

Chapter 6 - City of Martinsville

Figure 6.1 shows that the City of Martinsville's population has declined in recent years, and this trend is projected to continue through 2040. Figures 6.2 and 6.3 reveal trends in the age of Martinsville residents from the 2010 Census to 2018, based on the U.S. Census Bureau's American Community Survey (ACS). The data show that the percentage of younger age groups comprising the 0 – 19 and 20 – 39 cohorts have increased over this time period, the 40 – 64 age cohort declined in share, while the age 65 and over cohort remained the same.

Figure 6.1

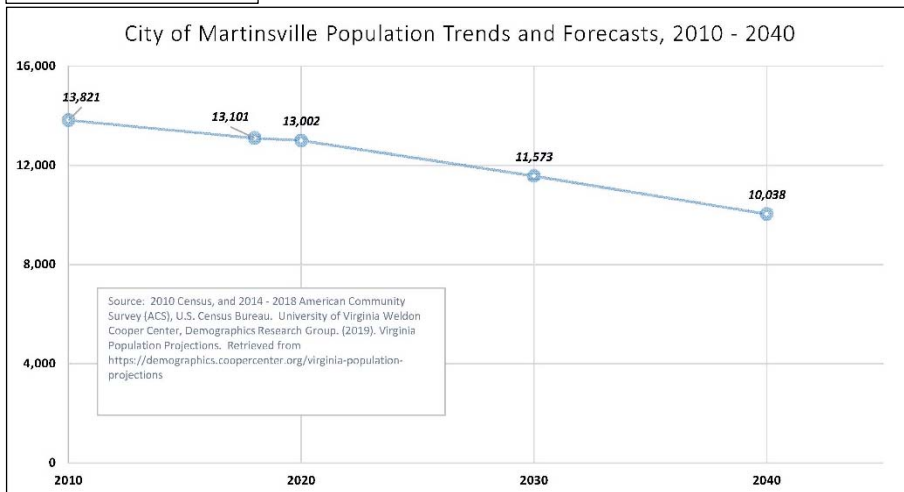


Figure 6.2

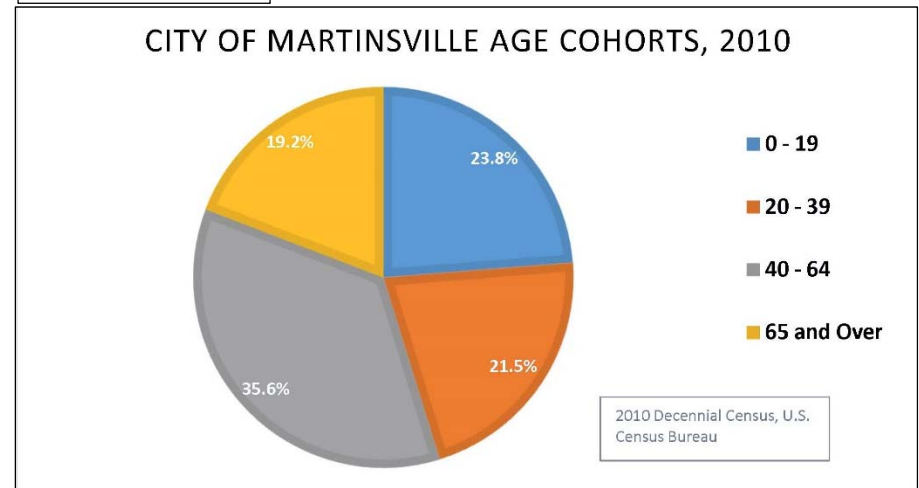


Figure 6.4 shows the top ten localities to which workers residing in the City of Martinsville commute to. The two localities representing the highest shares include Henry County and the City of Martinsville. Other localities represented in this figure include the City of Danville, Franklin County, the City of Roanoke, and Rockingham County in North Carolina. Some of the localities which are home to a large share of commuters to the City include Henry County, the City of Martinsville, Pittsylvania County, Franklin County, Patrick County, and the City of Danville, based on Figure 6.5.

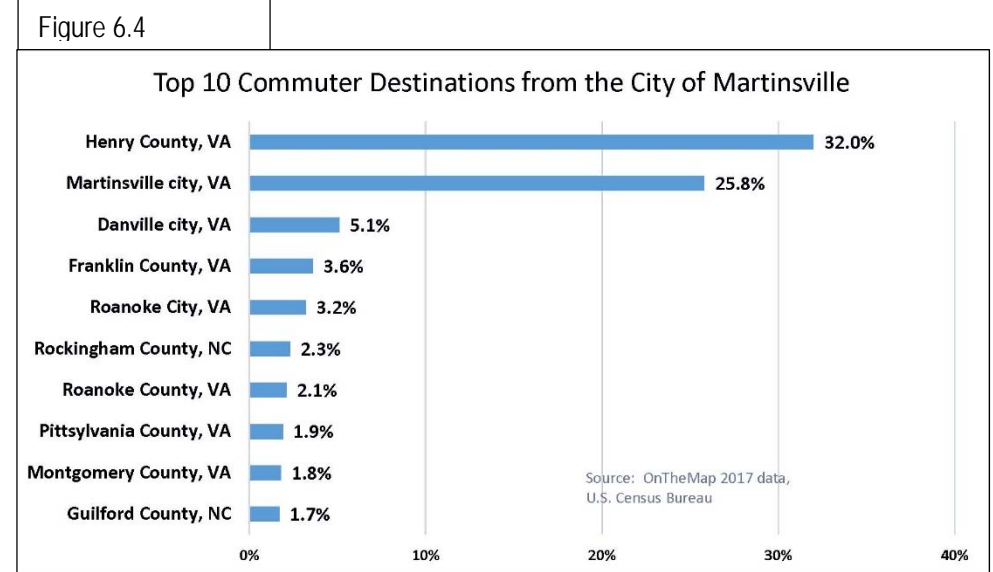
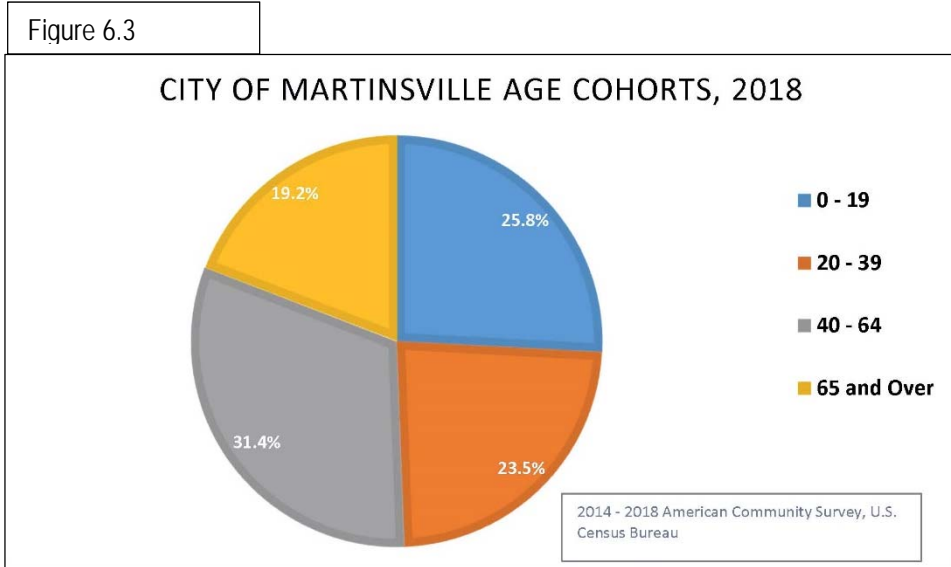


Figure 6.6 compares several socio-economic indicators of the City of Martinsville with those of Virginia. The figure shows that the population over age 65 comprises a larger share of the City's population than that of the Commonwealth. Likewise, the shares of the population of the City which are disabled and below poverty also constitute a larger percentage than those of the State. The share of minorities within the City is substantially higher than the State's share as well.

