

A

Traffic Volume Datasets – All Intersections in Model

- | | | | |
|------------|---|-------------|---|
| A.1 | Existing Conditions 2023 Volumes | A.9 | Build Scenario 3 (Metro Center) 2045 Volumes |
| A.2 | No Build 2045 Volumes | A.10 | Build Scenario 3 (Metro Center) New Site Trips |
| A.3 | Build Scenario 1 (Neighborhood Clusters) 2045 Volumes | A.11 | Build Scenario 3 (Metro Center) Site Pass-by Trips |
| A.4 | Build Scenario 1 (Neighborhood Clusters) New Site Trips | A.12 | Preferred Build Scenario 2045 Volumes |
| A.5 | Build Scenario 1 (Neighborhood Clusters) Site Pass-by Trips | A.13 | Preferred Build Scenario New Site Trips |
| A.6 | Build Scenario 2 (Two Centers) 2045 Volumes | A.14 | Preferred Build Scenario Site Pass-by Trips |
| A.7 | Build Scenario 2 (Two Centers) New Site Trips | A.15 | Preferred Build with Mitigation Scenario 2045 Volumes |
| A.8 | Build Scenario 2 (Two Centers) Site Pass-by Trips | A.16 | Preferred Build with Mitigation Scenario New Site Trips |
| | | A.17 | Preferred Build with Mitigation Scenario Site Pass-by Trips |

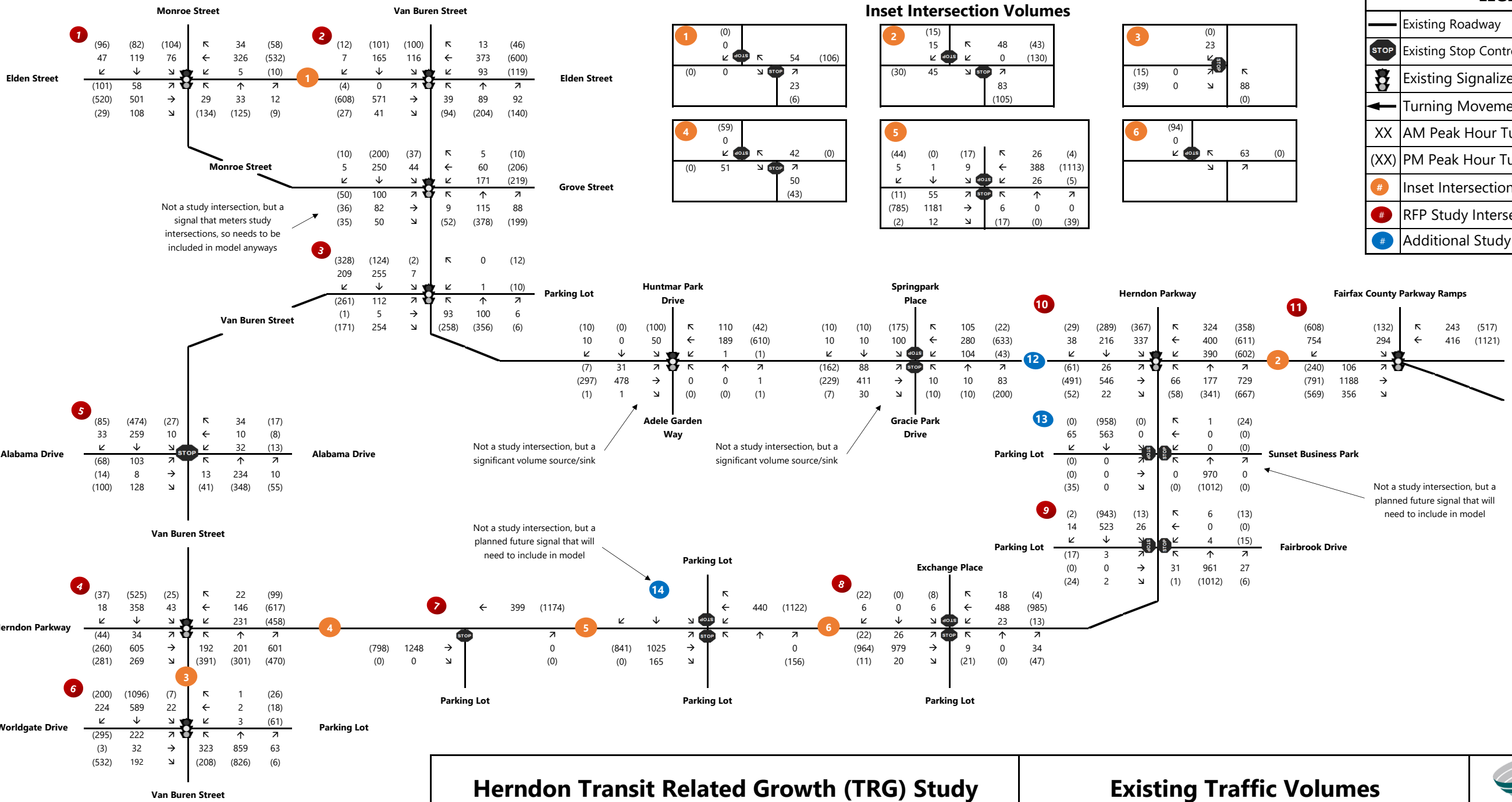


B

VISSIM Model Complete Intersection Metrics

- | | | | |
|------------|--|-------------|--|
| B.1 | Existing Conditions AM Peak Hour | B.10 | Build 2045 Scenario Three (Metro Center) PM Peak Hour |
| B.2 | Existing Conditions PM Peak Hour | B.11 | Preferred Build 2045 Scenario AM Peak Hour |
| B.3 | No Build 2045 AM Peak Hour | B.12 | Preferred Build 2045 Scenario PM Peak Hour |
| B.4 | No Build 2045 PM Peak Hour | B.13 | Preferred Build with Mitigation 2045 Scenario AM Peak Hour |
| B.5 | Build 2045 Scenario One (Neighborhood Clusters) AM Peak Hour | B.14 | Preferred Build with Mitigation 2045 Scenario PM Peak Hour |
| B.6 | Build 2045 Scenario One (Neighborhood Clusters) PM Peak Hour | | |
| B.7 | Build 2045 Scenario Two (Two Centers) AM Peak Hour | | |
| B.8 | Build 2045 Scenario Two (Two Centers) PM Peak Hour | | |
| B.9 | Build 2045 Scenario Three (Metro Center) AM Peak Hour | | |

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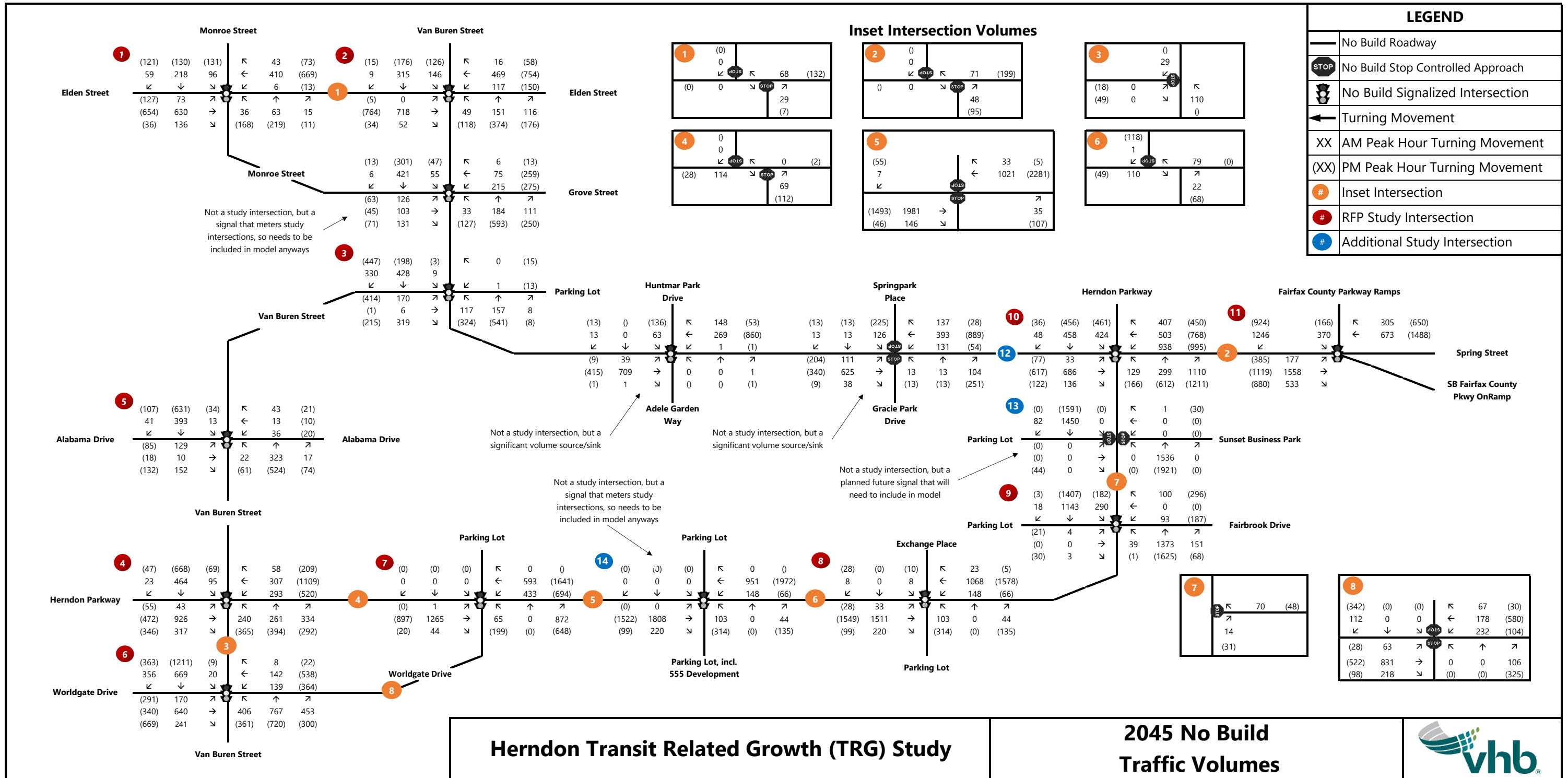


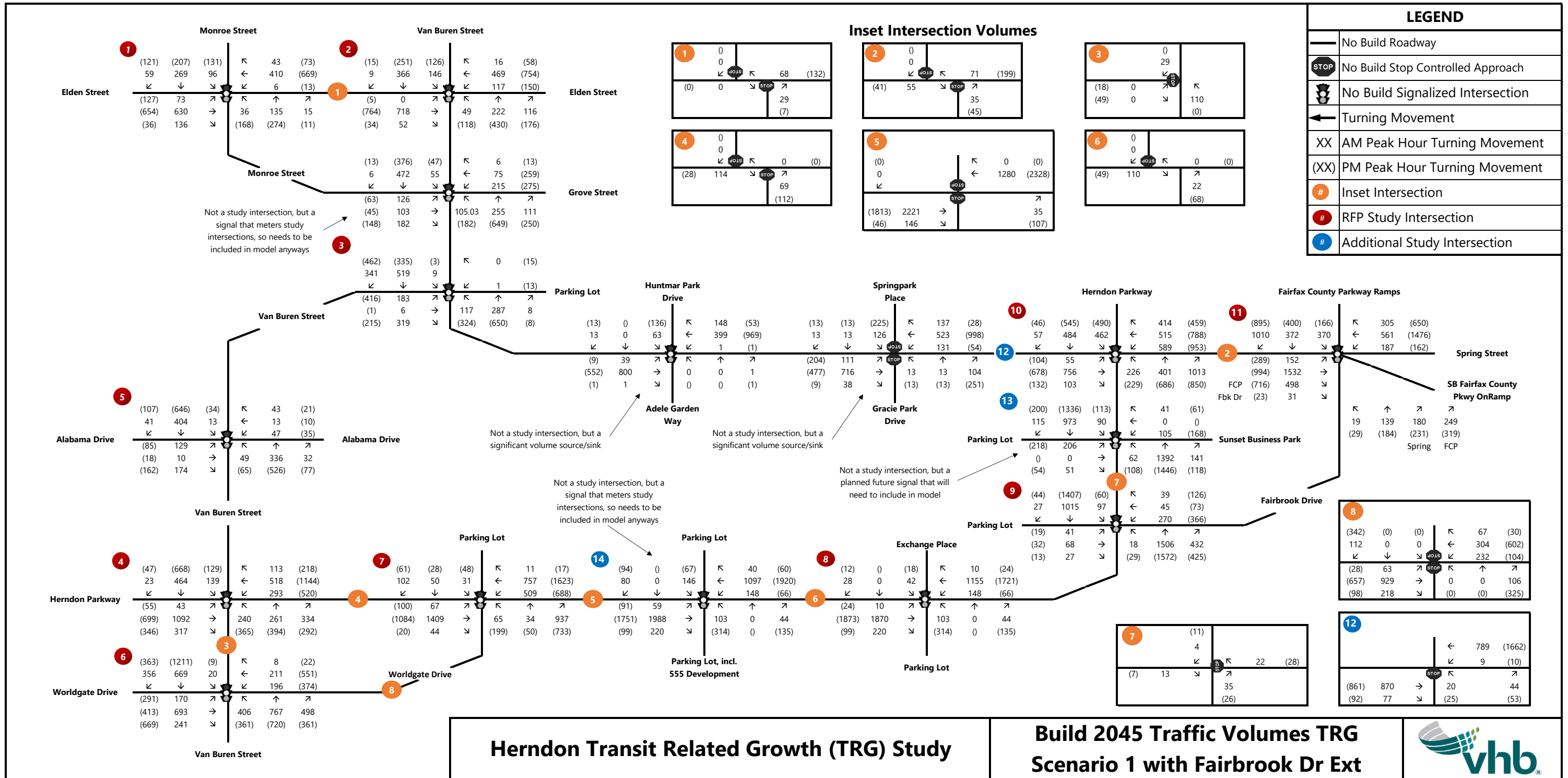
LEGEND	
	Existing Roadway
	Existing Stop Controlled Approach
	Existing Signalized Intersection
	Turning Movement
XX	AM Peak Hour Turning Movement
(XX)	PM Peak Hour Turning Movement
#	Inset Intersection
#	RFP Study Intersection
#	Additional Study Intersection

Herndon Transit Related Growth (TRG) Study

Existing Traffic Volumes





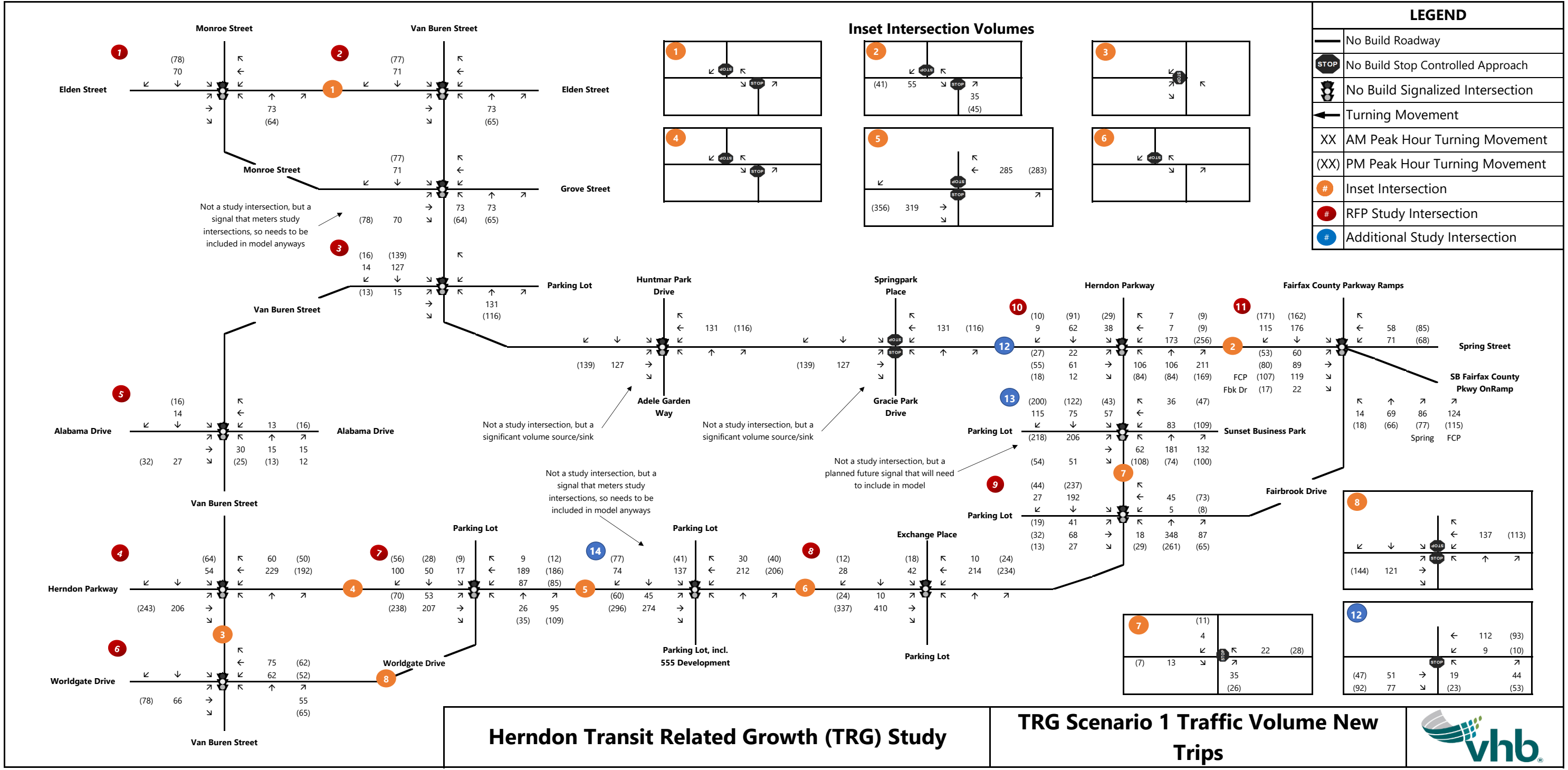


LEGEND	
	No Build Roadway
	No Build Stop Controlled Approach
	No Build Signalized Intersection
	Turning Movement
	AM Peak Hour Turning Movement
	PM Peak Hour Turning Movement
	Inset Intersection
	RFP Study Intersection
	Additional Study Intersection

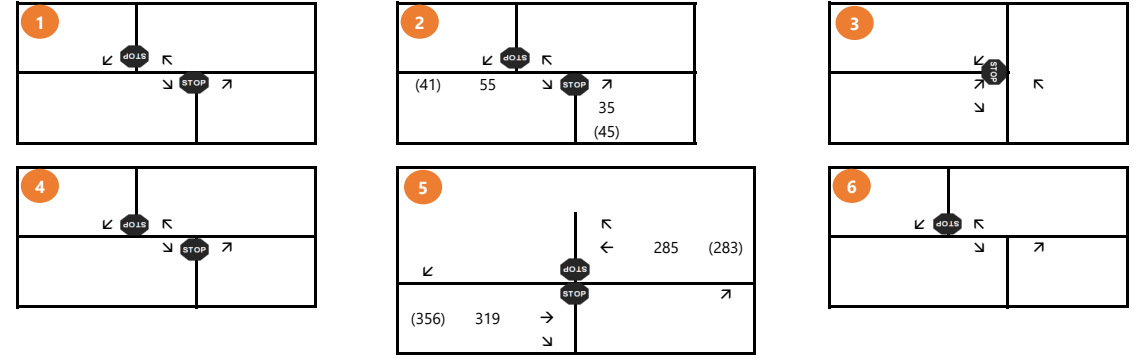
Herndon Transit Related Growth (TRG) Study

Build 2045 Traffic Volumes TRG Scenario 1 with Fairbrook Dr Ext





Inset Intersection Volumes

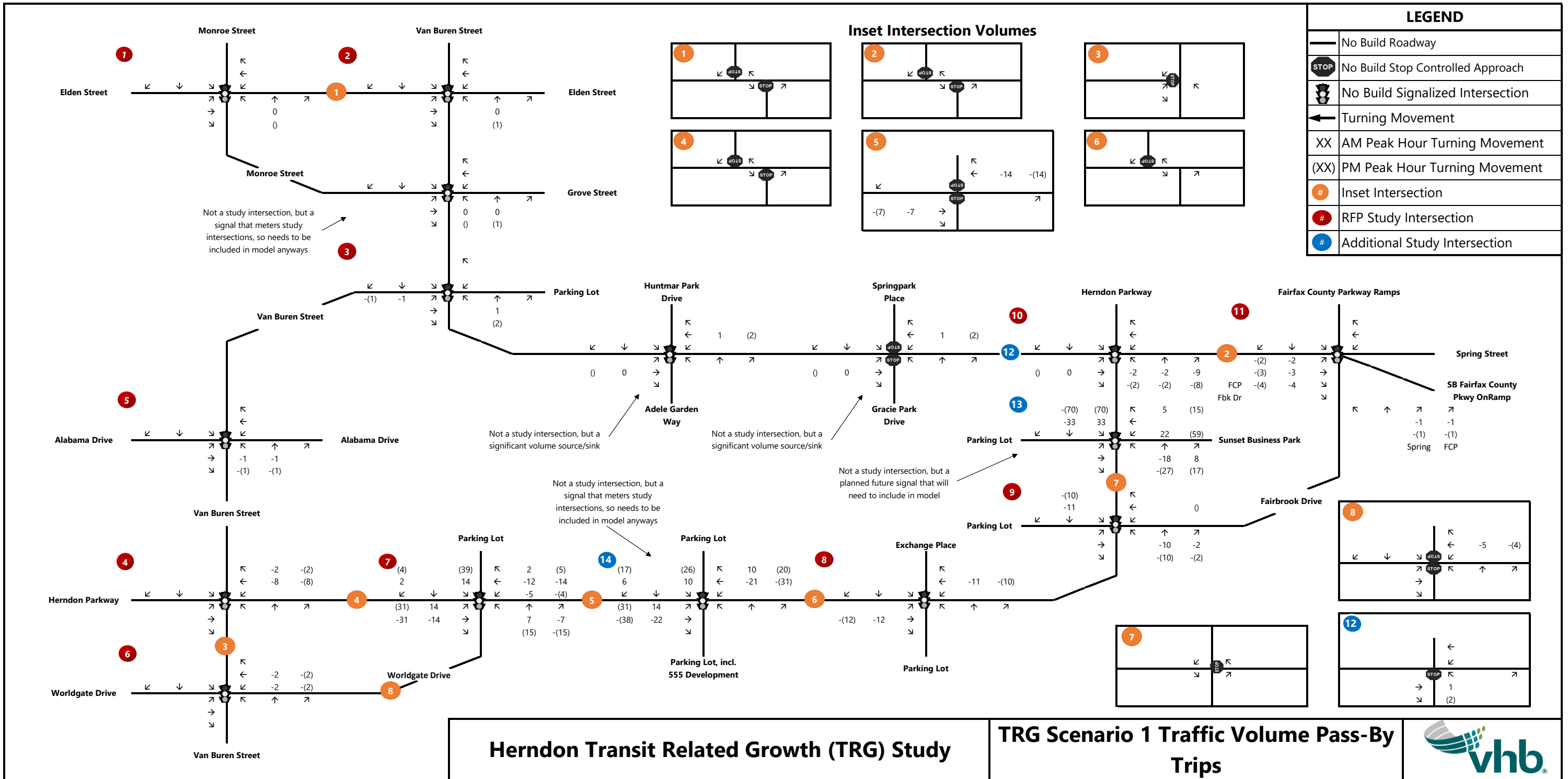


LEGEND	
	No Build Roadway
	No Build Stop Controlled Approach
	No Build Signalized Intersection
	Turning Movement
	AM Peak Hour Turning Movement
	PM Peak Hour Turning Movement
	Inset Intersection
	RFP Study Intersection
	Additional Study Intersection

Herndon Transit Related Growth (TRG) Study

TRG Scenario 1 Traffic Volume New Trips

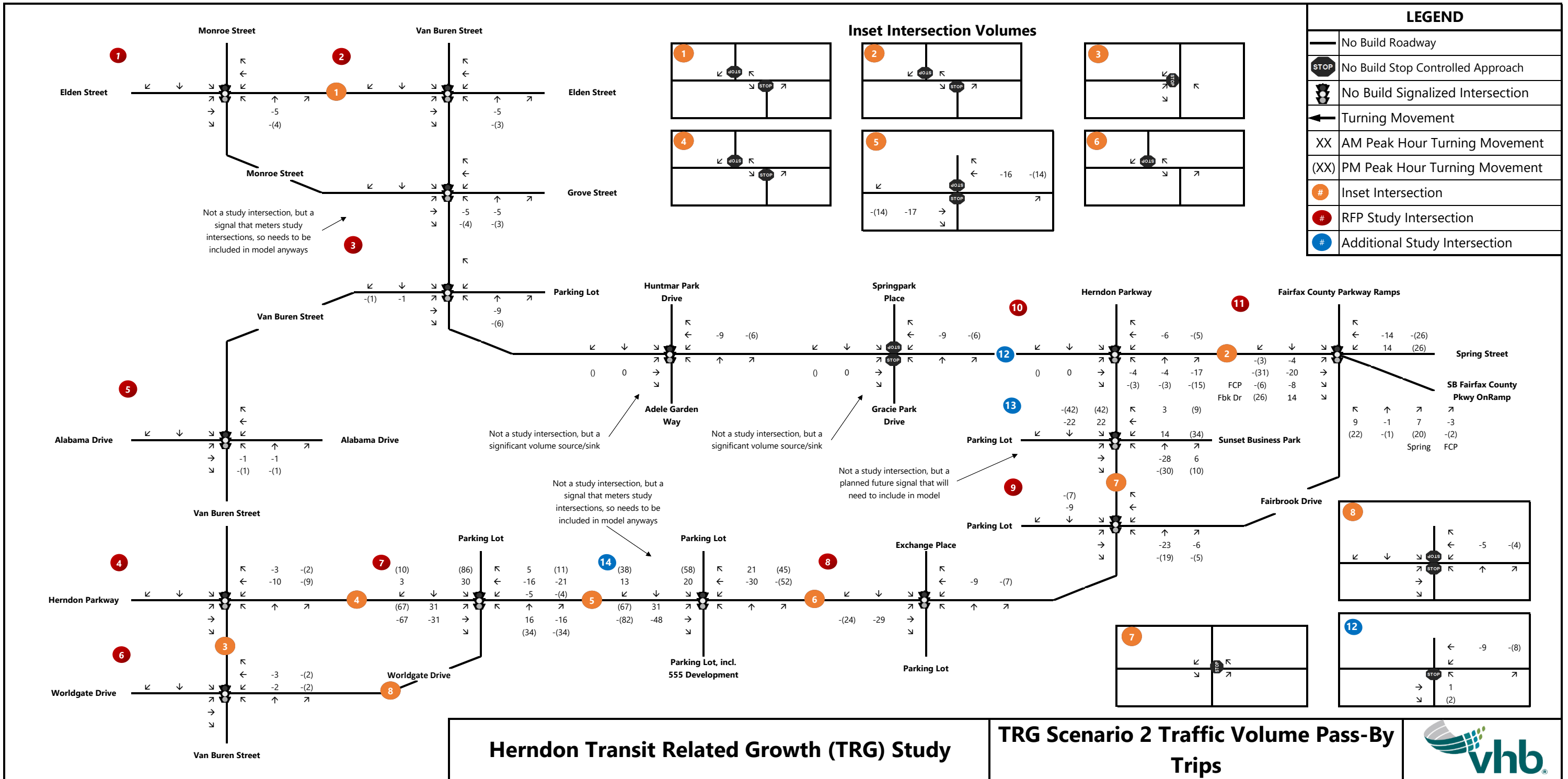




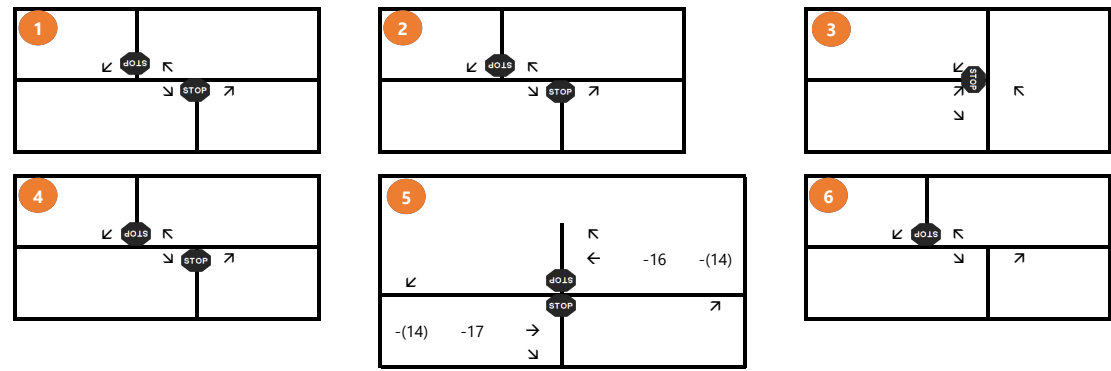
Herndon Transit Related Growth (TRG) Study

TRG Scenario 1 Traffic Volume Pass-By Trips





Inset Intersection Volumes

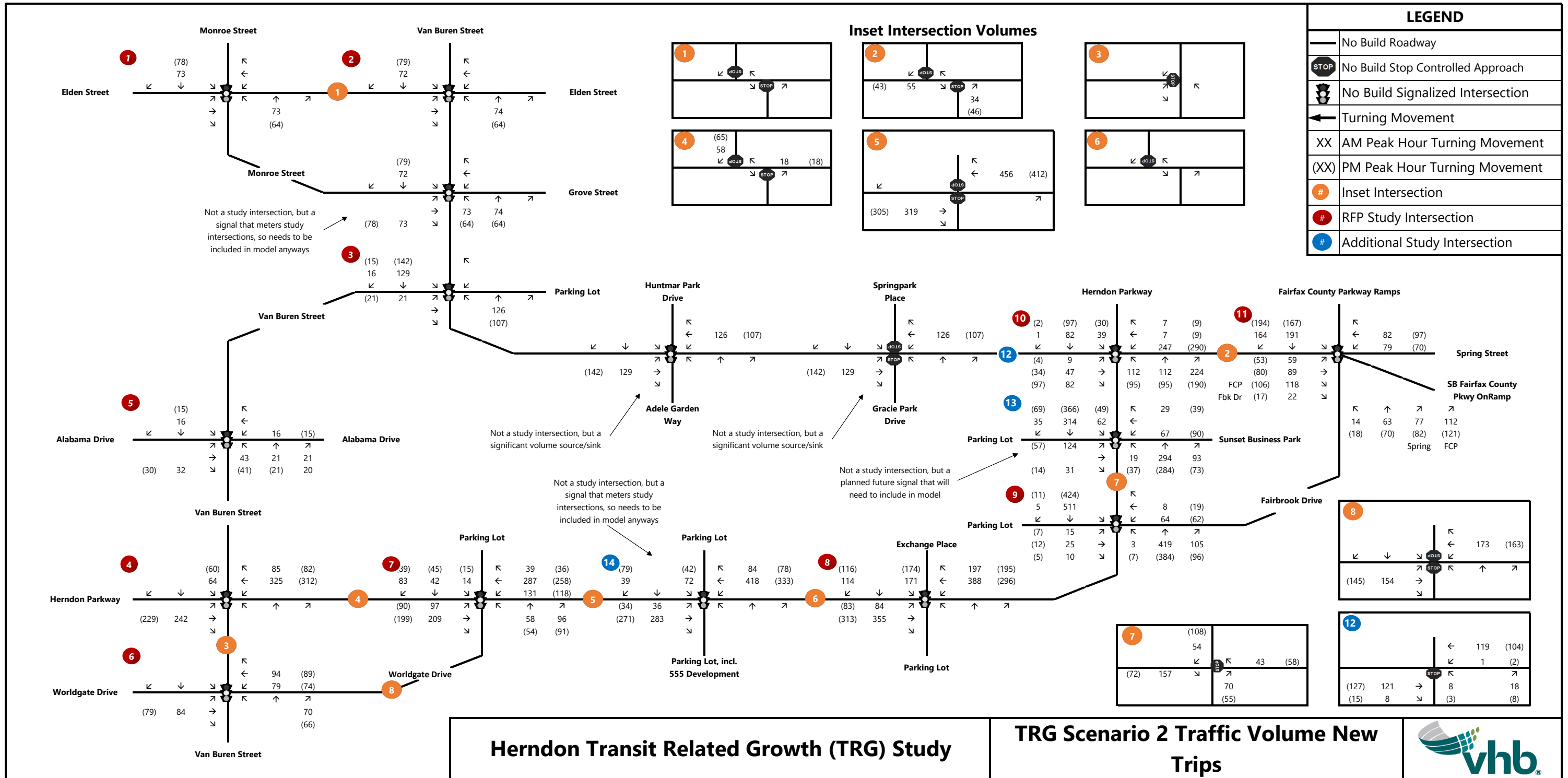


LEGEND	
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	No Build Stop Controlled Approach
	No Build Signalized Intersection
	Turning Movement
	AM Peak Hour Turning Movement
	PM Peak Hour Turning Movement
	Inset Intersection
	RFP Study Intersection
	Additional Study Intersection

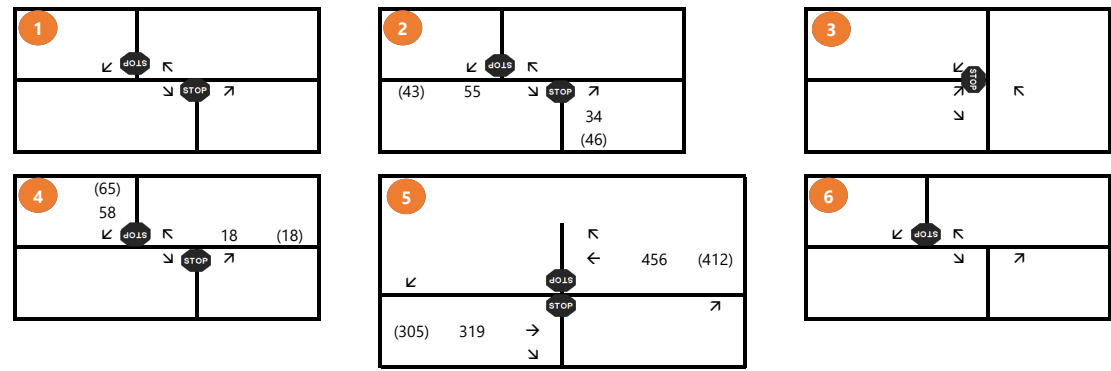
Herndon Transit Related Growth (TRG) Study

TRG Scenario 2 Traffic Volume Pass-By Trips





Inset Intersection Volumes

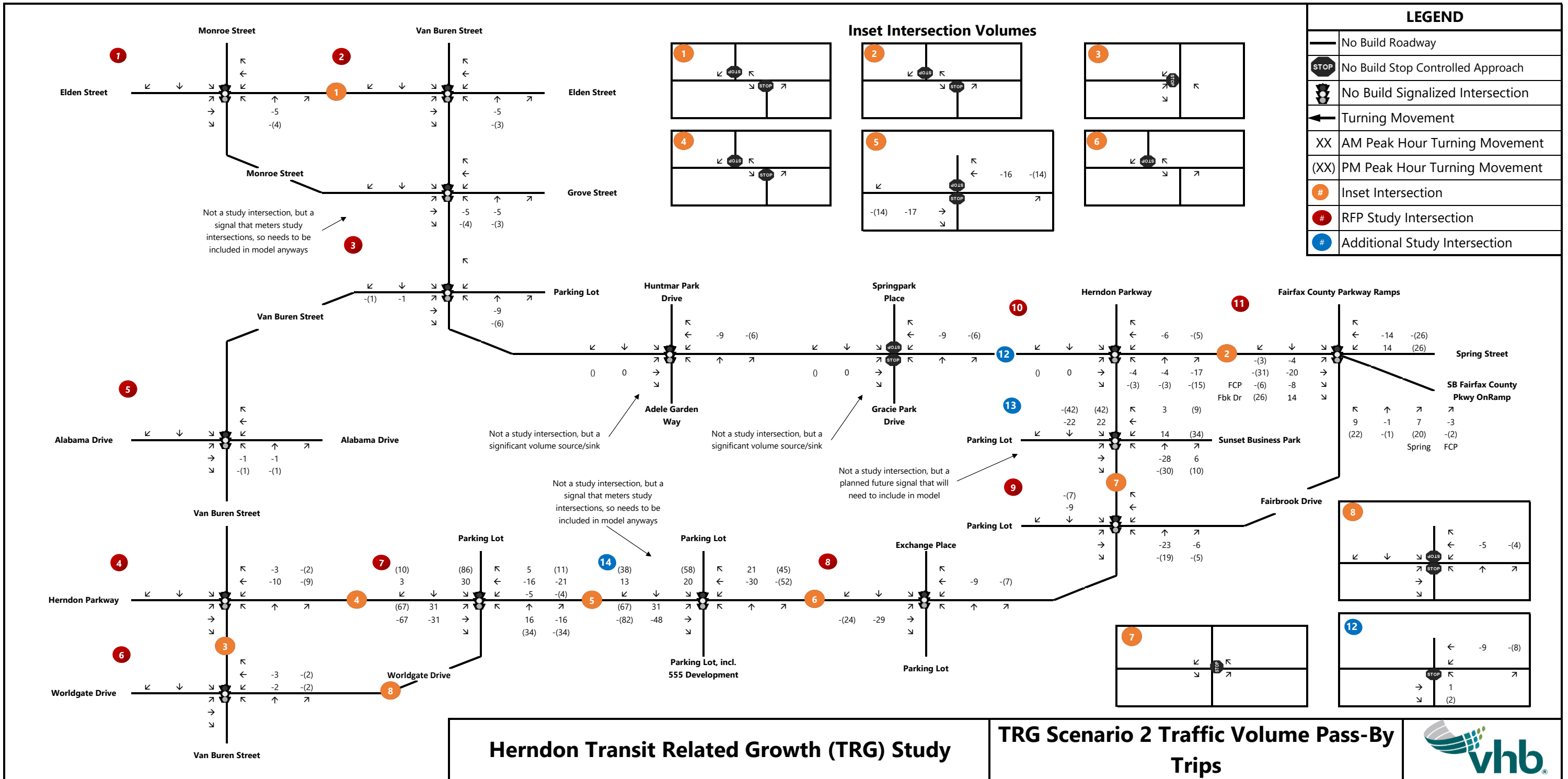


LEGEND	
	No Build Roadway
	No Build Stop Controlled Approach
	No Build Signalized Intersection
	Turning Movement
	AM Peak Hour Turning Movement
	PM Peak Hour Turning Movement
	Inset Intersection
	RFP Study Intersection
	Additional Study Intersection

