Appendix L: Traffic Impact Study - Section 35

TRAFFIC IMPACT STUDY:

SECTION 35 COMPREHENSIVE PLANNING

CITY OF NEW BERLIN, WISCONSIN

DATE SUBMITTED: February 4, 2009

PREPARED BY:
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CHAPTER I – INTRODUCTION AND EXECUTIVE SUMMARY

A. Introduction

Section 35 of the City of New Berlin has been identified as an area for future development. Proposed development includes a mix of single family residential on the east half and commercial and industrial uses on the west half. This analysis also considers a sports complex in the southwest corner of the development area. Potentially, the section could be developed by several developers at varying timeframes. This analysis identifies recommended improvements based on existing intersection geometrics, traffic volumes and additional traffic expected to be generated by the full development.

B. Executive Summary

The executive summary includes a description of the study area and the section location, description of the proposed development, and conclusions based on the findings of the TIA. All recommendations are based on analysis which follows the methods described in the 2000 Highway capacity Manual (HCM).

a. Study Area and Section Location

The Section 35 traffic impact analysis evaluates the following study area intersections:

- Moorland Road and Grange Avenue (traffic signal control)
- Moorland Road and College Avenue (traffic signal control)
- Sunny Slope Road and Grange Avenue (4-way stop control)
- Sunny Slope Road and College Avenue (stop sign control)

The proposed Section 35 conceptual site plan is shown in Exhibit 1-1.

b. On-Site Developments

The eastern portion of section 35 is the proposed single family residential area. It is further broken down into four subdivisions, roughly named A-D, with 0.66 lots per acre gross density,. Subdivision A is located midway between Moorland Road and Sunny Slope Road on College Avenue. It has one access point and 45 lots. Subdivision B is located in the southeast corner of section 35 with access points onto College Avenue and Sunny Slope Road, accommodating 46 lots. Subdivision C is located in the northeast corner of section 35 and has access points on Grange Avenue and Sunny Slope Road. It will provide 135 lots. Subdivision D is located midway between Moorland Road and Sunny Slope Road on Grange Avenue. It has two access points and 34 lots.

The western portion of section 35 is a proposed light manufacturing district totaling approximately 120 acres. The southwest corner of section 35 is identified as a possible site for a 50.5 acre sports complex.

Other land uses identified include several pockets of C-1 or C-2 conservancy and the proposed 68 acre Tess Corners pond located midway between Grange Avenue and College Avenue on Sunny Slope Road.

c. Off-Site Developments

The off-site land that could also impact this area includes the Muskego Moorland Road commercial and industrial corridor which currently includes a proposed Wal-Mart(constructed prior to 2010) and the GE distribution center. Therefore the traffic volumes expected to be generated by these developments are included in the traffic analysis. Also, the area bordered by Small Road, Moorland Road, and Grange Avenue has the potential of future development. Due to the unknown timeframe of this development, this area was not included in the TIA.

C. Recommendations

The study area intersections were analyzed based on the procedures set forth in the 2000 Highway Capacity Manual (HCM), using the Synchro 7 analysis software. For the purpose of this study, LOS D was used to define acceptable peak hour operating conditions for the study area intersections. In each analysis scenario, the signalized intersections were optimized to minimize delays and traffic queuing.

a. 2008 Base Conditions

The 2008 base traffic peak hour data is a compilation of data from TIAs submitted to the City as part of other developments in the area. The Moorland Road and College Avenue intersection information was taken from the Muskego Commerce Center TIA prepared by Traffic Analysis & Design, Inc. as submitted November 5, 2007. The Moorland Road and Grange Avenue intersection information was taken from the Westridge Development East TIA prepared by Traffic Engineering Services, Inc. as submitted April 19, 2005. The Sunny Slope Road and College Avenue intersection data was taken from the MLG Real Estate development prepared by DAAR Engineering, Inc. as submitted March 17, 2003. Data from these reports was brought to the 2008 base year using a 4% growth rate compounded yearly.

The base conditions are expected to operate at LOS D or better conditions during peak hours. Although the peak hours vary between the intersections, all movements do operate at LOS D or better, therefore no improvements are needed at this time.

b. 2020 Base Conditions

The year 2020 base condition includes existing traffic volume plus the volume growth to the year 2020 at 4% growth rate compounded yearly.

The recommended improvements for the year 2020 base conditions are described as follows:

- Moorland Road (from Grange Avenue to College Avenue) – Volumes will near 24,500 vehicles per day (vpd) which is well above the 16,000 vpd threshold for four-lanes.
- Moorland Road and Grange Avenue intersection - The eastbound left turn operates at LOS F, therefore lengthening the turn lane will provide more storage and modifying the signal timing will improve the movement.
- Sunny Slope Road and Grange Avenue intersection – Signalize the intersection with two phase traffic operation. This intersection is expected to meet warrants for traffic signal control with the 2020 base traffic volumes. Construction should include dedicated left and right turn lanes at all approaches.
- Moorland Road and College Avenue intersection – The northbound and southbound left movements will operate at the minimum LOS D, all other movements operate at LOS B or better. Therefore no improvements will be needed.
- Sunny Slope Road and College Avenue – The southbound left and right movements will operate at the minimum LOS D, all other movements operate at LOS A. Therefore no improvements will be needed.

c. 2020 Full Build-out Traffic Conditions

The year 2020 full build-out traffic conditions include the year 2020 base conditions plus the additional traffic from the full build-out of Section 35. The following improvements are recommended at the study intersections for LOS D or better conditions during the peak hours. These improvements are in addition to the recommended improvements for the year 2020 base conditions.

- Moorland Road (from Grange Avenue to College Avenue) – Provide turn lanes and controlled median openings for the limited development access points. Depending on access control by Waukesha County and the type of development to occur, traffic signals may be warranted.
- Moorland Road and Grange Avenue intersection - Full intersection build out includes two thru lanes, dedicated left and right turn lanes in all legs. The eastbound left, eastbound thru and westbound thru may still have an LOS E or F, but due to the geometrics of Small Road and the green time needed on Moorland Road, there are limited options to improve these movements. A multi-lane roundabout is an option, but requires additional research to determine feasibility.
- Sunny Slope Road and Grange Avenue intersection – Signalize the intersection with two phase traffic operation. This

intersection is expected to meet warrants for traffic signal control with the 2020 base traffic volumes. Construction should include dedicated left and right turn lanes at all approaches. A roundabout may be an option at this location depending on the exact location of the gas main in the northwest quadrant.

- Moorland Road and College Avenue intersection – Provide a permitted/protected left turn phase on Moorland Road. Construct dedicated thru, left and right turn lanes on College Avenue with permitted/protected left turn phases. A multi-lane roundabout may further improve the operation of this intersection.
- Sunny Slope Road and College Avenue – Construct a dedicated left and right turn lane on Sunny Slope Road.

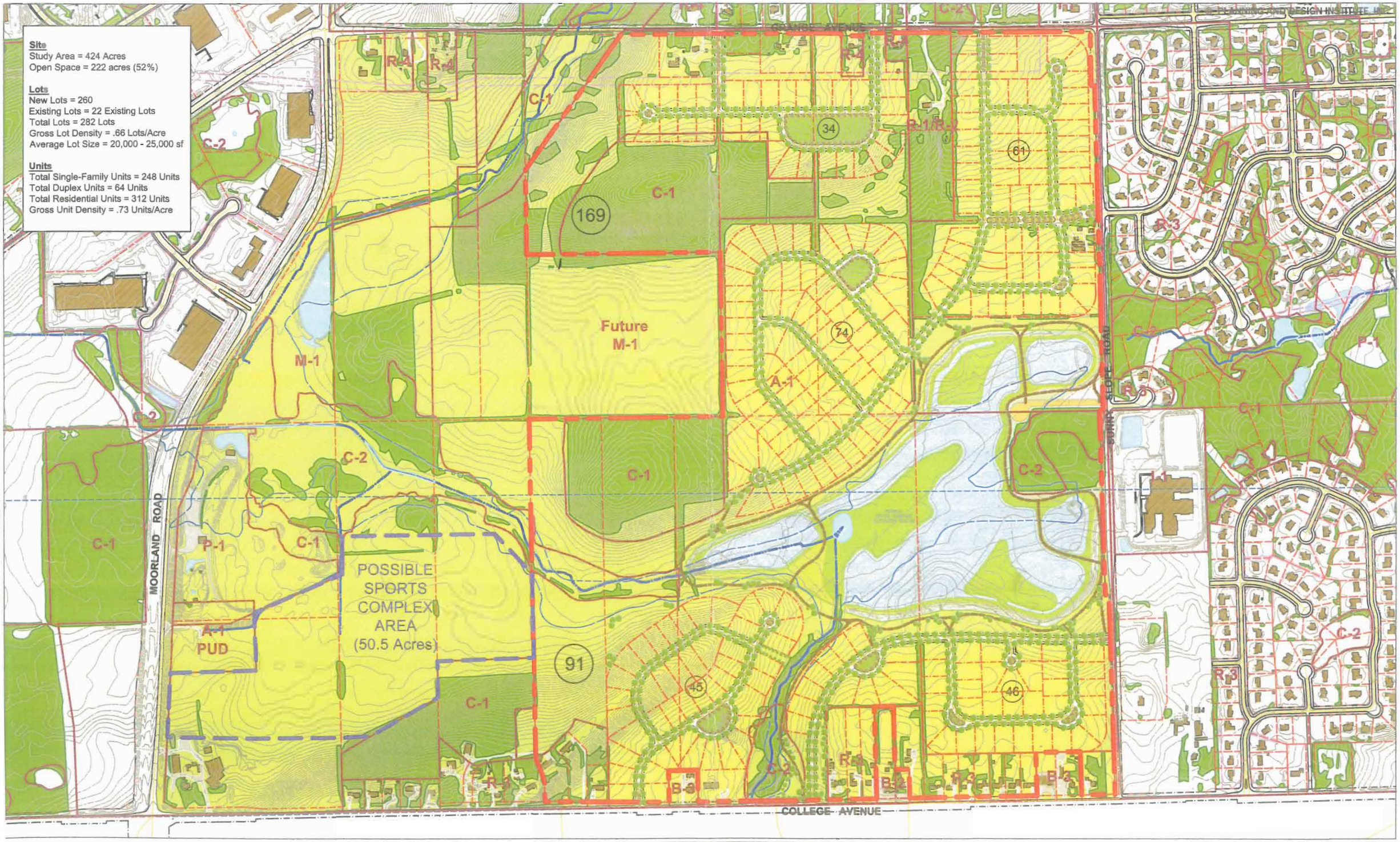
d. Alternative Transportation considerations

- Moorland Road parallels a multi-use asphalt path from Wood Road in Muskego to Rock Ridge Road in New Berlin. Intersection improvements should also provide actuated push button pedestrian crossing phases where applicable.
- The Alternative Transportation Facilities Plan identifies the need for a regional off-road multi-use path to connect Sunny Slope Road with the Moorland Road Multi-use path and proposed pathway network to the west.
- Link neighborhoods A-D with neighborhood pathways.
- As Grange Avenue and College Avenue are reconstructed, provide on-road bike lanes.
- On Sunny Slope Road, provide on-road bike lanes and an off-road pedestrian path.

D. Conclusions

Improvements are recommended for the study area intersections to improve intersection operations to acceptable levels. The implementation of the above-recommended traffic signal and geometric improvements is expected to result in safe and efficient traffic operations through the year 2020 at the study area intersections with the full build-out of Section 35.

As an addendum to this study, two other residential density ratios were analyzed. The impact of these density changes are illustrated in Exhibit 3-5. As the major improvements are necessary due to the 2008 ADT projected out to the year 2020 and the manufacturing trip generation factors are significantly higher, the variation in residential densities does not affect the need for suggested improvements.



PDI PLANNING AND DESIGN INSTITUTE, INC.
241 N. BROADWAY · MILWAUKEE WI 53202 · 414 271 2545

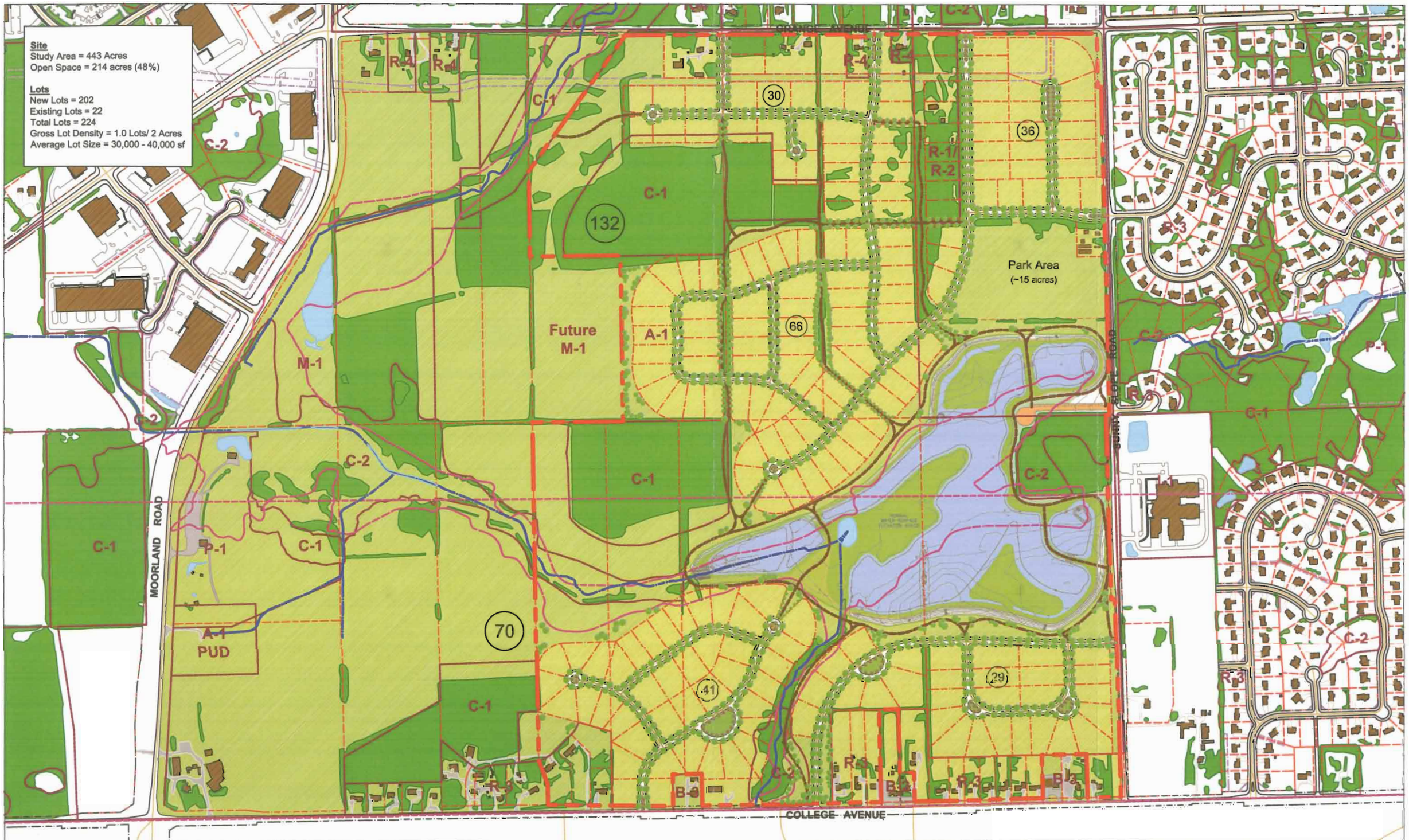
City of New Berlin - "Area G"

