
| Bedford Co. | Route 761 (Holcomb Rock Road) -- Route 501 to Route 645 | Widen pavement to 24 feet | 1.7 | | | | | | | | | | ✔ | ✔ | | 1 | | | |
| Bedford Co. | Route 811 (Thomas Jefferson Road) -- Route 460 to Route 221 | Widen to 4 lanes | 5 | 11 | 2 | | | ✔ | | | | | | ✔ | | 1 | | 1 | 1 |
| Bedford Co. | Route 811 (Thomas Jefferson Road) -- Route 622 to Route 623 | Reconstruct 2 lane roadway | 1.8 | | | | | | | | | | | | | | | | |
| Bedford Co. | Route 811 (New London Road) South of Route 460 | Intersection improvements | 0.1 | | | | | | | | | | | ✔ | | | | | |
| Campbell Co. | Route 29 (Wards Road) -- Lynchburg Corporate Limits to Route 738 South [5] | Widen to 6 lanes | 3.5 | 29 | 25 | | | | | | | | | ✔ | | 2 | ✔ | 2 | 2 |
| Campbell Co. | Route 29 interchange at Route 460 (Wards Road) | Construct full interchange | NA | | | | | | | | | | | | | | | | |
| Campbell Co. | Route 29 Madison Heights Bypass -- Route 460 to Lynchburg Corporate Limits | Construct 4 lanes on new alignment (including bridge) | 1.4 | | | | | | | | | | | | | 2 | ✔ | 2 | 2 |
| Campbell Co. | Route 29 Bypass South -- Route 460 E to Route 29 at Yellow Branch | Construct 4 lanes on new alignment - preliminary engineering only | NA | TBD [1] | TBD | TBD | TBD | TBD | TBD | TBD | ✔ | TBD | TBD | ✔ | TBD | TBD | TBD | TBD | TBD |
| Campbell Co. | Route 460 (Richmond Highway) -- Route 501 (Campbell Avenue) to Route 29 Bypass North | Develop new location - preliminary engineering only | NA | TBD [1] | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| Campbell Co. | Route 460 (Richmond Highway) -- Route 501 (Campbell Avenue) to Route 29 Bypass North [5] | Widen to 6 lanes | 2.4 | TBD [1] | TBD | TBD | | | | | | | | | | | | | |
| Campbell Co. | Route 460 (Lynchburg Highway) -- Route 726 to Route 752 | Widen to 6 lanes | 2 | 1 | 1 | 1 | | | | | | | | ✔ | | 1 | ✔ | | |
| Campbell Co. | Route 460 Business (Timberlake Road) -- Route 460 to Lynchburg Corporate Limits | Widen to 6 lanes | 3.4 | 4 | 6 | | | | | | | | | ✔ | | | | 1 | 1 |
| Campbell Co. | Route 609 (Stage Road) -- Route 726 to 0.4 Miles East of Route 659 | Widen pavement to 22 feet, improve bridges at Beaver Creek and Archer Creek | 1.3 | 1 | | | | | | | | | | ✔ | | | | 1 | 1 |
| Campbell Co. | Route 622 (Waterlick Road) -- Bedford County Corporate Limits to Route 1520 | Widen to 4 lanes | 1.1 | 1 | 2 | 1 | | | | | | | | ✔ | | | | | |
| Campbell Co. | Route 622 (Waterlick Road) --Route 682 to Route 683 | Widen pavement to 24 feet, improve bridge over NS RR | 2.3 | | | | | | | | | | ✔ | ✔ | | 1 | | | |
| Campbell Co. | Route 622 (Lynbrook Road) -- Route 683 to Route 29 | Reconstruct 2 lane roadway | 2.5 | 3 | | | | | | | | | ✔ | ✔ | | | ✔ | 1 | 1 |
| Campbell Co. | Route 622 (Waterlick Road) -- Route 460 Business to Route 682 | Reconstruct 2 lane roadway | 0.9 | 4 | 2 | | | | | | | | | ✔ | | | | 1 | 1 |
| Campbell Co. | Route 623 (Town Fork Road) -- Route 682 to Route 858 | Reconstruct 2 lane roadway | 2.5 | 10 | | | | | | | | | | ✔ | | 1 | ✔ | 2 | 2 |
| Campbell Co. | Route 659 (Cabin Field Road) -- Route 609 to Route 460 | Widen shoulder for bike lane | 1.5 | | | | | | | ✔ | | | | | | | | | |