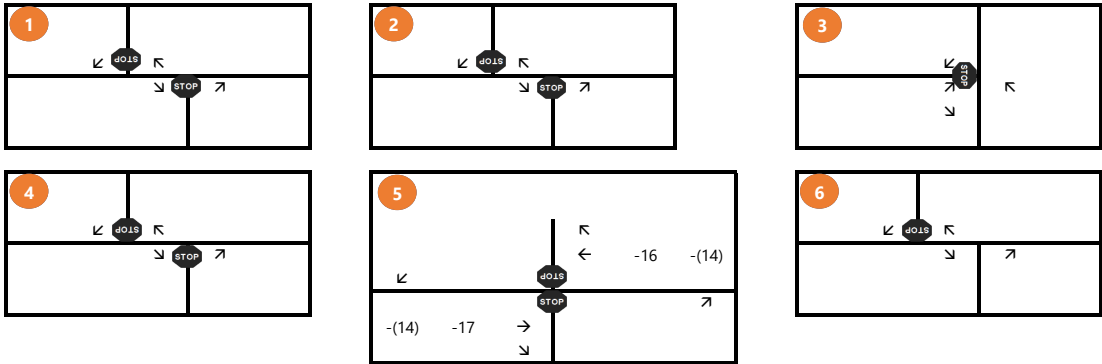
Herndon Transit Related Growth (TRG) Study

TRG Scenario 2 Traffic Volume New Trips





Inset Intersection Volumes

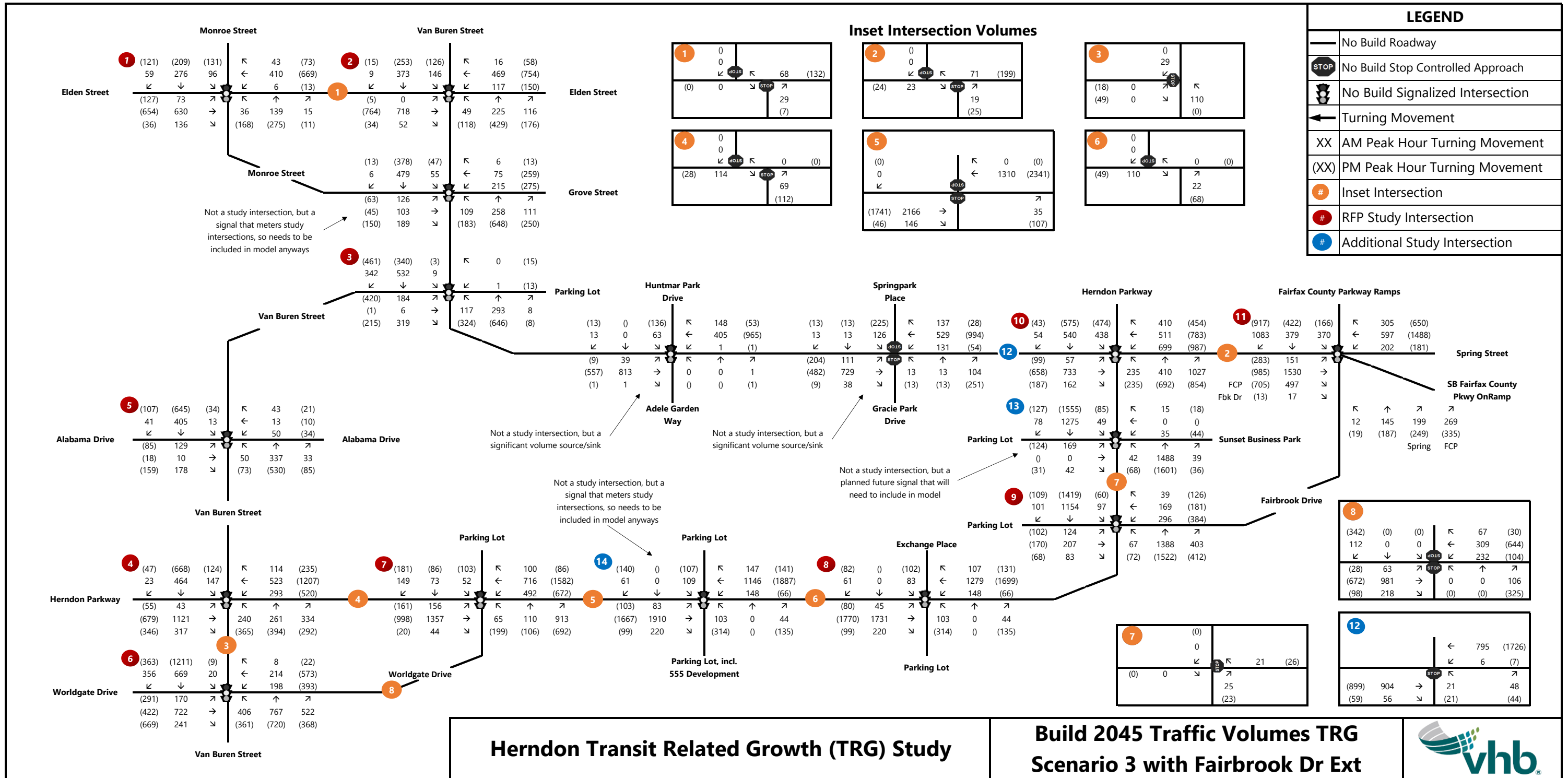


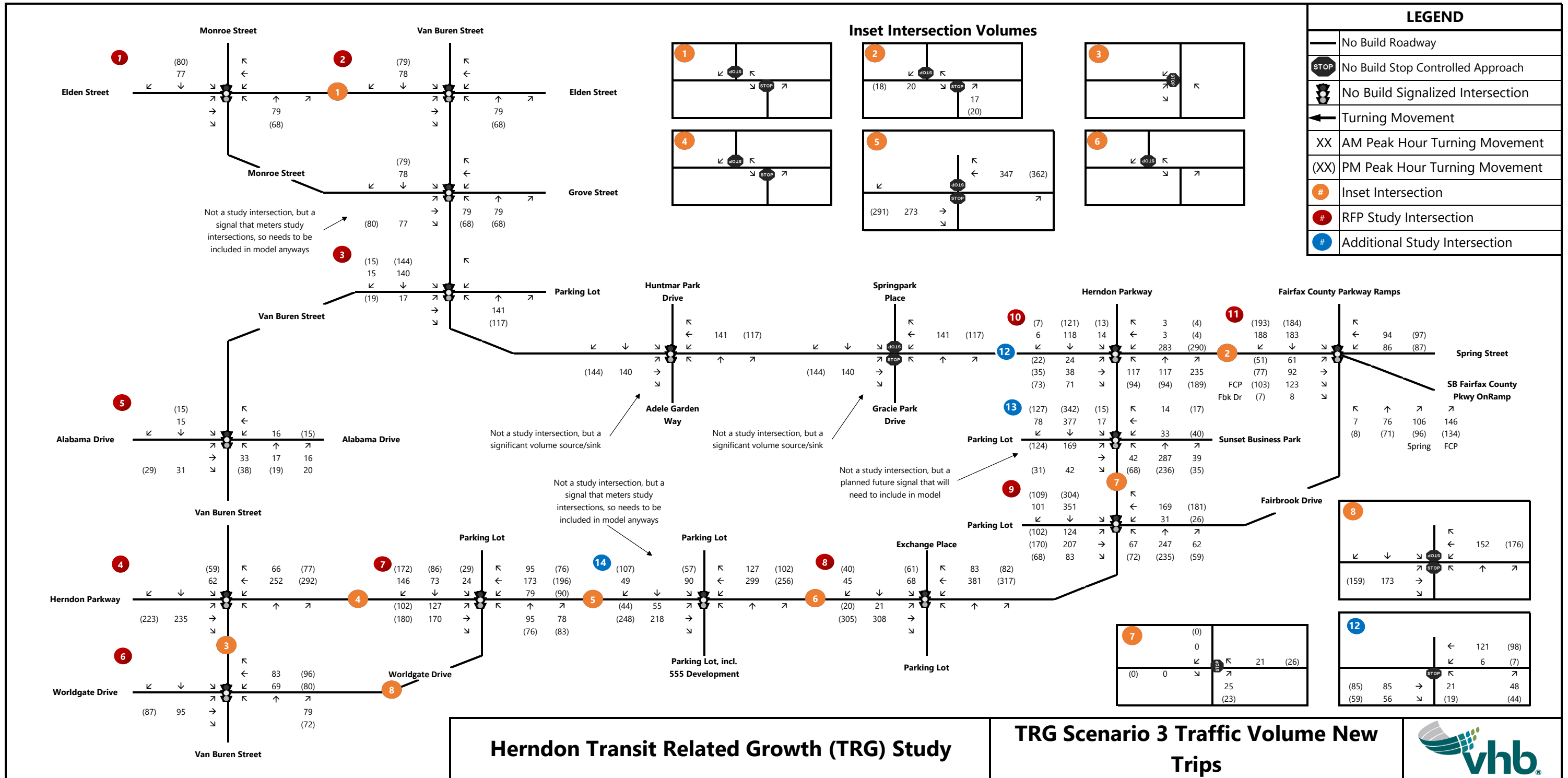
LEGEND	
	No Build Roadway
	No Build Stop Controlled Approach
	No Build Signalized Intersection
	Turning Movement
	AM Peak Hour Turning Movement
	PM Peak Hour Turning Movement
	Inset Intersection
	RFP Study Intersection
	Additional Study Intersection

Herndon Transit Related Growth (TRG) Study

TRG Scenario 2 Traffic Volume Pass-By Trips





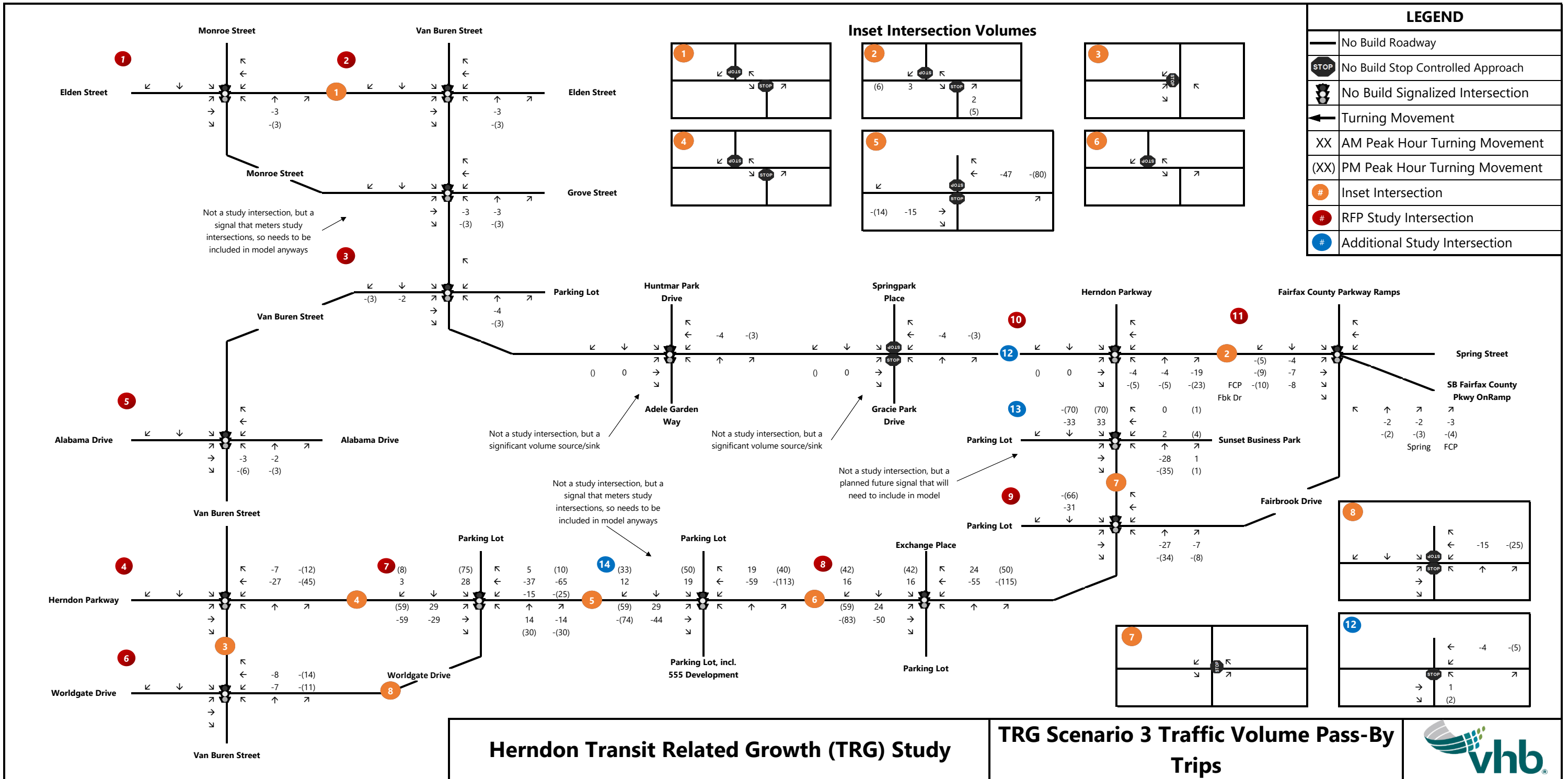


LEGEND	
	No Build Roadway
	No Build Stop Controlled Approach
	No Build Signalized Intersection
	Turning Movement
	AM Peak Hour Turning Movement
	PM Peak Hour Turning Movement
	Inset Intersection
	RFP Study Intersection
	Additional Study Intersection

Herndon Transit Related Growth (TRG) Study

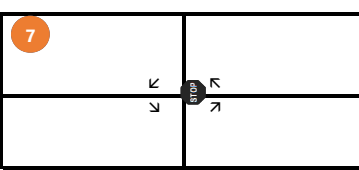
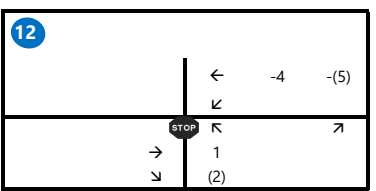
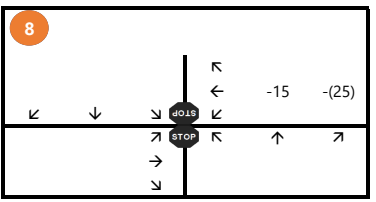
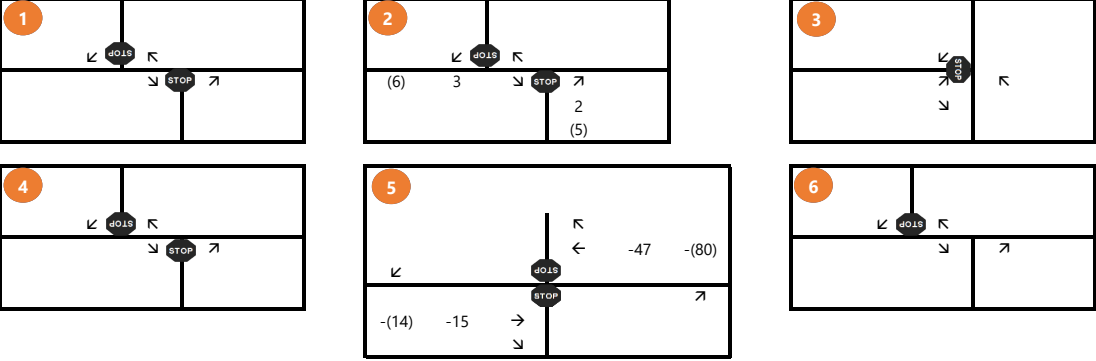
TRG Scenario 3 Traffic Volume New Trips





LEGEND	
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	No Build Stop Controlled Approach
	No Build Signalized Intersection
	Turning Movement
	AM Peak Hour Turning Movement
	PM Peak Hour Turning Movement
	Inset Intersection
	RFP Study Intersection
	Additional Study Intersection

Inset Intersection Volumes



Herndon Transit Related Growth (TRG) Study

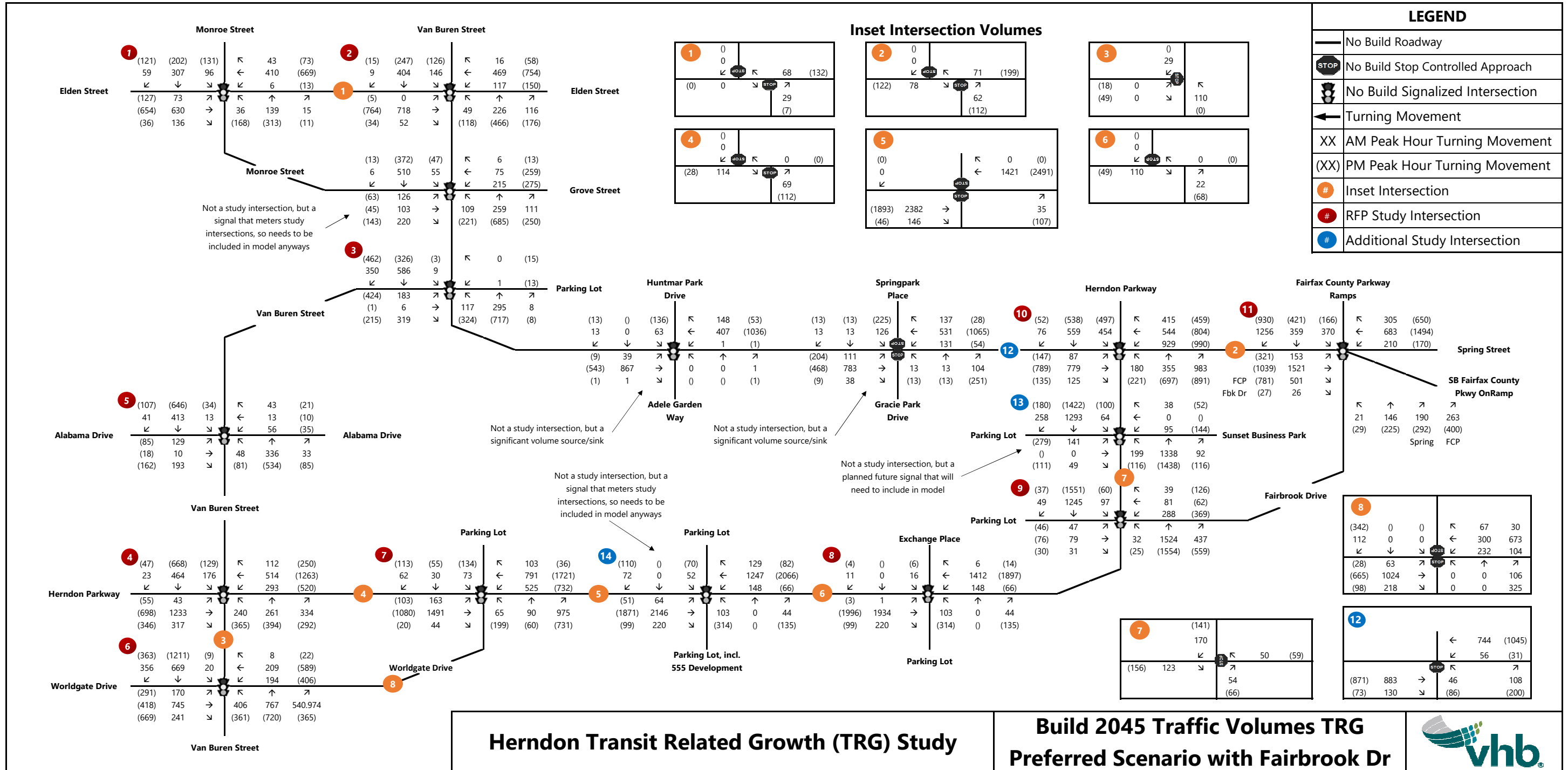
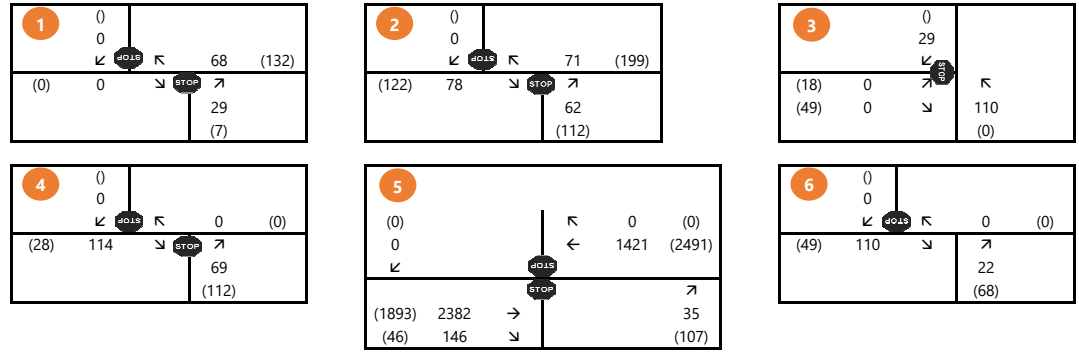
TRG Scenario 3 Traffic Volume Pass-By Trips



LEGEND

	No Build Roadway
	No Build Stop Controlled Approach
	No Build Signalized Intersection
	Turning Movement
	AM Peak Hour Turning Movement
	PM Peak Hour Turning Movement
	Inset Intersection
	RFP Study Intersection
	Additional Study Intersection

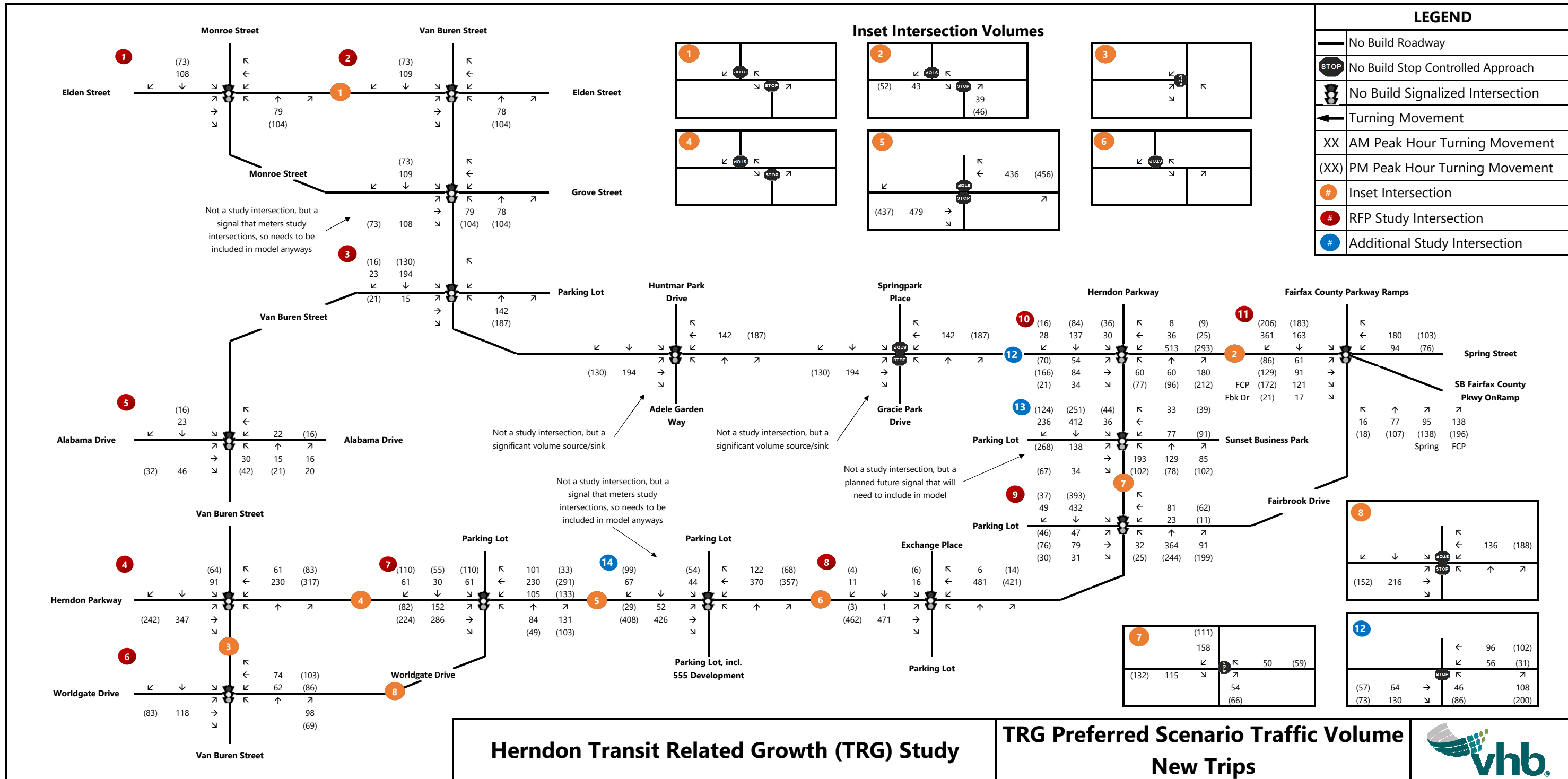
Inset Intersection Volumes



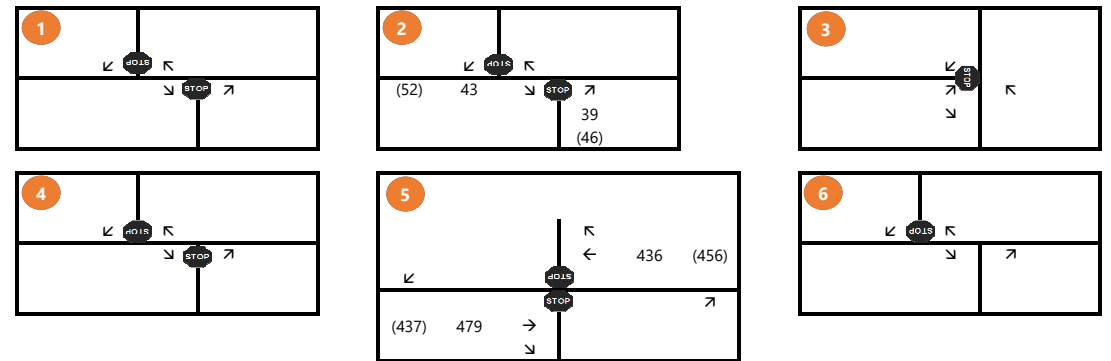
Herndon Transit Related Growth (TRG) Study

Build 2045 Traffic Volumes TRG Preferred Scenario with Fairbrook Dr





Inset Intersection Volumes

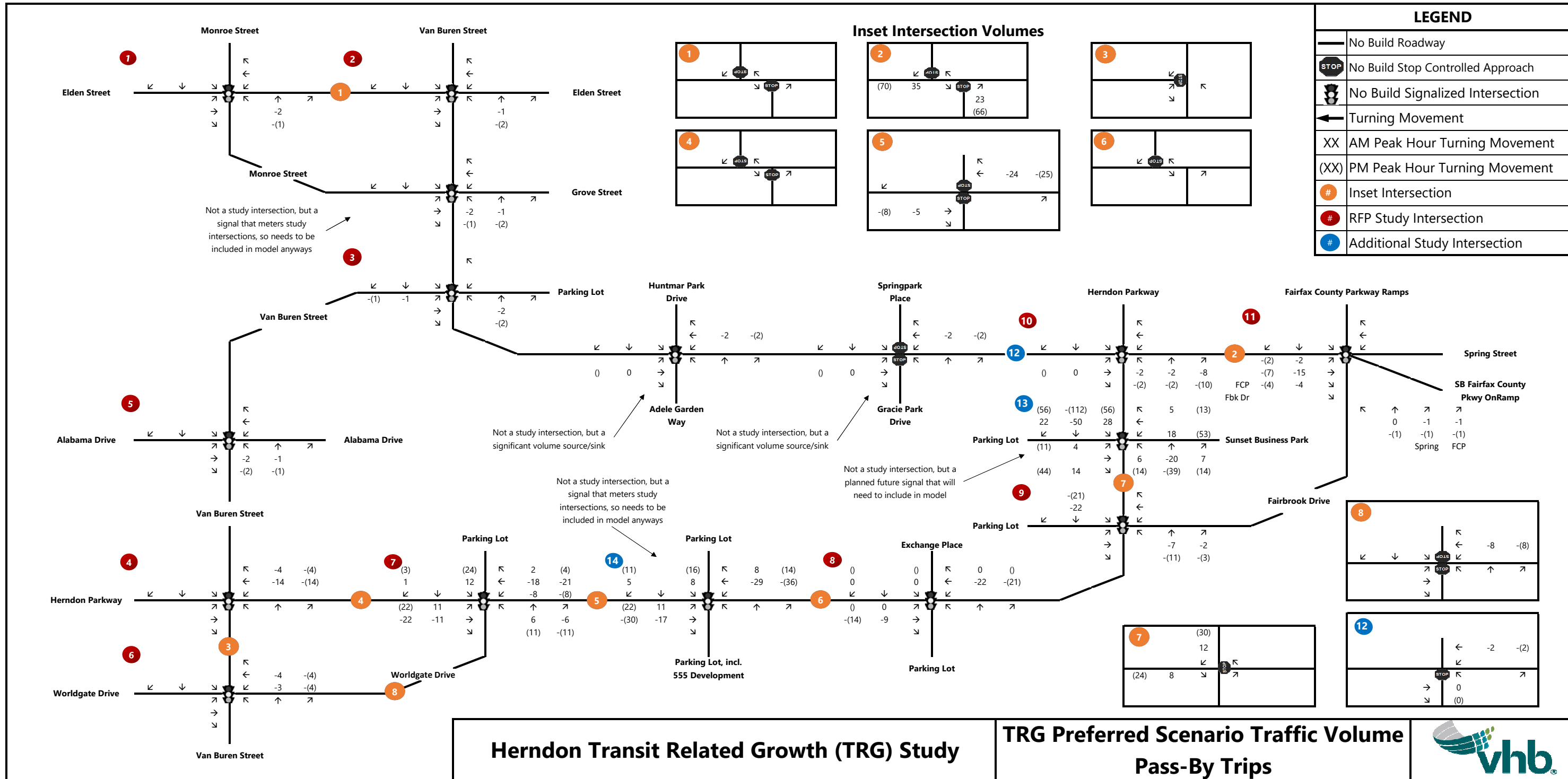


LEGEND	
	No Build Roadway
	No Build Stop Controlled Approach
	No Build Signalized Intersection
	Turning Movement
XX	AM Peak Hour Turning Movement
(XX)	PM Peak Hour Turning Movement
#	Inset Intersection
●	RFP Study Intersection
●	Additional Study Intersection

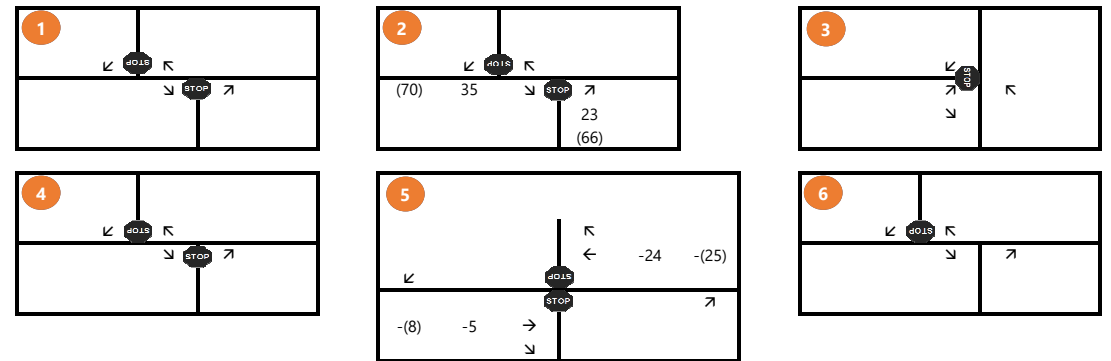
Herndon Transit Related Growth (TRG) Study

TRG Preferred Scenario Traffic Volume New Trips





Inset Intersection Volumes



LEGEND	
	No Build Roadway
	No Build Stop Controlled Approach
	No Build Signalized Intersection
	Turning Movement
XX	AM Peak Hour Turning Movement
(XX)	PM Peak Hour Turning Movement
#	Inset Intersection
●	RFP Study Intersection
●	Additional Study Intersection

Not a study intersection, but a signal that meters study intersections, so needs to be included in model anyways

Not a study intersection, but a significant volume source/sink

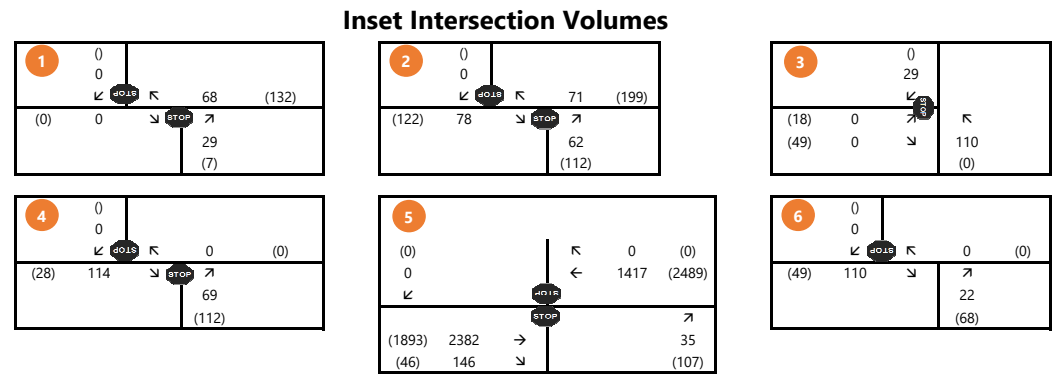
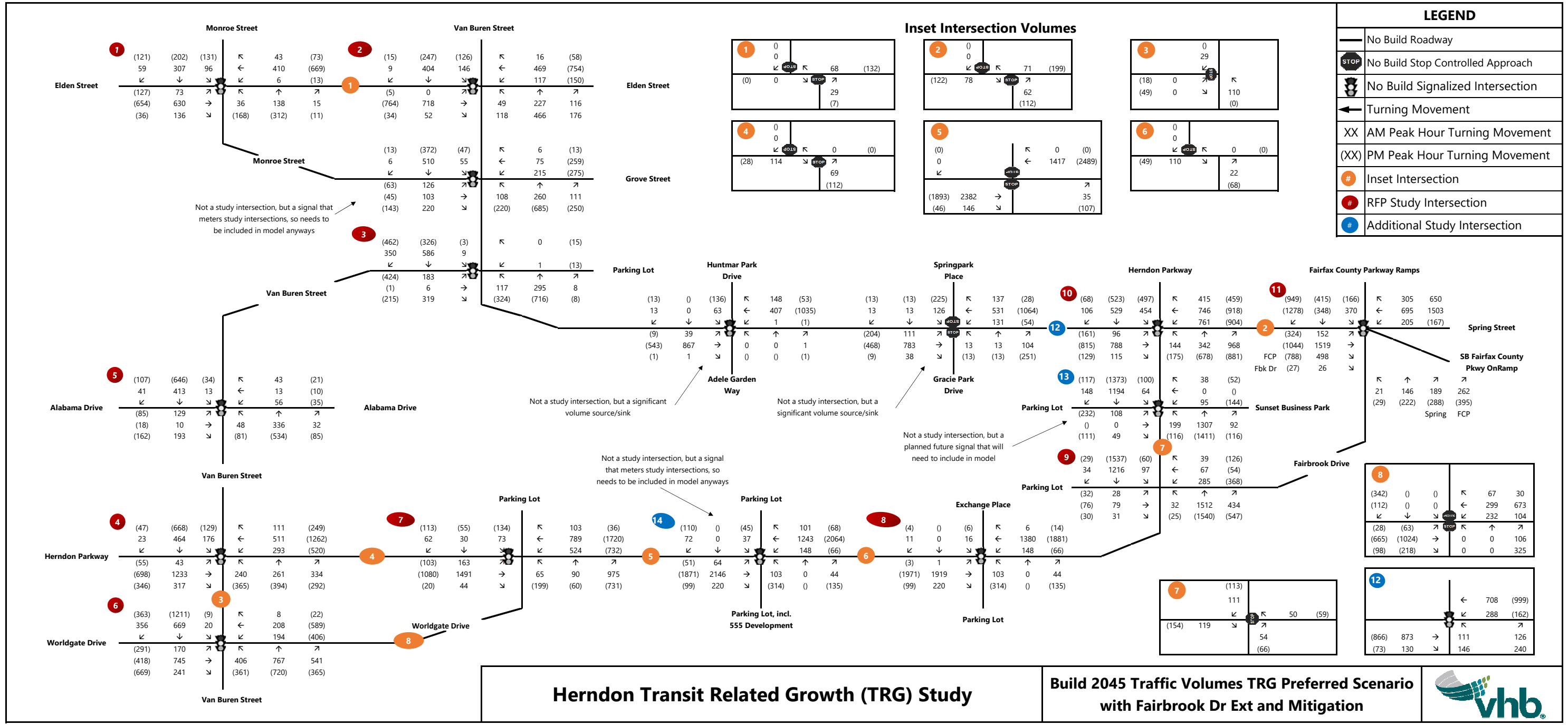
Not a study intersection, but a significant volume source/sink

Not a study intersection, but a signal that meters study intersections, so needs to be included in model anyways

Not a study intersection, but a planned future signal that will need to include in model

