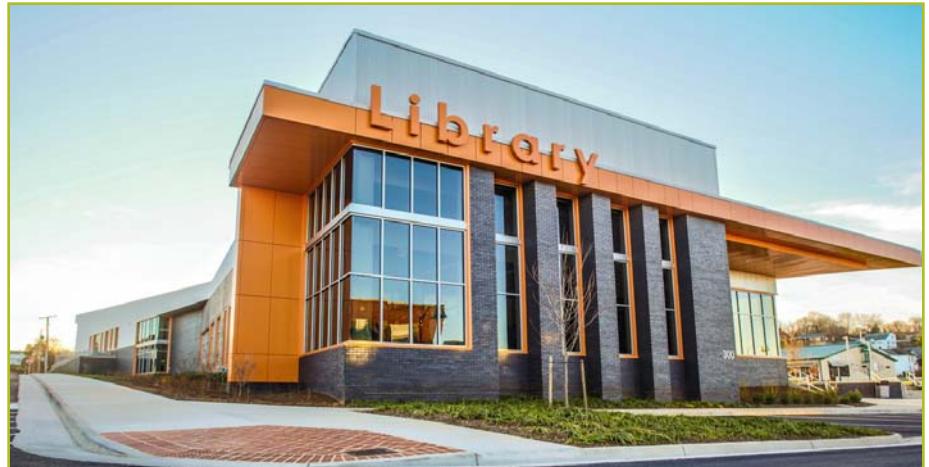




ROANOKE VALLEY TRANSIT VISION PLAN

EXECUTIVE SUMMARY | SEPTEMBER 2016



SHORT-TERM RECOMMENDATIONS

The short-term recommendations address the transit service needs that should be addressed within the next six years (2016-2022). The majority of these recommendations will feed into the 2017 Transit Development Plan, where a phasing and implementation plan will be further developed.

The short-term recommendations propose a significant expansion to the existing transit service area. In this phase, service is recommended for many places where new critical connections to employment and residential areas are needed, including:

- The Hollins area;
- Electric Road Corridor;
- Glenvar;
- Exit 140;
- Bonsack; and,
- The Roanoke Centre for Industry and Technology.

The short-term recommendations also make improvements to the existing services. These improvements include: increasing frequency, extending service to later in the evenings, adding Sunday service and adding additional routes within the existing service area. The following routes have recommended improvements in this phase: 15/16, 21/22, 31/32, 35/36, 55/56, 51/52, 81/82, and 91/92.

Additional recommendations include:

- Coordinate Smart Way and Amtrak schedules to increase regional connectivity and the convenience of longer trips
- Further study of additional commuter service and consolidating stops to improve efficiency
- Develop partnerships with employers to increase jobs access and funding
- Update route schedule publications and maps and provide real-time passenger information
- Pursue partnerships among local governments for public bus service to increase and improve transit service and funding
- Reduce costs and significantly improve connectivity by regionalizing services for persons with disabilities and for seniors across jurisdictional boundaries

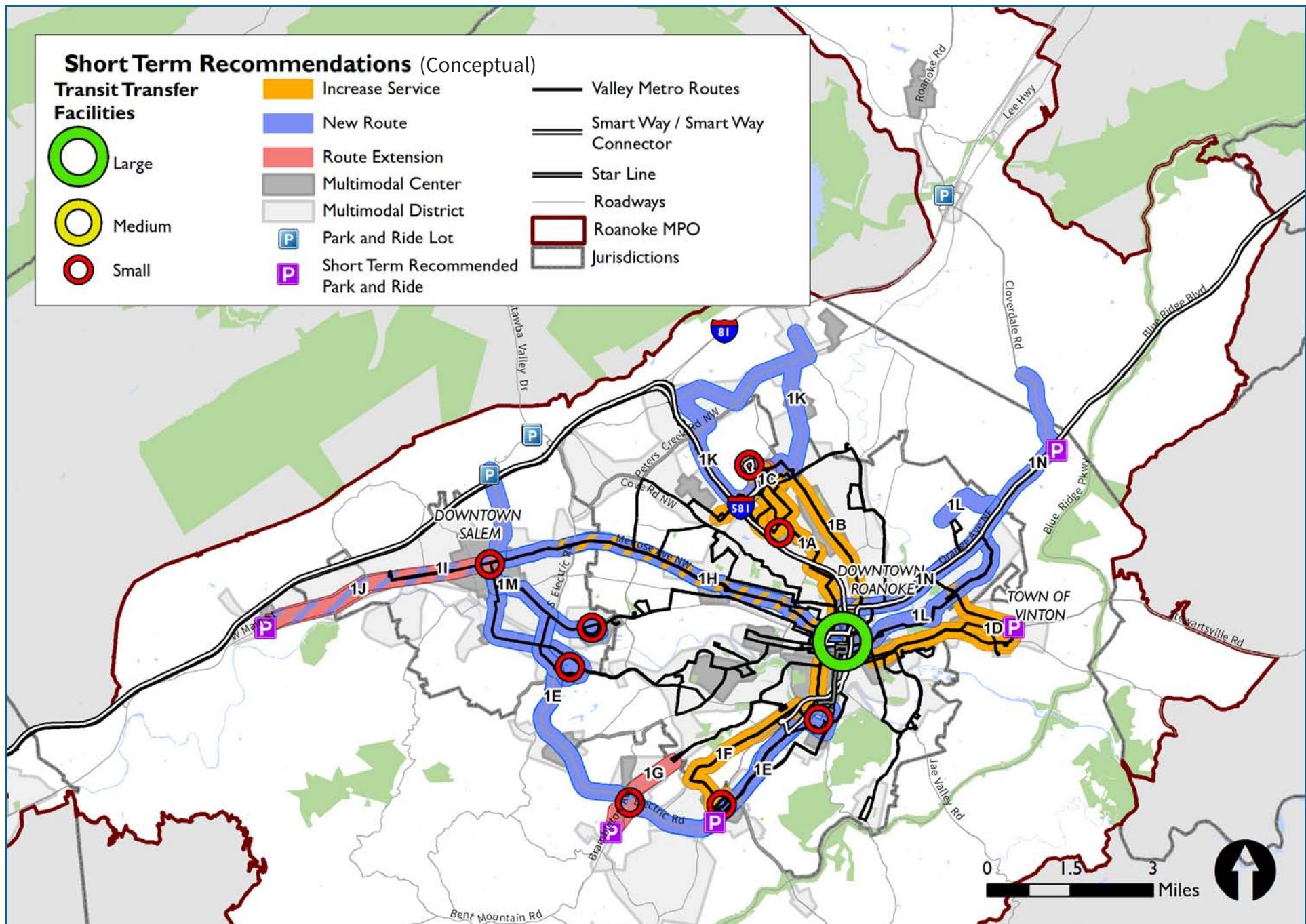
These recommendations collectively improve the access and quality of service for the residents and employers of the Roanoke Valley region. As shown in the table below, the short-term recommendations provide new service to over 16,000 residents and 14,000 jobs while improving the quality of service for over 50,000 residents and jobs.