• Conceptual Site Layout •

0ft. 600

December 9, 2008

EXHIBIT 1-1



PDI/GRAEF

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City of New Berlin - "Area G"

• Conceptual Site Layout - 2 •

0ft. 600

February 20, 2009

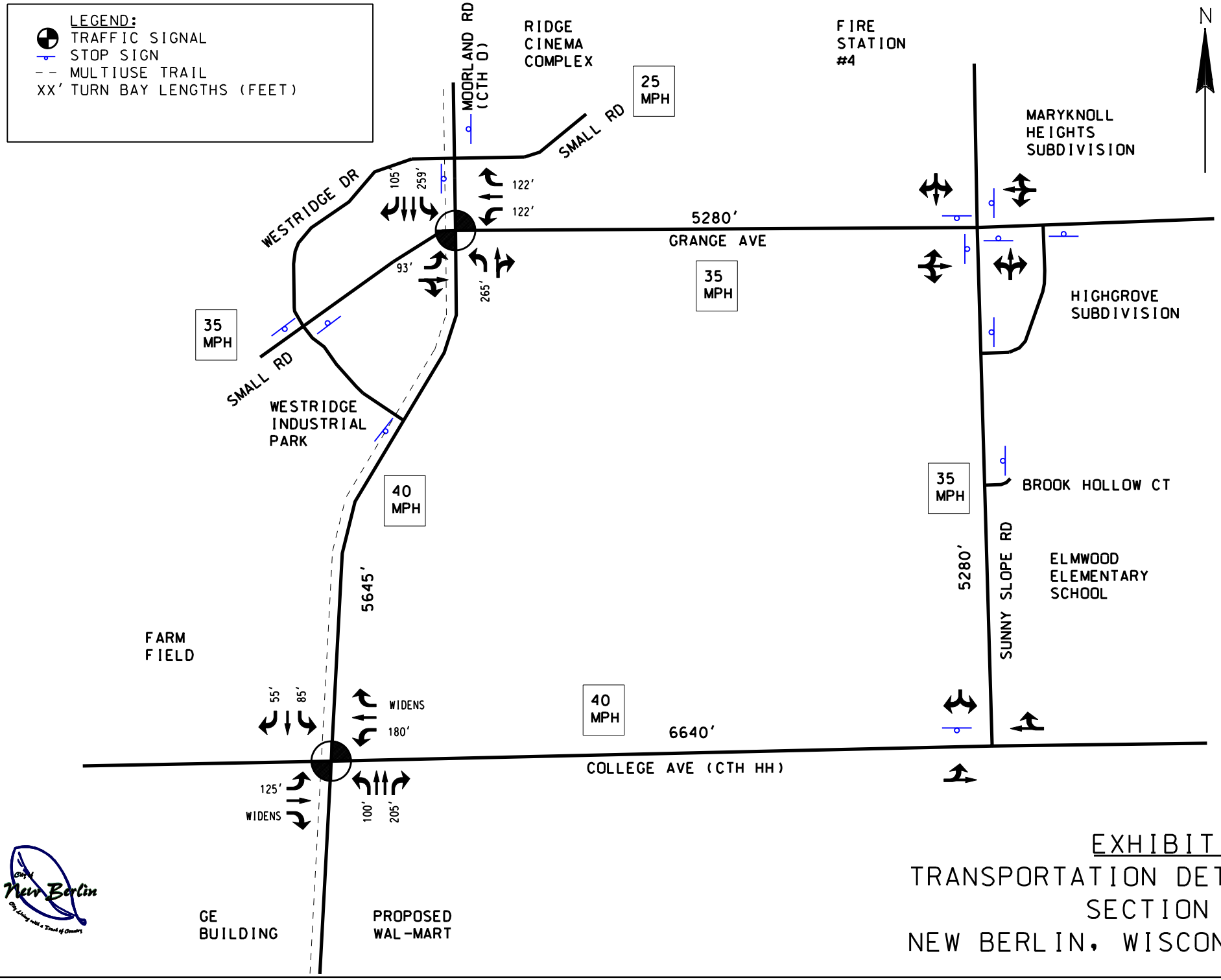


EXHIBIT 2-1
TRANSPORTATION DETAIL
SECTION 35
NEW BERLIN, WISCONSIN

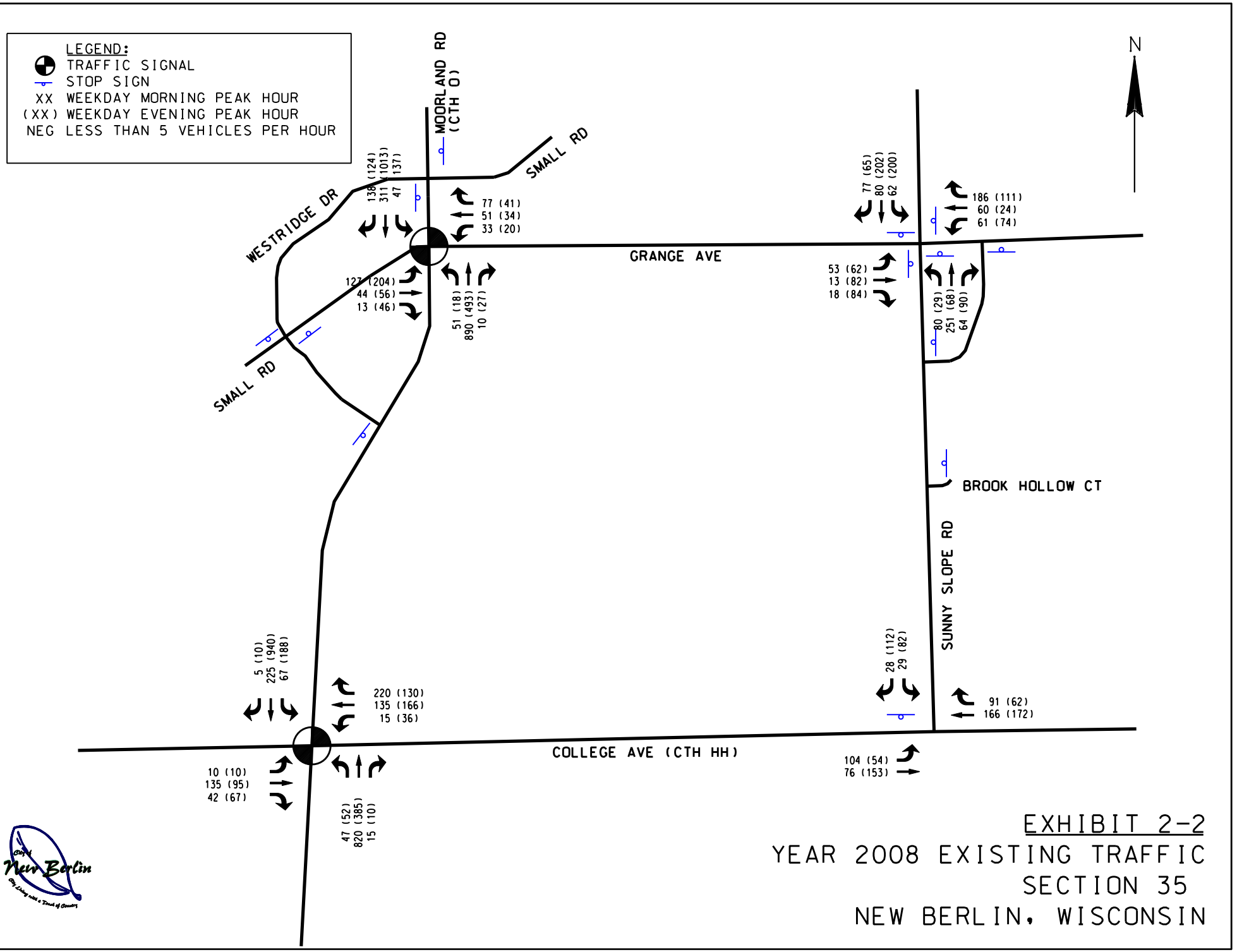


EXHIBIT 2-2
YEAR 2008 EXISTING TRAFFIC
SECTION 35
NEW BERLIN, WISCONSIN

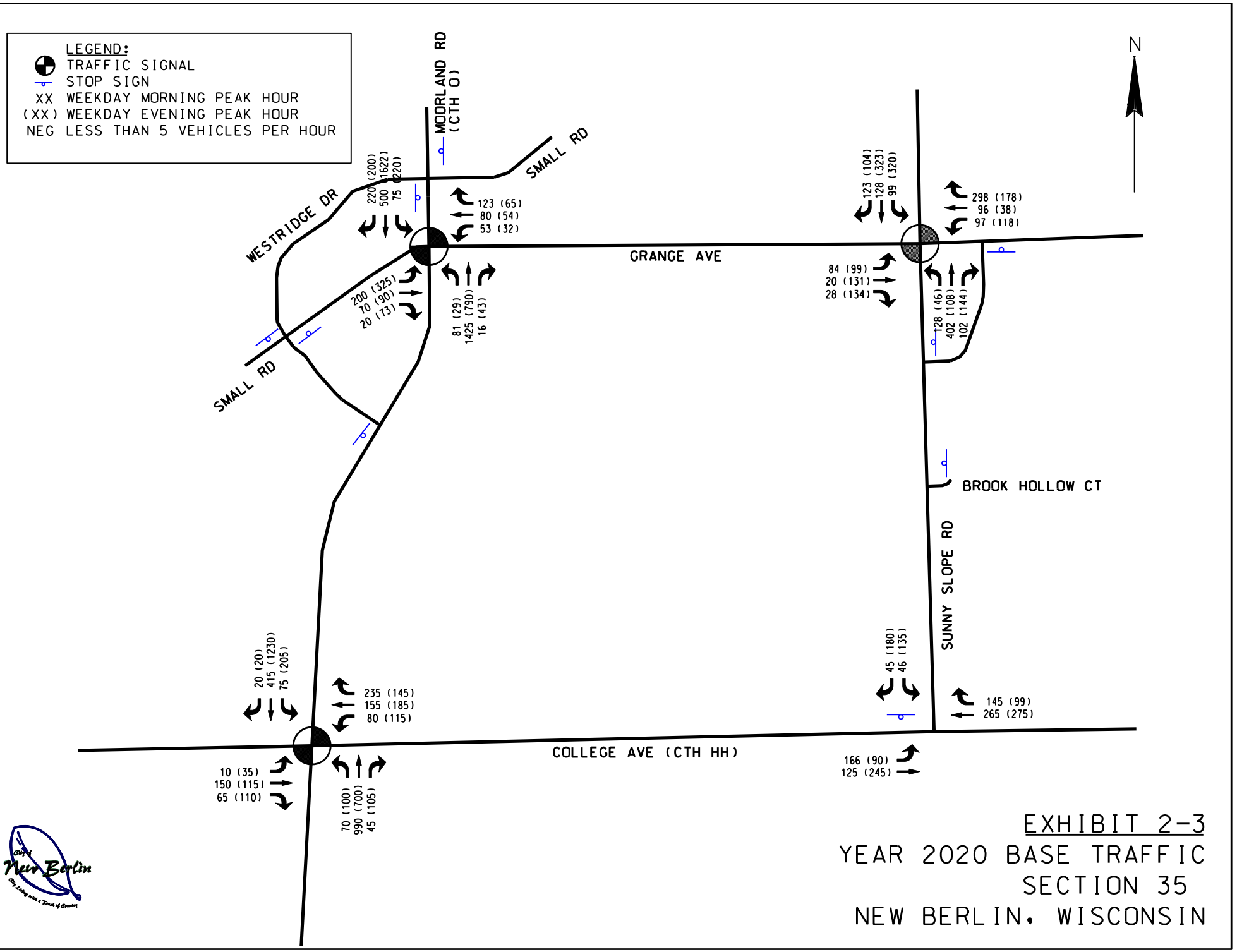


EXHIBIT 2-3

YEAR 2020 BASE TRAFFIC

SECTION 35

NEW BERLIN, WISCONSIN

Trip Generation with Sports Complex

DENSITY **1/0.5**

Land Use	ITE Code	Property Size	Weekday Daily	Weekday AM			Weekday PM			Weekend Midday		
				In	Out	Total	In	Out	Total	In	Out	Total
Manufactoring	140	120	4665	830	63	893	532	472	1004	377	377	754
		Acres	38.88	93%	7%	7.44	53%	47%	8.37	50%	50%	6%
Single Family	210	260	2490	49	146	195	165	97	262	132	112	244
		Lots	9.57	25%	75%	0.75	63%	37%	1.01	54%	46%	0.94
Soccer Complex	488	50.5	1285	13	13	26	256	116	372	248	269	517
		Acres	71.33	50%	50%	1.4	69%	31%	20.67	48%	52%	28%
Total			8440									

Trip Generation without Sports Complex

Land Use	**ITE Code**	**Property Size**	**Weekday Daily**	**Weekday AM**			**Weekday PM**			**Weekend Midday**		
				In	**Out**	**Total**	**In**	**Out**	**Total**	**In**	**Out**	**Total**
Manufactoring	140	120	6610	1176	89	1265	754	669	1423	534	534	1068
		Acres	38.88	93%	7%	7.44	53%	47%	8.37	50%	50%	6%
Single Family	210	260	2490	49	146	195	165	97	262	132	112	244
		Lots	9.57	25%	75%	0.75	63%	37%	1.01	54%	46%	0.94
Total			9100									

