ATTACHMENT C

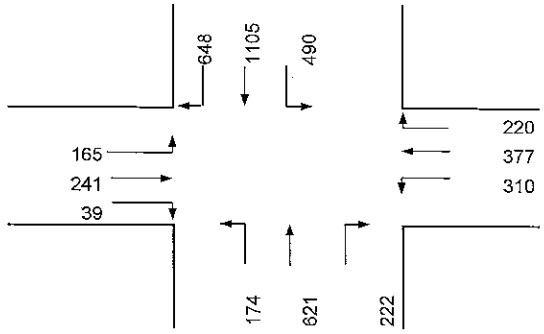
Total Future Phase I – CLV Analysis

Cafritz Property at Riverdale Park
Critical Lane Volume
Level of Service Calculations

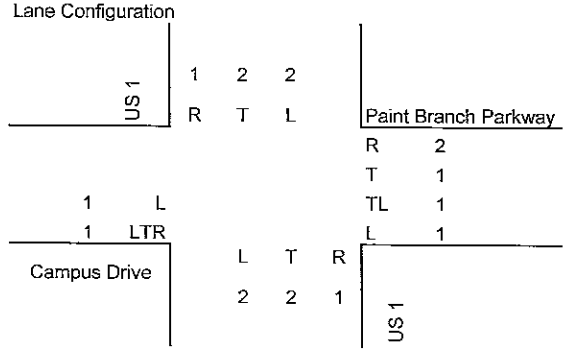
Intersection: 1: US 1/Paint Branch Parkway
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Without CSX -Phase I
Computed by: SK

WELLS + ASSOCIATES
TRANSPORTATION, TRAFFIC, AND PARKING CONSULTANTS
170 Jennifer Road, Annapolis, Maryland 20401
Phone: (410)266-5723 Facsimile: (410)266-9189

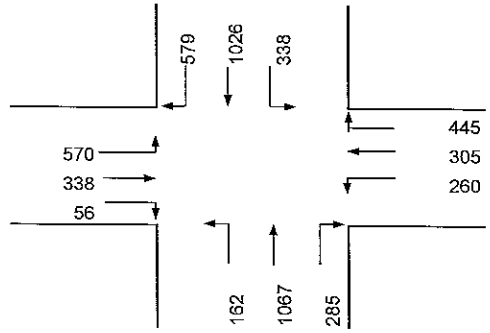
AM Peak



Lane Configuration



PM Peak



Intersection Control: Signal: X Split: E/W Stop: Ways:

RTOR/Overlap (AM):	NB	222	SB	165	EB	0	WB 220
RTOR/Overlap (PM):	NB	260	SB	570	EB	0	WB 338
Shared Left PCE (AM):	NB	1	SB	1	EB	1	WB 1
Shared Left PCE (PM):	NB	1	SB	1	EB	1	WB 1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor	Critical Lane Volume		
<199	1.10	1	1.00	A	≤	1,000
200-599	2.00	2	0.55	B	≤	1,150
600-799	3.00	3	0.37	C	≤	1,300
800-999	4.00	4	0.29	D	≤	1,450
>999	5.00	5	0.25	E	≤	1,600
		2 lefts	0.6	F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	LTR	445	0.55	245	0	1.00	0	245	*
WB	TL	687	0.37	254	0	1.00	0	254	*
NB	T	621	0.55	342	490	0.60	294	636	
SB	T	1105	0.55	608	174	0.60	104	712	*
							SUM	1211	
								C	

Note:

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	LTR	964	0.55	530	0	1.00	0	530	*
WB	TL	565	0.37	209	0	1.00	0	209	*
NB	T	1067	0.55	587	338	0.60	203	790	*
SB	T	1026.3	0.55	564	162	0.60	97	661	
							SUM	1529	
								E	

Note:

Date Printed: 8/31/2012

Cafritz Property at Riverdale Park
Critical Lane Volume
Level of Service Calculations

Intersection: 1: US 1/Paint Branch Parkway
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Phase I
Computed by: SK

WELLS + ASSOCIATES
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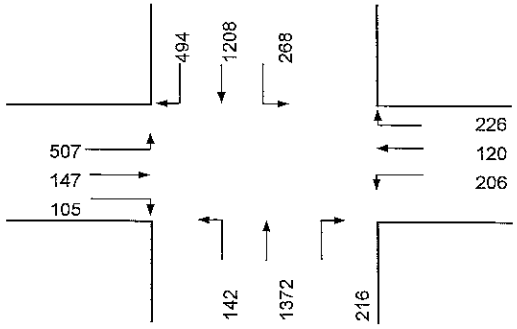
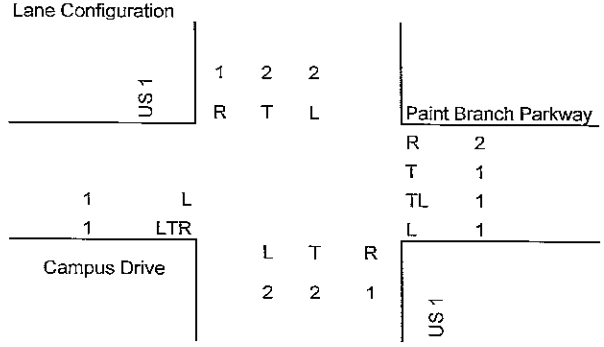
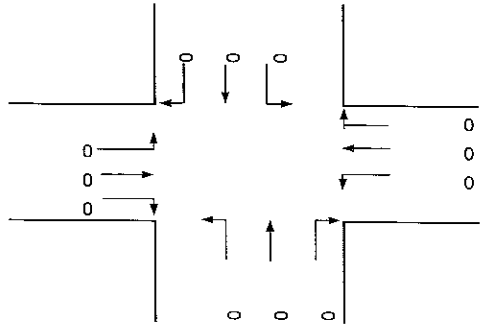
SAT



Lane Configuration



MID-DAY



Intersection Control: Signal: X Split: E/W Stop: Ways:

	NB	SB	EB	WB
RTOR/Overlap (AM):	206	494	0	226
RTOR/Overlap (PM):	0	0	0	0
Shared Left PCE (AM):	1	1	1	1
Shared Left PCE (PM):	1	1	1	1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor	Critical Lane Volume		
<199	1.10	1	1.00	A	≤	1,000
200-599	2.00	2	0.55	B	≤	1,150
600-799	3.00	3	0.37	C	≤	1,300
800-999	4.00	4	0.29	D	≤	1,450
>999	5.00	5	0.25	E	≤	1,600
		2 lefts	0.6	F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	LTR	759	0.55	417	0	1.00	0	417	*
WB	TL	326	0.37	121	0	1.00	0	121	*
NB	T	1372	0.55	755	268	0.60	161	916	*
SB	T	1208	0.55	664	142	0.60	85	749	

Note:

SUM 1454
E

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	LTR	0	0.55	0	0	1.00	0	0	*
WB	TL	0	0.37	0	0	1.00	0	0	*
NB	T	0	0.55	0	0	0.60	0	0	*
SB	T	0	0.55	0	0	0.60	0	0	

Note:

SUM 0

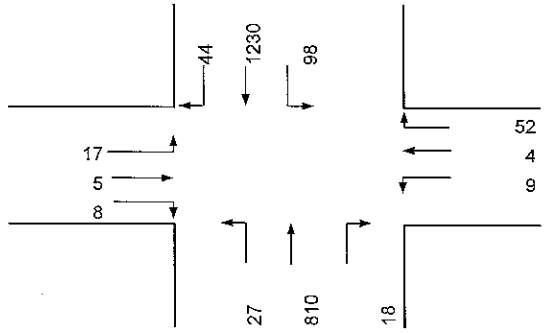
Date Printed: 8/31/2012

Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

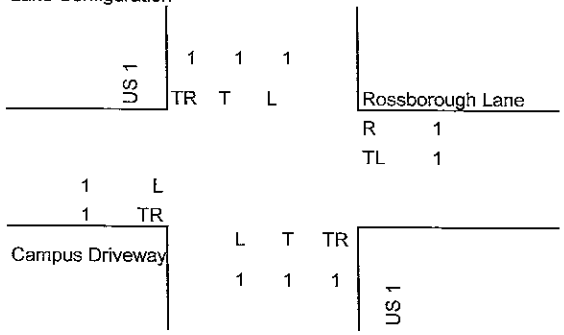
Intersection: 2: US 1/Rossborough Lane
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Without CSX -Phase I
Computed by: SK

WELLS + ASSOCIATES

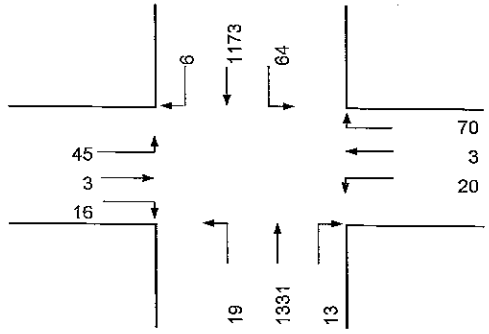
AM Peak



Lane Configuration



PM Peak



Intersection Control: Signal: X Split: Stop: Ways:

	NB	SB	EB	WB
RTOR/Overlap (AM):	0	0	0	52
RTOR/Overlap (PM):	0	0	0	64
Shared Left PCE (AM):	1	1	1	1.1
Shared Left PCE (PM):	1	1	1	1.1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor
<199	1.10	1	1.00
200-599	2.00	2	0.55
600-799	3.00	3	0.37
800-999	4.00	4	0.29
>999	5.00	5	0.25

Critical Lane Volume		
A	≤	1,000
B	≤	1,150
C	≤	1,300
D	≤	1,450
E	≤	1,600
F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	TR	13	1.00	13	9	1.00	9	22	
WB	TL	14	1.00	14	17	1.00	17	31	*
NB	TR	828	0.55	455	98	1.00	98	553	
SB	TR	1274	0.55	701	27	1.00	27	728	*
							SUM	759	
								A	

Note:

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	TR	19	1	19	20	1.00	20	39	
WB	TL	25	1	25	45	1.00	45	70	*
NB	TR	1344	0.55	739	64	1.00	64	803	*
SB	TR	1179	0.55	648	19	1.00	19	667	
							SUM	873	
								A	

Note:

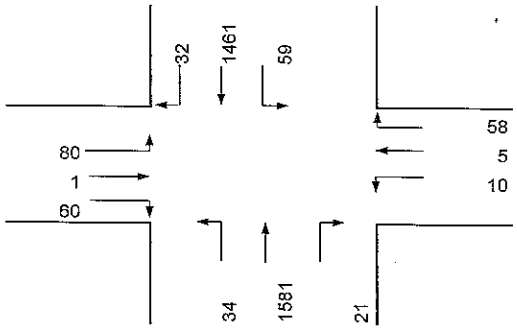
Date Printed: 8/31/2012

Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

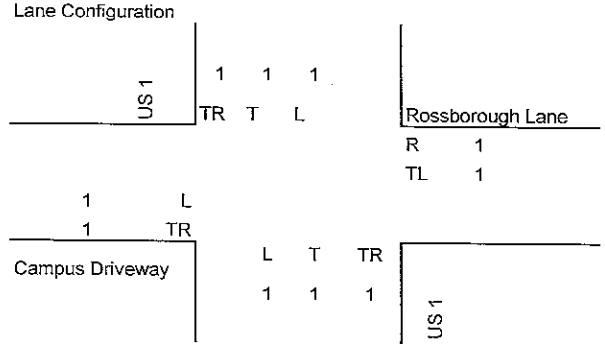
Intersection: 2: US 1/Rossborough Lane
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Phase I
Computed by: SK

WELLS + ASSOCIATES

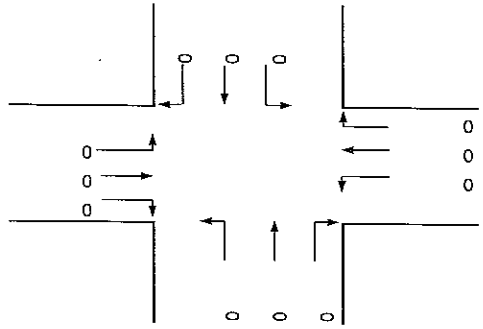
SAT



Lane Configuration



MID-DAY



Intersection Control: Signal: X Split: Stop: Ways:

RTOR/Overlap (AM):	NB	0	SB	0	EB	0	WB 58
RTOR/Overlap (PM):	NB	0	SB	0	EB	0	WB 0
Shared Left PCE (AM):	NB	1	SB	1	EB	1	WB 1.1
Shared Left PCE (PM):	NB	1	SB	1	EB	1	WB 1.1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor
<199	1.10	1	1.00
200-599	2.00	2	0.55
600-799	3.00	3	0.37
800-999	4.00	4	0.29
>999	5.00	5	0.25

Critical Lane Volume		
A	≤	1,000
B	≤	1,150
C	≤	1,300
D	≤	1,450
E	≤	1,600
F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	TR	61	1.00	61	10	1.00	10	71	
WB	TL	16	1.00	16	80	1.00	80	96	*
NB	TR	1602	0.55	881	59	1.00	59	940	*
SB	TR	1493	0.55	821	34	1.00	34	855	

Note:

SUM 1036
B

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	TR	0	1	0	0	1.00	0	0	*
WB	TL	0	1	0	0	1.00	0	0	
NB	TR	0	0.55	0	0	1.00	0	0	*
SB	TR	0	0.55	0	0	1.00	0	0	

Note:

SUM 0

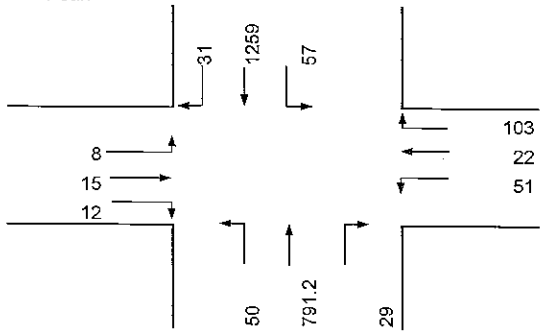
Date Printed: 8/31/2012

Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

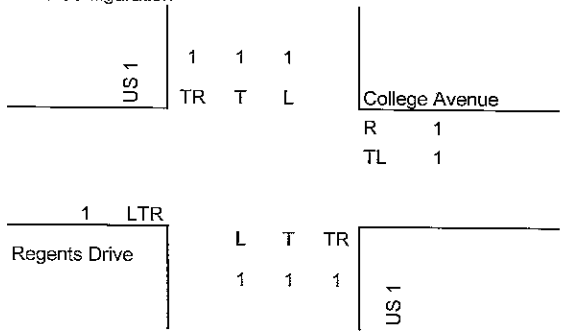
Intersection: 3: US 1/College Avenue
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Without CSX -Phase I
Computed by: SK