POPULATIONS SERVED (SHORT-TERM)

METRIC	EXISTING SERVICE AREA	SHORT-TERM SERVICE AREA	IMPROVED SERVICE*	PERCENT GROWTH IN POPULATION SERVED	PERCENT IMPROVED SERVICE**
POPULATION	90,254	106,561	58,414	118%	65%
JOBS	65,224	80,012	54,301	123%	83%
HOUSEHOLDS	39,315	46,375	25,784	118%	66%

* Includes areas being served by existing routes that have recommendations for span or frequency, or a new route overlaid.

** Percent of existing service area population receiving improved service.



MEDIUM-TERM RECOMMENDATIONS

The medium-term recommendations identify the transit service needs that should be addressed within the eight-year period between 2022 and 2030. The majority of these recommendations will feed into the Long Range Transportation Planning process.

The medium-term recommendations focus on improving the quality of transit service in the Roanoke Valley region by increasing frequencies between key activity centers and making new connections within the existing and short-term service area. These changes provide additional transit options and would improve service along large portions of existing routes. The medium-term also recommends new connections to areas in Daleville, Clearbrook, Vinton, and South and East Roanoke County.

Additional recommendations include:

- Creating new crosstown connections
- Creating new cross-regional express services
- Extending the Star Line Trolley
- Improving convenience and access to medical services



POPULATIONS SERVED (MEDIUM-TERM)

METRIC	SHORT-TERM SERVICE AREA	MEDIUM-TERM SERVICE AREA	IMPROVED SERVICE*	PERCENT GROWTH IN POPULATION SERVED	PERCENT IMPROVED SERVICE**
POPULATION	106,561	114,512	52,528	7%	49%
JOBS	80,012	85,087	49,275	6%	62%
HOUSEHOLDS	46,375	49,900	22,891	8%	49%

* Includes areas being served by existing routes that have recommendations for span or frequency, or a new route overlaid.

** Percent of existing service area population receiving improved service.

Medium Term Recommendations (Conceptual)