**Exhibit 17**

**Summary of Environmental Overview**

| Jurisdiction | Roadway | Description | Segment Length | Number of Residential Displacements | Number of Business Displacements | Number of Community Facilities Displaced | Minority/Low Income Neighborhoods Impacted | Historic Properties Impacted | Local Parks and Recreational Areas Impacted | Open Space Easements Impacted | Virginia Byways Impacted | National Forests Impacted | Agricultural/Forestal Districts Impacted | Prime Farmland Impacted | Hazardous Materials Impacted | Number of Wetlands Impacted | Floodplain Impacted | Number of Stream Crossings | Number of Trout Streams Crossed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Amherst Co. | Route 29 Business (South Amherst Highway) -- Route 685 to Route 29 at Kmart | Widen to 4 lanes | 1.6 | 1 | | | | | | | | | | ✔ | | 2 | ✔ | | |
| Amherst Co. | Route 29 -- Route 29 Business to Route 1054 | Signals study | NA | | | | | | | | | | | ✔ | | | | | |
| Amherst Co. | Route 130 Connector -- Route 29 to Route 29 Bypass | Construct 4 lanes on new alignment (5 lanes at Route 130) | 1.9 | | | | | | | | ✔ | | | ✔ | | 1 | ✔ | 2 | 2 |
| Amherst Co. | Route 210 Connector -- Route 29 to Route 29 Bypass (including Route 622 Connector) | Construct 4 lanes on new alignment | 1.8 | | | | | | | | | | | | | 1 | ✔ | 2 | 2 |
| Amherst Co. | Route 210 Interchange at Route 29/210 (Colony Road at the Route 210 Connector) | Reconstruct interchange | NA | | | | | | | | | | | | | | | | |
| Amherst Co. | Route 604 (Bob White Road) -- Route 663 to Route 670 | Widen pavement to 22 feet | 1.7 | | | | | | | | | | | ✔ | | | | | |
| Amherst Co. | Route 622 (Wright Shop Road) -- Route 210 to Route 833 | Widen to 4 lanes | 0.7 | 4 | | | | | | | ✔ | | | ✔ | | | ✔ | 1 | 1 |
| Amherst Co. | Route 622 (Wright Shop Road) -- Route 833 to Route 677 | Widen to 4 lanes | 1.8 | 5 | | | | | | | ✔ | | | ✔ | | | | | |
| Amherst Co. | Route 652 (Cedar Gate Road) -- Route 657 to Route 675 | Widen pavement to 24 feet | 2.4 | | | | | | | | | | | ✔ | | | ✔ | 1 | 1 |
| Amherst Co. | Route 652 (Cedar Gate Road.) -- at Graham Creek | Replace bridge at Graham Creek | NA | | | | | | | | ✔ | | | ✔ | | | ✔ | | |
| Amherst Co. | Route 652 (Cedar Gate Rd.) -- Route 675 to Route 130 | Widen pavement to 22 feet | 2 | | | | | | | | ✔ | | | ✔ | | 1 | ✔ | 1 | 1 |
| Amherst Co. | Route 657 (Cedar Gate Road) -- Route 652 to Route 636 | Widen pavement to 22 feet | 0.5 | | | | | | | | | | | ✔ | | | ✔ | 1 | 1 |