Figure 6.5

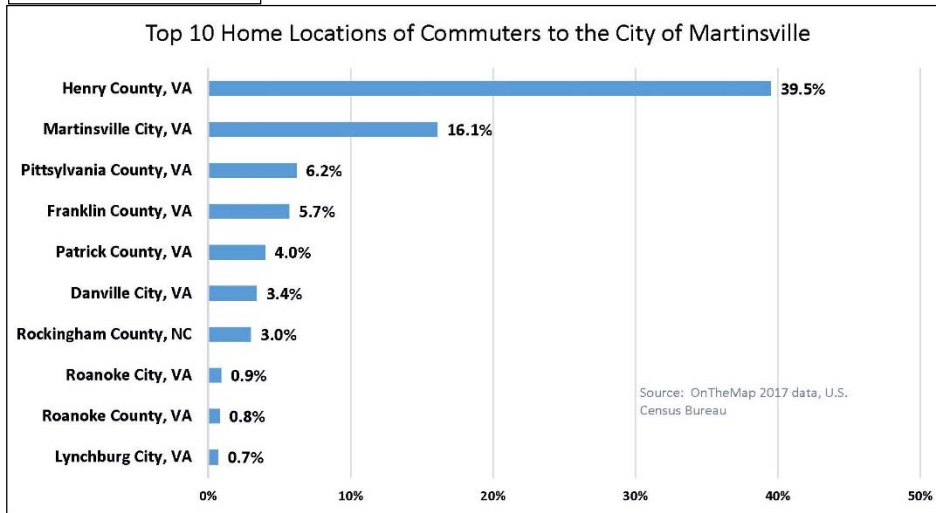


Figure 6.6

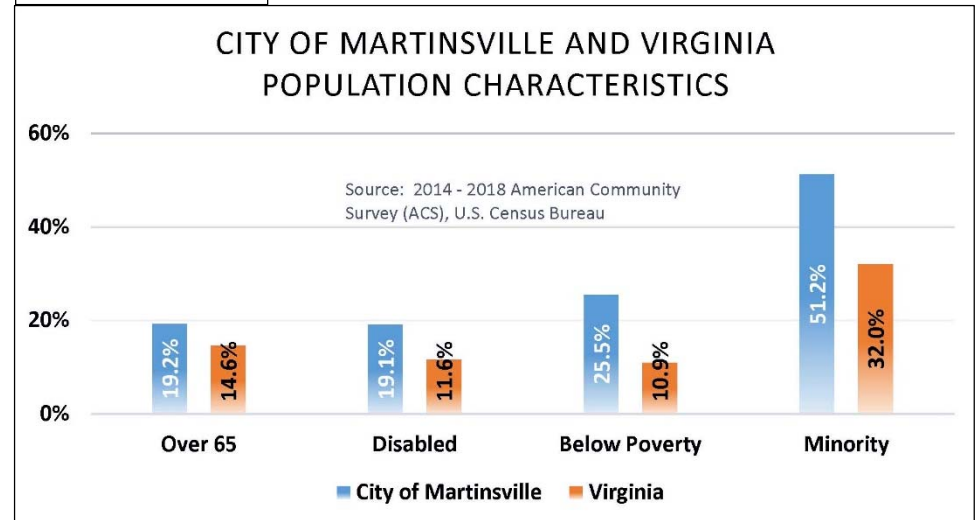


Figure 6.7 illustrates the modes of transportation residents of the City of Martinsville use to commute to work. Nearly 80 percent of commuters drive alone, and 11.4 percent carpool. Public transportation is available in the City, and 1.7 percent of residents utilize this service. Piedmont Area Regional Transit (PART) serves many areas of the City, however, both City and Henry County residents would benefit from extended service hours, as PART service currently ends at 5:30 p.m. – prior to the time many workers complete their workday. Figure 6.8 compares educational attainment based on shares of associate, bachelor, and graduate or professional degrees between the City of Martinsville and the State.

Figure 6.7

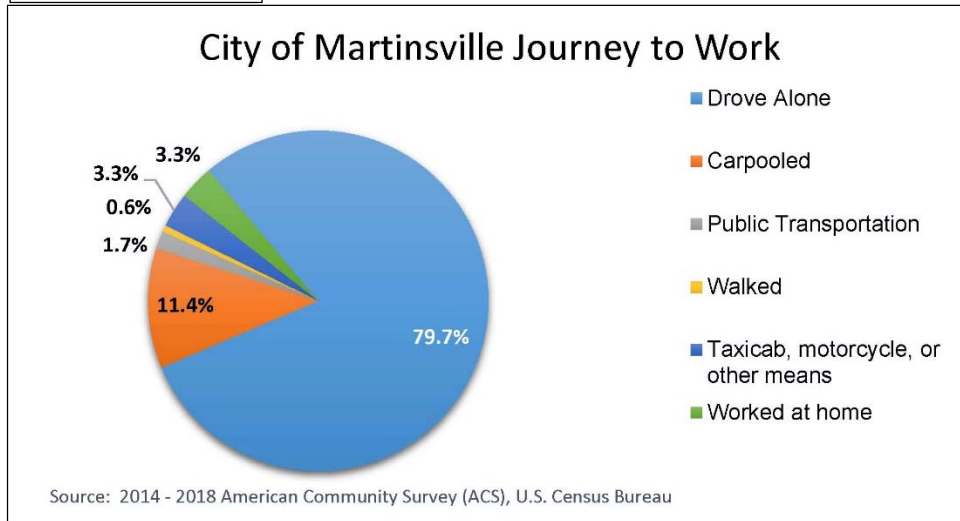


Figure 6.8

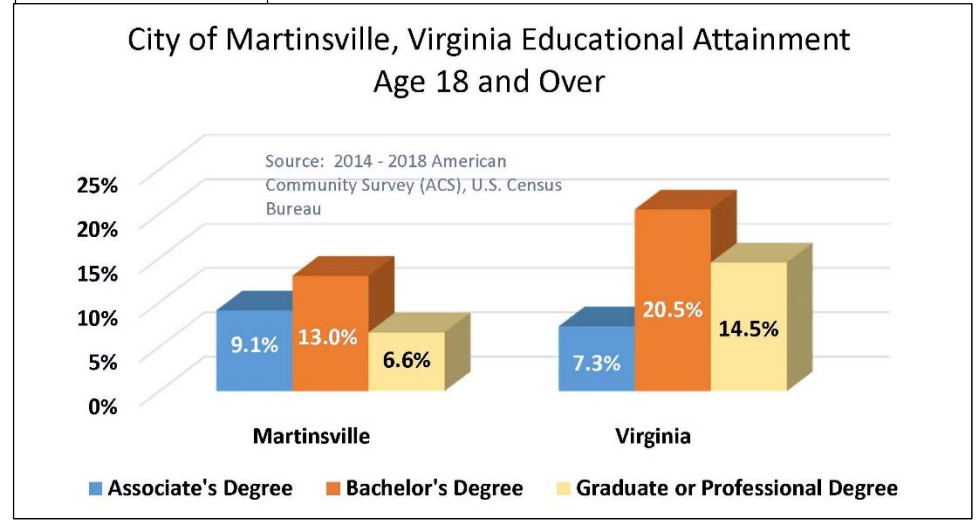


Figure 6.9 shows that the median household income of the Commonwealth of Virginia is more than twice that of the City. With regard to employment, Figure 6.10 reveals that the City is more reliant than the State on the retail, manufacturing, and public service sectors. Figure 6.11 illustrates employment density and concentration in the City of Martinsville. According to the figure, much of the City's employment is based uptown, and along the Commonwealth Boulevard corridor.