SB Fairfax County Pkwy OnRamp
Spring FCP



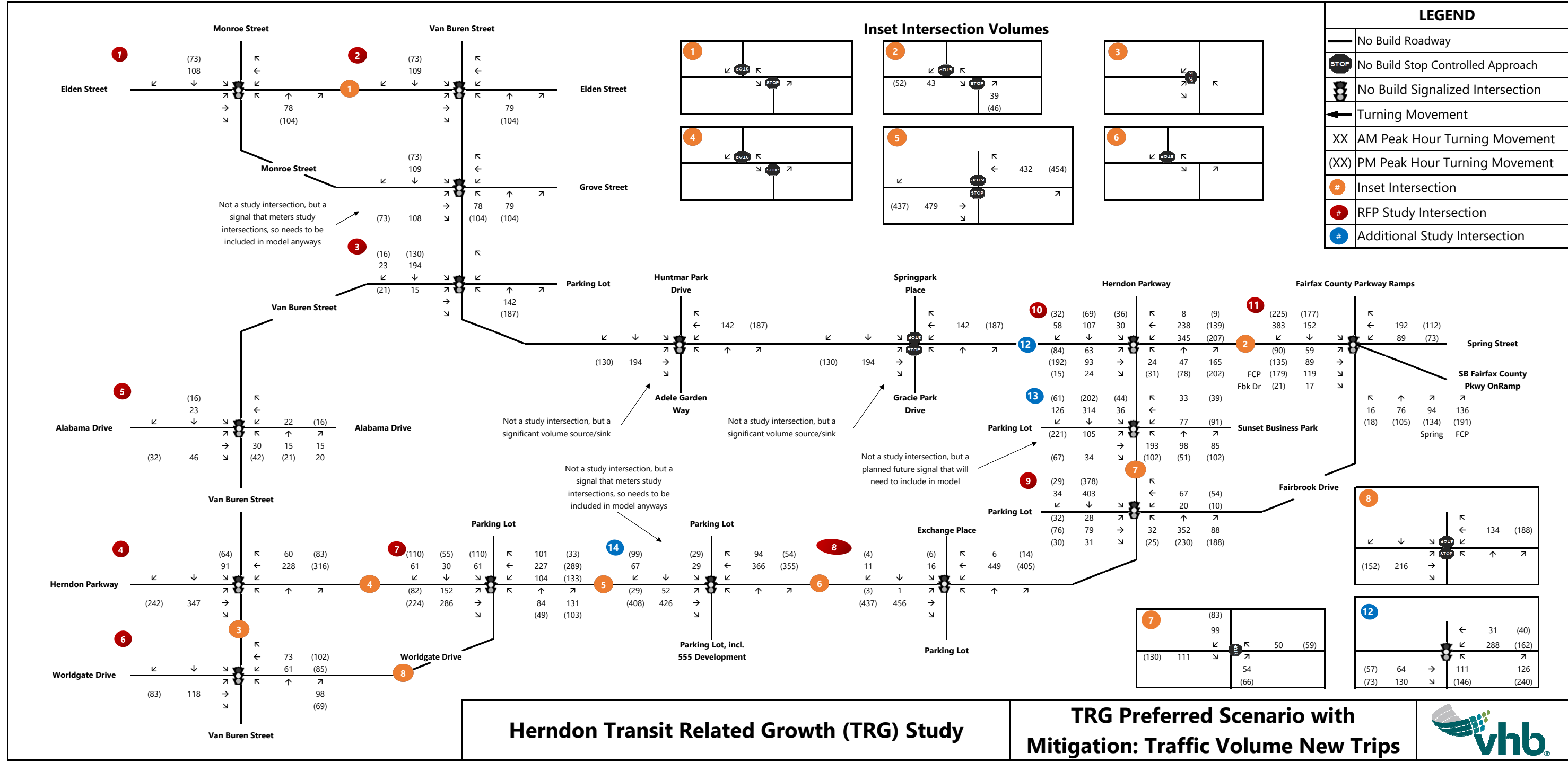
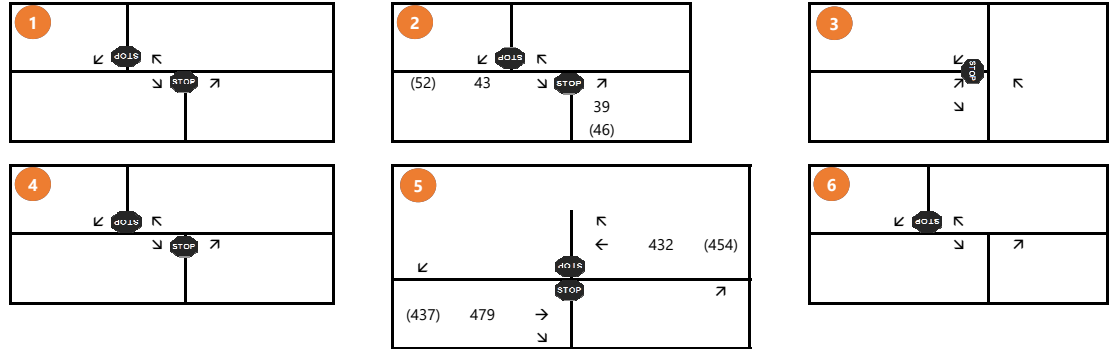


LEGEND

- No Build Roadway
- No Build Stop Controlled Approach
- No Build Signalized Intersection
- Turning Movement
- XX AM Peak Hour Turning Movement
- (XX) PM Peak Hour Turning Movement
- # Inset Intersection
- RFP Study Intersection
- Additional Study Intersection

LEGEND	
	No Build Roadway
	No Build Stop Controlled Approach
	No Build Signalized Intersection
	Turning Movement
XX	AM Peak Hour Turning Movement
(XX)	PM Peak Hour Turning Movement
#	Inset Intersection
	RFP Study Intersection
	Additional Study Intersection

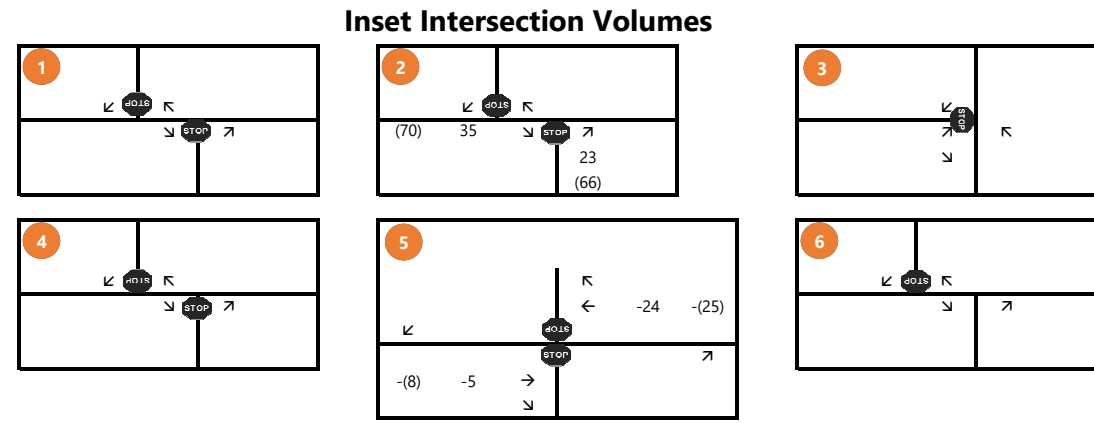
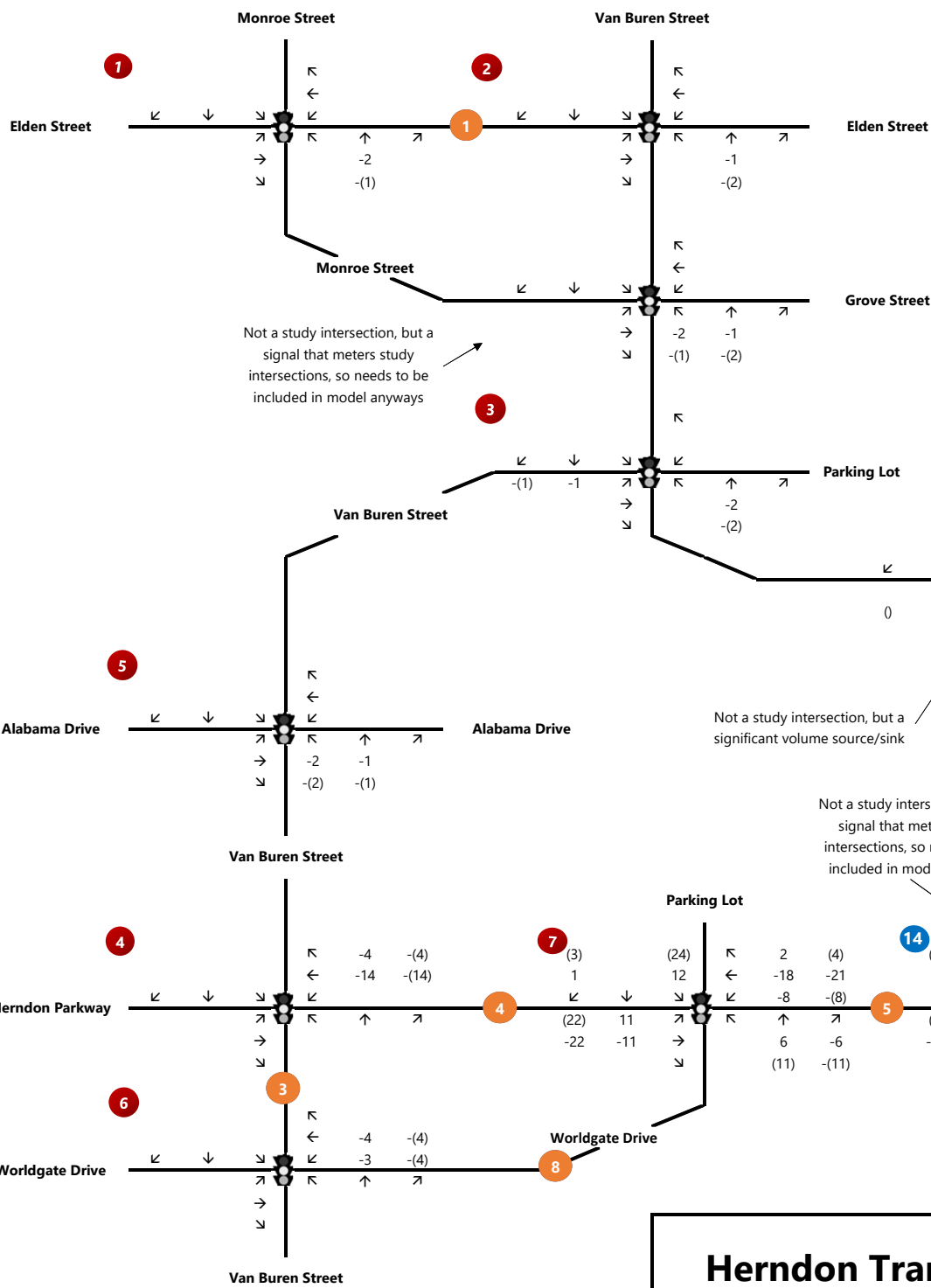
Inset Intersection Volumes



Herndon Transit Related Growth (TRG) Study

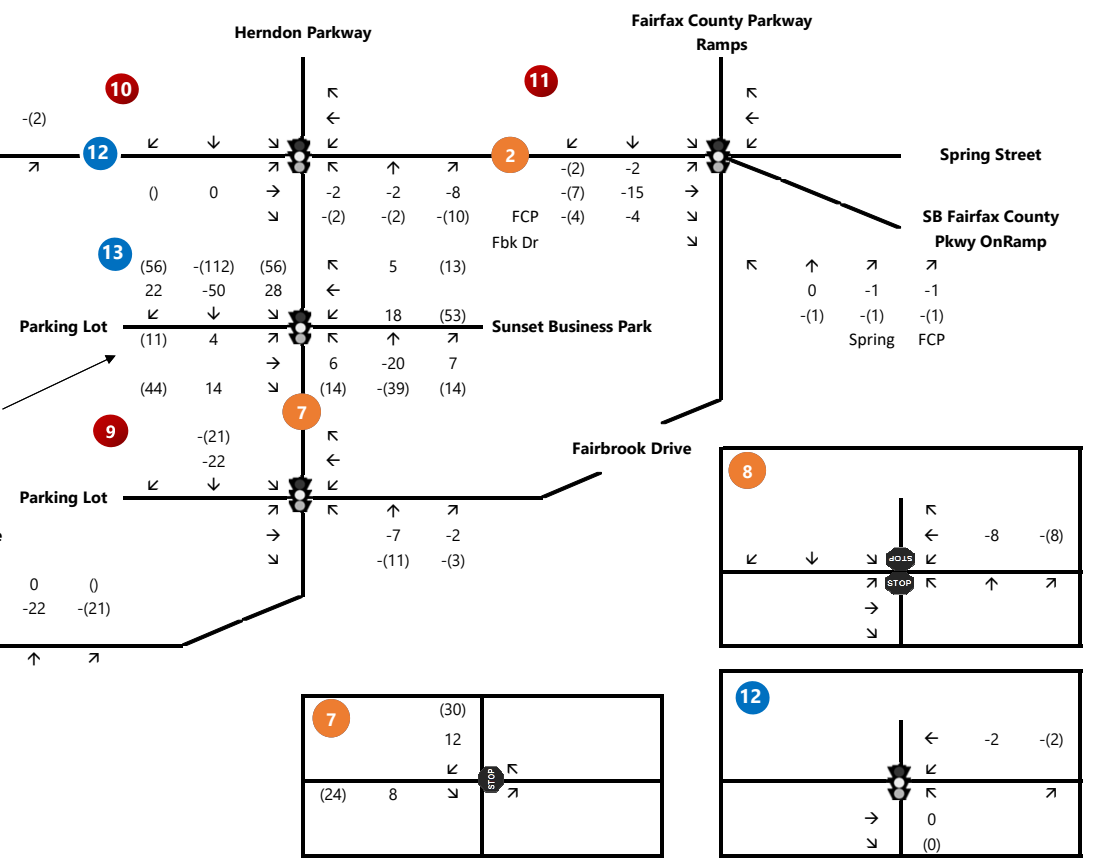
TRG Preferred Scenario with Mitigation: Traffic Volume New Trips





LEGEND

	No Build Roadway
	No Build Stop Controlled Approach
	No Build Signalized Intersection
	Turning Movement
	AM Peak Hour Turning Movement
	PM Peak Hour Turning Movement
# symbol"/>	Inset Intersection
Red # symbol"/>	RFP Study Intersection
Blue # symbol"/>	Additional Study Intersection



Existing Conditions: Weekday Morning Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes										Existing Conditions MOEs						Notes			
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Calibration Threshold		Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Calibration Threshold		Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS		Average Queue Length (ft)	Max Queue Length (ft)	
								Within ±	Met Threshold? *					Within ±	Met Threshold?								
Elден Street / Monroe Street	Signal	Elден Street	EBL	58	60	2	3%	20%	YES	667	662	-5	-1%	15%	YES	8.1	A	10.0	B	2	59		
			EBT	501	495	-6	-1%	15%	YES							10.5	B			37	439		
			EBR	108	107	-1	-1%	15%	YES							8.8	A			36	438		
		Elден Street	WBL	5	4	-1	-20%	20%	YES	365	356	-9	-2%	15%	YES	15.0	B	6.8	A	0	22		
			WBT	326	318	-8	-2%	15%	YES							6.9	A			13	222		
			WBR	34	34	0	0%	20%	YES							4.8	A			16	261		
		Monroe Street	NBL	29	29	0	0%	20%	YES	74	74	0	0%	20%	YES	75.4	E	63.4	E	12	74		
			NBT	33	33	0	0%	20%	YES							73.5	E			14	84		
			NBR	12	12	0	0%	20%	YES							6.9	A			2	74		
		Monroe Street	SBL	76	75	-1	-1%	20%	YES	242	248	6	2%	15%	YES	43.2	D	41.6	D	21	177		
			SBT	119	123	4	3%	15%	YES							45.7	D			40	194		
			SBR	47	50	3	6%	20%	YES							29.1	C			37	194		
		Intersection				1,348	1,340	-8	-1%	10%	YES	1,348	1,340	-8	-1%	10%	YES	18.0	B	18.0	B		
		Elден Street / Van Buren Street	Signal	Elден Street	EBL	0	0	0	0%	20%	YES	612	603	-9	-1%	15%	YES	0.0	A	11.0	B	24	180
EBT	571				563	-8	-1%	15%	YES	11.6	B							24	180				
EBR	41				40	-1	-2%	20%	YES	2.9	A							0	29				
Elден Street	WBL			93	90	-3	-3%	20%	YES	479	468	-11	-2%	15%	YES	12.0	B	8.7	A	11	141		
	WBT			373	368	-5	-1%	15%	YES							8.0	A			11	141		
	WBR			13	10	-3	-23%	20%	YES*							4.9	A			15	155		
Van Buren Street	NBL			39	39	0	0%	20%	YES	220	215	-5	-2%	15%	YES	44.4	D	28.7	C	10	94		
	NBT			89	86	-3	-3%	20%	YES							46.2	D			22	158		
	NBR			92	90	-2	-2%	20%	YES							5.2	A			2	72		
Van Buren Street	SBL			116	117	1	1%	15%	YES	288	293	5	2%	15%	YES	47.6	D	48.9	D	33	195		
	SBT			165	168	3	2%	15%	YES							50.4	D			50	205		
	SBR			7	8	1	14%	20%	YES							36.2	D			52	215		
Intersection				1,311	1,286	-25	-2%	10%	YES	1,311	1,286	-25	-2%	10%	YES	24.3	C	24.3	C				
Van Buren Street / Spring Street	Signal			Van Buren Street	EBL	112	105	-7	-6%	15%	YES	371	358	-13	-4%	15%	YES	12.2	B	8.5	A	0	0
		EBT	5		5	0	0%	20%	YES	9.3	A							7	99				
		EBR	254		248	-6	-2%	15%	YES	6.9	A							8	113				
		Parking Lot	WBL	1	1	0	0%	20%	YES	1	1	0	0%	20%	YES	14.3	B	14.3	B	0	14		
			WBR	0	0	0	0%	20%	YES							0.0	A			0	0		
		Spring Street	NBL	93	94	1	1%	20%	YES	199	201	2	1%	15%	YES	8.1	A	6.2	A	2	89		
			NBT	100	102	2	2%	20%	YES							4.6	A			2	79		
			NBR	6	5	-1	-17%	20%	YES							1.9	A			1	87		
		Van Buren Street	SBL	7	6	-1	-14%	20%	YES	471	465	-6	-1%	15%	YES	6.2	A	4.8	A	0	30		
			SBT	255	248	-7	-3%	15%	YES							5.9	A			5	95		
			SBR	209	211	2	1%	15%	YES							3.5	A			2	102		
		Intersection				571	560	-11	-2%	15%	YES	571	560	-11	-2%	15%	YES	11.7	B	11.7	B		
		Spring Street / Herndon Parkway	Signal	Spring Street	EBL	26	28	2	8%	20%	YES	594	584	-10	-2%	15%	YES	57.8	E	46.6	D	9	77
					EBT	546	534	-12	-2%	15%	YES							46.5	D			84	313
EBR	22				22	0	0%	20%	YES	34.9	C							91	325				
Spring Street	WBL			390	394	4	1%	15%	YES	1,114	1,139	25	2%	10%	YES	52.5	D	30.5	C	70	236		
	WBT			400	404	4	1%	15%	YES							29.8	C			41	177		
	WBR			324	341	17	5%	15%	YES							5.8	A			8	132		
Herndon Parkway	NBL			66	65	-1	-2%	20%	YES	972	924	-48	-5%	15%	YES	32.5	C	56.2	E	6	90		
	NBT			177	169	-8	-5%	15%	YES							46.2	D			287	901		
	NBR			729	690	-39	-5%	15%	YES							60.9	E			564	998		
Herndon Parkway	SBL			337	338	1	0%	15%	YES	591	589	-2	0%	15%	YES	20.8	C	19.9	B	38	277		
	SBT			216	212	-4	-2%	15%	YES							19.8	B			17	123		
	SBR			38	39	1	3%	20%	YES							12.8	B			16	136		
Intersection				2,680	2,647	-33	-1%	10%	YES	2,680	2,647	-33	-1%	10%	YES	47.4	D	47.4	D				
Spring Street / Fairfax County Parkway	Signal			Spring Street	EBL	106	106	0	0%	15%	YES	1,650	1,605	-45	-3%	10%	YES	62.0	E	10.0	A	37	180
		EBT	1,188		1,159	-29	-2%	10%	YES	7.7	A							28	354				
		EBR	356		340	-16	-4%	15%	YES	1.7	A							0	0				
		Spring Street	WBT	416	407	-9	-2%	15%	YES	659	649	-10	-2%	15%	YES	13.5	B	8.7	A	18	155		
			WBR	243	242	-1	0%	15%	YES							0.6	A			0	0		
		Fairfax County Parkway	SBL	294	294	0	0%	15%	YES	1,048	1,056	8	1%	10%	YES	46.2	D	38.5	D	261	758		
			SBR	754	762	8	1%	15%	YES							35.5	D			261	758		
		Intersection				3,357	3,310	-47	-1%	10%	YES	3,357	3,310	-47	-1%	10%	YES	18.8	B	18.8	B		

Note: Average results across 7 microsimulation runs.

* Low volume difference. Percentage difference is not significant. Considered Calibrated.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue.

Existing Conditions: Weekday Morning Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes										Existing Conditions MOEs						Notes			
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Calibration Threshold		Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Calibration Threshold		Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS		Average Queue Length (ft)	Max Queue Length (ft)	
								Within ±	Met Threshold? *					Within ±	Met Threshold?								
Van Buren Street / Alabama Drive	All-Way Stop (Future Signal)	Alabama Drive	EBL	103	97	-6	-6%	15%	YES	239	239	0	0%	15%	YES	8.9	A	8.3	A	12	121		
			EBT	8	8	0	0%	20%	YES							10.3	B			12	122		
			EBR	128	134	6	5%	15%	YES							7.7	A			12	121		
		Alabama Drive	WBL	32	31	-1	-3%	20%	YES	76	73	-3	-4%	20%	YES	6.8	A	6.3	A	3	89		
			WBT	10	11	1	10%	20%	YES							7.4	A			3	90		
			WBR	34	31	-3	-9%	20%	YES							5.6	A			3	89		
		Van Buren Street	NBL	13	14	1	8%	20%	YES	257	250	-7	-3%	15%	YES	11.5	B	12.3	B	17	177		
			NBT	234	226	-8	-3%	15%	YES							12.5	B			18	178		
			NBR	10	10	0	0%	20%	YES							10.4	B			17	177		
		Van Buren Street	SBL	10	12	2	20%	20%	YES	302	306	4	1%	15%	YES	11.8	B	11.9	B	26	193		
			SBT	259	261	2	1%	15%	YES							12.1	B			26	193		
			SBR	33	33	0	0%	20%	YES							10.7	B			26	193		
		Intersection				874	868	-6	-1%	15%	YES	874	868	-6	-1%	15%	YES	10.6	B	10.6	B		
		Van Buren Street / Herndon Parkway	Signal	Herndon Parkway	EBL	34	34	0	0%	20%	YES	908	906	-2	0%	15%	YES	22.8	C	34.7	C	4	70
EBT	605				609	4	1%	15%	YES	36.3	D							105	414				
EBR	269				263	-6	-2%	15%	YES	32.7	C							120	436				
Herndon Parkway	WBL			231	203	-28	-12%	15%	YES	399	355	-44	-11%	15%	YES	37.1	D	31.0	C	67	273		
	WBT			146	133	-13	-9%	15%	YES							24.3	C			10	86		
	WBR			22	19	-3	-14%	20%	YES							12.1	B			10	86		
Van Buren Street	NBL			192	187	-5	-3%	15%	YES	994	952	-42	-4%	15%	YES	17.4	B	43.8	D	236	1048		
	NBT			201	197	-4	-2%	15%	YES							54.4	D			763	1047		
	NBR			601	568	-33	-5%	15%	YES							48.9	D			780	1064		
Van Buren Street	SBL			43	41	-2	-5%	20%	YES	419	425	6	1%	15%	YES	42.1	D	24.7	C	9	92		
	SBT			358	364	6	2%	15%	YES							23.4	C			28	189		
	SBR			18	20	2	11%	20%	YES							12.0	B			28	189		
Intersection				2,720	2,638	-82	-3%	10%	YES	2,720	2,638	-82	-3%	10%	YES	35.9	D	35.9	D				
Van Buren Street / Worldgate Drive	Signal			Worldgate Drive	EBL	222	226	4	2%	15%	YES	446	451	5	1%	15%	YES	48.9	D	28.4	C	52	257
		EBT	32		29	-3	-9%	20%	YES	46.6	D							52	257				
		EBR	192		196	4	2%	15%	YES	2.0	A							1	77				
		Parking Lot	WBL	3	3	0	0%	20%	YES	6	6	0	0%	20%	YES	45.4	D	50.4	D	1	39		
			WBT	2	3	1	50%	20%	YES*							55.5	E			1	39		
			WBR	1	0	-1	-100%	20%	YES*							29.2	C			0	0		
		Van Buren Street	NBL	323	307	-16	-5%	15%	YES	1,245	1,182	-63	-5%	10%	YES	46.0	D	62.6	E	211	753		
			NBT	859	818	-41	-5%	15%	YES							72.1	E			733	1393		
			NBR	63	57	-6	-10%	20%	YES							16.4	B			0	53		
		Van Buren Street	SBL	22	20	-2	-9%	20%	YES	835	802	-33	-4%	15%	YES	52.8	D	10.3	B	6	66		
			SBT	589	564	-25	-4%	15%	YES							12.5	B			24	201		
			SBR	224	218	-6	-3%	15%	YES							0.7	A			0	0		
		Intersection				2,532	2,441	-91	-4%	10%	YES	2,532	2,441	-91	-4%	10%	YES	39.1	D	39.1	D		
		Herndon Parkway / Parking Lots by Metro	Two-Way Stop Control	Herndon Parkway	EBL	55	58	3	5%	20%	YES	1,248	1,222	-26	-2%	10%	YES	2.0	A	0.3	A	0	51
EBT	1,181				1,153	-28	-2%	10%	YES	0.2	A							0	0				
EBR	12				11	-1	-8%	20%	YES	0.5	A							0	0				
Herndon Parkway	WBL			26	28	2	8%	20%	YES	440	438	-2	0%	15%	YES	5.4	A	0.6	A	1	57		
	WBT			388	382	-6	-2%	15%	YES							0.2	A			0	13		
	WBR			26	28	2	8%	20%	YES							0.5	A			0	18		
Parking Lot	NBL			6	5	-1	-17%	20%	YES	6	5	-1	-17%	20%	YES	10.3	B	10.3	B	0	35		
	NBT			0	0	0	0%	20%	YES							0.0	A			0	23		
	NBR			0	0	0	0%	20%	YES							0.0	A			0	35		
Parking Lot	SBL			9	10	1	11%	20%	YES	15	15	0	0%	20%	YES	8.8	A	7.7	A	1	48		
	SBT			1	1	0	0%	20%	YES							6.1	A			0	30		
	SBR			5	4	-1	-20%	20%	YES							5.4	A			0	47		
Intersection				1,709	1,680	-29	-2%	10%	YES	1,709	1,680	-29	-2%	10%	YES	0.5	A	0.5	A				

Note: Average results across 7 microsimulation runs.

* Low volume difference. Percentage difference is not significant. Considered Calibrated.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue.

Existing Conditions: Weekday Morning Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes										Existing Conditions MOEs						Notes			
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Calibration Threshold		Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Calibration Threshold		Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS		Average Queue Length (ft)	Max Queue Length (ft)	
								Within ±	Met Threshold? *					Within ±	Met Threshold?								
Herndon Parkway / Exchange Place	Two-Way Stop Control (future signal)	Herndon Parkway	EBL	26	27	1	4%	20%	YES	1,025	996	-29	-3%	10%	YES	2.1	A	0.3	A	0	57		
			EBT	979	951	-28	-3%	15%	YES							0.2	A			0	0		
			EBR	20	18	-2	-10%	20%	YES							0.5	A			0	0		
		Herndon Parkway	WBL	23	23	0	0%	20%	YES	529	528	-1	0%	15%	YES	0.6	A	0.3	A	0	0		
			WBT	488	490	2	0%	15%	YES							0.3	A			0	4		
			WBR	18	15	-3	-17%	20%	YES							0.6	A			0	4		
		Parking Lot	NBL	9	9	0	0%	20%	YES	43	43	0	0%	20%	YES	7.2	A	6.7	A	3	106		
			NBT	0	0	0	0%	20%	YES							0.0	A			0	58		
			NBR	34	34	0	0%	20%	YES							6.6	A			2	75		
		Exchange Place	SBL	6	6	0	0%	20%	YES	12	12	0	0%	20%	YES	6.7	A	5.7	A	1	55		
			SBT	0	0	0	0%	20%	YES							0.0	A			0	27		
			SBR	6	6	0	0%	20%	YES							4.8	A			1	55		
		Intersection				1,609	1,579	-30	-2%	10%	YES	1,609	1,579	-30	-2%	10%	YES	0.5	A	0.5	A		
		Herndon Parkway / Fairbrook Drive	Two-Way Stop Control (future signal)	Parking Lot	EBL	3	3	0	0%	20%	YES	5	5	0	0%	20%	YES	10.8	B	9.1	A	0	51
					EBT	0	0	0	0%	20%	YES							0.0	A			0	33
EBR	2				2	0	0%	20%	YES	6.5	A							0	50				
Fairbrook Drive	WBL			4	4	0	0%	20%	YES	10	9	-1	-10%	20%	YES	9.9	A	7.9	A	0	42		
	WBT			0	0	0	0%	20%	YES							0.0	A			0	25		
	WBR			6	5	-1	-17%	20%	YES							6.4	A			0	41		
Herndon Parkway	NBL			31	29	-2	-6%	20%	YES	1,019	988	-31	-3%	10%	YES	2.0	A	0.3	A	0	44		
	NBT			961	934	-27	-3%	15%	YES							0.2	A			0	19		
	NBR			27	25	-2	-7%	20%	YES							0.7	A			0	32		
Herndon Parkway	SBL			26	29	3	12%	20%	YES	563	563	0	0%	15%	YES	3.8	A	0.4	A	1	67		
	SBT			523	521	-2	0%	15%	YES							0.2	A			0	19		
	SBR			14	13	-1	-7%	20%	YES							0.8	A			0	28		
Intersection				1,597	1,565	-32	-2%	10%	YES	1,597	1,565	-32	-2%	10%	YES	0.4	A	0.4	A				

Note: Average results across 7 microsimulation runs.

* Low volume difference. Percentage difference is not significant. Considered Calibrated.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue.

Existing Conditions: Weekday Evening Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes										Existing Conditions MOEs						Notes			
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Calibration Threshold		Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Calibration Threshold		Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS		Average Queue Length (ft)	Max Queue Length (ft)	
								Within ±	Met Threshold? *					Within ±	Met Threshold?								
Elden Street / Monroe Street	Signal	Elden Street	EBL	101	99	-2	-2%	15%	YES	650	646	-4	-1%	15%	YES	14.2	B	12.6	B	5	124		
			EBT	520	517	-3	-1%	15%	YES							12.5	B			41	416		
			EBR	29	30	1	3%	20%	YES							9.9	A			41	422		
		Elden Street	WBL	10	10	0	0%	20%	YES	600	590	-10	-2%	15%	YES	11.9	B	11.6	B	0	24		
			WBT	532	522	-10	-2%	15%	YES							11.8	B			40	429		
			WBR	58	58	0	0%	20%	YES							10.5	B			50	461		
		Monroe Street	NBL	134	129	-5	-4%	15%	YES	268	263	-5	-2%	15%	YES	55.1	E	53.8	D	41	233		
			NBT	125	125	0	0%	15%	YES							55.0	E			40	239		
			NBR	9	9	0	0%	20%	YES							18.1	B			27	233		
		Monroe Street	SBL	104	105	1	1%	15%	YES	282	285	3	1%	15%	YES	45.6	D	38.8	D	30	189		
			SBT	82	82	0	0%	20%	YES							46.4	D			35	202		
			SBR	96	98	2	2%	20%	YES							25.3	C			36	208		
		Intersection				1,800	1,784	-16	-1%	10%	YES	1,800	1,784	-16	-1%	10%	YES	22.5	C	22.5	C		
		Elden Street / Van Buren Street	Signal	Elden Street	EBL	4	5	1	25%	20%	YES*	639	634	-5	-1%	15%	YES	11.7	B	11.9	B	27	199
EBT	608				601	-7	-1%	15%	YES	12.4	B							27	199				
EBR	27				28	1	4%	20%	YES	2.1	A							0	34				
Elden Street	WBL			119	120	1	1%	15%	YES	765	760	-5	-1%	15%	YES	14.5	B	11.4	B	26	219		
	WBT			600	596	-4	-1%	15%	YES							11.0	B			26	219		
	WBR			46	44	-2	-4%	20%	YES							8.7	A			26	219		
Van Buren Street	NBL			94	93	-1	-1%	20%	YES	438	427	-11	-3%	15%	YES	45.5	D	34.6	C	23	153		
	NBT			204	197	-7	-3%	15%	YES							48.9	D			56	285		
	NBR			140	137	-3	-2%	15%	YES							6.9	A			4	104		
Van Buren Street	SBL			100	100	0	0%	20%	YES	213	214	1	0%	15%	YES	45.5	D	45.4	D	26	154		
	SBT			101	103	2	2%	15%	YES							47.3	D			29	166		
	SBR			12	11	-1	-8%	20%	YES							26.8	C			27	176		
Intersection				1,842	1,821	-21	-1%	10%	YES	1,842	1,821	-21	-1%	10%	YES	22.4	C	22.4	C				
Van Buren Street / Spring Street	Signal			Van Buren Street	EBL	261	257	-4	-2%	15%	YES	433	432	-1	0%	15%	YES	19.8	B	13.8	B	27	208
		EBT	1		1	0	0%	20%	YES	24.0	C							27	208				
		EBR	171		174	3	2%	15%	YES	4.9	A							3	84				
		Parking Lot	WBL	10	11	1	10%	20%	YES	22	23	1	5%	20%	YES	25.4	C	25.3	C	1	42		
			WBR	12	12	0	0%	20%	YES							25.3	C			2	44		
		Spring Street	NBL	258	235	-23	-9%	15%	YES	620	580	-40	-6%	15%	YES	93.3	F	44.9	D	187	717		
			NBT	356	339	-17	-5%	15%	YES							12.0	B			10	184		
			NBR	6	6	0	0%	20%	YES							9.4	A			9	192		
		Van Buren Street	SBL	2	2	0	0%	20%	YES	454	452	-2	0%	15%	YES	11.2	B	30.5	C	0	19		
			SBT	124	127	3	2%	15%	YES							17.4	B			68	358		
			SBR	328	323	-5	-2%	15%	YES							35.8	D			90	380		
		Intersection				1,075	1,035	-40	-4%	10%	YES	1,075	1,035	-40	-4%	10%	YES	44.8	D	44.8	D		
		Spring Street / Herndon Parkway	Signal	Spring Street	EBL	61	61	0	0%	20%	YES	604	608	4	1%	15%	YES	55.5	E	46.0	D	19	113
					EBT	491	498	7	1%	15%	YES							45.7	D			82	303
EBR	52				49	-3	-6%	20%	YES	37.5	D							89	315				
Spring Street	WBL			602	606	4	1%	15%	YES	1,571	1,574	3	0%	10%	YES	76.3	E	41.2	D	164	551		
	WBT			611	611	0	0%	15%	YES							27.4	C			63	510		
	WBR			358	357	-1	0%	15%	YES							5.2	A			6	118		
Herndon Parkway	NBL			58	58	0	0%	20%	YES	1,066	1,053	-13	-1%	10%	YES	24.4	C	39.3	D	6	75		
	NBT			341	338	-3	-1%	15%	YES							40.6	D			147	630		
	NBR			667	657	-10	-1%	15%	YES							39.9	D			236	660		
Herndon Parkway	SBL			367	364	-3	-1%	15%	YES	685	683	-2	0%	15%	YES	28.5	C	25.1	C	60	357		
	SBT			289	290	1	0%	15%	YES							21.8	C			23	173		
	SBR			29	29	0	0%	20%	YES							14.7	B			25	187		
Intersection				3,241	3,235	-6	0%	10%	YES	3,241	3,235	-6	0%	10%	YES	46.8	D	46.8	D				
Spring Street / Fairfax County Parkway	Signal			Spring Street	EBL	240	241	1	0%	15%	YES	1,600	1,590	-10	-1%	10%	YES	47.5	D	11.5	B	67	319
		EBT	791		786	-5	-1%	15%	YES	7.0	A							13	222				
		EBR	569		563	-6	-1%	15%	YES	2.3	A							0	0				
		Spring Street	WBT	1,121	1,114	-7	-1%	10%	YES	1,638	1,624	-14	-1%	10%	YES	16.1	B	11.5	B	65	452		
			WBR	517	510	-7	-1%	15%	YES							1.5	A			0	26		
		Fairfax County Parkway	SBL	132	132	0	0%	15%	YES	740	748	8	1%	15%	YES	53.2	D	42.9	D	193	608		
			SBR	608	616	8	1%	15%	YES							40.7	D			193	608		
		Intersection				3,978	3,962	-16	0%	10%	YES	3,978	3,962	-16	0%	10%	YES	17.4	B	17.4	B		

Note: Average results across 20 microsimulation runs.

* Low volume difference. Percentage difference is not significant. Considered Calibrated.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Existing Conditions: Weekday Evening Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes										Existing Conditions MOEs						Notes			
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Calibration Threshold		Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Calibration Threshold		Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS		Average Queue Length (ft)	Max Queue Length (ft)	
								Within ±	Met Threshold? *					Within ±	Met Threshold?								
Van Buren Street / Alabama Drive	All-Way Stop Control (future signal)	Alabama Drive	EBL	68	67	-1	-1%	20%	YES	182	181	-1	-1%	15%	YES	8.8	A	8.0	A	8	116		
			EBT	14	14	0	0%	20%	YES							10.0	A			8	116		
			EBR	100	100	0	0%	20%	YES							7.3	A			8	116		
		Alabama Drive	WBL	13	13	0	0%	20%	YES	38	37	-1	-3%	20%	YES	7.1	A	6.7	A	2	69		
			WBT	8	8	0	0%	20%	YES							8.5	A			2	70		
			WBR	17	16	-1	-6%	20%	YES							5.6	A			2	69		
		Van Buren Street	NBL	41	42	1	2%	20%	YES	444	443	-1	0%	15%	YES	27.3	D	28.2	D	90	398		
			NBT	348	348	0	0%	15%	YES							28.6	D			91	399		
			NBR	55	53	-2	-4%	20%	YES							25.9	D			90	398		
		Van Buren Street	SBL	27	25	-2	-7%	20%	YES	586	534	-52	-9%	15%	YES	76.7	F	76.6	F	1256	1629		
			SBT	474	432	-42	-9%	15%	YES							76.8	F			1256	1629		
			SBR	85	77	-8	-9%	20%	YES							75.4	F			1256	1629		
		Intersection				1,250	1,195	-55	-4%	10%	YES	1,250	1,195	-55	-4%	10%	YES	46.1	E	46.1	E		
		Van Buren Street / Herndon Parkway	Signal	Herndon Parkway	EBL	44	44	0	0%	20%	YES	585	580	-5	-1%	15%	YES	25.3	C	35.2	D	6	76
EBT	260				258	-2	-1%	15%	YES	42.0	D							72	320				
EBR	281				278	-3	-1%	15%	YES	30.4	C							87	342				
Herndon Parkway	WBL			458	456	-2	0%	15%	YES	1,174	1,230	56	5%	10%	YES	48.3	D	40.8	D	154	585		
	WBT			617	675	58	9%	15%	YES							36.7	D			109	548		
	WBR			99	99	0	0%	20%	YES							34.6	C			109	548		
Van Buren Street	NBL			391	391	0	0%	15%	YES	1,162	1,157	-5	0%	10%	YES	39.0	D	40.4	D	353	1013		
	NBT			301	300	-1	0%	15%	YES							42.7	D			439	1019		
	NBR			470	466	-4	-1%	15%	YES							40.0	D			451	1036		
Van Buren Street	SBL			25	24	-1	-4%	20%	YES	587	545	-42	-7%	15%	YES	34.8	C	37.3	D	4	58		
	SBT			525	484	-41	-8%	15%	YES							38.1	D			65	342		
	SBR			37	37	0	0%	20%	YES							28.5	C			65	342		
Intersection				3,508	3,512	4	0%	10%	YES	3,508	3,512	4	0%	10%	YES	39.2	D	39.2	D				
Van Buren Street / Worldgate Drive	Signal			Worldgate Drive	EBL	295	294	-1	0%	15%	YES	830	831	1	0%	15%	YES	49.5	D	22.9	C	61	251
		EBT	3		3	0	0%	20%	YES	52.7	D							61	251				
		EBR	532		534	2	0%	15%	YES	8.1	A							24	304				
		Parking Lot	WBL	61	60	-1	-2%	20%	YES	105	104	-1	-1%	15%	YES	54.8	D	45.9	D	25	168		
			WBT	18	17	-1	-6%	20%	YES							56.1	E			25	168		
			WBR	26	27	1	4%	20%	YES							19.6	B			1	75		
		Van Buren Street	NBL	208	201	-7	-3%	15%	YES	1,040	1,032	-8	-1%	10%	YES	53.6	D	33.7	C	41	177		
			NBT	826	826	0	0%	15%	YES							29.1	C			118	560		
			NBR	6	5	-1	-17%	20%	YES							2.9	A			0	17		
		Van Buren Street	SBL	7	6	-1	-14%	20%	YES	1,303	1,257	-46	-4%	10%	YES	51.3	D	17.2	B	2	39		
			SBT	1,096	1,059	-37	-3%	10%	YES							20.0	B			73	378		
			SBR	200	192	-8	-4%	15%	YES							0.7	A			0	37		
		Intersection				3,278	3,224	-54	-2%	10%	YES	3,278	3,224	-54	-2%	10%	YES	24.9	C	24.9	C		
		Herndon Parkway / Parking Lots by Metro	Two-Way Stop Control	Herndon Parkway	EBL	11	11	0	0%	20%	YES	798	790	-8	-1%	15%	YES	4.8	A	0.2	A	0	31
EBT	785				777	-8	-1%	15%	YES	0.1	A							0	0				
EBR	2				2	0	0%	20%	YES	0.4	A							0	0				
Herndon Parkway	WBL			5	5	0	0%	20%	YES	1,122	1,122	0	0%	10%	YES	1.9	A	0.4	A	0	29		
	WBT			1,113	1,113	0	0%	10%	YES							0.4	A			0	3		
	WBR			4	4	0	0%	20%	YES							0.7	A			0	4		
Parking Lot	NBL			17	17	0	0%	20%	YES	56	55	-1	-2%	20%	YES	12.1	B	8.5	A	2	69		
	NBT			0	0	0	0%	20%	YES							0.0	A			1	55		
	NBR			39	38	-1	-3%	20%	YES							6.9	A			2	69		
Parking Lot	SBL			17	17	0	0%	20%	YES	61	61	0	0%	20%	YES	15.7	C	10.2	B	4	82		
	SBT			0	0	0	0%	20%	YES							0.0	A			1	62		
	SBR			44	44	0	0%	20%	YES							8.1	A			3	81		
Intersection				2,037	2,028	-9	0%	10%	YES	2,037	2,028	-9	0%	10%	YES	0.8	A	0.8	A				

Note: Average results across 20 microsimulation runs.