WELLS + ASSOCIATES

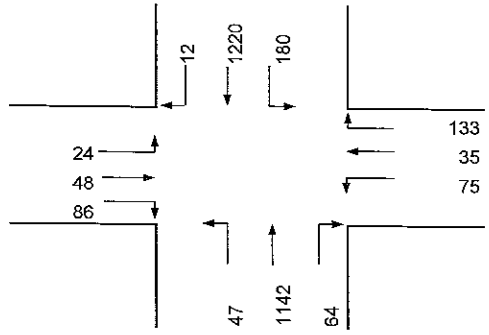
AM Peak



Lane Configuration



PM Peak



Intersection Control: Signal: X Split: Stop: Ways:

RTOR/Overlap (AM):	NB	0	SB	0	EB	0	WB 57
RTOR/Overlap (PM):	NB	0	SB	0	EB	0	WB 133
Shared Left PCE (AM):	NB	1	SB	1	EB	1.1	WB 1.1
Shared Left PCE (PM):	NB	1	SB	1	EB	1.1	WB 1.1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor
<199	1.10	1	1.00
200-599	2.00	2	0.55
600-799	3.00	3	0.37
800-999	4.00	4	0.29
>999	5.00	5	0.25

Critical Lane Volume		
A	≤	1,000
B	≤	1,150
C	≤	1,300
D	≤	1,450
E	≤	1,600
F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	LTR	36	1.00	36	51	1.00	51	87	*
WB	TL	78	1.00	78	8	1.00	8	86	
NB	TR	820	0.55	451	57	1.00	57	508	
SB	TR	1290	0.55	710	50	1.00	50	760	*

Note:

SUM 847
A

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	LTR	160	1.00	160	75	1.00	75	235	*
WB	TL	118	1.00	118	24	1.00	24	142	
NB	TR	1206	0.55	663	180	1.00	180	843	*
SB	TR	1232	0.55	678	47	1.00	47	725	

Note:

SUM 1078
B

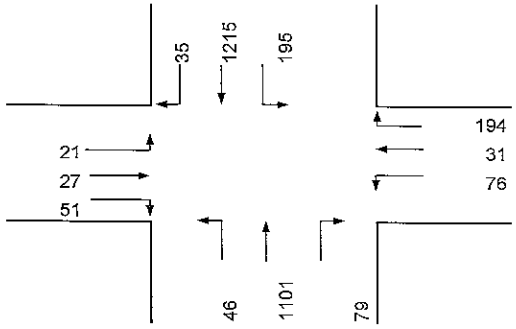
Date Printed: 8/31/2012

Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

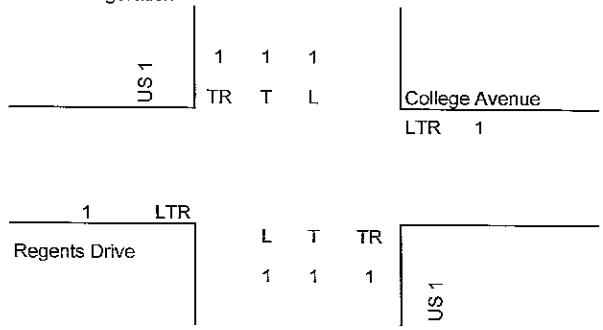
Intersection: 3: US 1/College Avenue
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Phase I
Computed by: SK

WELLS + ASSOCIATES

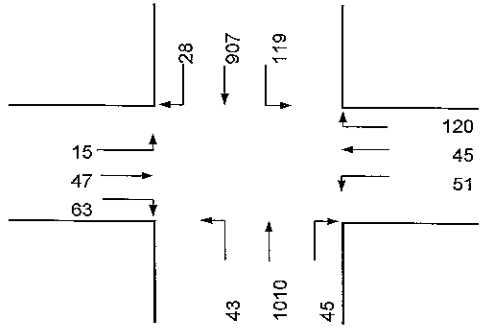
SAT



Lane Configuration



MID-DAY



Intersection Control: Signal: X Split: Stop: Ways:

RTOR/Overlap (AM):	NB	0	SB	0	EB	0	WB 0
RTOR/Overlap (PM):	NB	0	SB	0	EB	0	WB 0
Shared Left PCE (AM):	NB	1	SB	1	EB	2	WB 1.1
Shared Left PCE (PM):	NB	1	SB	1	EB	1.1	WB 1.1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor
<199	1.10	1	1.00
200-599	2.00	2	0.55
600-799	3.00	3	0.37
800-999	4.00	4	0.29
>999	5.00	5	0.25

Critical Lane Volume		
A	≤	1,000
B	≤	1,150
C	≤	1,300
D	≤	1,450
E	≤	1,600
F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	LTR	120	1.00	120	76	1.00	76	196	*
WB	TL	115	1.00	115	21	1.00	21	136	
NB	TR	1180	0.55	649	195	1.00	195	844	*
SB	TR	1250	0.55	688	46	1.00	46	734	

Note:

SUM 1040
B

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	LTR	127	1.00	127	51	1.00	51	178	*
WB	TL	101	1.00	101	15	1.00	15	116	
NB	TR	1055	0.55	580	119	1.00	119	699	*
SB	TR	935	0.55	514	43	1.00	43	557	

Note:

SUM 877
A

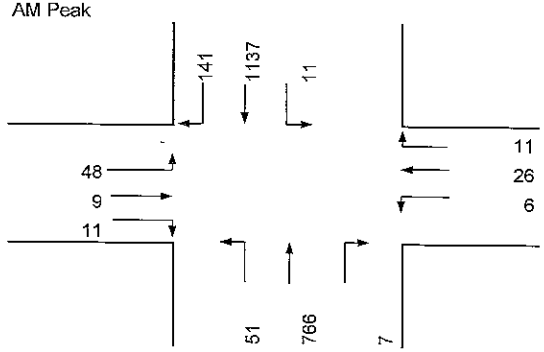
Date Printed: 8/31/2012

Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

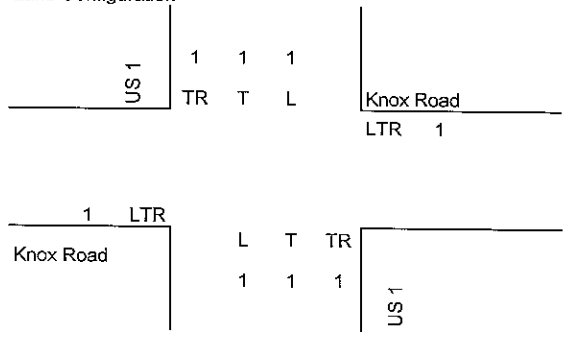
Intersection: 4: US 1/Knox Road
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Without CSX -Phase I
Computed by: SK

WELLS + ASSOCIATES

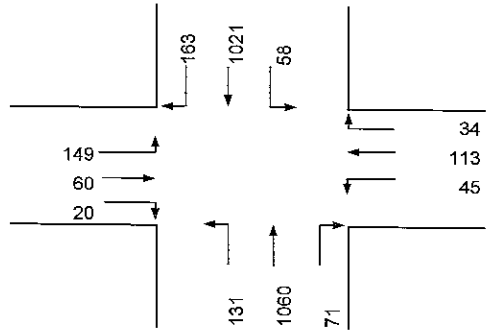
AM Peak



Lane Configuration



PM Peak



Intersection Control: Signal: X Split: Stop: Ways:

RTOR/Overlap (AM):	NB	0	SB	0	EB	0	WB 0
RTOR/Overlap (PM):	NB	0	SB	0	EB	0	WB 0
Shared Left PCE (AM):	NB	1	SB	1	EB	1.1	WB 1.1
Shared Left PCE (PM):	NB	1	SB	1	EB	1.1	WB 1.1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor	Critical Lane Volume		
<199	1.10	1	1.00	A	≤	1,000
200-599	2.00	2	0.55	B	≤	1,150
600-799	3.00	3	0.37	C	≤	1,300
800-999	4.00	4	0.29	D	≤	1,450
>999	5.00	5	0.25	E	≤	1,600
				F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	LTR	73	1.00	73	6	1.00	6	79	
WB	LTR	44	1.00	44	48	1.00	48	92	*
NB	TR	773	0.55	425	11	1.00	11	436	
SB	TR	1278	0.55	703	51	1.00	51	754	*
							SUM	846	
								A	

Note:

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	LTR	244	1.00	244	45	1.00	45	289	
WB	LTR	197	1.00	197	149	1.00	149	346	*
NB	TR	1131	0.55	622	58	1.00	58	680	
SB	TR	1184	0.55	651	131	1.00	131	782	*
							SUM	1128	
								B	

Note:

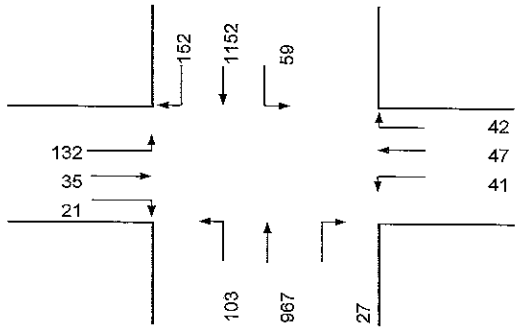
Date Printed: 8/31/2012

Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

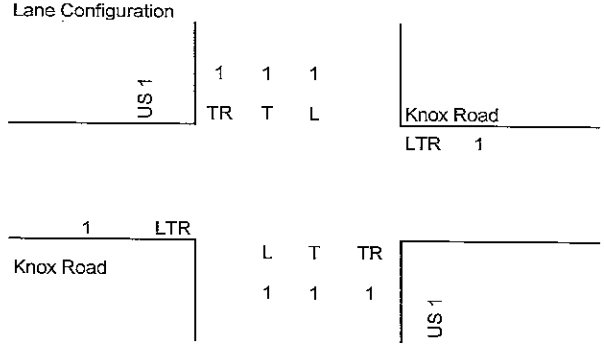
Intersection: 4: US 1/Knox Road
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Phase I
Computed by: SK

WELLS + ASSOCIATES

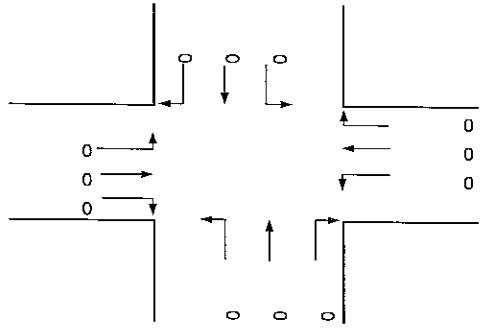
SAT



Lane Configuration



MID-DAY



Intersection Control: Signal: X Split: Stop: Ways:

RTOR/Overlap (AM):	NB	0	SB	0	EB	0	WB 0
RTOR/Overlap (PM):	NB	0	SB	0	EB	0	WB 0
Shared Left PCE (AM):	NB	1	SB	1	EB	1.1	WB 1.1
Shared Left PCE (PM):	NB	1	SB	1	EB	1.1	WB 1.1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor
<199	1.10	1	1.00
200-599	2.00	2	0.55
600-799	3.00	3	0.37
800-999	4.00	4	0.29
>999	5.00	5	0.25

Critical Lane Volume		
A	≤	1,000
B	≤	1,150
C	≤	1,300
D	≤	1,450
E	≤	1,600
F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	LTR	201	1.00	201	41	1.00	41	242	
WB	LTR	134	1.00	134	132	1.00	132	266	*
NB	TR	994	0.55	547	59	1.00	59	606	
SB	TR	1304	0.55	717	103	1.00	103	820	*

Note:

SUM 1086
B

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	LTR	0	1.00	0	0	1.00	0	0	*
WB	LTR	0	1.00	0	0	1.00	0	0	
NB	TR	0	0.55	0	0	1.00	0	0	*
SB	TR	0	0.55	0	0	1.00	0	0	

Note:

SUM 0

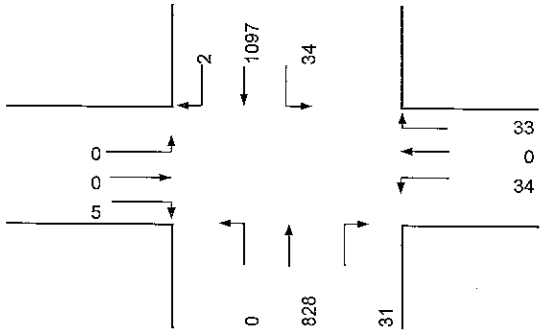
Date Printed: 8/31/2012

Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

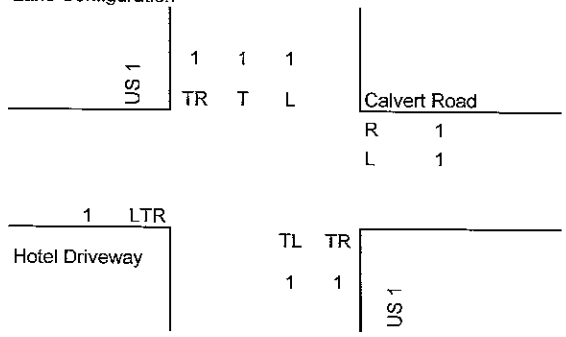
Intersection: 5: US 1/Calvert Road
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Without CSX -Phase I
Computed by: SK

WELLS + ASSOCIATES

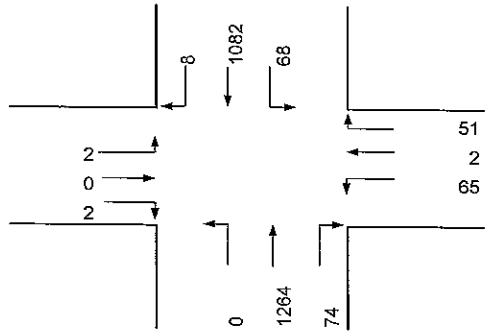
AM Peak



Lane Configuration



PM Peak



Intersection Control: Signal: X Split: Stop: Ways:

	NB	SB	EB	WB
RTOR/Overlap (AM):	0	0	0	33
RTOR/Overlap (PM):	0	0	0	51
Shared Left PCE (AM):	5	1	1.1	1
Shared Left PCE (PM):	5	1	1.1	1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor
<199	1.10	1	1.00
200-599	2.00	2	0.55
600-799	3.00	3	0.37
800-999	4.00	4	0.29
>999	5.00	5	0.25

Critical Lane Volume		
A	≤	1,000
B	≤	1,150
C	≤	1,300
D	≤	1,450
E	≤	1,600
F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	LTR	5	1.00	5	34	1.00	34	39	*
WB	L	34	1.00	34	0	1.00	0	34	
NB	LTR	859	0.55	472	34	1.00	34	506	
SB	TR	1099	0.55	604	0	1.00	0	604	*

Note:

SUM 643
A

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	LTR	4.2	1.00	4	65	1.00	65	69	*
WB	L	65	1.00	65	2	1.00	2	67	
NB	LTR	1338	0.55	736	68	1.00	68	804	*
SB	TR	1090	0.55	600	0	1.00	0	600	