| Amherst Co. | Route 663 (North Coolwell Road) -- Route 29 South to Route 670 | Widen pavement to 22 feet (including RR structure) | 3.5 | 1 | | | | | | | | | | ✔ | | | | | |
| Amherst Co. | Route 670 (Izaak Walton Road) at North and South Forks of Stovall's Creek | Improve bridges | NA | | | | ✔ | | | | | | | ✔ | | | | 1 | 1 |
| Amherst Co. | Route 677 (Dixie Airport Road) -- Route 669 North to Route 29 | Widen to 4 lanes | 3 | 20 | 1 | | | | | | | | | ✔ | | | ✔ | 1 | 1 |
| Amherst Co. | Route 683 (Thomas Road) -- Route 685 to Route 766 | Widen pavement to 22 feet | 3.5 | | | | | | | | | | | ✔ | | 1 | ✔ | | |
| Amherst Co. | Route 795 (Winridge Drive) -- Route 130 to Route 675 | Widen pavement to 24 feet | 0.8 | | | | | | | | ✔ | | | ✔ | | | | | |
| Amherst Co. | River Road Alt. (New Location) -- Route 130 to Route 29 Business at Route 210 | Construct 2 lanes on new alignment (including new bridge) | 3.5 | TBD [1] | TBD | TBD | | | | | ✔ | | | ✔ | | 1 | | 2 | 2 |
| Bedford Co. | Route 221 (Forest Road) -- 0.5 miles West of Route 663 to 0.5 Miles West of NS Railroad | Widen to 4 lanes | 2.9 | 8 | 7 | | | ✔ | | | | | ✔ | ✔ | | 1 | | | |
| Bedford Co. | Route 221 (Forest Road) -- Elk Creek to 0.05 Miles West of Route 663 | Widen to 4 lanes | 0.6 | | | | | | | | | | ✔ | ✔ | | | | | |
| Bedford Co. | Route 501 (Boonsboro Road) -- Lynchburg Corporate Limits to Study Area Boundary | Spot improvements (prorated cost) | 4.8 | | | | | | | | | | ✔ | ✔ | | | ✔ | 1 | 1 |
| Bedford Co. | Route 501 (Boonsboro Road) at Route 647 | Relocate intersection, construct turn lane | 0.3 | | | | | | | | | | | ✔ | | | | | |
| Bedford Co. | Route 501 (Boonsboro Road) -- Lynchburg Corporate Limits to Judith Creek Bridge | Widen shoulder for bike lane | 1 | | | | | | | | | | | | | | ✔ | 1 | 1 |
| Bedford Co. | Route 621 (Cotton Town Road) -- Route 1201 to 0.25 Miles West of Route 884 | Widen pavement to 24 feet, improve bridge at Ivy Creek | 1.7 | | | | | | | | ✔ | | | ✔ | | | | | |
| Bedford Co. | Rte. 622 (Waterlick Road) -- Route 811 to Campbell County Corporate Limits | Widen to 4 lanes | 0.9 | 9 | 3 | | | | | | ✔ | | ✔ | ✔ | | | | | |
| Bedford Co. | Route 644 (Coffee Road) -- Route 665 North to Route 665 South | Improve bridges and approaches | NA | | | | | | | | ✔ | | ✔ | ✔ | | 1 | ✔ | 1 | 1 |
| Bedford Co. | Route 645 (Trent's Ferry Road) -- Route 794 South to Lynchburg Corporate Limits | Improve bridges and approaches | NA | | | | | | | | ✔ | | ✔ | | | 1 | ✔ | 1 | 1 |