* Low volume difference. Percentage difference is not significant. Considered Calibrated.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Existing Conditions: Weekday Evening Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes								Existing Conditions MOEs								Notes			
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Calibration Threshold		Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Calibration Threshold		Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS		Average Queue Length (ft)	Max Queue Length (ft)	
								Within ±	Met Threshold? *					Within ±	Met Threshold?								
Herndon Parkway / Exchange Place	Two-Way Stop Control (future signal)	Herndon Parkway	EBL	22	22	0	0%	20%	YES	997	984	-13	-1%	15%	YES	2.8	A	0.2	A	0	49		
			EBT	964	951	-13	-1%	15%	YES							0.2	A			0	6		
			EBR	11	11	0	0%	20%	YES							0.5	A			0	9		
		Herndon Parkway	WBL	13	13	0	0%	20%	YES	1,002	1,003	1	0%	10%	YES	0.6	A	0.4	A	0	0		
			WBT	985	986	1	0%	15%	YES							0.4	A			0	0		
			WBR	4	4	0	0%	20%	YES							0.6	A			0	0		
		Parking Lot	NBL	21	20	-1	-5%	20%	YES	68	68	0	0%	20%	YES	7.3	A	6.9	A	5	106		
			NBT	0	0	0	0%	20%	YES							0.0	A			1	62		
			NBR	47	48	1	2%	20%	YES							6.7	A			3	78		
		Exchange Place	SBL	8	8	0	0%	20%	YES	30	31	1	3%	20%	YES	9.2	A	7.3	A	1	71		
			SBT	0	0	0	0%	20%	YES							0.0	A			0	44		
			SBR	22	23	1	5%	20%	YES							6.6	A			2	71		
		Intersection				2,097	2,086	-11	-1%	10%	YES	2,097	2,086	-11	-1%	10%	YES	0.6	A	0.6	A		
		Herndon Parkway / Fairbrook Drive	Two-Way Stop Control (future signal)	Parking Lot	EBL	17	19	2	12%	20%	YES	41	43	2	5%	20%	YES	11.7	B	9.4	A	2	66
					EBT	0	0	0	0%	20%	YES							0.0	A			1	49
EBR	24				24	0	0%	20%	YES	7.6	A							2	65				
Fairbrook Drive	WBL			15	15	0	0%	20%	YES	28	28	0	0%	20%	YES	11.0	B	9.1	A	1	63		
	WBT			0	0	0	0%	20%	YES							0.0	A			0	50		
	WBR			13	13	0	0%	20%	YES							7.0	A			1	62		
Herndon Parkway	NBL			1	1	0	0%	20%	YES	1,019	1,007	-12	-1%	10%	YES	3.8	A	0.2	A	0	13		
	NBT			1,012	999	-13	-1%	10%	YES							0.2	A			0	3		
	NBR			6	7	1	17%	20%	YES							0.6	A			0	7		
Herndon Parkway	SBL			13	14	1	8%	20%	YES	958	979	21	2%	15%	YES	4.2	A	0.4	A	0	48		
	SBT			943	963	20	2%	15%	YES							0.4	A			0	5		
	SBR			2	2	0	0%	20%	YES							0.8	A			0	8		
Intersection				2,046	2,057	11	1%	10%	YES	2,046	2,057	11	1%	10%	YES	0.6	A	0.6	A				

Note: Average results across 20 microsimulation runs.

* Low volume difference. Percentage difference is not significant. Considered Calibrated.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

No Build 2045 Conditions: Weekday Morning Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes								No Build 2045 Conditions MOEs							Notes		
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	Available Queue Storage (ft)			
Elden Street / Monroe Street	Signal	Elden Street	EBL	73	74	1	1%	839	834	-5	-1%	20.0	C	15.4	B	4	77	150	To Lynn St signal, which is not in model		
			EBT	630	627	-3	0%					15.2	B			90	656	250			
			EBR	136	133	-3	-2%					13.7	B			87	650	250			
		Elden Street	WBL	6	5	-1	-17%	459	454	-5	-1%	32.3	C	25.4	C	1	34	875	To Van Buren St signal		
			WBT	410	405	-5	-1%					25.6	C			73	419	875			
			WBR	43	44	1	2%					23.2	C			78	457	875			
		Monroe Street	NBL	36	34	-2	-6%	114	115	1	1%	60.6	E	56.6	E	11	87	100	To Van Buren St signal		
			NBT	63	66	3	5%					64.5	E			25	140	900			
			NBR	15	15	0	0%					12.6	B			8	130	900			
		Monroe Street	SBL	96	92	-4	-4%	373	378	5	1%	44.1	D	46.6	D	39	250	-	No upstream control within reasonable distance		
			SBT	218	226	8	4%					49.9	D			79	274	-			
			SBR	59	60	1	2%					38.1	D			76	274	250			
		Intersection				1,785	1,781	-4	0%	1,785	1,781	-4	0%	27.2	C	27.2	C				
		Elden Street / Van Buren Street	Signal	Elden Street	EBL	0	0	0	0%	770	751	-19	-2%	0.0	A	11.7	B	30	274	850	To Monroe Street signal
EBT	718				690	-28	-4%	12.4	B					30	274			850			
EBR	52				61	9	17%	3.2	A					0	46			850			
Elden Street	WBL			117	115	-2	-2%	602	587	-15	-2%	28.5	C	18.4	B	33	217	1500	To Post Drive signal, which is not in model		
	WBT			469	459	-10	-2%					16.1	B			33	217	1500			
	WBR			16	13	-3	-19%					10.6	B			40	231	1500			
Van Buren Street	NBL			49	49	0	0%	316	312	-4	-1%	48.1	D	32.7	C	13	103	150	To Monroe St / Grove St signal		
	NBT			151	146	-5	-3%					49.5	D			41	204	450			
	NBR			116	117	1	1%					5.3	A			3	90	450			
Van Buren Street	SBL			146	146	0	0%	470	481	11	2%	38.7	D	45.2	D	39	322	325	No upstream control within reasonable distance		
	SBT			315	325	10	3%					48.4	D			97	404	-			
	SBR			9	10	1	11%					36.6	D			99	415	-			
Intersection				1,688	1,650	-38	-2%	1,688	1,650	-38	-2%	31.2	C	31.2	C						
Van Buren Street / Spring Street	Signal			Van Buren Street	EBL	170	165	-5	-3%	495	493	-2	0%	13.3	B	10.5	B	0	4	1600	To Alabama Dr signal
		EBT	6		5	-1	-17%	15.5	B					13	144			1600			
		EBR	319		323	4	1%	9.0	A					15	170			150			
		Parking Lot	WBL	1	0	-1	-100%	1	0	-1	-100%	0.0	A	0.0	A	0	0	-			
			WBR	0	0	0	0%					0.0	A			0	0	-			
		Spring Street	NBL	117	121	4	3%	282	289	7	2%	13.6	B	8.7	A	4	105	200	To Huntmar Park Dr signal		
			NBT	157	162	5	3%					5.3	A			3	92	800			
			NBR	8	6	-2	-25%					3.1	A			2	100	800			
		Van Buren Street	SBL	9	9	0	0%	767	777	10	1%	5.6	A	7.0	A	0	28	275	To Monroe St / Grove St signal		
			SBT	428	426	-2	0%					7.8	A			13	202	1200			
			SBR	330	342	12	4%					6.0	A			9	207	1200			
		Intersection				778	782	4	1%	778	782	4	1%	16.8	B	16.8	B				
		Spring Street / Herndon Parkway	Signal	Spring Street	EBL	33	37	4	12%	855	855	0	0%	72.0	E	63.1	E	14	87	200	To Huntmar Park Dr signal
					EBT	686	684	-2	0%					64.5	E			124	357	2300	
EBR	136				134	-2	-1%	53.3	D					125	361			2300			
Spring Street	WBL			938	937	-1	0%	1,848	1,850	2	0%	39.6	D	31.9	C	140	606	375	To Ffx County Pkwy signal		
	WBT			503	508	5	1%					35.4	D			61	377	550			
	WBR			407	405	-2	0%					9.6	A			20	233	550			
Herndon Parkway	NBL			129	130	1	1%	1,538	1,514	-24	-2%	50.9	D	36.8	D	29	190	300	To Sunset Business Park		
	NBT			299	302	3	1%					46.8	D			143	652	500			
	NBR			1,110	1,082	-28	-3%					32.4	C			143	652	500			
Herndon Parkway	SBL			424	420	-4	-1%	930	932	2	0%	73.9	E	52.3	D	100	293	500	To Grove St signal		
	SBT			458	461	3	1%					35.2	D			57	262	2300			
	SBR			48	51	3	6%					30.2	C			57	265	2300			
Intersection				4,241	4,219	-22	-1%	4,241	4,219	-22	-1%	51.5	D	51.5	D						

Note: Average results across 7 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

No Build 2045 Conditions: Weekday Morning Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes								No Build 2045 Conditions MOEs							Notes
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	Available Queue Storage (ft)	
Spring Street / Fairfax County Parkway	Signal	Spring Street	EBL	177	177	0	0%	2,268	2,235	-33	-1%	41.1	D	12.1	B	39	294	250	To Herndon Parkway signal
			EBT	1,558	1,533	-25	-2%					11.9	B			67	534	550	
			EBR	533	525	-8	-2%					2.9	A			0	0	550	
		Spring Street	WBT	673	667	-6	-1%	978	969	-9	-1%	36.9	D	29.3	C	92	402	1650	To Target signal
			WBR	305	302	-3	-1%					12.6	B			47	385	1650	
		Fairfax County Parkway	SBL	370	370	0	0%	1,616	1,619	3	0%	45.9	D	31.7	C	138	838	600	To Ffx Pkwy signal, which is not in model
			SBR	1,246	1,249	3	0%					27.5	C			180	878	600	
		Intersection				4,862	4,823	-39	-1%	4,862	4,823	-39	-1%	22.1	C	22.1	C		
Van Buren Street / Alabama Drive	Signal	Alabama Drive	EBL	129	128	-1	-1%	291	291	0	0%	43.2	D	36.0	D	61	308	-	
			EBT	10	11	1	10%					38.7	D			61	308	-	
			EBR	152	152	0	0%					29.7	C			62	315	-	
		Alabama Drive	WBL	36	35	-1	-3%	92	88	-4	-4%	31.8	C	24.9	C	11	120	-	
			WBT	13	13	0	0%					38.6	D			11	120	-	
			WBR	43	40	-3	-7%					14.3	B			11	131	-	
		Van Buren Street	NBL	22	22	0	0%	362	364	2	1%	6.0	A	3.9	A	6	148	1125	To Herndon Parkway signal
			NBT	323	327	4	1%					3.8	A			7	149	1125	
			NBR	17	15	-2	-12%					2.9	A			5	148	1125	
		Van Buren Street	SBL	13	17	4	31%	447	461	14	3%	14.4	B	11.5	B	35	345	1600	To Van Buren St signal
			SBT	393	404	11	3%					11.5	B			35	345	1600	
			SBR	41	40	-1	-2%					10.4	B			32	324	1600	
Intersection				1,192	1,204	12	1%	1,192	1,204	12	1%	16.1	B	16.1	B				
Van Buren Street / Herndon Parkway	Signal	Herndon Parkway	EBL	43	42	-1	-2%	1,286	1,274	-12	-1%	64.3	E	33.1	C	14	101	175	To Campbell Way signal, which is not in model
			EBT	926	925	-1	0%					38.8	D			129	560	1950	
			EBR	317	307	-10	-3%					11.8	B			20	197	1950	
		Herndon Parkway	WBL	293	290	-3	-1%	658	652	-6	-1%	58.0	E	42.0	D	57	181	350	To Worldgate Drive signal
			WBT	307	305	-2	-1%					30.4	C			31	172	875	
			WBR	58	57	-1	-2%					23.6	C			31	172	875	
		Van Buren Street	NBL	240	245	5	2%	835	848	13	2%	25.8	C	14.3	B	32	257	375	To Office Park signal
			NBT	261	268	7	3%					12.5	B			19	245	375	
			NBR	334	335	1	0%					7.3	A			10	195	300	
		Van Buren Street	SBL	95	90	-5	-5%	582	590	8	1%	37.2	D	35.5	D	17	128	175	To Alabama Dr signal
			SBT	464	477	13	3%					35.7	D			63	458	1125	
			SBR	23	23	0	0%					25.5	C			63	458	1125	
Intersection				3,361	3,364	3	0%	3,361	3,364	3	0%	30.5	C	30.5	C				
Van Buren Street / Worldgate Drive	Signal	Worldgate Drive	EBL	170	173	3	2%	1,051	1,046	-5	0%	24.4	C	28.7	C	25	179	400	
			EBT	640	630	-10	-2%					39.9	D			82	325	-	
			EBR	241	243	2	1%					2.8	A			3	114	875	
		Worldgate Drive	WBL	139	139	0	0%	289	293	4	1%	64.5	E	32.4	C	51	207	275	To Herndon Pkwy signal
			WBT	142	147	5	4%					3.2	A			0	5	600	
			WBR	8	7	-1	-13%					9.3	A			0	39	600	
		Van Buren Street	NBL	406	379	-27	-7%	1,626	1,607	-19	-1%	44.5	D	22.6	C	62	283	250	To Eastpark Dr signal
			NBT	767	783	16	2%					19.0	B			53	351	1650	
			NBR	453	445	-8	-2%					10.3	B			21	244	250	
		Van Buren Street	SBL	20	22	2	10%	1,045	1,056	11	1%	67.5	E	18.3	B	8	60	200	To Office Park signal
			SBT	669	673	4	1%					25.5	C			57	308	400	
			SBR	356	361	5	1%					2.0	A			1	155	400	
Intersection				4,011	4,002	-9	0%	4,011	4,002	-9	0%	23.8	C	23.8	C				

Note: Average results across 7 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

No Build 2045 Conditions: Weekday Morning Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes								No Build 2045 Conditions MOEs							Notes
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	Available Queue Storage (ft)	
Herndon Parkway / Worldgate Drive	Signal	Herndon Parkway	EBL	1	1	0	0%	1,310	1,310	0	0%	54.1	D	23.2	C	0	15	175	To Van Buren St signal
			EBT	1,265	1,265	0	0%					23.3	C			140	596	850	
			EBR	44	44	0	0%					20.4	C			141	599	850	
		Herndon Parkway	WBL	433	434	1	0%	1,026	1,022	-4	0%	58.0	E	26.0	C	81	336	250	To 555 signal
			WBT	593	588	-5	-1%					2.5	A			4	97	875	
			WBR	0	0	0	0%					0.0	A			3	107	875	
		Worldgate Drive	NBL	65	59	-6	-9%	937	924	-13	-1%	54.2	D	27.0	C	80	383	600	To Van Buren St signal
			NBT	0	0	0	0%					0.0	A			80	383	600	
			NBR	872	865	-7	-1%					25.1	C			80	383	600	
		Worldgate Drive	SBL	0	0	0	0%	0	0	0	0%	0.0	A	0.0	A	0	0	75	
			SBT	0	0	0	0%					0.0	A			0	0	-	
			SBR	0	0	0	0%					0.0	A			0	0	-	
		Intersection				3,273	3,256	-17	-1%	3,273	3,256	-17	-1%	25.2	C	25.2	C		
Herndon Parkway / Exchange Place	Signal	Herndon Parkway	EBL	33	33	0	0%	1,764	1,722	-42	-2%	8.8	A	10.3	B	1	40	175	To 555 signal
			EBT	1,511	1,481	-30	-2%					10.3	B			72	767	650	
			EBR	220	208	-12	-5%					10.9	B			73	772	650	
		Herndon Parkway	WBL	148	146	-2	-1%	1,239	1,240	1	0%	15.6	B	9.0	A	7	117	175	To Fairbrook Dr signal
			WBT	1,068	1,073	5	0%					8.2	A			28	395	550	
			WBR	23	21	-2	-9%					7.8	A			29	405	550	
		Parking Lot	NBL	103	99	-4	-4%	147	145	-2	-1%	46.0	D	33.6	C	26	153	-	
			NBT	0	0	0	0%					0.0	A			26	153	-	
			NBR	44	46	2	5%					6.8	A			1	46	75	
		Exchange Place	SBL	8	8	0	0%	16	16	0	0%	52.7	D	31.4	C	2	45	-	
			SBT	0	0	0	0%					0.0	A			2	45	-	
			SBR	8	8	0	0%					10.1	B			1	51	-	
		Intersection				3,166	3,123	-43	-1%	3,166	3,123	-43	-1%	11.0	B	11.0	B		
Herndon Parkway / Fairbrook Drive	Signal	Parking Lot	EBL	4	4	0	0%	7	7	0	0%	52.9	D	33.1	C	1	25	75	
			EBT	0	0	0	0%					0.0	A			0	0	-	
			EBR	3	3	0	0%					6.8	A			0	15	-	
		Fairbrook Drive	WBL	93	99	6	6%	193	199	6	3%	47.6	D	28.3	C	22	98	175	
			WBT	0	0	0	0%					0.0	A			22	98	-	
			WBR	100	100	0	0%					9.3	A			1	81	-	
		Herndon Parkway	NBL	39	39	0	0%	1,563	1,532	-31	-2%	2.0	A	5.0	A	0	21	150	To Exchange Pl signal
			NBT	1,373	1,343	-30	-2%					5.1	A			25	539	550	
			NBR	151	150	-1	-1%					4.8	A			0	50	125	
		Herndon Parkway	SBL	290	295	5	2%	1,451	1,438	-13	-1%	23.3	C	21.9	C	30	386	150	To Sunset Business Park
			SBT	1,143	1,127	-16	-1%					21.5	C			99	621	825	
			SBR	18	16	-2	-11%					21.7	C			100	626	825	
		Intersection				3,214	3,176	-38	-1%	3,214	3,176	-38	-1%	14.2	B	14.2	B		

Note: Average results across 7 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

No Build 2045 Conditions: Weekday Evening Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes								No Build 2045 Conditions MOEs							Notes				
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	Available Queue Storage (ft)					
Elden Street / Monroe Street	Signal	Elden Street	EBL	127	125	-2	-2%	817	816	-1	0%	38.4	D	24.6	C	16	275	150	To Lynn St signal, which is not in model				
			EBT	654	655	1	0%					22.2	C			153	890	250					
			EBR	36	36	0	0%					21.1	C			152	889	250					
		Elden Street	WBL	13	13	0	0%	755	747	-8	-1%	37.4	D	33.6	C	2	43	875		To Van Buren St signal			
			WBT	669	663	-6	-1%					33.9	C			258	919	875					
			WBR	73	71	-2	-3%					30.2	C			268	957	875					
		Monroe Street	NBL	168	162	-6	-4%	398	391	-7	-2%	53.6	D	52.4	D	58	441	100			To Van Buren St signal		
			NBT	219	218	-1	0%					52.6	D			80	443	900					
			NBR	11	11	0	0%					28.1	C			64	437	900					
		Monroe Street	SBL	131	127	-4	-3%	382	382	0	0%	40.9	D	36.4	D	39	230	-				No upstream control within reasonable distance	
			SBT	130	132	2	2%					41.1	D			51	238	-					
			SBR	121	123	2	2%					26.9	C			49	238	250					
		Intersection				2,352	2,336	-16	-1%	2,352	2,336	-16	-1%	34.1	C	34.1	C						
Elden Street / Van Buren Street	Signal	Elden Street	EBL	5	5	0	0%	803	800	-3	0%	36.2	D	23.2	C	61	335	850	To Monroe Street signal				
			EBT	764	758	-6	-1%					24.1	C			61	335	850					
			EBR	34	37	3	9%					3.2	A			0	33	850					
		Elden Street	WBL	150	153	3	2%	962	966	4	0%	41.0	D	27.4	C	88	414	1500		To Post Drive signal, which is not in model			
			WBT	754	756	2	0%					25.3	C			88	414	1500					
			WBR	58	57	-1	-2%					19.6	B			97	428	1500					
		Van Buren Street	NBL	118	114	-4	-3%	668	650	-18	-3%	56.1	E	46.4	D	33	287	150			To Monroe St / Grove St signal		
			NBT	374	360	-14	-4%					60.0	E			144	528	450					
			NBR	176	176	0	0%					12.3	B			8	162	450					
		Van Buren Street	SBL	126	125	-1	-1%	317	315	-2	-1%	42.5	D	42.6	D	32	208	325				No upstream control within reasonable distance	
			SBT	176	175	-1	-1%					43.6	D			47	217	-					
			SBR	15	15	0	0%					32.3	C			49	228	-					
		Intersection				2,433	2,416	-17	-1%	2,433	2,416	-17	-1%	36.7	D	36.7	D						
Van Buren Street / Spring Street	Signal	Van Buren Street	EBL	414	396	-18	-4%	630	612	-18	-3%	54.7	D	41.9	D	279	1027	1600	To Alabama Dr signal				
			EBT	1	1	0	0%					43.6	D			279	1028	1600					
			EBR	215	215	0	0%					18.4	B			16	319	150					
		Parking Lot	WBL	13	14	1	8%	28	28	0	0%	52.4	D	53.0	D	4	54	-		To Huntmar Park Dr signal			
			WBR	15	14	-1	-7%					53.6	D			4	54	-					
		Spring Street	NBL	324	323	-1	0%	873	869	-4	0%	35.3	D	20.6	C	70	457	200					
			NBT	541	538	-3	-1%					11.9	B			21	294	800					
			NBR	8	8	0	0%					10.8	B			21	302	800					
		Van Buren Street	SBL	3	4	1	33%	648	639	-9	-1%	14.6	B	25.9	C	0	17	275			To Monroe St / Grove St signal		
			SBT	198	200	2	1%					15.5	B			89	501	1200					
			SBR	447	435	-12	-3%					30.8	C			117	535	1200					
		Intersection				1,531	1,509	-22	-1%	1,531	1,509	-22	-1%	40.8	D	40.8	D						
		Spring Street / Herndon Parkway	Signal	Spring Street	EBL	77	76	-1	-1%	816	816	0	0%	78.2	E	61.6	E	33				201	200
EBT	617				622	5	1%	62.6	E					107	333			2300					
EBR	122				118	-4	-3%	45.8	D					108	337			2300					
Spring Street	WBL			995	1,001	6	1%	2,213	2,216	3	0%	47.5	D	34.3	C	254	659	375	To Ffx County Pkwy signal				
	WBT			768	770	2	0%					31.7	C			87	476	550					
	WBR			450	445	-5	-1%					9.1	A			18	238	550					
Herndon Parkway	NBL			166	165	-1	-1%	1,989	1,951	-38	-2%	35.6	D	55.1	E	22	195	300		To Sunset Business Park			
	NBT			612	609	-3	0%					60.5	E			724	1476	500					
	NBR			1,211	1,177	-34	-3%					55.0	E			725	1476	500					
Herndon Parkway	SBL			461	455	-6	-1%	953	950	-3	0%	90.1	F	64.0	E	134	416	500			To Grove St signal		
	SBT			456	461	5	1%					40.4	D			64	272	2300					
	SBR			36	34	-2	-6%					35.0	D			64	275	2300					
Intersection				5,018	4,983	-35	-1%	5,018	4,983	-35	-1%	59.1	E	59.1	E								

Note: Average results across 20 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

No Build 2045 Conditions: Weekday Evening Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes								No Build 2045 Conditions MOEs							Notes
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	Available Queue Storage (ft)	
Spring Street / Fairfax County Parkway	Signal	Spring Street	EBL	385	380	-5	-1%	2,384	2,347	-37	-2%	61.9	E	15.3	B	146	604	250	To Herndon Parkway signal
			EBT	1,119	1,099	-20	-2%					7.6	A			25	317	550	
			EBR	880	868	-12	-1%					4.7	A			0	0	550	
		Spring Street	WBT	1,488	1,492	4	0%	2,138	2,128	-10	0%	29.4	C	27.2	C	265	1096	1650	To Target signal
			WBR	650	636	-14	-2%					22.0	C			235	1080	1650	
		Fairfax County Parkway	SBL	166	168	2	1%	1,090	1,095	5	0%	65.9	E	45.7	D	72	319	600	To Ffx Pkwy signal, which is not in model
			SBR	924	927	3	0%					42.1	D			150	583	600	
		Intersection				5,612	5,570	-42	-1%	5,612	5,570	-42	-1%	25.8	C	25.8	C		
Van Buren Street / Alabama Drive	Signal	Alabama Drive	EBL	85	85	0	0%	235	238	3	1%	93.8	F	84.8	F	136	477	-	
			EBT	18	17	-1	-6%					96.4	F			136	477	-	
			EBR	132	136	4	3%					77.7	E			139	484	-	
		Alabama Drive	WBL	20	20	0	0%	51	50	-1	-2%	51.8	D	36.0	D	9	89	-	
			WBT	10	10	0	0%					42.8	D			9	89	-	
			WBR	21	20	-1	-5%					16.8	B			7	103	-	
		Van Buren Street	NBL	61	60	-1	-2%	659	647	-12	-2%	16.8	B	13.0	B	57	550	1125	To Herndon Parkway signal
			NBT	524	517	-7	-1%					12.9	B			57	550	1125	
			NBR	74	70	-4	-5%					10.5	B			56	550	1125	
		Van Buren Street	SBL	34	32	-2	-6%	772	732	-40	-5%	36.5	D	34.6	C	642	1450	1600	To Van Buren St signal
			SBT	631	599	-32	-5%					35.1	D			642	1452	1600	
			SBR	107	101	-6	-6%					30.9	C			640	1452	1600	
Intersection				1,717	1,667	-50	-3%	1,717	1,667	-50	-3%	33.4	C	33.4	C				
Van Buren Street / Herndon Parkway	Signal	Herndon Parkway	EBL	55	54	-1	-2%	873	867	-6	-1%	78.5	E	36.7	D	24	124	175	To Campbell Way signal, which is not in model
			EBT	472	472	0	0%					47.8	D			74	321	1950	
			EBR	346	341	-5	-1%					14.9	B			34	227	1950	
		Herndon Parkway	WBL	520	519	-1	0%	1,838	1,846	8	0%	53.5	D	42.1	D	94	384	350	To Worldgate Drive signal
			WBT	1,109	1,116	7	1%					37.7	D			287	993	875	
			WBR	209	211	2	1%					37.3	D			287	993	875	
		Van Buren Street	NBL	365	370	5	1%	1,051	1,040	-11	-1%	88.7	F	38.8	D	355	854	375	To Office Park signal
			NBT	394	383	-11	-3%					15.7	B			289	840	375	
			NBR	292	287	-5	-2%					5.3	A			4	133	300	
		Van Buren Street	SBL	69	65	-4	-6%	784	743	-41	-5%	46.5	D	66.7	E	39	240	175	To Alabama Dr signal
			SBT	668	631	-37	-6%					69.6	E			750	1197	1125	
			SBR	47	47	0	0%					55.9	E			750	1197	1125	
Intersection				4,546	4,496	-50	-1%	4,546	4,496	-50	-1%	44.4	D	44.4	D				
Van Buren Street / Worldgate Drive	Signal	Worldgate Drive	EBL	291	289	-2	-1%	1,300	1,298	-2	0%	26.2	C	24.5	C	45	276	400	
			EBT	340	339	-1	0%					46.7	D			52	204	-	
			EBR	669	670	1	0%					12.4	B			55	499	875	
		Parking Lot	WBL	364	351	-13	-4%	924	906	-18	-2%	56.7	E	24.1	C	161	650	275	To Herndon Pkwy signal
			WBT	538	533	-5	-1%					3.4	A			0	25	600	
			WBR	22	22	0	0%					7.2	A			1	49	600	
		Van Buren Street	NBL	361	349	-12	-3%	1,381	1,367	-14	-1%	56.5	E	31.5	C	76	333	250	To Eastpark Dr signal
			NBT	720	722	2	0%					29.5	C			106	490	1650	
			NBR	300	296	-4	-1%					6.8	A			6	155	250	
		Van Buren Street	SBL	9	9	0	0%	1,583	1,539	-44	-3%	70.2	E	29.1	C	3	50	200	To Office Park signal
			SBT	1,211	1,178	-33	-3%					36.9	D			157	714	400	
			SBR	363	352	-11	-3%					1.9	A			0	95	400	
Intersection				5,188	5,110	-78	-2%	5,188	5,110	-78	-2%	27.7	C	27.7	C				

Note: Average results across 20 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

No Build 2045 Conditions: Weekday Evening Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes								No Build 2045 Conditions MOEs							Notes
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	Available Queue Storage (ft)	
Herndon Parkway / Worldgate Drive	Signal	Herndon Parkway	EBL	0	0	0	0%	917	909	-8	-1%	0.0	A	17.2	B	0	0	175	To Van Buren St signal
			EBT	897	889	-8	-1%					17.2	B			55	411	850	
			EBR	20	20	0	0%					13.8	B			55	415	850	
		Herndon Parkway	WBL	694	672	-22	-3%	2,335	2,330	-5	0%	49.5	D	21.4	C	192	987	250	To 555 signal
			WBT	1,641	1,658	17	1%					10.1	B			70	765	875	
			WBR	0	0	0	0%					0.0	A			70	763	875	
		Worldgate Drive	NBL	199	196	-3	-2%	847	846	-1	0%	57.5	E	28.9	C	79	343	600	To Van Buren St signal
			NBT	0	0	0	0%					0.0	A			79	343	600	
			NBR	648	650	2	0%					20.3	C			79	343	600	
		Worldgate Drive	SBL	0	0	0	0%	0	0	0	0%	0.0	A	0.0	A	0	0	75	
			SBT	0	0	0	0%					0.0	A			0	0	-	
			SBR	0	0	0	0%					0.0	A			0	0	-	
Intersection				4,099	4,085	-14	0%	4,099	4,085	-14	0%	22.0	C	22.0	C				
Herndon Parkway / 555 Herndon Parkway	Signal	Herndon Parkway	EBL	0	0	0	0%	1,621	1,598	-23	-1%	0.0	A	12.5	B	0	0		
			EBT	1,522	1,499	-23	-2%					12.6	B			84	682		
			EBR	99	99	0	0%					12.1	B			84	685		
		Herndon Parkway	WBL	66	62	-4	-6%	2,038	2,027	-11	-1%	25.2	C	12.7	B	3	79		
			WBT	1,972	1,965	-7	0%					12.3	B			121	633		
			WBR	0	0	0	0%					0.0	A			122	636		
		Parking Lot	NBL	314	316	2	1%	449	446	-3	-1%	67.9	E	58.0	E	170	444		
			NBT	0	0	0	0%					0.0	A			0	0		
			NBR	135	130	-5	-4%					33.9	C			14	327		
		Parking Lot	SBL	0	0	0	0%	0	0	0	0%	0.0	A	0.0	A	0	0		
			SBT	0	0	0	0%					0.0	A			0	0		
			SBR	0	0	0	0%					0.0	A			0	0		
Intersection				4,108	4,071	-37	-1%	4,108	4,071	-37	-1%	17.6	B	17.6	B				
Herndon Parkway / Exchange Place	Signal	Herndon Parkway	EBL	28	29	1	4%	1,676	1,645	-31	-2%	16.7	B	12.3	B	1	47	175	To 555 signal
			EBT	1,549	1,518	-31	-2%					12.3	B			93	657	650	
			EBR	99	98	-1	-1%					11.3	B			94	662	650	
		Herndon Parkway	WBL	66	66	0	0%	1,649	1,648	-1	0%	27.6	C	11.2	B	5	92	175	To Fairbrook Dr signal
			WBT	1,578	1,577	-1	0%					10.5	B			64	610	550	
			WBR	5	5	0	0%					8.3	A			66	620	550	
		Parking Lot	NBL	314	307	-7	-2%	449	447	-2	0%	54.6	D	46.0	D	124	391	-	
			NBT	0	0	0	0%					0.0	A			124	391	-	
			NBR	135	140	5	4%					27.2	C			16	334	75	
		Exchange Place	SBL	10	10	0	0%	38	38	0	0%	43.9	D	17.5	B	3	61	-	
			SBT	0	0	0	0%					0.0	A			3	61	-	
			SBR	28	28	0	0%					8.0	A			2	67	-	
Intersection				3,812	3,778	-34	-1%	3,812	3,778	-34	-1%	15.8	B	15.8	B				
Herndon Parkway / Fairbrook Drive	Signal	Parking Lot	EBL	21	23	2	10%	51	53	2	4%	75.8	E	37.5	D	10	77	75	
			EBT	0	0	0	0%					0.0	A			0	14	-	
			EBR	30	30	0	0%					8.2	A			0	39	-	
		Fairbrook Drive	WBL	187	185	-2	-1%	483	482	-1	0%	50.0	D	35.3	D	36	171	175	
			WBT	0	0	0	0%					0.0	A			36	171	-	
			WBR	296	297	1	0%					26.1	C			33	314	-	
		Herndon Parkway	NBL	1	1	0	0%	1,694	1,662	-32	-2%	21.1	C	18.5	B	0	9	150	To Exchange Pl signal
			NBT	1,625	1,594	-31	-2%					18.9	B			157	693	550	
			NBR	68	67	-1	-1%					9.6	A			0	15	125	
		Herndon Parkway	SBL	182	186	4	2%	1,592	1,625	33	2%	46.1	D	16.1	B	54	551	150	To Sunset Business Park
			SBT	1,407	1,435	28	2%					12.3	B			81	720	825	
			SBR	3	4	1	33%					10.6	B			82	725	825	
Intersection				3,820	3,822	2	0%	3,820	3,822	2	0%	19.9	B	19.9	B				

Note: Average results across 20 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Build Scenario 1 with Fairbrook Drive Extended 2045 Conditions: Weekday Morning Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes								Build Scenario 1 with Fairbrook Drive Extended 2045 Conditions MOEs						Notes		
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)			
Elden Street / Monroe Street	Signal	Elden Street	EBL	73	75	2	3%	839	834	-5	-1%	24.4	C	19.4	B	5	107			
			EBT	630	626	-4	-1%					19.2	B			126	796			
			EBR	136	133	-3	-2%					17.7	B			123	796			
		Elden Street	WBL	6	5	-1	-17%	459	453	-6	-1%	24.3	C	19.4	B	0	28			
			WBT	410	404	-6	-1%					19.7	B			58	441			
			WBR	43	44	1	2%					16.8	B			66	479			
		Monroe Street	NBL	36	38	2	6%	186	186	0	0%	41.9	D	43.2	D	9	82			
			NBT	135	134	-1	-1%					46.7	D			40	276			
			NBR	15	14	-1	-7%					13.3	B			23	270			
		Monroe Street	SBL	96	96	0	0%	424	434	10	2%	39.2	D	42.6	D	40	266			
			SBT	269	278	9	3%					45.1	D			86	301			
			SBR	59	60	1	2%					36.6	D			84	301			
		Intersection				1,908	1,907	-1	0%	1,908	1,907	-1	0%	27.0	C	27.0	C			
Elden Street / Van Buren Street	Signal	Elden Street	EBL	0	0	0	0%	770	766	-4	-1%	0.0	A	18.1	B	49	325			
			EBT	718	704	-14	-2%					19.4	B			49	325			
			EBR	52	62	10	19%					4.1	A			1	52			
		Elden Street	WBL	117	116	-1	-1%	602	592	-10	-2%	32.7	C	22.3	C	40	221			
			WBT	469	463	-6	-1%					19.9	B			40	221			
			WBR	16	13	-3	-19%					14.5	B			48	235			
		Van Buren Street	NBL	49	47	-2	-4%	387	382	-5	-1%	27.1	C	24.7	C	7	102			
			NBT	222	221	-1	0%					34.3	C			44	308			
			NBR	116	114	-2	-2%					5.0	A			2	85			
		Van Buren Street	SBL	146	142	-4	-3%	521	534	13	2%	38.1	D	44.5	D	39	371			
			SBT	366	381	15	4%					47.1	D			112	474			
			SBR	9	11	2	22%					39.5	D			116	485			
		Intersection				1,759	1,740	-19	-1%	1,759	1,740	-19	-1%	34.7	C	34.7	C			
Van Buren Street / Spring Street	Signal	Van Buren Street	EBL	183	174	-9	-5%	508	503	-5	-1%	15.1	B	11.4	B	0	3			
			EBT	6	8	2	33%					15.8	B			16	223			
			EBR	319	321	2	1%					9.4	A			15	198			
		Parking Lot	WBL	1	0	-1	-100%	1	0	-1	-100%	0.0	A	0.0	A	0	0			
			WBR	0	0	0	0%					0.0	A			0	0			
		Spring Street	NBL	117	121	4	3%	412	422	10	2%	15.8	B	8.5	A	5	118			
			NBT	287	294	7	2%					5.7	A			5	132			
			NBR	8	7	-1	-13%					2.3	A			4	140			
		Van Buren Street	SBL	9	9	0	0%	869	887	18	2%	8.4	A	7.5	A	0	34			
			SBT	519	526	7	1%					8.4	A			17	230			
			SBR	341	352	11	3%					6.3	A			8	164			
		Intersection				921	925	4	0%	921	925	4	0%	17.4	B	17.4	B			
		Spring Street / Herndon Parkway	Signal	Spring Street	EBL	55	60	5	9%	914	911	-3	0%	80.1	F	61.0	E	27	128	
EBT	756				752	-4	0%	61.1	E					124	391					
EBR	103				99	-4	-4%	49.0	D					124	394					
Spring Street	WBL			589	589	0	0%	1,517	1,516	-1	0%	48.2	D	36.1	D	97	477			
	WBT			515	515	0	0%					41.6	D			72	322			
	WBR			414	412	-2	0%					11.9	B			27	278			
Herndon Parkway	NBL			226	234	8	4%	1,640	1,620	-20	-1%	42.8	D	32.0	C	45	259			
	NBT			401	387	-14	-3%					44.5	D			109	466			
	NBR			1,013	999	-14	-1%					24.6	C			109	466			
Herndon Parkway	SBL			462	456	-6	-1%	1,003	1,002	-1	0%	86.1	F	63.9	E	134	472			
	SBT			484	487	3	1%					45.9	D			79	327			
	SBR			57	59	3	4%					40.2	D			80	330			
Intersection				4,071	4,047	-24	-1%	4,071	4,047	-24	-1%	55.9	E	55.9	E					