Figure 6.9

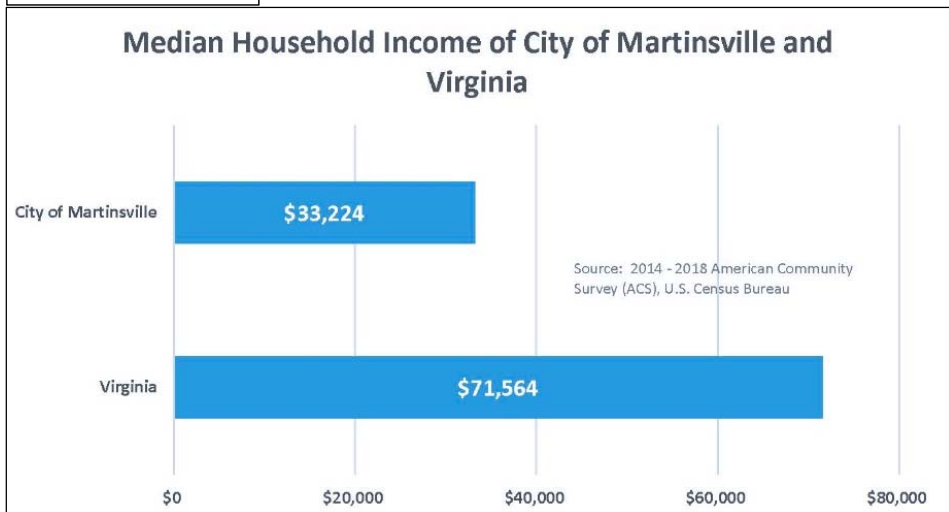


Figure 6.10

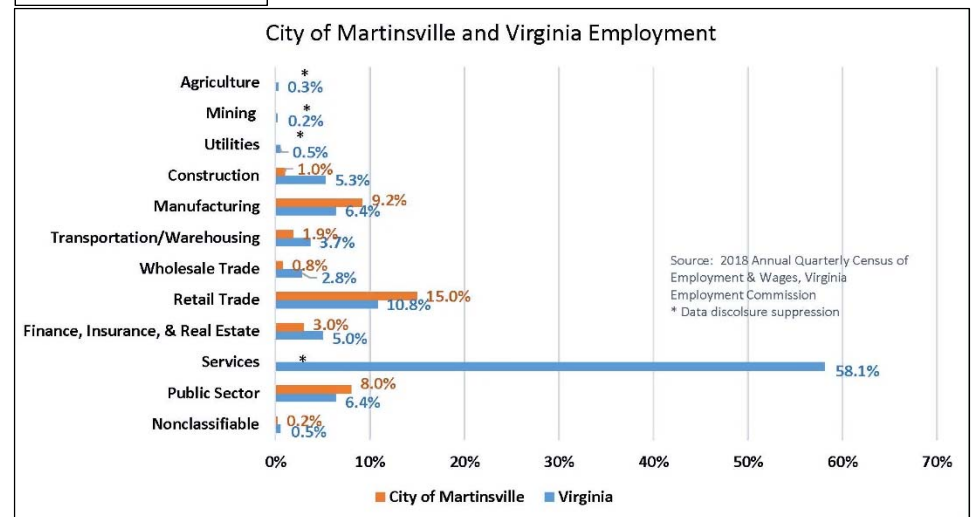


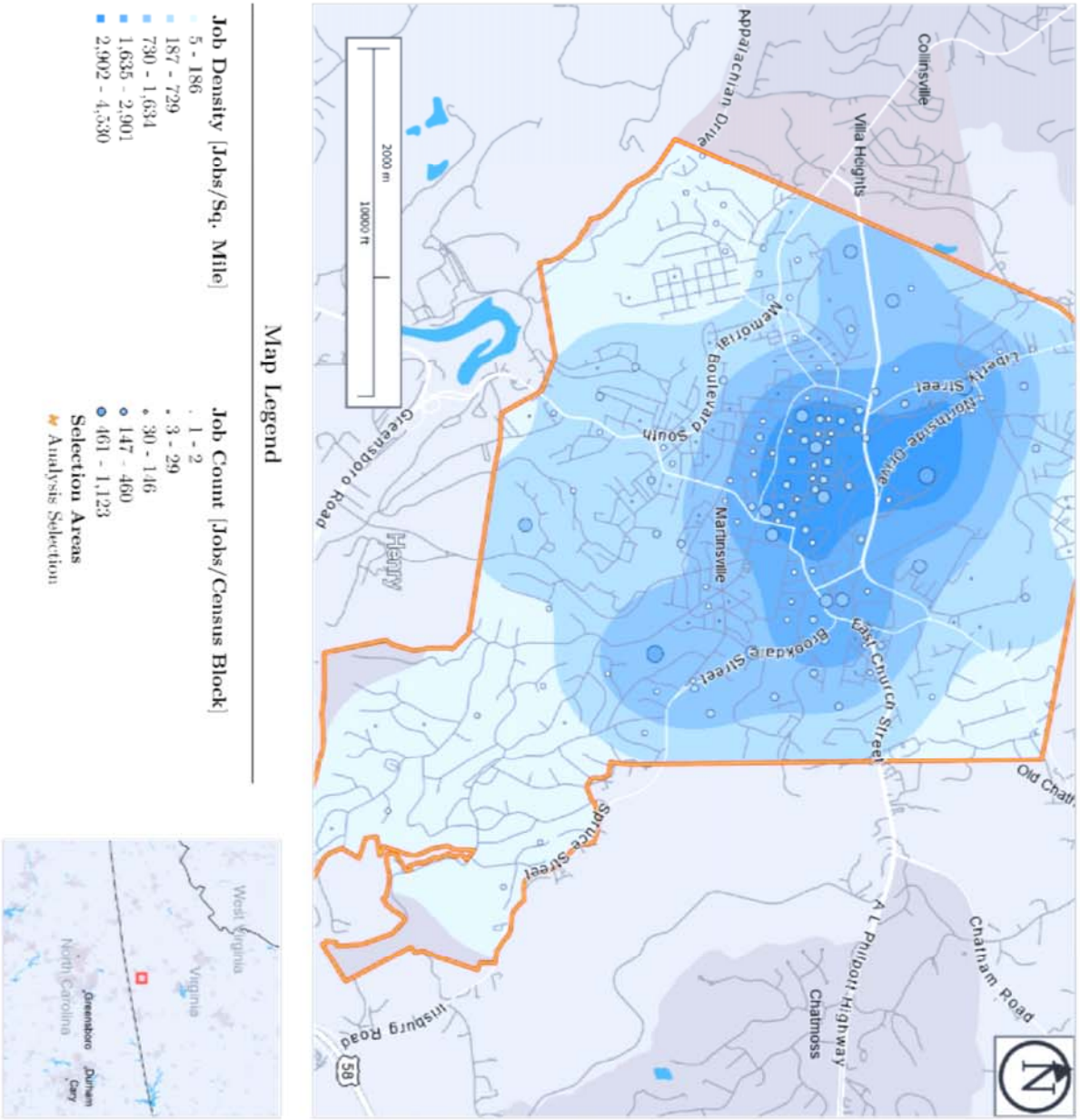
Figure 6.11



Work Area Profile Report All Jobs for All Workers in 2017

Created by the U.S. Census Bureau's OnTheMap <https://onthemap.ces.census.gov> on 11/01/2019

Counts and Density of All Jobs in Work Selection Area in 2017 All Workers



State of the Transportation System

Figure 6.12 illustrates the crashes in the City of Martinsville by severity inclusive of the years 2014 - 2018, including Severe Injury, Visible Injury, Non-Visible Injury, and Fatal Injury. The table just below this figure summarizes the various categories of injury crashes for each of the years evaluated. Figure 6.13 illustrates Annual Average Daily Traffic (AADT) for the year 2017 for the City. AADT is the average daily traffic on a roadway if a year's worth of traffic was divided up over a period of 365 days. The figure shows that Memorial Boulevard (U.S. Route 220 Business), Commonwealth Boulevard, and Liberty Street north of Clearview Drive are characterized by the highest AADT counts in the City. Roadway Level of Service (LOS) is a measure of roadway performance ranging from A – F, with A representing free-flowing conditions and F representing a roadway that is at capacity and performing poorly. Figure 6.14 illustrates that the County's roadway system performs well with regard to roadway levels of service, with the lowest LOS in and immediately around uptown. Figure 6.15 shows Volume to Capacity (V/C) Ratio of roadways in the County. V/C Ratio is a measure of how much traffic a road handles compared to how much it is able to accommodate. A V/C Ratio of 0.4, for instance, indicates that 40 percent of the road capacity is occupied by existing traffic volumes. According to the figure, portions of Starling Avenue, Memorial Boulevard, Commonwealth Boulevard, East Church Street, and Liberty Street are characterized by V/C Ratios of 45.1 percent and above. Figures 6.16 and 6.17 pertain to the condition of bridges and culverts in the City. These structures are rated on a scale of 1 – 9, with 1, 2, 3, or 4 rated as poor, 5 or 6 as fair, and 7, 8, or 9 as good. Figure 6.17 shows that all bridges in the City are rated as either fair or good.

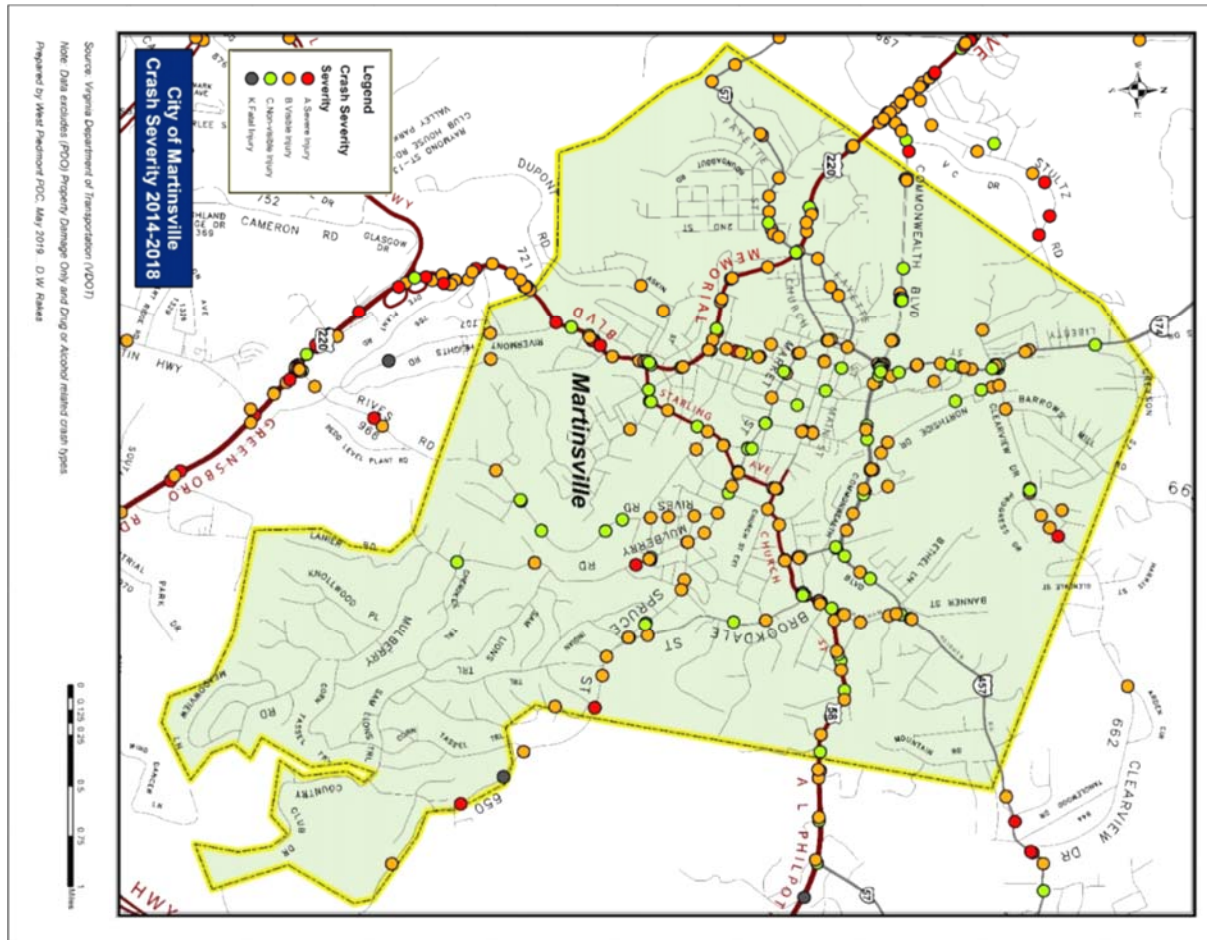


Figure 6.12

City of Martinsville Crash Injury Classification, 2014 - 2018				
Year	Non-Visible Injury	Visible Injury	Severe Injury	Fatality
2014	15	33	4	0
2015	25	38	10	0
2016	17	47	2	1
2017	7	24	5	0
2018	16	45	3	0
Total	80	187	24	1