**Exhibit 17**

**Summary of Environmental Overview**

| Jurisdiction | Roadway | Description | Segment Length | Number of Residential Displacements | Number of Business Displacements | Number of Community Facilities Displaced | Minority/Low Income Neighborhoods Impacted | Historic Properties Impacted | Local Parks and Recreational Areas Impacted | Open Space Easements Impacted | Virginia Byways Impacted | National Forests Impacted | Agricultural/Forestal Districts Impacted | Prime Farmland Impacted | Hazardous Materials Impacted | Number of Wetlands Impacted | Floodplain Impacted | Number of Stream Crossings | Number of Trout Streams Crossed |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lynchburg | Route 29 Bypass South -- Route 29 (Wards Road) to Route 501 (Campbell Avenue) | Widen to 6 Lanes | 4.4 | TBD [1] | TBD | TBD | | | | | | | ✔ | ✔ | | | | 2 | 2 |
| Lynchburg | Route 460 interchange at Odd Fellows Extension | New grade-separated interchange -- preliminary engineering only | NA | | | | | | | | | | | | | | | | |
| Lynchburg | Route 460 interchange at Odd Fellows Extension | New grade-separated interchange | NA | | | | | | | | | | | | | | | | |
| Lynchburg | Route 460 Business (Fort Avenue) -- Memorial Avenue to 12th Street | Widen to 4 lanes (remove parking) | 1 | | | | | | | | | | | | | | | | |
| Lynchburg | Route 501 (Candlers Mountain Road) -- Woodall Road to Mayflower Drive | Widen to 6 lanes (including bridge over RR) -- preliminary engieering only | NA | | | | | | | | | | | ✔ | | | | | |
| Lynchburg | Route 501 (Candlers Mountain Road) -- Woodall Road to Mayflower Drive | Widen to 6 lanes (including bridge over RR & interchange) | 0.5 | | | | | | | | | | | ✔ | | | | | |
| Lynchburg | Route 501 (Lynchburg Expressway) interchange at Route 221 (Lakeside Drive) | Construct interchange | NA | | | | | | | | | | | | | | | | |
| Lynchburg | Route 501 (Lynchburg Expressway) -- Lakeside Drive to Boonsboro Road | Widen to 4 lanes | 3 | | | | | | | | | | | ✔ | | | ✔ | 2 | 2 |
| Lynchburg | Old Candlers Mountain Road -- Mayflower Drive to Route 460 | Widen to 4 lanes | 0.7 | | | | | | | | | | | ✔ | | | | | |
| Lynchburg | Breezewood Drive -- Route 501 to Route 221 (Lakeside Drive) | Extend to Lakeside Drive | 0.5 | | | | | | | | | | | ✔ | | | | | |
| Lynchburg | Concorde Turnpike -- Rockwell Road to Kavanaugh Road | Add truck climbing lane for eastbound traffic | 0.5 | | | | | | | | | | | | | 1 | ✔ | | |
