Appendix D

TRAFFIC ANALYSIS REPORT

APPENDIX D

CAPACITY CALCULATIONS

EXISTING

Lake Road / NYS Route 94 AM Peak Hour Existing D- 1
Lake Road / Beaver Brook RoadAM Peak Hour Existing D- 2
Lake Road / Jackson Avenue AM Peak Hour Existing D- 3

Lake Road / NYS Route 94 PM Peak Hour Existing D- 4
Lake Road / Beaver Brook Road PM Peak Hour Existing D- 5
Lake Road / Jackson Avenue PM Peak Hour Existing D- 6

NO-BUILD

Lake Road / NYS Route 94 AM Peak Hour No-Build D- 7
Lake Road / Beaver Brook RoadAM Peak Hour No-Build D- 8
Lake Road / Jackson Avenue AM Peak Hour No-Build D- 9

Lake Road / NYS Route 94 PM Peak Hour No-Build D- 10
Lake Road / Beaver Brook Road PM Peak Hour No-Build D- 11
Lake Road / Jackson Avenue PM Peak Hour No-Build D- 12

BUILD

Lake Road / NYS Route 94 AM Peak Hour Build D- 13
Lake Road / Beaver Brook RoadAM Peak Hour Build D- 14
Lake Road / Jackson Avenue AM Peak Hour Build D- 15

Lake Road / NYS Route 94 PM Peak Hour Build D- 16
Lake Road / Beaver Brook Road PM Peak Hour Build D- 17
Lake Road / Jackson Avenue PM Peak Hour Build D- 18

SIGN INVENTORY

D-19

LAKE ROAD SIGN INVENTORY

Lake Road is a two lane road, which runs in north-south direction and connects Jackson Avenue in the Town of New Windsor to New York State Route (NYS) 94 in the Town of Blooming Grove. Jackson Avenue further north connects to US Route 207. The lane widths of Lake Road, representing total travelway pavement width, varies from 22 feet to 18 feet. Lake Road shoulders tend to be graded with minimal if any paving.

Geometric Design of Highway and Streets (American Association of State Highways and Transportation Officials, 2001) indicates 12 foot lanes are desirable however, ten foot lanes are acceptable on low speed roads. Furthermore, nine foot lanes are appropriate on low volume roads in rural and residential areas.

A Lake Road traffic sign inventory was taken on September 24, 2004. The traffic signs on Lake Road generally are divided into two sub categories.

1. Regulatory Signs
2. Warning Signs & Traffic Calming Signs

Regulatory signs inform drivers of traffic regulations including stopping, speed limits, and parking regulations. Warning signs identify or provide emphasis of road conditions and are particularly useful for advising drivers unfamiliar with the road. Area warning signs include curve warning, object warning, and narrow bridge warning signs. These signs are sometimes supplemented with advisory speed plates.

Traffic calming signage in the area are not the standard signs found in, Code Rules and Regulations of the State of New York, Title 17, Chapter V of Uniform Traffic Control Devices.

The speed limit on Lake Road in Town of Blooming Grove is 30 miles per hour. The Lake Road at NYS Route 94 intersection is stop sign controlled. The intersection of Lake Road and Route 94 is at approximately a sixty degree angle. There is a one lane bridge on Lake Road just north of the intersection of NYS Route 94 and Lake Road, the warning signs for the bridge are posted in both directions. The advisory signs of “limited sight distance”, “entering curve”, and “one lane bridge” are posted for the northbound movement entering the bridge. Traffic Calming signs “Please drive slow we love your children” are posted in both directions.

The speed limit on Lake Road from the town line of Blooming Grove north to the Railroad bridge is 30 mile per hour. Speed limit signs, parking signs, advisory signs of “School Bus stop ahead” and Traffic Calming Signs “Drive Slow we love our children” are posted along Lake Road in this section of the road. There is a “Narrow Bridge” sign for the northbound movement just before the railroad bridge. No bridge sign is posted for the southbound movement on Lake Road in this area. There are no curve warning signs posted on Lake Road in either direction for the horizontal curve near Hillcrest Drive and Park Road.

The speed limit on the Lake Road from the railroad bridge and Baxter lane is 40 mile per hour. The speed limit and advisory signs for “Hidden curve, curve, advisory speed on curve, cattle” are posted on the road. No grade sign is posted on the vertical grade between Dutchman Drive and Deljo Lane.