EXHIBIT 3-1(1)
TRIP GENERATION
SECTION 35
NEW BERLIN, WISCONSIN

Trip Generation with Sports Complex DENSITY **1/2**

Land Use	ITE Code	Property Size	Weekday Daily	Weekday AM In	Weekday AM Out	Weekday AM Total	Weekday PM In	Weekday PM Out	Weekday PM Total	Weekend Midday In	Weekend Midday Out	Weekend Midday Total
Manufactoring	140	120	4665	830	63	893	532	472	1004	377	377	754
		Acres	38.88	93%	7%	7.44	53%	47%	8.37	50%	50%	6%
Single Family	210	202	1935	38	114	152	129	75	204	103	87	190
		Lots	9.57	25%	75%	0.75	63%	37%	1.01	54%	46%	0.94
Soccer Complex	488	50.5	1285	13	13	26	256	116	372	248	269	517
		Acres	71.33	50%	50%	1.4	69%	31%	20.67	48%	52%	28%
Total			7885									

Trip Generation without Sports Complex

Land Use	**ITE Code**	**Property Size**	**Weekday Daily**	**Weekday AM In**	**Weekday AM Out**	**Weekday AM Total**	**Weekday PM In**	**Weekday PM Out**	**Weekday PM Total**	**Weekend Midday In**	**Weekend Midday Out**	**Weekend Midday Total**
Manufactoring	140	120	6610	1176	89	1265	754	669	1423	534	534	1068
		Acres	38.88	93%	7%	7.44	53%	47%	8.37	50%	50%	6%
Single Family	210	202	1935	38	114	152	129	75	204	103	87	190
		Lots	9.57	25%	75%	0.75	63%	37%	1.01	54%	46%	0.94
Total			8545									

EXHIBIT 3-1(2)
TRIP GENERATION
SECTION 35
NEW BERLIN, WISCONSIN

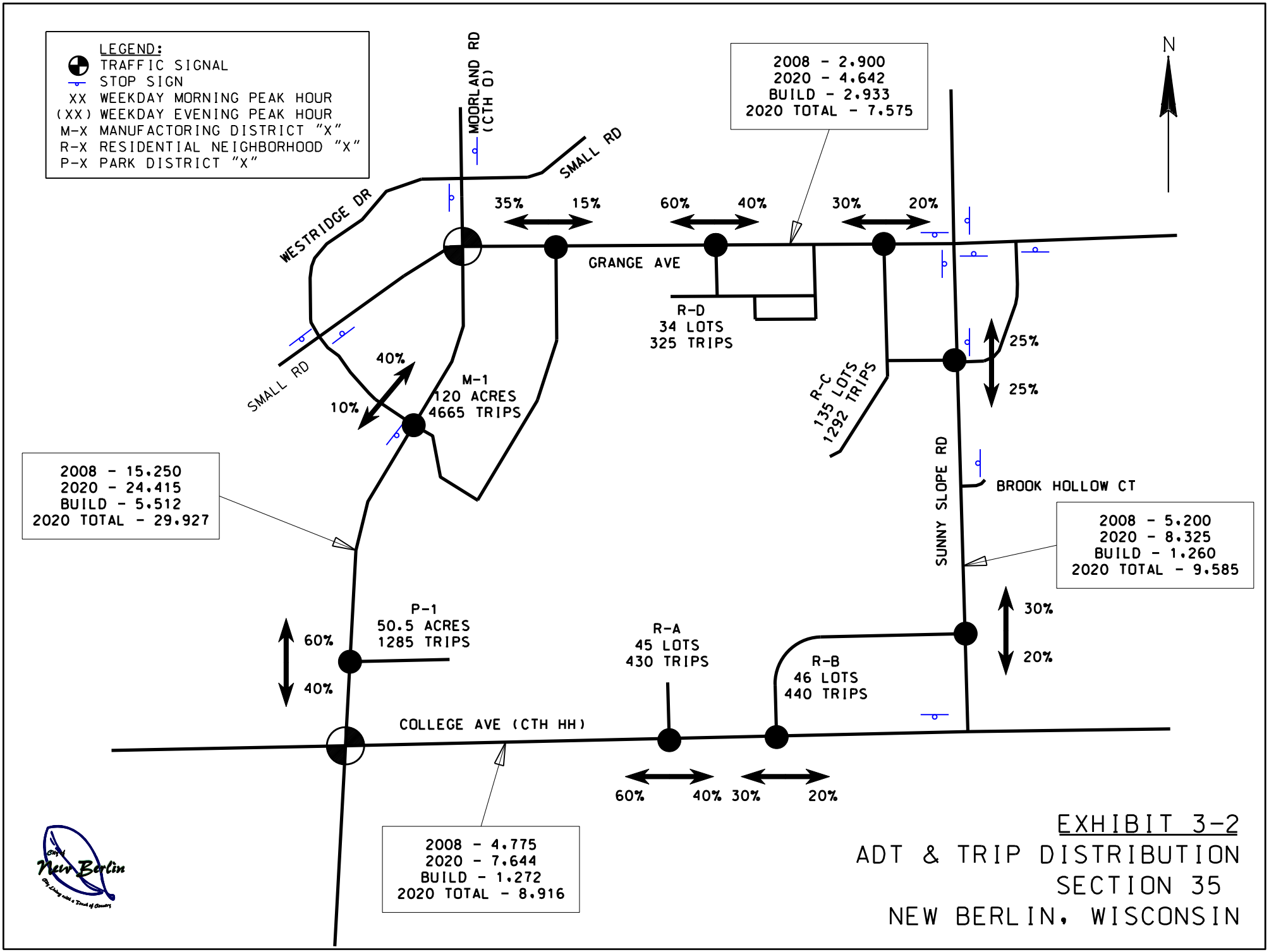
Trip Generation with Sports Complex DENSITY **1/4**

Land Use	ITE Code	Property Size	Weekday Daily	Weekday AM In	Weekday AM Out	Weekday AM Total	Weekday PM In	Weekday PM Out	Weekday PM Total	Weekend Midday In	Weekend Midday Out	Weekend Midday Total
Manufactoring	140	120	4665	830	63	893	532	472	1004	377	377	754
		Acres	38.88	93%	7%	7.44	53%	47%	8.37	50%	50%	6%
Single Family	210	101	967	19	59	78	64	38	102	51	44	95
		Lots	9.57	25%	75%	0.75	63%	37%	1.01	54%	46%	0.94
Soccer Complex	488	50.5	1285	13	13	26	256	116	372	248	269	517
		Acres	71.33	50%	50%	1.4	69%	31%	20.67	48%	52%	28%
Total			6917									

Trip Generation without Sports Complex

Land Use	**ITE Code**	**Property Size**	**Weekday Daily**	**Weekday AM In**	**Weekday AM Out**	**Weekday AM Total**	**Weekday PM In**	**Weekday PM Out**	**Weekday PM Total**	**Weekend Midday In**	**Weekend Midday Out**	**Weekend Midday Total**
Manufactoring	140	120	6610	1176	89	1265	754	669	1423	534	534	1068
		Acres	38.88	93%	7%	7.44	53%	47%	8.37	50%	50%	6%
Single Family	210	101	967	19	59	78	64	38	102	51	44	95
		Lots	9.57	25%	75%	0.75	63%	37%	1.01	54%	46%	0.94
Total			7577									

EXHIBIT 3-1(3)
TRIP GENERATION
SECTION 35
NEW BERLIN, WISCONSIN


LEGEND:
TRAFFIC SIGNAL
STOP SIGN
XX WEEKDAY MORNING PEAK HOUR
(XX) WEEKDAY EVENING PEAK HOUR
M-X MANUFACTORING DISTRICT "X"
R-X RESIDENTIAL NEIGHBORHOOD "X"
P-X PARK DISTRICT "X"
N
MOORLAND RD (CTH O)
SMALL RD
WESTRIDGE DR
SMALL RD
GRANGE AVE
COLLEGE AVE (CTH HH)
SUNNY SLOPE RD
BROOK HOLLOW CT
2008 - 2,900
2020 - 4,642
BUILD - 2,933
2020 TOTAL - 7,575
35%
15%
60%
40%
30%
20%
R-D
34 LOTS
325 TRIPS
M-1
120 ACRES
4665 TRIPS
40%
10%
R-C
135 LOTS
1292 TRIPS
25%
25%
2008 - 15,250
2020 - 24,415
BUILD - 5,512
2020 TOTAL - 29,927
2008 - 5,200
2020 - 8,325
BUILD - 1,260
2020 TOTAL - 9,585
P-1
50.5 ACRES
1285 TRIPS
60%
40%
R-A
45 LOTS
430 TRIPS
R-B
46 LOTS
440 TRIPS
30%
20%
60%
40%
30%
20%
2008 - 4,775
2020 - 7,644
BUILD - 1,272
2020 TOTAL - 8,916
EXHIBIT 3-2
ADT & TRIP DISTRIBUTION
SECTION 35
NEW BERLIN, WISCONSIN

