

Village Highway Rt 24/US 501

CORRIDOR IMPROVEMENT
STUDY

VILLAGE OF RUSTBURG

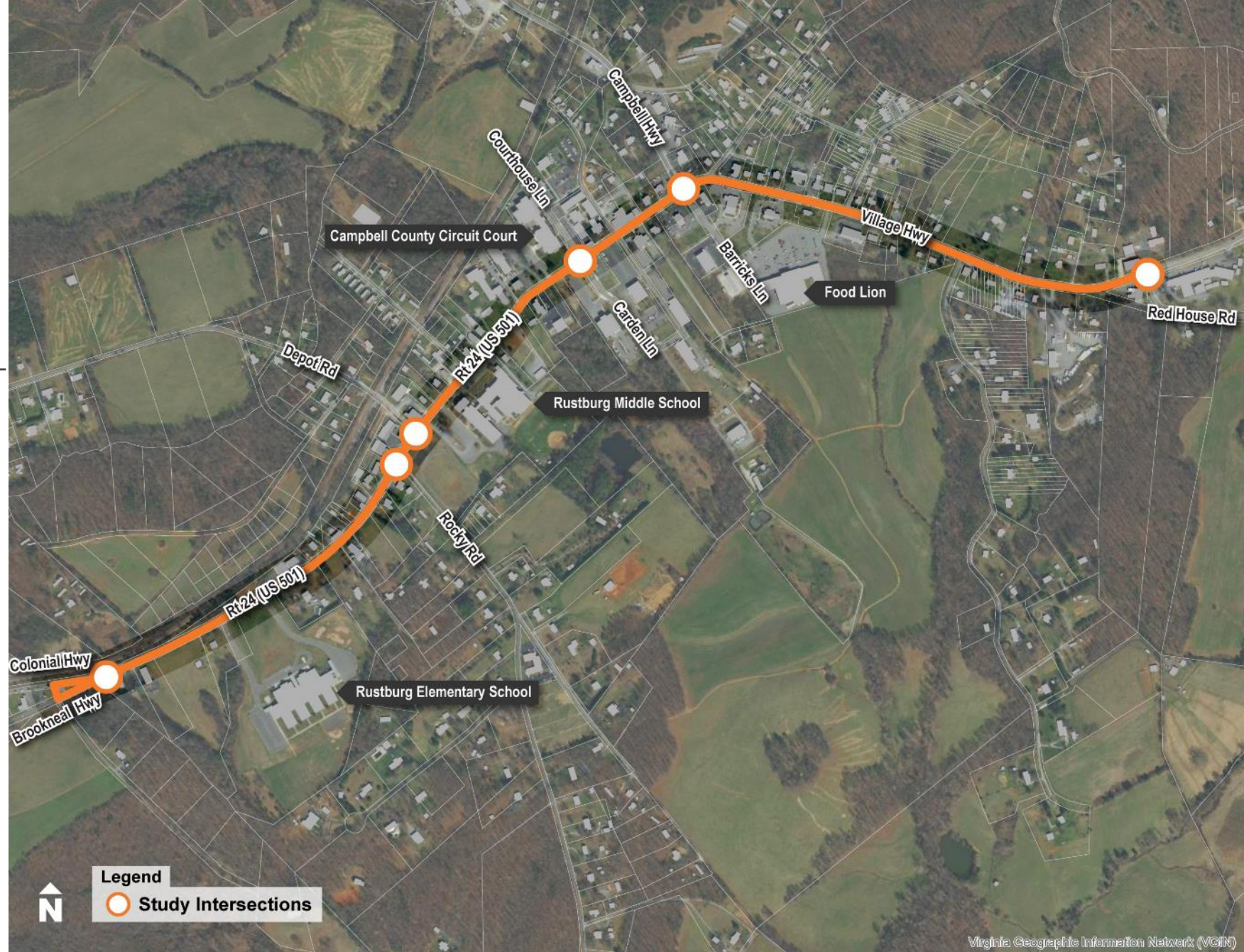
EXISTING CONDITIONS



Study Area

6 main intersections

2 schools



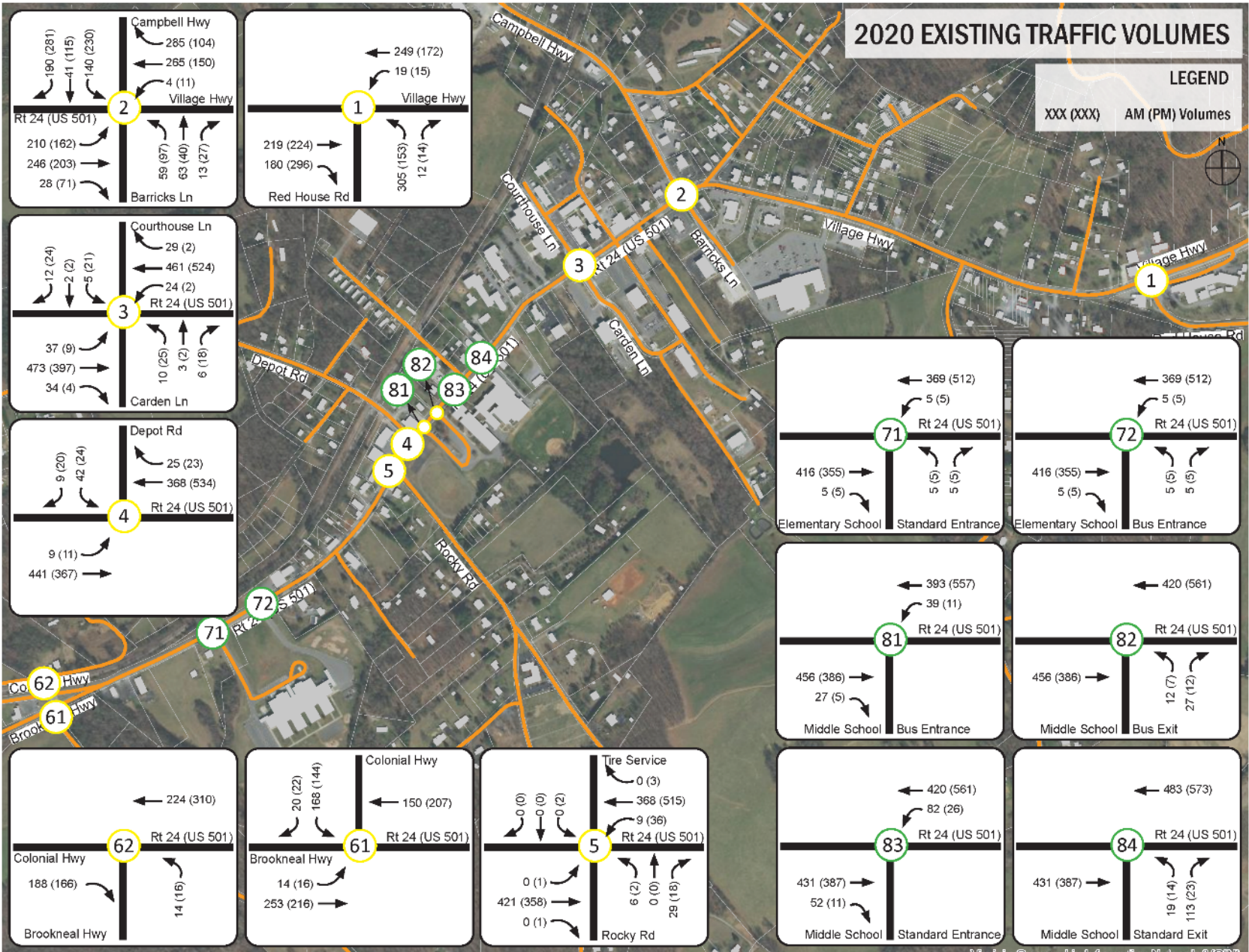
Travel Patterns

Daily Traffic Volumes



Travel Patterns

Peak Hour Traffic Volumes



Congestion in the Corridor

Levels of Service

Side streets experience delay (LOS E) at Campbell Highway and Carden Lane



Congestion in the Corridor

Queues at Unsignalized Intersections

All within storage areas provided

Intersection	Approach	Movement	Storage	Taper	Effective Storage	AM			PM		
						LOS	Delay	Queue	LOS	Delay	Queue
Rocky Road	Rt. 24	EBL/T/R**	-	-	-	A	0.0	0	A	8.5	3
	Rt. 24	WBL	35	80	75	A	8.4	31	A	8.1	37
		WBT/R*	180	0	180	A	0.0	0	A	0.0	0
	Rocky Road	NBL/T/R	-	-	-	B	13.7	37	B	11.8	30
Depot Road	Tire Service	SBL/T/R*	80	0	80	A	0.0	0	C	22.7	25
		EBL	35	80	75	A	8.2	31	A	8.6	34
	Rt. 24	EBT*	180	0	180	A	0.0	5	A	0.0	0
		WBT/R*	55	0	55	A	0.0	0	A	0.0	5
Bus Entrance	Depot Road	SBL/R	-	-	-	B	14.5	56	B	14.0	56
	Rt. 24	EBT/R*	55	0	55	A	0.0	34	A	0.0	9
	Rt. 24	WBL*	100	0	100	A	9.4	76	A	8.2	31