Source: VDOT

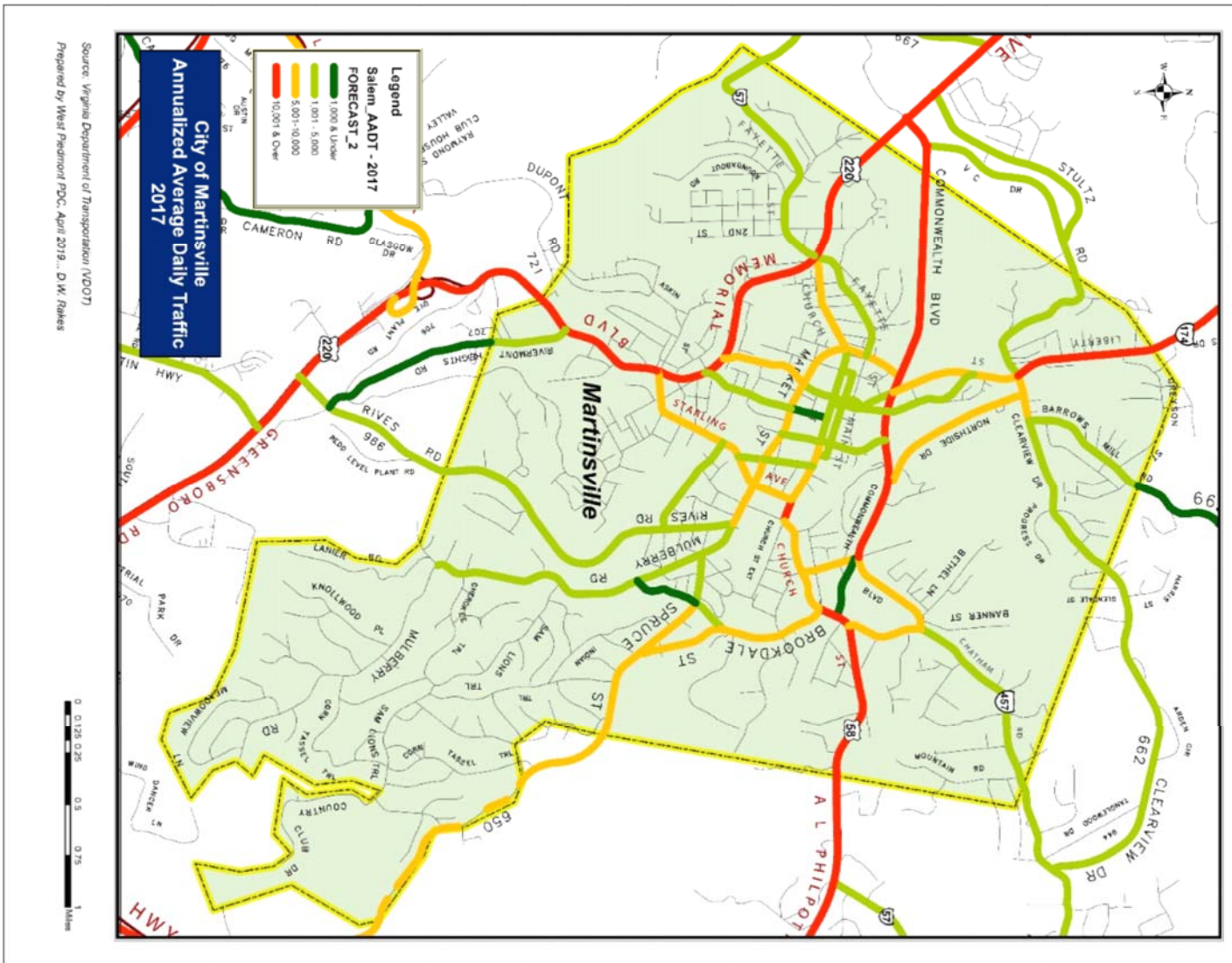


Figure 6.13

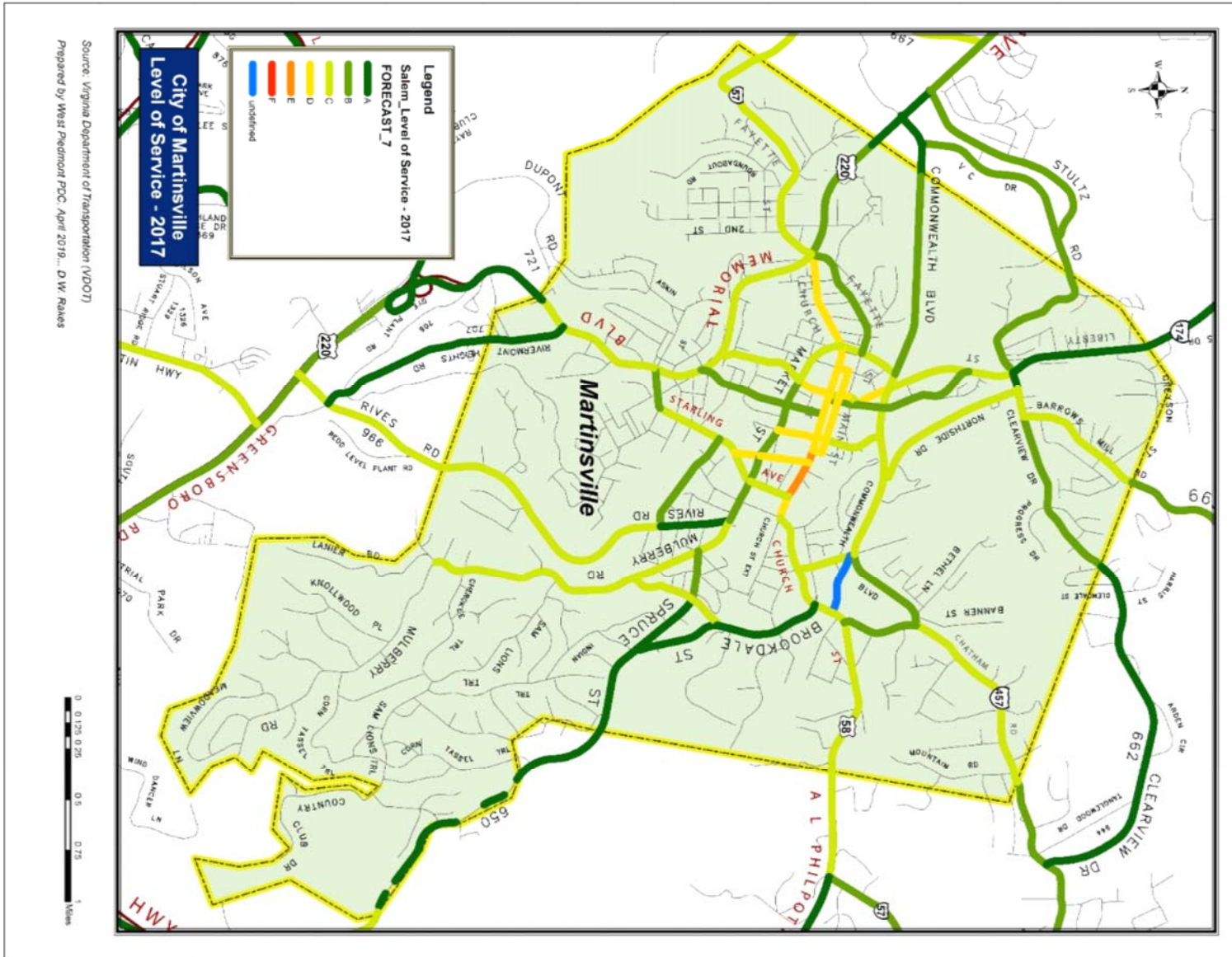


Figure 6.14