Area signs could be improved, more clearly indicating road regulations and advising drivers of roadways conditions as discussed below.

“Limited Sight Distance” which is posted for the northbound movement of Lake Road entering the one lane bridge, north of Route 94, is not a standard sign, as it does not indicate the road condition for the speed advisory. A curve warning sign might be more appropriate with a speed advisory than with a “One Lane Bridge” sign. Although most signs lose reflectivity with age this sign is in need of replacement as the paint is peeling off.

Consideration should be given for standardizing the traffic signs. For example the “Narrow Bridge” sign for the northbound movement should be yellow not white, the Bridge object marker is red/white instead of black/yellow for the south bound movement at the one lane bridge.

An advisory speed plate for the southbound Lake Road approach to Dutchman Drive should have a warning sign associated with it. It would seem logical if the railroad bridge is narrow, signs are necessary from both directions, rather than just northbound.

The sign inventory highlights existing regulations, provides emphasis on geometric conditions, and indicates a potential to improve signing.

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*AAC*
Agency/Co.	*TMA*
Date Performed	*12/22/2003*
Analysis Time Period	*AM Peak Hour*

Site Information

Intersection	*Route 94 & Lake Road*
Jurisdiction	*Town of Blooming Grove*
Analysis Year	*Existing*

Project Description *Lake Blooming Grove*

East/West Street: *Route 94* | North/South Street: *Lake Road*

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

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*28*	*275*	*2*	*2*	*172*	*4*
Peak-hour factor, PHF	*0.88*	*0.88*	*0.88*	*0.87*	*0.87*	*0.87*
Hourly Flow Rate (veh/h)	*31*	*312*	*2*	*2*	*197*	*4*
Proportion of heavy vehicles, P_{HV}	*4*	--	--	*4*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*3*	*1*	*1*	*30*	*1*	*86*
Peak-hour factor, PHF	*0.42*	*0.42*	*0.42*	*0.86*	*0.86*	*0.86*
Hourly Flow Rate (veh/h)	*7*	*2*	*2*	*34*	*1*	*99*
Proportion of heavy vehicles, P_{HV}	*0*	*0*	*0*	*1*	*1*	*1*
Percent grade (%)		*0*			*0*	
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
Volume, v (vph)	*31*	*2*		*11*			*134*	
Capacity, c_m (vph)	*1359*	*1235*		*393*			*665*	
v/c ratio	*0.02*	*0.00*		*0.03*			*0.20*	
Queue length (95%)	*0.07*	*0.00*		*0.09*			*0.75*	
Control Delay (s/veh)	*7.7*	*7.9*		*14.4*			*11.8*	
LOS	*A*	*A*		*B*			*B*	
Approach delay (s/veh)	--	--	*14.4*			*11.8*		
Approach LOS	--	--	*B*			*B*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*AAC*	Intersection	*Lake Road & Beaver Brook Rd*
Agency/Co.	*TMA*	Jurisdiction	*Town of Blooming Grove*
Date Performed	*12/22/2003*	Analysis Year	*Existing*
Analysis Time Period	*AM Peak*		

Project Description *Lake Blooming Grove*

East/West Street: *Beaver Brook Road* | North/South Street: *Lake Road*

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

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*49*	*9*	*11*	*20*	*0*
Peak-Hour Factor, PHF	*1.00*	*0.91*	*0.91*	*0.78*	*0.78*	*1.00*
Hourly Flow Rate, HFR	*0*	*53*	*9*	*14*	*25*	*0*
Percent Heavy Vehicles	*0*	--	--	*6*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*13*	*0*	*22*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.88*	*1.00*	*0.88*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR	*14*	*0*	*25*	*0*	*0*	*0*
Percent Heavy Vehicles	*3*	*0*	*3*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*14*		*39*				
C (m) (vph)		*1516*		*954*				
v/c		*0.01*		*0.04*				
95% queue length		*0.03*		*0.13*				
Control Delay		*7.4*		*8.9*				
LOS		*A*		*A*				
Approach Delay	--	--	*8.9*					
Approach LOS	--	--	*A*					