		WBT*	100	0	100	A	0.0	13	A	0.0	0
Bus Exit	Rt. 24	EBT*	100	0	100	A	0.0	16	A	0.0	0
	Rt. 24	WBT*	160	0	160	A	0.0	7	A	0.0	0
	Bus Exit	NBL/R	-	-	-	C	17.4	112	B	12.2	46
Auto Entrance	Rt. 24	EBT/R*	160	0	160	A	0.0	13	A	0.0	0
	Rt. 24	WBL*	220	0	220	A	9.2	63	A	8.2	31
		WBT*	220	0	220	A	0.0	0	A	0.0	0
Auto Exit	Rt. 24	EBT*	220	0	220	A	0.0	0	A	0.0	0
	Rt. 24	WBT	-	-	-	A	0.0	0	A	0.0	0
	Auto Exit	NBL/R	-	-	-	C	16.4	106	B	12.6	54

* Distance between intersections

** Left turn LOS and delay reported

Congestion in the Corridor

Queues at Signalized Intersections

Queues exceed storage at:

Carden Lane EB and WB left turn lanes and SB right turn lane

Campbell Hwy EB and WB left turn lanes and SB right turn lane

Westbound through queue at Campbell Hwy lengthy, 700 feet

Intersection	Approach	Movement	Storage	Taper	Effective Storage	AM			PM		
						LOS	Delay	Queue	LOS	Delay	Queue
Colonial Hwy/Brookneal Hwy South	Rt. 24	EBL	300	100	350	C	24.8	70	C	26.2	98
		EBT				A	8.5	171	A	7.5	160
	Rt. 24	WBT	180	0	180	B	16.0	144	B	15.4	163
	Colonial Hwy	SBL/SBR	75	0	75	B	16.9	62	B	17.1	58
	Intersection					B	13.3		B	13.3	