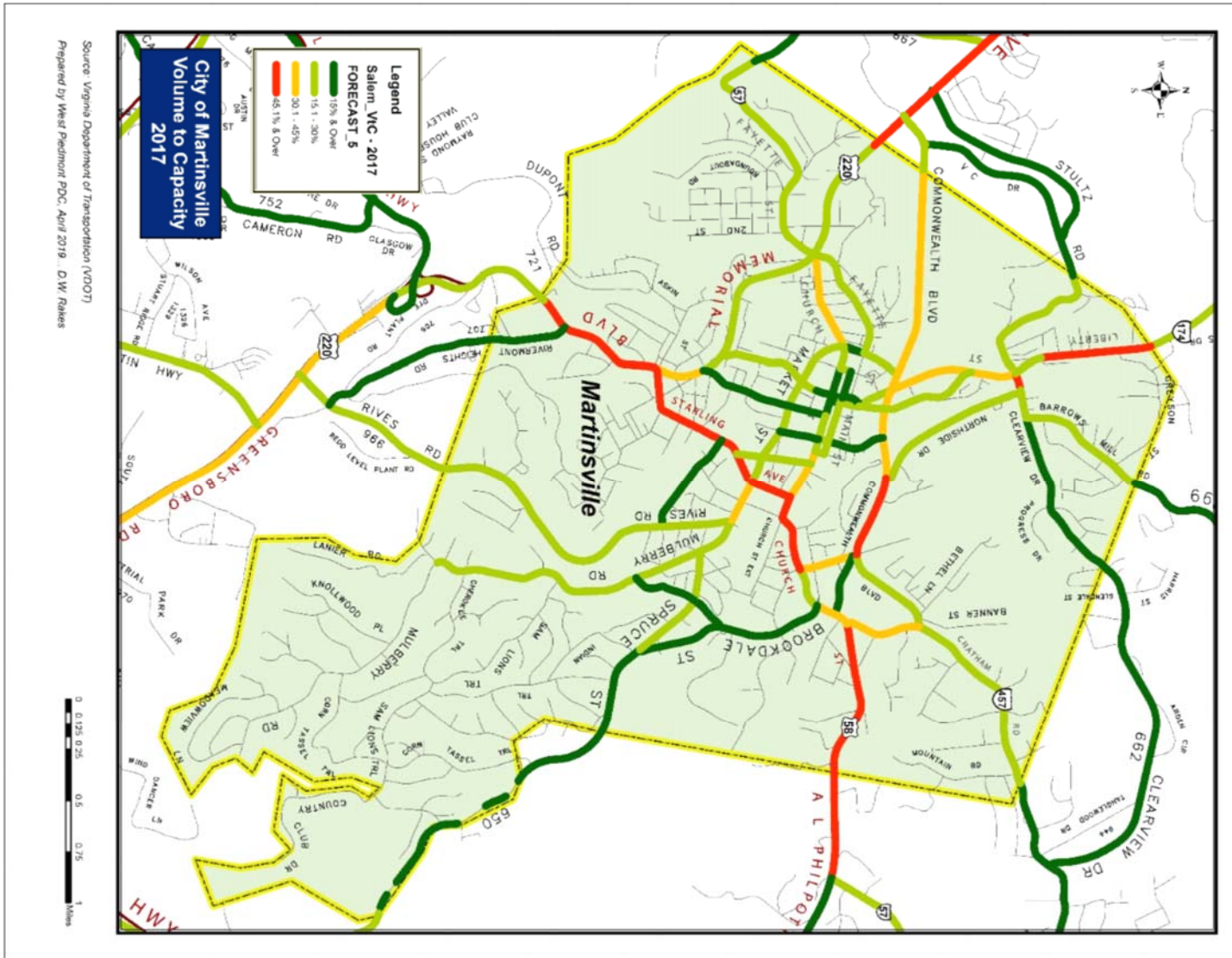


Figure 6.15

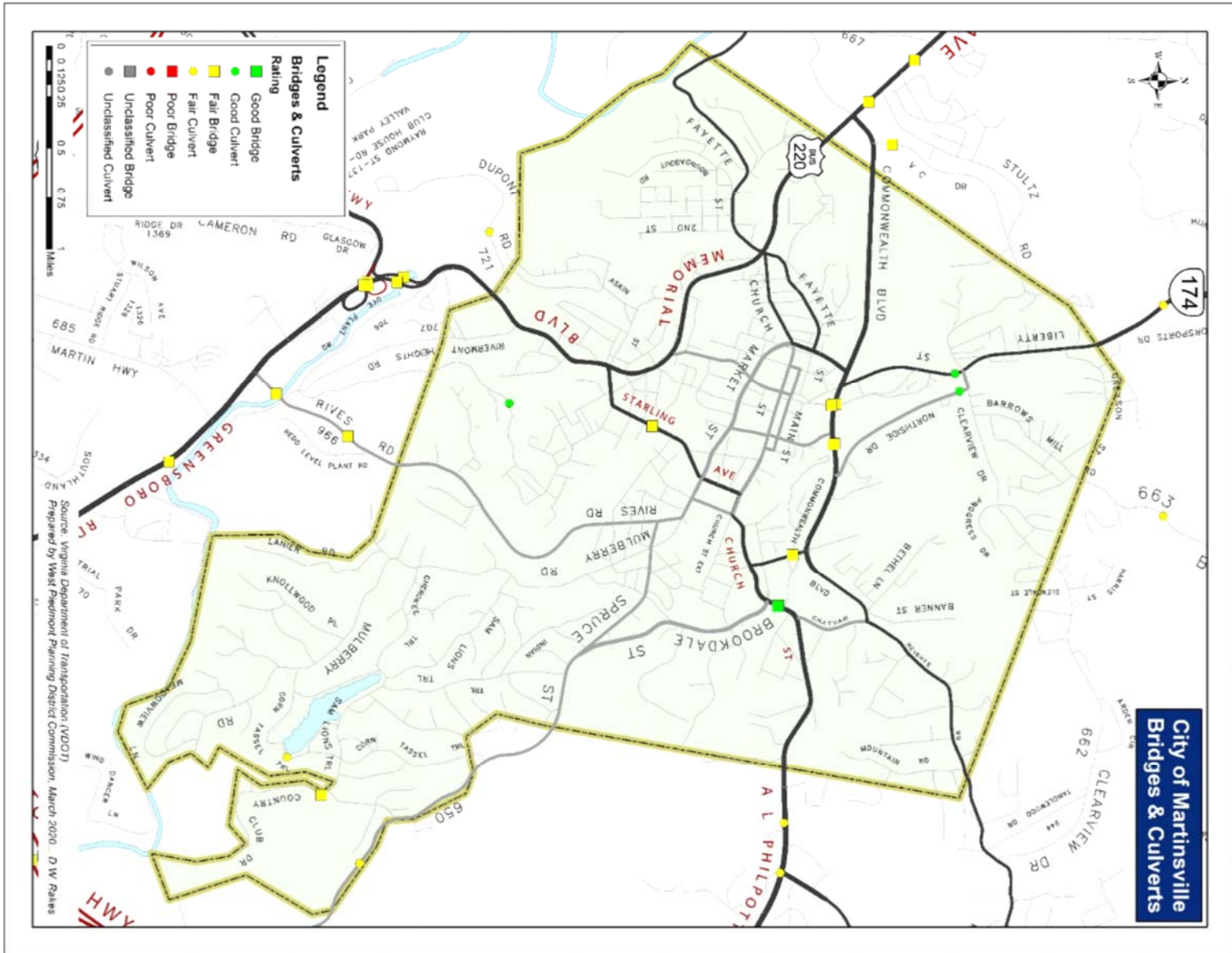
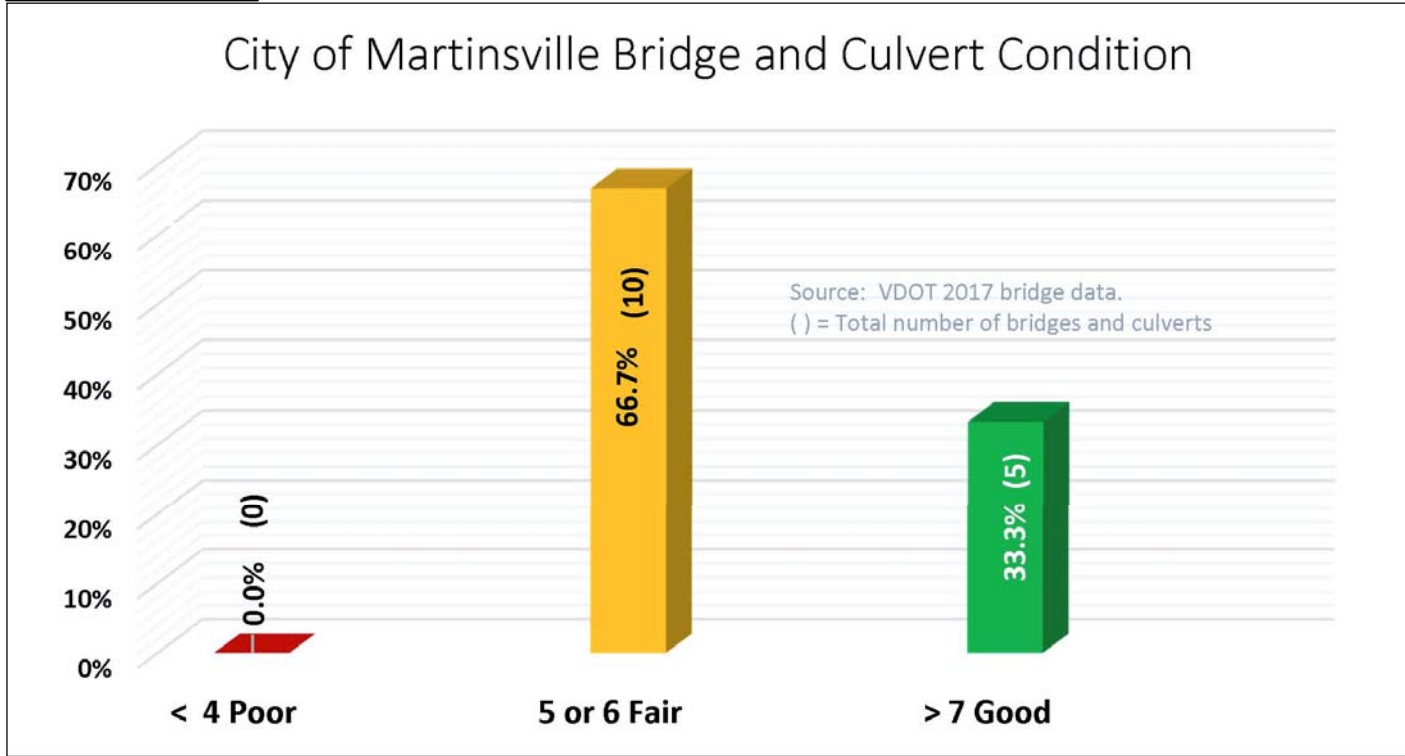