Note:

SUM 873
A

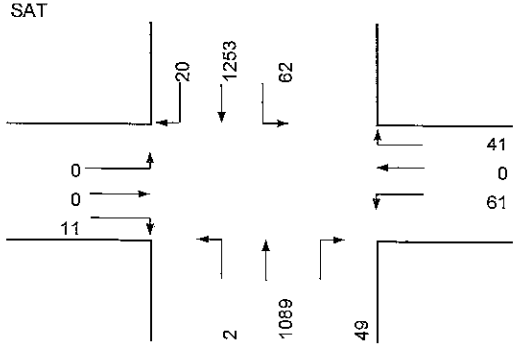
Date Printed: 8/31/2012

Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

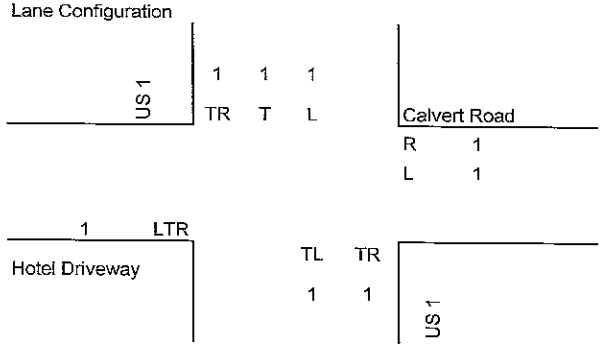
Intersection: 5: US 1/Calvert Road
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Phase I
Computed by: SK

WELLS + ASSOCIATES

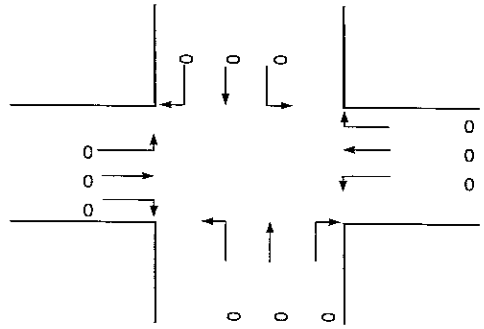
SAT



Lane Configuration



MID-DAY



Intersection Control: Signal: X Split: Stop: Ways:

RTOR/Overlap (AM):	NB	0	SB	0	EB	0	WB 41
RTOR/Overlap (PM):	NB	0	SB	0	EB	0	WB 0
Shared Left PCE (AM):	NB	5	SB	1	EB	1.1	WB 1
Shared Left PCE (PM):	NB	1.1	SB	1	EB	1.1	WB 1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor	Critical Lane Volume		
<199	1.10	1	1.00	A	≤	1,000
200-599	2.00	2	0.55	B	≤	1,150
600-799	3.00	3	0.37	C	≤	1,300
800-999	4.00	4	0.29	D	≤	1,450
>999	5.00	5	0.25	E	≤	1,600
				F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	LTR	11	1.00	11	61	1.00	61	72	*
WB	L	61	1.00	61	0	1.00	0	61	
NB	LTR	1148	0.55	631	62	1.00	62	693	
SB	TR	1273	0.55	700	2	1.00	2	702	*

Note:

SUM 774
A

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	LTR	0	1.00	0	0	1.00	0	0	*
WB	L	0	1.00	0	0	1.00	0	0	
NB	LTR	0	0.55	0	0	1.00	0	0	*
SB	TR	0	0.55	0	0	1.00	0	0	

Note:

SUM 0

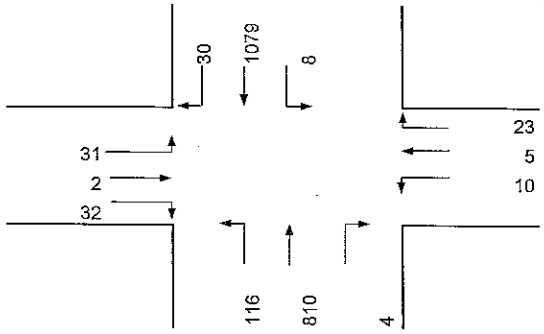
Date Printed: 8/31/2012

Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

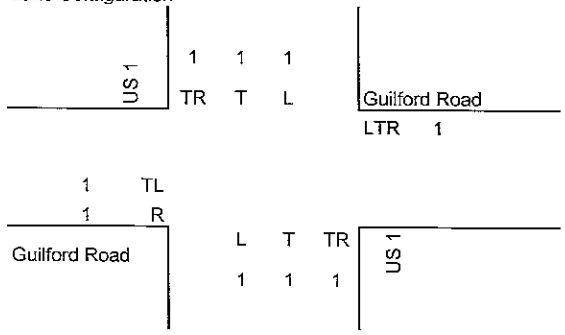
Intersection: 6: US 1/Guilford Road
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Without CSX -Phase I
Computed by: SK

WELLS + ASSOCIATES

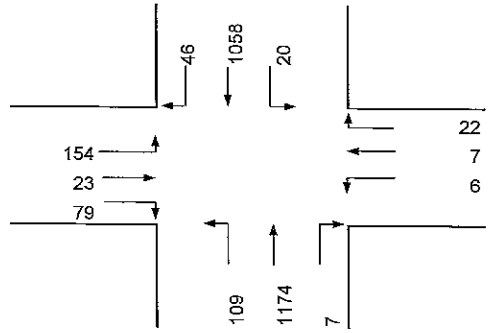
AM Peak



Lane Configuration



PM Peak



Intersection Control: Signal: X Split: Stop: Ways:

RTOR/Overlap (AM):	NB	0	SB	0	EB	32	WB 0
RTOR/Overlap (PM):	NB	0	SB	0	EB	79	WB 0
Shared Left PCE (AM):	NB	1	SB	1	EB	1.1	WB 1.1
Shared Left PCE (PM):	NB	1	SB	1	EB	1.1	WB 1.1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor
<199	1.10	1	1.00
200-599	2.00	2	0.55
600-799	3.00	3	0.37
800-999	4.00	4	0.29
>999	5.00	5	0.25

Critical Lane Volume		
A	≤	1,000
B	≤	1,150
C	≤	1,300
D	≤	1,450
E	≤	1,600
F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	TL	36	1.00	36	10	1.00	10	46	
WB	LTR	39	1.00	39	31	1.00	31	70	*
NB	TR	814	0.55	448	8	1.00	8	456	
SB	TR	1109	0.55	610	116	1.00	116	726	*

Note:

SUM 796
A

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	TL	192	1.00	192	6	1.00	6	198	*
WB	LTR	36	1.00	36	154	1.00	154	190	
NB	TR	1181	0.55	650	20	1.00	20	670	
SB	TR	1104	0.55	607	109	1.00	109	716	*

Note:

SUM 914
A

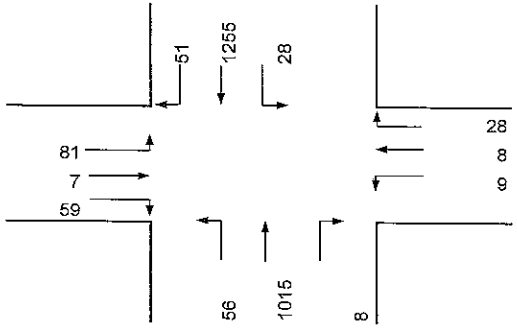
Date Printed: 8/31/2012

Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

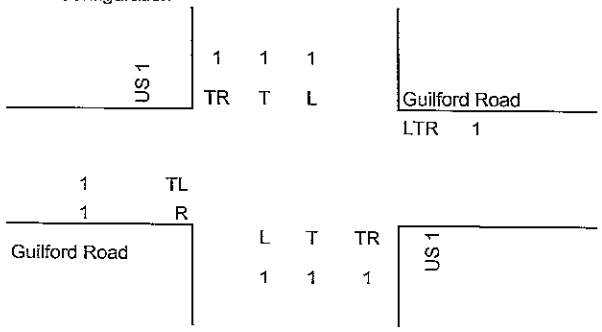
Intersection: 6: US 1/Guilford Road
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Phase I
Computed by: SK

WELLS + ASSOCIATES

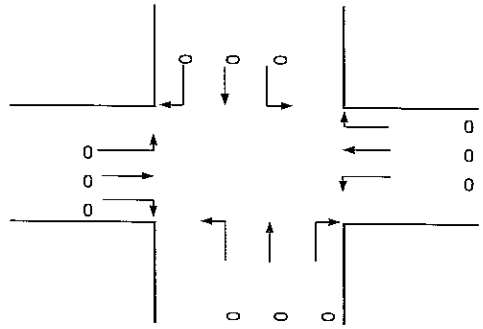
SAT



Lane Configuration



MID-DAY



Intersection Control: Signal: X Split: Stop: Ways:

RTOR/Overlap (AM):	NB	0	SB	0	EB	56	WB 0
RTOR/Overlap (PM):	NB	0	SB	0	EB	0	WB 0
Shared Left PCE (AM):	NB	1	SB	1	EB	1.1	WB 1.1
Shared Left PCE (PM):	NB	1	SB	1	EB	1.1	WB 1.1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor	Critical Lane Volume		
<199	1.10	1	1.00	A	≤	1,000
200-599	2.00	2	0.55	B	≤	1,150
600-799	3.00	3	0.37	C	≤	1,300
800-999	4.00	4	0.29	D	≤	1,450
>999	5.00	5	0.25	E	≤	1,600
				F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	TL	96	1.00	96	9	1.00	9	105	
WB	LTR	46	1.00	46	81	1.00	81	127	*
NB	TR	1023	0.55	563	28	1.00	28	591	
SB	TR	1306	0.55	718	56	1.00	56	774	*

Note:

SUM 901
A

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	TL	0	1.00	0	0	1.00	0	0	*
WB	LTR	0	1.00	0	0	1.00	0	0	
NB	TR	0	0.55	0	0	1.00	0	0	*
SB	TR	0	0.55	0	0	1.00	0	0	

Note:

SUM 0

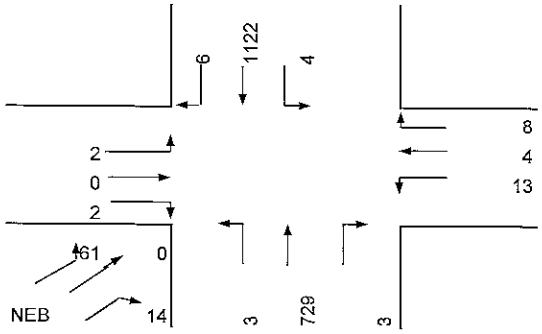
Date Printed: 8/31/2012

Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

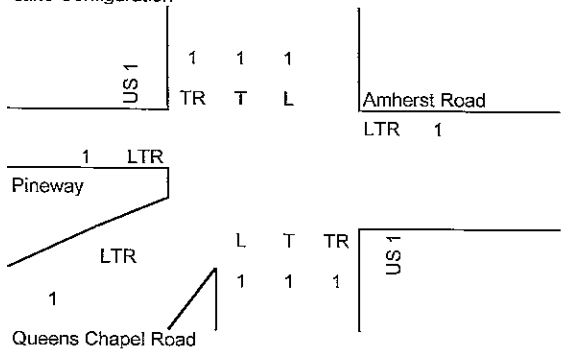
Intersection: 7: US 1/Amherst Road
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Without CSX -Phase I
Computed by: SK

WELLS + ASSOCIATES

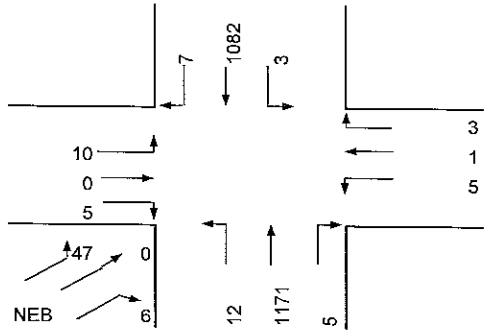
AM Peak



Lane Configuration



PM Peak



Intersection Control: Signal: ____ Split: ____ Stop: ____ Ways: ____

RTOR/Overlap (AM):	NB	0	SB	0	EB	0	WB 0
RTOR/Overlap (PM):	NB	0	SB	0	EB	0	WB 0
Shared Left PCE (AM):	NB	1	SB	1	EB	1.1	WB 1.1
Shared Left PCE (PM):	NB	1	SB	1	EB	1.1	WB 1.1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor
<199	1.10	1	1.00
200-599	2.00	2	0.55
600-799	3.00	3	0.37
800-999	4.00	4	0.29
>999	5.00	5	0.25

Critical Lane Volume		
A	≤	1,000
B	≤	1,150
C	≤	1,300
D	≤	1,450
E	≤	1,600
F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	LTR	4	1.00	4	13	1.00	13	17	
WB	LTR	26	1.00	26	2	1.00	2	28	*
NB	TR	732	0.55	403	4	1.00	4	407	
SB	TR	1128	0.55	620	3	1.00	3	623	*
NEB	LTR	75	1.00	75	0	0	0	75	*
							SUM	726	
								A	

Note:

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	LTR	16	1.00	16	5	1.00	5	21	*
WB	LTR	10	1.00	10	10	1.00	10	20	
NB	TR	1176	0.55	647	3	1.00	3	650	*
SB	TR	1089	0.55	599	12	1.00	12	611	
NEB	LTR	53	1.00	53	0	0	0	53	*
							SUM	724	
								A	

Note:

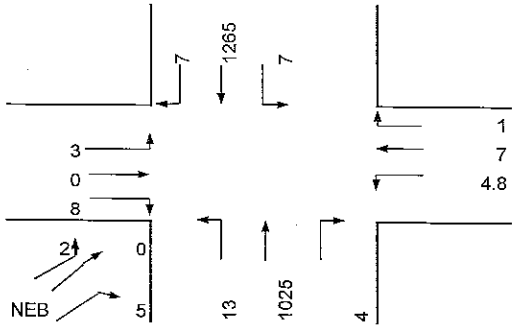
Date Printed: 8/31/2012

Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

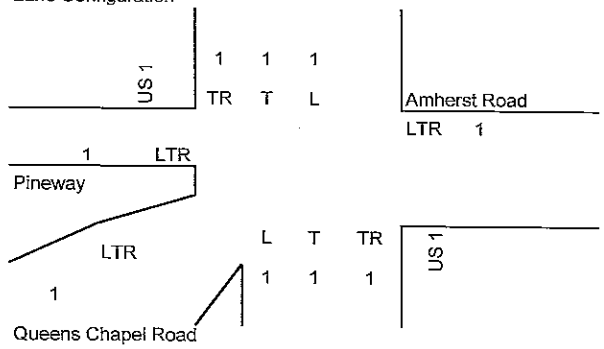
Intersection: 7: US 1/Amherst Road
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Phase I
Computed by: SK