Transit Transfer Facilities

 Large

 Medium

 Small

 Increase Service

 New Route

 Route Extension

 Multimodal Center

 Multimodal District

 Park and Ride Lot

 Medium Term Recommended Park and Ride

 Valley Metro Routes

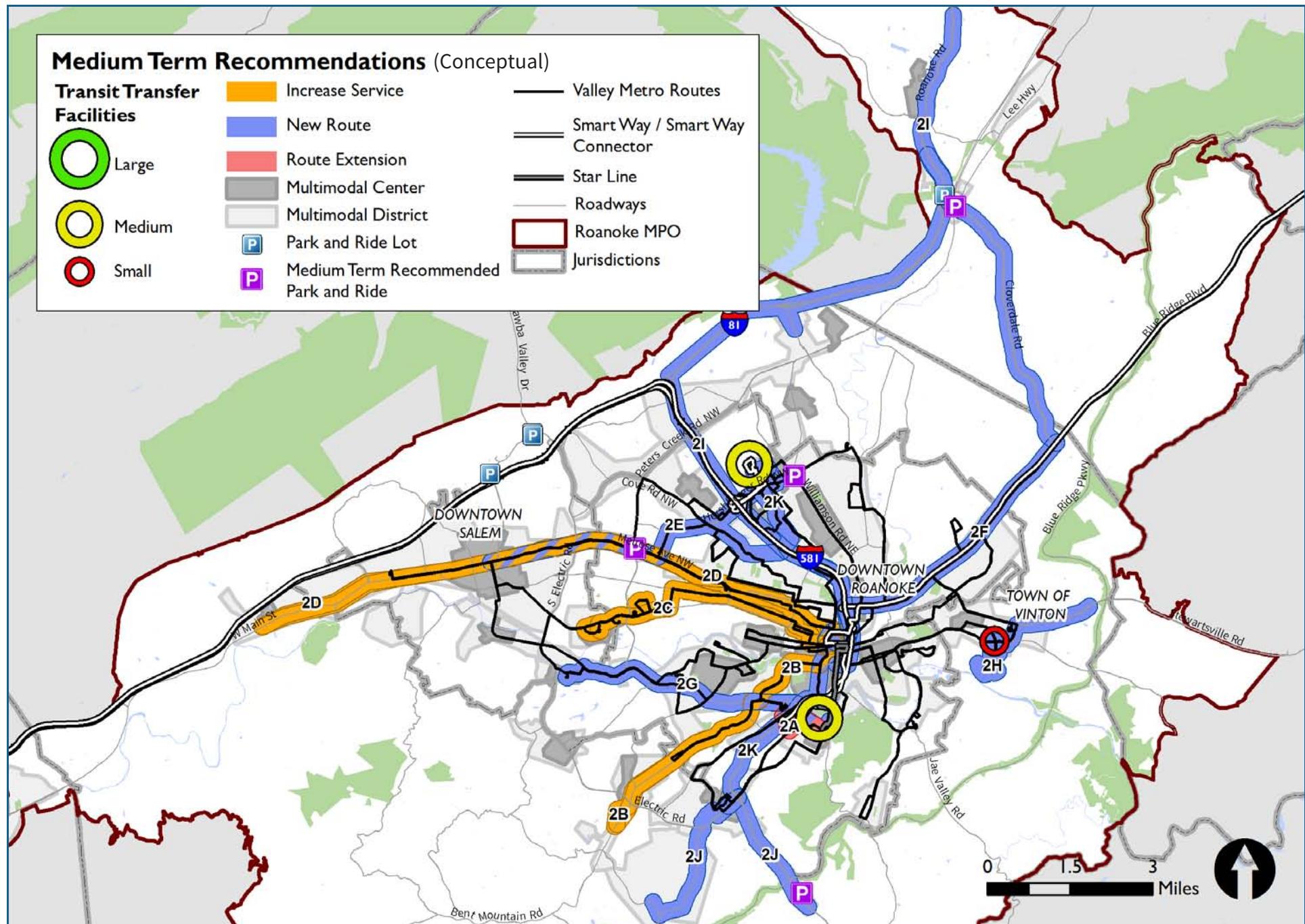
 Smart Way / Smart Way Connector

 Star Line

 Roadways

 Roanoke MPO

 Jurisdictions



LONG-TERM RECOMMENDATIONS

The long-term recommendations identify the transit service needs that should be addressed within the ten-year period between 2030 and 2040. These recommendations will also feed into the Long-Range Transportation Planning process.

The long-term recommendations enhance further the level of transit service throughout the region by increasing frequency, increasing the hours of service, adding weekend service and adding new routes within the existing service area. This term also recommended routes outside the existing service area that would connect to new areas in Troutville and North Roanoke County.

Frequent transit service is transformative.

It supports and encourages dense mixed-use development that increases property values and quality of life.

Additional changes include creating a high-frequency and highly connected corridors between the following key activity centers:

- Crossroads Shopping Area and Downtown Roanoke
- Downtown Salem and Downtown Roanoke
- Glenvar and Salem
- Tanglewood Mall and Downtown Roanoke

The long-term recommendations improve the quality of service for 66% of the population (75,000) and 80% of the jobs (67,000) in the short-term service area.

These types of improvements are vital to ensure that the Roanoke Valley improve upon the quality of life for its residents. Increasing the frequency makes routes more convenient for existing riders, and it makes transit attractive to new riders by making it a viable alternative to the automobile for a wider variety of trips. New connections with new transit service means that a wider variety of locations will be accessible to a larger portion of the population. With the realization of the recommendations of this plan citizens will be able to travel to all of the major destinations in the Valley via transit.

LONG-TERM RECOMMENDATION BENEFITS

METRIC	MEDIUM-TERM SERVICE AREA	LONG-TERM SERVICE AREA	IMPROVED SERVICE*	PERCENT GROWTH IN POPULATION SERVED	PERCENT IMPROVED SERVICE**
POPULATION	114,512	116,722	75,168	2%	66%
JOBS	85,087	87,647	67,806	3%	80%
HOUSEHOLDS	49,900	50,670	33,051	2%	66%

* Includes areas being served by existing routes that have recommendations for span or frequency, or a new route overlaid.