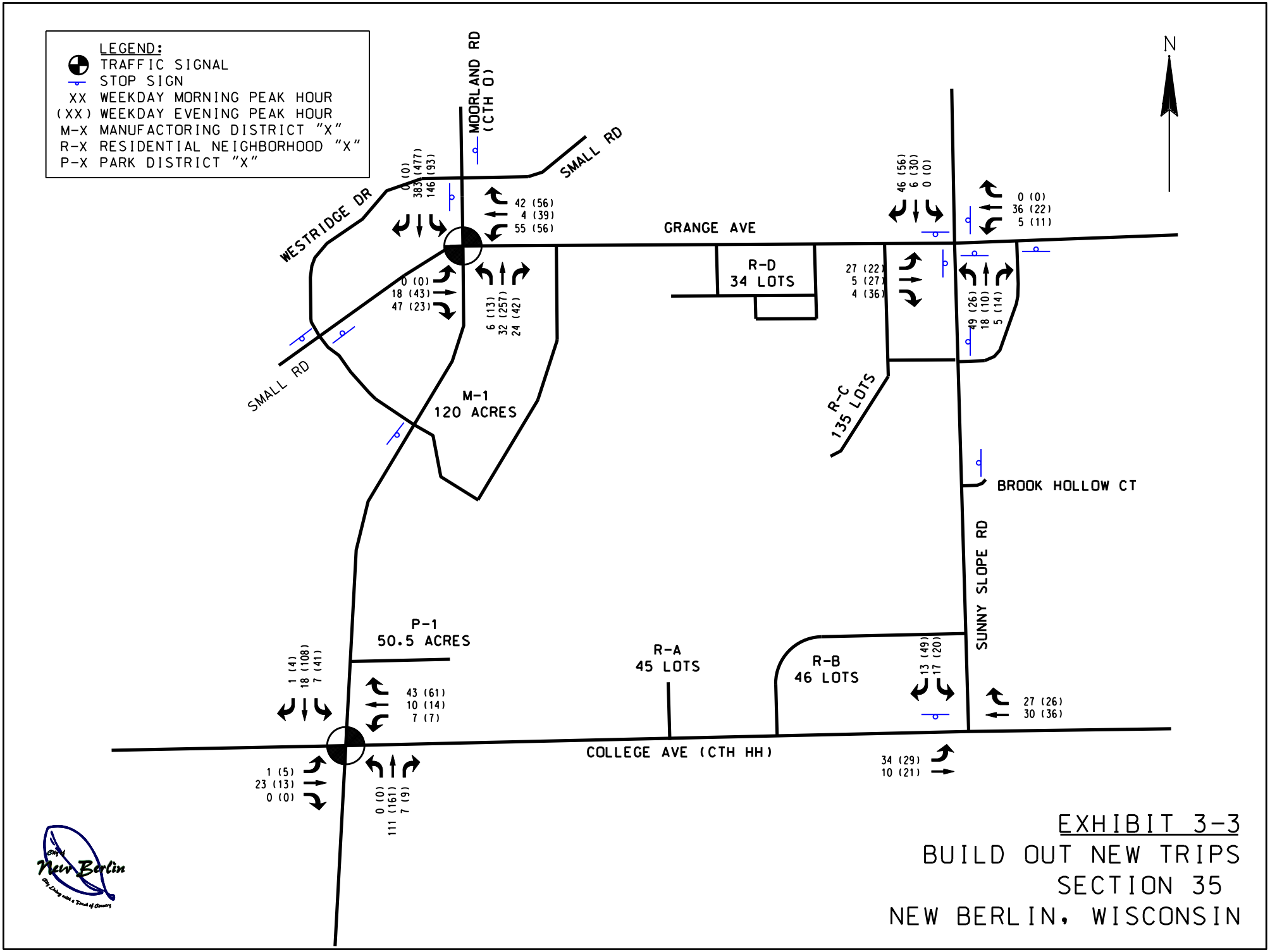


EXHIBIT 3-3
BUILD OUT NEW TRIPS
SECTION 35
NEW BERLIN, WISCONSIN

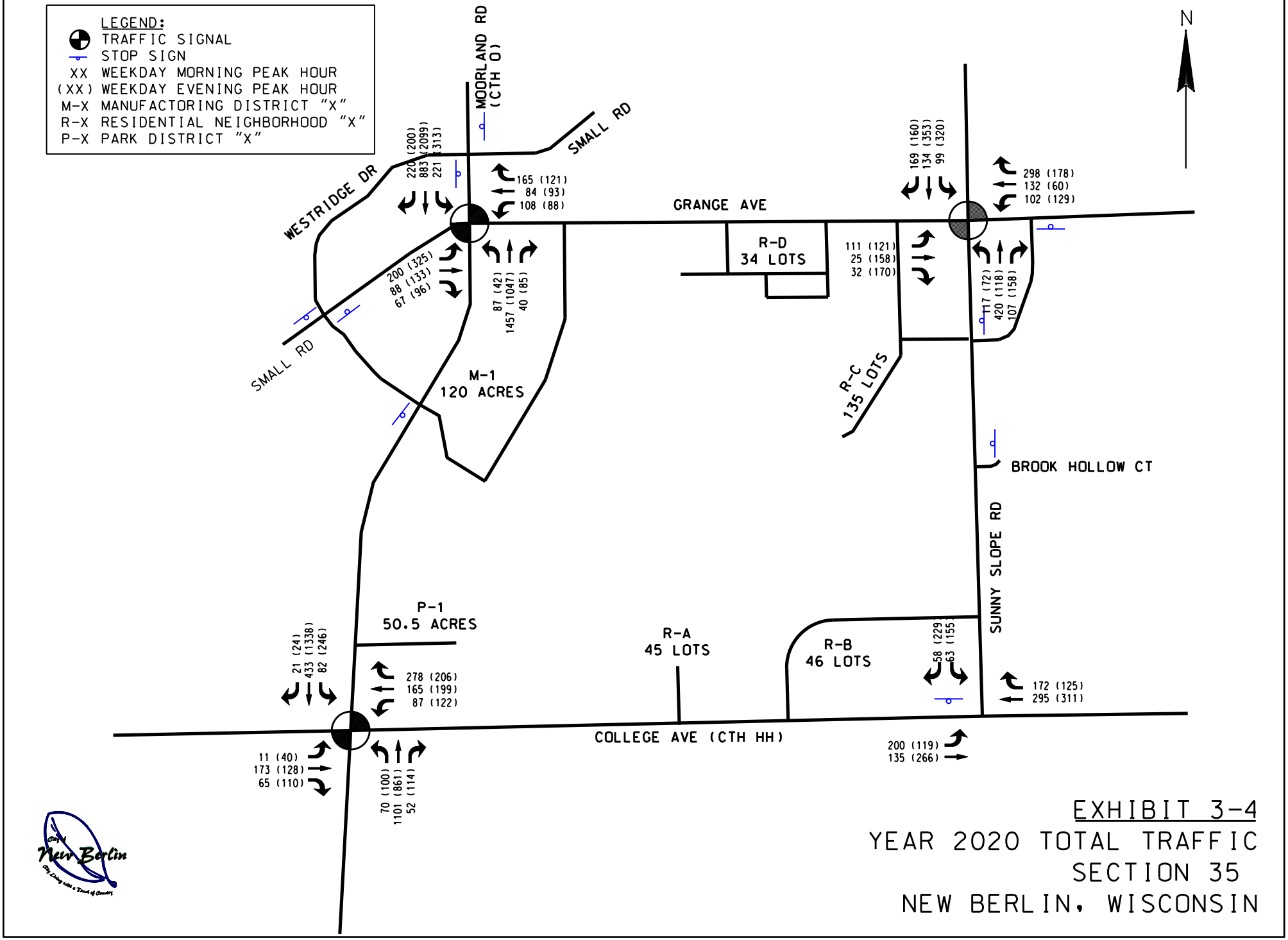
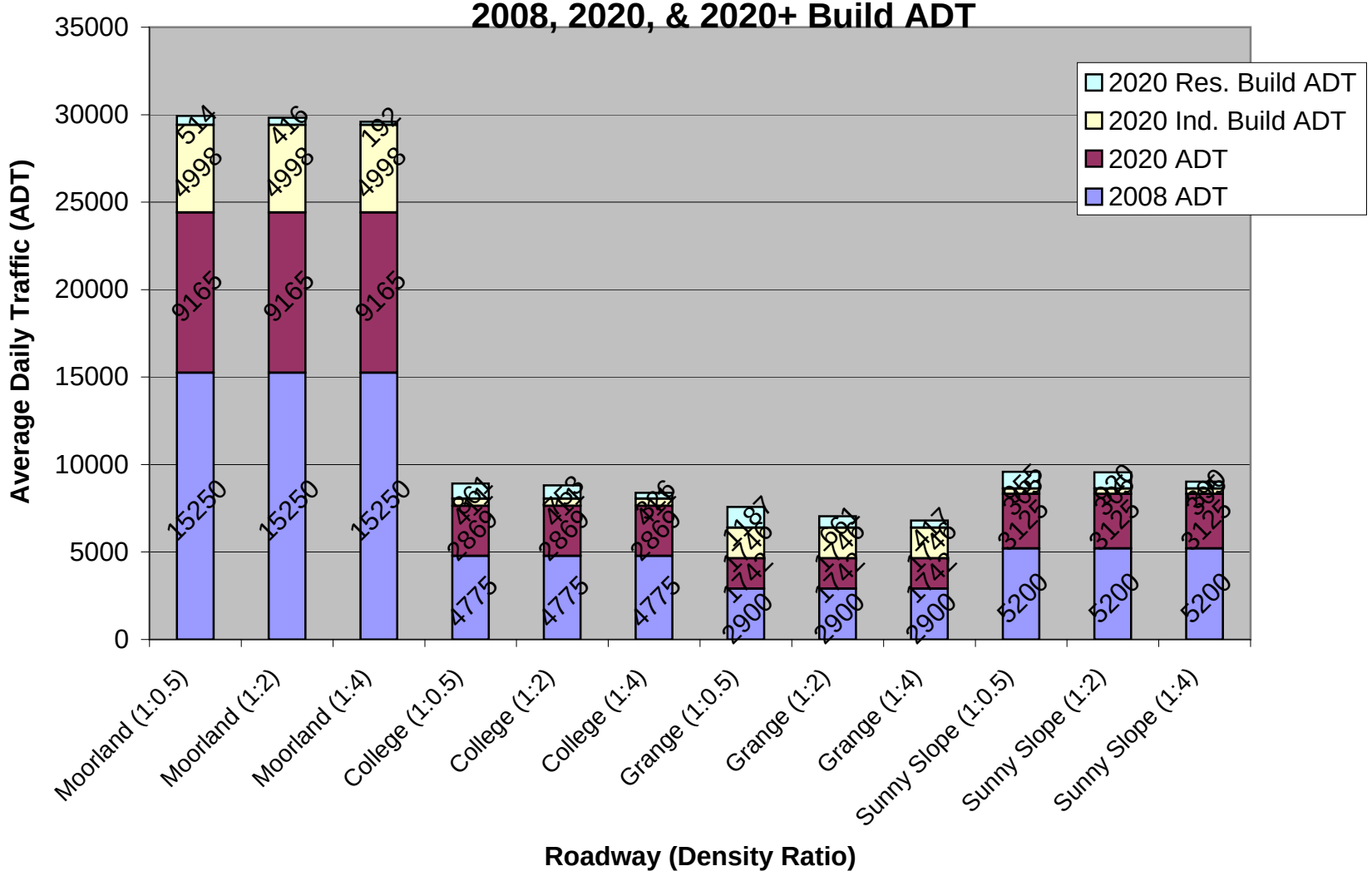


EXHIBIT 3-4
YEAR 2020 TOTAL TRAFFIC
SECTION 35
NEW BERLIN, WISCONSIN

Exhibit 3-5
SECTION 35 CONCEPTUAL SITE TIA
2008, 2020, & 2020+ Build ADT



2020 Recommended Intersection Improvements

(Base 2020 traffic plus build traffic.)

Grange & Sunny Slope

	Configuration	Traffic Control	Peak Hour	Eastbound			Westbound			Northbound			Southbound			Intersection	ICU
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	LOS	LOS
2020 Base No Imp	Shared thru, left & right	Stop Sign	AM	C	C	C	F	F	F	F	F	F	E	E	E	F	D
			PM	F	F	F	E	E	E	E	E	E	F	F	F	F	F
1	Shared thru, left & right	Stop Sign	AM	C	C	C	F	F	F	F	F	F	F	F	F	F	D
			PM	F	F	F	F	F	F	F	F	F	F	F	F	F	G
2	Shared thru & right, designated left	Stop Sign	AM	C	B	B	B	F	F	B	F	F	B	D	D	F	D
			PM	C	E	E	C	C	C	B	D	D	E	F	F	F	C
3	Shared thru, left & right	Signal	AM	-	B	-	-	C	-	-	D	-	-	B	-	C	D
			PM	-	C	-	-	B	-	-	B	-	-	F	-	F	G
4	Shared thru, left & right on Grange, Shared thru & right, dedicated left on Sunny Slope	Signal	AM	-	B	-	-	C	-	B	B		C	A		B	D
			PM	-	C	-	-	B	-	B	A	-	C	B	-	B	D
5	Shared thru & right, dedicated left all ways	Signal	AM	D	A	-	B	B	-	A	B	-	B	A	-	B	D
			PM	B	A	-	B	A	-	B	A	-	C	B	-	B	C
6	Dedicated thru, left & right all ways	Signal	AM	B	A	A	B	B	A	A	A	A	A	A	A	A	B
			PM	B	B	A	B	A	A	A	A	A	B	A	A	A	A
7	Roundabout	Yield	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	D
			PM	-	-	-	-	-	-	-	-	-	-	-	-	-	C

ICU=Intersection Capacity Utilization (A-H)
LOS=Level of Service (A-F)

2020 Recommended Intersection Improvements

(Base 2020 traffic plus build traffic.)

College & Sunny Slope

	Configuration	Traffic Control	Peak Hour	Eastbound		Westbound		Southbound		Intersection	ICU
				EBL	EBT	WBT	WBR	SBL	SBR	LOS	LOS
2020 Base No Imp	Shared left & right on Sunny Slope	Stop Sign	AM	A	A	A	A	C	C	-	A
			PM	A	A	A	A	D	D	-	C
1	Shared left & right on Sunny Slope. Free flow on College	Stop Sign	AM	A	A	A	A	C	C	-	B
			PM	A	A	A	A	F	F	-	D
2	Dedicated left & right on Sunny Slope. Free flow on College	Stop Sign	AM	A	A	A	A	C	C	-	B
			PM	A	A	A	A	D	D	-	B
3	All Way Stop	Stop Sign	AM	B	B	C	C	B	B	B	B
			PM	C	C	C	C	B	B	C	B
4	Roundabout	Yield	AM	-	-	-	-	-	-	-	B
			PM	-	-	-	-	-	-	-	D

2020 Recommended Intersection Improvements

(Base 2020 traffic plus build traffic.)

College & Moorland

	Configuration	Traffic Control	Peak Hour	Eastbound			Westbound			Northbound			Southbound			Intersection	ICU
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	LOS	LOS
2020 Base No Imp	Moorland: 2-Thru, dedicated left & right College: Shared thru & right, dedicated left.	Signal	AM	B	B	--	B	B	--	B	B	A	C	A	A	B	C
			PM	B	B	-	B	B	-	D	B	A	D	B	A	B	D
1	Moorland: 2-Thru, dedicated left & right College: Shared thru & right, dedicated left.	Signal	AM	B	B	--	B	C	--	B	B	A	C	A	A	B	D
			PM	D	D	-	D	D	-	E	A	A	D	B	A	C	E
2	Moorland: 2-Thru, dedicated left & right with pm+pt lefts College: Shared thru & right, dedicated left	Signal	AM	B	C	--	B	B	--	A	C	A	B	B	A	B	D
			PM	D	D	-	E	D	-	C	B	A	C	B	A	C	E
3	Moorland: 2-Thru, dedicated left & right with pm+pt lefts College: Shared thru & right, dedicated left with pm+pt lefts	Signal	AM	B	C	-	B	C	-	A	C	A	B	B	A	C	D
			PM	C	C	-	D	E	-	D	B	A	D	C	A	C	E
4	Moorland: 2-Thru, dedicated left & right with pm+pt lefts College: Dedicated thru, right & left with pm+pt lefts	Signal	AM	B	C	A	B	B	A	A	C	A	B	B	A	B	B
			PM	B	C	A	C	C	A	B	C	A	C	C	A	C	C
5	Roundabout: 3 Lane	Yield	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	C
			PM	-	-	-	-	-	-	-	-	-	-	-	-	-	C

2020 Recommended Intersection Improvements

(Base 2020 traffic plus build traffic.)

Grange & Moorland

	Configuration	Traffic Control	Peak Hour	Eastbound			Westbound			Northbound			Southbound			Intersection	ICU
				EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR	LOS	LOS
2020 Base No Imp	Moorland: 2-Thru, dedicated left & right Grange: Dedicated thru, right & left (EBL is pm+pt)	Signal	AM	C	B	A	C	C	B	A	B	--	D	A	A	B	C
			PM	F	C	C	D	D	B	B	A	--	B	B	A	C	E
1	Moorland: 2-Thru, dedicated left & right Grange: Dedicated thru, right & left (EBL is pm+pt)	Signal	AM	F	D	B	E	D	D	A	A	--	F	A	A	D	D
			PM	F	D	D	E	E	B	E	A	--	F	C	A	D	F
2	Moorland: 2-Thru, dedicated left & right Grange: Dedicated thru, right & left (all lefts are pm+pt)	Signal	AM	E	D	B	D	D	B	A	C	--	E	B	A	C	D
			PM	F	E	B	D	E	B	C	C	--	D	D	A	D	F
3	Moorland: 2-Thru, dedicated right & left Grange: Share thru & right EB with dual left, dedicated thru, left & right WB.(all lefts are pm+p except EB)	Signal	AM	E	C	-	C	D	B	A	C	A	E	B	A	C	D
			PM	F	E	--	E	E	B	C	C	A	C	D	A	D	F
4	Roundabout: 3 Lane	Yield	AM	-	-	-	-	-	-	-	-	-	-	-	-	-	D
			PM	-	-	-	-	-	-	-	-	-	-	-	-	-	F

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	53	13	18	61	60	186	80	251	64	62	80	77
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.971			0.918			0.978			0.952	
Flt Protected		0.969			0.990			0.990			0.986	
Satd. Flow (prot)	0	1753	0	0	1693	0	0	1804	0	0	1749	0
Flt Permitted		0.969			0.990			0.990			0.986	
Satd. Flow (perm)	0	1753	0	0	1693	0	0	1804	0	0	1749	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		5280			5280			5280			5280	
Travel Time (s)		120.0			120.0			120.0			120.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	58	14	20	66	65	202	87	273	70	67	87	84
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	92	0	0	333	0	0	430	0	0	238	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	L NA	Right	Left	L NA	Right	Left	L NA	Right	Left	L NA	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			0			0	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