WELLS + ASSOCIATES

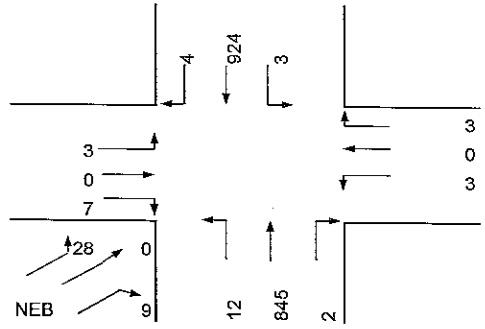
SAT



Lane Configuration



MID-DAY



Intersection Control: Signal: ____ Split: ____ Stop: ____ Ways: ____

	NB	SB	EB	WB
RTOR/Overlap (AM):	0	0	0	0
RTOR/Overlap (PM):	0	0	0	0
Shared Left PCE (AM):	1	1	1.1	1.1
Shared Left PCE (PM):	1	1	1.1	1.1

Opposing Volume	PCE
<199	1.10
200-599	2.00
600-799	3.00
800-999	4.00
>999	5.00

Number of Lanes	Lane Use Factor
1	1.00
2	0.55
3	0.37
4	0.29
5	0.25

Critical Lane Volume		
A	≤	1,000
B	≤	1,150
C	≤	1,300
D	≤	1,450
E	≤	1,600
F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	LTR	11	1.00	11	4.8	1.00	5	16	*
WB	LTR	13	1.00	13	3	1.00	3	16	
NB	TR	1029	0.55	566	7	1.00	7	573	
SB	TR	1272	0.55	700	13	1.00	13	713	*
NEB	LTR	26	1.00	26	0	0	0	26	*

Note:

SUM 755
A

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	LTR	10	1.00	10	3	1.00	3	13	*
WB	LTR	6	1.00	6	3	1.00	3	9	
NB	TR	847	0.55	466	3	1.00	3	469	
SB	TR	928	0.55	510	12	1.00	12	522	*
NEB	LTR	37	1.00	37	0	0	0	37	*

Note:

SUM 572
A

Date Printed: 8/31/2012

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	SK
Agency/Co.	Wells + Associates
Date Performed	5/30/2012
Analysis Time Period	AM Peak

Site Information

Intersection	US 1/North Site Access
Jurisdiction	Prince George's County
Analysis Year	Total Future Phase I

Project Description *Riverdale*

East/West Street: *Site Access North* | North/South Street: *US 1*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		721	3		1161	
Peak-Hour Factor, PHF	0.95	0.96	0.96	1.00	0.96	0.95
Hourly Flow Rate, HFR (veh/h)	0	751	3	0	1209	0
Percent Heavy Vehicles	2	--	--	0	--	--
Median Type	Two Way Left Turn Lane					
RT Channelized			0			0
Lanes	0	2	0	0	2	0
Configuration		T	TR		T	
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)						20
Peak-Hour Factor, PHF	0.95	1.00	0.95	1.00	1.00	0.96
Hourly Flow Rate, HFR (veh/h)	0	0	0	0	0	20
Percent Heavy Vehicles	2	0	2	0	0	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration					R			
v (veh/h)					20			
C (m) (veh/h)					668			
v/c					0.03			
95% queue length					0.09			
Control Delay (s/veh)					10.6			
LOS					B			
Approach Delay (s/veh)	--	--	10.6					
Approach LOS	--	--	B					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	SK	Intersection	US 1/North Site Access
Agency/Co.	Wells + Associates	Jurisdiction	Prince George's County
Date Performed	3/31/2011	Analysis Year	Total Future -Phase I
Analysis Time Period	PM Peak		

Project Description *Riverdale*

East/West Street: *Site Access North* | North/South Street: *US 1*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		1130	13		1101	
Peak-Hour Factor, PHF	0.95	0.95	0.95	1.00	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	0	1189	13	0	1158	0
Percent Heavy Vehicles	2	--	--	0	--	--
Median Type	Two Way Left Turn Lane					
RT Channelized			0			0
Lanes	0	2	0	0	2	0
Configuration		T	TR		T	
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)						55
Peak-Hour Factor, PHF	0.95	1.00	0.95	1.00	1.00	0.95
Hourly Flow Rate, HFR (veh/h)	0	0	0	0	0	57
Percent Heavy Vehicles	2	0	2	0	0	2
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration					R			
v (veh/h)					57			
C (m) (veh/h)					498			
v/c					0.11			
95% queue length					0.39			
Control Delay (s/veh)					13.2			
LOS					B			
Approach Delay (s/veh)	--	--	13.2					
Approach LOS	--	--	B					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	SK	Intersection	US 1/North Site Access
Agency/Co.	Wells + Associates	Jurisdiction	Prince George's County
Date Performed	3/31/2011	Analysis Year	Total Future -Phase I
Analysis Time Period	SAT Peak		

Project Description Riverdale	
East/West Street: Site Access North	North/South Street: US 1
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		941	17		1259	
Peak-Hour Factor, PHF	0.95	0.95	0.95	1.00	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	0	990	17	0	1325	0
Percent Heavy Vehicles	2	--	--	0	--	--
Median Type	Two Way Left Turn Lane					
RT Channelized			0			0
Lanes	0	2	0	0	2	0
Configuration		T	TR		T	
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)						82
Peak-Hour Factor, PHF	0.95	1.00	0.95	1.00	1.00	0.95
Hourly Flow Rate, HFR (veh/h)	0	0	0	0	0	86
Percent Heavy Vehicles	2	0	2	0	0	2
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration					R			
v (veh/h)					86			
C (m) (veh/h)					566			
v/c					0.15			
95% queue length					0.53			
Control Delay (s/veh)					12.5			
LOS					B			
Approach Delay (s/veh)	--	--	12.5					
Approach LOS	--	--	B					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	SK	Intersection	US 1/North Site Access
Agency/Co.	Wells + Associates	Jurisdiction	Prince George's County
Date Performed	3/31/2011	Analysis Year	Total Future - Phase I
Analysis Time Period	Midday Peak		

Project Description Riverdale	
East/West Street: Site Access North	North/South Street: US 1
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		811	12		919	
Peak-Hour Factor, PHF	0.95	0.95	0.95	1.00	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	0	853	12	0	967	0
Percent Heavy Vehicles	2	--	--	0	--	--
Median Type	Two Way Left Turn Lane					
RT Channelized			0			0
Lanes	0	2	0	0	2	0
Configuration		T	TR		T	
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)						50
Peak-Hour Factor, PHF	0.95	1.00	0.95	1.00	1.00	0.95
Hourly Flow Rate, HFR (veh/h)	0	0	0	0	0	52
Percent Heavy Vehicles	2	0	2	0	0	2
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration					R			
v (veh/h)					52			
C (m) (veh/h)					622			
v/c					0.08			
95% queue length					0.27			
Control Delay (s/veh)					11.3			
LOS					B			
Approach Delay (s/veh)	--	--	11.3					
Approach LOS	--	--	B					

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Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

Intersection: 9: US 1/Van Buren/Future Site Access
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Without CSX -Phase I
Computed by: SK

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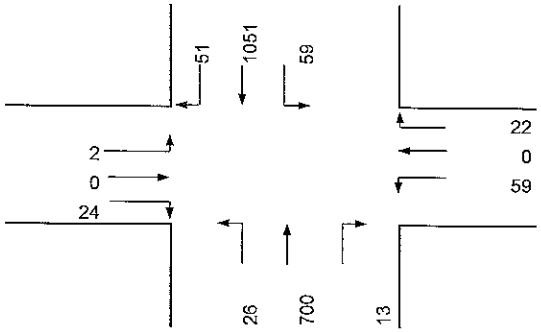
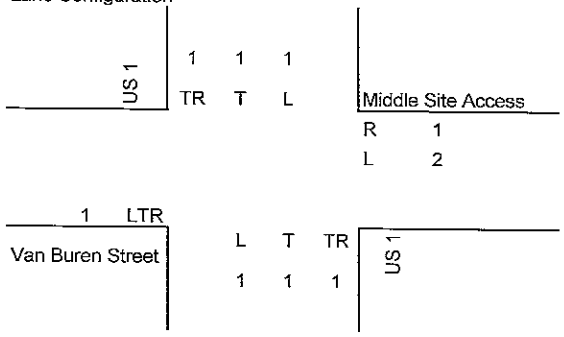
170 Jennifer Road, Annapolis, Maryland 20401
Phone: (410)266-5723 Facsimile: (410)268-9189

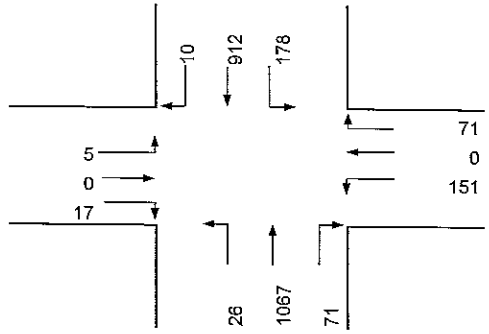
AM Peak



Lane Configuration



PM Peak



Intersection Control: Signal: X Split: E/W Stop: Ways:

	NB	SB	EB	WB
RTOR/Overlap (AM):	0	0	0	22
RTOR/Overlap (PM):	0	0	0	71
Shared Left PCE (AM):	1	1	1	1
Shared Left PCE (PM):	1	1	1	1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor	Critical Lane Volume		
<199	1.10	1	1.00	A	≤	1,000
200-599	2.00	2	0.55	B	≤	1,150
600-799	3.00	3	0.37	C	≤	1,300
800-999	4.00	4	0.29	D	≤	1,450
>999	5.00	5	0.25	E	≤	1,600
		2 lefts	0.6	F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	LTR	26	1.00	26	0	1.00	0	26	*
WB	L	59	0.60	35	0	1.00	0	35	*
NB	TR	713	0.55	392	59	1.00	59	451	
SB	TR	1102	0.55	606	26	1.00	26	632	*
							SUM	693	
								A	

Note:

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	LTR	22	1.00	22	0	1.00	0	22	*
WB	L	151	0.60	91	0	1.00	0	91	*
NB	TR	1138	0.55	626	178	1.00	178	804	*
SB	TR	922	0.55	507	26	1.00	26	533	
							SUM	917	
								A	

Note:

Date Printed: 8/31/2012

Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

Intersection: 9: US 1/Van Buren/Future Site Access
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Phase I
Computed by: SK

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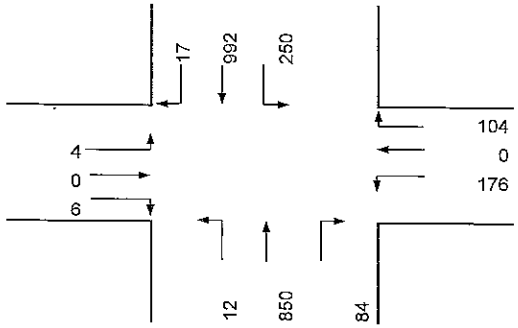
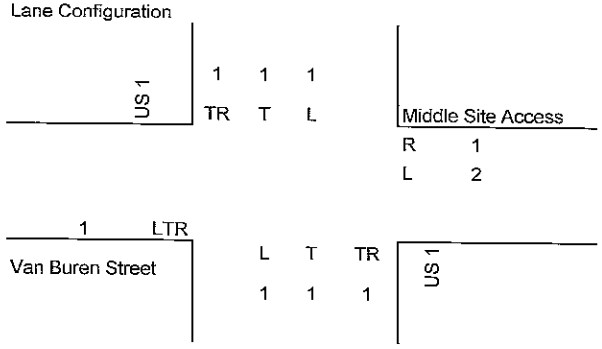
170 Jennifer Road, Annapolis, Maryland 20401
Phone: (410)266-5723 Facsimile: (410)266-9189

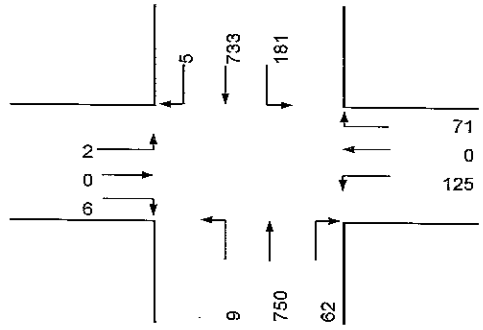
SAT



Lane Configuration



MID-DAY



Intersection Control: Signal: X Split: E/W Stop: Ways:

RTOR/Overlap (AM):	NB	0	SB	0	EB	0	WB 104
RTOR/Overlap (PM):	NB	0	SB	0	EB	0	WB 71
Shared Left PCE (AM):	NB	1	SB	1	EB	1	WB 1
Shared Left PCE (PM):	NB	1	SB	1	EB	1	WB 1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor	Critical Lane Volume		
<199	1.10	1	1.00	A	≤	1,000
200-599	2.00	2	0.55	B	≤	1,150
600-799	3.00	3	0.37	C	≤	1,300
800-999	4.00	4	0.29	D	≤	1,450
>999	5.00	5	0.25	E	≤	1,600
		2 lefts	0.6	F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	LTR	10	1.00	10	0	1.00	0	10	*
WB	L	176	0.60	106	0	1.00	0	106	*
NB	TR	934	0.55	514	250	1.00	250	764	*
SB	TR	1009	0.55	555	12	1.00	12	567	

Note:

SUM 880
A

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	LTR	8	1.00	8	0	1.00	0	8	*
WB	L	125	0.60	75	0	1.00	0	75	*
NB	TR	812	0.55	447	181	1.00	181	628	*
SB	TR	738	0.55	406	9	1.00	9	415	

Note:

SUM 711
A

Date Printed: 8/31/2012

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	SK	Intersection	US 1/South Site Access
Agency/Co.	Wells + Associates	Jurisdiction	Prince George's County
Date Performed	3/2/2012	Analysis Year	Total Future Phase I
Analysis Time Period	AM Peak		

Project Description Riverdale	
East/West Street: Site Access South	North/South Street: US 1
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		729	22		1134	
Peak-Hour Factor, PHF	0.95	0.96	0.96	1.00	0.96	0.95
Hourly Flow Rate, HFR (veh/h)	0	759	22	0	1181	0
Percent Heavy Vehicles	2	--	--	0	--	--
Median Type	Two Way Left Turn Lane					
RT Channelized			0			0
Lanes	0	2	0	0	2	0
Configuration		T	TR		T	
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)						10
Peak-Hour Factor, PHF	0.95	1.00	0.95	1.00	1.00	0.96
Hourly Flow Rate, HFR (veh/h)	0	0	0	0	0	10
Percent Heavy Vehicles	2	0	2	0	0	2
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration					R			
v (veh/h)					10			
C (m) (veh/h)					657			
v/c					0.02			
95% queue length					0.05			
Control Delay (s/veh)					10.6			
LOS					B			
Approach Delay (s/veh)	--	--	10.6					
Approach LOS	--	--	B					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*SK*	Intersection	*US 1/South Site Access*
Agency/Co.	*Wells + Associates*	Jurisdiction	*Prince George's County*
Date Performed	*3/31/2011*	Analysis Year	*Total Future - Phase I*
Analysis Time Period	*PM Peak*		