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*AAC*
Agency/Co.	*TMA*
Date Performed	*12/22/2003*
Analysis Time Period	*AM Peak*

Site Information

Intersection	*Lake Road & Jackson Ave/Deerbr*
Jurisdiction	*Town of Blooming Grove*
Analysis Year	*Existing*

Project Description *Lake Blooming Grove*

East/West Street: *Lake Road* | North/South Street: *Jackson Ave/Deerbrook Rd*

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

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*87*	*3*	*19*	*26*	*1*
Peak-hour factor, PHF	*0.78*	*0.78*	*0.78*	*0.77*	*0.77*	*0.77*
Hourly Flow Rate (veh/h)	*0*	*111*	*3*	*24*	*33*	*1*
Proportion of heavy vehicles, P_{HV}	*3*	--	--	*5*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*1*	*0*	*34*	*5*	*0*	*0*
Peak-hour factor, PHF	*0.73*	*0.73*	*0.73*	*0.63*	*0.63*	*0.63*
Hourly Flow Rate (veh/h)	*1*	*0*	*46*	*7*	*0*	*0*
Proportion of heavy vehicles, P_{HV}	*2*	*2*	*2*	*0*	*0*	*0*
Percent grade (%)		*0*			*0*	
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
Volume, v (vph)	*0*	*24*		*47*			*7*	
Capacity, c_m (vph)	*1571*	*1457*		*936*			*698*	
v/c ratio	*0.00*	*0.02*		*0.05*			*0.01*	
Queue length (95%)	*0.00*	*0.05*		*0.16*			*0.03*	
Control Delay (s/veh)	*7.3*	*7.5*		*9.0*			*10.2*	
LOS	*A*	*A*		*A*			*B*	
Approach delay (s/veh)	--	--	*9.0*			*10.2*		
Approach LOS	--	--	*A*			*B*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*AAC*	Intersection	*Lake Road & Beaver Brook Rd*
Agency/Co.	*TMA*	Jurisdiction	*Town of Blooming Grove*
Date Performed	*12/22/2003*	Analysis Year	*Existing*
Analysis Time Period	*P M Peak*		

Project Description *Lake Blooming Grove*

East/West Street: *Beaver Brook Road* | North/South Street: *Lake Road*

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

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*30*	*12*	*11*	*64*	*0*
Peak-Hour Factor, PHF	*1.00*	*0.75*	*0.75*	*0.82*	*0.82*	*1.00*
Hourly Flow Rate, HFR	*0*	*40*	*16*	*13*	*78*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*8*	*0*	*11*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.79*	*1.00*	*0.79*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR	*10*	*0*	*13*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*13*		*23*				
C (m) (vph)		*1562*		*935*				
v/c		*0.01*		*0.02*				
95% queue length		*0.03*		*0.08*				
Control Delay		*7.3*		*8.9*				
LOS		*A*		*A*				
Approach Delay	--	--	*8.9*					
Approach LOS	--	--	*A*					

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*AAC*
Agency/Co.	*TMA*
Date Performed	*12/22/2003*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*Route 94 & Lake Road*
Jurisdiction	*Town of Blooming Grove*
Analysis Year	*Existing*

Project Description *Lake Blooming Grove*

East/West Street: *Route 94* | North/South Street: *Lake Road*

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

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*84*	*173*	*2*	*1*	*237*	*28*
Peak-hour factor, PHF	*0.95*	*0.95*	*0.95*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate (veh/h)	*88*	*182*	*2*	*1*	*263*	*31*
Proportion of heavy vehicles, P_{HV}	*3*	--	--	*1*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*1*	*2*	*3*	*12*	*1*	*52*
Peak-hour factor, PHF	*0.75*	*0.75*	*0.75*	*0.81*	*0.81*	*0.81*
Hourly Flow Rate (veh/h)	*1*	*2*	*4*	*14*	*1*	*64*
Proportion of heavy vehicles, P_{HV}	*0*	*0*	*0*	*2*	*2*	*2*
Percent grade (%)		*0*			*0*	
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
Volume, v (vph)	*88*	*1*		*7*			*79*	
Capacity, c_m (vph)	*1262*	*1397*		*524*			*628*	
v/c ratio	*0.07*	*0.00*		*0.01*			*0.13*	
Queue length (95%)	*0.22*	*0.00*		*0.04*			*0.43*	
Control Delay (s/veh)	*8.1*	*7.6*		*12.0*			*11.6*	
LOS	*A*	*A*		*B*			*B*	
Approach delay (s/veh)	--	--	*12.0*			*11.6*		
Approach LOS	--	--	*B*			*B*		