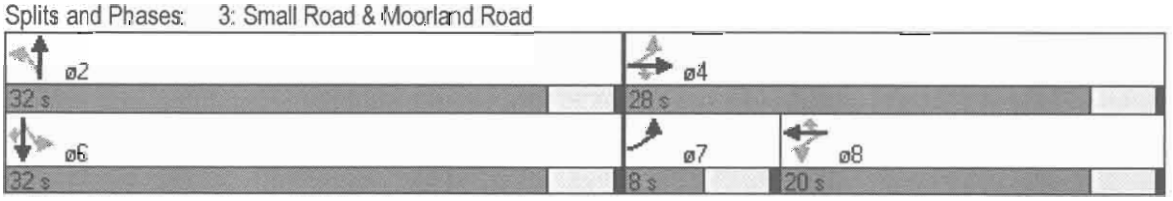
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 50.4%		ICU Level of Service A	
Analysis Period (min) 15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	127	44	13	33	51	77	51	890	10	47	311	138
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	93		0	122		122	265		0	259		105
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	125		25	180		180	180		25	180		180
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.998				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3532	0	1770	3539	1583
Flt Permitted	0.427			0.726			0.548			0.252		
Satd. Flow (perm)	795	1863	1583	1352	1863	1583	1021	3532	0	469	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			14			84		2				150
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		187			5280			879			2720	
Travel Time (s)		3.6			102.9			15.0			46.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	138	48	14	36	55	84	55	967	11	51	338	150
Shared Lane Traffic (%)												
Lane Group Flow (vph)	138	48	14	36	55	84	55	978	0	51	338	150
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phase	7	4	4	8	8	8	2	2		6	6	6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0		20.0	20.0	20.0
Total Split (s)	8.0	28.0	28.0	20.0	20.0	20.0	32.0	32.0	0.0	32.0	32.0	32.0
Total Split (%)	13.3%	46.7%	46.7%	33.3%	33.3%	33.3%	53.3%	53.3%	0.0%	53.3%	53.3%	53.3%
Maximum Green (s)	4.0	24.0	24.0	16.0	16.0	16.0	28.0	28.0		28.0	28.0	28.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	Max	Max		Max	Max	Max
Walk Time (s)		5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)		11.0	11.0	11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	13.0	13.3	13.3	7.0	7.0	7.0	32.1	32.1		32.1	32.1	32.1
Actuated g/C Ratio	0.26	0.26	0.26	0.14	0.14	0.14	0.64	0.64		0.64	0.64	0.64
v/c Ratio	0.49	0.10	0.03	0.19	0.21	0.29	0.08	0.44		0.17	0.15	0.14
Control Delay	20.3	13.5	7.3	21.9	21.5	8.6	6.4	7.5		8.2	5.8	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	20.3	13.5	7.3	21.9	21.5	8.6	6.4	7.5		8.2	5.8	1.8
LOS	C	B	A	C	C	A	A	A		A	A	A
Approach Delay		17.7			15.4			7.4			4.9	
Approach LOS		B			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 50.5			
Natural Cycle: 55			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.49			
Intersection Signal Delay: 8.5		Intersection LOS: A	
Intersection Capacity Utilization 52.0%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Small Road & Moorland Road



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	104	76	166	91	29	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.952		0.935	
Flt Protected		0.972			0.975	
Satd. Flow (prot)	0	1811	1773	0	1698	0
Flt Permitted		0.972			0.975	
Satd. Flow (perm)	0	1811	1773	0	1698	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		6640	2585		5280	
Travel Time (s)		150.9	58.8		120.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	113	83	180	99	32	30
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	196	279	0	62	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

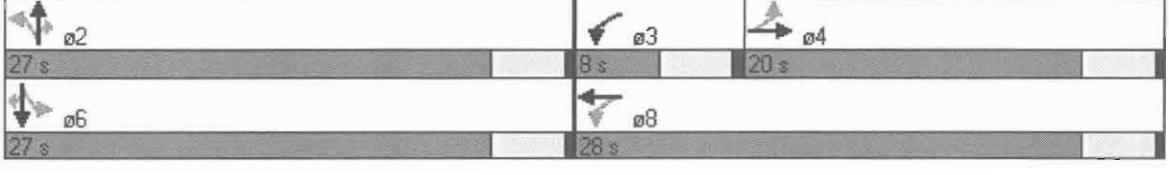
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 37.4%		ICU Level of Service A	
Analysis Period (min) 15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	135	42	15	135	220	47	820	15	67	225	5
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	180		0	100		205	85		55
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	180		25	180		25	180		180	180		180
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.964			0.907				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1796	0	1770	1690	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.533			0.473			0.600			0.251		
Satd. Flow (perm)	993	1796	0	881	1690	0	1118	3539	1583	468	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		29			63				16			5
Link Speed (mph)		30			30			50			50	
Link Distance (ft)		3150			6640			5645			2303	
Travel Time (s)		71.6			150.9			77.0			31.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	147	46	16	147	239	51	891	16	73	245	5
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	193	0	16	386	0	51	891	16	73	245	5
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			pm+pt			Perm		Perm	Perm		Perm
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		3	8		2	2	2	6	6	6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0		8.0	20.0		20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	0.0	8.0	28.0	0.0	27.0	27.0	27.0	27.0	27.0	27.0
Total Split (%)	36.4%	36.4%	0.0%	14.5%	50.9%	0.0%	49.1%	49.1%	49.1%	49.1%	49.1%	49.1%
Maximum Green (s)	16.0	16.0		4.0	24.0		23.0	23.0	23.0	23.0	23.0	23.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	Max
Walk Time (s)	5.0	5.0			5.0		5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0			0		0	0	0	0	0	0
Act Effct Green (s)	12.9	12.9		14.2	14.2		23.3	23.3	23.3	23.3	23.3	23.3
Actuated g/C Ratio	0.28	0.28		0.31	0.31		0.51	0.51	0.51	0.51	0.51	0.51
v/c Ratio	0.04	0.37		0.05	0.68		0.09	0.49	0.02	0.31	0.14	0.01
Control Delay	13.1	13.7		10.0	17.4		8.2	9.6	4.7	13.2	7.4	5.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.1	13.7		10.0	17.4		8.2	9.6	4.7	13.2	7.4	5.8
LOS	B	B		A	B		A	A	A	B	A	A
Approach Delay		13.7			17.1			9.5			8.7	
Approach LOS		B			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 55			
Actuated Cycle Length: 45.6			
Natural Cycle: 55			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.68			
Intersection Signal Delay: 11.4		Intersection LOS: B	
Intersection Capacity Utilization 57.0%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 12: College Avenue & Moorland Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	62	82	84	74	24	111	29	68	90	200	202	65
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.950			0.928			0.935			0.981	
Flt Protected		0.987			0.983			0.992			0.979	
Satd. Flow (prot)	0	1747	0	0	1699	0	0	1728	0	0	1789	0
Flt Permitted		0.987			0.983			0.992			0.979	
Satd. Flow (perm)	0	1747	0	0	1699	0	0	1728	0	0	1789	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		5280			5280			5280			5280	
Travel Time (s)		120.0			120.0			120.0			120.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	67	89	91	80	26	121	32	74	98	217	220	71
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	247	0	0	227	0	0	204	0	0	508	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	L NA	Right	Left	L NA	Right	Left	L NA	Right	Left	L NA	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			0			0	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

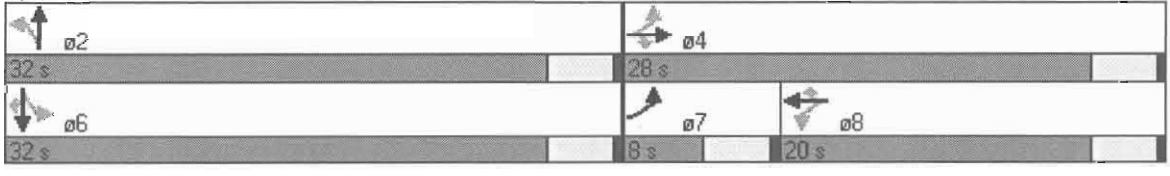
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 64.3%		ICU Level of Service C	
Analysis Period (min) 15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	204	56	46	20	34	41	18	493	27	137	1013	124
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	93		0	122		122	265		0	259		105
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	125		25	180		180	180		25	180		180
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.992				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3511	0	1770	3539	1583
Flt Permitted	0.488			0.952			0.209			0.438		
Satd. Flow (perm)	909	1863	1583	1773	1863	1583	389	3511	0	816	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			46			45		12				135
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		187			5280			879			2720	
Travel Time (s)		3.6			102.9			15.0			46.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	222	61	50	22	37	45	20	536	29	149	1101	135
Shared Lane Traffic (%)												
Lane Group Flow (vph)	222	61	50	22	37	45	20	565	0	149	1101	135
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phase	7	4	4	8	8	8	2	2		6	6	6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0		20.0	20.0	20.0
Total Split (s)	8.0	28.0	28.0	20.0	20.0	20.0	32.0	32.0	0.0	32.0	32.0	32.0
Total Split (%)	13.3%	46.7%	46.7%	33.3%	33.3%	33.3%	53.3%	53.3%	0.0%	53.3%	53.3%	53.3%
Maximum Green (s)	4.0	24.0	24.0	16.0	16.0	16.0	28.0	28.0		28.0	28.0	28.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	Max	Max		Max	Max	Max
Walk Time (s)		5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)		11.0	11.0	11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	11.4	11.4	11.4	6.6	6.6	6.6	31.1	31.1		31.1	31.1	31.1
Actuated g/C Ratio	0.23	0.23	0.23	0.13	0.13	0.13	0.61	0.61		0.61	0.61	0.61
v/c Ratio	0.77	0.14	0.13	0.10	0.15	0.18	0.08	0.26		0.30	0.51	0.13
Control Delay	36.2	14.3	6.3	20.2	20.8	9.6	6.9	5.6		8.1	7.4	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	36.2	14.3	6.3	20.2	20.8	9.6	6.9	5.6		8.1	7.4	1.8
LOS	D	B	A	C	C	A	A	A		A	A	A
Approach Delay		27.7			15.8			5.6			6.9	
Approach LOS		C			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 50.6			
Natural Cycle: 55			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 9.9		Intersection LOS: A	
Intersection Capacity Utilization 59.3%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 3: Small Road & Moorland Road



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	54	153	172	62	82	112
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.964		0.922	
Flt Protected		0.987			0.979	
Satd. Flow (prot)	0	1839	1796	0	1681	0
Flt Permitted		0.987			0.979	
Satd. Flow (perm)	0	1839	1796	0	1681	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		6640	2585		5280	
Travel Time (s)		150.9	58.8		120.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	59	166	187	67	89	122
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	225	254	0	211	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

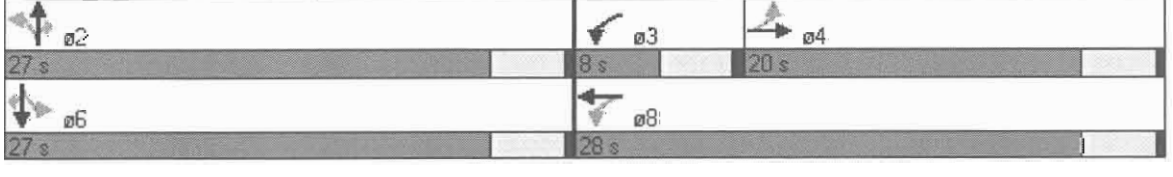
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 45.3%		ICU Level of Service A	
Analysis Period (min) 15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	95	67	36	166	130	52	385	10	188	940	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	180		0	100		205	85		55
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	180		25	180		25	180		180	180		180
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.938			0.934				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1747	0	1770	1740	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.566			0.457			0.211			0.507		
Satd. Flow (perm)	1054	1747	0	851	1740	0	393	3539	1583	944	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		65			91				11			7
Link Speed (mph)		30			30			50			50	
Link Distance (ft)		3150			6640			5645			2303	
Travel Time (s)		71.6			150.9			77.0			31.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	103	73	39	180	141	57	418	11	204	1022	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	176	0	39	321	0	57	418	11	204	1022	11
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			pm+pt			Perm		Perm	Perm		Perm
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		3	8		2	2	2	6	6	6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0		8.0	20.0		20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	0.0	8.0	28.0	0.0	27.0	27.0	27.0	27.0	27.0	27.0
Total Split (%)	36.4%	36.4%	0.0%	14.5%	50.9%	0.0%	49.1%	49.1%	49.1%	49.1%	49.1%	49.1%
Maximum Green (s)	16.0	16.0		4.0	24.0		23.0	23.0	23.0	23.0	23.0	23.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	Max
Walk Time (s)	5.0	5.0			5.0		5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0			0		0	0	0	0	0	0
Act Effct Green (s)	9.8	9.8		12.6	12.6		23.9	23.9	23.9	23.9	23.9	23.9
Actuated g/C Ratio	0.22	0.22		0.28	0.28		0.54	0.54	0.54	0.54	0.54	0.54
v/c Ratio	0.05	0.41		0.12	0.58		0.27	0.22	0.01	0.40	0.54	0.01
Control Delay	15.4	13.6		11.1	13.3		12.5	7.1	4.7	11.3	9.4	5.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.4	13.6		11.1	13.3		12.5	7.1	4.7	11.3	9.4	5.7
LOS	B	B		B	B		B	A	A	B	A	A
Approach Delay		13.7			13.1			7.7			9.7	
Approach LOS		B			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 55			
Actuated Cycle Length: 44.6			
Natural Cycle: 55			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.58			
Intersection Signal Delay: 10.1		Intersection LOS: B	
Intersection Capacity Utilization 62.7%		ICU Level of Service B	
Analysis Period (min) 15			

Splits and Phases: 12: College Avenue & Moorland Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	84	20	28	97	96	298	128	402	102	99	128	123
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.972			0.918			0.978			0.953	
Flt Protected		0.969			0.990			0.990			0.986	
Satd. Flow (prot)	0	1754	0	0	1693	0	0	1804	0	0	1750	0
Flt Permitted		0.969			0.990			0.990			0.986	
Satd. Flow (perm)	0	1754	0	0	1693	0	0	1804	0	0	1750	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		5280			5280			5280			5280	
Travel Time (s)		120.0			120.0			120.0			120.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	91	22	30	105	104	324	139	437	111	108	139	134
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	143	0	0	533	0	0	687	0	0	381	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	L NA	Right	Left	L NA	Right	Left	L NA	Right	Left	L NA	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			0			0	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 76.6%		ICU Level of Service D	
Analysis Period (min) 15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	200	70	20	53	80	123	81	1425	16	75	500	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	93		0	122		122	265		0	259		105
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	125		25	180		180	180		25	180		180
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.998				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3532	0	1770	3539	1583
Flt Permitted	0.459			0.708			0.442			0.129		
Satd. Flow (perm)	855	1863	1583	1319	1863	1583	823	3532	0	240	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			22			50		2				239
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		187			5280			879			2720	
Travel Time (s)		3.6			102.9			15.0			46.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	217	76	22	58	87	134	88	1549	17	82	543	239
Shared Lane Traffic (%)												
Lane Group Flow (vph)	217	76	22	58	87	134	88	1566	0	82	543	239
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phase	7	4	4	8	8	8	2	2		6	6	6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0		20.0	20.0	20.0
Total Split (s)	8.0	28.0	28.0	20.0	20.0	20.0	32.0	32.0	0.0	32.0	32.0	32.0
Total Split (%)	13.3%	46.7%	46.7%	33.3%	33.3%	33.3%	53.3%	53.3%	0.0%	53.3%	53.3%	53.3%
Maximum Green (s)	4.0	24.0	24.0	16.0	16.0	16.0	28.0	28.0		28.0	28.0	28.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	Max	Max		Max	Max	Max
Walk Time (s)		5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)		11.0	11.0	11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	15.1	15.1	15.1	8.7	8.7	8.7	30.9	30.9		30.9	30.9	30.9
Actuated g/C Ratio	0.28	0.28	0.28	0.16	0.16	0.16	0.57	0.57		0.57	0.57	0.57
v/c Ratio	0.70	0.15	0.05	0.27	0.29	0.45	0.19	0.77		0.60	0.27	0.24
Control Delay	27.7	13.3	6.2	22.3	21.6	18.2	8.7	14.6		35.8	7.4	2.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	27.7	13.3	6.2	22.3	21.6	18.2	8.7	14.6		35.8	7.4	2.0
LOS	C	B	A	C	C	B	A	B		D	A	A
Approach Delay		22.7			20.1			14.3			8.6	
Approach LOS		C			C			B			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 54.1			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.77			
Intersection Signal Delay: 14.1		Intersection LOS: B	
Intersection Capacity Utilization 71.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: Small Road & Moorland Road