Project Description *Riverdale*

East/West Street: *Site Access South* | North/South Street: *US 1*

Intersection Orientation: *North-South* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		*1132*	*75*		*1081*	
Peak-Hour Factor, PHF	*0.95*	*0.95*	*0.95*	*1.00*	*0.95*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*0*	*1191*	*78*	*0*	*1137*	*0*
Percent Heavy Vehicles	*2*	--	--	*0*	--	--
Median Type	*Two Way Left Turn Lane*					
RT Channelized			*0*			*0*
Lanes	*0*	*2*	*0*	*0*	*2*	*0*
Configuration		*T*	*TR*		*T*	
Upstream Signal		*0*			*0*	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)						*32*
Peak-Hour Factor, PHF	*0.95*	*1.00*	*0.95*	*1.00*	*1.00*	*0.95*
Hourly Flow Rate, HFR (veh/h)	*0*	*0*	*0*	*0*	*0*	*33*
Percent Heavy Vehicles	*2*	*0*	*2*	*0*	*0*	*2*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*1*
Configuration						*R*

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration					*R*			
v (veh/h)					*33*			
C (m) (veh/h)					*477*			
v/c					*0.07*			
95% queue length					*0.22*			
Control Delay (s/veh)					*13.1*			
LOS					*B*			
Approach Delay (s/veh)	--	--	*13.1*					
Approach LOS	--	--	*B*					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	SK	Intersection	US 1/South Site Access
Agency/Co.	Wells + Associates	Jurisdiction	Prince George's County
Date Performed	3/31/2011	Analysis Year	Total Future - Phase I
Analysis Time Period	SAT		

Project Description Riverdale	
East/West Street: Site Access South	North/South Street: US 1
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		902	94		1174	
Peak-Hour Factor, PHF	0.95	0.95	0.95	1.00	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	0	949	98	0	1235	0
Percent Heavy Vehicles	2	--	--	0	--	--
Median Type	Two Way Left Turn Lane					
RT Channelized			0			0
Lanes	0	2	0	0	2	0
Configuration		T	TR		T	
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)						44
Peak-Hour Factor, PHF	0.95	1.00	0.95	1.00	1.00	0.95
Hourly Flow Rate, HFR (veh/h)	0	0	0	0	0	46
Percent Heavy Vehicles	2	0	2	0	0	2
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration					R			
v (veh/h)					46			
C (m) (veh/h)					551			
v/c					0.08			
95% queue length					0.27			
Control Delay (s/veh)					12.1			
LOS					B			
Approach Delay (s/veh)	--	--	12.1					
Approach LOS	--	--	B					

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	SK	Intersection	US 1/South Site Access
Agency/Co.	Wells + Associates	Jurisdiction	Prince George's County
Date Performed	3/31/2011	Analysis Year	Total Future -Phase I
Analysis Time Period	Midday Peak		

Project Description Riverdale	
East/West Street: Site Access South	North/South Street: US 1
Intersection Orientation: North-South	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)		792	74		864	
Peak-Hour Factor, PHF	0.95	0.95	0.95	1.00	0.95	0.95
Hourly Flow Rate, HFR (veh/h)	0	833	77	0	909	0
Percent Heavy Vehicles	2	--	--	0	--	--
Median Type	Two Way Left Turn Lane					
RT Channelized			0			0
Lanes	0	2	0	0	2	0
Configuration		T	TR		T	
Upstream Signal		0			0	

Minor Street	Eastbound			Westbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)						29
Peak-Hour Factor, PHF	0.95	1.00	0.95	1.00	1.00	0.95
Hourly Flow Rate, HFR (veh/h)	0	0	0	0	0	30
Percent Heavy Vehicles	2	0	2	0	0	2
Percent Grade (%)	0			0		
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	0	0	0	0	1
Configuration						R

Delay, Queue Length, and Level of Service

Approach	Northbound	Southbound	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration					R			
v (veh/h)					30			
C (m) (veh/h)					603			
v/c					0.05			
95% queue length					0.16			
Control Delay (s/veh)					11.3			
LOS					B			
Approach Delay (s/veh)	--	--	11.3					
Approach LOS	--	--	B					

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Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

Intersection: 11: US 1/MD 410
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Without CSX -Phase I
Computed by: SK

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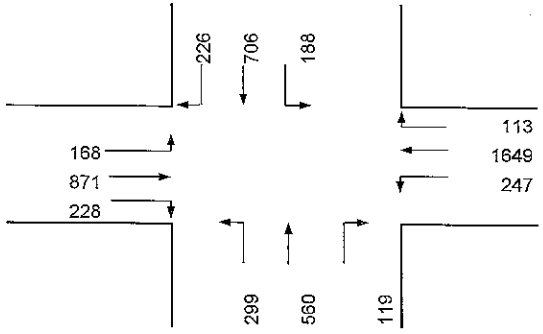
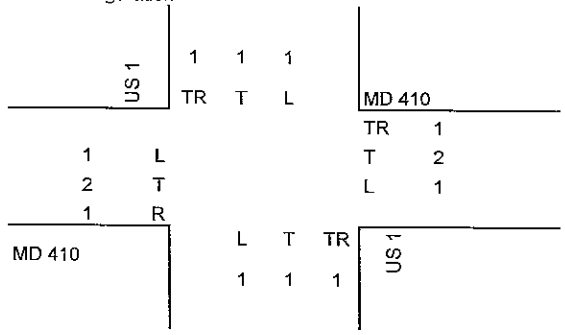
TRANSPORTATION, TRAFFIC, AND PARKING CONSULTANTS
170 Jennifer Road, Annapolis, Maryland 20401
Phone: (410)266-5723 Facsimile: (410)266-9189

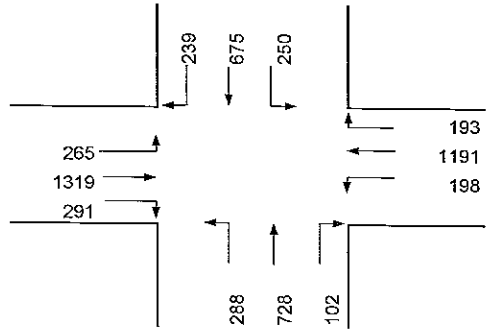
AM Peak



Lane Configuration



PM Peak



Intersection Control: Signal: X Split: Stop: Ways:

	NB	SB	EB	WB
RTOR/Overlap (AM):	0	0	228	0
RTOR/Overlap (PM):	0	0	288	0
Shared Left PCE (AM):	1	1	1	1
Shared Left PCE (PM):	1	1	1	1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor
<199	1.10	1	1.00
200-599	2.00	2	0.55
600-799	3.00	3	0.37
800-999	4.00	4	0.29
>999	5.00	5	0.25

Critical Lane Volume		
A	≤	1,000
B	≤	1,150
C	≤	1,300
D	≤	1,450
E	≤	1,600
F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	T	871	0.55	479	247	1.00	247	726	
WB	TR	1762	0.37	652	168	1.00	168	820	*
NB	TR	679	0.55	373	188	1.00	188	561	
SB	TR	932	0.55	513	299	1.00	299	812	*

Note:

SUM 1632
F

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	T	1319	0.55	725	198	1.00	198	923	*
WB	TR	1384	0.37	512	265	1.00	265	777	
NB	TR	830	0.55	457	250	1.00	250	707	
SB	TR	914	0.55	503	288	1.00	288	791	*

Note:

SUM 1714
F

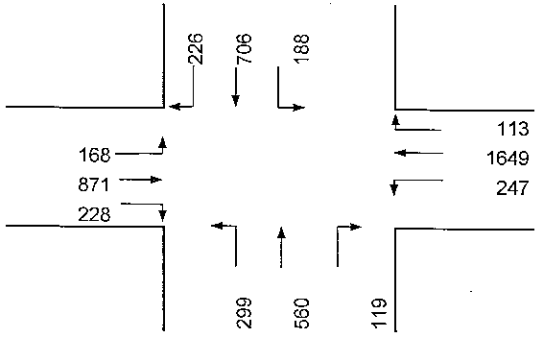
Date Printed: 8/31/2012

Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

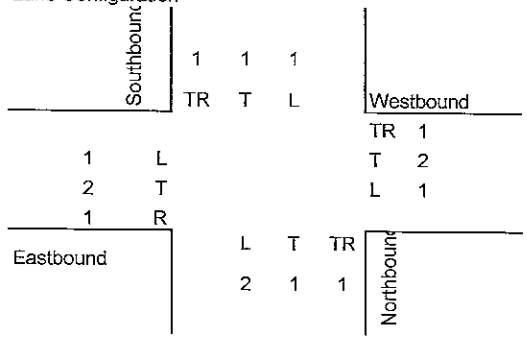
Intersection: 11: US 1/MD 410
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future without CSX- W/ Improvements
Computed by: SK

WELLS + ASSOCIATES
TRANSPORTATION, TRAFFIC, AND PARKING CONSULTANTS
170 Jennifer Road, Annapolis, Maryland 20401
Phone: (410)266-5723 Facsimile: (410)266-9189

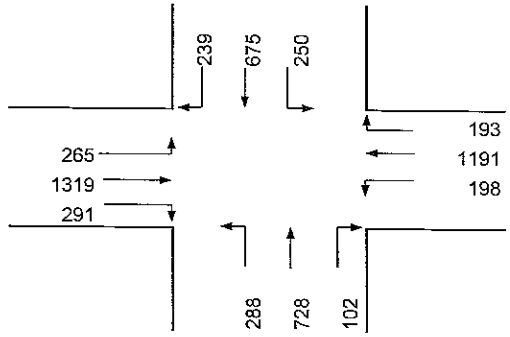
AM Peak



Lane Configuration



PM Peak



Intersection Control: Signal: X Split: Stop: Ways:

RTOR/Overlap (AM):	NB	0	SB	0	EB	228	WB 0
RTOR/Overlap (PM):	NB	0	SB	0	EB	288	WB 0
Shared Left PCE (AM):	NB	1	SB	1	EB	1	WB 1
Shared Left PCE (PM):	NB	1	SB	1	EB	1	WB 1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor	Critical Lane Volume		
<199	1.10	1	1.00	A	≤	1,000
200-599	2.00	2	0.55	B	≤	1,150
600-799	3.00	3	0.37	C	≤	1,300
800-999	4.00	4	0.29	D	≤	1,450
>999	5.00	5	0.25	E	≤	1,600
				F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	T	871	0.55	479	247	1.00	247	726	
WB	TR	1762	0.37	652	168	1.00	168	820	*
NB	TR	679	0.55	373	188	1.00	188	561	
SB	TR	932	0.55	513	299	0.60	179	692	*
							SUM	1512	
								E	

Note:

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	T	1319	0.55	725	198	1.00	198	923	*
WB	TR	1384	0.37	512	265	1.00	265	777	
NB	TR	830	0.55	457	250	1.00	250	707	*
SB	TR	914	0.55	503	288	0.60	173	676	
							SUM	1630	
								F	

Note:

Date Printed: 8/31/2012

Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

Intersection: 11: US 1/MD 410
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Phase I
Computed by: SK

WELLS + ASSOCIATES
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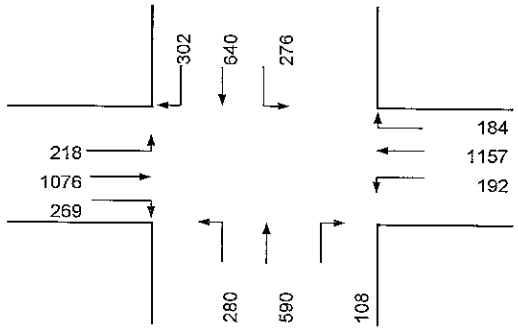
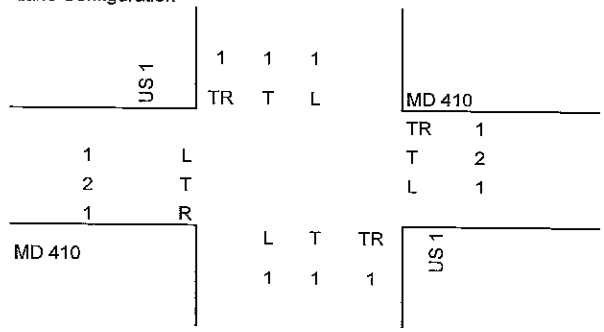
170 Jennifer Road, Annapolis, Maryland 20401
Phone: (410)266-5723 Facsimile: (410)266-9189

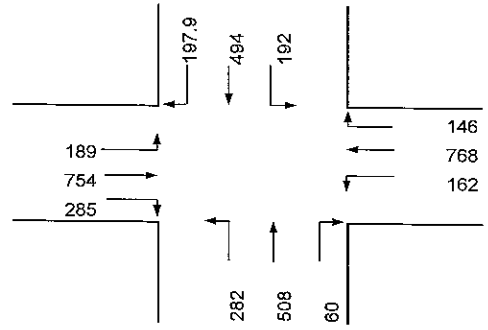
SAT



Lane Configuration



MID-DAY



Intersection Control: Signal: X Split: Stop: Ways:

RTOR/Overlap (AM):	NB	0	SB	0	EB	269	WB 0
RTOR/Overlap (PM):	NB	0	SB	0	EB	282	WB 0
Shared Left PCE (AM):	NB	1	SB	1	EB	1	WB 1
Shared Left PCE (PM):	NB	1	SB	1	EB	1	WB 1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor
<199	1.10	1	1.00
200-599	2.00	2	0.55
600-799	3.00	3	0.37
800-999	4.00	4	0.29
>999	5.00	5	0.25

Critical Lane Volume		
A	≤	1,000
B	≤	1,150
C	≤	1,300
D	≤	1,450
E	≤	1,600
F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	T	1076	0.55	592	192	1.00	192	784	*
WB	TR	1341	0.37	496	218	1.00	218	714	
NB	TR	698	0.55	384	276	1.00	276	660	
SB	TR	942	0.55	518	280	1.00	280	798	*

Note:

SUM 1582
E

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	T	754	0.55	415	162	1.00	162	577	*
WB	TR	914	0.37	338	189	1.00	189	527	
NB	TR	568	0.55	312	192	1.00	192	504	
SB	TR	691.9	0.55	381	282	1.00	282	663	*

Note:

SUM 1240
C

Date Printed: 8/31/2012

Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

Intersection: 11: US 1/MD 410
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Phase without CSX and W/ Improvements
Computed by: SK