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*AAC*
Agency/Co.	*TMA*
Date Performed	*12/22/2003*
Analysis Time Period	*PM Peak*

Site Information

Intersection	*Lake Road & JAckson Ave/Deerbr*
Jurisdiction	*Town of Blooming Grove*
Analysis Year	*Existing*

Project Description *Lake Blooming Grove*

East/West Street: *Lake Road* | North/South Street: *Jackson Ave/Deerbrook Rd*

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

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*1*	*38*	*4*	*24*	*79*	*1*
Peak-hour factor, PHF	*0.90*	*0.90*	*0.90*	*0.81*	*0.81*	*0.81*
Hourly Flow Rate (veh/h)	*1*	*42*	*4*	*29*	*97*	*1*
Proportion of heavy vehicles, P_{HV}	*3*	--	--	*5*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*2*	*1*	*11*	*0*	*0*	*1*
Peak-hour factor, PHF	*0.70*	*0.70*	*0.70*	*0.75*	*0.75*	*0.75*
Hourly Flow Rate (veh/h)	*2*	*1*	*15*	*0*	*0*	*1*
Proportion of heavy vehicles, P_{HV}	*2*	*2*	*2*	*0*	*0*	*0*
Percent grade (%)		*0*			*0*	
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
Volume, v (vph)	*1*	*29*		*18*			*1*	
Capacity, c_m (vph)	*1489*	*1543*		*958*			*963*	
v/c ratio	*0.00*	*0.02*		*0.02*			*0.00*	
Queue length (95%)	*0.00*	*0.06*		*0.06*			*0.00*	
Control Delay (s/veh)	*7.4*	*7.4*		*8.8*			*8.7*	
LOS	*A*	*A*		*A*			*A*	
Approach delay (s/veh)	--	--	*8.8*			*8.7*		
Approach LOS	--	--	*A*			*A*		

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*AAC*
Agency/Co.	*TMA*
Date Performed	*12/22/2003*
Analysis Time Period	*AM Peak Hour*

Site Information

Intersection	*Route 94 & Lake Road*
Jurisdiction	*Town of Blooming Grove*
Analysis Year	*No-Build*

Project Description *Lake Blooming Grove*

East/West Street: *Route 94* | North/South Street: *Lake Road*

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

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*30*	*305*	*2*	*2*	*223*	*4*
Peak-hour factor, PHF	*0.88*	*0.88*	*0.88*	*0.87*	*0.87*	*0.87*
Hourly Flow Rate (veh/h)	*34*	*346*	*2*	*2*	*256*	*4*
Proportion of heavy vehicles, P_{HV}	*4*	--	--	*4*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*3*	*1*	*1*	*32*	*1*	*91*
Peak-hour factor, PHF	*0.42*	*0.42*	*0.42*	*0.86*	*0.86*	*0.86*
Hourly Flow Rate (veh/h)	*7*	*2*	*2*	*37*	*1*	*105*
Proportion of heavy vehicles, P_{HV}	*0*	*0*	*0*	*1*	*1*	*1*
Percent grade (%)	*0*			*0*		
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
Volume, v (vph)	*34*	*2*		*11*			*143*	
Capacity, c_m (vph)	*1293*	*1200*		*335*			*593*	
v/c ratio	*0.03*	*0.00*		*0.03*			*0.24*	
Queue length (95%)	*0.08*	*0.01*		*0.10*			*0.94*	
Control Delay (s/veh)	*7.9*	*8.0*		*16.1*			*13.0*	
LOS	*A*	*A*		*C*			*B*	
Approach delay (s/veh)	--	--	*16.1*			*13.0*		
Approach LOS	--	--	*C*			*B*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*AAC*	Intersection	*Lake Road & Beaver Brook Rd*
Agency/Co.	*TMA*	Jurisdiction	*Town of Blooming Grove*
Date Performed	*12/22/2003*	Analysis Year	*No-Build*
Analysis Time Period	*AM Peak*		