Colonial Hwy/Brookneal Hwy North	Colonial Hwy	EBR	-	-	-	B	15.1	188	B	15.7	135
	Rt. 24	WBT	200	0	200	A	4.2	95	A	4.5	145
	Brookneal Hwy	NBL	75	0	75	A	3.0	2	A	3.9	8
	Intersection					A	9.0		A	8.3	
Carden Lane	Rt. 24	EBL	60	100	110	A	4.3	74	A	7.7	46
		EBT/R	-	-	-	A	9.2	188	B	10.3	183
	Rt. 24	WBL	40	50	65	A	4.7	51	A	7.2	18
		WBT/R	-	-	-	A	9.8	197	B	12.1	259
	Carden Lane	NBL/T	-	-	-	E	58.8	56	C	32.2	53
		NBR	85	110	140	E	55.8	31	C	30.5	36
	Courthouse Lane	SBL/T	-	-	-	E	57.0	37	C	30.0	59
		SBR	40	60	70	E	55.8	47	C	28.7	62
	Intersection		-	-	-	B	10.8		B	13.0	
Campbell Hwy	Rt. 24	EBL	150	200	250	C	22.7	243	C	23.0	222
		EBT/R	-	-	-	B	17.3	349	C	29.1	277
	Rt. 24	WBL	100	80	140	B	19.6	66	C	31.7	112
		WBT/R	-	-	-	D	38.4	703	D	41.3	304
	Barricks Lane	NBL/T	-	-	-	E	79.3	221	D	51.3	197
		NBR	150	100	200	D	52.7	85	D	44.2	80
	Campbell Hwy	SBL/T	-	-	-	E	67.9	332	D	46.9	375
		SBR	160	360	340	A	0.2	207	A	0.3	270
	Intersection					C	34.6		C	31.5	
Red House Road	Rt. 24	EBT/R				B	19.8	307	B	15.3	244
	Rt. 24	WBL	200	130	265	A	9.7	40	A	7.9	44
		WBT/R				B	10.1	172	A	6.3	111
	Red House Road	NBL/NBR				C	20.8	224	C	23.2	136
	Intersection					B	17.5		B	14.9	