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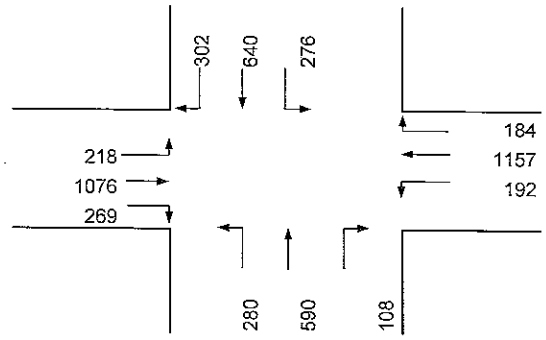
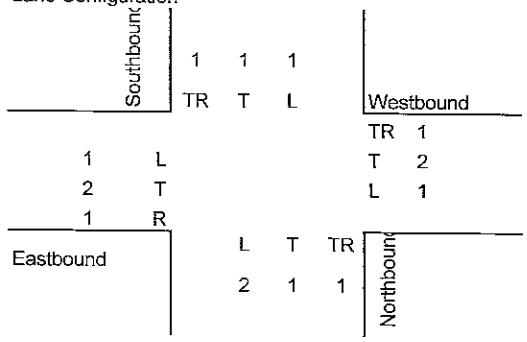
170 Jennifer Road, Annapolis, Maryland 20401
Phone: (410)266-5723 Facsimile: (410)266-9189

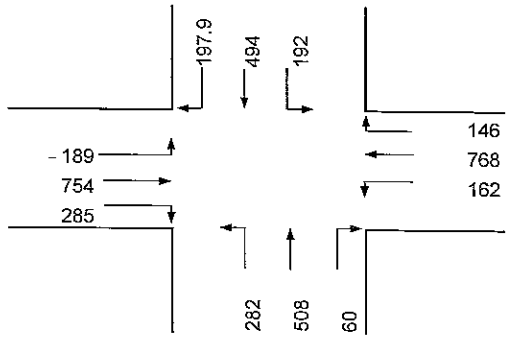
SAT



Lane Configuration



MID-DAY



Intersection Control: Signal: X Split: Stop: Ways:

RTOR/Overlap (AM):	NB	0	SB	0	EB	269	WB 0
RTOR/Overlap (PM):	NB	0	SB	0	EB	282	WB 0
Shared Left PCE (AM):	NB	1	SB	1	EB	1	WB 1
Shared Left PCE (PM):	NB	1	SB	1	EB	1	WB 1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor	Critical Lane Volume		
<199	1.10	1	1.00	A	≤	1,000
200-599	2.00	2	0.55	B	≤	1,150
600-799	3.00	3	0.37	C	≤	1,300
800-999	4.00	4	0.29	D	≤	1,450
>999	5.00	5	0.25	E	≤	1,600
				F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	T	1076	0.55	592	192	1.00	192	784	*
WB	TR	1341	0.37	496	218	1.00	218	714	
NB	TR	698	0.55	384	276	1.00	276	660	
SB	TR	942	0.55	518	280	0.60	168	686	*
							SUM	1470	
								E	

Note:

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	T	754	0.55	415	162	1.00	162	577	*
WB	TR	914	0.37	338	189	1.00	189	527	
NB	TR	568	0.55	312	192	1.00	192	504	
SB	TR	691.9	0.55	381	282	0.60	169	550	*
							SUM	1127	
								B	

Note:

Date Printed: 8/31/2012

Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

Intersection: 12: US 1/Queensbury Road
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Without CSX -Phase I
Computed by: SK

WELLS + ASSOCIATES
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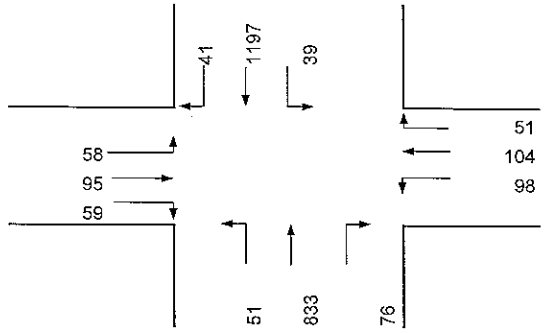
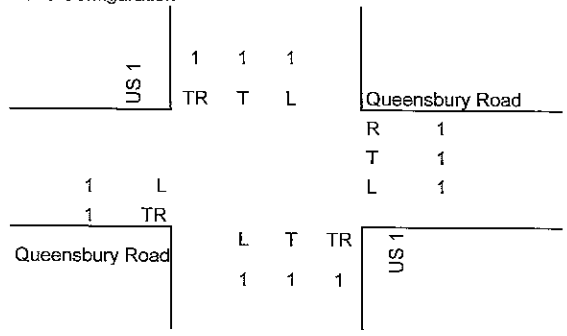
170 Jennifer Road, Annapolis, Maryland 20401
Phone: (410)266-5723 Facsimile: (410)268-9189

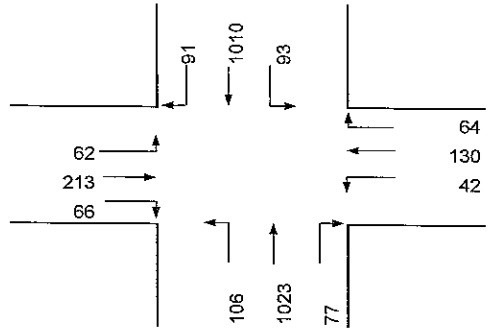
AM Peak



Lane Configuration



PM Peak



Intersection Control: Signal: X Split: Stop: Ways:

	NB	SB	EB	WB
RTOR/Overlap (AM):	0	0	0	39
RTOR/Overlap (PM):	0	0	0	64
Shared Left PCE (AM):	1	1	1	1
Shared Left PCE (PM):	1	1	1	1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor
<199	1.10	1	1.00
200-599	2.00	2	0.55
600-799	3.00	3	0.37
800-999	4.00	4	0.29
>999	5.00	5	0.25

Critical Lane Volume		
A	≤	1,000
B	≤	1,150
C	≤	1,300
D	≤	1,450
E	≤	1,600
F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	TR	154	1.00	154	98	1.00	98	252	*
WB	T	104	1.00	104	58	1.00	58	162	
NB	TR	909	0.55	500	39	1.00	39	539	
SB	TR	1238	0.55	681	51	1.00	51	732	*

Note:

SUM 984
A

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	TR	279	1.00	279	42	1.00	42	321	*
WB	T	130	1.00	130	62	1.00	62	192	
NB	TR	1100	0.55	605	93	1.00	93	698	
SB	TR	1101	0.55	606	106	1.00	106	712	*

Note:

SUM 1033
B

Date Printed: 8/31/2012

Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

Intersection: 12: US 1/Queensbury Road
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Phase I
Computed by: SK

WELLS + ASSOCIATES
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170 Jennifer Road, Annapolis, Maryland 20401
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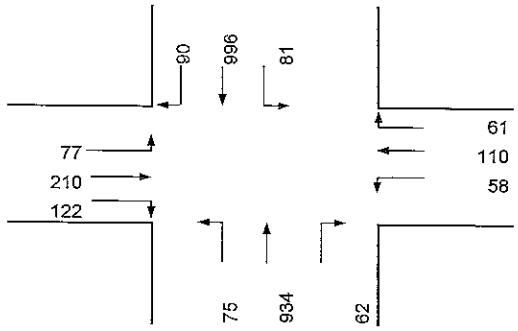
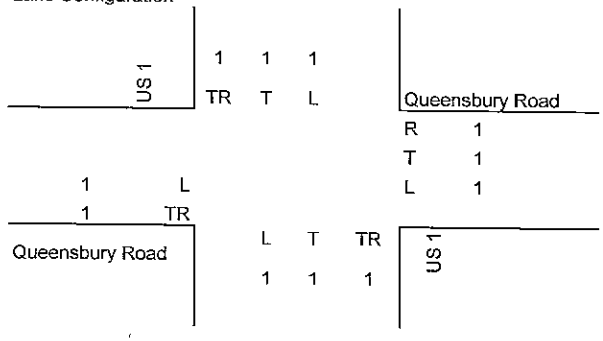
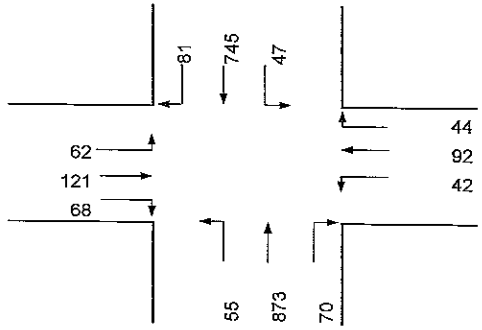
SAT



Lane Configuration



MID-DAY



Intersection Control: Signal: X Split: Stop: Ways:

RTOR/Overlap (AM):	NB	0	SB	0	EB	0	WB 61
RTOR/Overlap (PM):	NB	0	SB	0	EB	0	WB 44
Shared Left PCE (AM):	NB	1	SB	1	EB	1	WB 1
Shared Left PCE (PM):	NB	1	SB	1	EB	1	WB 1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor	Critical Lane Volume		
<199	1.10	1	1.00	A	≤	1,000
200-599	2.00	2	0.55	B	≤	1,150
600-799	3.00	3	0.37	C	≤	1,300
800-999	4.00	4	0.29	D	≤	1,450
>999	5.00	5	0.25	E	≤	1,600
				F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	TR	332	1.00	332	58	1.00	58	390	*
WB	T	110	1.00	110	77	1.00	77	187	
NB	TR	996	0.55	548	81	1.00	81	629	
SB	TR	1086	0.55	597	75	1.00	75	672	*

Note:

SUM 1062
B

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	TR	189	1.00	189	42	1.00	42	231	*
WB	T	92	1.00	92	62	1.00	62	154	
NB	TR	943	0.55	519	47	1.00	47	566	*
SB	TR	826	0.55	454	55	1.00	55	509	

Note:

SUM 797
A

Date Printed: 8/31/2012

Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

Intersection: 13. River Road/River Tech Ct
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Without CSX -Phase I
Computed by: SK

WELLS + ASSOCIATES
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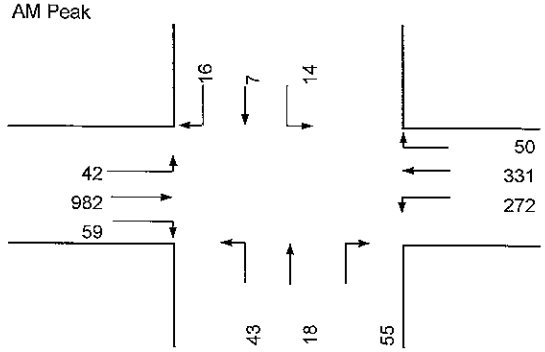
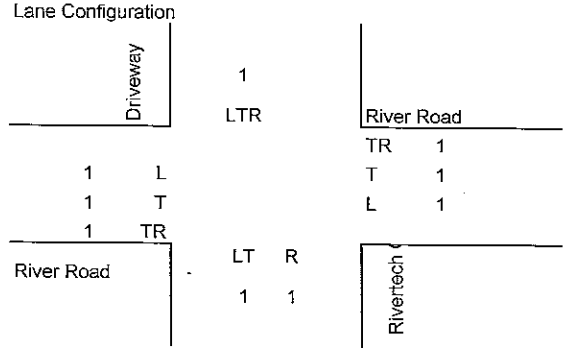
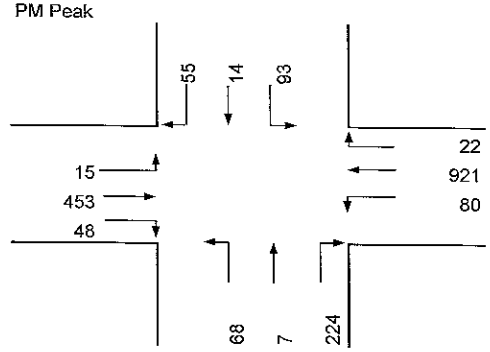
AM Peak



Lane Configuration



PM Peak



Intersection Control: Signal: X Split: X Stop: X Ways: NS

RTOR/Overlap (AM):	NB	0	SB	0	EB	0	WB 0
RTOR/Overlap (PM):	NB	0	SB	0	EB	0	WB 0
Shared Left PCE (AM):	NB	1.1	SB	1.1	EB	1	WB 1
Shared Left PCE (PM):	NB	1.1	SB	1.1	EB	1	WB 1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor
<199	1.10	1	1.00
200-599	2.00	2	0.55
600-799	3.00	3	0.37
800-999	4.00	4	0.29
>999	5.00	5	0.25

Critical Lane Volume		
A	≤	1,000
B	≤	1,150
C	≤	1,300
D	≤	1,450
E	≤	1,600
F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	TR	1041	0.55	573	272	1.00	272	845	*
WB	TR	381	0.55	210	42	1.00	42	252	
NB	TL	65	1.00	65	14	1.00	14	79	
SB	LTR	38.4	1.00	38	43	1.00	43	81	*
							SUM	926	
								A	

Note:
Spacing Available to accommodate two lanes on North Bound

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	TR	501	0.55	276	80	1.00	80	356	
WB	TR	943	0.55	519	15	1.00	15	534	*
NB	TL	82	1.00	82	68	1.00	68	150	
SB	LTR	171.3	1.00	171	93	1.00	93	264	*
							SUM	798	
								A	

Note:
Spacing Available to accommodate two lanes on North Bound

Date Printed: 8/31/2012

Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

Intersection: 13. River Road/River Tech Ct
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future
Computed by: SK

WELLS + ASSOCIATES
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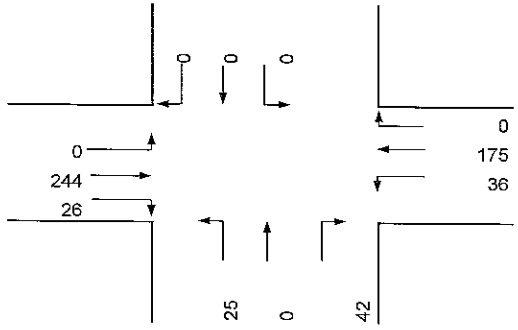
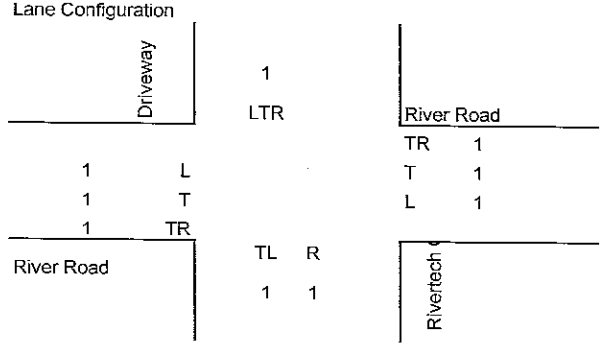
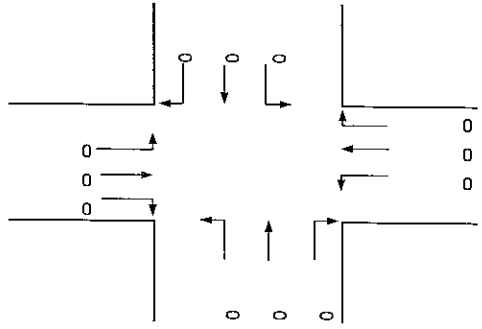
SAT