| Lynchburg | 5th Street (Route 29 Business) -- Langhorne Road to Main Street | Capacity improvements to be determined by future study | 1.2 | 7 | 10 | | ✔ | ✔ | ✔ | | | | | | | | | | |
| Lynchburg | Enterprise Drive -- Laxton Road to NW Railroad | Construct 4 lanes on new alignment | 1.9 | | | | | | | | | | | ✔ | | | ✔ | 1 | 1 |
| Lynchburg | Forest Brook Road -- Old Forest Road to Lakeside Drive | Improve 2 lane section (including at-grade RR crossing) | 1 | 1 | | | | | | | | | | ✔ | | | | | |
| Lynchburg | Fort Avenue -- 12th Street to Kemper Street | Widen to 4 lanes (remove parking) | 0.38 | | | | ✔ | | | | | | | | | | | | |
| Lynchburg | Greenview Drive (Route 678) -- Campbell County Corporate Limits to Leesville Road | Widen to 4 lanes | 1.3 | | | | | | | | | | | ✔ | | 1 | ✔ | 1 | 1 |
| Lynchburg | Langhorne Road (Route 501 Business) -- Fort Avenue to Memorial Avenue | Widen to 4 lanes | 0.4 | 11 | 1 | | | | ✔ | | | | | | | | | | |
| Lynchburg | Mayflower Drive (Route 128) -- Candlers Mountain Road to Odd Fellows Road | Widen to 4 lanes | 1.3 | | | | | | | | | | | ✔ | | 1 | | 1 | 1 |
| Lynchburg | Old Graves Mill Road -- Graves Mill Road to Timberlake Road | Improve 2 lane section (0.7 mi exception) | 1.7 | | | | | ✔ | | | | | | ✔ | | | | | |
| Lynchburg | Odd Fellows Road -- Lynchburg Expressway to Dead End | Widen to 4 lanes | 1.3 | | | | | | | | | | | ✔ | | | ✔ | 1 | 1 |
| Lynchburg | Old Forest Road -- Linkhorne Road to Lakeside Drive East | Improve 2 lane section | 1.2 | | | | | | | | | | | ✔ | | | ✔ | 1 | 1 |
| Lynchburg | Virginia Episcopal School Road -- Rivermont Road to Williams Road | Construct sidewalk | 0.9 | | | | | | | | | | | ✔ | | | | 1 | 1 |
| Lynchburg | Cross-Town Connector -- Old Forest Road to Route 501 Expressway | Widen to 4 lanes | 2.4 | | 1 | | ✔ | ✔ | | | | | | ✔ | | | ✔ | 1 | 1 |
| Lynchburg | Cross-Town Connector -- Route 29 Expressway to Old Forest Road | Widen to 4 lanes | 2 | | 1 | | ✔ | ✔ | | | | | | ✔ | | | | | |
| Lynchburg | Enterprise Drive Extension/Bee Drive (Route 1415) -- Laxton Road to Timberlake Road | Construct 3 lanes on new alignment | 0.1 | | | | | | | | | | | ✔ | | | | | |
| Amherst Co. | Route 29 Madison Heights Bypass -- Lynchburg Corporate Limits to Study Area Boundary | Construct 4 lanes on new alignment | 8.8 | | | | ✔ | | | | | | | ✔ | | 2 | ✔ | 6 | 6 |

