

PLEASANT VALLEY ROAD CORRIDOR IMPROVEMENT STUDY

Study Work Group Meeting #2

December 3, 2019



AGENDA

- **Pleasant Valley Road Corridor Improvement Study**
 - Overall Schedule and Major Milestones
 - Study Work Group
 - Project Background
 - Existing Conditions
- **Existing Safety and Traffic Operations Overview**
 - Crash Data
 - PM Peak Hour Traffic Volumes
 - Synchro Analysis and LOS Results
- **Next Steps**

STUDY WORK GROUP MEMBERS

- **VDOT District***
 - Terry Short
 - Edwin Carter
 - Scott Alexander
 - Keith Rider
 - John-Allen Ennis
- **VDOT Central Office**
 - Bill Guiher
 - Gary Wilmouth
 - Terrell Hughes
- **WinFred MPO**
 - John Madera
- **City of Winchester**
 - Timothy Youmans
 - Andrew Dunn
 - Justin Hall
 - Perry Eisenach
- **WinTran**
 - Renee Wells
- **Frederick County**
 - John Bishop
- **Kimley-Horn**
 - Danielle McCray
 - Amanda Harmon

*May include other support staff as necessary

Pleasant Valley Road Corridor Improvement Study

PROJECT STUDY AREA

- Pleasant Valley Road in City of Winchester
 - 4-lane undivided roadway
- 2.2-mile study corridor
- 11 signalized intersections
- 5 unsignalized intersections



PLEASANT VALLEY ROAD: HIGH CRASH LOCATIONS

- **Potential for Safety Improvement (PSI)** [PSI Online Tool](#)

Estimates how much the long term crash frequency could be reduced at an intersection or segment

- **Segment Rankings**

Ranked by total PSI within Staunton District

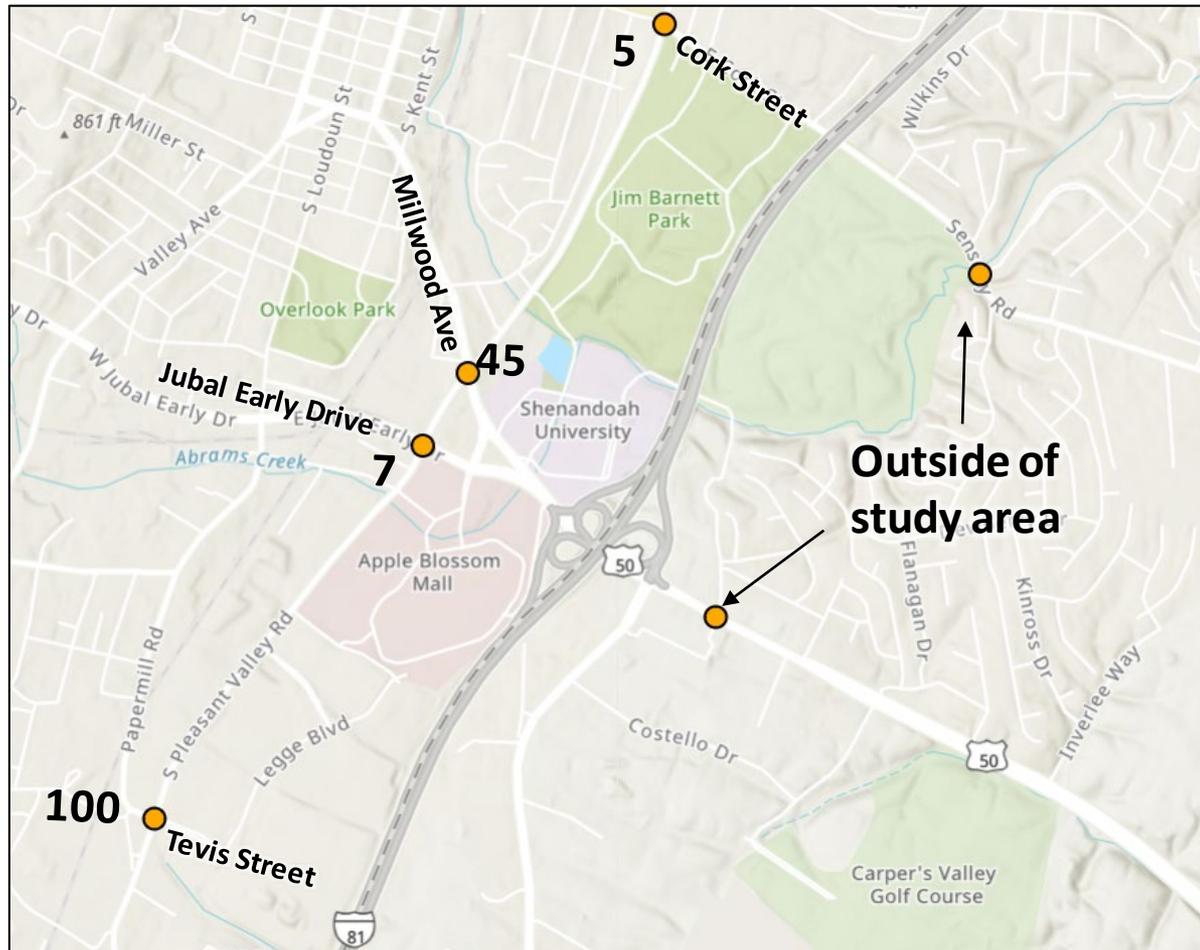
- 7, 9, and 19 – Between Tevis Street and Jubal Early Drive
- 66 and 84 – Between Jubal Early Drive and Millwood Avenue
- 42, 108, and 16 – Between Millwood Avenue and Cork Street