** Percent of existing service area population receiving improved service.

Long Term Recommendations (Conceptual)

Transit Transfer Facilities



Large



Medium



Small

Increase Service

New Route

Route Extension

Multimodal Center

Multimodal District

Park and Ride Lot

P Long Term Recommended Park and Ride

Valley Metro Routes

Smart Way / Smart Way Connector

Star Line

Roadways

Roanoke MPO

Jurisdictions

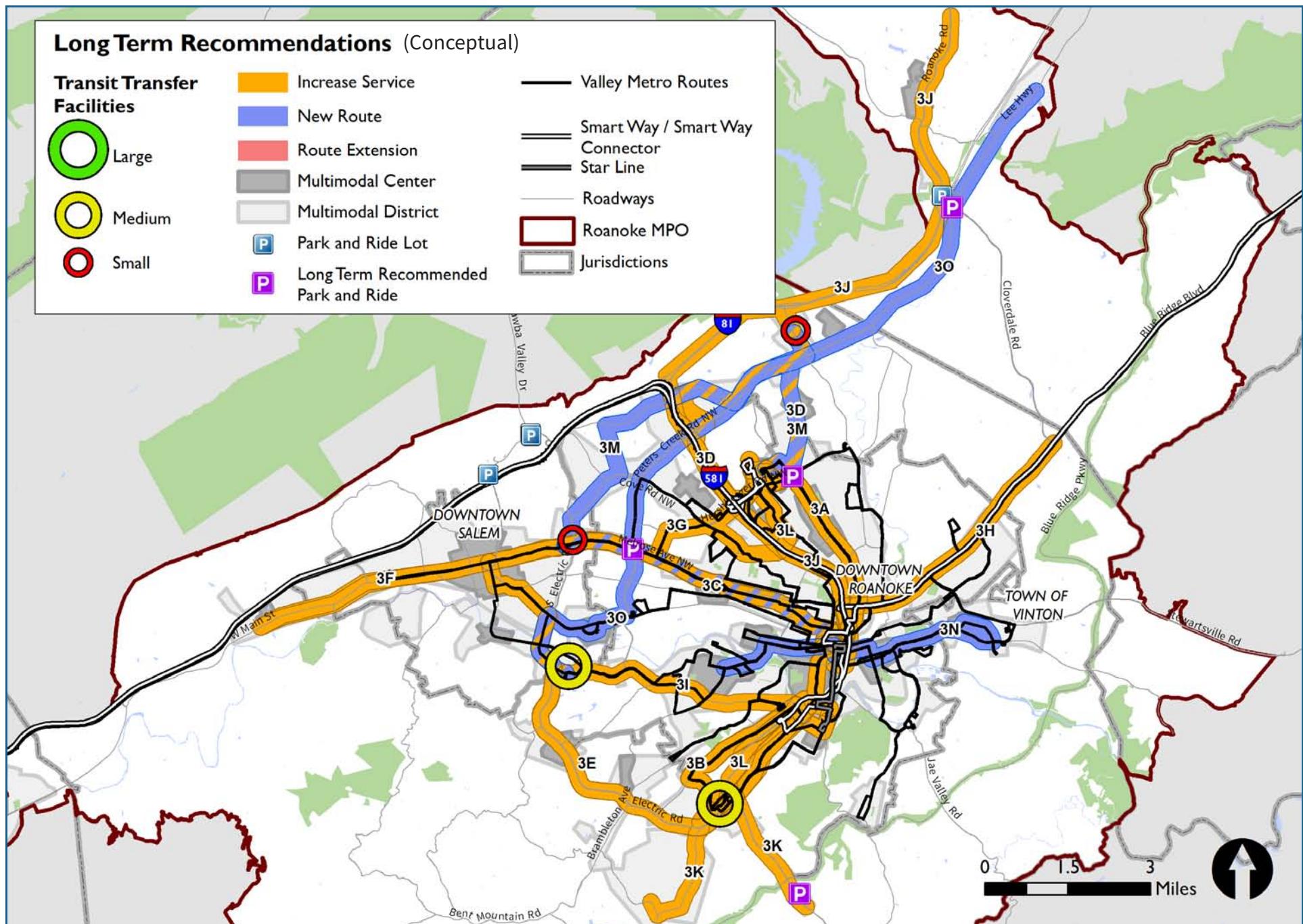
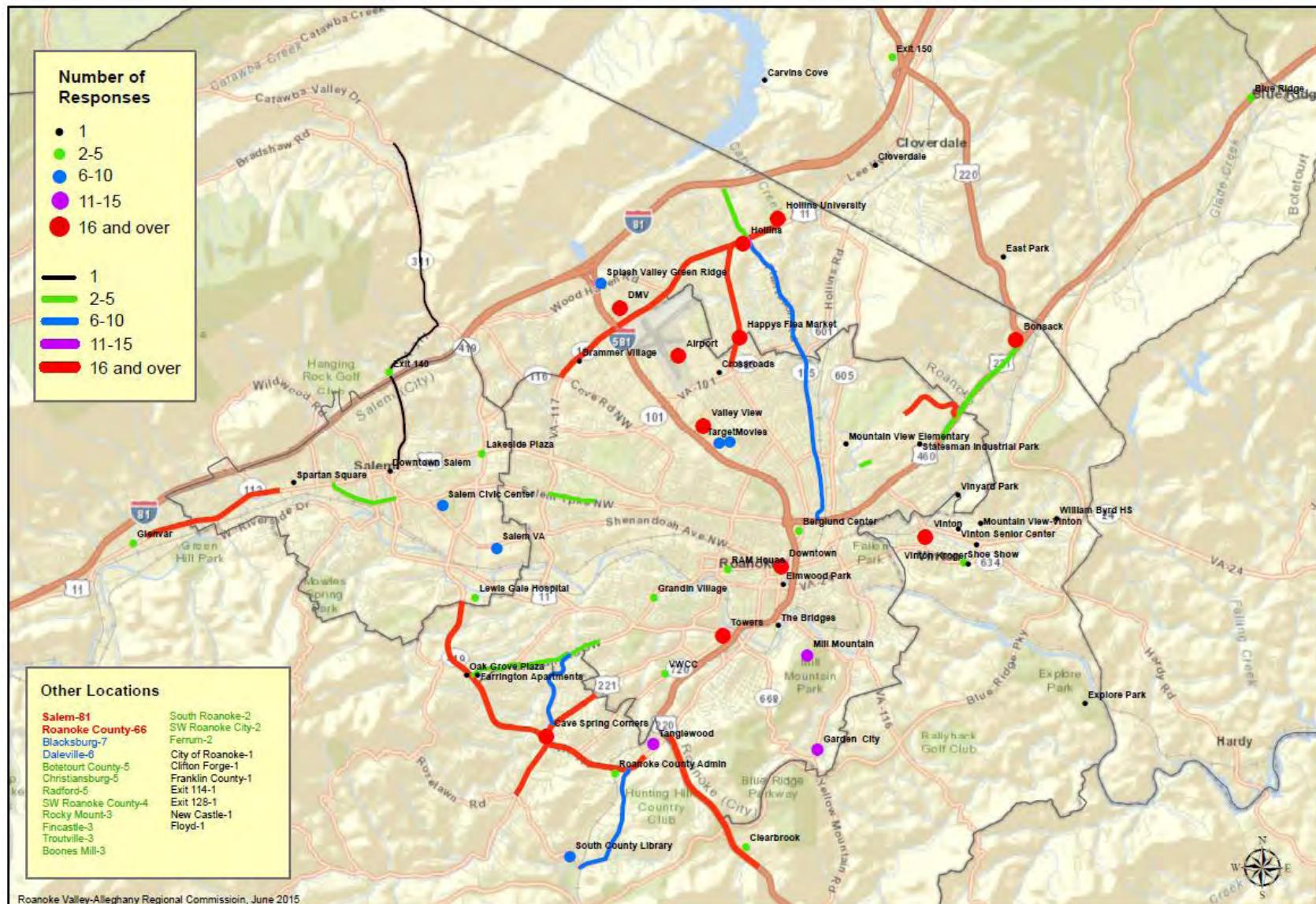