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	166	125	265	145	46	45
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.952		0.933	
Flt Protected		0.972			0.975	
Satd. Flow (prot)	0	1811	1773	0	1694	0
Flt Permitted		0.972			0.975	
Satd. Flow (perm)	0	1811	1773	0	1694	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		6640	2585		5280	
Travel Time (s)		150.9	58.8		120.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	180	136	288	158	50	49
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	316	446	0	99	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 53.9%		ICU Level of Service A	
Analysis Period (min) 15			

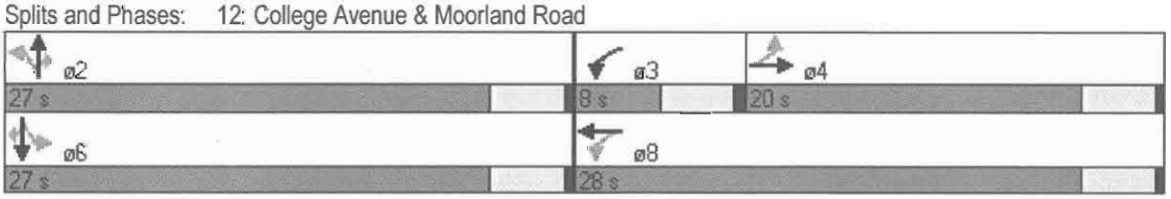
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	10	150	65	80	155	235	70	990	45	75	415	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	180		0	100		205	85		55
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	180		25	180		25	180		180	180		180
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.954			0.910				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1777	0	1770	1695	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.515			0.402			0.491			0.173		
Satd. Flow (perm)	959	1777	0	749	1695	0	915	3539	1583	322	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		40			34				49			22
Link Speed (mph)		30			30			50			50	
Link Distance (ft)		3150			6640			5645			2393	
Travel Time (s)		71.6			150.9			77.0			31.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	163	71	87	168	255	76	1076	49	82	451	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	11	234	0	87	423	0	76	1076	49	82	451	22
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			pm+pt			Perm		Perm	Perm		Perm
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		3	8		2	2	2	6	6	6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0		8.0	20.0		20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	0.0	8.0	28.0	0.0	27.0	27.0	27.0	27.0	27.0	27.0
Total Split (%)	36.4%	36.4%	0.0%	14.5%	50.9%	0.0%	49.1%	49.1%	49.1%	49.1%	49.1%	49.1%
Maximum Green (s)	16.0	16.0		4.0	24.0		23.0	23.0	23.0	23.0	23.0	23.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	Max
Walk Time (s)	5.0	5.0			5.0		5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0			0		0	0	0	0	0	0
Act Effct Green (s)	12.3	12.3		16.7	16.7		23.3	23.3	23.3	23.3	23.3	23.3
Actuated g/C Ratio	0.26	0.26		0.35	0.35		0.48	0.48	0.48	0.48	0.48	0.48
v/c Ratio	0.04	0.48		0.25	0.69		0.17	0.63	0.06	0.53	0.26	0.03
Control Delay	15.2	17.1		11.8	18.4		10.3	12.5	3.8	29.3	9.1	4.8
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.2	17.1		11.8	18.4		10.3	12.5	3.8	29.3	9.1	4.8
LOS	B	B		B	B		B	B	A	C	A	A
Approach Delay		17.0			17.3			12.0			11.9	
Approach LOS		B			B			B			B	

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 48.1
Natural Cycle: 60
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.69
Intersection Signal Delay: 13.5 Intersection LOS: B
Intersection Capacity Utilization 70.8% ICU Level of Service C
Analysis Period (min) 15

Splits and Phases: 12: College Avenue & Moorland Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	99	131	134	118	38	178	46	108	144	320	323	104
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.950			0.928			0.935			0.981	
Flt Protected		0.987			0.983			0.992			0.979	
Satd. Flow (prot)	0	1747	0	0	1699	0	0	1728	0	0	1789	0
Flt Permitted		0.987			0.983			0.992			0.979	
Satd. Flow (perm)	0	1747	0	0	1699	0	0	1728	0	0	1789	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		5280			5280			5280			5280	
Travel Time (s)		120.0			120.0			120.0			120.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	108	142	146	128	41	193	50	117	157	348	351	113
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	396	0	0	362	0	0	324	0	0	812	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	L NA	Right	Left	L NA	Right	Left	L NA	Right	Left	L NA	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			0			0	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

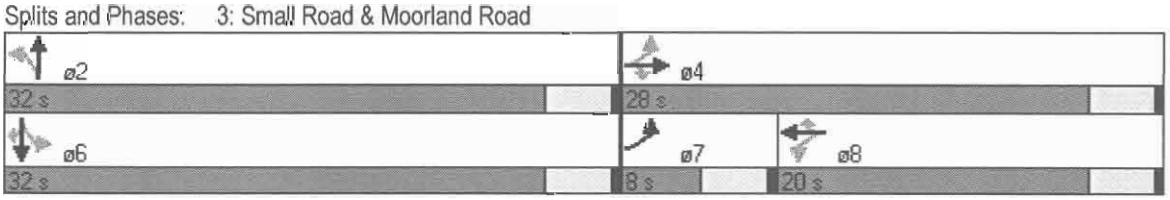
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 96.8%		ICU Level of Service F	
Analysis Period (min) 15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	325	90	73	32	54	65	29	790	43	220	1622	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	93		0	122		122	265		0	259		105
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	125		25	180		180	180		25	180		180
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.992				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3511	0	1770	3539	1583
Flt Permitted	0.428			0.694			0.137			0.272		
Satd. Flow (perm)	797	1863	1583	1293	1863	1583	255	3511	0	507	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			6			71		12				137
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		187			5280			879			2720	
Travel Time (s)		3.6			102.9			15.0			46.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	353	98	79	35	59	71	32	859	47	239	1763	217
Shared Lane Traffic (%)												
Lane Group Flow (vph)	353	98	79	35	59	71	32	906	0	239	1763	217
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phase	7	4	4	8	8	8	2	2		6	6	6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0		20.0	20.0	20.0
Total Split (s)	8.0	28.0	28.0	20.0	20.0	20.0	32.0	32.0	0.0	32.0	32.0	32.0
Total Split (%)	13.3%	46.7%	46.7%	33.3%	33.3%	33.3%	53.3%	53.3%	0.0%	53.3%	53.3%	53.3%
Maximum Green (s)	4.0	24.0	24.0	16.0	16.0	16.0	28.0	28.0		28.0	28.0	28.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	Max	Max		Max	Max	Max
Walk Time (s)		5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)		11.0	11.0	11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	13.4	13.4	13.4	7.1	7.1	7.1	29.2	29.2		29.2	29.2	29.2
Actuated g/C Ratio	0.26	0.26	0.26	0.14	0.14	0.14	0.58	0.58		0.58	0.58	0.58
v/c Ratio	1.20	0.20	0.19	0.19	0.23	0.25	0.22	0.45		0.82	0.86	0.22
Control Delay	140.4	14.4	13.7	22.0	21.6	8.6	11.2	7.6		39.0	17.0	3.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	140.4	14.4	13.7	22.0	21.6	8.6	11.2	7.6		39.0	17.0	3.4
LOS	F	B	B	C	C	A	B	A		D	B	A
Approach Delay		98.2			16.1			7.7			18.1	
Approach LOS		F			B			A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 50.6			
Natural Cycle: 90			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 1.20			
Intersection Signal Delay: 26.5		Intersection LOS: C	
Intersection Capacity Utilization 82.8%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 3: Small Road & Moorland Road



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	90	245	275	99	135	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.964		0.923	
Flt Protected		0.987			0.979	
Satd. Flow (prot)	0	1839	1796	0	1683	0
Flt Permitted		0.987			0.979	
Satd. Flow (perm)	0	1839	1796	0	1683	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		6640	2585		5280	
Travel Time (s)		150.9	58.8		120.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	98	266	299	108	147	196
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	364	407	0	343	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

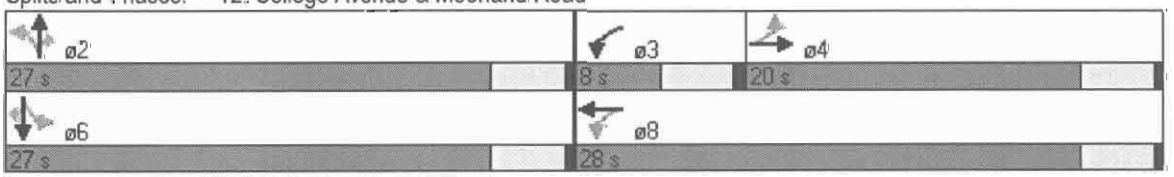
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 66.9%		ICU Level of Service C	
Analysis Period (min) 15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	35	115	110	115	185	145	100	700	105	205	1230	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	180		0	100		205	85		55
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	180		25	180		25	180		180	180		180
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.927			0.934				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1727	0	1770	1740	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.547			0.351			0.171			0.312		
Satd. Flow (perm)	1019	1727	0	654	1740	0	319	3539	1583	581	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		86			91				114			11
Link Speed (mph)		30			30			50			50	
Link Distance (ft)		3150			6640			5645			2303	
Travel Time (s)		71.6			150.9			77.0			31.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	38	125	120	125	201	158	109	761	114	223	1337	22
Shared Lane Traffic (%)												
Lane Group Flow (vph)	38	245	0	125	359	0	109	761	114	223	1337	22
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			pm+pt			Perm		Perm	Perm		Perm
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		3	8		2	2	2	6	6	6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0		8.0	20.0		20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	0.0	8.0	28.0	0.0	27.0	27.0	27.0	27.0	27.0	27.0
Total Split (%)	36.4%	36.4%	0.0%	14.5%	50.9%	0.0%	49.1%	49.1%	49.1%	49.1%	49.1%	49.1%
Maximum Green (s)	16.0	16.0		4.0	24.0		23.0	23.0	23.0	23.0	23.0	23.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	Max
Walk Time (s)	5.0	5.0			5.0		5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0			0		0	0	0	0	0	0
Act Effct Green (s)	10.3	10.3		16.4	16.4		23.3	23.3	23.3	23.3	23.3	23.3
Actuated g/C Ratio	0.22	0.22		0.34	0.34		0.49	0.49	0.49	0.49	0.49	0.49
v/c Ratio	0.17	0.56		0.39	0.55		0.70	0.44	0.14	0.79	0.78	0.03
Control Delay	17.4	16.5		14.0	12.1		44.4	10.3	3.0	39.0	16.6	6.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.4	16.5		14.0	12.1		44.4	10.3	3.0	39.0	16.6	6.7
LOS	B	B		B	B		D	B	A	D	B	A
Approach Delay		16.6			12.6			13.2			19.6	
Approach LOS		B			B			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 55			
Actuated Cycle Length: 47.9			
Natural Cycle: 75			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 16.4		Intersection LOS: B	
Intersection Capacity Utilization 74.8%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 12: College Avenue & Moorland Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	27	5	4	5	36	0	49	18	5	0	6	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.986						0.991			0.882	
Flt Protected		0.963			0.994			0.967				
Satd. Flow (prot)	0	1769	0	0	1852	0	0	1785	0	0	1643	0
Flt Permitted		0.963			0.994			0.967				
Satd. Flow (perm)	0	1769	0	0	1852	0	0	1785	0	0	1643	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		5280			5280			5280			5280	
Travel Time (s)		120.0			120.0			120.0			120.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	29	5	4	5	39	0	53	20	5	0	7	50
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	38	0	0	44	0	0	78	0	0	57	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	L NA	Right	Left	L NA	Right	Left	L NA	Right	Left	L NA	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			0			0	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

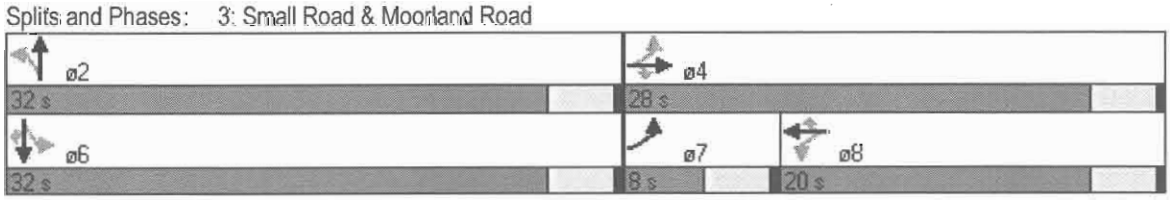
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 25.6%		ICU Level of Service A	
Analysis Period (min) 15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	18	47	55	4	42	6	32	24	146	383	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	93		0	122		122	265		0	259		105
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	125		25	180		180	180		25	180		180
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.936				
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	1863	1863	1583	1770	1863	1583	1770	3313	0	1770	3539	1863
Flt Permitted				0.784			0.508			0.715		
Satd. Flow (perm)	1863	1863	1583	1460	1863	1583	946	3313	0	1332	3539	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			51			46		26				
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		187			5280			879			2720	
Travel Time (s)		3.6			102.9			15.0			46.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	20	51	60	4	46	7	35	26	159	416	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	20	51	60	4	46	7	61	0	159	416	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phase	7	4	4	8	8	8	2	2		6	6	6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0		20.0	20.0	20.0
Total Split (s)	8.0	28.0	28.0	20.0	20.0	20.0	32.0	32.0	0.0	32.0	32.0	32.0
Total Split (%)	13.3%	46.7%	46.7%	33.3%	33.3%	33.3%	53.3%	53.3%	0.0%	53.3%	53.3%	53.3%
Maximum Green (s)	4.0	24.0	24.0	16.0	16.0	16.0	28.0	28.0		28.0	28.0	28.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	Max	Max		Max	Max	Max
Walk Time (s)		5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)		11.0	11.0	11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)		7.3	7.3	7.5	7.5	7.5	36.3	36.3		36.3	36.3	
Actuated g/C Ratio		0.16	0.16	0.16	0.16	0.16	0.78	0.78		0.78	0.78	
v/c Ratio		0.07	0.17	0.25	0.01	0.16	0.01	0.02		0.15	0.15	
Control Delay		15.6	7.3	18.8	14.8	7.3	3.3	2.2		3.5	2.8	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		15.6	7.3	18.8	14.8	7.3	3.3	2.2		3.5	2.8	
LOS		B	A	B	B	A	A	A		A	A	
Approach Delay		9.7			13.9			2.4			3.0	
Approach LOS		A			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 46.3			
Natural Cycle: 50			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.25			
Intersection Signal Delay: 5.0		Intersection LOS: A	
Intersection Capacity Utilization 31.1%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Small Road & Moorland Road