- **Intersection Rankings**

Ranked by total PSI within Staunton District

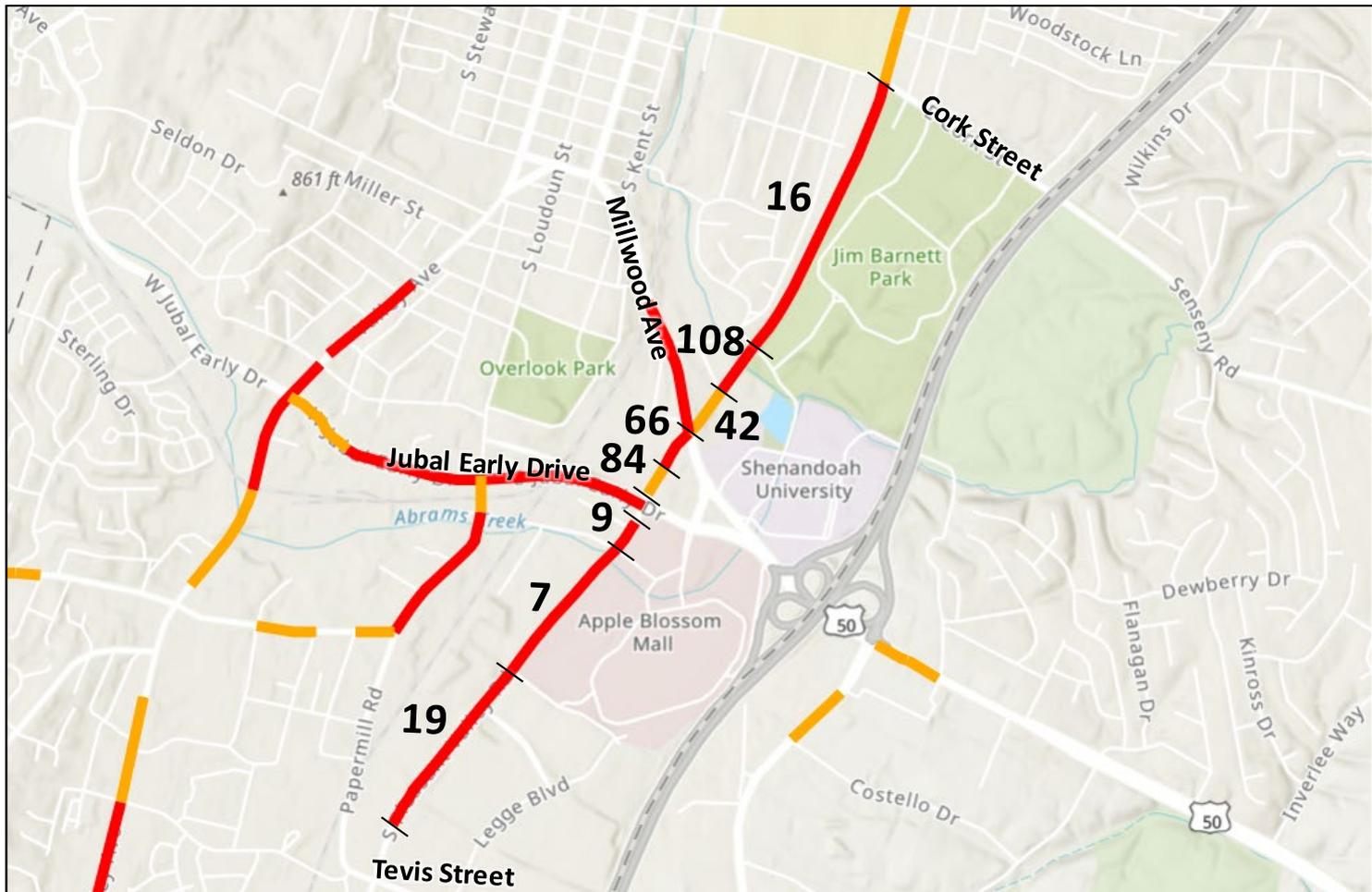
- 5 – Cork Street
- 7 – Jubal Early Drive
- 45 – Millwood Avenue
- 100 – Tevis Street

PLEASANT VALLEY ROAD: POTENTIAL FOR SAFETY IMPROVEMENT AND TARGET SAFETY NEEDS



Source:
2018 PSI
Intersections –
Staunton District

PLEASANT VALLEY ROAD: POTENTIAL FOR SAFETY IMPROVEMENT AND TARGET SAFETY NEEDS



Source:
2018 PSI
Segments—
Staunton District

PLEASANT VALLEY ROAD

EXISTING TRAFFIC OPERATIONS AND SAFETY OVERVIEW

EXISTING CONDITIONS OVERVIEW



EXISTING CONDITIONS OVERVIEW



Lowry Dr



E Jubal Early Dr



Millwood Ave



Commercial entrance #3 - Apple Blossom
Corners

DATA COLLECTION OVERVIEW

- **Traffic Volume Data collected on 8/27/19 – 8/28/19**
 - (16) 12-hour turning movement counts
 - Includes U-turns, heavy vehicles, and pedestrians
 - (4) 48-hour classification counts
 - Travel time runs
- **Peak Hours**
 - PM Peak Hour: 5:00 – 6:00 PM
- **Average Daily Traffic (ADT)**
 - Based on 48-hour vehicle classification counts
 - Between Tevis St and Adams Dr: **15,905 vpd**
 - Between Adams Dr and Jubal Early Dr: **24,690 vpd**
 - Between Jubal Early Dr and Millwood Ave: **23,390 vpd**
 - Between Millwood Ave and Cork St: **23,090 vpd**

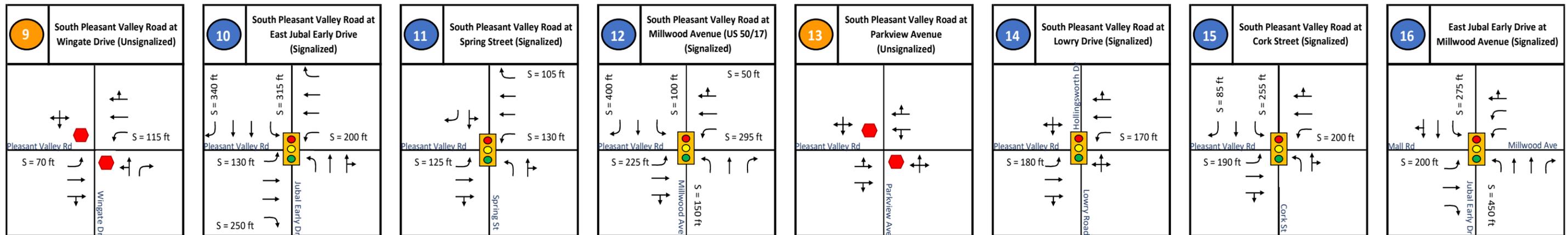
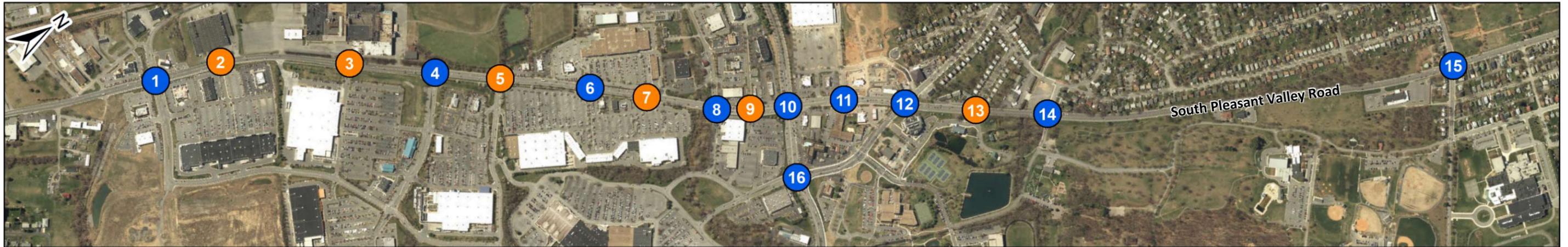
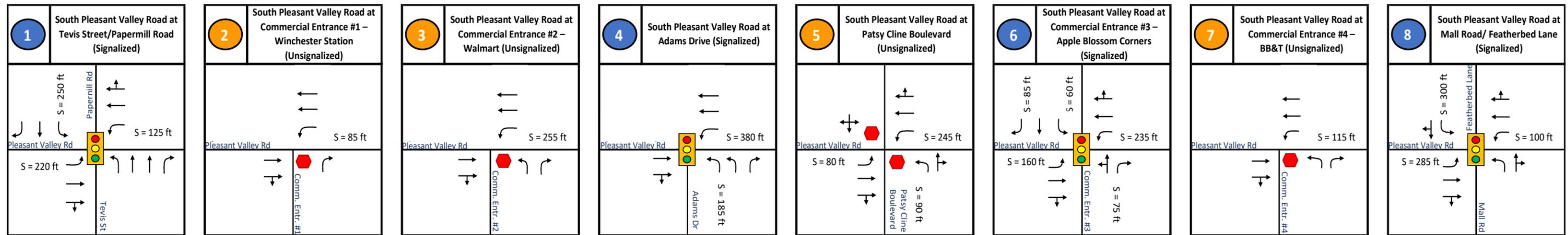
Legend:

Signalized Intersection

Unsignalized Intersection

Existing Lane Configurations

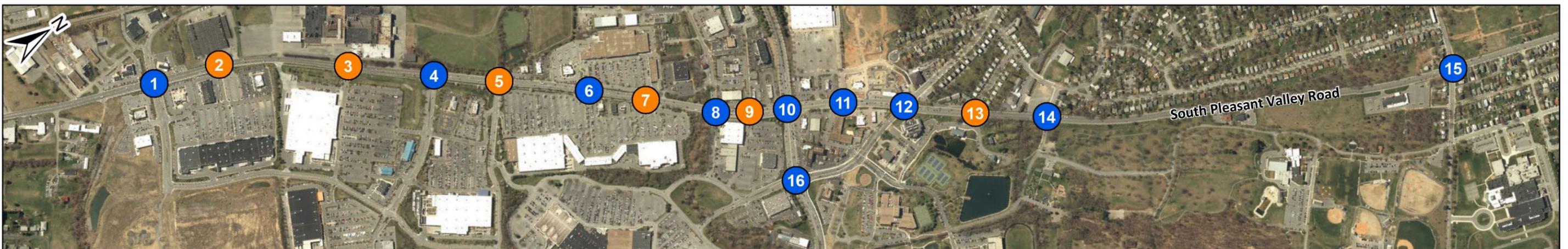
S = Effective Storage Length (ft)



Legend:

Signalized Intersection # Unsignalized Intersection # # # # PM Peak Hour Volumes

1 South Pleasant Valley Road at Tevis Street/Papermill Road (Signalized)	2 South Pleasant Valley Road at Commercial Entrance #1 – Winchester Station (Unsignalized)	3 South Pleasant Valley Road at Commercial Entrance #2 – Walmart (Unsignalized)	4 South Pleasant Valley Road at Adams Drive (Signalized)	5 South Pleasant Valley Road at Patsy Cline Boulevard (Unsignalized)	6 South Pleasant Valley Road at Commercial Entrance #3 – Apple Blossom Corners (Signalized)	7 South Pleasant Valley Road at Commercial Entrance #4 – BB&T (Unsignalized)	8 South Pleasant Valley Road at Mall Road/ Featherbed Lane (Signalized)



9 South Pleasant Valley Road at Wingate Drive (Unsignalized)	10 South Pleasant Valley Road at East Jubal Early Drive (Signalized)	11 South Pleasant Valley Road at Spring Street (Signalized)	12 South Pleasant Valley Road at Millwood Avenue (US 50/17) (Signalized)	13 South Pleasant Valley Road at Parkview Avenue (Unsignalized)	14 South Pleasant Valley Road at Lowry Drive (Signalized)	15 South Pleasant Valley Road at Cork Street (Signalized)	16 East Jubal Early Drive at Millwood Avenue (Signalized)



Draft Existing Conditions PM Peak Hour Intersection Turning Movement Counts 5:00PM-6:00PM

Legend:

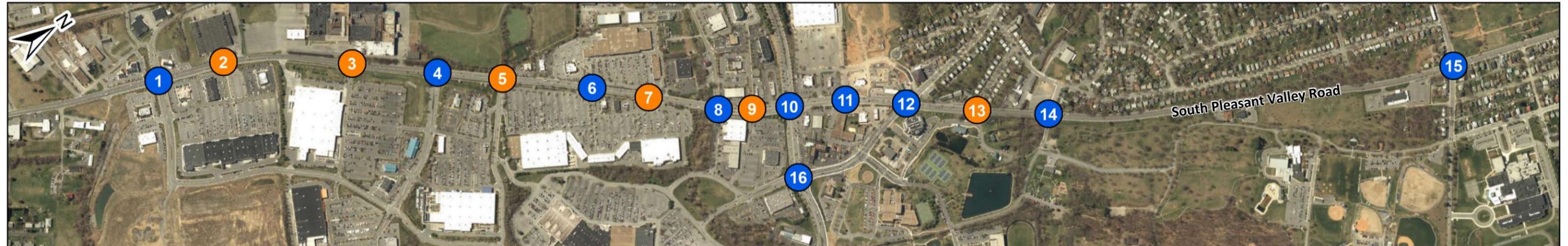
- #** Signalized Intersection
- #** Unsignalized Intersection

PM Peak Hour LOS (Delay [sec])

Arrows correspond with Synchro reporting not lane configurations

← - (-) Delay Not Reported in Synchro
No conflicting movements

1 South Pleasant Valley Road at Tevis Street/Papermill Road (Signalized)	2 South Pleasant Valley Road at Commercial Entrance #1 – Winchester Station (Unsignalized)	3 South Pleasant Valley Road at Commercial Entrance #2 – Walmart (Unsignalized)	4 South Pleasant Valley Road at Adams Drive (Signalized)	5 South Pleasant Valley Road at Patsy Cline Boulevard (Unsignalized)	6 South Pleasant Valley Road at Commercial Entrance #3 – Apple Blossom Corners (Signalized)	7 South Pleasant Valley Road at Commercial Entrance #4 – BB&T (Unsignalized)	8 South Pleasant Valley Road at Mall Road/ Featherbed Lane (Signalized)
Overall: B (17.2)	Overall: N/A	Overall: N/A	Overall: B (12.5)	Overall: N/A	Overall: B (20.0)	Overall: N/A	Overall: C (32.1)