Note: Average results across 7 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Build Scenario 1 with Fairbrook Drive Extended 2045 Conditions: Weekday Morning Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Build Scenario 1 with Fairbrook Drive Extended 2045 Conditions MOEs										Notes
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	
Spring Street / Fairfax County Parkway / Fairbrook Drive	Signal	Spring Street	EBL	152	152	0	0%	2,212	2,180	-32	-1%	42.4	D	35.2	D	28	209	
			EBT	2,030	1,997	-33	-2%					34.7	C			237	760	
			EBR	31	31	0	0%					30.5	C			233	755	
		Spring Street	WBL	187	184	-3	-2%	1,053	1,041	-12	-1%	90.4	F	41.9	D	149	482	
			WBT	561	559	-2	0%					41.3	D			149	482	
			WBR	305	298	-7	-2%					13.0	B			99	471	
		Fairbrook Drive	NBL	19	17	-2	-10%	587	592	5	1%	91.2	F	61.0	E	136	632	
			NBT	139	143	4	3%					91.7	F			136	632	
			NBR	429	432	3	1%					49.6	D			136	632	
		Fairfax County Parkway	SBL	370	367	-3	-1%	1,752	1,755	3	0%	90.7	F	42.8	D	552	1333	
			SBT	372	371	-1	0%					41.4	D			241	1180	
			SBR	1,010	1,017	7	1%					26.0	C			462	1324	
		Intersection				5,604	5,568	-36	-1%	5,604	5,568	-36	-1%	41.6	D	41.6	D	
Van Buren Street / Alabama Drive	Signal	Alabama Drive	EBL	129	128	-1	-1%	313	312	-1	0%	41.8	D	35.0	D	64	363	
			EBT	10	11	1	10%					43.1	D			64	363	
			EBR	174	173	-1	-1%					29.5	C			65	370	
		Alabama Drive	WBL	47	46	-1	-2%	103	99	-4	-4%	32.6	C	25.3	C	13	136	
			WBT	13	14	1	8%					32.0	C			13	136	
			WBR	43	39	-4	-9%					14.4	B			12	146	
		Van Buren Street	NBL	49	50	1	2%	417	415	-2	-1%	26.0	C	23.0	C	61	396	
			NBT	336	335	-1	0%					23.0	C			62	396	
			NBR	32	30	-2	-7%					18.5	B			61	396	
		Van Buren Street	SBL	13	16	3	23%	458	473	15	3%	14.6	B	11.4	B	35	347	
			SBT	404	417	13	3%					11.4	B			35	346	
			SBR	41	40	-1	-2%					9.5	A			32	345	
		Intersection				1,292	1,299	7	1%	1,292	1,299	7	1%	21.8	C	21.8	C	
Van Buren Street / Herndon Parkway	Signal	Herndon Parkway	EBL	43	41	-2	-5%	1,452	1,448	-4	0%	74.2	E	38.8	D	15	96	
			EBT	1,092	1,102	10	1%					43.6	D			250	862	
			EBR	317	305	-12	-4%					16.5	B			25	453	
		Herndon Parkway	WBL	293	291	-2	-1%	924	907	-17	-2%	51.9	D	27.2	C	52	226	
			WBT	518	508	-10	-2%					16.3	B			27	194	
			WBR	113	108	-5	-5%					12.2	B			27	194	
		Van Buren Street	NBL	240	248	8	3%	835	846	11	1%	52.9	D	37.6	D	87	391	
			NBT	261	267	6	2%					42.7	D			78	394	
			NBR	334	331	-3	-1%					22.1	C			46	331	
		Van Buren Street	SBL	139	139	0	0%	626	642	16	3%	39.2	D	40.6	D	31	229	
			SBT	464	480	16	3%					41.5	D			75	464	
			SBR	23	23	0	0%					29.4	C			75	464	
		Intersection				3,837	3,843	6	0%	3,837	3,843	6	0%	36.1	D	36.1	D	

Note: Average results across 7 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Build Scenario 1 with Fairbrook Drive Extended 2045 Conditions: Weekday Morning Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Build Scenario 1 with Fairbrook Drive Extended 2045 Conditions MOEs										Notes
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	
Van Buren Street / Worldgate Drive	Signal	Worldgate Drive	EBL	170	172	2	1%	1,104	1,088	-16	-1%	36.7	D	31.0	C	38	211	
			EBT	693	672	-21	-3%					39.7	D			89	321	
			EBR	241	244	3	1%					2.9	A			3	100	
		Worldgate Drive	WBL	196	205	9	4%	415	428	13	3%	39.9	D	38.3	D	47	281	
			WBT	211	215	4	2%					37.4	D			30	152	
			WBR	8	8	0	0%					22.5	C			33	165	
		Van Buren Street	NBL	406	393	-13	-3%	1,671	1,667	-4	0%	44.1	D	22.2	C	60	250	
			NBT	767	785	18	2%					17.9	B			49	361	
			NBR	498	489	-9	-2%					11.3	B			26	254	
		Van Buren Street	SBL	20	21	1	5%	1,045	1,061	16	2%	35.2	D	8.8	A	4	67	
			SBT	669	677	8	1%					11.4	B			27	269	
			SBR	356	363	7	2%					2.4	A			1	147	
Intersection				4,236	4,244	8	0%	4,236	4,244	8	0%	22.7	C	22.7	C			
Herndon Parkway / Worldgate Drive	Signal	Herndon Parkway	EBL	67	71	4	6%	1,520	1,526	6	0%	22.0	C	50.5	D	3	57	
			EBT	1,409	1,412	3	0%					52.4	D			352	978	
			EBR	44	43	-1	-2%					35.1	D			356	982	
		Herndon Parkway	WBL	509	498	-11	-2%	1,278	1,258	-20	-2%	47.3	D	21.3	C	83	448	
			WBT	757	750	-7	-1%					4.3	A			8	166	
			WBR	11	10	-1	-11%					3.7	A			8	176	
		Worldgate Drive	NBL	65	62	-3	-5%	1,035	1,014	-21	-2%	35.0	D	23.8	C	76	322	
			NBT	34	33	-1	-2%					34.5	C			76	322	
			NBR	937	919	-18	-2%					22.7	C			76	322	
		Worldgate Drive	SBL	31	32	1	3%	183	186	3	2%	40.8	D	28.0	C	6	109	
			SBT	50	48	-2	-4%					44.5	D			19	206	
			SBR	102	106	4	4%					16.7	B			18	210	
Intersection				4,016	3,984	-32	-1%	4,016	3,984	-32	-1%	33.4	C	33.4	C			
Herndon Parkway / Exchange Place	Signal	Herndon Parkway	EBL	10	9	-1	-10%	2,100	2,061	-39	-2%	10.0	B	14.5	B	0	18	
			EBT	1,870	1,843	-27	-1%					14.5	B			165	850	
			EBR	220	209	-11	-5%					14.7	B			167	856	
		Herndon Parkway	WBL	148	144	-4	-3%	1,313	1,310	-3	0%	28.5	C	12.8	B	13	144	
			WBT	1,155	1,157	2	0%					10.9	B			43	385	
			WBR	10	9	-1	-10%					11.0	B			45	394	
		Parking Lot	NBL	103	99	-4	-4%	147	145	-2	-1%	45.3	D	34.0	C	25	141	
			NBT	0	0	0	0%					0.0	A			25	141	
			NBR	44	46	2	5%					9.8	A			1	56	
		Exchange Place	SBL	42	42	0	0%	70	71	1	1%	46.0	D	35.2	D	13	105	
			SBT	0	0	0	0%					0.0	A			13	105	
			SBR	28	29	1	4%					19.6	B			11	111	
Intersection				3,631	3,587	-44	-1%	3,631	3,587	-44	-1%	15.1	B	15.1	B			
Herndon Parkway / Fairbrook Drive	Signal	Parking Lot	EBL	41	44	4	9%	135	139	4	3%	51.7	D	47.1	D	13	134	
			EBT	68	67	-1	-1%					52.1	D			25	162	
			EBR	27	28	1	4%					28.2	C			21	164	
		Fairbrook Drive	WBL	270	277	7	3%	354	360	6	2%	43.8	D	39.7	D	52	232	
			WBT	45	42	-3	-7%					43.1	D			52	232	
			WBR	39	41	2	5%					8.1	A			0	30	
		Herndon Parkway	NBL	18	17	-1	-6%	1,956	1,927	-29	-2%	4.9	A	10.7	B	0	25	
			NBT	1,506	1,481	-25	-2%					11.1	B			99	694	
			NBR	432	429	-3	-1%					9.7	A			5	291	
		Herndon Parkway	SBL	97	100	3	3%	1,139	1,119	-20	-2%	27.8	C	17.7	B	11	143	
			SBT	1,015	994	-21	-2%					16.9	B			60	518	
			SBR	27	25	-2	-7%					10.8	B			60	522	
Intersection				3,585	3,545	-40	-1%	3,585	3,545	-40	-1%	17.3	B	17.3	B			

Note: Average results across 7 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Build Scenario 1 with Fairbrook Drive Extended 2045 Conditions: Weekday Evening Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes								Build Scenario 1 with Fairbrook Drive Extended 2045 Conditions MOEs						Notes		
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)			
Elden Street / Monroe Street	Signal	Elden Street	EBL	127	125	-2	-2%	817	814	-3	0%	37.9	D	22.6	C	14	189			
			EBT	654	653	-1	0%					20.0	B			123	765			
			EBR	36	36	0	0%					18.1	B			121	765			
		Elden Street	WBL	13	13	0	0%	755	750	-5	-1%	35.9	D	27.0	C	1	46			
			WBT	669	667	-2	0%					26.9	C			210	760			
			WBR	73	70	-3	-4%					26.0	C			217	798			
		Monroe Street	NBL	168	165	-3	-2%	453	451	-2	0%	74.0	E	72.8	E	123	656			
			NBT	274	275	1	0%					73.0	E			196	708			
			NBR	11	11	0	0%					47.4	D			181	700			
		Monroe Street	SBL	131	125	-6	-5%	459	449	-10	-2%	48.6	D	53.0	D	72	368			
			SBT	207	202	-5	-2%					58.7	E			110	406			
			SBR	121	122	1	1%					48.1	D			108	406			
		Intersection				2,484	2,464	-20	-1%	2,484	2,464	-20	-1%	38.7	D	38.7	D			
Elden Street / Van Buren Street	Signal	Elden Street	EBL	5	5	0	0%	803	780	-23	-3%	28.6	C	19.4	B	55	338			
			EBT	764	738	-26	-3%					20.2	C			55	338			
			EBR	34	37	3	9%					3.6	A			0	46			
		Elden Street	WBL	150	152	2	1%	962	949	-13	-1%	41.5	D	28.4	C	91	386			
			WBT	754	742	-12	-2%					26.3	C			91	386			
			WBR	58	55	-3	-5%					20.1	C			100	399			
		Van Buren Street	NBL	118	116	-2	-2%	724	706	-18	-2%	53.1	D	45.9	D	38	363			
			NBT	430	415	-15	-3%					56.6	E			211	836			
			NBR	176	175	-1	-1%					15.7	B			8	216			
		Van Buren Street	SBL	126	126	0	0%	392	399	7	2%	40.9	D	43.6	D	33	236			
			SBT	251	257	6	2%					45.5	D			71	276			
			SBR	15	16	1	7%					34.1	C			75	286			
		Intersection				2,489	2,435	-54	-2%	2,489	2,435	-54	-2%	37.7	D	37.7	D			
Van Buren Street / Spring Street	Signal	Van Buren Street	EBL	416	405	-11	-3%	632	621	-11	-2%	20.3	C	15.8	B	1	82			
			EBT	1	2	1	100%					21.0	C			53	464			
			EBR	215	214	-1	0%					7.3	A			6	126			
		Parking Lot	WBL	13	14	1	8%	28	28	0	0%	26.3	C	27.7	C	2	46			
			WBR	15	14	-1	-7%					29.0	C			2	45			
		Spring Street	NBL	324	324	0	0%	982	980	-2	0%	51.4	D	23.8	C	100	540			
			NBT	650	648	-2	0%					10.2	B			20	276			
			NBR	8	8	0	0%					8.9	A			19	284			
		Van Buren Street	SBL	3	3	0	0%	800	810	10	1%	17.5	B	15.2	B	0	24			
			SBT	335	337	2	1%					17.0	B			33	315			
			SBR	462	470	8	2%					13.9	B			40	328			
		Intersection				1,642	1,629	-13	-1%	1,642	1,629	-13	-1%	28.4	C	28.4	C			
		Spring Street / Herndon Parkway	Signal	Spring Street	EBL	104	102	-2	-2%	914	904	-10	-1%	83.0	F	74.0	E	47	266	
EBT	678				671	-7	-1%	74.3	E					154	474					
EBR	132				131	-1	-1%	65.7	E					155	477					
Spring Street	WBL			953	948	-5	-1%	2,200	2,190	-10	0%	40.7	D	30.4	C	153	581			
	WBT			788	785	-3	0%					29.5	C			80	401			
	WBR			459	457	-2	0%					10.4	B			20	211			
Herndon Parkway	NBL			229	236	7	3%	1,764	1,719	-45	-3%	48.7	D	37.1	D	49	312			
	NBT			686	656	-30	-4%					53.2	D			159	597			
	NBR			850	827	-23	-3%					21.0	C			159	597			
Herndon Parkway	SBL			490	483	-7	-1%	1,081	1,076	-5	0%	73.0	E	65.8	E	112	347			
	SBT			545	549	4	1%					60.5	E			112	390			
	SBR			46	44	-2	-5%					53.1	D			113	393			
Intersection				4,878	4,813	-65	-1%	4,878	4,813	-65	-1%	55.7	E	55.7	E					

Note: Average results across 20 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Build Scenario 1 with Fairbrook Drive Extended 2045 Conditions: Weekday Evening Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Build Scenario 1 with Fairbrook Drive Extended 2045 Conditions MOEs										Notes
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	
Spring Street / Fairfax County Parkway / Fairbrook Drive	Signal	Spring Street	EBL	289	287	-2	-1%	2,022	1,984	-38	-2%	80.4	F	31.3	C	167	634	
			EBT	1,711	1,674	-37	-2%					23.1	C			128	624	
			EBR	23	23	0	2%					15.8	B			125	620	
		Spring Street	WBL	162	160	-2	-1%	2,289	2,257	-32	-1%	45.4	D	35.4	D	683	1613	
			WBT	1,476	1,470	-6	0%					35.6	D			683	1613	
			WBR	650	627	-23	-4%					32.5	C			663	1602	
		Fairbrook Drive	NBL	29	29	0	0%	763	764	1	0%	85.5	F	56.6	E	208	860	
			NBT	184	184	0	0%					76.9	E			208	860	
			NBR	550	551	1	0%					48.3	D			208	860	
		Fairfax County Parkway	SBL	166	170	4	2%	1,460	1,466	6	0%	101.6	F	45.4	D	116	646	
			SBT	400	404	4	1%					49.1	D			143	734	
			SBR	895	892	-3	0%					33.1	C			147	782	
		Intersection				6,533	6,471	-62	-1%	6,533	6,471	-62	-1%	38.9	D	38.9	D	
Van Buren Street / Alabama Drive	Signal	Alabama Drive	EBL	85	80	-5	-6%	265	259	-6	-2%	68.5	E	56.0	E	98	437	
			EBT	18	18	0	0%					66.9	E			98	437	
			EBR	162	161	-1	-1%					48.6	D			101	444	
		Alabama Drive	WBL	35	34	-1	-3%	66	66	0	0%	41.0	D	33.9	C	12	104	
			WBT	10	11	1	10%					42.3	D			12	104	
			WBR	21	21	0	0%					18.0	B			10	119	
		Van Buren Street	NBL	65	64	-1	-2%	668	655	-13	-2%	19.5	B	14.8	B	70	624	
			NBT	526	519	-7	-1%					14.5	B			70	624	
			NBR	77	72	-5	-7%					13.1	B			70	624	
		Van Buren Street	SBL	34	34	0	0%	787	784	-3	0%	28.6	C	26.3	C	408	1202	
			SBT	646	644	-2	0%					26.6	C			408	1201	
			SBR	107	106	-1	-1%					23.5	C			406	1200	
		Intersection				1,787	1,764	-23	-1%	1,787	1,764	-23	-1%	26.7	C	26.7	C	
Van Buren Street / Herndon Parkway	Signal	Herndon Parkway	EBL	55	56	1	2%	1,100	1,094	-6	-1%	69.9	E	42.6	D	21	118	
			EBT	699	696	-3	0%					51.7	D			126	501	
			EBR	346	342	-4	-1%					19.7	B			41	331	
		Herndon Parkway	WBL	520	505	-15	-3%	1,882	1,845	-37	-2%	77.1	E	52.0	D	141	729	
			WBT	1,144	1,125	-19	-2%					42.7	D			394	1039	
			WBR	218	215	-3	-2%					41.6	D			394	1039	
		Van Buren Street	NBL	365	369	4	1%	1,051	1,043	-8	-1%	99.8	F	49.1	D	418	874	
			NBT	394	387	-7	-2%					29.9	C			379	871	
			NBR	292	287	-5	-2%					10.1	B			24	225	
		Van Buren Street	SBL	129	125	-4	-3%	844	829	-15	-2%	59.6	E	58.6	E	71	759	
			SBT	668	657	-11	-2%					58.9	E			598	1177	
			SBR	47	47	0	0%					52.3	D			598	1177	
		Intersection				4,878	4,811	-67	-1%	4,878	4,811	-67	-1%	50.4	D	50.4	D	
Van Buren Street / Worldgate Drive	Signal	Worldgate Drive	EBL	291	286	-5	-2%	1,373	1,358	-15	-1%	50.4	D	30.5	C	121	440	
			EBT	413	407	-6	-2%					45.3	D			60	245	
			EBR	669	665	-4	-1%					12.9	B			66	512	
		Parking Lot	WBL	374	363	-11	-3%	946	933	-13	-1%	11.7	B	28.5	C	20	359	
			WBT	551	547	-4	-1%					39.9	D			77	420	
			WBR	22	23	1	5%					20.7	C			85	434	
		Van Buren Street	NBL	361	350	-11	-3%	1,442	1,431	-11	-1%	51.8	D	23.5	C	64	282	
			NBT	720	727	7	1%					18.0	B			47	368	
			NBR	361	354	-7	-2%					6.8	A			9	165	
		Van Buren Street	SBL	9	9	0	0%	1,583	1,554	-29	-2%	49.3	D	12.3	B	3	52	
			SBT	1,211	1,189	-22	-2%					15.3	B			75	558	
			SBR	363	356	-7	-2%					1.6	A			0	68	
		Intersection				5,345	5,276	-69	-1%	5,345	5,276	-69	-1%	22.9	C	22.9	C	

Note: Average results across 20 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Build Scenario 1 with Fairbrook Drive Extended 2045 Conditions: Weekday Evening Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Build Scenario 1 with Fairbrook Drive Extended 2045 Conditions MOEs										Notes
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	
Herndon Parkway / Worldgate Drive	Signal	Herndon Parkway	EBL	100	97	-3	-3%	1,204	1,190	-14	-1%	54.5	D	47.7	D	12	131	
			EBT	1,084	1,072	-12	-1%					47.1	D			196	488	
			EBR	20	21	1	5%					42.6	D			198	492	
		Herndon Parkway	WBL	688	671	-17	-2%	2,327	2,283	-44	-2%	43.4	D	27.0	C	216	986	
			WBT	1,623	1,595	-28	-2%					20.2	C			205	1000	
			WBR	17	17	0	2%					17.0	B			210	1010	
		Worldgate Drive	NBL	199	197	-2	-1%	982	973	-9	-1%	43.7	D	25.5	C	91	415	
			NBT	50	49	-1	-2%					45.1	D			91	415	
			NBR	733	727	-6	-1%					19.2	B			91	415	
		Worldgate Drive	SBL	48	47	-1	-2%	137	136	-1	-1%	49.2	D	31.9	C	12	125	
			SBT	28	30	2	6%					39.2	D			9	132	
			SBR	61	59	-2	-3%					14.5	B			7	136	
		Intersection				4,650	4,582	-68	-1%	4,650	4,582	-68	-1%	32.2	C	32.2	C	
Herndon Parkway / 555 Herndon Parkway	Signal	Herndon Parkway	EBL	91	91	0	0%	1,941	1,905	-36	-2%	41.8	D	12.3	B	17	143	
			EBT	1,751	1,715	-36	-2%					10.9	B			67	570	
			EBR	99	99	0	0%					9.8	A			67	573	
		Herndon Parkway	WBL	66	65	-1	-2%	2,047	2,006	-41	-2%	45.0	D	25.2	C	6	100	
			WBT	1,920	1,880	-40	-2%					24.5	C			289	805	
			WBR	60	61	1	1%					23.8	C			291	809	
		Parking Lot	NBL	314	312	-2	-1%	449	440	-9	-2%	81.2	F	71.7	E	218	453	
			NBT	0	0	0	0%					0.0	A			0	0	
			NBR	135	128	-7	-5%					48.5	D			40	415	
		Parking Lot	SBL	67	68	1	1%	161	161	0	0%	41.3	D	31.2	C	27	220	
			SBT	0	0	0	0%					0.0	A			0	0	
			SBR	94	93	-1	-1%					23.8	C			26	226	
		Intersection				4,598	4,512	-86	-2%	4,598	4,512	-86	-2%	24.5	C	24.5	C	
Herndon Parkway / Exchange Place	Signal	Herndon Parkway	EBL	24	25	2	6%	1,996	1,932	-64	-3%	19.0	B	8.7	A	0	36	
			EBT	1,873	1,812	-61	-3%					8.6	A			84	783	
			EBR	99	95	-4	-4%					7.9	A			85	788	
		Herndon Parkway	WBL	66	66	0	0%	1,810	1,787	-23	-1%	30.9	C	18.8	B	5	93	
			WBT	1,721	1,697	-24	-1%					18.4	B			138	627	
			WBR	24	24	1	2%					16.5	B			142	637	
		Parking Lot	NBL	314	306	-8	-3%	449	445	-4	-1%	60.2	E	50.5	D	134	393	
			NBT	0	0	0	0%					0.0	A			134	393	
			NBR	135	139	4	3%					29.4	C			14	309	
		Exchange Place	SBL	18	18	0	0%	30	31	1	3%	45.0	D	30.3	C	5	67	
			SBT	0	0	0	0%					0.0	A			5	67	
			SBR	12	13	1	8%					9.9	A			3	72	
		Intersection				4,285	4,195	-90	-2%	4,285	4,195	-90	-2%	17.6	B	17.6	B	
Herndon Parkway / Fairbrook Drive	Signal	Parking Lot	EBL	19	20	1	6%	63	64	1	2%	53.9	D	49.7	D	6	72	
			EBT	32	31	-1	-2%					57.7	E			11	110	
			EBR	13	13	0	3%					24.1	C			7	111	
		Fairbrook Drive	WBL	366	365	-1	0%	565	564	-1	0%	51.6	D	42.8	D	90	465	
			WBT	73	72	-1	-1%					51.9	D			90	465	
			WBR	126	127	1	1%					12.5	B			2	85	
		Herndon Parkway	NBL	29	29	0	-1%	2,026	1,964	-62	-3%	12.1	B	11.3	B	1	41	
			NBT	1,572	1,516	-56	-4%					11.9	B			56	562	
			NBR	425	419	-6	-1%					9.0	A			10	346	
		Herndon Parkway	SBL	60	63	3	5%	1,511	1,520	9	1%	35.4	D	23.2	C	7	107	
			SBT	1,407	1,414	7	0%					22.8	C			153	766	
			SBR	44	43	-1	-2%					18.2	B			155	771	
		Intersection				4,165	4,112	-53	-1%	4,165	4,112	-53	-1%	20.6	C	20.6	C	

Note: Average results across 20 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Build Scenario 2 with Fairbrook Drive Extended 2045 Conditions: Weekday Morning Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes								Build Scenario 2 with Fairbrook Drive Extended 2045 Conditions MOEs						Notes		
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)			
Elden Street / Monroe Street	Signal	Elden Street	EBL	73	74	1	1%	839	836	-3	0%	23.3	C	18.0	B	5	124			
			EBT	630	629	-1	0%					17.7	B			110	694			
			EBR	136	133	-3	-2%					16.3	B			109	693			
		Elden Street	WBL	6	5	-1	-17%	459	455	-4	-1%	25.9	C	22.5	C	0	30			
			WBT	410	406	-4	-1%					22.7	C			69	446			
			WBR	43	44	1	2%					20.1	C			76	484			
		Monroe Street	NBL	36	39	3	8%	181	188	7	4%	49.5	D	46.2	D	10	87			
			NBT	130	135	5	3%					48.6	D			39	226			
			NBR	15	14	-1	-7%					14.2	B			22	220			
		Monroe Street	SBL	96	93	-3	-3%	427	426	-1	0%	48.0	D	56.1	E	57	346			
			SBT	272	275	3	1%					60.4	E			114	399			
			SBR	59	58	-1	-2%					49.3	D			113	399			
		Intersection				1,906	1,905	-1	0%	1,906	1,905	-1	0%	30.4	C	30.4	C			
Elden Street / Van Buren Street	Signal	Elden Street	EBL	0	0	0	0%	770	751	-19	-2%	0.0	A	15.9	B	42	315			
			EBT	718	689	-29	-4%					17.0	B			42	315			
			EBR	52	62	10	19%					4.1	A			1	50			
		Elden Street	WBL	117	116	-1	-1%	602	587	-15	-2%	31.1	C	20.8	C	37	213			
			WBT	469	458	-11	-2%					18.4	B			37	213			
			WBR	16	13	-3	-19%					13.9	B			45	227			
		Van Buren Street	NBL	49	48	-1	-2%	383	381	-2	-1%	33.6	C	28.3	C	9	94			
			NBT	218	217	-1	0%					39.3	D			51	316			
			NBR	116	116	0	0%					5.4	A			2	90			
		Van Buren Street	SBL	146	141	-5	-3%	522	534	12	2%	39.2	D	42.0	D	41	323			
			SBT	367	381	14	4%					43.2	D			103	418			
			SBR	9	12	3	33%					36.1	D			107	424			
		Intersection				1,755	1,719	-36	-2%	1,755	1,719	-36	-2%	33.4	C	33.4	C			
Van Buren Street / Spring Street	Signal	Van Buren Street	EBL	189	183	-6	-3%	514	513	-1	0%	14.9	B	11.5	B	0	13			
			EBT	6	7	1	17%					13.2	B			17	220			
			EBR	319	323	4	1%					9.5	A			16	213			
		Parking Lot	WBL	1	1	0	0%	1	1	0	0%	24.1	C	24.1	C	0	14			
			WBR	0	0	0	0%					0.0	A			0	0			
		Spring Street	NBL	117	121	4	3%	397	408	11	3%	14.8	B	8.7	A	5	114			
			NBT	272	281	9	3%					6.1	A			6	125			
			NBR	8	6	-2	-25%					3.8	A			5	134			
		Van Buren Street	SBL	9	9	0	0%	873	892	19	2%	7.3	A	7.6	A	0	27			
			SBT	521	528	7	1%					8.5	A			16	227			
			SBR	343	355	12	3%					6.2	A			9	175			
		Intersection				912	922	10	1%	912	922	10	1%	17.6	B	17.6	B			
		Spring Street / Herndon Parkway	Signal	Spring Street	EBL	42	35	-7	-16%	957	961	4	0%	86.5	F	74.6	E	15	83	
EBT	742				749	7	1%	74.9	E					165	446					
EBR	173				177	4	2%	70.8	E					167	450					
Spring Street	WBL			663	667	4	1%	1,586	1,594	8	1%	48.3	D	35.7	D	112	497			
	WBT			509	516	7	1%					39.3	D			69	360			
	WBR			414	411	-3	-1%					10.7	B			23	262			
Herndon Parkway	NBL			230	246	16	7%	1,652	1,615	-37	-2%	43.9	D	32.5	C	48	263			
	NBT			405	365	-40	-10%					47.0	D			107	409			
	NBR			1,017	1,004	-13	-1%					24.4	C			107	409			
Herndon Parkway	SBL			463	457	-6	-1%	1,016	1,018	2	0%	74.4	E	56.3	E	106	357			
	SBT			504	511	7	1%					42.2	D			74	340			
	SBR			49	50	1	2%					35.9	D			75	343			
Intersection				4,195	4,170	-25	-1%	4,195	4,170	-25	-1%	57.2	E	57.2	E					

Note: Average results across 7 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Build Scenario 2 with Fairbrook Drive Extended 2045 Conditions: Weekday Morning Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Build Scenario 2 with Fairbrook Drive Extended 2045 Conditions MOEs										Notes
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	
Spring Street / Fairfax County Parkway / Fairbrook Drive	Signal	Spring Street	EBL	149	150	1	0%	2,202	2,178	-24	-1%	39.4	D	33.3	C	27	207	
			EBT	2,008	1,982	-26	-1%					33.0	C			216	763	
			EBR	45	46	1	2%					24.0	C			212	758	
		Spring Street	WBL	209	199	-10	-5%	1,085	1,060	-25	-2%	102.9	F	47.8	D	187	616	
			WBT	571	564	-7	-1%					46.4	D			187	616	
			WBR	305	297	-8	-3%					13.7	B			140	601	
		Fairbrook Drive	NBL	27	28	1	3%	572	570	-2	0%	105.8	F	62.3	E	168	478	
			NBT	131	131	0	0%					99.6	F			168	478	
			NBR	414	411	-3	-1%					47.5	D			168	478	
		Fairfax County Parkway	SBL	370	367	-3	-1%	1,816	1,811	-5	0%	93.6	F	44.1	D	678	1469	
			SBT	387	384	-3	-1%					43.6	D			276	1197	
			SBR	1,059	1,060	1	0%					27.2	C			597	1480	
		Intersection				5,675	5,619	-56	-1%	5,675	5,619	-56	-1%	42.5	D	42.5	D	
Van Buren Street / Alabama Drive	Signal	Alabama Drive	EBL	129	129	0	0%	318	318	0	0%	44.0	D	35.4	D	66	366	
			EBT	10	12	2	20%					40.1	D			66	366	
			EBR	179	177	-2	-1%					28.8	C			67	374	
		Alabama Drive	WBL	50	49	-1	-1%	106	101	-5	-4%	30.3	C	25.6	C	14	144	
			WBT	13	13	0	0%					33.1	C			14	144	
			WBR	43	39	-4	-9%					17.1	B			13	159	
		Van Buren Street	NBL	62	62	0	0%	442	440	-2	-1%	22.1	C	20.0	C	57	409	
			NBT	342	341	-1	0%					19.9	B			57	410	
			NBR	38	37	-1	-4%					17.5	B			56	409	
		Van Buren Street	SBL	13	16	3	23%	460	472	12	3%	17.8	B	13.3	B	42	348	
			SBT	406	416	10	2%					13.1	B			41	348	
			SBR	41	40	-1	-2%					13.1	B			39	347	
		Intersection				1,326	1,331	5	0%	1,326	1,331	5	0%	21.7	C	21.7	C	
Van Buren Street / Herndon Parkway	Signal	Herndon Parkway	EBL	43	41	-2	-5%	1,488	1,468	-20	-1%	72.3	E	37.6	D	15	100	
			EBT	1,128	1,123	-5	0%					42.2	D			251	791	
			EBR	317	304	-13	-4%					16.1	B			21	232	
		Herndon Parkway	WBL	293	299	6	2%	1,042	1,022	-20	-2%	47.4	D	23.8	C	47	215	
			WBT	611	591	-20	-3%					14.1	B			30	296	
			WBR	138	132	-6	-4%					13.6	B			30	296	
		Van Buren Street	NBL	240	250	10	4%	835	851	16	2%	48.2	D	35.9	D	78	372	
			NBT	261	270	9	3%					41.2	D			73	369	
			NBR	334	331	-3	-1%					22.4	C			45	315	
		Van Buren Street	SBL	149	152	3	2%	636	650	14	2%	38.3	D	39.7	D	33	257	
			SBT	464	476	12	3%					40.6	D			74	526	
			SBR	23	22	-1	-4%					29.9	C			74	526	
		Intersection				4,001	3,991	-10	0%	4,001	3,991	-10	0%	34.0	C	34.0	C	

Note: Average results across 7 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Build Scenario 2 with Fairbrook Drive Extended 2045 Conditions: Weekday Morning Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Build Scenario 2 with Fairbrook Drive Extended 2045 Conditions MOEs										Notes
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	
Van Buren Street / Worldgate Drive	Signal	Worldgate Drive	EBL	170	172	2	1%	1,122	1,115	-7	-1%	36.4	D	31.1	C	38	238	
			EBT	711	700	-11	-2%					39.8	D			91	340	
			EBR	241	243	2	1%					2.3	A			2	99	
		Worldgate Drive	WBL	212	221	9	4%	451	467	16	4%	33.2	C	32.1	C	42	315	
			WBT	231	238	7	3%					31.7	C			27	137	
			WBR	8	8	0	0%					15.0	B			29	150	
		Van Buren Street	NBL	406	393	-13	-3%	1,686	1,680	-6	0%	46.1	D	23.3	C	63	338	
			NBT	767	782	15	2%					18.4	B			52	423	
			NBR	513	505	-8	-2%					13.3	B			34	345	
		Van Buren Street	SBL	20	21	1	5%	1,045	1,045	0	0%	44.0	D	10.8	B	5	58	
			SBT	669	666	-3	0%					14.3	B			32	265	
			SBR	356	358	2	1%					2.6	A			1	134	
Intersection				4,304	4,307	3	0%	4,304	4,307	3	0%	23.3	C	23.3	C			
Herndon Parkway / Worldgate Drive	Signal	Herndon Parkway	EBL	128	135	7	6%	1,566	1,582	16	1%	25.0	C	56.1	E	4	91	
			EBT	1,394	1,405	11	1%					59.5	E			389	729	
			EBR	44	42	-2	-5%					39.4	D			393	733	
		Herndon Parkway	WBL	553	548	-5	-1%	1,447	1,433	-14	-1%	57.0	E	28.8	C	119	595	
			WBT	850	844	-6	-1%					11.4	B			36	490	
			WBR	44	41	-3	-6%					12.2	B			37	500	
		Worldgate Drive	NBL	65	62	-3	-5%	1,068	1,052	-16	-1%	36.6	D	25.8	C	89	486	
			NBT	74	70	-4	-5%					36.3	D			89	486	
			NBR	929	920	-9	-1%					24.3	C			89	486	
		Worldgate Drive	SBL	44	44	0	1%	172	172	0	0%	48.5	D	30.5	C	11	117	
			SBT	42	42	0	1%					42.1	D			15	182	
			SBR	87	86	-1	-1%					15.7	B			14	186	
Intersection				4,253	4,239	-14	0%	4,253	4,239	-14	0%	38.3	D	38.3	D			
Herndon Parkway / Exchange Place	Signal	Herndon Parkway	EBL	84	83	-1	-2%	2,103	1,998	-105	-5%	25.7	C	19.5	B	5	86	
			EBT	1,799	1,713	-86	-5%					19.2	B			255	831	
			EBR	220	202	-18	-8%					19.5	B			258	836	
		Herndon Parkway	WBL	148	145	-3	-2%	1,677	1,674	-3	0%	35.2	D	14.1	B	19	153	
			WBT	1,332	1,333	1	0%					12.1	B			56	458	
			WBR	197	196	-1	0%					12.4	B			59	468	
		Parking Lot	NBL	103	99	-4	-4%	147	145	-2	-1%	40.1	D	29.9	C	23	150	
			NBT	0	0	0	0%					0.0	A			23	150	
			NBR	44	46	2	5%					8.0	A			1	50	
		Exchange Place	SBL	171	170	-1	-1%	285	285	0	0%	74.5	E	69.9	E	120	444	
			SBT	0	0	0	0%					0.0	A			120	444	
			SBR	114	115	1	1%					63.0	E			123	450	
Intersection				4,212	4,102	-110	-3%	4,212	4,102	-110	-3%	21.1	C	21.1	C			
Herndon Parkway / Fairbrook Drive	Signal	Parking Lot	EBL	15	17	2	16%	49	51	2	4%	50.7	D	44.2	D	5	47	
			EBT	25	24	-1	-2%					51.1	D			7	73	
			EBR	10	10	0	2%					16.5	B			3	74	
		Fairbrook Drive	WBL	329	332	3	1%	375	380	5	1%	43.3	D	39.5	D	54	230	
			WBT	8	6	-2	-20%					52.5	D			54	230	
			WBR	39	42	3	8%					7.5	A			0	42	
		Herndon Parkway	NBL	3	3	0	0%	2,014	1,926	-88	-4%	5.9	A	10.1	B	0	6	
			NBT	1,564	1,495	-69	-4%					10.6	B			53	602	
			NBR	447	428	-19	-4%					8.4	A			7	243	
		Herndon Parkway	SBL	97	98	1	1%	1,438	1,430	-8	-1%	29.8	C	20.1	C	11	188	
			SBT	1,337	1,327	-10	-1%					19.4	B			108	603	
			SBR	5	5	1	11%					13.8	B			110	608	
Intersection				3,876	3,787	-89	-2%	3,876	3,787	-89	-2%	17.3	B	17.3	B			