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	34	10	30	27	17	13
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.937		0.941	
Flt Protected		0.963			0.973	
Satd. Flow (prot)	0	1794	1745	0	1706	0
Flt Permitted		0.963			0.973	
Satd. Flow (perm)	0	1794	1745	0	1706	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		6640	2585		5280	
Travel Time (s)		150.9	58.8		120.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	37	11	33	29	18	14
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	48	62	0	32	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 19.1%		ICU Level of Service A	
Analysis Period (min) 15			

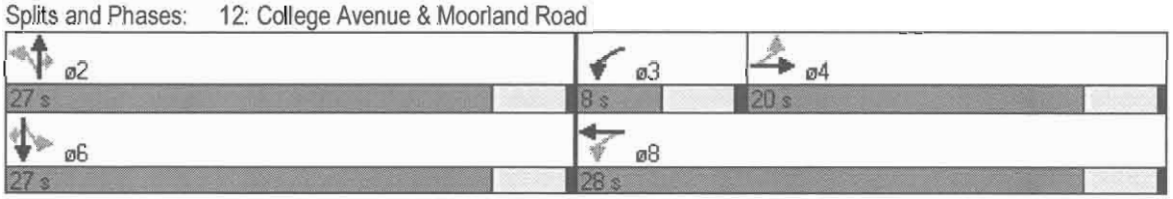
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	1	23	0	7	10	43	0	111	7	7	18	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	180		0	100		205	85		55
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	180		25	180		25	180		180	180		180
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt					0.878				0.850			0.850
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	1863	0	1770	1635	0	1863	3539	1583	1770	3539	1583
Flt Permitted				0.597						0.675		
Satd. Flow (perm)	1863	1863	0	1112	1635	0	1863	3539	1583	1257	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					47				8			1
Link Speed (mph)		30			30			50			50	
Link Distance (ft)		3150			6640			5645			2303	
Travel Time (s)		71.6			150.9			77.0			31.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	1	25	0	8	11	47	0	121	8	8	20	1
Shared Lane Traffic (%)												
Lane Group Flow (vph)	1	25	0	8	58	0	0	121	8	8	20	1
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			pm+pt			Perm		Perm	Perm		Perm
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		3	8		2	2	2	6	6	6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0		8.0	20.0		20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	0.0	8.0	28.0	0.0	27.0	27.0	27.0	27.0	27.0	27.0
Total Split (%)	36.4%	36.4%	0.0%	14.5%	50.9%	0.0%	49.1%	49.1%	49.1%	49.1%	49.1%	49.1%
Maximum Green (s)	16.0	16.0		4.0	24.0		23.0	23.0	23.0	23.0	23.0	23.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	Max
Walk Time (s)	5.0	5.0			5.0		5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0			0		0	0	0	0	0	0
Act Effct Green (s)	6.1	6.1		6.6	7.6			35.4	35.4	35.4	35.4	35.4
Actuated g/C Ratio	0.14	0.14		0.15	0.18			0.83	0.83	0.83	0.83	0.83
v/c Ratio	0.00	0.09		0.03	0.18			0.04	0.01	0.01	0.01	0.00
Control Delay	16.0	16.9		13.0	7.4			3.3	3.3	4.3	4.0	4.0
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Delay	16.0	16.9		13.0	7.4			3.3	3.3	4.3	4.0	4.0
LOS	B	B		B	A			A	A	A	A	A
Approach Delay		16.9			8.0			3.3			4.1	
Approach LOS		B			A			A			A	

Intersection Summary

Area Type: Other
Cycle Length: 55
Actuated Cycle Length: 42.7
Natural Cycle: 50
Control Type: Semi Act-Uncoord
Maximum v/c Ratio: 0.18
Intersection Signal Delay: 6.1 Intersection LOS: A
Intersection Capacity Utilization 20.0% ICU Level of Service A
Analysis Period (min) 15

Splits and Phases: 12: College Avenue & Moorland Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	22	27	36	11	22	0	26	10	14	0	30	56
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.943						0.962			0.912	
Flt Protected		0.987			0.984			0.975				
Satd. Flow (prot)	0	1734	0	0	1833	0	0	1747	0	0	1699	0
Flt Permitted		0.987			0.984			0.975				
Satd. Flow (perm)	0	1734	0	0	1833	0	0	1747	0	0	1699	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		5280			5280			5280			5280	
Travel Time (s)		120.0			120.0			120.0			120.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	24	29	39	12	24	0	28	11	15	0	33	61
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	92	0	0	36	0	0	54	0	0	94	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	L NA	Right	Left	L NA	Right	Left	L NA	Right	Left	L NA	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			0			0	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

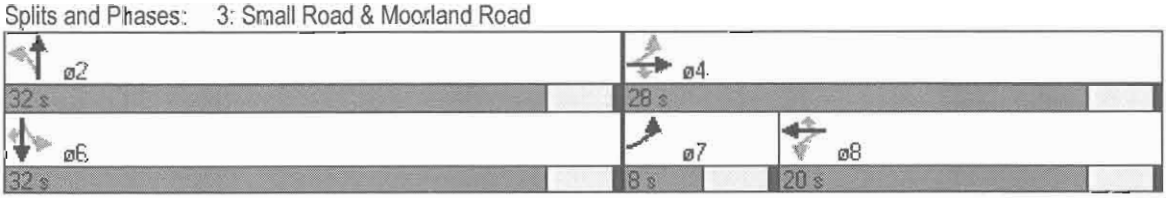
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 22.0%		ICU Level of Service A	
Analysis Period (min) 15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	43	23	56	39	56	13	257	42	93	477	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	93		0	122		122	265		0	259		105
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	125		25	180		180	180		25	180		180
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.979				
Flt Protected				0.950			0.950			0.950		
Satd. Flow (prot)	1863	1863	1583	1770	1863	1583	1770	3465	0	1770	3539	1863
Flt Permitted				0.726			0.461			0.555		
Satd. Flow (perm)	1863	1863	1583	1352	1863	1583	859	3465	0	1034	3539	1863
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			25			61		41				
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		187			5280			879			2720	
Travel Time (s)		3.6			102.9			15.0			46.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	47	25	61	42	61	14	279	46	101	518	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	47	25	61	42	61	14	325	0	101	518	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phase	7	4	4	8	8	8	2	2		6	6	6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0		20.0	20.0	20.0
Total Split (s)	8.0	28.0	28.0	20.0	20.0	20.0	32.0	32.0	0.0	32.0	32.0	32.0
Total Split (%)	13.3%	46.7%	46.7%	33.3%	33.3%	33.3%	53.3%	53.3%	0.0%	53.3%	53.3%	53.3%
Maximum Green (s)	4.0	24.0	24.0	16.0	16.0	16.0	28.0	28.0		28.0	28.0	28.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	Max	Max		Max	Max	Max
Walk Time (s)		5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)		11.0	11.0	11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)		7.6	7.6	7.6	7.6	7.6	34.7	34.7		34.7	34.7	
Actuated g/C Ratio		0.16	0.16	0.16	0.16	0.16	0.73	0.73		0.73	0.73	
v/c Ratio		0.16	0.09	0.28	0.14	0.20	0.02	0.13		0.13	0.20	
Control Delay		16.9	8.1	19.7	16.6	7.1	3.5	2.8		4.0	3.3	
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay		16.9	8.1	19.7	16.6	7.1	3.5	2.8		4.0	3.3	
LOS		B	A	B	B	A	A	A		A	A	
Approach Delay		13.8			14.2			2.8			3.4	
Approach LOS		B			B			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 47.7			
Natural Cycle: 50			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.28			
Intersection Signal Delay: 5.4		Intersection LOS: A	
Intersection Capacity Utilization 36.3%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 3: Small Road & Moorland Road



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	29	21	36	26	20	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.944		0.905	
Flt Protected		0.972			0.986	
Satd. Flow (prot)	0	1811	1758	0	1662	0
Flt Permitted		0.972			0.986	
Satd. Flow (perm)	0	1811	1758	0	1662	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		6640	2585		5280	
Travel Time (s)		150.9	58.8		120.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	32	23	39	28	22	53
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	55	67	0	75	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

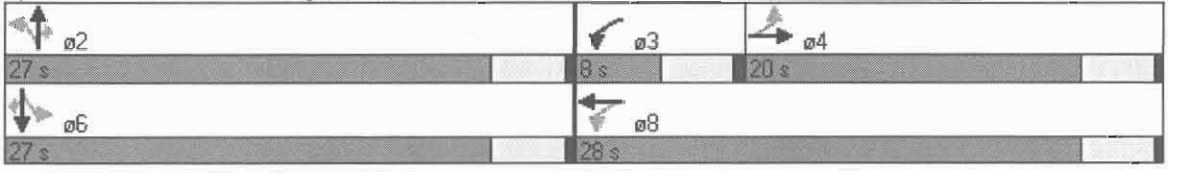
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 20.2%		ICU Level of Service A	
Analysis Period (min) 15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	5	13	0	7	14	61	0	161	9	41	108	4
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	180		0	100		205	85		55
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	180		25	180		25	180		180	180		180
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt					0.878				0.850			0.850
Flt Protected	0.950			0.950						0.950		
Satd. Flow (prot)	1770	1863	0	1770	1635	0	1863	3539	1583	1770	3539	1583
Flt Permitted				0.513						0.641		
Satd. Flow (perm)	1863	1863	0	956	1635	0	1863	3539	1583	1194	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					66				10			4
Link Speed (mph)		30			30			50			50	
Link Distance (ft)		3150			6640			5645			2303	
Travel Time (s)		71.6			150.9			77.0			31.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	5	14	0	8	15	66	0	175	10	45	117	4
Shared Lane Traffic (%)												
Lane Group Flow (vph)	5	14	0	8	81	0	0	175	10	45	117	4
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			pm+pt			Perm		Perm	Perm		Perm
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		3	8		2	2	2	6	6	6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0		8.0	20.0		20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	0.0	8.0	28.0	0.0	27.0	27.0	27.0	27.0	27.0	27.0
Total Split (%)	36.4%	36.4%	0.0%	14.5%	50.9%	0.0%	49.1%	49.1%	49.1%	49.1%	49.1%	49.1%
Maximum Green (s)	16.0	16.0		4.0	24.0		23.0	23.0	23.0	23.0	23.0	23.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	Max
Walk Time (s)	5.0	5.0			5.0		5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0			0		0	0	0	0	0	0
Act Effct Green (s)	6.1	6.1		7.0	7.6			33.4	33.4	33.4	33.4	33.4
Actuated g/C Ratio	0.14	0.14		0.16	0.17			0.77	0.77	0.77	0.77	0.77
v/c Ratio	0.02	0.05		0.03	0.24			0.06	0.01	0.05	0.04	0.00
Control Delay	16.2	16.7		12.9	7.4			3.6	3.1	4.3	3.7	3.5
Queue Delay	0.0	0.0		0.0	0.0			0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	16.7		12.9	7.4			3.6	3.1	4.3	3.7	3.5
LOS	B	B		B	A			A	A	A	A	A
Approach Delay		16.6			7.9			3.6			3.9	
Approach LOS		B			A			A			A	

Intersection Summary			
Area Type:	Other		
Cycle Length: 55			
Actuated Cycle Length: 43.5			
Natural Cycle: 50			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.24			
Intersection Signal Delay: 5.1		Intersection LOS: A	
Intersection Capacity Utilization 23.6%		ICU Level of Service A	
Analysis Period (min) 15			

Splits and Phases: 12: College Avenue & Moorland Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	111	25	32	102	132	298	117	420	107	99	134	169
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.974			0.924			0.978			0.943	
Flt Protected		0.968			0.990			0.991			0.988	
Satd. Flow (prot)	0	1756	0	0	1704	0	0	1805	0	0	1735	0
Flt Permitted		0.968			0.990			0.991			0.988	
Satd. Flow (perm)	0	1756	0	0	1704	0	0	1805	0	0	1735	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		5280			5280			5280			5280	
Travel Time (s)		120.0			120.0			120.0			120.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	121	27	35	111	143	324	127	457	116	108	146	184
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	183	0	0	578	0	0	700	0	0	438	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	L NA	Right	Left	L NA	Right	Left	L NA	Right	Left	L NA	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			0			0	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

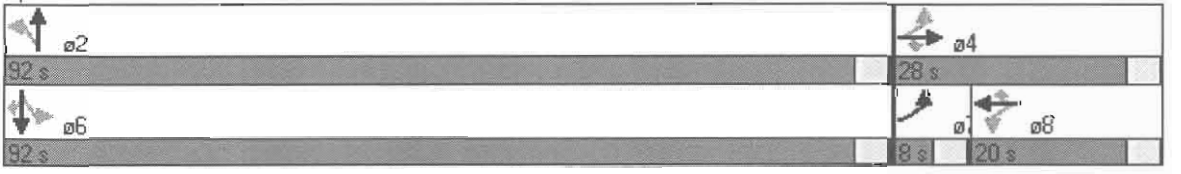
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 79.9%		ICU Level of Service D	
Analysis Period (min) 15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	200	88	67	108	84	165	87	1457	40	221	883	220
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	93		0	122		122	265		0	259		105
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	125		25	180		180	180		25	180		180
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.996				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3525	0	1770	3539	1583
Flt Permitted	0.484			0.695			0.272			0.112		
Satd. Flow (perm)	902	1863	1583	1295	1863	1583	507	3525	0	209	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			73			62		6				239
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		187			5280			879			2720	
Travel Time (s)		3.6			102.9			15.0			46.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	217	96	73	117	91	179	95	1584	43	240	960	239
Shared Lane Traffic (%)												
Lane Group Flow (vph)	217	96	73	117	91	179	95	1627	0	240	960	239
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phase	7	4	4	8	8	8	2	2		6	6	6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0		20.0	20.0	20.0
Total Split (s)	8.0	28.0	28.0	20.0	20.0	20.0	92.0	92.0	0.0	92.0	92.0	92.0
Total Split (%)	6.7%	23.3%	23.3%	16.7%	16.7%	16.7%	76.7%	76.7%	0.0%	76.7%	76.7%	76.7%
Maximum Green (s)	4.0	24.0	24.0	16.0	16.0	16.0	88.0	88.0		88.0	88.0	88.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	Max	Max		Max	Max	Max
Walk Time (s)		5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)		11.0	11.0	11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	22.1	22.1	22.1	14.1	14.1	14.1	88.1	88.1		88.1	88.1	88.1
Actuated g/C Ratio	0.19	0.19	0.19	0.12	0.12	0.12	0.75	0.75		0.75	0.75	0.75
v/c Ratio	1.10	0.28	0.21	0.75	0.41	0.73	0.25	0.62		1.54	0.36	0.19
Control Delay	135.6	43.2	10.6	79.3	53.8	50.6	7.0	8.6		293.9	5.9	0.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	135.6	43.2	10.6	79.3	53.8	50.6	7.0	8.6		293.9	5.9	0.9
LOS	F	D	B	E	D	D	A	A		F	A	A
Approach Delay		89.0			60.0			8.5			53.1	
Approach LOS		F			E			A			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 118.2			
Natural Cycle: 120			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 1.54			
Intersection Signal Delay: 37.8		Intersection LOS: D	
Intersection Capacity Utilization 81.5%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: Small Road & Moorland Road