Figure 8.0-1: Map of All Transit Recommendations Combined



5.3 Service Connection Gaps

Missing connections in the existing transit service were identified by comparing the high volume travel flows from VDOT Regional Travel Model data to the existing transit network.

As shown in **Figure 5.3-1**, the majority of the connection gaps are outside of the existing service area and include Daleville, Hollins University, and the DMV to Valley View/Airport area.

Additionally, there is a service gap between Oak Grove, Cave Spring, Tanglewood Mall and Clearbrook at the end of Routes 55/56 and 61/62.

Within the transit service area there are connection gaps between Valley View and Bonsack, Valley View and Grandin, and Valley View and Tanglewood.

5.4 Public Feedback Gaps

The 2015/2016 Vision Plan Public Outreach analysis highlighted the connections important to the community and identified some of the potential gaps in the system (**Figure 5.4-1**).

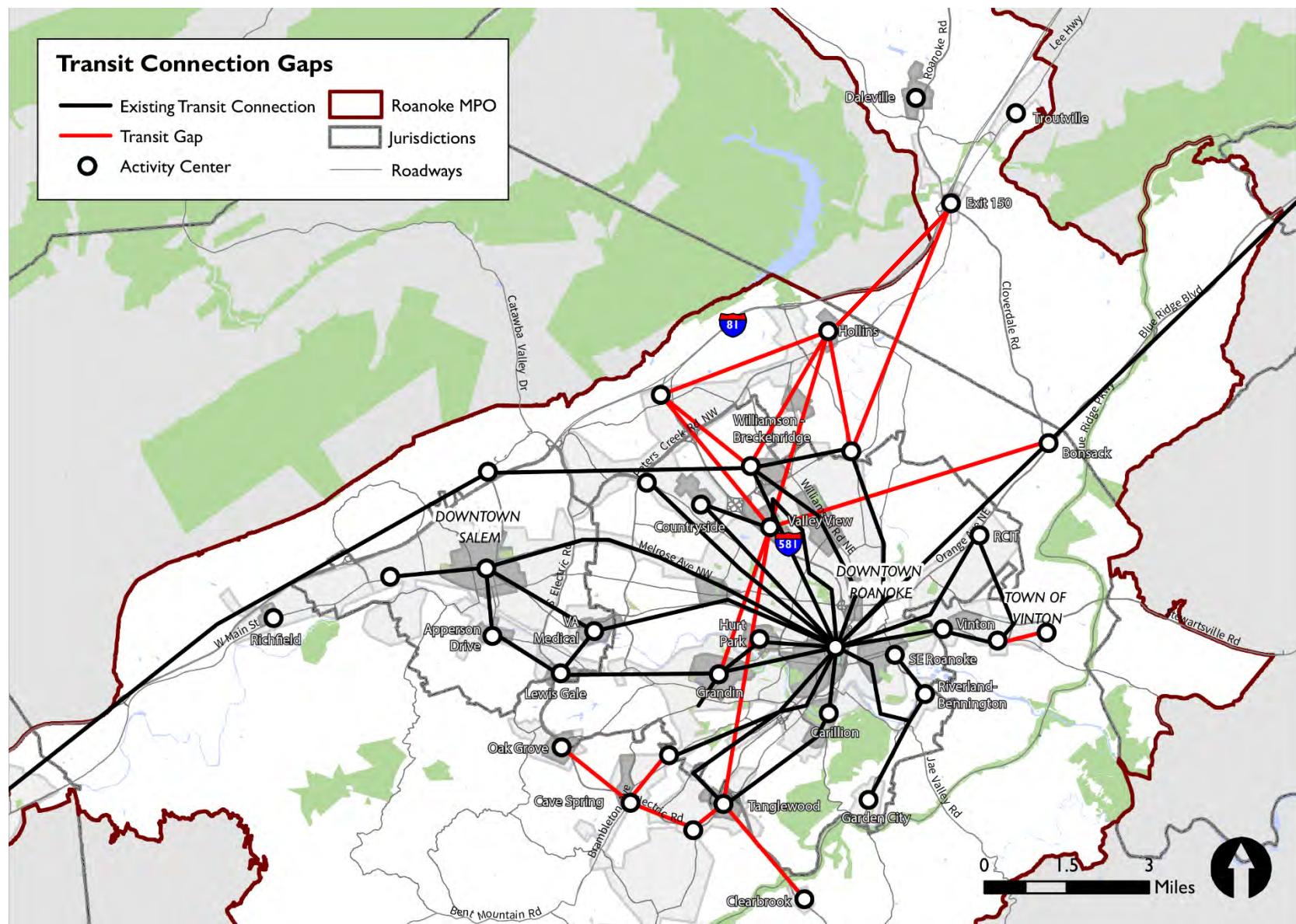
Many communities, like Bonsack, Daleville, and the Starkey Rd. area, have no transit options but expressed a desire to commute to larger activity centers. The public also expressed a need for all day service to the VA Medical Center/Lewis Gale Medical Center area from the north and south, along Peters Creek and Electric Roads, respectively. Current service to the Medical Centers is provided through east and west connections. Finally, students at Hollins University expressed the need for all day service, particularly to Downtown Roanoke and evening service to Valley View Mall.

5.5 System Structure (Pulse or Non-Pulse)

Presently, the Valley Metro local bus system operates on a pulse system where all of the routes, except the Star Line Trolley, start service around the region, are timed to meet in Downtown Roanoke at the Campbell Court Transfer Center, and then travel radially back out into the region.

This System Structure analysis examined whether the current pulse system makes more sense than a direct (non-pulse) network which would not force a transfer at Campbell Court. To begin this analysis, the pros and cons of each type of system were considered as shown in the following table.

Figure 5.3-1 | Service Connection Gap Map



recommendation is also supported by the City of Roanoke's Comprehensive Plan, Vision 2001-2020.

Table 3.1-4 | Recommendation 1L - Route 311

		Current	Proposed
Days of Service		(in trial service)	Mon-Sat
Frequency (minutes)			
M-F Peak	60	60	
M-F Midday/ Evening	---	---	
Saturday (Peak Only)	---	60	
Sunday	---	---	

Recommendation 1M: Connect Salem and its key destinations with the Smart Way Commuter regional service using a new circulator

Regional Smart Way Commuter service is so close to Salem's key activity centers, but walking/biking are only options for some people in some weather. A transit connection between Salem and the Exit 140 Park and Ride Lot would make the Smart Way Commuter service a more attractive option for people traveling between the New River Valley and Salem.

Concurrent with recommendation 1I, create a new hourly circulator (Route 93) connecting Downtown Salem, Lewis Gale, and the VA Medical Center to the I-81 Exit 140 Park and Ride Lot. Incorporate service to the Rt. 311/Rt. 419 Park and Ride Lot, Lakeside Plaza, and nearby businesses and residential areas in Salem and Roanoke County along 419 during peak working hours. During special events, incorporate service to the Salem Civic Center.

This recommendation is based upon feedback received through public input and the Steering Committee, results of the workforce and commuter propensity analyses and the trip flow

analysis. This recommendation is supported by the City of Salem's Comprehensive Plan and the Route 419 Corridor Study.