Figure 6.16

Figure 6.17



City of Martinsville Transportation Recommendations

The remainder of this chapter presents two distinct lists of transportation project recommendations. The first is a list of priority projects, which includes those that ranked among the top 20 using the VDOT matrix ranking tool. Figure 6.18 is the map which corresponds with this Priority list. The second list comprises vision projects, which include those recommendations ranking 21 and below. Figure 6.19 is associated with the Vision list.

City of Martinsville Priority Projects											
Rank	Route	Segment or Intersection	From:	To:	Average Score	2017 AADT	2017 Level of Service	2017 Volume to Capacity Ratio	Fatal + Injury Crashes per Mile (2014 - 2018)	Justification	Recommendations
1	Commonwealth Blvd / Market St	Intersection	-	-	7.59	16,000	B	0.41	53	Identified in 2013 2017 and 2014 - 2018 Potential for Safety Improvement (PSI); VTrans 2045 Draft Needs Intersection; Rural Long-Range Plan, #1	<u>Short-term:</u> Repaint faded pavement markings; use thermoplastic markings where feasible. Move stop bar for right-turning vehicles on northbound approach of Market St farther back to reduce angle crashes. Install left turn yield on green ball sign on westbound approach; consider flashing yellow arrow when upgrading traffic signal. Upgrade and coordinate timing of traffic signal in concert with traffic signal at Commonwealth Blvd and Liberty St to improve traffic flow; review clearance interval on Commonwealth Blvd approaches. Replace overhead signage on Commonwealth Blvd east of the intersection with diamond-grade sheeting to enhance visibility. <u>Mid-term:</u> Install ADA-compliant ramps as needed to accommodate pedestrians. Install left-turn lanes on the southbound approaches.
2	Commonwealth Blvd	Segment	Northside Dr	Fairy St	7.43	18,000	C	0.46	25	Identified in 2013 2017 and 2014 - 2018 Potential for Safety Improvement (PSI); VTrans 2045 Draft Segment Need	<u>Short-term:</u> Install rumble strips and possibly <i>Be Prepared to Stop When Flashing</i> signage on Commonwealth Blvd West, east of the intersection. Check signal timing to ensure the yellow provides adequate time for westbound traffic to stop and/or add clearance time between phases. Install high-visibility crosswalks and curb cuts at Hospital Dr and Northside Dr to promote pedestrian safety. Consider adding pedestrian phase to signal. Continue to monitor remainder of segment for potential improvements.

Rank	Route	Segment or Intersection	From:	To:	Average Score	2017 AADT	2017 Level of Service	2017 Volume to Capacity Ratio	Fatal + Injury Crashes per Mile (2014 - 2018)	Justification	Recommendations
3	Liberty St	Segment	Commonwealth Blvd	Clearview Dr	7.21	8,500	C	0.34	33	Identified in VTrans 2013 - 2017 Potential for Safety Improvement (PSI); VTrans 2045 Draft Needs Segment; documented in ride-along project analysis	<p>Short-term: Install left-turn yield on green ball sign on all approaches; consider flashing yellow arrow when upgrading traffic signal. Upgrade and coordinate timing of traffic signal in concert with traffic signal at Commonwealth Blvd and Market St to improve traffic flow; review clearance interval on Commonwealth Blvd approaches. Replace current markings with thermoplastic markings to enhance visibility. Install ADA-compliant ramps and high-visibility crosswalks as needed to accommodate pedestrians; add yield to pedestrian signage and high-visibility crosswalks across Liberty St. Consider adding pedestrian phase to signal. Convert Chick-fil-A access point to right-in, right-out only. Mid-term: Install left-turn lanes on the southbound approaches. Change "free" southbound right-turn operation to signal controlled right turn and prohibit right turn on red. Long-term: Consider constructing additional northbound lane between Liberty St and Clearview Dr.</p>
4	Brookdale St	Segment	Sprucedale Dr	Spruce St	7.13	7,200	A	0.10	50	Identified in VTrans 2013 - 2017 and 2014 - 2018 Potential for Safety Improvement (PSI); VTrans 2045 Draft Needs Segment; traffic congestion at south end of segment during PM peak hour.	<p>Short-term: Make pedestrian improvements where warranted, including improvements to sidewalks, and the addition of crosswalks and curb cuts to promote pedestrian circulation. Consider addition of bike lanes or signage. Mid-term: Apply access management techniques where warranted along the segment. Long-term: Consider constructing roundabout at intersection of Brookdale St and Spruce St.</p>

West Piedmont Planning District 2045 Rural Long Range Transportation Plan – Chapter 6 City of Martinsville

Rank	Route	Segment or Intersection	From:	To:	Average Score	2017 AADT	2017 Level of Service	2017 Volume to Capacity Ratio	Fatal + Injury Crashes per Mile (2014 - 2018)	Justification	Recommendations
5	E Church St	Segment	Watt St	ECL Martinsville	6.75	15,000	C	0.47	28	Identified as need in VTrans 2040 and VTrans 2045 Draft Needs Segment(Southside Corridor): "19 severe crashes"; Identified in 2013 Safety Improvement (PSI)	<u>Short-term:</u> Repaint stop bars at intersection of E Church St and Brookdale St. Consider Share the Road signage to promote safety of bicyclists. Upgrade signals and improve timing of signals for improved traffic flow at E Church St and Watt/Brookdale St. <u>Mid-term:</u> Apply access management techniques along corridor to minimize number of entrances/exits. Make pedestrian improvements where warranted, including improvements to sidewalks and curb cuts, and the addition of curb cuts and crosswalks; construct new sections of sidewalk to close gaps. Reconstruct "pork chop" island on Brookdale Street to accommodate ADA pedestrians and to improve channelization for right turns. <u>Long-term:</u> Consider replacing intersection of E Church St and Watt/Brookdale St with innovative intersection design to improve traffic flow and safety.
6	Commonwealth Blvd / Kroger Gas Station	Intersection	-	-	6.69	16,000	B	0.41	35	Cluster of crashes along this section of corridor; no pedestrian accommodations	Deficiency with low priority; continue to monitor for potential improvements.
7	E Church / Starling Ave	Intersection	-	-	6.57	10,000	D	0.62	13	Cluster of crashes at this intersection	Deficiency with low priority; continue to monitor for potential improvements.

West Piedmont Planning District 2045 Rural Long Range Transportation Plan – Chapter 6 City of Martinsville

Rank	Route	Segment or Intersection	From:	To:	Average Score	2017 AADT	2017 Level of Service	2017 Volume to Capacity Ratio	Fatal + Injury Crashes per Mile (2014 - 2018)	Justification	Recommendations
8	Commonwealth Blvd / Fairy St Ext	Intersection	-	-	6.53	18,000	C	0.46	10	Identified in 2013 2017 and 2014 - 2018 VTrans Potential for Safety Improvement (PSI); traffic congestion on Fairy St and Hooker St at various times due to presence of multiple traffic signals; #6 2035 Rural Long-Range Transportation Plan	<u>Short-term</u> : Lengthen left-turn lanes on Commonwealth Boulevard. Upgrade signals and improve timing of signals for enhanced traffic flow. <u>Long-term</u> : Consider replacing intersection with innovative design such as a roundabout to improve traffic flow and safety.
9	Memorial Blvd (US 220 Business)	Segment	Norfolk Southern RR Bridge	0.02 Mi south Broad St	6.43	11,000	C	0.27	17	Identified in VTrans 2013 - 2017, 2014 - 2018 Potential for Safety Improvement (PSI), and VTrans 2045 Draft Segment Need	Apply access management techniques along corridor to minimize number of entrances/exits.