* Distance between intersections

** Left turn LOS and delay reported



Safety in the corridor

Crashmap
Segment 1



Crashmap
Segment 2



Vehicle Crashes

Crash Heatmap
Segment 1



Crash Heatmap
Segment 2



Vehicle Crashes

Intersection and Segment Crash Rates

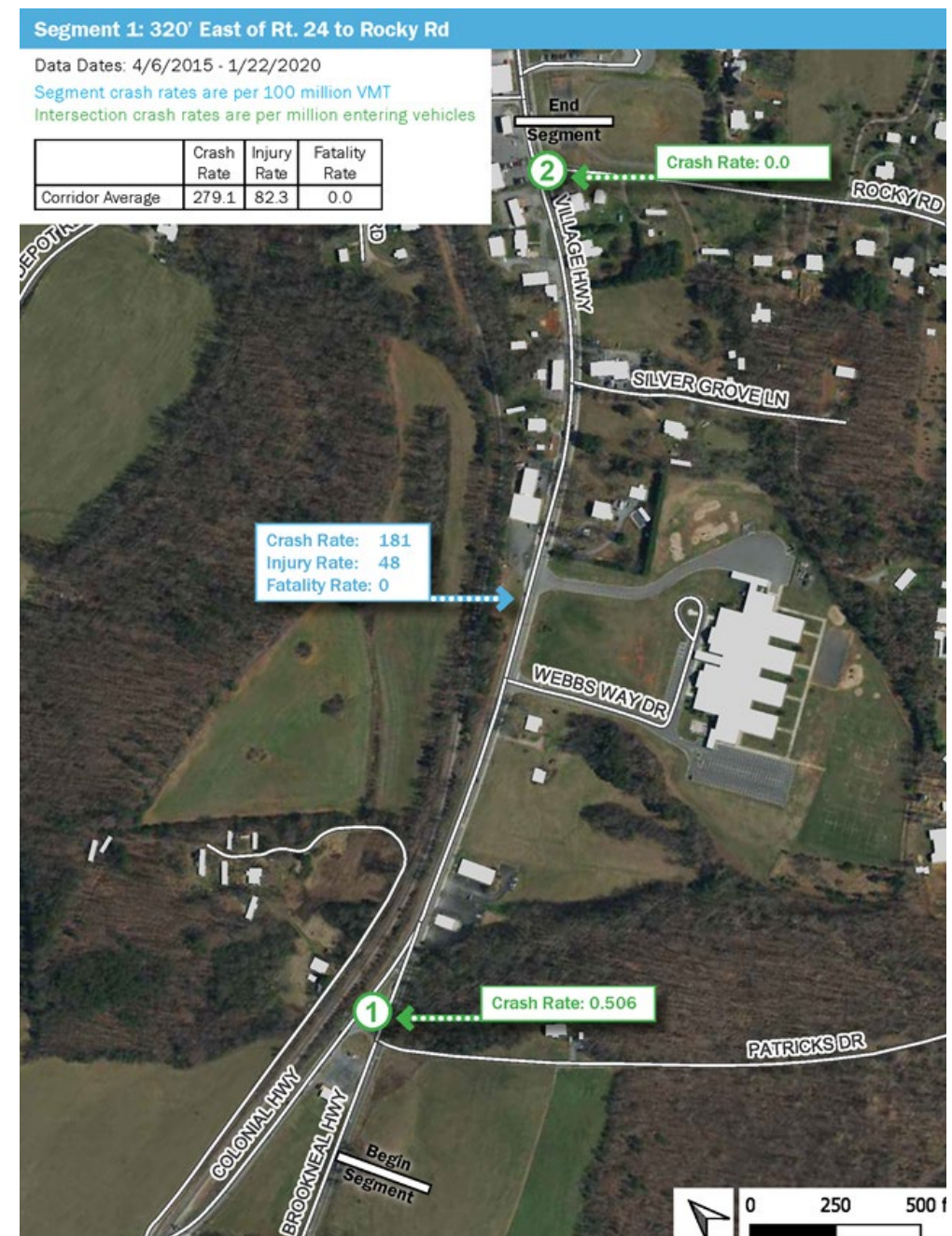
Intersections

Brookneal Hwy 2nd highest crash rate 0.506

Rocky Road lowest crash rate 0.000

Segment 1

Lowest crash rate