Note: Average results across 7 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Build Scenario 2 with Fairbrook Drive Extended 2045 Conditions: Weekday Evening Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes								Build Scenario 2 with Fairbrook Drive Extended 2045 Conditions MOEs						Notes		
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)			
Elden Street / Monroe Street	Signal	Elden Street	EBL	127	124	-3	-2%	817	811	-6	-1%	30.0	C	21.3	C	13	217			
			EBT	654	651	-3	0%					19.8	B			117	798			
			EBR	36	36	0	0%					18.4	B			115	797			
		Elden Street	WBL	13	13	0	0%	755	746	-9	-1%	21.5	C	23.4	C	1	38			
			WBT	669	663	-6	-1%					23.7	C			206	796			
			WBR	73	70	-3	-4%					20.7	C			216	833			
		Monroe Street	NBL	168	162	-6	-4%	450	441	-9	-2%	74.0	E	72.9	E	119	591			
			NBT	271	268	-3	-1%					73.3	E			188	654			
			NBR	11	11	0	0%					48.2	D			174	648			
		Monroe Street	SBL	131	125	-6	-5%	459	451	-8	-2%	46.7	D	49.1	D	66	356			
			SBT	207	204	-3	-2%					54.2	D			99	384			
			SBR	121	122	1	1%					43.1	D			98	384			
		Intersection				2,481	2,449	-32	-1%	2,481	2,449	-32	-1%	36.3	D	36.3	D			
Elden Street / Van Buren Street	Signal	Elden Street	EBL	5	5	0	0%	803	786	-17	-2%	52.6	D	35.5	D	96	345			
			EBT	764	744	-20	-3%					37.0	D			96	345			
			EBR	34	37	3	9%					5.1	A			1	58			
		Elden Street	WBL	150	150	0	0%	962	948	-14	-1%	38.1	D	27.1	C	86	378			
			WBT	754	742	-12	-2%					25.4	C			86	378			
			WBR	58	56	-2	-3%					20.2	C			95	392			
		Van Buren Street	NBL	118	110	-8	-7%	719	674	-45	-6%	41.3	D	36.0	D	23	321			
			NBT	425	397	-28	-7%					44.4	D			135	634			
			NBR	176	167	-9	-5%					12.5	B			5	142			
		Van Buren Street	SBL	126	126	0	0%	394	401	7	2%	40.3	D	43.3	D	33	235			
			SBT	253	259	6	2%					45.2	D			72	288			
			SBR	15	16	1	7%					36.6	D			75	299			
		Intersection				2,484	2,408	-76	-3%	2,484	2,408	-76	-3%	39.5	D	39.5	D			
Van Buren Street / Spring Street	Signal	Van Buren Street	EBL	424	384	-40	-9%	640	584	-56	-9%	21.6	C	16.9	B	0	69			
			EBT	1	1	0	0%					16.9	B			55	467			
			EBR	215	199	-16	-7%					7.8	A			9	168			
		Parking Lot	WBL	13	14	1	8%	28	28	0	0%	29.1	C	28.7	C	2	49			
			WBR	15	14	-1	-7%					28.3	C			2	46			
		Spring Street	NBL	324	306	-18	-6%	966	907	-59	-6%	26.4	C	16.7	B	41	373			
			NBT	634	594	-40	-6%					11.8	B			23	301			
			NBR	8	7	-1	-13%					9.4	A			22	309			
		Van Buren Street	SBL	3	3	0	0%	802	808	6	1%	15.1	B	20.2	C	0	24			
			SBT	338	339	1	0%					20.1	C			59	420			
			SBR	461	466	5	1%					20.4	C			70	429			
		Intersection				1,634	1,519	-115	-7%	1,634	1,519	-115	-7%	27.8	C	27.8	C			
		Spring Street / Herndon Parkway	Signal	Spring Street	EBL	81	74	-7	-8%	949	877	-72	-8%	105.7	F	114.2	F	136	494	
EBT	657				613	-44	-7%	115.9	F					404	953					
EBR	211				190	-21	-10%	112.0	F					406	956					
Spring Street	WBL			987	904	-83	-8%	2,230	2,060	-170	-8%	62.9	E	41.5	D	289	669			
	WBT			784	726	-58	-7%					32.8	C			95	543			
	WBR			459	430	-29	-6%					11.0	B			21	299			
Herndon Parkway	NBL			238	227	-11	-4%	1,796	1,668	-128	-7%	56.6	E	39.6	D	57	337			
	NBT			695	653	-42	-6%					55.7	E			161	570			
	NBR			864	788	-76	-9%					21.3	C			161	570			
Herndon Parkway	SBL			491	465	-26	-5%	1,080	1,014	-66	-6%	81.8	F	97.2	F	125	422			
	SBT			551	516	-35	-6%					111.6	F			274	825			
	SBR			38	33	-5	-12%					89.4	F			275	824			
Intersection				4,975	4,605	-370	-7%	4,975	4,605	-370	-7%	76.0	E	76.0	E					

Note: Average results across 20 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Build Scenario 2 with Fairbrook Drive Extended 2045 Conditions: Weekday Evening Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Build Scenario 2 with Fairbrook Drive Extended 2045 Conditions MOEs										Notes
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	
Spring Street / Fairfax County Parkway / Fairbrook Drive	Signal	Spring Street	EBL	287	267	-20	-7%	2,015	1,866	-149	-7%	100.5	F	38.7	D	215	665	
			EBT	1,679	1,552	-127	-8%					28.6	C			177	654	
			EBR	49	47	-2	-5%					21.4	C			173	649	
		Spring Street	WBL	190	169	-21	-11%	2,302	2,090	-212	-9%	59.6	E	44.5	D	920	1617	
			WBT	1,462	1,342	-120	-8%					48.9	D			920	1617	
			WBR	650	579	-71	-11%					30.0	C			901	1607	
		Fairbrook Drive	NBL	51	51	0	0%	818	808	-10	-1%	99.2	F	67.2	E	354	1008	
			NBT	187	182	-5	-3%					88.6	F			354	1008	
			NBR	581	575	-6	-1%					57.6	E			354	1008	
		Fairfax County Parkway	SBL	166	166	0	0%	1,488	1,430	-58	-4%	109.7	F	48.5	D	141	750	
			SBT	405	397	-8	-2%					47.8	D			212	861	
			SBR	918	867	-51	-6%					37.2	D			242	913	
Intersection				6,624	6,194	-430	-6%	6,624	6,194	-430	-6%	46.6	D	46.6	D			
Van Buren Street / Alabama Drive	Signal	Alabama Drive	EBL	85	62	-23	-27%	263	199	-64	-24%	233.8	F	220.3	F	365	521	
			EBT	18	13	-5	-28%					226.6	F			365	521	
			EBR	160	124	-36	-23%					212.8	F			372	528	
		Alabama Drive	WBL	34	32	-2	-6%	65	62	-3	-5%	89.9	F	74.7	E	24	126	
			WBT	10	10	0	0%					83.9	F			24	126	
			WBR	21	20	-1	-5%					45.8	D			26	140	
		Van Buren Street	NBL	81	76	-5	-6%	700	661	-39	-6%	25.4	C	20.6	C	109	698	
			NBT	534	508	-26	-5%					20.0	C			109	699	
			NBR	85	77	-8	-10%					19.5	B			108	698	
		Van Buren Street	SBL	34	33	-1	-3%	786	764	-22	-3%	36.5	D	32.0	C	440	1208	
			SBT	645	627	-18	-3%					32.4	C			440	1208	
			SBR	107	104	-3	-3%					28.3	C			439	1207	
Intersection				1,814	1,686	-128	-7%	1,814	1,686	-128	-7%	51.3	D	51.3	D			
Van Buren Street / Herndon Parkway	Signal	Herndon Parkway	EBL	55	56	1	2%	1,086	1,084	-2	0%	58.9	E	33.9	C	18	108	
			EBT	685	687	2	0%					40.9	D			94	450	
			EBR	346	341	-5	-1%					15.7	B			34	273	
		Herndon Parkway	WBL	520	478	-42	-8%	2,033	1,880	-153	-8%	75.2	E	44.4	D	131	574	
			WBT	1,263	1,173	-90	-7%					33.9	C			311	997	
			WBR	250	229	-21	-8%					33.7	C			311	997	
		Van Buren Street	NBL	365	352	-13	-4%	1,051	1,003	-48	-5%	109.9	F	55.7	E	501	933	
			NBT	394	372	-22	-6%					36.9	D			485	930	
			NBR	292	279	-13	-4%					12.5	B			21	247	
		Van Buren Street	SBL	125	112	-13	-10%	840	777	-63	-8%	72.8	E	67.1	E	271	877	
			SBT	668	620	-48	-7%					66.8	E			789	1208	
			SBR	47	45	-2	-4%					57.4	E			789	1208	
Intersection				5,010	4,744	-266	-5%	5,010	4,744	-266	-5%	48.1	D	48.1	D			
Van Buren Street / Worldgate Drive	Signal	Worldgate Drive	EBL	291	281	-10	-3%	1,374	1,355	-19	-1%	71.4	E	33.2	C	230	641	
			EBT	414	409	-5	-1%					42.3	D			80	278	
			EBR	669	665	-4	-1%					11.5	B			115	554	
		Parking Lot	WBL	396	352	-44	-11%	996	927	-69	-7%	61.6	E	47.0	D	215	690	
			WBT	577	555	-22	-4%					38.7	D			86	423	
			WBR	22	20	-2	-9%					20.9	C			94	436	
		Van Buren Street	NBL	361	337	-24	-7%	1,443	1,384	-59	-4%	53.2	D	38.4	D	133	602	
			NBT	720	703	-17	-2%					41.2	D			292	913	
			NBR	362	344	-18	-5%					17.9	B			154	609	
		Van Buren Street	SBL	9	8	-1	-11%	1,583	1,495	-88	-6%	66.5	E	21.3	C	9	61	
			SBT	1,211	1,146	-65	-5%					26.8	C			98	403	
			SBR	363	341	-22	-6%					2.0	A			0	92	
Intersection				5,396	5,161	-235	-4%	5,396	5,161	-235	-4%	33.6	C	33.6	C			

Note: Average results across 20 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Build Scenario 2 with Fairbrook Drive Extended 2045 Conditions: Weekday Evening Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Build Scenario 2 with Fairbrook Drive Extended 2045 Conditions MOEs										Notes
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	
Herndon Parkway / Worldgate Drive	Signal	Herndon Parkway	EBL	157	154	-3	-2%	1,186	1,150	-36	-3%	61.6	E	56.7	E	35	353	
			EBT	1,008	975	-33	-3%					56.0	E			236	624	
			EBR	20	21	1	5%					50.7	D			239	628	
		Herndon Parkway	WBL	721	652	-69	-10%	2,456	2,231	-225	-9%	77.9	E	36.8	D	207	975	
			WBT	1,688	1,535	-153	-9%					19.9	B			234	1003	
			WBR	47	44	-3	-7%					18.3	B			240	1012	
		Worldgate Drive	NBL	199	191	-8	-4%	983	961	-22	-2%	45.3	D	25.8	C	100	484	
			NBT	88	82	-6	-6%					43.5	D			100	484	
			NBR	696	688	-8	-1%					18.3	B			100	484	
		Worldgate Drive	SBL	101	95	-6	-6%	245	233	-12	-5%	50.9	D	36.8	D	39	225	
			SBT	45	43	-2	-4%					48.6	D			26	212	
			SBR	99	95	-4	-4%					17.4	B			25	215	
		Intersection				4,870	4,575	-295	-6%	4,870	4,575	-295	-6%	39.5	D	39.5	D	
Herndon Parkway / Exchange Place	Signal	Herndon Parkway	EBL	83	80	-3	-4%	2,020	1,860	-160	-8%	48.3	D	24.8	C	12	127	
			EBT	1,837	1,688	-149	-8%					23.7	C			245	789	
			EBR	99	92	-7	-7%					23.5	C			248	794	
		Herndon Parkway	WBL	66	58	-8	-12%	2,046	1,784	-262	-13%	45.1	D	50.2	D	6	89	
			WBT	1,786	1,557	-229	-13%					50.9	D			425	713	
			WBR	195	169	-26	-13%					46.3	D			434	723	
		Parking Lot	NBL	314	298	-16	-5%	449	432	-17	-4%	73.7	E	62.3	E	127	389	
			NBT	0	0	0	0%					0.0	A			127	389	
			NBR	135	134	-1	-1%					37.2	D			11	284	
		Exchange Place	SBL	174	168	-6	-3%	290	287	-3	-1%	42.3	D	32.9	C	41	268	
			SBT	0	0	0	0%					0.0	A			41	268	
			SBR	116	119	3	3%					19.7	B			11	81	
		Intersection				4,805	4,363	-442	-9%	4,805	4,363	-442	-9%	39.4	D	39.4	D	
Herndon Parkway / Fairbrook Drive	Signal	Parking Lot	EBL	7	8	1	11%	24	25	1	4%	51.9	D	55.9	E	2	36	
			EBT	12	12	0	0%					63.5	E			4	55	
			EBR	5	5	0	4%					44.0	D			2	55	
		Fairbrook Drive	WBL	420	345	-75	-18%	564	464	-100	-18%	178.6	F	151.4	F	780	1128	
			WBT	19	15	-4	-19%					196.2	F			780	1128	
			WBR	126	104	-22	-17%					54.7	D			68	234	
		Herndon Parkway	NBL	7	6	-1	-19%	2,146	1,998	-148	-7%	15.0	B	14.0	B	0	24	
			NBT	1,686	1,565	-121	-7%					15.2	B			118	689	
			NBR	453	427	-26	-6%					9.5	A			6	294	
		Herndon Parkway	SBL	60	53	-7	-12%	1,668	1,519	-149	-9%	53.4	D	57.9	E	38	131	
			SBT	1,597	1,457	-140	-9%					58.2	E			661	977	
			SBR	11	9	-2	-19%					34.6	C			665	981	
		Intersection				4,402	4,006	-396	-9%	4,402	4,006	-396	-9%	46.8	D	46.8	D	

Note: Average results across 20 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Build Scenario 3 with Fairbrook Drive Extended 2045 Conditions: Weekday Morning Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes								Build Scenario 3 with Fairbrook Drive Extended 2045 Conditions MOEs						Notes		
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)			
Elden Street / Monroe Street	Signal	Elden Street	EBL	73	74	1	1%	839	835	-4	0%	23.7	C	18.3	B	5	140			
			EBT	630	628	-2	0%					18.0	B			112	701			
			EBR	136	133	-3	-2%					16.7	B			111	701			
		Elden Street	WBL	6	5	-1	-17%	459	454	-5	-1%	28.8	C	22.2	C	0	33			
			WBT	410	405	-5	-1%					22.5	C			68	465			
			WBR	43	44	1	2%					19.2	B			76	503			
		Monroe Street	NBL	36	39	3	8%	190	197	7	4%	48.6	D	46.7	D	10	87			
			NBT	139	143	4	3%					49.7	D			42	238			
			NBR	15	15	0	0%					13.6	B			25	233			
		Monroe Street	SBL	96	93	-3	-3%	431	429	-2	-1%	49.7	D	57.5	E	51	353			
			SBT	276	279	3	1%					61.9	E			119	420			
			SBR	59	57	-2	-3%					49.1	D			117	420			
		Intersection				1,919	1,915	-4	0%	1,919	1,915	-4	0%	30.9	C	30.9	C			
Elden Street / Van Buren Street	Signal	Elden Street	EBL	0	0	0	0%	770	748	-22	-3%	0.0	A	15.6	B	41	306			
			EBT	718	687	-31	-4%					16.7	B			41	306			
			EBR	52	61	9	17%					3.8	A			1	55			
		Elden Street	WBL	117	116	-1	-1%	602	586	-16	-3%	31.4	C	21.0	C	38	211			
			WBT	469	457	-12	-3%					18.6	B			38	211			
			WBR	16	13	-3	-19%					14.5	B			46	225			
		Van Buren Street	NBL	49	48	-1	-2%	390	385	-5	-1%	33.3	C	28.8	C	9	97			
			NBT	225	223	-2	-1%					39.7	D			53	279			
			NBR	116	114	-2	-2%					5.4	A			3	92			
		Van Buren Street	SBL	146	142	-4	-3%	528	542	14	3%	38.8	D	41.8	D	40	324			
			SBT	373	388	15	4%					43.0	D			105	429			
			SBR	9	12	3	33%					38.9	D			110	440			
		Intersection				1,762	1,719	-43	-2%	1,762	1,719	-43	-2%	33.6	C	33.6	C			
Van Buren Street / Spring Street	Signal	Van Buren Street	EBL	184	176	-8	-4%	509	504	-5	-1%	15.2	B	11.8	B	0	7			
			EBT	6	8	2	33%					14.7	B			16	175			
			EBR	319	320	1	0%					9.9	A			17	231			
		Parking Lot	WBL	1	1	0	0%	1	1	0	0%	31.3	C	31.3	C	0	14			
			WBR	0	0	0	0%					0.0	A			0	0			
		Spring Street	NBL	117	123	6	5%	418	426	8	2%	14.6	B	8.4	A	4	117			
			NBT	293	297	4	1%					5.9	A			6	136			
			NBR	8	6	-2	-25%					2.5	A			5	144			
		Van Buren Street	SBL	9	9	0	0%	883	899	16	2%	7.2	A	7.6	A	0	30			
			SBT	532	538	6	1%					8.5	A			17	241			
			SBR	342	352	10	3%					6.2	A			8	173			
		Intersection				928	931	3	0%	928	931	3	0%	17.6	B	17.6	B			
		Spring Street / Herndon Parkway	Signal	Spring Street	EBL	57	65	8	14%	952	957	5	1%	85.9	F	67.1	E	31	189	
EBT	733				731	-2	0%	68.2	E					142	436					
EBR	162				161	-1	0%	54.5	D					144	440					
Spring Street	WBL			699	700	1	0%	1,620	1,621	1	0%	47.1	D	35.7	D	122	549			
	WBT			511	516	5	1%					39.6	D			68	324			
	WBR			410	405	-5	-1%					11.2	B			24	258			
Herndon Parkway	NBL			235	237	2	1%	1,672	1,628	-44	-3%	47.5	D	32.3	C	58	349			
	NBT			410	392	-18	-4%					44.5	D			105	404			
	NBR			1,027	999	-28	-3%					23.9	C			105	404			
Herndon Parkway	SBL			438	432	-6	-1%	1,032	1,032	0	0%	78.0	E	58.8	E	105	330			
	SBT			540	543	3	1%					45.6	D			86	333			
	SBR			54	57	3	5%					40.2	D			87	336			
Intersection				4,244	4,206	-38	-1%	4,244	4,206	-38	-1%	56.0	E	56.0	E					

Note: Average results across 7 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Build Scenario 3 with Fairbrook Drive Extended 2045 Conditions: Weekday Morning Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes								Build Scenario 3 with Fairbrook Drive Extended 2045 Conditions MOEs						Notes
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	
Spring Street / Fairfax County Parkway / Fairbrook Drive	Signal	Spring Street	EBL	151	151	0	0%	2,195	2,143	-52	-2%	39.0	D	33.6	C	25	203	
			EBT	2,027	1,975	-52	-3%					33.3	C			220	757	
			EBR	17	17	0	1%					26.1	C			216	752	
		Spring Street	WBL	202	196	-6	-3%	1,104	1,087	-17	-2%	105.6	F	48.3	D	210	702	
			WBT	597	592	-5	-1%					48.1	D			210	702	
			WBR	305	299	-6	-2%					11.1	B			171	691	
		Fairbrook Drive	NBL	12	12	0	3%	625	632	7	1%	100.5	F	65.1	E	156	609	
			NBT	145	147	2	1%					94.8	F			156	609	
			NBR	468	473	5	1%					55.0	D			156	609	
		Fairfax County Parkway	SBL	370	366	-4	-1%	1,833	1,825	-8	0%	88.6	F	42.0	D	549	1408	
			SBT	379	374	-5	-1%					41.0	D			241	1249	
			SBR	1,083	1,085	2	0%					26.6	C			457	1419	
		Intersection				5,757	5,687	-70	-1%	5,757	5,687	-70	-1%	42.6	D	42.6	D	
Van Buren Street / Alabama Drive	Signal	Alabama Drive	EBL	129	130	1	1%	317	317	0	0%	42.7	D	35.0	C	65	356	
			EBT	10	11	1	10%					35.2	D			65	356	
			EBR	178	176	-2	-1%					29.3	C			66	363	
		Alabama Drive	WBL	50	49	-1	-2%	106	102	-4	-4%	31.0	C	25.8	C	14	145	
			WBT	13	13	0	0%					34.0	C			14	145	
			WBR	43	40	-3	-7%					16.7	B			14	159	
		Van Buren Street	NBL	50	51	1	2%	420	412	-8	-2%	18.0	B	14.1	B	37	383	
			NBT	337	330	-7	-2%					13.7	B			37	384	
			NBR	33	31	-2	-7%					11.8	B			36	383	
		Van Buren Street	SBL	13	16	3	23%	459	472	13	3%	14.1	B	13.5	B	43	382	
			SBT	405	416	11	3%					13.8	B			43	381	
			SBR	41	40	-1	-2%					10.7	B			41	380	
		Intersection				1,302	1,303	1	0%	1,302	1,303	1	0%	19.9	B	19.9	B	
Van Buren Street / Herndon Parkway	Signal	Herndon Parkway	EBL	43	41	-2	-5%	1,481	1,451	-30	-2%	63.8	E	40.5	D	12	96	
			EBT	1,121	1,107	-14	-1%					45.6	D			267	863	
			EBR	317	303	-14	-4%					18.6	B			49	547	
		Herndon Parkway	WBL	293	301	8	3%	930	919	-11	-1%	52.3	D	25.8	C	53	186	
			WBT	523	509	-14	-3%					13.2	B			24	267	
			WBR	114	109	-5	-5%					11.4	B			24	267	
		Van Buren Street	NBL	240	248	8	3%	835	850	15	2%	66.7	E	46.9	D	111	347	
			NBT	261	270	9	3%					57.1	E			106	344	
			NBR	334	332	-2	-1%					23.9	C			49	290	
		Van Buren Street	SBL	147	149	2	1%	634	647	13	2%	37.7	D	34.3	C	31	240	
			SBT	464	476	12	3%					33.9	C			58	453	
			SBR	23	22	-1	-4%					20.3	C			58	453	
		Intersection				3,880	3,867	-13	0%	3,880	3,867	-13	0%	37.4	D	37.4	D	

Note: Average results across 7 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Build Scenario 3 with Fairbrook Drive Extended 2045 Conditions: Weekday Morning Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Build Scenario 3 with Fairbrook Drive Extended 2045 Conditions MOEs										Notes
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	
Van Buren Street / Worldgate Drive	Signal	Worldgate Drive	EBL	170	172	2	1%	1,133	1,130	-3	0%	35.7	D	31.2	C	37	204	
			EBT	722	716	-6	-1%					39.8	D			93	348	
			EBR	241	242	1	0%					2.6	A			2	104	
		Worldgate Drive	WBL	198	207	9	4%	420	437	17	4%	32.8	C	32.6	C	38	318	
			WBT	214	222	8	4%					32.9	C			27	122	
			WBR	8	8	0	0%					21.7	C			29	136	
		Van Buren Street	NBL	406	393	-13	-3%	1,695	1,687	-8	0%	46.3	D	23.3	C	63	396	
			NBT	767	782	15	2%					18.3	B			51	343	
			NBR	522	512	-10	-2%					13.4	B			35	389	
		Van Buren Street	SBL	20	21	1	5%	1,045	1,044	-1	0%	49.7	D	15.9	B	6	65	
			SBT	669	666	-3	0%					22.0	C			48	267	
			SBR	356	357	1	0%					2.4	A			1	143	
Intersection				4,293	4,298	5	0%	4,293	4,298	5	0%	24.5	C	24.5	C			
Herndon Parkway / Worldgate Drive	Signal	Herndon Parkway	EBL	156	164	8	5%	1,557	1,543	-14	-1%	30.1	C	53.3	D	8	118	
			EBT	1,357	1,337	-20	-2%					56.4	E			442	888	
			EBR	44	42	-2	-5%					44.9	D			445	892	
		Herndon Parkway	WBL	492	488	-4	-1%	1,308	1,300	-8	-1%	59.0	E	29.3	C	98	451	
			WBT	716	715	-1	0%					11.4	B			27	351	
			WBR	100	97	-3	-3%					10.9	B			28	361	
		Worldgate Drive	NBL	65	64	-1	-2%	1,087	1,075	-12	-1%	41.5	D	29.1	C	106	502	
			NBT	110	105	-5	-4%					38.5	D			106	502	
			NBR	913	906	-7	-1%					27.1	C			106	502	
		Worldgate Drive	SBL	52	55	3	5%	274	281	7	3%	47.2	D	32.9	C	12	157	
			SBT	73	71	-2	-3%					44.7	D			35	247	
			SBR	149	155	6	4%					22.3	C			34	251	
Intersection				4,227	4,199	-28	-1%	4,227	4,199	-28	-1%	38.3	D	38.3	D			
Herndon Parkway / Exchange Place	Signal	Herndon Parkway	EBL	45	45	0	0%	1,996	1,930	-66	-3%	18.9	B	21.5	C	1	70	
			EBT	1,731	1,682	-49	-3%					21.5	C			266	829	
			EBR	220	203	-17	-8%					21.6	C			269	834	
		Herndon Parkway	WBL	148	144	-4	-3%	1,534	1,522	-12	-1%	38.2	D	8.4	A	19	212	
			WBT	1,279	1,269	-10	-1%					5.3	A			17	285	
			WBR	107	109	2	2%					5.4	A			18	295	
		Parking Lot	NBL	103	100	-3	-3%	147	146	-1	-1%	43.8	D	33.2	C	25	152	
			NBT	0	0	0	0%					0.0	A			25	152	
			NBR	44	46	2	5%					10.1	B			1	54	
		Exchange Place	SBL	83	81	-2	-3%	144	142	-2	-1%	46.5	D	37.8	D	29	191	
			SBT	0	0	0	0%					0.0	A			29	191	
			SBR	61	61	0	0%					26.4	C			28	197	
Intersection				3,820	3,740	-80	-2%	3,820	3,740	-80	-2%	17.2	B	17.2	B			
Herndon Parkway / Fairbrook Drive	Signal	Parking Lot	EBL	124	121	-3	-3%	414	405	-9	-2%	84.8	F	85.9	F	110	355	
			EBT	207	200	-7	-3%					90.4	F			194	353	
			EBR	83	84	1	1%					76.7	E			193	352	
		Fairbrook Drive	WBL	296	298	2	1%	503	507	4	1%	49.4	D	46.2	D	98	455	
			WBT	169	171	3	1%					48.8	D			98	455	
			WBR	39	38	-1	-3%					9.5	A			0	32	
		Herndon Parkway	NBL	67	64	-3	-5%	1,858	1,799	-59	-3%	15.7	B	25.3	C	3	63	
			NBT	1,388	1,346	-42	-3%					27.5	C			213	702	
			NBR	403	389	-14	-3%					19.4	B			34	662	
		Herndon Parkway	SBL	97	100	3	3%	1,352	1,340	-12	-1%	48.7	D	40.4	D	19	255	
			SBT	1,154	1,142	-12	-1%					39.8	D			221	880	
			SBR	101	98	-3	-3%					38.4	D			224	885	
Intersection				4,128	4,051	-77	-2%	4,128	4,051	-77	-2%	38.9	D	38.9	D			

Note: Average results across 7 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Build Scenario 3 with Fairbrook Drive Extended 2045 Conditions: Weekday Evening Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes								Build Scenario 3 with Fairbrook Drive Extended 2045 Conditions MOEs						Notes		
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)			
Elden Street / Monroe Street	Signal	Elden Street	EBL	127	124	-3	-2%	817	811	-6	-1%	29.8	C	21.4	C	12	213			
			EBT	654	651	-3	0%					19.9	B			119	787			
			EBR	36	36	0	0%					18.5	B			117	786			
		Elden Street	WBL	13	13	0	0%	755	748	-7	-1%	22.5	C	23.0	C	1	42			
			WBT	669	665	-4	-1%					23.3	C			200	794			
			WBR	73	70	-3	-4%					20.9	C			214	831			
		Monroe Street	NBL	168	164	-4	-2%	454	449	-5	-1%	74.0	E	73.9	E	128	608			
			NBT	275	274	-1	0%					74.9	E			206	676			
			NBR	11	11	0	0%					49.8	D			192	671			
		Monroe Street	SBL	131	125	-6	-5%	461	452	-9	-2%	47.5	D	50.8	D	66	342			
			SBT	209	206	-3	-1%					56.4	E			103	367			
			SBR	121	121	0	0%					44.9	D			102	366			
		Intersection				2,487	2,460	-27	-1%	2,487	2,460	-27	-1%	36.9	D	36.9	D			
Elden Street / Van Buren Street	Signal	Elden Street	EBL	5	5	0	0%	803	789	-14	-2%	52.6	D	36.0	D	98	345			
			EBT	764	746	-18	-2%					37.5	D			98	345			
			EBR	34	38	4	12%					5.1	A			1	62			
		Elden Street	WBL	150	150	0	0%	962	950	-12	-1%	38.7	D	27.3	C	87	378			
			WBT	754	744	-10	-1%					25.6	C			87	378			
			WBR	58	56	-2	-3%					20.5	C			97	392			
		Van Buren Street	NBL	118	115	-3	-3%	723	700	-23	-3%	44.0	D	37.7	D	23	304			
			NBT	429	412	-17	-4%					45.9	D			158	712			
			NBR	176	173	-3	-2%					14.0	B			7	194			
		Van Buren Street	SBL	126	126	0	0%	394	401	7	2%	40.3	D	43.2	D	33	235			
			SBT	253	259	6	2%					45.1	D			72	286			
			SBR	15	16	1	7%					36.3	D			76	297			
		Intersection				2,488	2,439	-49	-2%	2,488	2,439	-49	-2%	40.2	D	40.2	D			
Van Buren Street / Spring Street	Signal	Van Buren Street	EBL	420	389	-31	-7%	636	594	-42	-7%	21.5	C	16.9	B	0	56			
			EBT	1	1	0	0%					20.3	C			61	573			
			EBR	215	204	-11	-5%					8.1	A			6	125			
		Parking Lot	WBL	13	14	1	8%	28	28	0	0%	27.8	C	27.1	C	2	48			
			WBR	15	14	-1	-7%					26.4	C			2	49			
		Spring Street	NBL	324	322	-2	-1%	978	963	-15	-2%	29.4	C	18.2	B	49	394			
			NBT	646	634	-12	-2%					12.7	B			26	351			
			NBR	8	7	-1	-13%					9.8	A			26	359			
		Van Buren Street	SBL	3	3	0	0%	804	815	11	1%	15.9	B	20.1	C	0	21			
			SBT	340	343	3	1%					20.1	C			51	352			
			SBR	461	469	8	2%					20.1	C			63	368			
		Intersection				1,642	1,585	-57	-3%	1,642	1,585	-57	-3%	28.2	C	28.2	C			
		Spring Street / Herndon Parkway	Signal	Spring Street	EBL	99	96	-3	-3%	943	919	-24	-3%	96.2	F	95.8	F	92	458	
EBT	658				642	-16	-2%	97.5	F					276	728					
EBR	187				181	-6	-3%	89.3	F					278	731					
Spring Street	WBL			987	965	-22	-2%	2,224	2,180	-44	-2%	47.2	D	34.3	C	217	655			
	WBT			783	767	-16	-2%					31.5	C			88	521			
	WBR			454	448	-6	-1%					11.3	B			22	225			
Herndon Parkway	NBL			235	234	-1	-1%	1,782	1,728	-54	-3%	52.2	D	41.6	D	51	303			
	NBT			692	679	-13	-2%					58.4	E			190	612			
	NBR			854	815	-39	-5%					24.6	C			190	612			
Herndon Parkway	SBL			474	465	-9	-2%	1,091	1,077	-14	-1%	74.9	E	74.6	E	110	335			
	SBT			575	572	-3	-1%					74.5	E			173	557			
	SBR			43	40	-3	-6%					72.9	E			174	560			
Intersection				4,949	4,827	-122	-2%	4,949	4,827	-122	-2%	65.3	E	65.3	E					

Note: Average results across 20 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Build Scenario 3 with Fairbrook Drive Extended 2045 Conditions: Weekday Evening Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Build Scenario 3 with Fairbrook Drive Extended 2045 Conditions MOEs										Notes
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	
Spring Street / Fairfax County Parkway / Fairbrook Drive	Signal	Spring Street	EBL	283	276	-7	-3%	1,987	1,918	-69	-3%	103.8	F	39.5	D	244	733	
			EBT	1,690	1,629	-61	-4%					28.7	C			203	714	
			EBR	13	13	0	-1%					22.4	C			199	710	
		Spring Street	WBL	181	175	-6	-3%	2,318	2,231	-87	-4%	50.4	D	38.7	D	938	1630	
			WBT	1,488	1,443	-45	-3%					39.7	D			938	1630	
			WBR	650	613	-37	-6%					33.0	C			923	1619	
		Fairbrook Drive	NBL	19	21	2	10%	790	791	1	0%	76.6	E	55.0	E	192	882	
			NBT	187	185	-2	-1%					70.5	E			192	882	
			NBR	584	585	1	0%					49.4	D			192	882	
		Fairfax County Parkway	SBL	166	170	4	2%	1,506	1,509	3	0%	109.0	F	46.2	D	142	693	
			SBT	422	425	3	1%					48.3	D			166	775	
			SBR	917	914	-3	0%					33.6	C			178	857	
		Intersection				6,601	6,449	-152	-2%	6,601	6,449	-152	-2%	42.7	D	42.7	D	
Van Buren Street / Alabama Drive	Signal	Alabama Drive	EBL	85	59	-26	-31%	262	188	-74	-28%	236.8	F	222.7	F	372	528	
			EBT	18	13	-5	-28%					231.9	F			372	528	
			EBR	159	116	-43	-27%					214.6	F			378	535	
		Alabama Drive	WBL	34	32	-2	-5%	65	62	-3	-4%	98.6	F	78.6	E	25	147	
			WBT	10	10	0	0%					87.0	F			25	147	
			WBR	21	20	-1	-5%					42.4	D			27	162	
		Van Buren Street	NBL	73	71	-2	-3%	688	666	-22	-3%	25.2	C	20.2	C	111	643	
			NBT	530	517	-13	-2%					19.9	B			111	644	
			NBR	85	78	-7	-8%					17.7	B			111	643	
		Van Buren Street	SBL	34	34	0	0%	786	783	-3	0%	36.4	D	33.5	C	545	1347	
			SBT	645	643	-2	0%					34.0	C			545	1348	
			SBR	107	106	-1	-1%					29.2	C			543	1348	
		Intersection				1,800	1,699	-101	-6%	1,800	1,699	-101	-6%	50.9	D	50.9	D	
Van Buren Street / Herndon Parkway	Signal	Herndon Parkway	EBL	55	56	1	2%	1,080	1,080	0	0%	58.9	E	33.9	C	18	116	
			EBT	679	683	4	1%					40.9	D			91	416	
			EBR	346	341	-5	-1%					15.8	B			34	245	
		Herndon Parkway	WBL	520	508	-12	-2%	1,962	1,934	-28	-1%	70.7	E	39.9	D	136	563	
			WBT	1,207	1,194	-13	-1%					29.1	C			251	927	
			WBR	235	232	-3	-1%					28.0	C			251	927	
		Van Buren Street	NBL	365	355	-10	-3%	1,051	1,015	-36	-3%	114.6	F	57.2	E	530	961	
			NBT	394	377	-17	-4%					37.1	D			515	958	
			NBR	292	283	-9	-3%					11.9	B			65	330	
		Van Buren Street	SBL	124	113	-11	-9%	839	784	-55	-7%	76.6	E	69.5	E	244	879	
			SBT	668	626	-42	-6%					69.0	E			840	1207	
			SBR	47	45	-2	-4%					58.3	E			840	1207	
		Intersection				4,931	4,813	-118	-2%	4,931	4,813	-118	-2%	47.0	D	47.0	D	
Van Buren Street / Worldgate Drive	Signal	Worldgate Drive	EBL	291	286	-5	-2%	1,382	1,378	-4	0%	73.7	E	32.4	C	188	589	
			EBT	422	422	0	0%					37.2	D			51	227	
			EBR	669	670	1	0%					11.7	B			64	495	
		Parking Lot	WBL	393	381	-12	-3%	988	974	-14	-1%	50.3	D	44.6	D	175	645	
			WBT	573	570	-3	-1%					41.2	D			92	474	
			WBR	22	23	1	5%					31.9	C			99	488	
		Van Buren Street	NBL	361	339	-22	-6%	1,449	1,402	-47	-3%	52.0	D	36.9	D	180	523	
			NBT	720	709	-11	-2%					41.7	D			280	857	
			NBR	368	354	-14	-4%					12.9	B			150	579	
		Van Buren Street	SBL	9	9	0	0%	1,583	1,530	-53	-3%	68.1	E	22.6	C	3	41	
			SBT	1,211	1,171	-40	-3%					28.3	C			109	548	
			SBR	363	350	-13	-4%					2.0	A			0	96	
		Intersection				5,402	5,284	-118	-2%	5,402	5,284	-118	-2%	33.0	C	33.0	C	