Lane Configuration



MID-DAY



Intersection Control: Signal: X Split: Stop: X Ways:

	NB	SB	EB	WB
RTOR/Overlap (AM):	0	0	0	0
RTOR/Overlap (PM):	0	0	0	0
Shared Left PCE (AM):	1	1	1	1
Shared Left PCE (PM):	1	1	1	1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor	Critical Lane Volume		
<199	1.10	1	1.00	A	≤	1,000
200-599	2.00	2	0.55	B	≤	1,150
600-799	3.00	3	0.37	C	≤	1,300
800-999	4.00	4	0.29	D	≤	1,450
>999	5.00	5	0.25	E	≤	1,600
				F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	TR	270	1.00	270	36	1.00	36	306	*
WB	TR	175	1.00	175	0	1.00	0	175	
NB	TL	25	0.55	14	0	1.00	0	14	*
SB	LTR	0	0.55	0		1.00	0	0	

Note:

SUM 320
A

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	TR	0	1.00	0	0	1.00	0	0	*
WB	TR	0	1.00	0	0	1.00	0	0	
NB	TL	0	0.55	0	0	1.00	0	0	*
SB	LTR	0	0.55	0	0	1.00	0	0	

Note:

SUM 0
A

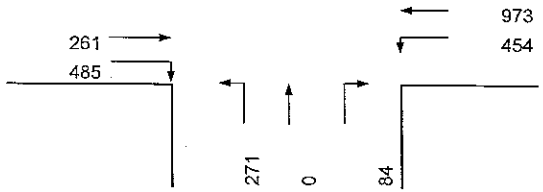
Date Printed: 8/31/2012

Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

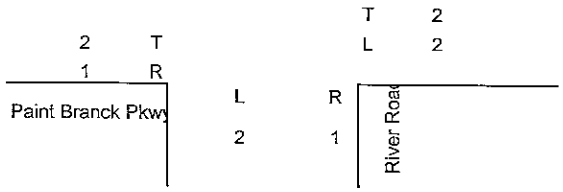
Intersection: 14. River Road at Paint Branch Pkwy
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Without CSX -Phase I
Computed by: SK

WELLS + ASSOCIATES
TRANSPORTATION, TRAFFIC, AND PARKING CONSULTANTS
170 Jennifer Road, Annapolis, Maryland 20401
Phone: (410)266-5723 Facsimile: (410)268-9189

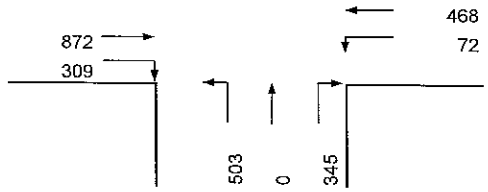
AM Peak



Lane Configuration



PM Peak



Intersection Control: Signal: X Split: Stop: Ways:

RTOR/Overlap (AM):	NB	84	SB	0	EB	271	WB 0
RTOR/Overlap (PM):	NB	72	SB	0	EB	309	WB 0
Shared Left PCE (AM):	NB	1	SB	1	EB	1	WB 1
Shared Left PCE (PM):	NB	1	SB	1	EB	1	WB 1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor
<199	1.10	1	1.00
200-599	2.00	2	0.55
600-799	3.00	3	0.37
800-999	4.00	4	0.29
>999	5.00	5	0.25

Critical Lane Volume		
A	≤	1,000
B	≤	1,150
C	≤	1,300
D	≤	1,450
E	≤	1,600
F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	T	261	0.55	144	454	0.60	272	416	
WB	T	973	0.55	535	0	1.00	0	535	*
NB	L	271	0.60	163	0	1.00	0	163	*

Note:

SUM 698
A

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	T	872	0.55	480	72	0.60	43	523	*
WB	T	468	0.55	257	0	1.00	0	257	
NB	L	503	0.60	302	0	1.00	0	302	*

Note:

SUM 825
A

Date Printed: 8/31/2012

Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

Intersection: 14. River Road at Paint Branch Pkwy
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Phase I
Computed by: SK

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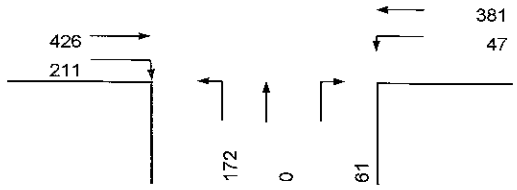
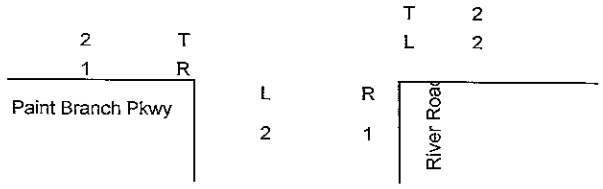
170 Jennifer Road, Annapolis, Maryland 20401
Phone: (410)266-5723 Facsimile: (410)266-9189

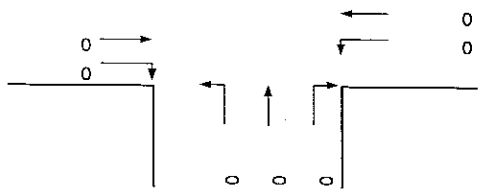
SAT



Lane Configuration



MID-DAY



Intersection Control: Signal: X Split: Stop: Ways:

	NB	SB	EB	WB
RTOR/Overlap (AM):	47	0	172	0
RTOR/Overlap (PM):	0	0	0	0
Shared Left PCE (AM):	1	1	1	1
Shared Left PCE (PM):	1	1	1	1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor
<199	1.10	1	1.00
200-599	2.00	2	0.55
600-799	3.00	3	0.37
800-999	4.00	4	0.29
>999	5.00	5	0.25

Critical Lane Volume		
A	≤	1,000
B	≤	1,150
C	≤	1,300
D	≤	1,450
E	≤	1,600
F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	T	426	0.55	234	47	0.60	28	262	*
WB	T	381	0.55	210	0	1.00	0	210	
NB	L	172	0.60	103	0	1.00	0	103	*

Note:

SUM 365
A

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	T	0	0.55	0	0	0.60	0	0	*
WB	T	0	0.55	0	0	1.00	0	0	
NB	L	0	0.60	0	0	1.00	0	0	*

Note:

SUM 0

Date Printed: 8/31/2012

Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

Intersection: 15: Kenilworth Road/River Road
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Without CSX -Phase I
Computed by: SK

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170 Jennifer Road, Annapolis, Maryland 20401
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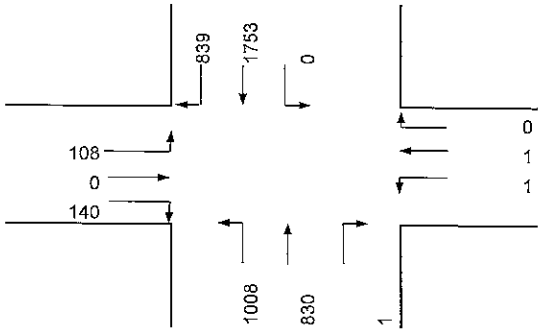
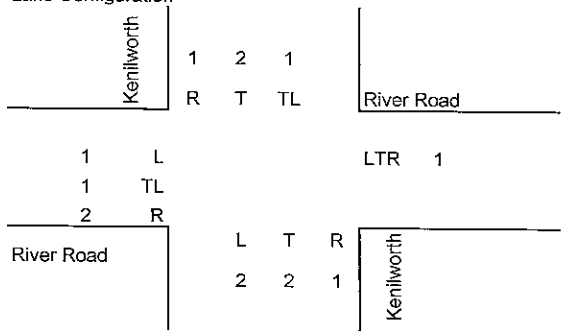
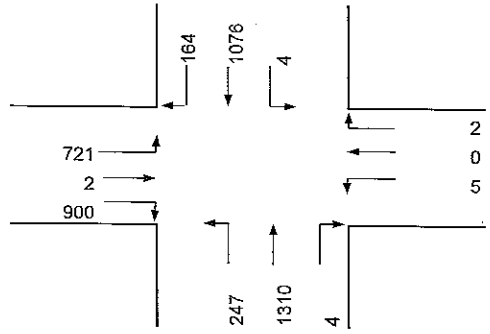
AM Peak



Lane Configuration



PM Peak



Intersection Control: Signal: X Split: X Stop: Ways: E/W

RTOR/Overlap (AM):	NB	1	SB	108	EB	140	WB 0
RTOR/Overlap (PM):	NB	4	SB	164	EB	247	WB 0
Shared Left PCE (AM):	NB	1	SB	4	EB	1	WB 1
Shared Left PCE (PM):	NB	1	SB	5	EB	1	WB 1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor	Critical Lane Volume		
<199	1.10	1	1.00	A	≤	1,000
200-599	2.00	2	0.55	B	≤	1,150
600-799	3.00	3	0.37	C	≤	1,300
800-999	4.00	4	0.29	D	≤	1,450
>999	5.00	5	0.25	E	≤	1,600
				F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	TL	108	0.60	65	0	1.00	0	65	*
WB	LTR	2	1.00	2	0	1.00	0	2	*
NB	T	830	0.55	457	0	1.00	0	457	
SB	TL	1753	0.37	649	1008	0.60	605	1254	*

Note:

SUM 1321
D

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	TL	723	0.60	434	0	1.00	0	434	*
WB	LTR	7	1.00	7	0	1.00	0	7	*
NB	T	1310	0.55	721	4	1.00	4	725	*
SB	TL	1096	0.37	406	247	0.60	148	554	

Note:

SUM 1166
C

Date Printed: 8/31/2012

Cafritz Property at Riverdale Park
Critical Lane Volue
Level of Service Calculations

Intersection: 15: Kenilworth Road/River Road
Jurisdiction: Prince George's County
Scenario/Design Year: Total Future Phase I with Improvements
Computed by: SK

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170 Jennifer Road, Annapolis, Maryland 20401
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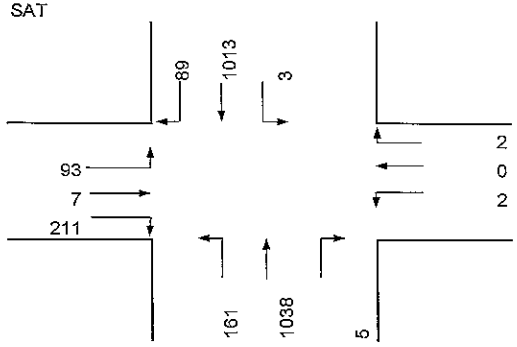
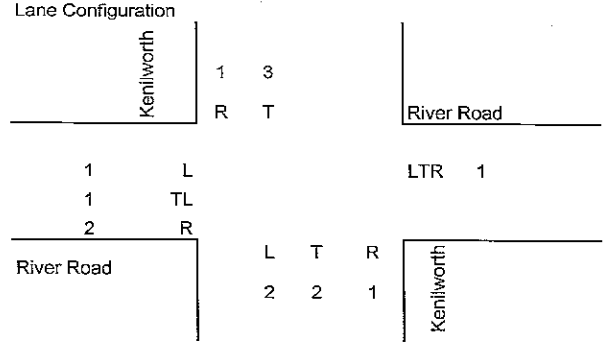
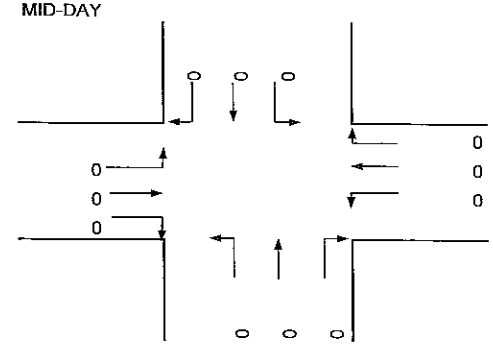
SAT



Lane Configuration



MID-DAY



Intersection Control: Signal: X Split: X Stop: Ways: E/W

	NB	SB	EB	WB
RTOR/Overlap (AM):	2	89	161	0
RTOR/Overlap (PM):	0	0	0	0
Shared Left PCE (AM):	1	1	1.1	2
Shared Left PCE (PM):	1	1	1.1	1.1

Opposing Volume	PCE	Number of Lanes	Lane Use Factor
<199	1.10	1	1.00
200-599	2.00	2	0.55
600-799	3.00	3	0.37
800-999	4.00	4	0.29
>999	5.00	5	0.25

Critical Lane Volume		
A	≤	1,000
B	≤	1,150
C	≤	1,300
D	≤	1,450
E	≤	1,600
F	>	1,600

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	TL	109	0.60	66	0	1.00	0	66	*
WB	LTR	6	1.00	6	0	1.00	0	6	*
NB	T	1038	0.55	571	3	1.00	3	574	*
SB	T	1013	0.37	375	161	0.60	97	472	

Note:

SUM 646
A

Phase	Movement	Volume	Lane Use Factor	Lane Volume	Opposing Lefts	Lane Use Factor	Opposing Volume	Critical Lane Volume	*
EB	TL	0	0.60	0	0	1.00	0	0	*
WB	LTR	0	1.00	0	0	1.00	0	0	*
NB	T	0	0.55	0	0	1.00	0	0	*
SB	T	0	0.37	0	0	0.60	0	0	

Note:

SUM 0

Date Printed: 8/31/2012

ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	sk
Agency/Co.	Wells and Associates
Date Performed	2/25/2012
Analysis Time Period	AM Peak

Site Information

Intersection	Rhode Island and Queens Bury
Jurisdiction	Prince Georges County
Analysis Year	Total Future - Phase I

Project ID *Cafritz*

East/West Street: *Queensbury* North/South Street: *Rhode Island*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	11	119	4	177	226	7
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	3	1	55	4	0	3
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.95		0.95		0.95		0.95	
Flow Rate (veh/h)	140		430		61		7	
% Heavy Vehicles	2		2		2		2	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.1		0.4		0.0		0.6	
Prop. Right-Turns	0.0		0.0		0.9		0.4	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.0		0.1		-0.5		-0.1	

Departure Headway and Service Time

hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.12		0.38		0.05		0.01	
hd, final value (s)	4.55		4.34		4.68		5.17	
x, final value	0.18		0.52		0.08		0.01	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	2.6		2.3		2.7		3.2	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	390		680		311		257	
Delay (s/veh)	8.53		11.90		8.08		8.22	
LOS	A		B		A		A	
Approach: Delay (s/veh)	8.53		11.90		8.08		8.22	
LOS	A		B		A		A	
Intersection Delay (s/veh)	10.75							
Intersection LOS	B							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	sk
Agency/Co.	Wells and Associates
Date Performed	2/25/2012
Analysis Time Period	PM Peak

Site Information

Intersection	Rhode Island and Queens Bury
Jurisdiction	Prince Georges County
Analysis Year	Total Future - Phase I