Table 3.1-5 | Recommendation 1M - Route 93

		Current	Proposed
Days of Service		N/A	Mon-Sat
Frequency (minutes)			
M-F Peak	---	60	
M-F Midday/ Evening	---	60	
Saturday	---	60	
Sunday	---	---	

Recommendation 1N: Improve access to employment sites in Bonsack - Eastern Roanoke County, Botetourt County, and Downtown Roanoke with a new peak hour service

A transit connection to the Bonsack area was one of the general public's highest priorities. A mutually beneficial new express, limited-stop peak service route (Route 3111) is recommended to service the EastPark Commerce Center, Bonsack area businesses, and Downtown Roanoke. Connecting with local transit in Downtown Roanoke, employees can expressly access destinations in Eastern Roanoke County and Botetourt County. Likewise, residents from Blue Ridge, Bonsack and Bedford can commute into Downtown Roanoke and make local connections via this transit service. A new park and ride lot accessible to this new transit service around Rt. 220 Alternate/Route 460 is recommended for citizens traveling westbound to Downtown Roanoke and destinations beyond.

This recommendation is based upon feedback received from public input and the trip flow analysis. The 2014 Bonsack Area Business Survey, the Roanoke County 2005 Community Plan, the

Recommendation 1O: Greatly increase the convenience and attractiveness of transit service in the valley by expanding the hours of service

Aside from adding Sunday services, expanding the hours of service, particularly later in the evening, were the public's highest service priorities.

Expand Valley Metro hours of service from 15 hours a day to 18 hours a day; determine optimal morning/evening span changes for employment shifts, as well as new passenger rail connections. This recommendation is for all Valley Metro bus routes though key destinations may be initiated first.

This recommendation is based upon feedback received from public input and the Steering Committee. This recommendation is supported by the Livable Roanoke Valley Plan.

3.4 Additional Recommendations

Recommendation 1U: Pursue a partnership among local governments for public transportation service to increase and improve transit service and funding

Paramount to the implementation of this Roanoke Valley Transit Vision Plan is the establishment of a true regional collaborative partnership among the local governments to make unified decisions about the direction of public transportation in the region.

Develop a collaborative partnership at a minimum between Roanoke County, Botetourt County, the City of Salem, the Town of Vinton, and the City of Roanoke for fixed-route service provision. Other partners such as Montgomery County and

Bedford County may also benefit from being included due to their presence in the Roanoke Valley transportation management area.

The Livable Roanoke Valley Plan supports this recommendation.

Recommendation 1P: Coordinate transit services with Amtrak (Roanoke) Station schedules to increase regional connectivity and the convenience of longer trips

Adapt the Smart Way Commuter service to enable passenger rail customers to travel to/from the New River Valley by coordinated bus and rail schedules.

Along with the increase in local service span (Recommendation 1O), further evaluate the potential local routes that would benefit Roanoke Valley citizens and businesses with local transit connections to/from Amtrak service. Transit connections from park-and-ride lots around the region would provide people with an alternative to storing their personal vehicle long-term in Downtown Roanoke. As the region grows and becomes more of a tourist destination, the ability for people to travel to/from the Roanoke Valley without the need to use or rent a car will be an attractive quality.

The Livable Roanoke Valley Plan, the Montgomery County Comprehensive Plan, and the Elliston and Lafayette Village Plan all support this recommendation.

Recommendation 1Q: Study the need for additional Smart Way commuter services (Roanoke-Lynchburg) to improve regional connectivity and increased jobs access

With the onset of passenger rail, the Smart Way Connector bus service will cease to exist. The Connector bus also currently

4.1 New Routes

Recommendation 2E: Create a new cross-town connection between Salem/Lakeside Plaza and Crossroads/Valley View connecting Salem with key activity centers

Facilitate the ability for people who travel between Salem and Crossroads/Valley View to reach their destination efficiently by providing a direct transit connection and eliminating the need to travel to Downtown Roanoke to make the trip using transit.

Create a new route (Route 3) from Lakeside Plaza/Goodwill Salem to Crossroads (which enables greater connections), past Valley View through the new I-581/Valley View interchange connection to Cove Road and back to Salem. The connections would offer opportunities to connect with additional routes in the Crossroads area and provide service to new developments that will arise from the interchange improvement.

This recommendation is based upon feedback received from public input, through the Steering Committee, and the results of the residential, non-work, and workforce analyses and Home-Based Work trip flow analysis. The City of Salem and City of Roanoke Comprehensive Plans as well as the RVTPO Congestion Management Process Plan support this recommendation.

Table 4.1-1 | Recommendation 2E - Route 3

	Current	Proposed
Days of Service	N/A	Mon-Sun
Frequency (minutes)	M-F Peak ---	60
	M-F Midday/ Evening ---	60
	Saturday ---	60
	Sunday ---	60

Recommendation 2F: Create a new connection providing access between Greenfield/Daleville, Bonsack, and Downtown

Roanoke

Several exciting new business announcements will spur additional travel in southern Botetourt County as they transpire over the next several years. These new developments and additional future growth plans in Botetourt County will spur the need to provide a new transit connection among key destinations in the southern part of the County and connect with nearby destinations in the Bonsack area and Downtown Roanoke.