Note: Average results across 20 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Build Scenario 3 with Fairbrook Drive Extended 2045 Conditions: Weekday Evening Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Build Scenario 3 with Fairbrook Drive Extended 2045 Conditions MOEs										Notes
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	
Herndon Parkway / Worldgate Drive	Signal	Herndon Parkway	EBL	161	159	-2	-1%	1,179	1,137	-42	-4%	73.1	E	38.9	D	43	351	
			EBT	998	957	-41	-4%					33.4	C			138	499	
			EBR	20	21	1	5%					29.7	C			139	503	
		Herndon Parkway	WBL	672	661	-11	-2%	2,340	2,284	-56	-2%	40.7	D	25.3	C	129	879	
			WBT	1,582	1,538	-44	-3%					19.1	B			223	997	
			WBR	86	85	-1	-1%					18.6	B			228	1006	
		Worldgate Drive	NBL	199	195	-4	-2%	997	990	-7	-1%	67.5	E	33.4	C	150	533	
			NBT	106	103	-3	-3%					65.4	E			150	533	
			NBR	692	692	0	0%					19.0	B			150	533	
		Worldgate Drive	SBL	103	106	3	3%	370	369	-1	0%	47.5	D	36.4	D	34	247	
			SBT	86	86	0	0%					43.9	D			49	249	
			SBR	181	177	-4	-2%					26.0	C			49	253	
		Intersection				4,885	4,780	-105	-2%	4,885	4,780	-105	-2%	31.1	C	31.1	C	
Herndon Parkway / Exchange Place	Signal	Herndon Parkway	EBL	80	81	1	2%	1,949	1,880	-69	-4%	36.4	D	15.6	B	7	106	
			EBT	1,770	1,703	-67	-4%					14.7	B			158	820	
			EBR	99	96	-3	-3%					14.1	B			161	825	
		Herndon Parkway	WBL	66	65	-1	-2%	1,896	1,836	-60	-3%	34.4	C	18.1	B	6	85	
			WBT	1,699	1,646	-53	-3%					17.5	B			147	694	
			WBR	131	125	-6	-5%					18.3	B			152	703	
		Parking Lot	NBL	314	308	-6	-2%	449	447	-2	0%	47.3	D	39.5	D	99	386	
			NBT	0	0	0	0%					0.0	A			99	386	
			NBR	135	139	4	3%					22.3	C			9	226	
		Exchange Place	SBL	102	98	-4	-4%	184	182	-2	-1%	38.6	D	23.4	C	20	155	
			SBT	0	0	0	0%					0.0	A			20	155	
			SBR	82	84	2	3%					5.8	A			0	49	
		Intersection				4,477	4,345	-132	-3%	4,477	4,345	-132	-3%	19.5	B	19.5	B	
Herndon Parkway / Fairbrook Drive	Signal	Parking Lot	EBL	102	94	-8	-8%	340	308	-32	-9%	166.5	F	167.5	F	311	446	
			EBT	170	152	-18	-11%					172.1	F			359	447	
			EBR	68	62	-6	-9%					157.6	F			359	448	
		Fairbrook Drive	WBL	384	380	-4	-1%	691	689	-2	0%	70.5	E	63.3	E	390	971	
			WBT	181	183	2	1%					72.7	E			390	971	
			WBR	126	126	0	0%					27.9	C			5	123	
		Herndon Parkway	NBL	72	71	-1	-2%	2,007	1,935	-72	-4%	23.8	C	24.9	C	7	85	
			NBT	1,522	1,463	-59	-4%					26.4	C			171	685	
			NBR	412	401	-11	-3%					19.6	B			38	605	
		Herndon Parkway	SBL	60	58	-2	-3%	1,587	1,563	-24	-2%	52.9	D	42.2	D	10	137	
			SBT	1,419	1,400	-19	-1%					42.0	D			441	959	
			SBR	109	105	-4	-3%					38.7	D			445	964	
		Intersection				4,625	4,495	-130	-3%	4,625	4,495	-130	-3%	46.5	D	46.5	D	

Note: Average results across 20 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Preferred Build Scenario with Fairbrook Drive Extended 2045 Conditions: Weekday Morning Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Preferred Build Scenario with Fairbrook Drive Extended 2045 Conditions MOEs											Notes		
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	Available Queue Storage (ft)			
Elden Street / Monroe Street	Signal	Elden Street	EBL	73	74	1	1%	839	835	-4	0%	25.5	C	19.4	B	5	131	150	To Lynn St signal, which is not in model		
			EBT	630	629	-1	0%					19.1	B			122	722	250			
			EBR	136	132	-4	-3%					17.3	B			121	721	250			
		Elden Street	WBL	6	5	-1	-17%	459	455	-4	-1%	22.6	C	23.2	C	0	30	875	To Van Buren St signal		
			WBT	410	406	-4	-1%					23.5	C			72	466	875			
			WBR	43	44	1	2%					20.1	C			79	504	875			
		Monroe Street	NBL	36	39	3	8%	190	196	6	3%	40.1	D	38.9	D	8	100	100	To Van Buren St signal		
			NBT	139	143	4	3%					41.3	D			34	228	900			
			NBR	15	14	-1	-7%					11.2	B			18	220	900			
		Monroe Street	SBL	96	92	-4	-4%	462	458	-4	-1%	56.1	E	60.9	E	69	448	-	No upstream control within reasonable distance		
			SBT	307	308	1	0%					63.7	E			139	496	-			
			SBR	59	58	-1	-2%					54.2	D			137	495	250			
		Intersection				1,951	1,944	-7	0%	1,951	1,944	-7	0%	32.0	C	32.0	C				
Elden Street / Van Buren Street	Signal	Elden Street	EBL	0	0	0	0%	770	750	-20	-3%	0.0	A	16.6	B	44	316	850	To Monroe Street signal		
			EBT	718	689	-29	-4%					17.7	B			44	316	850			
			EBR	52	61	9	17%					3.8	A			1	54	850			
		Elden Street	WBL	117	116	-1	-1%	602	587	-15	-2%	33.4	C	22.5	C	41	218	1500	To Post Drive signal, which is not in model		
			WBT	469	458	-11	-2%					20.0	B			41	218	1500			
			WBR	16	13	-3	-19%					13.3	B			49	232	1500			
		Van Buren Street	NBL	49	47	-2	-4%	391	383	-8	-2%	39.6	D	30.2	C	10	91	150	To Monroe St / Grove St signal		
			NBT	226	223	-3	-1%					40.8	D			54	281	450			
			NBR	116	113	-3	-3%					5.5	A			2	79	450			
		Van Buren Street	SBL	146	141	-5	-3%	559	572	13	2%	39.5	D	42.3	D	43	400	325	No upstream control within reasonable distance		
			SBT	404	419	15	4%					43.5	D			118	512	-			
			SBR	9	12	3	33%					33.1	C			124	522	-			
		Intersection				1,763	1,720	-43	-2%	1,763	1,720	-43	-2%	35.7	D	35.7	D				
Van Buren Street / Spring Street	Signal	Van Buren Street	EBL	183	176	-7	-4%	508	507	-1	0%	16.0	B	12.2	B	0	14	1600	To Alabama Dr signal		
			EBT	6	8	2	33%					14.6	B			17	165	1600			
			EBR	319	323	4	1%					10.1	B			17	217	150			
		Parking Lot	WBL	1	1	0	0%	1	1	0	0%	32.6	C	32.6	C	0	14	-			
			WBR	0	0	0	0%					0.0	A			0	0	-			
		Spring Street	NBL	117	119	2	2%	420	419	-1	0%	14.8	B	7.7	A	4	118	200	To Huntmar Park Dr signal		
			NBT	295	294	-1	0%					5.0	A			5	111	800			
			NBR	8	6	-2	-25%					1.6	A			3	119	800			
		Van Buren Street	SBL	9	9	0	0%	945	958	13	1%	8.8	A	7.4	A	0	48	275	To Monroe St / Grove St signal		
			SBT	586	591	5	1%					8.2	A			18	260	1200			
			SBR	350	358	8	2%					5.9	A			7	175	1200			
		Intersection				929	927	-2	0%	929	927	-2	0%	17.8	B	17.8	B				
		Spring Street / Herndon Parkway	Signal	Spring Street	EBL	87	94	7	8%	991	995	4	0%	87.7	F	75.3	E	46	342	200	To Huntmar Park Dr signal
EBT	779				772	-7	-1%	75.0	E					164	466			2300			
EBR	125				129	4	3%	68.0	E					166	469			2300			
Spring Street	WBL			929	940	11	1%	1,888	1,900	12	1%	40.9	D	31.7	C	156	638	375	To Ffx County Pkwy signal		
	WBT			544	551	7	1%					33.3	C			63	372	550			
	WBR			415	409	-6	-1%					8.4	A			15	236	550			
Herndon Parkway	NBL			180	181	1	0%	1,518	1,467	-51	-3%	49.6	D	31.0	C	45	259	300	To Sunset Business Park signal		
	NBT			355	347	-8	-2%					48.7	D			95	334	500			
	NBR			983	939	-44	-4%					20.9	C			95	334	500			
Herndon Parkway	SBL			454	451	-3	-1%	1,089	1,088	-1	0%	70.7	E	57.9	E	101	295	500	To Grove St signal		
	SBT			559	557	-2	0%					49.5	D			100	351	2300			
	SBR			76	80	4	5%					44.6	D			101	354	2300			
Intersection				4,397	4,362	-35	-1%	4,397	4,362	-35	-1%	55.9	E	55.9	E						

Note: Average results across 7 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Preferred Build Scenario with Fairbrook Drive Extended 2045 Conditions: Weekday Morning Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Preferred Build Scenario with Fairbrook Drive Extended 2045 Conditions MOEs											Notes
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	Available Queue Storage (ft)	
Spring Street / Fairfax County Parkway / Fairbrook Drive	Signal	Spring Street	EBL	153	153	0	0%	2,201	2,143	-58	-3%	27.2	C	28.0	C	18	195	250	To Herndon Parkway signal
			EBT	2,022	1,964	-58	-3%					28.2	C			170	693	550	
			EBR	26	26	0	0%					20.5	C			167	689	550	
		Spring Street	WBL	210	209	-1	-1%	1,199	1,190	-9	-1%	84.9	F	49.5	D	211	729	250	To Target signal
			WBT	683	680	-3	-1%					51.8	D			211	729	1650	
			WBR	305	301	-4	-1%					19.7	B			167	718	1650	
		Fairbrook Drive	NBL	21	19	-2	-8%	620	628	8	1%	100.2	F	60.6	E	147	613	-	
			NBT	146	150	4	3%					96.0	F			147	613	-	
			NBR	453	459	6	1%					47.4	D			147	613	250	
		Fairfax County Parkway	SBL	370	367	-3	-1%	1,985	1,993	8	0%	77.5	E	35.4	D	388	1381	250	To Ffx Pkwy signal, which is not in model
			SBT	359	354	-5	-1%					46.9	D			206	1234	600	
			SBR	1,256	1,272	16	1%					20.0	C			359	1429	600	
		Intersection				6,004	5,954	-50	-1%	6,004	5,954	-50	-1%	38.2	D	38.2	D		
Van Buren Street / Alabama Drive	Signal	Alabama Drive	EBL	129	131	2	2%	332	332	0	0%	41.7	D	33.9	C	66	334	-	
			EBT	10	10	0	0%					40.7	D			66	334	-	
			EBR	193	191	-2	-1%					28.2	C			68	341	-	
		Alabama Drive	WBL	56	55	-1	-2%	112	109	-3	-3%	31.7	C	25.8	C	15	146	-	
			WBT	13	13	0	0%					29.6	C			15	146	-	
			WBR	43	41	-2	-5%					16.8	B			15	161	-	
		Van Buren Street	NBL	48	48	0	0%	417	412	-5	-1%	16.8	B	13.8	B	35	366	1125	To Herndon Parkway signal
			NBT	336	332	-4	-1%					13.5	B			36	367	1125	
			NBR	33	32	-1	-2%					12.8	B			35	366	1125	
		Van Buren Street	SBL	13	16	3	23%	467	474	7	1%	17.7	B	14.0	B	44	400	1600	To Van Buren St signal
			SBT	413	419	6	1%					14.0	B			44	400	1600	
			SBR	41	39	-2	-5%					12.1	B			42	399	1600	
		Intersection				1,328	1,327	-1	0%	1,328	1,327	-1	0%	19.9	B	19.9	B		
Van Buren Street / Herndon Parkway	Signal	Herndon Parkway	EBL	43	39	-4	-9%	1,593	1,524	-69	-4%	71.4	E	47.9	D	13	91	175	To Campbell Way signal, which is not in model
			EBT	1,233	1,187	-46	-4%					52.9	D			867	1589	1950	
			EBR	317	298	-19	-6%					24.9	C			530	1542	1950	
		Herndon Parkway	WBL	293	302	9	3%	919	918	-1	0%	75.8	E	30.3	C	77	221	350	To Worldgate Drive signal
			WBT	514	508	-6	-1%					8.4	A			12	187	875	
			WBR	112	108	-4	-4%					6.4	A			12	187	875	
		Van Buren Street	NBL	240	248	8	3%	835	850	15	2%	69.0	E	49.3	D	119	363	375	To Office Park signal
			NBT	261	271	10	4%					61.1	E			113	360	375	
			NBR	334	331	-3	-1%					24.7	C			50	299	300	
		Van Buren Street	SBL	176	177	1	0%	663	675	12	2%	41.3	D	38.4	D	39	327	175	To Alabama Dr signal
			SBT	464	475	11	2%					37.9	D			72	573	1125	
			SBR	23	23	0	0%					26.1	C			72	573	1125	
		Intersection				4,010	3,967	-43	-1%	4,010	3,967	-43	-1%	42.5	D	42.5	D		
Van Buren Street / Worldgate Drive	Signal	Worldgate Drive	EBL	170	174	4	2%	1,156	1,160	4	0%	34.5	C	30.7	C	35	201	400	
			EBT	745	744	-1	0%					38.9	D			93	352	-	
			EBR	241	242	1	0%					2.5	A			2	108	875	
		Worldgate Drive	WBL	194	205	11	6%	411	431	20	5%	33.1	C	32.5	C	38	289	275	To Herndon Pkwy signal
			WBT	209	218	9	4%					32.8	C			26	120	600	
			WBR	8	8	0	0%					13.2	B			28	134	600	
		Van Buren Street	NBL	406	391	-15	-4%	1,714	1,706	-8	0%	45.3	D	22.2	C	61	343	250	To Eastpark Dr signal
			NBT	767	782	15	2%					16.7	B			47	404	1650	
			NBR	541	533	-8	-1%					13.3	B			35	313	250	
		Van Buren Street	SBL	20	21	1	5%	1,045	1,036	-9	-1%	44.2	D	9.4	A	5	67	200	To Office Park signal
			SBT	669	659	-10	-1%					12.1	B			28	238	400	
			SBR	356	356	0	0%					2.3	A			1	126	400	
		Intersection				4,326	4,333	7	0%	4,326	4,333	7	0%	22.4	C	22.4	C		

Note: Average results across 7 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Preferred Build Scenario with Fairbrook Drive Extended 2045 Conditions: Weekday Morning Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Preferred Build Scenario with Fairbrook Drive Extended 2045 Conditions MOEs											Notes
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	Available Queue Storage (ft)	
Herndon Parkway / Worldgate Drive	Signal	Herndon Parkway	EBL	163	167	4	2%	1,698	1,640	-58	-3%	22.7	C	58.1	E	4	98	175	To Van Buren St signal
			EBT	1,491	1,431	-60	-4%					62.7	E			500	982	850	
			EBR	44	42	-2	-5%					42.3	D			504	986	850	
		Herndon Parkway	WBL	525	537	12	2%	1,419	1,435	16	1%	64.7	E	32.2	C	122	527	250	To 555 signal
			WBT	791	797	6	1%					12.6	B			36	441	875	
			WBR	103	101	-2	-2%					13.3	B			38	451	875	
		Worldgate Drive	NBL	65	64	-1	-2%	1,130	1,124	-6	0%	33.2	C	26.4	C	98	587	600	To Van Buren St signal
			NBT	90	87	-3	-3%					36.0	D			98	587	600	
			NBR	975	973	-2	0%					25.1	C			98	587	600	
		Worldgate Drive	SBL	73	72	-1	-1%	165	166	1	1%	50.7	D	35.0	C	18	124	75	
			SBT	30	32	2	5%					39.6	D			11	129	-	
			SBR	62	62	0	0%					14.3	B			8	131	-	
Intersection				4,412	4,365	-47	-1%	4,412	4,365	-47	-1%	40.5	D	40.5	D				
Herndon Parkway / 555 Herndon Parkway	Signal	Herndon Parkway	EBL	64	68	4	7%	2,429	2,367	-62	-3%	12.7	B	17.1	B	2	74	175	To Worldgate Drive signal
			EBT	2,146	2,079	-67	-3%					17.2	B			240	1040	875	
			EBR	220	220	0	0%					17.6	B			241	1043	875	
		Herndon Parkway	WBL	148	158	10	7%	1,524	1,550	26	2%	35.5	D	12.5	B	22	369	175	To Exchange Place signal
			WBT	1,247	1,264	18	1%					9.9	A			59	540	650	
			WBR	129	128	-1	-1%					10.1	B			60	543	650	
		Parking Lot	NBL	103	101	-2	-2%	147	144	-3	-2%	45.2	D	34.7	C	26	168	-	
			NBT	0	0	0	0%					0.0	A			0	0	-	
			NBR	44	43	-1	-2%					10.2	B			0	52	75	
		Parking Lot	SBL	52	50	-2	-4%	124	121	-3	-2%	46.1	D	30.4	C	20	179	-	
			SBT	0	0	0	0%					0.0	A			0	0	-	
			SBR	72	71	-1	-1%					19.4	B			18	185	-	
Intersection				4,224	4,182	-42	-1%	4,224	4,182	-42	-1%	16.4	B	16.4	B				
Herndon Parkway / Exchange Place	Signal	Herndon Parkway	EBL	1	1	0	-29%	2,155	2,073	-82	-4%	12.6	B	7.8	A	0	3	175	To 555 signal
			EBT	1,934	1,868	-66	-3%					7.7	A			78	818	650	
			EBR	220	204	-16	-7%					8.7	A			79	823	650	
		Herndon Parkway	WBL	148	145	-3	-2%	1,566	1,572	6	0%	35.6	D	5.0	A	17	178	175	To Fairbrook Dr signal
			WBT	1,412	1,421	9	1%					1.9	A			5	142	550	
			WBR	6	6	0	7%					1.3	A			5	151	550	
		Parking Lot	NBL	103	99	-4	-4%	147	145	-2	-1%	47.5	D	35.0	D	28	160	-	
			NBT	0	0	0	0%					0.0	A			28	160	-	
			NBR	44	46	2	5%					8.2	A			1	46	75	
		Exchange Place	SBL	16	13	-3	-20%	27	26	-1	-4%	44.5	D	27.8	C	4	61	-	
			SBT	0	0	0	0%					0.0	A			4	61	-	
			SBR	11	13	2	20%					11.1	B			2	67	-	
Intersection				3,895	3,816	-79	-2%	3,895	3,816	-79	-2%	7.8	A	7.8	A				
Herndon Parkway / Fairbrook Drive	Signal	Parking Lot	EBL	47	52	5	10%	157	162	5	3%	51.1	D	46.7	D	16	171	75	
			EBT	79	77	-2	-2%					51.0	D			28	196	-	
			EBR	31	33	2	5%					29.4	C			24	198	-	
		Fairbrook Drive	WBL	288	297	9	3%	408	414	6	2%	57.4	E	49.2	D	63	296	175	
			WBT	81	75	-6	-7%					34.4	C			17	148	-	
			WBR	39	42	3	8%					17.2	B			15	152	-	
		Herndon Parkway	NBL	32	31	-1	-4%	1,994	1,925	-69	-3%	3.6	A	6.6	A	0	26	150	To Exchange PI signal
			NBT	1,524	1,472	-52	-3%					6.7	A			31	565	550	
			NBR	437	422	-15	-3%					6.7	A			3	141	125	
		Herndon Parkway	SBL	97	96	-1	-1%	1,391	1,384	-7	-1%	38.1	D	30.9	C	11	113	150	To Sunset Business Park signal
			SBT	1,245	1,242	-3	0%					30.3	C			192	883	825	
			SBR	49	46	-3	-5%					32.2	C			195	888	825	
Intersection				3,950	3,885	-65	-2%	3,950	3,885	-65	-2%	21.5	C	21.5	C				

Note: Average results across 7 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Preferred Build Scenario with Fairbrook Drive Extended 2045 Conditions: Weekday Morning Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Preferred Build Scenario with Fairbrook Drive Extended 2045 Conditions MOEs											Notes			
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	Available Queue Storage (ft)				
Herndon Parkway / Sunset Business Park	Signal	Parking Lot	EBL	141	143	2	1%	190	194	4	2%	45.2	D	35.5	D	38	214	-	To Fairbrook Dr signal			
			EBR	49	51	2	5%					8.3	A			0	48	100				
		Sunset Business Park	WBL	95	92	-3	-4%	133	130	-3	-2%	43.3	D	32.5	C	22	156	-				
			WBR	38	38	0	1%					6.5	A			0	29	100				
		Herndon Parkway	NBL	199	197	-2	-1%	1,629	1,573	-56	-3%	15.6	B	6.0	A	12	212	150				
			NBT	1,338	1,285	-53	-4%					4.6	A			18	481	825				
			NBR	92	91	-1	-1%					4.5	A			18	484	825				
		Herndon Parkway	SBL	64	63	-1	-2%	1,616	1,612	-4	0%	30.1	C	17.7	B	4	77	175				
			SBT	1,293	1,296	3	0%					17.2	B			98	613	525				
			SBR	258	253	-5	-2%					17.5	B			105	625	525				
		Intersection				3,567	3,509	-58	-2%	3,567	3,509	-58	-2%	14.0	B	14.0	B					
		Spring Street / Parallel TRG Road	Two-Way Stop Control	Spring Street	EBT	883	894	11	1%	1,013	1,021	8	1%	0.6	A	0.7	A	0		91	-	To Spring St signal
					EBR	130	127	-3	-2%					1.6	A			1		112	-	
Spring Street	WBL			56	56	0	0%	800	812	12	2%	5.4	A	1.0	A	1	56	125				
	WBT			744	756	12	2%					0.7	A			0	0	-				
Parallel TRG Road	NBL			46	47	1	2%	154	155	1	1%	12.3	B	10.4	B	3	66	-				
	NBR			108	108	0	0%					9.6	A			7	103	100				
Intersection				1,967	1,988	21	1%	1,967	1,988	21	1%	1.6	A	1.6	A							

Note: Average results across 7 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Preferred Build Scenario with Fairbrook Drive Extended 2045 Conditions: Weekday Evening Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Preferred Build Scenario with Fairbrook Drive Extended 2045 Conditions MOEs											Notes		
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	Available Queue Storage (ft)			
Elden Street / Monroe Street	Signal	Elden Street	EBL	127	123	-4	-3%	817	796	-21	-3%	34.1	C	25.2	C	14	209	150	To Lynn St signal, which is not in model		
			EBT	654	638	-16	-2%					23.8	C			168	898	250			
			EBR	36	35	-1	-3%					20.5	C			167	898	250			
		Elden Street	WBL	13	13	0	0%	755	733	-22	-3%	29.1	C	34.9	C	1	42	875	To Van Buren St signal		
			WBT	669	651	-18	-3%					35.2	D			433	955	875			
			WBR	73	69	-4	-5%					33.3	C			452	993	875			
		Monroe Street	NBL	168	166	-2	-1%	492	488	-4	-1%	54.6	D	54.6	D	68	496	100	To Van Buren St signal		
			NBT	313	311	-2	-1%					55.3	E			145	582	900			
			NBR	11	11	0	0%					37.5	D			132	571	900			
		Monroe Street	SBL	131	129	-2	-2%	454	459	5	1%	44.3	D	46.3	D	58	319	-	No upstream control within reasonable distance		
			SBT	202	205	3	1%					51.5	D			92	352	-			
			SBR	121	125	4	3%					40.0	D			89	352	250			
		Intersection				2,518	2,476	-42	-2%	2,518	2,476	-42	-2%	37.8	D	37.8	D				
Elden Street / Van Buren Street	Signal	Elden Street	EBL	5	5	0	0%	803	797	-6	-1%	60.4	E	41.0	D	110	340	850	To Monroe Street signal		
			EBT	764	755	-9	-1%					42.6	D			110	340	850			
			EBR	34	37	3	9%					5.8	A			1	52	850			
		Elden Street	WBL	150	151	1	1%	962	958	-4	0%	47.0	D	33.5	C	109	427	1500	To Post Drive signal, which is not in model		
			WBT	754	751	-3	0%					31.5	C			109	427	1500			
			WBR	58	56	-2	-3%					24.5	C			119	441	1500			
		Van Buren Street	NBL	118	113	-5	-4%	760	723	-37	-5%	39.8	D	33.6	C	20	265	150	To Monroe St / Grove St signal		
			NBT	466	441	-25	-5%					40.5	D			144	727	450			
			NBR	176	169	-7	-4%					11.6	B			5	158	450			
		Van Buren Street	SBL	126	123	-3	-2%	388	388	0	0%	40.9	D	43.7	D	33	250	325	No upstream control within reasonable distance		
			SBT	247	249	2	1%					45.1	D			71	319	-			
			SBR	15	16	1	7%					42.4	D			75	329	-			
		Intersection				2,525	2,478	-47	-2%	2,525	2,478	-47	-2%	42.8	D	42.8	D				
Van Buren Street / Spring Street	Signal	Van Buren Street	EBL	424	391	-33	-8%	640	596	-44	-7%	22.0	C	17.1	B	0	49	1600	To Alabama Dr signal		
			EBT	1	2	1	100%					16.7	B			62	541	1600			
			EBR	215	203	-12	-6%					7.7	A			5	124	150			
		Parking Lot	WBL	13	14	1	8%	28	28	0	0%	29.3	C	29.5	C	2	48	-			
			WBR	15	14	-1	-7%					29.8	C			2	48	-			
		Spring Street	NBL	324	312	-12	-4%	1,049	1,003	-46	-4%	26.6	C	17.1	B	42	347	200	To Huntmar Park Dr signal		
			NBT	717	684	-33	-5%					12.8	B			29	352	800			
			NBR	8	7	-1	-13%					13.6	B			29	360	800			
		Van Buren Street	SBL	3	3	0	0%	791	802	11	1%	22.4	C	19.5	B	0	24	275	To Monroe St / Grove St signal		
			SBT	326	329	3	1%					19.9	B			47	331	1200			
			SBR	462	470	8	2%					19.3	B			60	345	1200			
		Intersection				1,717	1,627	-90	-5%	1,717	1,627	-90	-5%	26.9	C	26.9	C				
		Spring Street / Herndon Parkway	Signal	Spring Street	EBL	147	139	-8	-5%	1,071	1,045	-26	-2%	103.9	F	102.5	F	148	576	200	To Huntmar Park Dr signal
EBT	789				776	-13	-2%	101.8	F					294	672			2300			
EBR	135				130	-5	-4%	104.9	F					296	676			2300			
Spring Street	WBL			990	937	-53	-5%	2,253	2,132	-121	-5%	40.9	D	31.3	C	142	484	375	To Ffx County Pkwy signal		
	WBT			804	759	-45	-6%					31.6	C			82	373	550			
	WBR			459	436	-23	-5%					10.2	B			19	218	550			
Herndon Parkway	NBL			221	223	2	1%	1,809	1,792	-17	-1%	63.1	E	39.7	D	70	430	300	To Sunset Business Park signal		
	NBT			697	698	1	0%					55.1	E			178	616	500			
	NBR			891	871	-20	-2%					21.3	C			178	616	500			
Herndon Parkway	SBL			497	491	-6	-1%	1,087	1,083	-4	0%	100.0	F	73.3	E	176	547	500	To Grove St signal		
	SBT			538	542	4	1%					51.5	D			97	353	2300			
	SBR			52	50	-2	-3%					46.8	D			98	356	2300			
Intersection				5,133	4,969	-164	-3%	5,133	4,969	-164	-3%	65.3	E	65.3	E						

Note: Average results across 20 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Preferred Build Scenario with Fairbrook Drive Extended 2045 Conditions: Weekday Evening Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Preferred Build Scenario with Fairbrook Drive Extended 2045 Conditions MOEs											Notes
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	Available Queue Storage (ft)	
Spring Street / Fairfax County Parkway / Fairbrook Drive	Signal	Spring Street	EBL	321	318	-3	-1%	2,167	2,117	-50	-2%	68.9	E	28.9	C	153	635	250	To Herndon Parkway signal
			EBT	1,820	1,772	-48	-3%					22.0	C			125	558	550	
			EBR	27	27	0	1%					14.7	B			122	554	550	
		Spring Street	WBL	170	154	-16	-10%	2,314	2,088	-226	-10%	45.0	D	44.3	D	1304	1649	250	To Target signal
			WBT	1,494	1,363	-131	-9%					45.2	D			1304	1649	1650	
			WBR	650	571	-79	-12%					41.9	D			1293	1639	1650	
		Fairbrook Drive	NBL	29	30	1	2%	946	911	-35	-4%	91.7	F	74.1	E	620	1019	-	
			NBT	225	214	-11	-5%					86.6	F			620	1019	-	
			NBR	692	667	-25	-4%					69.3	E			620	1019	250	
		Fairfax County Parkway	SBL	166	169	3	2%	1,517	1,521	4	0%	56.7	E	36.0	D	52	353	250	To Ffx Pkwy signal, which is not in model
			SBT	421	422	1	0%					46.2	D			140	734	600	
			SBR	930	930	0	0%					27.6	C			124	771	600	
Intersection				6,944	6,637	-307	-4%	6,944	6,637	-307	-4%	41.6	D	41.6	D				
Van Buren Street / Alabama Drive	Signal	Alabama Drive	EBL	85	59	-26	-31%	265	191	-74	-28%	242.4	F	224.3	F	370	525	-	
			EBT	18	13	-5	-28%					240.2	F			370	525	-	
			EBR	162	119	-43	-27%					213.6	F			376	533	-	
		Alabama Drive	WBL	35	33	-2	-5%	66	64	-2	-3%	95.9	F	77.6	E	25	146	-	
			WBT	10	10	0	0%					76.0	E			25	146	-	
			WBR	21	21	0	0%					49.7	D			27	160	-	
		Van Buren Street	NBL	81	79	-2	-2%	700	678	-22	-3%	26.4	C	21.9	C	122	748	1125	To Herndon Parkway signal
			NBT	534	520	-14	-3%					21.5	C			123	749	1125	
			NBR	85	79	-6	-8%					19.6	B			122	748	1125	
		Van Buren Street	SBL	34	34	0	0%	787	776	-11	-1%	34.1	C	32.7	C	409	1246	1600	To Van Buren St signal
			SBT	646	637	-9	-1%					33.3	C			409	1245	1600	
			SBR	107	105	-2	-2%					28.4	C			407	1244	1600	
Intersection				1,818	1,709	-109	-6%	1,818	1,709	-109	-6%	51.5	D	51.5	D				
Van Buren Street / Herndon Parkway	Signal	Herndon Parkway	EBL	55	56	1	2%	1,099	1,098	-1	0%	60.5	E	34.9	C	19	108	175	To Campbell Way signal, which is not in model
			EBT	698	700	2	0%					41.9	D			106	462	1950	
			EBR	346	342	-4	-1%					16.1	B			48	285	1950	
		Herndon Parkway	WBL	520	485	-35	-7%	2,033	1,922	-111	-5%	72.7	E	43.6	D	122	542	350	To Worldgate Drive signal
			WBT	1,263	1,199	-64	-5%					33.9	C			299	1029	875	
			WBR	250	238	-12	-5%					33.4	C			299	1029	875	
		Van Buren Street	NBL	365	358	-7	-2%	1,051	1,022	-29	-3%	114.3	F	57.8	E	525	971	375	To Office Park signal
			NBT	394	381	-13	-3%					38.0	D			510	968	375	
			NBR	292	283	-9	-3%					12.9	B			25	282	300	
		Van Buren Street	SBL	129	117	-12	-9%	844	785	-59	-7%	78.9	E	70.4	E	290	954	175	To Alabama Dr signal
			SBT	668	623	-45	-7%					69.5	E			836	1209	1125	
			SBR	47	45	-2	-4%					60.6	E			836	1209	1125	
Intersection				5,027	4,827	-200	-4%	5,027	4,827	-200	-4%	49.0	D	49.0	D				
Van Buren Street / Worldgate Drive	Signal	Worldgate Drive	EBL	291	281	-10	-3%	1,378	1,369	-9	-1%	82.5	F	33.4	C	233	653	400	
			EBT	418	418	0	0%					35.2	D			47	205	-	
			EBR	669	670	1	0%					11.6	B			49	487	875	
		Worldgate Drive	WBL	406	387	-19	-5%	1,017	992	-25	-2%	60.8	E	47.9	D	187	703	275	To Herndon Pkwy signal
			WBT	589	583	-6	-1%					40.2	D			88	477	600	
			WBR	22	22	0	0%					26.9	C			96	490	600	
		Van Buren Street	NBL	361	344	-17	-5%	1,446	1,408	-38	-3%	52.6	D	36.1	D	134	636	250	To Eastpark Dr signal
			NBT	720	710	-10	-1%					40.0	D			228	907	1650	
			NBR	365	354	-11	-3%					12.3	B			67	475	250	
		Van Buren Street	SBL	9	9	0	0%	1,583	1,495	-88	-6%	57.1	E	20.7	C	3	47	200	To Office Park signal
			SBT	1,211	1,141	-70	-6%					26.1	C			102	529	400	
			SBR	363	345	-18	-5%					2.1	A			0	100	400	
Intersection				5,424	5,264	-160	-3%	5,424	5,264	-160	-3%	33.3	C	33.3	C				

Note: Average results across 20 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Preferred Build Scenario with Fairbrook Drive Extended 2045 Conditions: Weekday Evening Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes								Preferred Build Scenario with Fairbrook Drive Extended 2045 Conditions MOEs								Notes
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	Available Queue Storage (ft)		
Herndon Parkway / Worldgate Drive	Signal	Herndon Parkway	EBL	103	101	-2	-2%	1,203	1,160	-43	-4%	57.8	E	53.2	D	14	163	175	To Van Buren St signal	
			EBT	1,080	1,038	-42	-4%					52.8	D			231	552	850		
			EBR	20	21	1	5%					47.5	D			233	556	850		
		Herndon Parkway	WBL	732	701	-31	-4%	2,490	2,368	-122	-5%	41.7	D	25.7	C	175	983	250	To 555 signal	
			WBT	1,721	1,631	-90	-5%					19.0	B			312	1019	875		
			WBR	36	36	0	-1%					17.3	B			318	1029	875		
		Worldgate Drive	NBL	199	196	-3	-2%	990	983	-7	-1%	46.8	D	25.8	C	100	455	600	To Van Buren St signal	
			NBT	60	59	-1	-1%					43.4	D			100	455	600		
			NBR	731	728	-3	0%					18.8	B			100	455	600		
		Worldgate Drive	SBL	134	134	0	0%	302	301	-1	0%	56.2	E	41.6	D	48	249	75		
			SBT	55	55	0	0%					44.7	D			27	242	-		
			SBR	113	112	-1	-1%					22.5	C			25	246	-		
		Intersection				4,984	4,812	-172	-3%	4,984	4,812	-172	-3%	33.3	C	33.3	C			
Herndon Parkway / 555 Herndon Parkway	Signal	Herndon Parkway	EBL	51	50	-1	-1%	2,021	1,965	-56	-3%	39.2	D	16.8	B	7	84	175	To Worldgate Drive signal	
			EBT	1,871	1,818	-53	-3%					16.2	B			143	729	875		
			EBR	99	97	-2	-2%					16.5	B			144	731	875		
		Herndon Parkway	WBL	66	62	-4	-6%	2,215	2,083	-132	-6%	39.7	D	26.8	C	4	86	175	To Exchange Place signal	
			WBT	2,066	1,942	-124	-6%					26.5	C			363	812	650		
			WBR	82	79	-3	-4%					23.8	C			366	816	650		
		Parking Lot	NBL	314	319	5	2%	449	450	1	0%	59.6	E	51.4	D	141	449	-		
			NBT	0	0	0	0%					0.0	A			0	0	-		
			NBR	135	131	-4	-3%					31.5	C			15	320	75		
		Parking Lot	SBL	70	70	0	0%	180	181	1	1%	36.5	D	25.9	C	24	208	-		
			SBT	0	0	0	0%					0.0	A			0	0	-		
			SBR	110	111	1	1%					19.2	B			24	214	-		
		Intersection				4,865	4,679	-186	-4%	4,865	4,679	-186	-4%	24.9	C	24.9	C			
Herndon Parkway / Exchange Place	Signal	Herndon Parkway	EBL	3	3	0	-12%	2,099	2,040	-59	-3%	22.9	C	10.4	B	0	11	175	To 555 signal	
			EBT	1,996	1,940	-56	-3%					10.3	B			99	726	650		
			EBR	99	97	-2	-2%					10.6	B			100	732	650		
		Herndon Parkway	WBL	66	64	-2	-3%	1,976	1,865	-111	-6%	48.5	D	24.4	C	6	92	175	To Fairbrook Dr signal	
			WBT	1,897	1,788	-109	-6%					23.6	C			260	699	550		
			WBR	14	13	-1	-4%					18.9	B			266	709	550		
		Parking Lot	NBL	314	304	-10	-3%	449	441	-8	-2%	74.1	E	64.9	E	170	389	-		
			NBT	0	0	0	0%					0.0	A			170	389	-		
			NBR	135	137	2	1%					44.3	D			34	354	75		
		Exchange Place	SBL	6	7	1	17%	10	11	1	10%	44.8	D	31.5	C	2	40	-		
			SBT	0	0	0	0%					0.0	A			2	40	-		
			SBR	4	4	0	0%					8.3	A			0	3	-		
		Intersection				4,534	4,357	-177	-4%	4,534	4,357	-177	-4%	22.0	C	22.0	C			
Herndon Parkway / Fairbrook Drive	Signal	Parking Lot	EBL	46	48	2	5%	152	155	3	2%	78.0	E	61.9	E	27	204	75		
			EBT	76	76	0	0%					60.1	E			37	226	-		
			EBR	30	31	1	2%					41.5	D			31	224	-		
		Fairbrook Drive	WBL	369	370	1	0%	557	557	0	0%	89.1	F	73.0	E	192	730	175		
			WBT	62	60	-2	-3%					50.8	D			76	620	-		
			WBR	126	127	1	1%					36.6	D			76	623	-		
		Herndon Parkway	NBL	25	24	-1	-3%	2,137	2,087	-50	-2%	16.7	B	18.5	B	1	45	150	To Exchange PI signal	
			NBT	1,554	1,514	-40	-3%					19.4	B			116	631	550		
			NBR	559	549	-10	-2%					16.4	B			44	569	125		
		Herndon Parkway	SBL	60	58	-2	-3%	1,649	1,572	-77	-5%	44.4	D	40.4	D	11	147	150	To Sunset Business Park signal	
			SBT	1,551	1,480	-71	-5%					40.3	D			518	922	825		
			SBR	37	34	-3	-9%					38.6	D			523	927	825		
		Intersection				4,495	4,371	-124	-3%	4,495	4,371	-124	-3%	34.9	C	34.9	C			

Note: Average results across 20 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Preferred Build Scenario with Fairbrook Drive Extended 2045 Conditions: Weekday Evening Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Preferred Build Scenario with Fairbrook Drive Extended 2045 Conditions MOEs											Notes			
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	Available Queue Storage (ft)				
Herndon Parkway / Sunset Business Park	Two-Way Stop Control (future signal)	Parking Lot	EBL	279	280	1	0%	390	391	1	0%	44.3	D	36.5	D	80	351	-	To Fairbrook Dr signal			
			EBR	111	111	0	0%					16.8	B			2	106	100				
		Sunset Business Park	WBL	144	144	0	0%	196	196	0	0%	36.4	D	28.5	C	29	214	-				
			WBR	52	52	0	0%					6.6	A			0	28	100				
		Herndon Parkway	NBL	116	114	-2	-1%	1,670	1,679	9	1%	24.7	C	16.7	B	11	216	150				
			NBT	1,438	1,451	13	1%					16.2	B			139	807	825				
			NBR	116	114	-2	-2%					16.2	B			140	810	825				
		Herndon Parkway	SBL	100	97	-3	-3%	1,702	1,597	-105	-6%	33.7	C	19.7	B	9	110	175				
			SBT	1,422	1,325	-97	-7%					18.9	B			111	638	525				
			SBR	180	175	-5	-3%					18.4	B			118	650	525				
		Intersection				3,958	3,863	-95	-2%	3,958	3,863	-95	-2%	20.6	C	20.6	C					
		Spring Street / Parallel TRG Route	Two-Way Stop Control	Spring Street	EBT	871	867	-4	0%	944	938	-6	-1%	5.3	A	5.3	A	28		188	-	
EBR	73				71	-2	-2%	5.2	A					30	210			-				
Spring Street	WBL			31	30	-1	-4%	1,076	1,033	-43	-4%	5.8	A	0.9	A	1	45	125				
	WBT			1,045	1,003	-42	-4%					0.8	A			0	0	-				
Parallel TRG Route	NBL			86	83	-3	-3%	285	275	-10	-4%	24.4	C	30.8	C	11	133	-				
	NBR			200	192	-8	-4%					33.5	C			44	207	100				
Intersection				2,305	2,246	-59	-3%	2,305	2,246	-59	-3%	6.4	A	6.4	A							