9 South Pleasant Valley Road at Wingate Drive (Unsignalized)	10 South Pleasant Valley Road at East Jubal Early Drive (Signalized)	11 South Pleasant Valley Road at Spring Street (Signalized)	12 South Pleasant Valley Road at Millwood Avenue (US 50/17) (Signalized)	13 South Pleasant Valley Road at Parkview Avenue (Unsignalized)	14 South Pleasant Valley Road at Lowry Drive (Signalized)	15 South Pleasant Valley Road at Cork Street (Signalized)	16 East Jubal Early Drive at Millwood Avenue (Signalized)
Overall: N/A	Overall: D (42.9)	Overall: A (9.5)	Overall: D (42.0)	Overall: N/A	Overall: A (7.6)	Overall: D (47.7)	Overall: D (41.8)



**Draft Existing Conditions PM Peak Hour
Intersection LOS and Delay
5:00PM-6:00PM**

Intersection					
Approach	Movement	Storage Length	PM Peak Hour		
			LOS (Delay)	V/C Ratio	Queue (ft)
1. South Pleasant Valley Road at Tevis Street/Papermill Road (Signalized)					
Eastbound (Papermill Road)	EBL	250	B (15.0)	0.61	139
	EBT		B (19.6)	0.41	107
	EBR		B (18.0)	0.08	36
	<i>EB Approach</i>		B (16.9)	--	--
Westbound (Tevis Street)	WBL		B (19.9)	0.28	43
	WBT		C (24.7)	0.43	55
	WBR		C (23.4)	0.01	0
	<i>WB Approach</i>		C (23.0)	--	--
Northbound (S Pleasant Valley Road)	NBL	220	B (11.1)	0.3	48
	NBTR		B (14.9)	0.33	103
	<i>NB Approach</i>		B (14.2)	--	--
Southbound (S Pleasant Valley Road)	SBL	125	B (14.3)	0.12	25
	SBTR		B (17.5)	0.43	102
	<i>SB Approach</i>		B (17.3)	--	--
Overall Intersection			B (17.2)		
2. South Pleasant Valley Road at Commercial Entrance #1 – Winchester Station (Unsignalized)					
Westbound (Commercial Entrance #1 Winchester Station)	WBR		B (11.6)	0.17	15
Northbound (S Pleasant Valley Road)	NBT		A (0.0)	0.23	0
	NBR		A (0.0)	0.13	0
	<i>NB Approach</i>		A (0.0)	--	--
Southbound (S Pleasant Valley Road)	SBL	85	A (9.1)	0.09	7
	SBT		A (0.0)	0.18	0
	<i>SB Approach</i>		A (1.1)	--	--
Overall Intersection			N/A		
3. South Pleasant Valley Road at Commercial Entrance #2 – Walmart (Unsignalized)					
Westbound (Commercial Entrance #2 Walmart)	WBL		E (43.2)	0.34	34
	WBR		B (11.9)	0.19	17
	<i>WB Approach</i>		C (20.6)	--	--
Northbound (S Pleasant Valley Road)	NBT		A (0.0)	0.24	0
	NBR		A (0.0)	0.18	0
	<i>NB Approach</i>		A (0.0)	--	--
Southbound (S Pleasant Valley Road)	SBL	255	A (9.8)	0.15	14
	SBT		A (0.0)	0.19	0
	<i>SB Approach</i>		A (1.7)	--	--
Overall Intersection			N/A		

Note: Queue Lengths are 95th Percentile Queues Reported from Synchro
 # : 95th percentile volume exceeds capacity, queue may be longer.
 m: Volume for 95th percentile queue is metered by upstream signal.

Intersection					
Approach	Movement	Storage Length	PM Peak Hour		
			LOS (Delay)	V/C Ratio	Queue (ft)
4. South Pleasant Valley Road at Adams Drive (Signalized)					
Westbound (Adams Drive)	WBL	185	D (36.5)	0.38	58
	WBR		C (35.0)	0.64	147
	<i>WB Approach</i>		D (35.4)	--	--
Northbound (S Pleasant Valley Road)	NBTR		A (7.6)	0.33	136
	<i>NB Approach</i>		A (7.6)	--	--
Southbound (S Pleasant Valley Road)	SBL	380	A (6.2)	0.36	94
	SBT		A (4.0)	0.23	108
	<i>SB Approach</i>		A (4.5)	--	--
Overall Intersection			B (12.5)		
5. South Pleasant Valley Road at Patsy Cline Boulevard (Unsignalized)					
Eastbound (Patsy Cline Boulevard)	EBLTR		C (16.6)	0.07	5
	<i>EB Approach</i>		C (16.6)	--	--
Westbound (Patsy Cline Boulevard)	WBL	90	E (41.3)	0.19	17
	WBTR		B (11.9)	0.18	16
	<i>WB Approach</i>		C (16.9)	--	--
Northbound (S Pleasant Valley Road)	NBL	80	A (9.0)	0	0
	NBT		A (0.0)	0.33	0
	NBR		A (0.0)	0.23	0
	<i>NB Approach</i>		A (0.0)	--	--
Southbound (S Pleasant Valley Road)	SBL	245	B (10.6)	0.17	16
	SBT		A (0.0)	0.31	0
	SBR		A (0.0)	0.16	0
	<i>SB Approach</i>		A (1.5)	--	--
Overall Intersection			N/A		
6. South Pleasant Valley Road at Commercial Entrance #3 – Apple Blossom Corners (Signalized)					
Eastbound (Commercial Entrance #3 Apple Blossom Corners)	EBL	60	E (57.2)	0.27	125
	EBT		D (52.1)	0.02	26
	EBR	85	A (0.0)	0.02	0
	<i>EB Approach</i>		D (41.5)	--	--
Westbound (Commercial Entrance #3 Apple Blossom Corners)	WBLT		E (56.4)	0.26	130
	WBR	75	D (53.3)	0.11	66
	<i>WB Approach</i>		D (54.3)	--	--
Northbound (S Pleasant Valley Road)	NBL	160	B (14.1)	0.07	15
	NBTR		C (22.5)	0.47	395
	<i>NB Approach</i>		C (22.2)	--	--
Southbound (S Pleasant Valley Road)	SBL	235	A (6.7)	0.27	28
	SBTR		A (6.4)	0.36	100
	<i>SB Approach</i>		A (6.4)	--	--
Overall Intersection			B (20.0)		