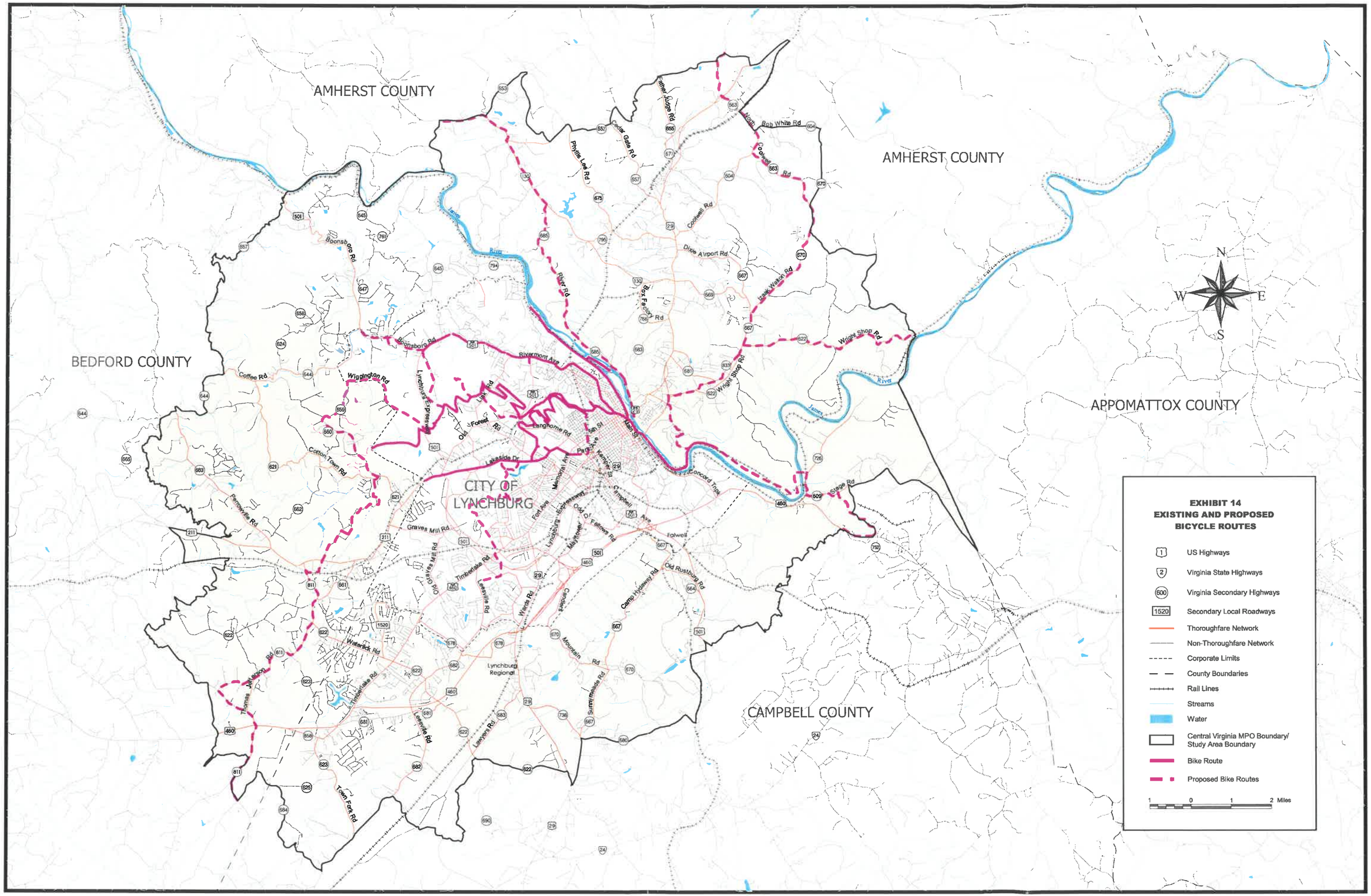


**EXHIBIT 14**
**EXISTING AND PROPOSED BICYCLE ROUTES**

- US Highways
- Virginia State Highways
- Virginia Secondary Highways
- Secondary Local Roadways
- Thoroughfare Network
- Non-Thoroughfare Network
- Corporate Limits
- County Boundaries
- Rail Lines
- Streams
- Water
- Central Virginia MPO Boundary/ Study Area Boundary
- Bike Route
- Proposed Bike Routes

1 0 1 2 Miles

AMHERST COUNTY

AMHERST COUNTY

BEDFORD COUNTY

CITY OF LYNCHBURG

CAMPBELL COUNTY

APPOMATTOX COUNTY

N

W E

S

# EXHIBIT C-7
# LYNCHBURG AREA
# LONG-RANGE TRANSPORTATION PLAN
# YEAR 2025

- US Highways
- Virginia State Highways
- Virginia Secondary Highways
- Secondary Local Roadways
- Thoroughfare Network
- Non-Thoroughfare Network
- Corporate Limits
- County Boundaries
- Rail Lines
- Streams
- Water
- Central Virginia MPO Boundary/ Study Area Boundary
- Airports
- Rail Station
- Bus Station
- # Screenlines/ Screenline Numbers

1 0 1 2 Miles

AMHERST COUNTY

AMHERST COUNTY

BEDFORD COUNTY

CITY OF LYNCHBURG

CAMPBELL COUNTY

APPOMATTOX COUNTY

N

W E

S

**EXHIBIT C-7**
**LYNCHBURG AREA**
**LONG-RANGE TRANSPORTATION PLAN**
**YEAR 2025**

- US Highways
- Virginia State Highways
- Virginia Secondary Highways
- Secondary Local Roadways
- Thoroughfare Network
- Non-Thoroughfare Network
- Corporate Limits
- County Boundaries
- Rail Lines
- Streams
- Water
- Central Virginia MPO Boundary/ Study Area Boundary
- Airports
- Rail Station
- Bus Station
- # Screenlines/ Screenline Numbers