Note: Average results across 20 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Preferred Build Scenario with Fairbrook Drive Extended and Additional Mitigation - 2045 Conditions: Weekday Morning Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Preferred Build Scenario with Fairbrook Drive Extended 2045 Conditions MOEs											Notes		
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	Available Queue Storage (ft)			
Elden Street / Monroe Street	Signal	Elden Street	EBL	73	75	2	3%	839	838	-1	0%	25.4	C	19.2	B	5	81	150	To Lynn St signal, which is not in model		
			EBT	630	630	0	0%					18.9	B			121	744	250			
			EBR	136	133	-3	-2%					17.4	B			120	743	250			
		Elden Street	WBL	6	5	-1	-17%	459	456	-3	-1%	26.9	C	22.4	C	0	30	875	To Van Buren St signal		
			WBT	410	407	-3	-1%					22.6	C			70	453	875			
			WBR	43	44	1	2%					19.7	B			75	491	875			
		Monroe Street	NBL	36	39	3	8%	189	197	8	4%	36.4	D	39.0	D	8	77	100	To Van Buren St signal		
			NBT	138	143	5	3%					42.5	D			35	205	900			
			NBR	15	15	0	0%					11.9	B			20	192	900			
		Monroe Street	SBL	96	92	-4	-4%	462	459	-3	-1%	51.8	D	58.5	E	68	425	-	No upstream control within reasonable distance		
			SBT	307	309	2	0%					61.9	E			134	498	-			
			SBR	59	58	-1	-2%					51.5	D			133	497	250			
		Intersection				1,950	1,950	0	0%	1,950	1,950	0	0%	31.2	C	31.2	C				
Elden Street / Van Buren Street	Signal	Elden Street	EBL	0	0	0	0%	770	754	-16	-2%	0.0	A	16.8	B	45	307	850	To Monroe Street signal		
			EBT	718	693	-25	-3%					18.0	B			45	307	850			
			EBR	52	61	9	17%					4.1	A			1	50	850			
		Elden Street	WBL	117	115	-2	-2%	602	588	-14	-2%	32.5	C	22.7	C	41	223	1500	To Post Drive signal, which is not in model		
			WBT	469	460	-9	-2%					20.5	C			41	223	1500			
			WBR	16	13	-3	-19%					14.3	B			49	237	1500			
		Van Buren Street	NBL	49	48	-1	-2%	392	391	-1	0%	37.2	D	30.8	C	10	96	150	To Monroe St / Grove St signal		
			NBT	227	227	0	0%					42.2	D			56	305	450			
			NBR	116	116	0	0%					5.9	A			3	88	450			
		Van Buren Street	SBL	146	141	-5	-3%	559	572	13	2%	39.0	D	41.4	D	42	386	325	No upstream control within reasonable distance		
			SBT	404	419	15	4%					42.4	D			113	479	-			
			SBR	9	12	3	33%					32.4	C			119	490	-			
		Intersection				1,764	1,733	-31	-2%	1,764	1,733	-31	-2%	35.6	D	35.6	D				
Van Buren Street / Spring Street	Signal	Van Buren Street	EBL	183	176	-7	-4%	508	507	-1	0%	16.1	B	11.9	B	0	3	1600	To Alabama Dr signal		
			EBT	6	8	2	33%					13.9	B			17	174	1600			
			EBR	319	323	4	1%					9.6	A			16	223	150			
		Parking Lot	WBL	1	1	0	0%	1	1	0	0%	23.3	C	23.3	C	0	14	-			
			WBR	0	0	0	0%					0.0	A			0	0	-			
		Spring Street	NBL	117	124	7	6%	420	433	13	3%	15.9	B	9.1	A	5	104	200	To Huntmar Park Dr signal		
			NBT	295	303	8	3%					6.4	A			6	120	800			
			NBR	8	6	-2	-25%					4.5	A			5	128	800			
		Van Buren Street	SBL	9	9	0	0%	945	959	14	1%	10.9	B	7.4	A	0	30	275	To Monroe St / Grove St signal		
			SBT	586	592	6	1%					8.4	A			18	239	1200			
			SBR	350	358	8	2%					5.8	A			8	192	1200			
		Intersection				929	941	12	1%	929	941	12	1%	18.2	B	18.2	B				
		Spring Street / Herndon Parkway	Signal	Spring Street	EBL	96	107	11	11%	999	1,016	17	2%	78.2	E	56.4	E	32	110	200	To new TRG Road signal
EBT	788				791	3	0%	55.4	E					121	397			675			
EBR	115				118	3	3%	43.3	D					121	400			675			
Spring Street	WBL			761	765	4	1%	1,922	1,925	3	0%	36.7	D	29.5	C	94	436	375	To Ffx County Pkwy signal		
	WBT			746	752	6	1%					33.3	C			84	362	550			
	WBR			415	408	-7	-2%					8.9	A			16	174	550			
Herndon Parkway	NBL			144	150	6	4%	1,454	1,405	-49	-3%	48.9	D	31.9	C	36	215	300	To Sunset Business Park signal		
	NBT			342	332	-10	-3%					48.2	D			98	361	500			
	NBR			968	923	-45	-5%					23.3	C			98	361	500			
Herndon Parkway	SBL			454	450	-4	-1%	1,089	1,088	-1	0%	76.1	E	59.8	E	109	297	500	To Grove St signal		
	SBT			529	528	-1	0%					49.2	D			99	357	2300			
	SBR			106	110	4	4%					44.4	D			100	360	2300			
Intersection				4,375	4,346	-29	-1%	4,375	4,346	-29	-1%	51.6	D	51.6	D						

Note: Average results across 7 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Preferred Build Scenario with Fairbrook Drive Extended and Additional Mitigation - 2045 Conditions: Weekday Morning Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Preferred Build Scenario with Fairbrook Drive Extended 2045 Conditions MOEs											Notes
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	Available Queue Storage (ft)	
Spring Street / Fairfax County Parkway / Fairbrook Drive	Signal	Spring Street	EBL	152	151	-1	0%	2,195	2,148	-47	-2%	30.3	C	19.6	B	23	179	250	To Herndon Parkway signal
			EBT	2,017	1,971	-46	-2%					18.9	B			99	559	550	
			EBR	26	26	0	0%					11.9	B			96	554	550	
		Spring Street	WBL	205	205	0	0%	1,204	1,194	-10	-1%	73.5	E	43.0	D	136	461	250	To Target signal
			WBT	695	689	-6	-1%					44.8	D			136	461	1650	
			WBR	305	300	-5	-2%					17.9	B			84	450	1650	
		Fairbrook Drive	NBL	21	19	-2	-8%	617	621	4	1%	85.5	F	57.5	E	114	505	-	
			NBT	146	147	1	1%					67.5	E			114	505	-	
			NBR	450	455	5	1%					53.1	D			114	505	250	
		Fairfax County Parkway	SBL	370	369	-1	0%	1,996	2,002	6	0%	72.4	E	35.5	D	119	681	250	To Ffx Pkwy signal, which is not in model
			SBT	348	341	-7	-2%					49.3	D			145	951	600	
			SBR	1,278	1,292	14	1%					21.3	C			200	1231	600	
		Intersection				6,012	5,965	-47	-1%	6,012	5,965	-47	-1%	33.6	C	33.6	C		
Van Buren Street / Alabama Drive	Signal	Alabama Drive	EBL	129	131	2	2%	332	332	0	0%	41.5	D	34.0	C	66	338	-	
			EBT	10	10	0	0%					42.7	D			66	338	-	
			EBR	193	191	-2	-1%					28.3	C			68	345	-	
		Alabama Drive	WBL	56	55	-1	-2%	112	109	-3	-3%	31.8	C	25.4	C	15	146	-	
			WBT	13	13	0	0%					28.2	C			15	146	-	
			WBR	43	41	-2	-5%					15.8	B			15	161	-	
		Van Buren Street	NBL	48	48	0	0%	416	412	-4	-1%	32.4	C	27.9	C	74	394	1125	To Herndon Parkway signal
			NBT	336	333	-3	-1%					27.6	C			74	395	1125	
			NBR	32	31	-1	-3%					24.4	C			73	395	1125	
		Van Buren Street	SBL	13	16	3	23%	467	478	11	2%	17.4	B	13.7	B	44	404	1600	To Van Buren St signal
			SBT	413	422	9	2%					13.8	B			44	403	1600	
			SBR	41	40	-1	-2%					11.6	B			41	402	1600	
		Intersection				1,327	1,331	4	0%	1,327	1,331	4	0%	24.1	C	24.1	C		
Van Buren Street / Herndon Parkway	Signal	Herndon Parkway	EBL	43	40	-3	-7%	1,593	1,550	-43	-3%	63.4	E	46.6	D	12	91	175	To Campbell Way signal, which is not in model
			EBT	1,233	1,213	-20	-2%					50.5	D			875	1508	1950	
			EBR	317	297	-20	-6%					28.5	C			706	1489	1950	
		Herndon Parkway	WBL	293	298	5	2%	916	910	-6	-1%	70.7	E	36.4	D	70	230	350	To Worldgate Drive signal
			WBT	511	506	-5	-1%					20.5	C			36	226	875	
			WBR	111	106	-5	-5%					16.0	B			36	226	875	
		Van Buren Street	NBL	240	248	8	3%	835	850	15	2%	45.6	D	36.2	D	40	228	375	To Office Park signal
			NBT	261	271	10	4%					42.4	D			67	314	375	
			NBR	334	331	-3	-1%					24.1	C			49	321	300	
		Van Buren Street	SBL	176	173	-3	-2%	663	663	0	0%	40.6	D	34.0	C	38	200	175	To Alabama Dr signal
			SBT	464	467	3	1%					32.2	C			50	260	1125	
			SBR	23	23	0	0%					22.0	C			50	260	1125	
		Intersection				4,007	3,973	-34	-1%	4,007	3,973	-34	-1%	39.9	D	39.9	D		
Van Buren Street / Worldgate Drive	Signal	Worldgate Drive	EBL	170	171	1	1%	1,156	1,151	-5	0%	34.0	C	30.4	C	35	208	400	
			EBT	745	738	-7	-1%					38.7	D			93	359	-	
			EBR	241	242	1	0%					2.7	A			2	98	875	
		Worldgate Drive	WBL	194	204	10	5%	410	429	19	5%	31.9	C	32.5	C	37	322	275	To Herndon Pkwy signal
			WBT	208	217	9	4%					33.5	C			27	137	600	
			WBR	8	8	0	0%					22.0	C			29	150	600	
		Van Buren Street	NBL	406	391	-15	-4%	1,714	1,707	-7	0%	44.6	D	22.0	C	61	378	250	To Eastpark Dr signal
			NBT	767	783	16	2%					16.8	B			47	393	1650	
			NBR	541	533	-8	-1%					12.9	B			34	308	250	
		Van Buren Street	SBL	20	21	1	5%	1,045	1,042	-3	0%	35.1	D	8.2	A	4	62	200	To Office Park signal
			SBT	669	663	-6	-1%					10.4	B			24	220	400	
			SBR	356	358	2	1%					2.4	A			1	133	400	
		Intersection				4,324	4,329	5	0%	4,324	4,329	5	0%	21.9	C	21.9	C		

Note: Average results across 7 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Preferred Build Scenario with Fairbrook Drive Extended and Additional Mitigation - 2045 Conditions: Weekday Morning Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Preferred Build Scenario with Fairbrook Drive Extended 2045 Conditions MOEs											Notes	
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	Available Queue Storage (ft)		
Herndon Parkway / Worldgate Drive	Signal	Herndon Parkway	EBL	163	168	5	3%	1,698	1,653	-45	-3%	38.9	D	58.9	E	24	333	175	To Van Buren St signal	
			EBT	1,491	1,442	-49	-3%					61.8	E			472	988	850		
			EBR	44	43	-1	-2%					41.0	D			476	992	850		
		Herndon Parkway	WBL	524	527	3	1%	1,415	1,417	2	0%	62.1	E	35.0	D	117	508	250		To 555 signal
			WBT	789	790	1	0%					18.9	B			64	572	875		
			WBR	103	100	-3	-3%					19.9	B			67	582	875		
		Worldgate Drive	NBL	65	64	-1	-2%	1,130	1,120	-10	-1%	35.3	D	27.7	C	110	696	600		To Van Buren St signal
			NBT	90	86	-4	-4%					37.2	D			110	696	600		
			NBR	975	970	-5	0%					26.4	C			110	696	600		
		Worldgate Drive	SBL	73	71	-2	-2%	165	164	-1	-1%	57.0	E	38.9	D	20	157	75		
			SBT	30	32	2	5%					43.4	D			12	130	-		
			SBR	62	61	-1	-2%					15.5	B			9	134	-		
		Intersection				4,408	4,354	-54	-1%	4,408	4,354	-54	-1%	42.4	D	42.4	D			
Herndon Parkway / 555 Herndon Parkway	Signal	Herndon Parkway	EBL	64	69	5	8%	2,429	2,377	-52	-2%	11.8	B	18.4	B	2	70	175	To Worldgate Drive signal	
			EBT	2,146	2,086	-60	-3%					18.6	B			317	1083	875		
			EBR	220	222	2	1%					18.1	B			319	1086	875		
		Herndon Parkway	WBL	148	153	5	3%	1,492	1,503	11	1%	34.3	C	14.3	B	21	336	175		To Exchange Place signal
			WBT	1,243	1,249	7	1%					12.1	B			72	603	650		
			WBR	101	101	0	0%					12.0	B			73	607	650		
		Parking Lot	NBL	103	101	-2	-2%	147	144	-3	-2%	45.1	D	34.5	C	26	178	-		
			NBT	0	0	0	0%					0.0	A			0	0	-		
			NBR	44	43	-1	-2%					9.6	A			0	51	75		
		Parking Lot	SBL	37	35	-2	-6%	109	106	-3	-3%	44.7	D	26.1	C	15	144	-		
			SBT	0	0	0	0%					0.0	A			0	0	-		
			SBR	72	71	-1	-1%					16.9	B			14	150	-		
		Intersection				4,177	4,130	-47	-1%	4,177	4,130	-47	-1%	17.6	B	17.6	B			
Herndon Parkway / Exchange Place	Signal	Herndon Parkway	EBL	1	1	0	-29%	2,140	2,065	-75	-4%	13.9	B	7.7	A	0	8	175	To 555 signal	
			EBT	1,919	1,858	-61	-3%					7.6	A			70	817	650		
			EBR	220	206	-14	-6%					8.5	A			69	822	650		
		Herndon Parkway	WBL	148	144	-4	-3%	1,534	1,530	-4	0%	32.3	C	4.0	A	15	221	175		To Fairbrook Dr signal
			WBT	1,380	1,380	0	0%					1.0	A			2	84	550		
			WBR	6	6	0	7%					1.3	A			1	88	550		
		Parking Lot	NBL	103	99	-4	-4%	147	145	-2	-1%	46.1	D	34.1	C	27	157	-		
			NBT	0	0	0	0%					0.0	A			27	157	-		
			NBR	44	46	2	5%					8.2	A			1	51	75		
		Exchange Place	SBL	16	13	-3	-20%	27	26	-1	-4%	50.1	D	31.0	C	4	64	-		
			SBT	0	0	0	0%					0.0	A			4	64	-		
			SBR	11	13	2	20%					12.0	B			3	69	-		
		Intersection				3,848	3,766	-82	-2%	3,848	3,766	-82	-2%	7.3	A	7.3	A			
Herndon Parkway / Fairbrook Drive	Signal	Parking Lot	EBL	28	32	4	14%	138	141	3	2%	77.6	E	76.4	E	17	195	75		
			EBT	79	78	-1	-1%					81.3	F			52	220	-		
			EBR	31	31	0	-1%					63.1	E			48	216	-		
		Fairbrook Drive	WBL	285	292	7	2%	391	395	4	1%	43.5	D	40.5	D	47	199	175		
			WBT	67	62	-5	-7%					39.8	D			17	135	-		
			WBR	39	41	2	5%					20.5	C			14	139	-		
		Herndon Parkway	NBL	32	30	-2	-7%	1,979	1,915	-64	-3%	3.9	A	8.8	A	0	24	150		To Exchange PI signal
			NBT	1,512	1,465	-47	-3%					9.0	A			47	619	550		
			NBR	434	420	-14	-3%					8.2	A			6	273	125		
		Herndon Parkway	SBL	97	96	-1	-1%	1,347	1,343	-4	0%	42.8	D	36.8	D	18	296	150		To Sunset Business Park signal
			SBT	1,216	1,217	1	0%					36.3	D			221	847	825		
			SBR	34	30	-4	-12%					38.4	D			224	851	825		
		Intersection				3,855	3,794	-61	-2%	3,855	3,794	-61	-2%	24.5	C	24.5	C			

Note: Average results across 7 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Preferred Build Scenario with Fairbrook Drive Extended and Additional Mitigation - 2045 Conditions: Weekday Morning Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Preferred Build Scenario with Fairbrook Drive Extended 2045 Conditions MOEs										Notes			
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)		Available Queue Storage (ft)		
Herndon Parkway / Sunset Business Park	Signal	Parking Lot	EBL	108	108	0	0%	157	158	1	1%	45.8	D	33.7	C	28	178	-			
			EBR	49	50	1	2%					7.8	A			0	46	100			
		Sunset Business Park	WBL	95	92	-3	-4%	133	130	-3	-2%	44.8	D	33.7	C	23	157	-			
			WBR	38	38	0	1%					6.7	A			0	24	100			
		Herndon Parkway	NBL	199	194	-5	-2%	1,598	1,535	-63	-4%	13.7	B	6.4	A	11	289	150			
			NBT	1,307	1,252	-55	-4%					5.4	A			25	598	825			
			NBR	92	89	-3	-3%					5.1	A			24	600	825			
		Herndon Parkway	SBL	64	67	3	4%	1,407	1,402	-5	0%	25.4	C	11.8	B	4	80	175			
			SBT	1,194	1,188	-6	-1%					11.1	B			46	365	525			
			SBR	148	147	-1	-1%					11.0	B			51	378	525			
		Intersection				3,294	3,225	-69	-2%	3,294	3,225	-69	-2%	11.2	B	11.2	B				
		Spring Street / Parallel TRG Road	Signal	Spring Street	EBT	873	892	19	2%	1,003	1,018	15	1%	7.7	A	7.8	A	25		256	-
EBR	130				126	-4	-3%	8.5	A					31	281			-			
Spring Street	WBL			288	304	16	6%	995	1,013	18	2%	13.6	B	7.1	A	14	237	125			
	WBT			708	709	1	0%					4.4	A			9	234	-			
Parallel TRG Road	NBL			111	117	6	6%	237	241	4	2%	45.2	D	24.7	C	30	184	-			
	NBR			126	124	-2	-2%					5.4	A			1	70	100			
Intersection				2,235	2,272	37	2%	2,235	2,272	37	2%	9.3	A	9.3	A						

Note: Average results across 7 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Preferred Build Scenario with Fairbrook Drive Extended and Additional Mitigation - 2045 Conditions: Weekday Evening Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Preferred Build Scenario with Fairbrook Drive Extended 2045 Conditions MOEs											Notes						
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	Available Queue Storage (ft)							
Elden Street / Monroe Street	Signal	Elden Street	EBL	127	123	-4	-3%	817	799	-18	-2%	34.4	C	25.0	C	15	268	150	To Lynn St signal, which is not in model						
			EBT	654	640	-14	-2%					23.4	C			164	874	250							
			EBR	36	36	0	0%					21.0	C			163	873	250							
		Elden Street	WBL	13	13	0	0%	755	734	-21	-3%	31.5	C	36.5	D	1	41	875		To Van Buren St signal					
			WBT	669	652	-17	-3%					36.9	D			453	961	875							
			WBR	73	69	-4	-5%					34.4	C			471	996	875							
		Monroe Street	NBL	168	167	-1	-1%	491	489	-2	0%	56.4	E	57.0	E	67	497	100			To Van Buren St signal				
			NBT	312	311	-1	0%					57.9	E			146	594	900							
			NBR	11	11	0	0%					39.8	D			132	589	900							
		Monroe Street	SBL	131	128	-3	-2%	454	457	3	1%	44.1	D	46.1	D	58	326	-				No upstream control within reasonable distance			
			SBT	202	205	3	1%					51.2	D			91	357	-							
			SBR	121	124	3	2%					39.9	D			89	356	250							
		Intersection				2,517	2,479	-38	-2%	2,517	2,479	-38	-2%	38.6	D	38.6	D								
		Elden Street / Van Buren Street	Signal	Elden Street	EBL	5	5	0	0%	803	797	-6	-1%	59.9	E	40.9	D	110					354	850	To Monroe Street signal
EBT	764				755	-9	-1%	42.5	D					110	354			850							
EBR	34				37	3	9%	6.0	A					1	53			850							
Elden Street	WBL			150	151	1	1%	962	957	-5	-1%	49.3	D	35.2	D	123	484	1500	To Post Drive signal, which is not in model						
	WBT			754	750	-4	-1%					33.2	C			123	484	1500							
	WBR			58	56	-2	-3%					25.4	C			133	498	1500							
Van Buren Street	NBL			118	114	-4	-3%	760	729	-31	-4%	41.6	D	35.5	D	23	351	150		To Monroe St / Grove St signal					
	NBT			466	445	-21	-5%					42.8	D			163	754	450							
	NBR			176	170	-6	-3%					12.5	B			6	172	450							
Van Buren Street	SBL			126	124	-2	-2%	388	391	3	1%	40.2	D	42.8	D	31	226	325			No upstream control within reasonable distance				
	SBT			247	251	4	2%					44.1	D			69	292	-							
	SBR			15	16	1	7%					42.6	D			72	303	-							
Intersection				2,525	2,483	-42	-2%	2,525	2,483	-42	-2%	43.9	D	43.9	D										
Van Buren Street / Spring Street	Signal			Van Buren Street	EBL	424	410	-14	-3%	640	625	-15	-2%	22.0	C	17.3	B	0				38	1600	To Alabama Dr signal	
		EBT	1		2	1	100%	27.7	C					65	548			1600							
		EBR	215		213	-2	-1%	8.1	A					6	133			150							
		Parking Lot	WBL	13	14	1	8%	28	28	0	0%	30.4	C	29.4	C	2	48	-				To Huntmar Park Dr signal			
			WBR	15	14	-1	-7%					28.4	C			2	46	-							
		Spring Street	NBL	324	310	-14	-4%	1,048	995	-53	-5%	25.1	C	16.6	B	40	366	200							
			NBT	716	678	-38	-5%					12.8	B			29	341	800							
			NBR	8	7	-1	-13%					11.7	B			29	349	800							
		Van Buren Street	SBL	3	3	0	0%	791	806	15	2%	17.6	B	18.1	B	0	24	275	To Monroe St / Grove St signal						
			SBT	326	331	5	2%					19.7	B			39	311	1200							
			SBR	462	472	10	2%					17.0	B			50	323	1200							
		Intersection				1,716	1,648	-68	-4%	1,716	1,648	-68	-4%	25.9	C	25.9	C								
		Spring Street / Herndon Parkway	Signal	Spring Street	EBL	161	169	8	5%	1,105	1,096	-9	-1%	99.4	F	94.3	F	73		321	200		To new TRG Road signal		
					EBT	815	806	-9	-1%					93.9	F			262		700	675				
EBR	129				121	-8	-6%	90.3	F					265	704			675							
Spring Street	WBL			904	818	-86	-10%	2,281	2,080	-201	-9%	67.9	E	42.6	D	275	659	375		To Ffx County Pkwy signal					
	WBT			918	839	-79	-9%					34.1	C			126	633	550							
	WBR			459	423	-36	-8%					10.7	B			18	258	550							
Herndon Parkway	NBL			175	178	3	2%	1,734	1,712	-22	-1%	51.2	D	35.7	D	44	274	300			To Sunset Business Park signal				
	NBT			678	676	-2	0%					48.4	D			149	588	500							
	NBR			881	858	-23	-3%					22.5	C			149	588	500							
Herndon Parkway	SBL			497	490	-7	-1%	1,089	1,083	-6	-1%	74.7	E	56.9	E	117	359	500				To Grove St signal			
	SBT			523	524	1	0%					42.6	D			79	314	2300							
	SBR			68	69	1	1%					38.8	D			80	317	2300							
Intersection				5,121	4,888	-233	-5%	5,121	4,888	-233	-5%	64.4	E	64.4	E										

Note: Average results across 20 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Preferred Build Scenario with Fairbrook Drive Extended and Additional Mitigation - 2045 Conditions: Weekday Evening Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Preferred Build Scenario with Fairbrook Drive Extended 2045 Conditions MOEs											Notes
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	Available Queue Storage (ft)	
Spring Street / Fairfax County Parkway / Fairbrook Drive	Signal	Spring Street	EBL	324	321	-3	-1%	2,183	2,136	-47	-2%	63.5	E	32.0	C	146	671	250	To Herndon Parkway signal
			EBT	1,832	1,788	-44	-2%					26.5	C			158	641	550	
			EBR	27	27	0	1%					19.8	B			154	636	550	
		Spring Street	WBL	167	144	-23	-14%	2,320	1,995	-325	-14%	39.3	D	47.5	D	1338	1649	250	To Target signal
			WBT	1,503	1,304	-199	-13%					51.3	D			1338	1649	1650	
			WBR	650	547	-103	-16%					40.6	D			1327	1638	1650	
		Fairbrook Drive	NBL	29	30	1	2%	934	920	-14	-2%	103.6	F	69.8	E	476	1013	-	
			NBT	222	218	-4	-2%					76.4	E			476	1013	-	
			NBR	683	672	-11	-2%					66.1	E			476	1013	250	
		Fairfax County Parkway	SBL	166	168	2	1%	1,529	1,518	-11	-1%	75.6	E	44.1	D	46	152	250	To Ffx Pkwy signal, which is not in model
			SBT	415	413	-2	0%					55.5	E			224	921	600	
			SBR	949	937	-12	-1%					33.5	C			207	982	600	
		Intersection				6,967	6,569	-398	-6%	6,967	6,569	-398	-6%	44.8	D	44.8	D		
Van Buren Street / Alabama Drive	Signal	Alabama Drive	EBL	85	81	-4	-5%	265	261	-4	-2%	53.2	D	42.2	D	65	323	-	
			EBT	18	18	0	0%					53.6	D			65	323	-	
			EBR	162	162	0	0%					35.4	D			67	331	-	
		Alabama Drive	WBL	35	33	-2	-5%	66	64	-2	-3%	36.6	D	30.1	C	11	106	-	
			WBT	10	10	0	0%					37.5	D			11	106	-	
			WBR	21	21	0	0%					16.3	B			9	120	-	
		Van Buren Street	NBL	81	80	-1	-1%	700	687	-13	-2%	26.4	C	22.8	C	121	672	1125	To Herndon Parkway signal
			NBT	534	528	-6	-1%					22.6	C			121	673	1125	
			NBR	85	79	-6	-7%					20.7	C			121	672	1125	
		Van Buren Street	SBL	34	34	0	0%	787	783	-4	-1%	17.9	B	12.9	B	84	723	1600	To Van Buren St signal
			SBT	646	643	-3	0%					12.8	B			83	722	1600	
			SBR	107	106	-1	-1%					12.0	B			81	721	1600	
		Intersection				1,818	1,795	-23	-1%	1,818	1,795	-23	-1%	21.6	C	21.6	C		
Van Buren Street / Herndon Parkway	Signal	Herndon Parkway	EBL	55	56	1	2%	1,099	1,089	-10	-1%	54.1	D	32.5	C	17	104	175	To Campbell Way signal, which is not in model
			EBT	698	692	-6	-1%					37.5	D			90	425	1950	
			EBR	346	341	-5	-1%					18.8	B			41	278	1950	
		Herndon Parkway	WBL	520	481	-39	-8%	2,031	1,908	-123	-6%	66.1	E	42.4	D	107	442	350	To Worldgate Drive signal
			WBT	1,262	1,192	-70	-6%					34.6	C			241	1018	875	
			WBR	249	235	-14	-6%					33.7	C			241	1018	875	
		Van Buren Street	NBL	365	382	17	5%	1,051	1,065	14	1%	48.0	D	33.4	C	76	554	375	To Office Park signal
			NBT	394	393	-1	0%					34.0	C			97	627	375	
			NBR	292	290	-2	-1%					13.4	B			22	224	300	
		Van Buren Street	SBL	129	128	-1	-1%	844	846	2	0%	48.3	D	48.5	D	32	198	175	To Alabama Dr signal
			SBT	668	670	2	0%					48.9	D			121	522	1125	
			SBR	47	48	1	2%					44.0	D			121	522	1125	
		Intersection				5,025	4,908	-117	-2%	5,025	4,908	-117	-2%	39.3	D	39.3	D		
Van Buren Street / Worldgate Drive	Signal	Worldgate Drive	EBL	291	294	3	1%	1,378	1,386	8	1%	45.0	D	26.1	C	79	356	400	
			EBT	418	420	2	1%					35.1	D			47	204	-	
			EBR	669	672	3	0%					12.3	B			52	483	875	
		Worldgate Drive	WBL	406	385	-21	-5%	1,017	990	-27	-3%	61.9	E	45.1	D	191	683	275	To Herndon Pkwy signal
			WBT	589	583	-6	-1%					35.0	D			72	427	600	
			WBR	22	22	0	0%					20.0	C			80	441	600	
		Van Buren Street	NBL	361	347	-14	-4%	1,446	1,425	-21	-1%	50.9	D	24.4	C	63	265	250	To Eastpark Dr signal
			NBT	720	720	0	0%					19.8	B			61	432	1650	
			NBR	365	358	-7	-2%					8.0	A			12	198	250	
		Van Buren Street	SBL	9	9	0	0%	1,583	1,537	-46	-3%	60.1	E	19.8	B	3	42	200	To Office Park signal
			SBT	1,211	1,174	-37	-3%					24.9	C			109	646	400	
			SBR	363	354	-9	-2%					1.9	A			0	80	400	
		Intersection				5,424	5,338	-86	-2%	5,424	5,338	-86	-2%	27.4	C	27.4	C		

Note: Average results across 20 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Preferred Build Scenario with Fairbrook Drive Extended and Additional Mitigation - 2045 Conditions: Weekday Evening Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Preferred Build Scenario with Fairbrook Drive Extended 2045 Conditions MOEs											Notes		
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	Available Queue Storage (ft)			
Herndon Parkway / Worldgate Drive	Signal	Herndon Parkway	EBL	103	102	-1	-1%	1,203	1,166	-37	-3%	40.4	D	72.6	E	6	151	175	To Van Buren St signal		
			EBT	1,080	1,043	-37	-3%					76.2	E			351	576	850			
			EBR	20	21	1	5%					54.7	D			355	579	850			
		Herndon Parkway	WBL	732	695	-37	-5%	2,488	2,343	-145	-6%	41.7	D	25.7	C	187	975	250	To 555 signal		
			WBT	1,720	1,612	-108	-6%					19.0	B			319	1014	875			
			WBR	36	36	0	-1%					17.6	B			325	1023	875			
		Worldgate Drive	NBL	199	198	-1	-1%	990	989	-1	0%	47.4	D	26.2	C	102	423	600	To Van Buren St signal		
			NBT	60	60	0	1%					45.3	D			102	423	600			
			NBR	731	731	0	0%					18.9	B			102	423	600			
		Worldgate Drive	SBL	134	134	0	0%	302	301	-1	0%	53.9	D	40.4	D	46	253	75			
			SBT	55	55	0	0%					44.8	D			27	245	-			
			SBR	113	112	-1	-1%					22.2	C			25	248	-			
		Intersection				4,982	4,799	-183	-4%	4,982	4,799	-183	-4%	38.1	D	38.1	D				
		Herndon Parkway / 555 Herndon Parkway	Signal	Herndon Parkway	EBL	51	51	0	1%	2,021	1,978	-43	-2%	40.9	D	17.2	B	8	95	175	To Worldgate Drive signal
EBT	1,871				1,829	-42	-2%	16.5	B					168	796			875			
EBR	99				98	-1	-1%	16.8	B					169	799			875			
Herndon Parkway	WBL			66	61	-5	-8%	2,199	2,046	-153	-7%	41.2	D	27.8	C	4	79	175	To Exchange Place signal		
	WBT			2,064	1,919	-145	-7%					27.5	C			362	810	650			
	WBR			68	66	-2	-3%					24.6	C			364	813	650			
Parking Lot	NBL			314	317	3	1%	449	447	-2	0%	64.7	E	55.9	E	157	444	-			
	NBT			0	0	0	0%					0.0	A			0	0	-			
	NBR			135	130	-5	-4%					34.5	C			20	393	75			
Parking Lot	SBL			45	45	0	1%	155	156	1	1%	36.3	D	22.2	C	17	164	-			
	SBT			0	0	0	0%					0.0	A			0	0	-			
	SBR			110	111	1	1%					16.5	B			17	169	-			
Intersection				4,824	4,627	-197	-4%	4,824	4,627	-197	-4%	25.8	C	25.8	C						
Herndon Parkway / Exchange Place	Signal			Herndon Parkway	EBL	3	3	0	-12%	2,074	2,021	-53	-3%	21.5	C	13.2	B	0	15	175	To 555 signal
		EBT	1,971		1,922	-49	-2%	13.2	B					143	781			650			
		EBR	99		96	-3	-3%	12.8	B					145	787			650			
		Herndon Parkway	WBL	66	63	-3	-5%	1,960	1,827	-133	-7%	49.0	D	25.4	C	6	89	175	To Fairbrook Dr signal		
			WBT	1,881	1,752	-129	-7%					24.6	C			250	698	550			
			WBR	14	12	-2	-12%					20.7	C			257	708	550			
		Parking Lot	NBL	314	307	-7	-2%	449	446	-3	-1%	68.8	E	60.4	E	157	391	-			
			NBT	0	0	0	0%					0.0	A			157	391	-			
			NBR	135	139	4	3%					41.7	D			30	373	75			
		Exchange Place	SBL	6	7	1	17%	10	11	1	10%	44.2	D	30.5	C	2	40	-			
			SBT	0	0	0	0%					0.0	A			2	40	-			
			SBR	4	4	0	0%					6.4	A			0	1	-			
		Intersection				4,493	4,305	-188	-4%	4,493	4,305	-188	-4%	23.3	C	23.3	C				
		Herndon Parkway / Fairbrook Drive	Signal	Parking Lot	EBL	32	34	2	8%	138	141	3	2%	55.9	E	52.3	D	12	152	75	
EBT	76				75	-1	-1%	57.7	E					31	195			-			
EBR	30				32	2	5%	35.8	D					27	196			-			
Fairbrook Drive	WBL			368	371	3	1%	548	550	2	0%	45.8	D	40.4	D	62	342	175			
	WBT			54	52	-2	-3%					41.9	D			25	232	-			
	WBR			126	127	1	1%					24.0	C			25	234	-			
Herndon Parkway	NBL			25	24	-1	-3%	2,112	2,068	-44	-2%	22.9	C	23.2	C	2	41	150	To Exchange PI signal		
	NBT			1,540	1,504	-36	-2%					24.3	C			174	689	550			
	NBR			547	540	-7	-1%					20.3	C			72	665	125			
Herndon Parkway	SBL			60	57	-3	-5%	1,626	1,520	-106	-6%	50.3	D	43.2	D	12	164	150	To Sunset Business Park signal		
	SBT			1,537	1,434	-103	-7%					43.0	D			562	949	825			
	SBR			29	29	0	1%					39.7	D			566	954	825			
Intersection				4,423	4,279	-144	-3%	4,423	4,279	-144	-3%	33.5	C	33.5	C						

Note: Average results across 20 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue

Preferred Build Scenario with Fairbrook Drive Extended and Additional Mitigation - 2045 Conditions: Weekday Evening Peak Hour Intersection MOEs Summary

Intersection	Traffic Control	Approach	Movement	Simulated Traffic Volumes				Preferred Build Scenario with Fairbrook Drive Extended 2045 Conditions MOEs											Notes
				Counted / Coded Volumes (vph)	Simulated Volumes (vph)	Difference	% Difference	Counted Link Volumes (vph)	Simulated Link Volumes (vph)	Difference	% Difference	Movement Delay (sec/veh)	Estimated Movement LOS	Approach Delay (sec/veh)	Estimated Approach LOS	Average Queue Length (ft)	Max Queue Length (ft)	Available Queue Storage (ft)	
Herndon Parkway / Sunset Business Park	Signal	Parking Lot	EBL	232	230	-2	-1%	343	344	1	0%	42.0	D	32.9	C	61	343	-	
			EBR	111	114	3	3%					14.4	B			3	96	100	
		Sunset Business Park	WBL	144	144	0	0%	196	196	0	0%	39.9	D	31.1	C	32	223	-	
			WBR	52	52	0	0%					6.7	A			0	31	100	
		Herndon Parkway	NBL	116	115	-1	-1%	1,643	1,654	11	1%	17.4	B	10.9	B	7	143	150	
			NBT	1,411	1,425	14	1%					10.5	B			75	686	825	
			NBR	116	114	-2	-2%					10.2	B			75	689	825	
		Herndon Parkway	SBL	100	97	-3	-3%	1,590	1,453	-137	-9%	31.7	C	18.8	B	9	119	175	To Fairbrook Dr signal
			SBT	1,373	1,245	-128	-9%					18.0	B			90	540	525	
			SBR	117	111	-6	-5%					16.4	B			96	553	525	
Intersection				3,772	3,647	-125	-3%	3,772	3,647	-125	-3%	17.2	B	17.2	B				
Spring Street / Parallel TRG Route	Signal	Spring Street	EBT	866	870	4	0%	938	938	0	0%	13.5	B	13.4	B	60	326	-	
			EBR	73	68	-5	-7%					11.6	B			65	346	-	
		Spring Street	WBL	162	150	-12	-8%	1,161	1,089	-72	-6%	11.9	B	6.0	A	5	138	125	
			WBT	999	939	-60	-6%					5.1	A			16	414	-	
		Parallel TRG Route	NBL	146	145	-1	-1%	386	384	-2	-1%	48.7	D	26.8	C	40	230	-	
			NBR	240	239	-1	0%					13.4	B			14	144	100	
Intersection				2,486	2,411	-75	-3%	2,486	2,411	-75	-3%	12.2	B	12.2	B				

Note: Average results across 20 microsimulation runs.

Orange/Red Highlight = LOS E/F
Yellow Highlight = Problematic Queue