Create a new route (Route 8) connecting Greenfield/Daleville, Bonsack and Downtown Roanoke via Cloverdale Road, Challenger Avenue, and Orange Avenue.

This recommendation is based upon public input, input from Botetourt County Planning Commission, and through the workforce propensity and Home-Based Work trip flow analyses. The Roanoke County 2005 Community Plan, the City of Roanoke's Comprehensive Plan, Vision 2001-2020, and the RVTPO Congestion Management Process Plan all support this recommendation.

Table 4.1-2 | Recommendation 2F - Route 8

	Current	Proposed
Days of Service	N/A	Mon-Sat
Frequency (minutes)	M-F Peak ---	60
	M-F Midday/ Evening ---	60
	Saturday ---	60
	Sunday ---	---

Recommendation 2G: Create new cross-town service connecting the key destinations of Lewis Gale, Towers Shopping Center, and Carilion improving access for residents

A new route is recommended to facilitate easier travel across the region without needing to transfer in Downtown Roanoke.

Create a new east-west route (Route 2) connecting Lewis Gale, Towers Shopping Center, and Carilion. This route provides new connections while reinstating the lost connection between routes 61/62 (Brambleton Avenue) and Towers Shopping Center in the short-term due to the reallocated service to add a connection to Cave Spring.

This recommendation is based upon feedback from public input and is supported by the City of Roanoke's Comprehensive Plan, Vision 2001-2020, and the Route 419 Corridor Study.

Table 4.1-3 | Recommendation 2G - Route 2

	Current	Proposed
Days of Service	N/A	Mon-Sat
Frequency (minutes)	M-F Peak ---	60
	M-F Midday/ Evening ---	60
	Saturday ---	60
	Sunday ---	---

Recommendation 2H: Reduce dependency on paratransit services and provide new connections for residents via a new circulator connecting key destinations in Vinton and Eastern Roanoke County

Areas in Vinton that are underserved by fixed-route transit experience high paratransit demands. Public input indicates a need for basic service coverage to destinations in Eastern Roanoke County.

Create a new hourly circulator (Route 24) to connect A Porter's Haven, Clearview Manor, Lakedrive Plaza, Downtown Vinton, East Vinton Plaza Shopping Center, and William Byrd High School.

This recommendation is based upon feedback received from the Town of Vinton, an analysis of high trip generators, and public input. This recommendation is supported by the RVTPO Bus Stop Accessibility Study.

Table 4.1-4 | Recommendation 2H - Route 24

	Current	Proposed
Days of Service	N/A	Mon-Fri
Frequency (minutes)	M-F Peak ---	60
	M-F Midday/ Evening ---	60
	Saturday ---	---
	Sunday ---	---

Recommendation 2I: Improve regional connectivity with new peak hour service between Greenfield/Daleville, Plantation Road and Downtown Roanoke providing transit access to key destinations

Businesses and employment abound in Downtown Roanoke, the Hollins/Plantation Road area, and in Greenfield/Daleville. Create a new route (Bus Route 220) with peak morning and afternoon limited stop express service between Downtown Roanoke, I-81 Exit 146/Plantation Road, and Daleville/Greenfield to provide travel options to employment sites.

This recommendation is based upon results received from the public input, through feedback from the Steering Committee and the commuter propensity analysis. It is supported by the RVTPO

Recommendation 3H: Enhance the connection between Bonsack and Downtown Roanoke and add Sunday service

Increase frequency to 30 minutes during peak and midday and add Sunday service on Route 8, which was created in the medium-term (Recommendation 2F).

This recommendation is based upon public input, and through the workforce propensity and Home-Based Work trip flow analyses.

Table 5.2-5 | Recommendation 3H - Route 8

	Proposed Medium Term	Proposed Long Term
Days of Service	Mon-Sat	Mon-Sun
Frequency (minutes)	60	30
M-F Peak	60	30
M-F Midday/ Evening	60	30
Saturday	60	60
Sunday	---	60

Recommendation 3I: Create easy access and improve connectivity between Lewis Gale, Towers Shopping Center, and Carilion

Increase peak and midday frequency to 30 minutes and add Sunday service on Route 2, which was created in the medium-term (Recommendation 2G).

Table 5.2-6 | Recommendation 3I - Route 2

	Proposed Medium Term	Proposed Long Term
Days of Service	Mon-Sat	Mon-Sun
Frequency (minutes)	60	30
M-F Peak	60	30
M-F Midday/ Evening	60	30
Saturday	60	60
Sunday	---	60

Recommendation 3B: Create a high frequency corridor between Tanglewood Mall and Downtown Roanoke

With a redeveloped Tanglewood area, more trips will be generated from the area and attracted to the area. Two key activity generators in the region become connected with high quality transit service with this recommendation.

Add 15-minute peak service between Tanglewood and Downtown Roanoke; increase weekend service frequencies.

This recommendation is supported by the frequent corridor propensity analysis.

Table 5.2-7 | Recommendation 3B - Routes 55/56

	Current	Proposed
Days of Service	Mon-Sat	Mon-Sun
Frequency (minutes)	30	15
M-F Peak	30	15
M-F Midday/ Evening	60	30
Saturday	60	30
Sunday	---	30