Intersection					
Approach	Movement	Storage Length	PM Peak Hour		
			LOS (Delay)	V/C Ratio	Queue (ft)
7. South Pleasant Valley Road at Commercial Entrance #4 – BB&T (Unsignalized)					
Westbound (Commercial Entrance #4 BB&T)	WBL		D (29.5)	0.03	2
	WBR		B (11.0)	0.24	24
	<i>WB Approach</i>		B (11.4)	--	--
Northbound (S Pleasant Valley Road)	NBT		A (0.0)	0.41	0
	NBR		A (0.0)	0.23	0
	<i>NB Approach</i>		A (0.0)	--	--
Southbound (S Pleasant Valley Road)	SBL	115	B (11.6)	0.26	26
	SBT		A (0.0)	0.27	0
	<i>SB Approach</i>		A (2.0)	--	--
Overall Intersection			N/A		
8. South Pleasant Valley Road at Mall Road/ Featherbed Lane (Signalized)					
Eastbound (Featherbed Lane)	EBL	300	D (49.3)	0.4	198
	EBTR		E (64.7)	0.58	326
	<i>EB Approach</i>		E (59.0)	--	--
Westbound (Mall Road)	WBL		E (57.1)	0.32	102
	WBTR		E (63.9)	0.33	170
	<i>WB Approach</i>		E (61.3)	--	--
Northbound (S Pleasant Valley Road)	NBL	285	D (37.0)	0.61	192
	NBTR		C (27.9)	0.54	490
	<i>NB Approach</i>		C (29.2)	--	--
Southbound (S Pleasant Valley Road)	SBL	100	B (17.7)	0.25	m42
	SBTR		C (20.8)	0.55	303
	<i>SB Approach</i>		C (20.6)	--	--
Overall Intersection			C (32.1)		
9. South Pleasant Valley Road at Wingate Drive (Unsignalized)					
Eastbound (Wingate Drive)	EBLTR		B (13.4)	0.06	4
	<i>EB Approach</i>		B (13.4)	--	--
Westbound (Wingate Drive)	WBLT		C (24.8)	0.01	1
	WBR		A (9.4)	0.03	2
	<i>WB Approach</i>		B (10.7)	--	--
Northbound (S Pleasant Valley Road)	NBL	70	B (10.5)	0.01	1
	NBT		A (0.0)	0.44	0
	NBR		A (0.0)	0.24	0
	<i>NB Approach</i>		A (0.1)	--	--
Southbound (S Pleasant Valley Road)	SBL	115	B (10.4)	0.05	4
	SBT		A (0.0)	0.44	0
	SBR		A (0.0)	0.25	0
	<i>SB Approach</i>		A (0.3)	--	--
Overall Intersection			N/A		

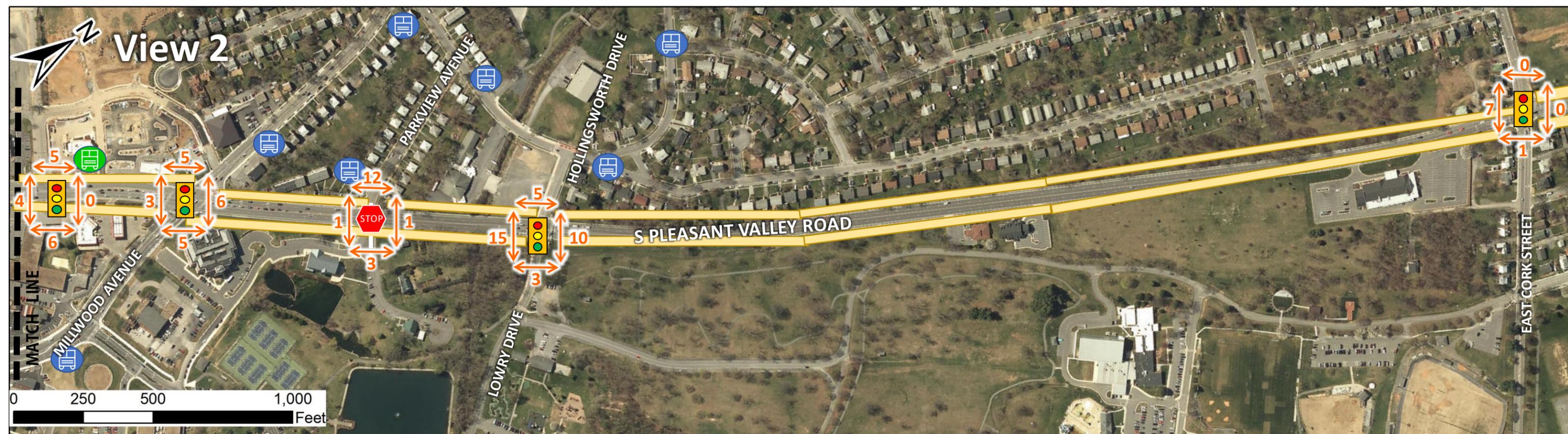
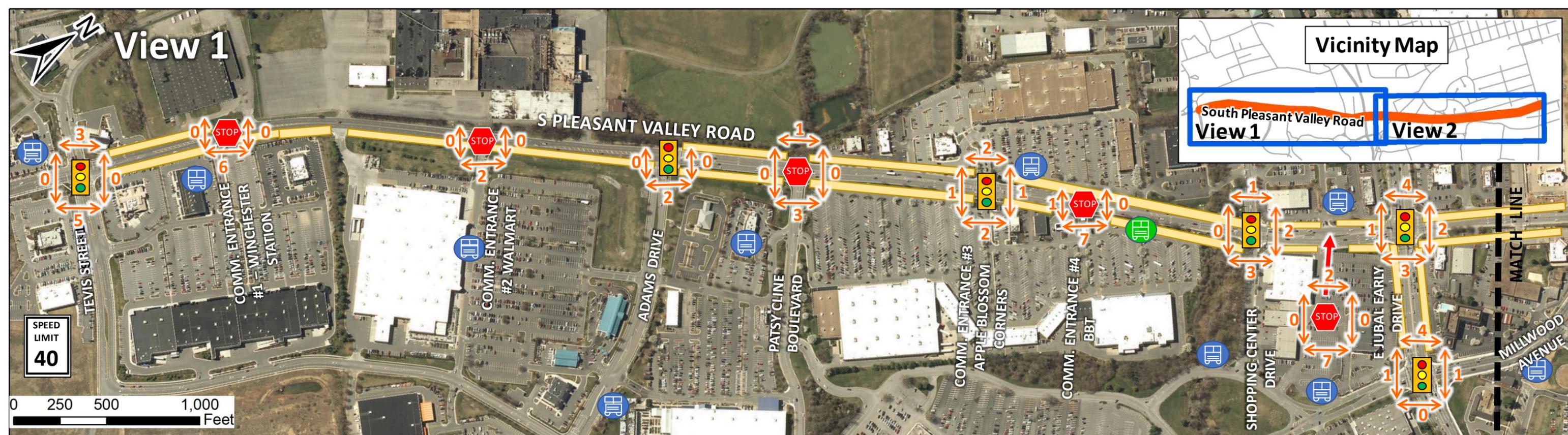
Intersection					
Approach	Movement	Storage Length	PM Peak Hour		
			LOS (Delay)	V/C Ratio	Queue (ft)
10. South Pleasant Valley Road at East Jubal Early Drive (Signalized)					
Eastbound (East Jubal Early Drive)	EBL	315	F (91.4)	0.97	#563
	EBT		E (60.0)	0.59	330
	EBR	340	D (52.5)	0.1	67
	<i>EB Approach</i>		E (70.0)	--	--
Westbound (East Jubal Early Drive)	WBL		C (31.6)	0.83	364
	WBTR		F (81.9)	1	#546
	<i>WB Approach</i>		E (65.7)	--	--
Northbound (S Pleasant Valley Road)	NBL	130	C (27.4)	0.35	70
	NBT		D (36.3)	0.45	381
	NBR	250	A (0.8)	0.25	2
	<i>NB Approach</i>		C (26.2)	--	--
Southbound (S Pleasant Valley Road)	SBL	200	B (17.1)	0.22	39
	SBT		C (22.3)	0.47	188
	SBR		A (5.3)	0.23	1
	<i>SB Approach</i>		B (16.9)	--	--
Overall Intersection			D (42.9)		
11. South Pleasant Valley Road at Spring Street (Signalized)					
Eastbound (Spring Street)	EBLT		F (88.8)	0.67	135
	EBR		E (72.9)	0.04	50
	<i>EB Approach</i>		F (81.2)	--	--
Westbound (Spring Street)	WBL		F (86.7)	0.63	111
	WBTR		E (72.9)	0.04	31
	<i>WB Approach</i>		F (83.5)	--	--
Northbound (S Pleasant Valley Road)	NBL	125	A (1.7)	0.32	m14
	NBT		A (1.7)	0.36	m67
	NBR		A (0.0)	0	0
	<i>NB Approach</i>		A (1.7)	--	--
Southbound (S Pleasant Valley Road)	SBL	130	A (3.2)	0.05	m8
	SBT		A (4.0)	0.34	114
	SBR	105	A (3.4)	0.03	m6
	<i>SB Approach</i>		A (3.9)	--	--
Overall Intersection			A (9.5)		