Intersection and Segment Crash Rates

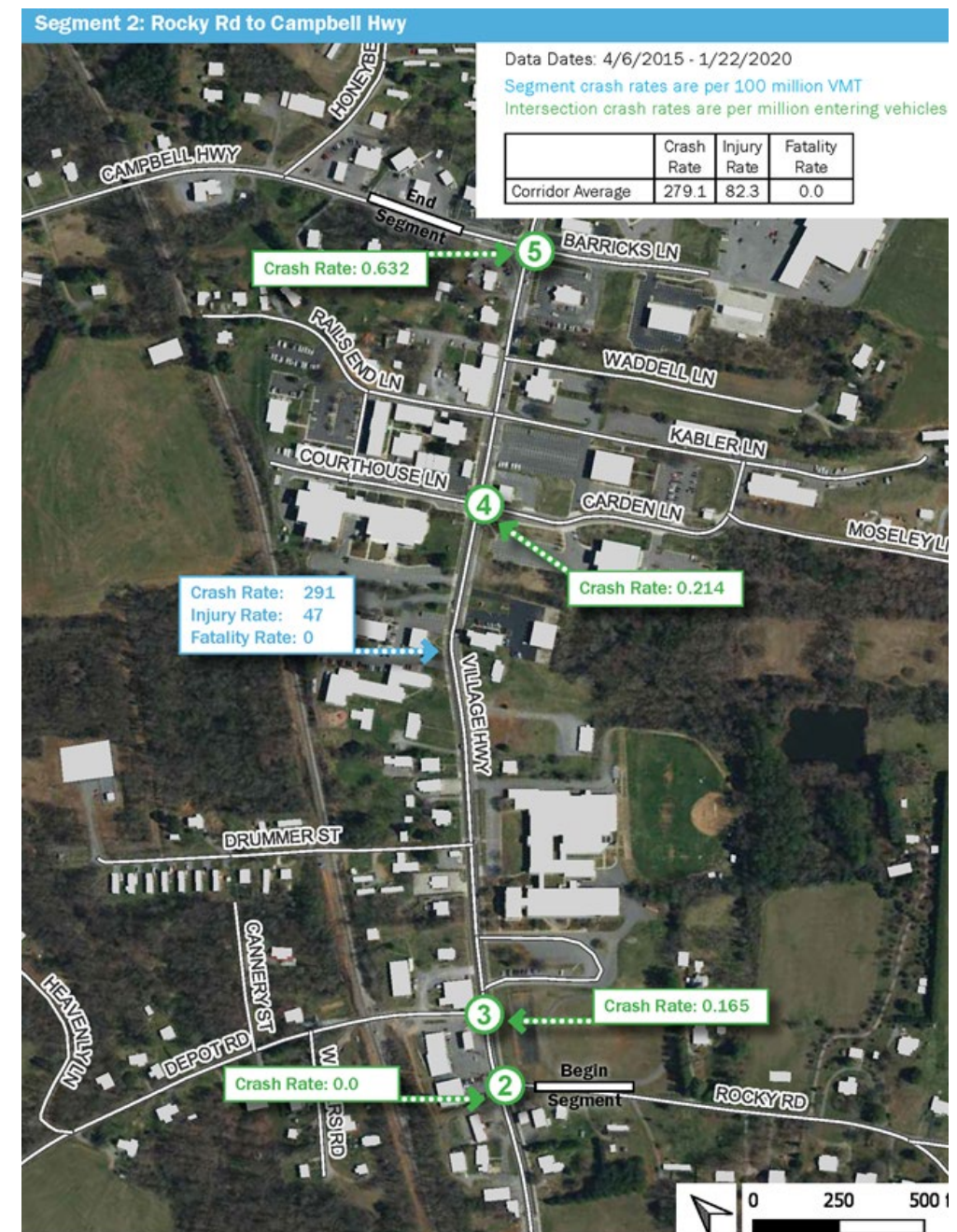
Intersections

Carden Lane 3rd highest crash rate 0.214

Depot Road 4th highest crash rate 0.0000.165

Segment 2

Middle crash rate