Project ID Cafritz

East/West Street: Queensbury

North/South Street: Rhode Island

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	8	300	10	54	173	11
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	22	2	205	11	5	28
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.95		0.95		0.95		0.95	
Flow Rate (veh/h)	333		249		240		45	
% Heavy Vehicles	2		2		2		2	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.0		0.2		0.1		0.2	
Prop. Right-Turns	0.0		0.0		0.9		0.6	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.0		0.1		-0.5		-0.3	

Departure Headway and Service Time

hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.30		0.22		0.21		0.04	
hd, final value (s)	5.05		5.20		4.99		5.54	
x, final value	0.47		0.36		0.33		0.07	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	3.1		3.2		3.0		3.5	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	583		499		490		295	
Delay (s/veh)	12.41		11.09		10.47		8.95	
LOS	B		B		B		A	
Approach: Delay (s/veh)	12.41		11.09		10.47		8.95	
LOS	B		B		B		A	
Intersection Delay (s/veh)	11.31							
Intersection LOS	B							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	sk
Agency/Co.	Wells and Associates
Date Performed	2/25/2012
Analysis Time Period	SAT Peak

Site Information

Intersection	Rhode Island and Queens Bury
Jurisdiction	Prince Georges County
Analysis Year	Total Future - Phase I

Project ID Cafritz

East/West Street: Queensbury

North/South Street: Rhode Island

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	15	248	7	33	166	15
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	7	4	40	13	3	12
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.95		0.95		0.95		0.95	
Flow Rate (veh/h)	283		223		53		28	
% Heavy Vehicles	2		2		2		2	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.1		0.2		0.1		0.5	
Prop. Right-Turns	0.0		0.1		0.8		0.4	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.0		0.0		-0.4		-0.1	

Departure Headway and Service Time

hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.25		0.20		0.05		0.02	
hd, final value (s)	4.38		4.43		4.66		4.99	
x, final value	0.34		0.27		0.07		0.04	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	2.4		2.4		2.7		3.0	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	533		473		303		278	
Delay (s/veh)	9.65		9.10		8.01		8.19	
LOS	A		A		A		A	
Approach: Delay (s/veh)	9.65		9.10		8.01		8.19	
LOS	A		A		A		A	
Intersection Delay (s/veh)	9.22							
Intersection LOS	A							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	sk
Agency/Co.	Wells and Associates
Date Performed	2/25/2012
Analysis Time Period	Mid Day Peak

Site Information

Intersection	Rhode Island and Queens Bury
Jurisdiction	Prince Georges County
Analysis Year	Total Future - Phase I

Project ID Cafritz

East/West Street: Queensbury

North/South Street: Rhode Island

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	10	172	3	32	144	12
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	2	3	57	10	5	11
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.95		0.95		0.95		0.95	
Flow Rate (veh/h)	194		196		65		26	
% Heavy Vehicles	2		2		2		2	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.1		0.2		0.0		0.4	
Prop. Right-Turns	0.0		0.1		0.9		0.4	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	0.0		0.0		-0.5		-0.1	

Departure Headway and Service Time

hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.17		0.17		0.06		0.02	
hd, final value (s)	4.36		4.35		4.30		4.72	
x, final value	0.23		0.24		0.08		0.03	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	2.4		2.4		2.3		2.7	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	444		446		315		276	
Delay (s/veh)	8.69		8.70		7.66		7.88	
LOS	A		A		A		A	
Approach: Delay (s/veh)	8.69		8.70		7.66		7.88	
LOS	A		A		A		A	
Intersection Delay (s/veh)	8.51							
Intersection LOS	A							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	SK
Agency/Co.	Wells & Associates
Date Performed	5/30/2012
Analysis Time Period	AM Peak

Site Information

Intersection	Queens Bury Rd/Lafayette Ave.
Jurisdiction	Prince Georges County
Analysis Year	Total Future - Phase I

Project ID *Cafritz Property at Riverdale Park*

East/West Street: *Queens Bury Rd* North/South Street: *Lafayette Ave*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	42	45	47	0	11	0
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	140	22	5	0	10	178
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.92		0.92		0.92		0.92	
Flow Rate (veh/h)	144		11		180		203	
% Heavy Vehicles	2		2		2		2	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.3		0.0		0.8		0.0	
Prop. Right-Turns	0.4		0.0		0.0		1.0	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	-0.1		0.0		0.2		-0.5	

Departure Headway and Service Time

hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.13		0.01		0.16		0.18	
hd, final value (s)	4.65		4.99		4.68		3.96	
x, final value	0.19		0.02		0.23		0.22	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	2.7		3.0		2.7		2.0	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	394		261		430		453	
Delay (s/veh)	8.71		8.06		9.10		8.10	
LOS	A		A		A		A	
Approach: Delay (s/veh)	8.71		8.06		9.10		8.10	
LOS	A		A		A		A	
Intersection Delay (s/veh)	8.60							
Intersection LOS	A							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	SK
Agency/Co.	Wells & Associates
Date Performed	5/30/2012
Analysis Time Period	PM Peak

Site Information

Intersection	Queens Bury Rd/Lafayette Ave.
Jurisdiction	Prince Georges County
Analysis Year	Total Future - Phase I

Project ID Cafritz Property at Riverdale Park

East/West Street: Queens Bury Rd | North/South Street: Lafayette Ave

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	180	112	200	0	32	3
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	103	23	11	4	14	90
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.96		0.96		0.96		0.96	
Flow Rate (veh/h)	511		36		141		111	
% Heavy Vehicles	2		2		2		2	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.4		0.0		0.8		0.0	
Prop. Right-Turns	0.4		0.1		0.1		0.8	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	-0.1		-0.0		0.1		-0.5	

Departure Headway and Service Time

hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.45		0.03		0.13		0.10	
hd, final value (s)	4.51		5.24		5.54		5.01	
x, final value	0.64		0.05		0.22		0.15	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	2.5		3.2		3.5		3.0	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	761		286		391		361	
Delay (s/veh)	15.19		8.53		10.07		8.92	
LOS	C		A		B		A	
Approach: Delay (s/veh)	15.19		8.53		10.07		8.92	
LOS	C		A		B		A	
Intersection Delay (s/veh)	13.11							
Intersection LOS	B							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	SK
Agency/Co.	Wells & Associates
Date Performed	5/30/2012
Analysis Time Period	SAT

Site Information

Intersection	Queens Bury Rd/Lafayette Ave.
Jurisdiction	Prince Georges County
Analysis Year	Total Future - Phase I

Project ID *Cafritz Property at Riverdale Park*

East/West Street: *Queens Bury Rd* North/South Street: *Lafayette Ave*

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	62	66	162	2	39	1
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	117	12	3	2	8	40
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.88		0.88		0.88		0.88	
Flow Rate (veh/h)	329		47		148		56	
% Heavy Vehicles	2		2		2		2	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.2		0.0		0.9		0.0	
Prop. Right-Turns	0.6		0.0		0.0		0.8	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	-0.3		0.0		0.2		-0.4	

Departure Headway and Service Time

hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.29		0.04		0.13		0.05	
hd, final value (s)	4.23		4.83		5.03		4.53	
x, final value	0.39		0.06		0.21		0.07	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	2.2		2.8		3.0		2.5	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	579		297		398		306	
Delay (s/veh)	9.86		8.15		9.33		7.87	
LOS	A		A		A		A	
Approach: Delay (s/veh)	9.86		8.15		9.33		7.87	
LOS	A		A		A		A	
Intersection Delay (s/veh)	9.40							
Intersection LOS	A							

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ALL-WAY STOP CONTROL ANALYSIS

General Information

Analyst	SK
Agency/Co.	Wells & Associates
Date Performed	5/30/2012
Analysis Time Period	Mid day

Site Information

Intersection	Queens Bury Rd/Lafayette Ave.
Jurisdiction	Prince Georges County
Analysis Year	Total Future -Phase I

Project ID Cafritz Property at Riverdale Park

East/West Street: Queens Bury Rd | North/South Street: Lafayette Ave

Volume Adjustments and Site Characteristics

Approach	Eastbound			Westbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	101	54	93	1	28	0
%Thrus Left Lane						

Approach	Northbound			Southbound		
Movement	L	T	R	L	T	R
Volume (veh/h)	104	24	4	1	9	55
%Thrus Left Lane						

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Configuration	LTR		LTR		LTR		LTR	
PHF	0.89		0.89		0.89		0.89	
Flow Rate (veh/h)	277		32		146		72	
% Heavy Vehicles	2		2		2		2	
No. Lanes	1		1		1		1	
Geometry Group	1		1		1		1	
Duration, T	0.25							

Saturation Headway Adjustment Worksheet

Prop. Left-Turns	0.4		0.0		0.8		0.0	
Prop. Right-Turns	0.4		0.0		0.0		0.8	
Prop. Heavy Vehicle	0.0		0.0		0.0		0.0	
hLT-adj	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
hRT-adj	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6	-0.6
hHV-adj	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
hadj, computed	-0.1		0.0		0.2		-0.5	

Departure Headway and Service Time

hd, initial value (s)	3.20		3.20		3.20		3.20	
x, initial	0.25		0.03		0.13		0.06	
hd, final value (s)	4.37		4.81		4.89		4.35	
x, final value	0.34		0.04		0.20		0.09	
Move-up time, m (s)	2.0		2.0		2.0		2.0	
Service Time, t_s (s)	2.4		2.8		2.9		2.3	

Capacity and Level of Service

	Eastbound		Westbound		Northbound		Southbound	
	L1	L2	L1	L2	L1	L2	L1	L2
Capacity (veh/h)	527		282		396		322	
Delay (s/veh)	9.57		8.02		9.09		7.76	
LOS	A		A		A		A	
Approach: Delay (s/veh)	9.57		8.02		9.09		7.76	
LOS	A		A		A		A	
Intersection Delay (s/veh)	9.10							
Intersection LOS	A							

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	sk	Intersection	Queensbury Rd/Natoli Place
Agency/Co.	Wells and Associates	Jurisdiction	Prince Georges County
Date Performed	5/30/2012	Analysis Year	Total Future -Phase I
Analysis Time Period	AM Peak		

Project Description *Cafritz Property at Riverdale Park*

East/West Street: *Queens Bury Road* | North/South Street: *Natoli Place*

Intersection Orientation: *East-West* | Study Period (hrs): *0.25*

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	0	40	1	0	11	1
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Hourly Flow Rate, HFR (veh/h)	0	43	1	0	11	1
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	1	0	0	4	0	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Hourly Flow Rate, HFR (veh/h)	1	0	0	4	0	0
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	0	0		1			4	
C (m) (veh/h)	1607	1564		941			941	
v/c	0.00	0.00		0.00			0.00	
95% queue length	0.00	0.00		0.00			0.01	
Control Delay (s/veh)	7.2	7.3		8.8			8.8	
LOS	A	A		A			A	
Approach Delay (s/veh)	--	--	8.8			8.8		
Approach LOS	--	--	A			A		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	sk	Intersection	Queensbury Rd/Natoli Place
Agency/Co.	Wells and Associates	Jurisdiction	Prince Georges County
Date Performed	5/30/2012	Analysis Year	Total Future Phase I
Analysis Time Period	PM Peak		

Project Description	Cafritz Property at Riverdale Park
East/West Street: Queens Bury Road	North/South Street: Natoli Place
Intersection Orientation: East-West	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	1	98	0	0	38	16
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Hourly Flow Rate, HFR (veh/h)	1	106	0	0	41	17
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	1	0	0	11	0	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Hourly Flow Rate, HFR (veh/h)	1	0	0	11	0	0
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	1	0		1			11	
C (m) (veh/h)	1546	1485		808			808	
v/c	0.00	0.00		0.00			0.01	
95% queue length	0.00	0.00		0.00			0.04	
Control Delay (s/veh)	7.3	7.4		9.5			9.5	
LOS	A	A		A			A	
Approach Delay (s/veh)	--	--	9.5			9.5		
Approach LOS	--	--	A			A		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	sk	Intersection	Queensbury Rd/Natoli Place
Agency/Co.	Wells and Associates	Jurisdiction	Prince Georges County
Date Performed	5/30/2012	Analysis Year	Total Future - Phase I
Analysis Time Period	SAT		

Project Description	Cafritz Property at Riverdale Park
East/West Street: Queens Bury Road	North/South Street: Natoli Place
Intersection Orientation: East-West	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	2	68	0	0	38	5
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Hourly Flow Rate, HFR (veh/h)	2	73	0	0	41	5
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	1	0	0	4	0	0
Peak-Hour Factor, PHF	0.92	0.92	0.92	0.92	0.92	0.92
Hourly Flow Rate, HFR (veh/h)	1	0	0	4	0	0
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	2	0		1			4	
C (m) (veh/h)	1562	1527		853			853	
v/c	0.00	0.00		0.00			0.00	
95% queue length	0.00	0.00		0.00			0.01	
Control Delay (s/veh)	7.3	7.4		9.2			9.2	
LOS	A	A		A			A	
Approach Delay (s/veh)	--	--	9.2			9.2		
Approach LOS	--	--	A			A		

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TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	sk	Intersection	Queensbury Rd/Natoli Place
Agency/Co.	Wells and Associates	Jurisdiction	Prince Georges County
Date Performed	5/30/2012	Analysis Year	Total Future - Phase I
Analysis Time Period	SAT		

Project Description	Cafritz Property at Riverdale Park
East/West Street: Queens Bury Road	North/South Street: Natoli Place
Intersection Orientation: East-West	Study Period (hrs): 0.25

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	0	51	0	1	33	6
Peak-Hour Factor, PHF	0.79	0.79	0.79	0.79	0.79	0.79
Hourly Flow Rate, HFR (veh/h)	0	64	0	1	41	7
Percent Heavy Vehicles	2	--	--	2	--	--
Median Type	Undivided					
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration	LTR			LTR		
Upstream Signal		0			0	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	0	2	1	2	0	0
Peak-Hour Factor, PHF	0.79	0.79	0.79	0.79	0.79	0.79
Hourly Flow Rate, HFR (veh/h)	0	2	1	2	0	0
Percent Heavy Vehicles	2	2	2	2	2	2
Percent Grade (%)		0			0	
Flared Approach		N			N	
Storage		0			0	
RT Channelized			0			0
Lanes	0	1	0	0	1	0
Configuration		LTR			LTR	

Delay, Queue Length, and Level of Service

Approach	Eastbound	Westbound	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	LTR	LTR		LTR			LTR	
v (veh/h)	0	1		3			2	
C (m) (veh/h)	1559	1538		838			863	
v/c	0.00	0.00		0.00			0.00	
95% queue length	0.00	0.00		0.01			0.01	
Control Delay (s/veh)	7.3	7.3		9.3			9.2	
LOS	A	A		A			A	
Approach Delay (s/veh)	--	--	9.3			9.2		
Approach LOS	--	--	A			A		

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