Note: Queue Lengths are 95th Percentile Queues Reported from Synchro
 # : 95th percentile volume exceeds capacity, queue may be longer.
 m: Volume for 95th percentile queue is metered by upstream signal.

Intersection					
Approach	Movement	Storage Length	PM Peak Hour		
			LOS (Delay)	V/C Ratio	Queue (ft)
12. South Pleasant Valley Road at Millwood Avenue (US 50/17) (Signalized)					
Eastbound (Millwood Avenue)	EBL	100	E (56.1)	0.26	71
	EBT		E (78.0)	0.75	400
	EBR	400	D (49.9)	0.36	211
	<i>EB Approach</i>		E (66.2)	--	--
Westbound (Millwood Avenue)	WBL	150	E (62.8)	0.62	173
	WBT		E (74.5)	0.76	430
	WBR		F (83.2)	0.83	#439
	<i>WB Approach</i>		E (75.8)	--	--
Northbound (S Pleasant Valley Road)	NBL	225	F (115.6)	0.76	#266
	NBTR		B (18.2)	0.48	280
	<i>NB Approach</i>		C (30.4)	--	--
Southbound (S Pleasant Valley Road)	SBL	295	B (16.7)	0.55	123
	SBT		C (22.0)	0.42	296
	SBR	50	A (0.0)	0.01	0
	<i>SB Approach</i>		C (20.5)	--	--
Overall Intersection			D (42.0)		
13. South Pleasant Valley Road at Parkview Avenue (Unsignalized)					
Eastbound (Parkview Avenue)	EBLTR		B (11.6)	0.03	2
	<i>EB Approach</i>		B (11.6)	--	--
Westbound (Parkview Avenue)	WBLTR		B (14.1)	0.04	3
	<i>WB Approach</i>		B (14.1)	--	--
Northbound (S Pleasant Valley Road)	NBLT		A (0.6)	0.02	2
	NBTR		A (0.0)	0.34	0
	<i>NB Approach</i>		A (0.3)	--	--
Southbound (S Pleasant Valley Road)	SBLT		A (0.2)	0.01	0
	SBTR		A (0.0)	0.29	0
	<i>SB Approach</i>		A (0.1)	--	--
Overall Intersection			N/A		
14. South Pleasant Valley Road at Lowry Drive (Signalized)					
Eastbound (Lowry Drive)	EBLTR		D (36.5)	0.36	66
	<i>EB Approach</i>		D (36.5)	--	--
Westbound (Lowry Drive)	WBLTR		D (41.3)	0.58	84
	<i>WB Approach</i>		D (41.3)	--	--
Northbound (S Pleasant Valley Road)	NBL	180	A (2.0)	0.13	m9
	NBTR		A (3.2)	0.43	92
	<i>NB Approach</i>		A (3.1)	--	--
Southbound (S Pleasant Valley Road)	SBL	170	A (4.0)	0.08	10
	SBTR		A (6.8)	0.39	166
	<i>SB Approach</i>		A (6.7)	--	--
Overall Intersection			A (7.6)		