Project Description *Lake Blooming Grove*

East/West Street: *Beaver Brook Road* | North/South Street: *Lake Road*

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

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*52*	*10*	*12*	*21*	*0*
Peak-Hour Factor, PHF	*1.00*	*0.91*	*0.91*	*0.78*	*0.78*	*1.00*
Hourly Flow Rate, HFR	*0*	*57*	*10*	*15*	*26*	*0*
Percent Heavy Vehicles	*0*	--	--	*6*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*14*	*0*	*23*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.88*	*1.00*	*0.88*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR	*15*	*0*	*26*	*0*	*0*	*0*
Percent Heavy Vehicles	*3*	*0*	*3*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*15*		*41*				
C (m) (vph)		*1509*		*946*				
v/c		*0.01*		*0.04*				
95% queue length		*0.03*		*0.14*				
Control Delay		*7.4*		*9.0*				
LOS		*A*		*A*				
Approach Delay	--	--	*9.0*					
Approach LOS	--	--	*A*					

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*AAC*
Agency/Co.	*TMA*
Date Performed	*12/22/2003*
Analysis Time Period	*AM Peak*

Site Information

Intersection	*Lake Road & Jackson Ave/Deerbr*
Jurisdiction	*Town of Blooming Grove*
Analysis Year	*No-Build*

Project Description *Lake Blooming Grove*

East/West Street: *Lake Road* | North/South Street: *Jackson Ave/Deerbrook Rd*

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

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*92*	*3*	*20*	*28*	*1*
Peak-hour factor, PHF	*0.78*	*0.78*	*0.78*	*0.77*	*0.77*	*0.77*
Hourly Flow Rate (veh/h)	*0*	*117*	*3*	*25*	*36*	*1*
Proportion of heavy vehicles, P_{HV}	*3*	--	--	*5*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*1*	*0*	*36*	*5*	*0*	*0*
Peak-hour factor, PHF	*0.73*	*0.73*	*0.73*	*0.63*	*0.63*	*0.63*
Hourly Flow Rate (veh/h)	*1*	*0*	*49*	*7*	*0*	*0*
Proportion of heavy vehicles, P_{HV}	*2*	*2*	*2*	*0*	*0*	*0*
Percent grade (%)		*0*			*0*	
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
Volume, v (vph)	*0*	*25*		*50*			*7*	
Capacity, c_m (vph)	*1567*	*1449*		*929*			*682*	
v/c ratio	*0.00*	*0.02*		*0.05*			*0.01*	
Queue length (95%)	*0.00*	*0.05*		*0.17*			*0.03*	
Control Delay (s/veh)	*7.3*	*7.5*		*9.1*			*10.3*	
LOS	*A*	*A*		*A*			*B*	
Approach delay (s/veh)	--	--	*9.1*			*10.3*		
Approach LOS	--	--	*A*			*B*		

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*AAC*
Agency/Co.	*TMA*
Date Performed	*12/22/2003*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*Route 94 & Lake Road*
Jurisdiction	*Town of Blooming Grove*
Analysis Year	*No-Build*

Project Description *Lake Blooming Grove*

East/West Street: *Route 94* | North/South Street: *Lake Road*

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

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*89*	*215*	*2*	*1*	*273*	*30*
Peak-hour factor, PHF	*0.95*	*0.95*	*0.95*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate (veh/h)	*93*	*226*	*2*	*1*	*303*	*33*
Proportion of heavy vehicles, P_{HV}	*3*	--	--	*1*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*1*	*2*	*3*	*13*	*1*	*55*
Peak-hour factor, PHF	*0.75*	*0.75*	*0.75*	*0.81*	*0.81*	*0.81*
Hourly Flow Rate (veh/h)	*1*	*2*	*4*	*16*	*1*	*67*
Proportion of heavy vehicles, P_{HV}	*0*	*0*	*0*	*2*	*2*	*2*
Percent grade (%)		*0*			*0*	
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
Volume, v (vph)	*93*	*1*		*7*			*84*	
Capacity, c_m (vph)	*1218*	*1346*		*467*			*567*	
v/c ratio	*0.08*	*0.00*		*0.01*			*0.15*	
Queue length (95%)	*0.25*	*0.00*		*0.05*			*0.52*	
Control Delay (s/veh)	*8.2*	*7.7*		*12.8*			*12.5*	
LOS	*A*	*A*		*B*			*B*	
Approach delay (s/veh)	--	--	*12.8*			*12.5*		
Approach LOS	--	--	*B*			*B*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*AAC*	Intersection	*Lake Road & Beaver Brook Rd*
Agency/Co.	*TMA*	Jurisdiction	*Town of Blooming Grove*
Date Performed	*12/22/2003*	Analysis Year	*No-Build*
Analysis Time Period	*P M Peak*		