West Piedmont Planning District 2045 Rural Long Range Transportation Plan – Chapter 6 City of Martinsville

Rank	Route	Segment or Intersection	From:	To:	Average Score	2017 AADT	2017 Level of Service	2017 Volume to Capacity Ratio	Fatal + Injury Crashes per Mile (2014 - 2018)	Justification	Recommendations
10	Commonwealth Blvd	Segment	WCL Martinsville	W Market St	6.39	16,000	B	0.41	31	Identified in VTrans 2013 - 2017 and 2014 - 2018 Potential for Safety Improvement (PSI); VTrans 2045 Draft Segment Need; limited pedestrian accommodations	<u>Short-term:</u> Construct mid-block pedestrian crossing, along with pedestrian hybrid beacons, across Commonwealth Blvd west of Village of Martinsville main entrance. <u>Mid-term:</u> Extend sidewalk in front of Village of Martinsville west to Henry County Line, and include curb cuts and crosswalks in appropriate locations. Extend sidewalk in front of Citi Trends and auto dealership west to National Guard Armory, and include curb cuts and crosswalks in appropriate locations. <u>Long-term:</u> Apply access management techniques along corridor to minimize number of entrances/exits. As per E-CO A. (7) of the city's zoning ordinance, encourage interparcel connectivity via construction of connector roads to reduce traffic volume on Commonwealth Blvd, facilitate direct access to businesses, and promote safe bicycle travel.
11	Fayette St	Segment	Memorial Blvd	Pine Hall Rd	6.30	3,800	C	0.21	33	Identified in VTrans 2013 - 2017 Potential for Safety Improvement (PSI); VTrans 2045 Draft Segment Need	<u>Mid-term:</u> Construct widened travel lanes for shared vehicle and bicycle use as well as two-way left-turn lane. Reconstruct sidewalks along corridor to meet ADA standards, and add crosswalks at intersecting streets. Upgrade storm water system.
12	Starling Ave / Market St	Intersection	-	-	6.28	9,100	C	0.50	23	Cluster of crashes at this intersection	<u>Long-term:</u> Consider converting intersection to innovative design such as mini roundabout to improve safety and efficiency.
13	Bridge St	Segment	Sutherlin St	Norfolk Southern RR Bridge	6.26	5,900	C	0.29	40	VTrans 2045 Draft Segment Need	Deficiency with low priority; continue to monitor for potential improvements.

West Piedmont Planning District 2045 Rural Long Range Transportation Plan – Chapter 6 City of Martinsville

Rank	Route	Segment or Intersection	From:	To:	Average Score	2017 AADT	2017 Level of Service	2017 Volume to Capacity Ratio	Fatal + Injury Crashes per Mile (2014 - 2018)	Justification	Recommendations
14	E Church St / Chatham Heights Rd	Intersection	-	-	5.99	15,000	C	0.47	17	Identified in VTrans 2013 - 2017 and 2014 - 2018 Potential for Safety Improvement (PSI); VTrans 2045 Draft Needs Intersection.	Deficiency with low priority; continue to monitor for potential improvements.
15	E Church St / Brookdale St	Intersection	-	-	5.95	12,000	C	0.31	20	Identified in VTrans 2013 - 2017 and 2014 - 2018 Potential for Safety Improvement (PSI); #8 in 2035 Rural Long-Range Transportation Plan.	<u>Short-term</u> : Repaint stop bars. Upgrade signals and improve timing of signals for improved traffic flow. <u>Mid-term</u> : Reconstruct "pork chop" island on Brookdale Street to accommodate ADA pedestrians and to improve channelization for right turns. <u>Long-term</u> : Consider converting intersection to innovative configuration to improve traffic flow and safety.
16	Commonwealth Blvd / Aldi	Intersection	-	-	5.79	16,000	B	0.41	20	Cluster of crashes at this intersection	Deficiency with low priority; continue to monitor for potential improvements.
17	Memorial Blvd (US 220 Business)	Segment	Oakgrove Ave	Martinsville CL	5.72	19,000	C	0.50	16	Cluster of crashes along this section of corridor	<u>Short-term</u> : Improve sidewalks if needed, and add crosswalks in appropriate locations. <u>Mid-term</u> : Apply access management techniques along corridor to minimize number of entrances/exits.

West Piedmont Planning District 2045 Rural Long Range Transportation Plan – Chapter 6 City of Martinsville

Rank	Route	Segment or Intersection	From:	To:	Average Score	2017 AADT	2017 Level of Service	2017 Volume to Capacity Ratio	Fatal + Injury Crashes per Mile (2014 - 2018)	Justification	Recommendations
18	Commonwealth Blvd / Liberty St	Intersection	-	-	5.68	14,000	C	0.34	8	Rural Long Range Plan, #2; need for pedestrian connections	<p><u>Short-term:</u> Install left-turn yield on green ball sign on all approaches; consider flashing yellow arrow when upgrading traffic signal. Upgrade and coordinate timing of signal as well as signal at Commonwealth Blvd and Market St for improved traffic flow; review clearance interval on Commonwealth Blvd approaches. Replace current markings with thermoplastic markings to enhance visibility. Install ADA-compliant ramps as needed to accommodate pedestrians; add yield to pedestrian signage and high-visibility crosswalks across Liberty St. Consider adding pedestrian phase to signal. Replace overhead signage on Commonwealth Blvd east of the intersection with diamond-grade sheeting to enhance visibility. <u>Mid-term:</u> Install left-turn lanes on the southbound approaches. Change "free" southbound right turn operation to signal-controlled right-turn and prohibit right-turn on red.</p>
19	Memorial Blvd (US 220 Business)	Segment	0.12 Mi S Fayette St	0.17 Mi N Beaver St	5.49	12,000	B	0.30	20	2014 - 2018 Segment PSI, VTrans 2045 Draft Segment Need	<p><u>Mid-term:</u> Apply access management techniques along corridor to minimize number of entrances/exits.</p>
20	Commonwealth Blvd / Chatham Rd	Intersection	-	-	5.39	5,500	B	0.27	13	Possible need for pedestrian facilities due to proximity of sports facility.	<p><u>Mid-term:</u> Install high-visibility crosswalk across Commonwealth Blvd, in combination with "pork chop" island / pedestrian refuge. Consider adding pedestrian phase to signal.</p>

Source: 2017 Level of Service, Volume to Capacity Ratio, and 2014 - 2018 crash data provided by VDOT. 2017 AADT data obtained from VDOT website.