Intersection					
Approach	Movement	Storage Length	PM Peak Hour		
			LOS (Delay)	V/C Ratio	Queue (ft)
15. South Pleasant Valley Road at Cork Street (Signalized)					
Eastbound (Cork Street)	EBL	255	D (52.2)	0.28	96
	EBT		F (83.5)	0.83	449
	EBR	85	E (58.3)	0.04	0
	<i>EB Approach</i>		E (73.8)	--	--
Westbound (Cork Street)	WBL		E (61.1)	0.85	367
	WBTR		D (51.4)	0.48	327
	<i>WB Approach</i>		E (56.6)	--	--
Northbound (S Pleasant Valley Road)	NBL	190	C (25.5)	0.26	101
	NBTR		D (42.1)	0.66	660
	<i>NB Approach</i>		D (40.7)	--	--
Southbound (S Pleasant Valley Road)	SBL	200	C (29.2)	0.39	101
	SBTR		D (35.5)	0.43	407
	<i>SB Approach</i>		C (34.8)	--	--
Overall Intersection			D (47.7)		
16. East Jubal Early Drive at Millwood Avenue (Signalized)					
Eastbound (East Jubal Early Drive)	EBL	275	C (23.9)	0.11	m33
	EBTR		C (27.7)	0.45	318
	<i>EB Approach</i>		C (27.5)	--	--
Westbound (East Jubal Early Drive)	WBL	450	B (19.6)	0.51	132
	WBT		C (26.9)	0.49	393
	WBR		C (24.9)	0.36	59
	<i>WB Approach</i>		C (25.4)	--	--
Northbound (Millwood Avenue)	NBL	200	E (65.2)	0.14	42
	NBT		E (71.7)	0.44	#177
	NBR		F (181.1)	1.12	#486
	<i>NB Approach</i>		F (140.0)	--	--
Southbound (Millwood Avenue)	SBL		E (62.5)	0.91	441
	SBTR		C (29.6)	0.23	m155
	<i>SB Approach</i>		E (55.5)	--	--
Overall Intersection			D (41.8)		

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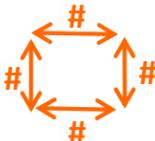


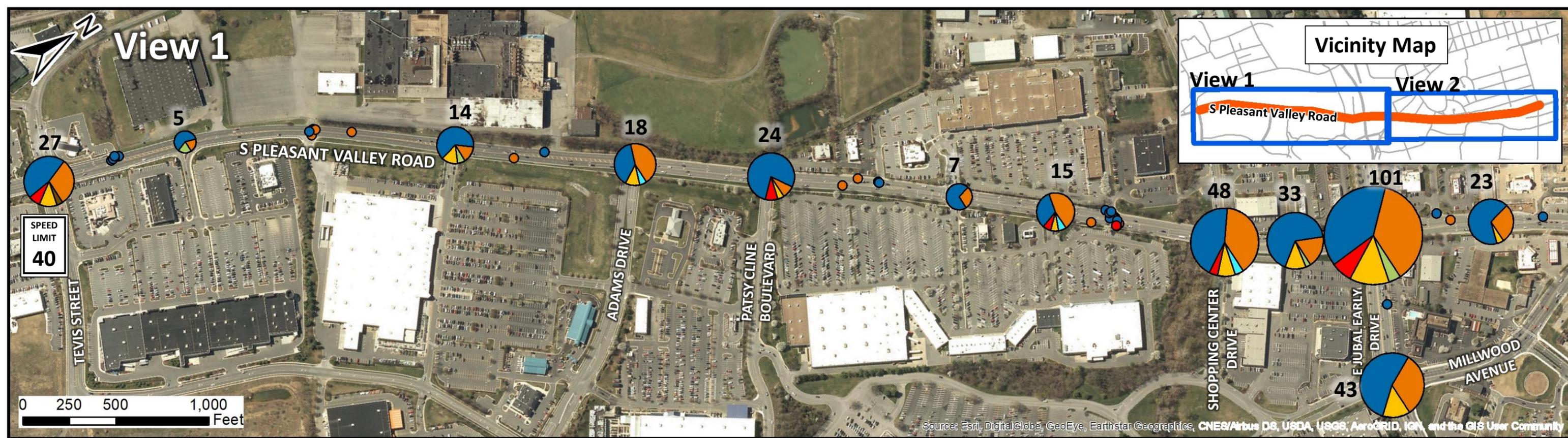
STARS
STRATEGICALLY TARGETED AND AFFORDABLE ROADWAY SOLUTIONS



Kimley»Horn

Legend

	Signalized Intersection		Transit Stop with Shelter		Peak Hour (5:00-6:00 PM) Conflicting Pedestrian Movements		Existing Sidewalk along Pleasant Valley Corridor
	Unsignalized Intersection		Transit Stop				



Pleasant Valley Road Crash Analysis

Crash Dates: January 1, 2014 to July 30, 2019

Summary of Intersection and Mainline Crashes by Type

Intersection crashes are within 250 feet of intersection and influence area

- Rear End
 - Sideswipe – Same Direction
 - Fixed Object – In Road
 - Angle
 - Sideswipe – Opposite Direction
 - Pedestrian/Bicyclist
 - Head On
 - Fixed Object – Off Road
 - Backed Into
 - Other
- ##** - Total Intersection Crash 20

Pleasant Valley Road - Crash Analysis
Crash Dates: January 1, 2014 to July 30, 2019