Intersection and Segment Crash Rates

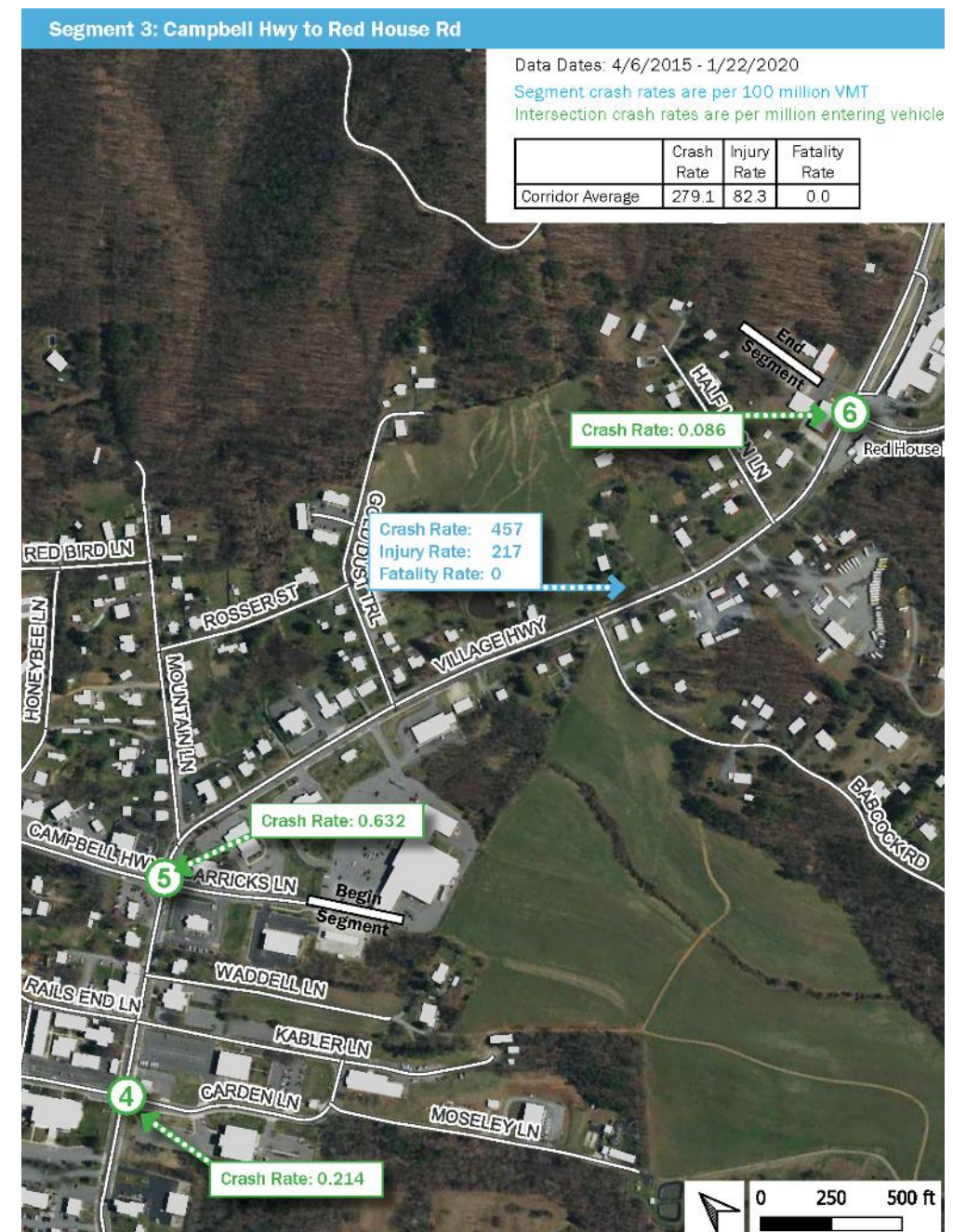
Intersections

Campbell Hwy highest crash rate 0.632

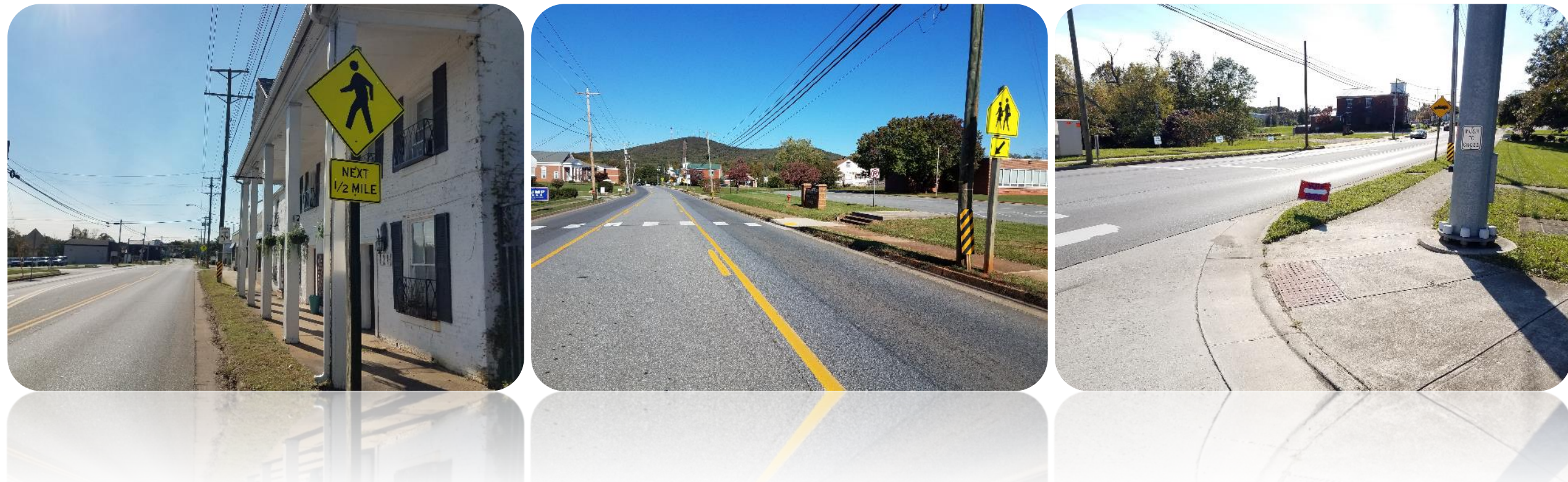
Red House Road second lowest (5th of 6) crash rate 0.086