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	200	135	295	172	63	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.950		0.935	
Flt Protected		0.971			0.975	
Satd. Flow (prot)	0	1809	1770	0	1698	0
Flt Permitted		0.971			0.975	
Satd. Flow (perm)	0	1809	1770	0	1698	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		6640	2585		5280	
Travel Time (s)		150.9	58.8		120.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	217	147	321	187	68	63
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	364	508	0	131	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

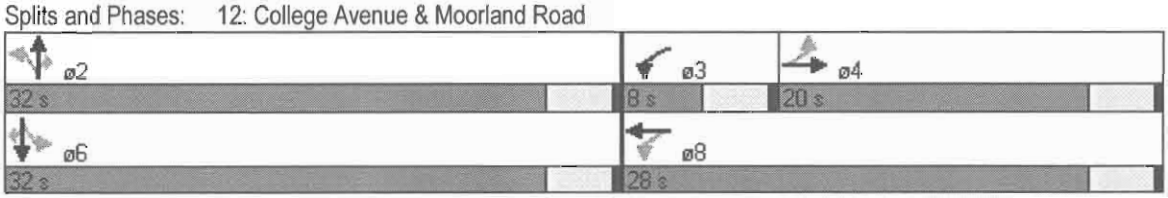
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 61.2%		ICU Level of Service B	
Analysis Period (min) 15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	11	173	65	87	165	278	70	1101	52	82	433	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	180		0	100		205	85		55
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	180		25	180		25	180		180	180		180
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.959			0.906				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1786	0	1770	1688	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.411			0.347			0.473			0.142		
Satd. Flow (perm)	766	1786	0	646	1688	0	881	3539	1583	265	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		31			34				57			23
Link Speed (mph)		30			30			50			50	
Link Distance (ft)		3150			6640			5645			2303	
Travel Time (s)		71.6			150.9			77.0			31.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	12	188	71	95	179	302	76	1197	57	89	471	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	12	259	0	95	481	0	76	1197	57	89	471	23
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			pm+pt			Perm		Perm	Perm		Perm
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		3	8		2	2	2	6	6	6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0		8.0	20.0		20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	0.0	8.0	28.0	0.0	32.0	32.0	32.0	32.0	32.0	32.0
Total Split (%)	33.3%	33.3%	0.0%	13.3%	46.7%	0.0%	53.3%	53.3%	53.3%	53.3%	53.3%	53.3%
Maximum Green (s)	16.0	16.0		4.0	24.0		28.0	28.0	28.0	28.0	28.0	28.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	Max
Walk Time (s)	5.0	5.0			5.0		5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0			0		0	0	0	0	0	0
Act Effct Green (s)	13.3	13.3		19.5	19.5		28.2	28.2	28.2	28.2	28.2	28.2
Actuated g/C Ratio	0.24	0.24		0.35	0.35		0.51	0.51	0.51	0.51	0.51	0.51
v/c Ratio	0.07	0.58		0.31	0.79		0.17	0.67	0.07	0.66	0.26	0.03
Control Delay	17.7	22.6		14.6	25.0		10.2	13.5	3.3	43.0	9.2	4.3
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.7	22.6		14.6	25.0		10.2	13.5	3.3	43.0	9.2	4.3
LOS	B	C		B	C		B	B	A	D	A	A
Approach Delay		22.4			23.3			12.9			14.2	
Approach LOS		C			C			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 60			
Actuated Cycle Length: 55.7			
Natural Cycle: 60			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.79			
Intersection Signal Delay: 16.3		Intersection LOS: B	
Intersection Capacity Utilization 77.4%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 12: College Avenue & Moorland Road



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Volume (vph)	121	158	170	129	60	178	72	118	158	320	353	160
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.949			0.935			0.939			0.974	
Flt Protected		0.987			0.983			0.990			0.981	
Satd. Flow (prot)	0	1745	0	0	1712	0	0	1732	0	0	1780	0
Flt Permitted		0.987			0.983			0.990			0.981	
Satd. Flow (perm)	0	1745	0	0	1712	0	0	1732	0	0	1780	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		5280			5280			5280			5280	
Travel Time (s)		120.0			120.0			120.0			120.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	132	172	185	140	65	193	78	128	172	348	384	174
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	489	0	0	398	0	0	378	0	0	906	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	L NA	Right	Left	L NA	Right	Left	L NA	Right	Left	L NA	Right
Median Width(ft)		12			12			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		0			0			0			0	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Stop			Stop	

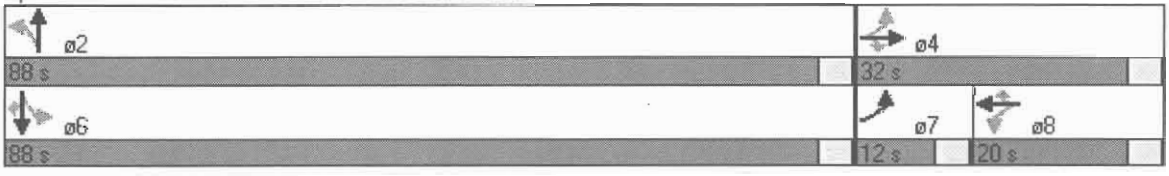
Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 107.3%		ICU Level of Service G	
Analysis Period (min) 15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	325	133	96	88	93	121	42	1047	85	313	2099	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	93		0	122		122	265		0	259		105
Storage Lanes	1		1	1		1	1		0	1		1
Taper Length (ft)	125		25	180		180	180		25	180		180
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	1.00
Frt			0.850			0.850		0.989				0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1863	1583	1770	1863	1583	1770	3500	0	1770	3539	1583
Flt Permitted	0.441			0.665			0.048			0.188		
Satd. Flow (perm)	821	1863	1583	1239	1863	1583	89	3500	0	350	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			13			120		17				94
Link Speed (mph)		35			35			40			40	
Link Distance (ft)		187			5280			879			2720	
Travel Time (s)		3.6			102.9			15.0			46.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	353	145	104	96	101	132	46	1138	92	340	2282	217
Shared Lane Traffic (%)												
Lane Group Flow (vph)	353	145	104	96	101	132	46	1230	0	340	2282	217
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			20			20	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2	1	1	2	1	1	2		1	2	1
Detector Template	Left	Thru	Right	Left	Thru	Right	Left	Thru		Left	Thru	Right
Leading Detector (ft)	20	100	20	20	100	20	20	100		20	100	20
Trailing Detector (ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Position(ft)	0	0	0	0	0	0	0	0		0	0	0
Detector 1 Size(ft)	20	6	20	20	6	20	20	6		20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	pm+pt		Perm	Perm		Perm	Perm			Perm		Perm
Protected Phases	7	4			8			2			6	
Permitted Phases	4		4	8		8	2			6		6
Detector Phase	7	4	4	8	8	8	2	2		6	6	6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0		20.0	20.0	20.0
Total Split (s)	12.0	32.0	32.0	20.0	20.0	20.0	88.0	88.0	0.0	88.0	88.0	88.0
Total Split (%)	10.0%	26.7%	26.7%	16.7%	16.7%	16.7%	73.3%	73.3%	0.0%	73.3%	73.3%	73.3%
Maximum Green (s)	8.0	28.0	28.0	16.0	16.0	16.0	84.0	84.0		84.0	84.0	84.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead			Lag	Lag	Lag						
Lead-Lag Optimize?	Yes			Yes	Yes	Yes						
Vehicle Extension (s)	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0		3.0	3.0	3.0
Recall Mode	None	None	None	None	None	None	Max	Max		Max	Max	Max
Walk Time (s)		5.0	5.0	5.0	5.0	5.0	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)		11.0	11.0	11.0	11.0	11.0	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0	0	0	0	0	0	0		0	0	0
Act Effct Green (s)	25.1	25.1	25.1	13.1	13.1	13.1	84.1	84.1		84.1	84.1	84.1
Actuated g/C Ratio	0.21	0.21	0.21	0.11	0.11	0.11	0.72	0.72		0.72	0.72	0.72
v/c Ratio	1.46	0.36	0.30	0.70	0.49	0.47	0.72	0.49		1.35	0.90	0.19
Control Delay	264.8	41.9	35.9	75.5	56.8	16.3	73.2	8.1		204.6	20.0	3.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0
Total Delay	264.8	41.9	35.9	75.5	56.8	16.3	73.2	8.1		204.6	20.0	3.6
LOS	F	D	D	E	E	B	E	A		F	C	A
Approach Delay		171.6			46.0			10.5			40.9	
Approach LOS		F			D			B			D	

Intersection Summary			
Area Type:	Other		
Cycle Length: 120			
Actuated Cycle Length: 117.2			
Natural Cycle: 120			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 1.46			
Intersection Signal Delay: 49.1		Intersection LOS: D	
Intersection Capacity Utilization 97.6%		ICU Level of Service F	
Analysis Period (min) 15			

Splits and Phases: 3: Small Road & Moorland Road



Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	119	266	311	125	155	229
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.961		0.919	
Flt Protected		0.985			0.980	
Satd. Flow (prot)	0	1835	1790	0	1678	0
Flt Permitted		0.985			0.980	
Satd. Flow (perm)	0	1835	1790	0	1678	0
Link Speed (mph)		30	30		30	
Link Distance (ft)		6640	2585		5280	
Travel Time (s)		150.9	58.8		120.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	129	289	338	136	168	249
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	418	474	0	417	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(ft)		12	12		12	
Link Offset(ft)		0	0		0	
Crosswalk Width(ft)		16	16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15			9	15	9
Sign Control		Free	Free		Stop	

Intersection Summary			
Area Type:	Other		
Control Type: Unsignalized			
Intersection Capacity Utilization 77.2%		ICU Level of Service D	
Analysis Period (min) 15			

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	40	128	110	122	199	206	100	861	114	246	1338	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	125		0	180		0	100		205	85		55
Storage Lanes	1		0	1		0	1		1	1		1
Taper Length (ft)	180		25	180		25	180		180	180		180
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	1.00	0.95	1.00
Frt		0.931			0.924				0.850			0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1770	1734	0	1770	1721	0	1770	3539	1583	1770	3539	1583
Flt Permitted	0.294			0.232			0.114			0.260		
Satd. Flow (perm)	548	1734	0	432	1721	0	212	3539	1583	484	3539	1583
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		49			67				124			12
Link Speed (mph)		30			30			50			50	
Link Distance (ft)		3150			6640			5645			2303	
Travel Time (s)		71.6			150.9			77.0			31.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	43	139	120	133	216	224	109	936	124	267	1454	26
Shared Lane Traffic (%)												
Lane Group Flow (vph)	43	259	0	133	440	0	109	936	124	267	1454	26
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2		1	2		1	2	1	1	2	1
Detector Template	Left	Thru		Left	Thru		Left	Thru	Right	Left	Thru	Right
Leading Detector (ft)	20	100		20	100		20	100	20	20	100	20
Trailing Detector (ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Position(ft)	0	0		0	0		0	0	0	0	0	0
Detector 1 Size(ft)	20	6		20	6		20	6	20	20	6	20
Detector 1 Type	Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex	Cl+Ex
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Queue (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 1 Delay (s)	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm			pm+pt			Perm		Perm	Perm		Perm
Protected Phases		4		3	8			2			6	
Permitted Phases	4			8			2		2	6		6
Detector Phase	4	4		3	8		2	2	2	6	6	6

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0		8.0	20.0		20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	0.0	8.0	28.0	0.0	52.0	52.0	52.0	52.0	52.0	52.0
Total Split (%)	25.0%	25.0%	0.0%	10.0%	35.0%	0.0%	65.0%	65.0%	65.0%	65.0%	65.0%	65.0%
Maximum Green (s)	16.0	16.0		4.0	24.0		48.0	48.0	48.0	48.0	48.0	48.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag		Lead								
Lead-Lag Optimize?	Yes	Yes		Yes								
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode	None	None		None	None		Max	Max	Max	Max	Max	Max
Walk Time (s)	5.0	5.0			5.0		5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0			11.0		11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0			0		0	0	0	0	0	0
Act Effct Green (s)	13.5	13.5		21.5	21.5		48.0	48.0	48.0	48.0	48.0	48.0
Actuated g/C Ratio	0.17	0.17		0.28	0.28		0.62	0.62	0.62	0.62	0.62	0.62
v/c Ratio	0.45	0.76		0.70	0.84		0.83	0.43	0.12	0.89	0.66	0.03
Control Delay	44.2	39.3		44.6	37.8		64.4	8.7	1.7	49.0	11.9	4.7
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	44.2	39.3		44.6	37.8		64.4	8.7	1.7	49.0	11.9	4.7
LOS	D	D		D	D		E	A	A	D	B	A
Approach Delay		40.0			39.3			13.2			17.4	
Approach LOS		D			D			B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 80			
Actuated Cycle Length: 77.6			
Natural Cycle: 80			
Control Type: Semi Act-Uncoord			
Maximum v/c Ratio: 0.89			
Intersection Signal Delay: 21.2		Intersection LOS: C	
Intersection Capacity Utilization 82.3%		ICU Level of Service E	
Analysis Period (min) 15			

Splits and Phases: 12: College Avenue & Moorland Road