1 0 1 2 Miles

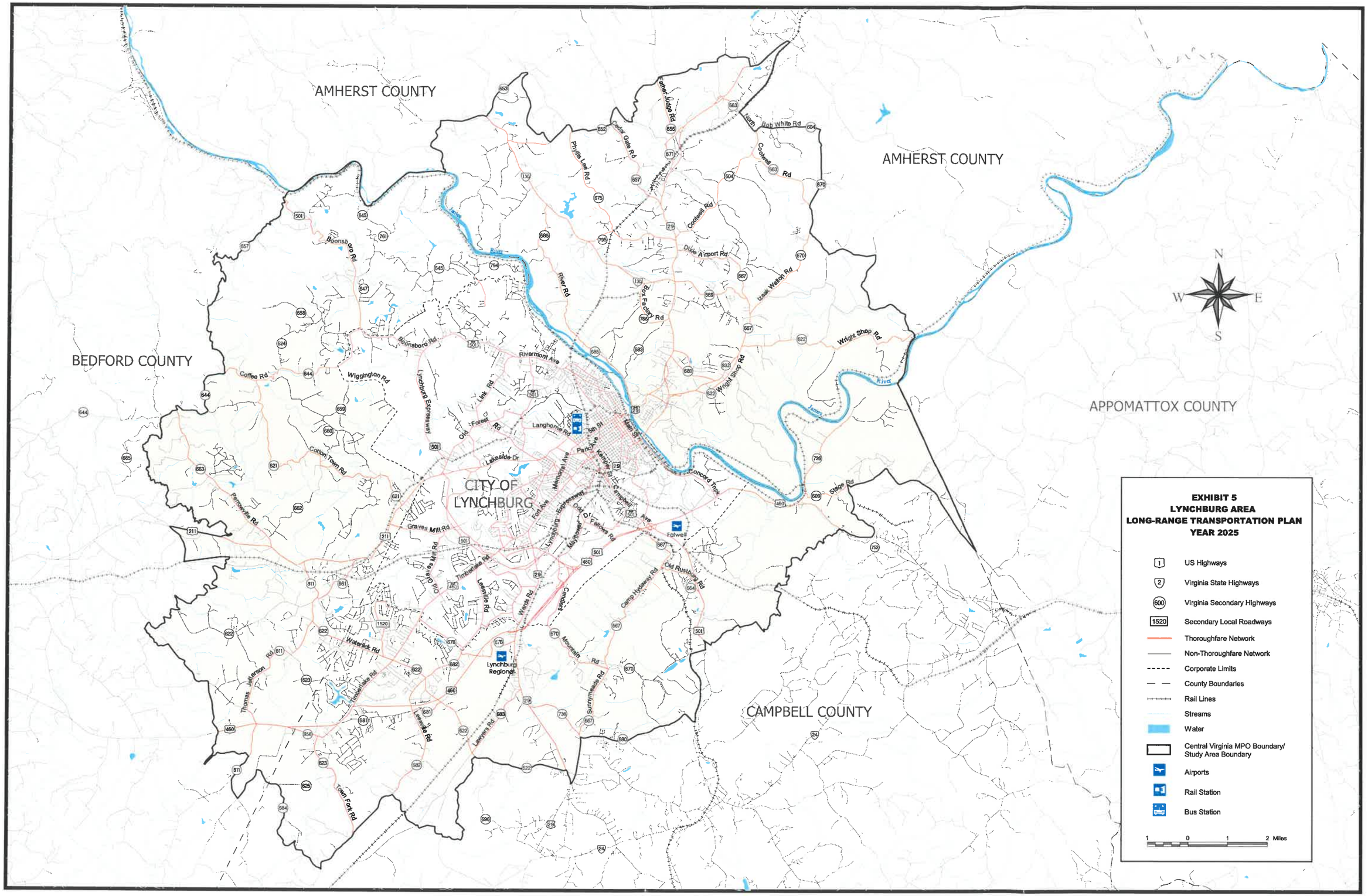


**EXHIBIT 5**
**LYNCHBURG AREA**
**LONG-RANGE TRANSPORTATION PLAN**
**YEAR 2025**