Segment 3

Highest crash and injury rate



Pedestrian Safety



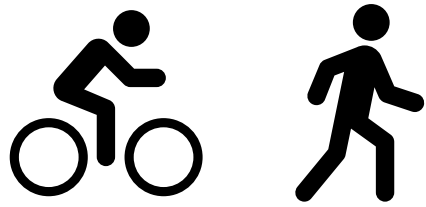
Pedestrian Safety- Street Crossings





Sidewalk Conditions

Multimodal Conditions



WikiMedia/Natur243



Village Highway Rt 24/US 501

CORRIDOR IMPROVEMENT
STUDY

VILLAGE OF RUSTBURG

FUTURE CONDITIONS



2045 Peak Hour Traffic Volumes

Rustburg Middle School Replacement Project



2045 Congestion in the Corridor

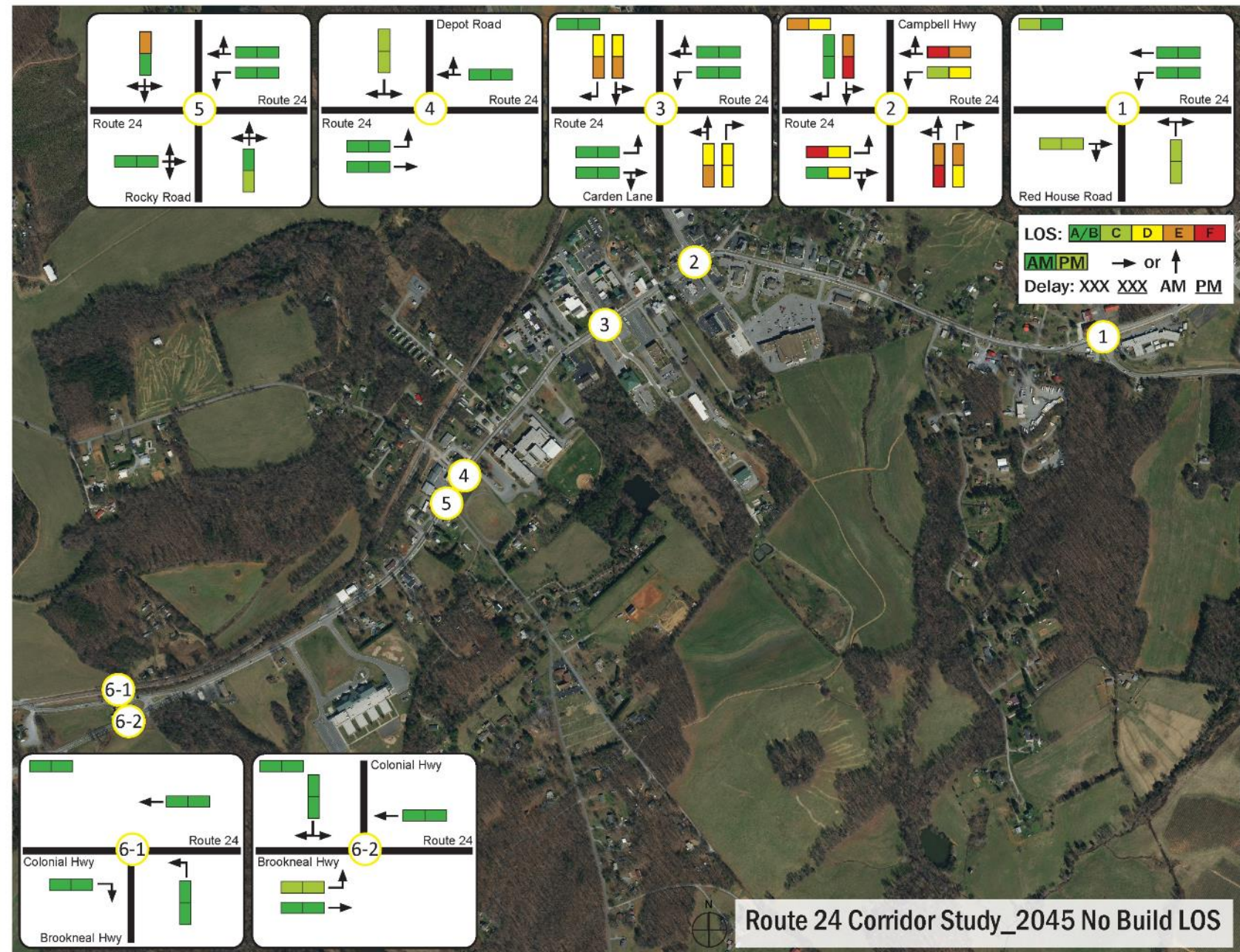
Levels of Service

Side streets experience
delay (LOS E or F) at:

Campbell Highway

Carden Lane

Rocky Road



2045 Congestion in the Corridor

Levels of Service

Side streets experience
delay (LOS E) Rustburg
Middle School