Total Comparison

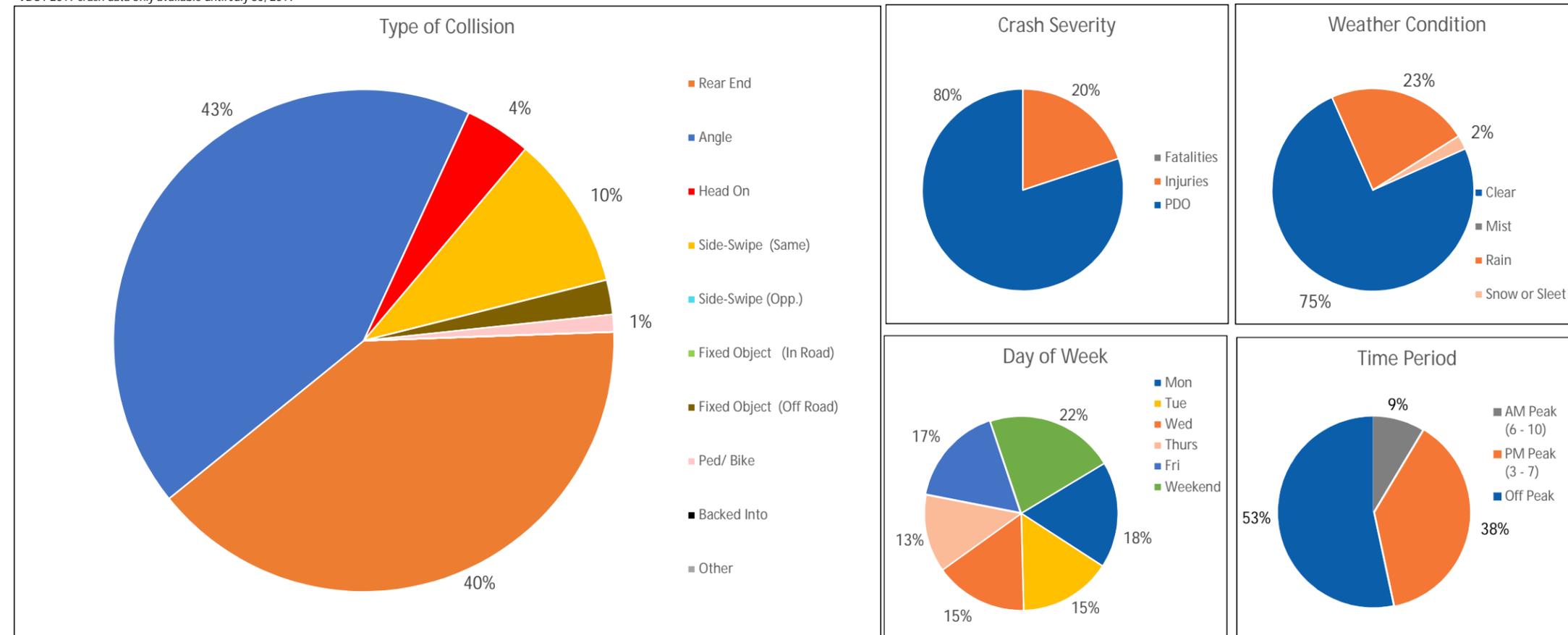
YEAR	SEVERITY			WEEKDAY					WEEKEND	TIME PERIOD			WEATHER CONDITION				TYPE OF COLLISION										TOTAL
	Fatalities	Injuries	PDO	Mon	Tue	Wed	Thurs	Fri	Weekend	AM Peak (6 - 10)	PM Peak (3 - 7)	Off Peak	Clear	Fog	Rain or Mist	Snow or Sleet	Rear End	Angle	Head On	Side-swipe (Same)	Side-swipe (Opp.)	Fixed Object (In Road)	Fixed Object (Off Road)	Ped/ Bike	Backed Into	Other	
2014	0	21	71	19	17	11	8	14	23	9	33	50	67	1	18	6	29	42	7	9	1	1	3	0	0	0	92
2015	0	33	81	18	15	23	17	19	22	13	41	60	82	0	30	2	41	50	6	11	1	1	3	1	0	0	114
2016	0	23	85	17	18	20	11	19	23	6	42	60	84	0	24	0	49	43	3	13	0	0	0	0	0	0	108
2017	0	24	112	22	20	16	18	30	30	12	52	72	104	0	31	1	58	53	5	14	1	0	2	1	1	1	136
2018	0	13	96	26	13	14	18	16	22	8	43	58	77	0	30	2	42	48	2	7	0	0	6	3	0	1	109
2019*	0	11	56	9	14	13	9	7	15	6	27	34	55	0	9	3	27	28	4	4	1	0	0	2	0	1	67
TOTAL	0	125	501	111	97	97	81	105	135	54	238	334	469	1	142	14	246	264	27	58	4	2	14	7	1	3	626

*VDOT 2019 crash data only available until July 30, 2019

Percentage Comparison

YEAR	SEVERITY			WEEKDAY					WEEKEND	TIME PERIOD			WEATHER CONDITION				TYPE OF COLLISION										TOTAL
	Fatalities	Injuries	PDO	Mon	Tue	Wed	Thurs	Fri	Weekend	AM Peak (6 - 10)	PM Peak (3 - 7)	Off Peak	Clear	Mist	Rain	Snow or Sleet	Rear End	Angle	Head On	Side-Swipe (Same)	Side-Swipe (Opp.)	Fixed Object (In Road)	Fixed Object (Off Road)	Ped/ Bike	Backed Into	Other	
2014	0%	23%	77%	21%	18%	12%	9%	15%	25%	10%	36%	54%	73%	1%	20%	7%	32%	46%	8%	10%	1%	1%	3%	0%	0%	0%	15%
2015	0%	29%	71%	16%	13%	20%	15%	17%	19%	11%	36%	53%	72%	0%	26%	2%	36%	44%	5%	10%	<1%	<1%	3%	<1%	0%	0%	18%
2016	0%	21%	79%	16%	17%	19%	10%	18%	21%	6%	39%	56%	78%	0%	22%	0%	45%	40%	3%	12%	0%	0%	0%	0%	0%	0%	17%
2017	0%	18%	82%	16%	15%	12%	13%	22%	22%	9%	38%	53%	76%	0%	23%	<1%	43%	39%	4%	10%	<1%	0%	1%	<1%	<1%	<1%	22%
2018	0%	12%	88%	24%	12%	13%	17%	15%	20%	7%	39%	53%	71%	0%	28%	2%	39%	44%	2%	6%	0%	0%	6%	3%	0%	<1%	17%
2019*	0%	16%	84%	13%	21%	19%	13%	10%	22%	9%	40%	51%	82%	0%	13%	4%	40%	42%	6%	6%	1%	0%	0%	3%	0%	1%	11%
TOTAL	0%	20%	80%	18%	15%	15%	13%	17%	22%	9%	38%	53%	75%	<1%	23%	2%	40%	43%	4%	10%	<1%	<1%	2%	1%	<1%	<1%	100%

*VDOT 2019 crash data only available until July 30, 2019



TRAFFIC VOLUME GROWTH RATES

Segment	2017 AAWDT VDOT Count	2015 Model ADT	2040 Model ADT	2015-2040 Model Annualized Growth Rate
Pleasant Valley Rd (Cork St to Millwood Ave)	24,000	26,200	37,100	1.7%
Pleasant Valley Rd (Millwood Ave to Jubal Early Dr)	27,000	21,800	29,400	1.4%
Pleasant Valley Rd (Jubal Early Dr to Papermill Rd)	23,000	19,400	24,700	1.1%
Tevis St* (@ Pleasant Valley Rd)	No data	12,300	15,700	1.1%
Tevis St (Extension East of Pleasant Valley Rd)	-	-	25,200	-
Jubal Early Dr (Loudoun St to Millwood Ave)	23,000	25,700	31,800	0.9%
Millwood Ave (Cameron St to University Dr)	13,000	22,200	24,300	0.4%

Data provided by VDOT District Office, from the latest Win-Fred Region travel demand model output.

Recommend 1% Annual Growth Rate for Developing 2035 Traffic Volume

NEXT STEPS AND MAJOR MILESTONES

- **December** – 2019 Existing Conditions Analysis
 - Study Work Group Meeting
 - Technical Review
- **December/January** – No-Build Analysis/Concept Development and Screening
 - Study Work Group Meeting
 - Technical Review
- **February** – Build Analysis
 - Study Work Group Meeting
 - Technical Review
- **February/March** – Cost Estimates, Schedules, Reporting
 - Study Work Group Meeting
 - Public Engagement

SMART SCALE portal opens March 1st

STARS

STRATEGICALLY TARGETED AND
AFFORDABLE ROADWAY SOLUTIONS

PLEASANT VALLEY ROAD CORRIDOR IMPROVEMENT STUDY

Thank you.