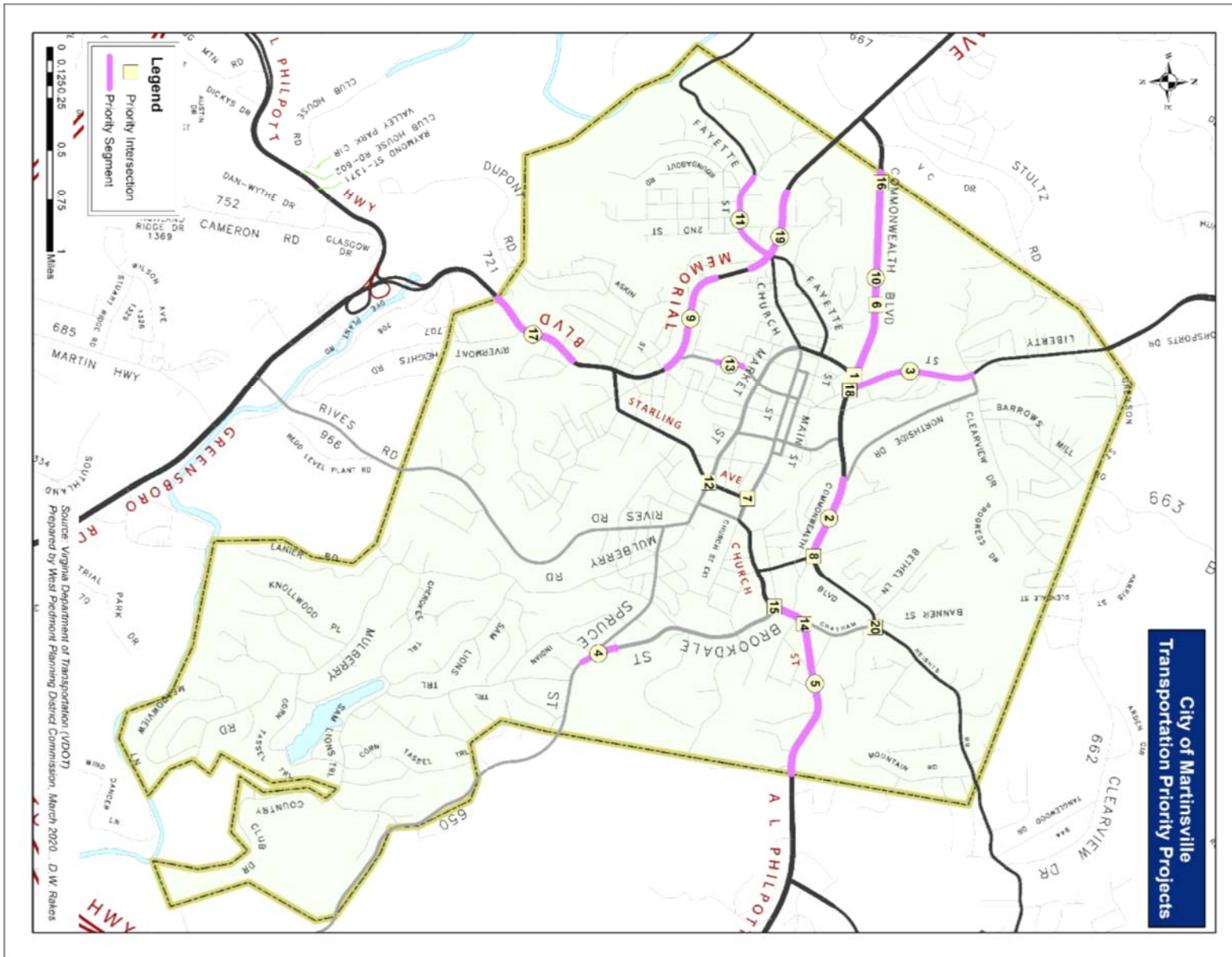


Figure 6.18

City of Martinsville Vision Projects											
Rank	Route	Segment or Intersection	From:	To:	Average Score	2017 AADT	2017 Level of Service	2017 Volume to Capacity Ratio	Fatal + Injury Crashes per Mile (2014 - 2018)	Justification	Recommendations
21	US Route 220 Business (Memorial Blvd) / Fayette St	Intersection	-	-	5.26	12,000	B	0.30	8	Rural Long Range Plan, #4; VTrans 2045 Draft Needs Segment; PSI segment	<u>Short-term</u> : Replace existing crosswalks with high-visibility material to increase pedestrian visibility. Install curb extensions to improve pedestrian safety. Install left turn yield on green ball signs on Fayette Street approaches. Eliminate right turns on red on westbound Fayette Street. Consider increasing cycle length and revise east/ westbound left turn phases to permitted/protected. Install left turn lane on Church Street. <u>Mid-term</u> : Eliminate eastbound Fayette Street free right turn movement and prohibit right turn on red. <u>Long-term</u> : relocate Church Street to intersect with Memorial Boulevard and reconstruct current intersection to traditional 4-leg intersection.
22	Fairy St / Watt St	Intersection	-	-	5.15	7,700	C	0.44	18	Crash cluster	<u>Short-term</u> : Construct additional sidewalks at and in the vicinity of intersection. Install high-visibility crosswalks across both Fairy St and Watt St, and install pedestrian refuges within Fairy St. <u>Long-term</u> : Consider reconfiguring existing intersection as innovative configuration such as mini roundabout.
23	Commonwealth Blvd	Segment	Fairy St	Old Chatham Rd	5.09	5,500	B	0.27	8	Road project inventory	<u>Long-term</u> : Widen to four lanes, and include bicycle and pedestrian accommodations.
24	Main St / Lester St	Intersection	-	-	5.00	2,900	D	0.18	10	Crash cluster	Deficiency with low priority; continue to monitor for potential improvements.
25	Church St / Market St	Intersection	-	-	4.98	7,500	C	0.18	10	Crash cluster	<u>Short-term</u> : Replace crosswalks with high-visibility material to promote pedestrian safety. <u>Mid-term</u> : convert rounded corners at intersection quadrants to 90 degrees to create smaller, more pedestrian-friendly intersection. <u>Long-term</u> : consider reconfiguring intersection as innovative configuration such as a roundabout.

West Piedmont Planning District 2045 Rural Long Range Transportation Plan – Chapter 6 City of Martinsville

Rank	Route	Segment or Intersection	From:	To:	Average Score	2017 AADT	2017 Level of Service	2017 Volume to Capacity Ratio	Fatal + Injury Crashes per Mile (2014 - 2018)	Justification	Recommendations
26	Spruce Street / Brookdale St	Intersection	-	-	4.62	12,000	C	0.31	20	Rural Long Range Plan, #8; PSI intersection; VTrans 2045 Draft Needs Node	<u>Short-term:</u> Repaint stop bars. Mid-term: reconstruct "pork chop" island at east end of intersection to accommodate ADA pedestrians and to improve channelization for right turns. <u>Long-term:</u> Consider reconfiguring intersection to innovative configuration such as a roundabout.
27	Fayette St	Segment	US 220 Bus (Memorial Blvd)	W Market St	4.61	3,700	B	0.19	12	Past, potential future project application.	<u>Short-term:</u> Reconfigure corridor to wider travel lanes for shared bicycle use. Reconstruct sidewalks on both sides of street to meet ADA standards. Install curb extensions and crosswalks to improve pedestrian safety. Add new section of sidewalk to Swanson Street adjacent to school.
28	Clearview Dr	Segment	Royal Dr	0.3 mi west Royal Dr	4.44	2,500	B	0.10	10	VTrans 2045 Draft Segment Need	<u>Short-term:</u> Install signage and rumble strips to alert drivers to signal ahead.
29	Fayette St	Segment	Martinsville CL	Pine Hall Dr	4.43	3,100	C	0.21	6	VTrans 2045 Draft Segment Need	<u>Long-term:</u> Reconstruct road to address geometric deficiencies (including full-width lanes, buffers, sidewalk, and replace existing Norfolk Southern rail bridge with modern structure).
30	Franklin St	Segment	Liberty St	Jones St	4.31	2,000	B	0.17	3	Rural Long Range Plan, #14	<u>Long-term:</u> Reconstruct as urban two-lane roadway.
31	Stultz Rd	Segment	Liberty St	NCL Martinsville	4.23	3,400	B	0.21	11	Rural Long Range Plan, #13	<u>Long-term:</u> Reconstruct as urban two-lane roadway.
32	Mulberry Rd / Circle Ct	Intersection	-	-	4.19	2,400	C	0.22	13	Crash cluster	Deficiency with low priority; continue to monitor for potential improvements.
33	Spruce St / Mulberry Rd	Intersection	-	-	3.54	5,000	B	0.23	5	Crash cluster	Deficiency with low priority; continue to monitor for potential improvements.

Source: 2017 Level of Service, Volume to Capacity Ratio, and 2014 - 2018 crash data provided by VDOT. 2017 AADT data obtained from VDOT website.

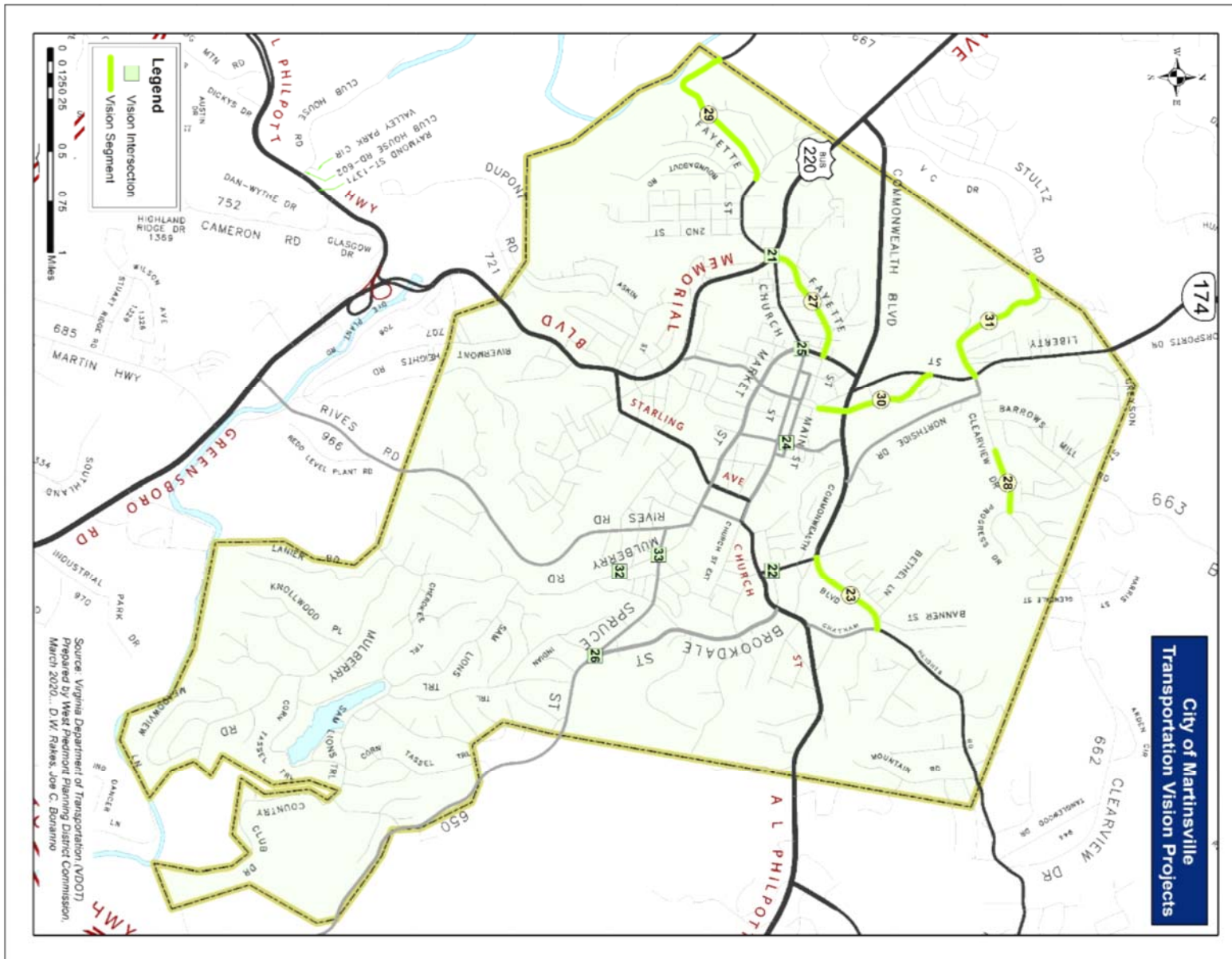


Figure 6.19