Project Description *Lake Blooming Grove*

East/West Street: *Beaver Brook Road* | North/South Street: *Lake Road*

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

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*32*	*13*	*12*	*68*	*0*
Peak-Hour Factor, PHF	*1.00*	*0.75*	*0.75*	*0.82*	*0.82*	*1.00*
Hourly Flow Rate, HFR	*0*	*42*	*17*	*14*	*82*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*9*	*0*	*12*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.79*	*1.00*	*0.79*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR	*11*	*0*	*15*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*14*		*26*				
C (m) (vph)		*1558*		*931*				
v/c		*0.01*		*0.03*				
95% queue length		*0.03*		*0.09*				
Control Delay		*7.3*		*9.0*				
LOS		*A*		*A*				
Approach Delay	--	--	*9.0*					
Approach LOS	--	--	*A*					

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*AAC*
Agency/Co.	*TMA*
Date Performed	*12/22/2003*
Analysis Time Period	*PM Peak*

Site Information

Intersection	
Jurisdiction	*Town of Blooming Grove*
Analysis Year	*No-Build*

Project Description *Lake Blooming Grove*

East/West Street: *Lake Road* | North/South Street: *Jackson Ave/Deerbrook Rd*

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

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*1*	*40*	*4*	*26*	*84*	*1*
Peak-hour factor, PHF	*0.90*	*0.90*	*0.90*	*0.81*	*0.81*	*0.81*
Hourly Flow Rate (veh/h)	*1*	*44*	*4*	*32*	*103*	*1*
Proportion of heavy vehicles, P_{HV}	*3*	--	--	*5*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*2*	*1*	*12*	*0*	*0*	*1*
Peak-hour factor, PHF	*0.70*	*0.70*	*0.70*	*0.75*	*0.75*	*0.75*
Hourly Flow Rate (veh/h)	*2*	*1*	*17*	*0*	*0*	*1*
Proportion of heavy vehicles, P_{HV}	*2*	*2*	*2*	*0*	*0*	*0*
Percent grade (%)		*0*			*0*	
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
Volume, v (vph)	*1*	*32*		*20*			*1*	
Capacity, c_m (vph)	*1481*	*1540*		*958*			*956*	
v/c ratio	*0.00*	*0.02*		*0.02*			*0.00*	
Queue length (95%)	*0.00*	*0.06*		*0.06*			*0.00*	
Control Delay (s/veh)	*7.4*	*7.4*		*8.8*			*8.8*	
LOS	*A*	*A*		*A*			*A*	
Approach delay (s/veh)	--	--	*8.8*			*8.8*		
Approach LOS	--	--	*A*			*A*		

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*AAC*
Agency/Co.	*TMA*
Date Performed	*12/22/2003*
Analysis Time Period	*AM Peak Hour*

Site Information

Intersection	*Route 94 & Lake Road*
Jurisdiction	*Town of Blooming Grove*
Analysis Year	*Build*

Project Description *Lake Blooming Grove*

East/West Street: *Route 94* | North/South Street: *Lake Road*

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

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*33*	*305*	*2*	*2*	*223*	*9*
Peak-hour factor, PHF	*0.88*	*0.88*	*0.88*	*0.87*	*0.87*	*0.87*
Hourly Flow Rate (veh/h)	*37*	*346*	*2*	*2*	*256*	*10*
Proportion of heavy vehicles, P_{HV}	*4*	--	--	*4*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*3*	*1*	*1*	*48*	*1*	*99*
Peak-hour factor, PHF	*0.42*	*0.42*	*0.42*	*0.86*	*0.86*	*0.86*
Hourly Flow Rate (veh/h)	*7*	*2*	*2*	*55*	*1*	*115*
Proportion of heavy vehicles, P_{HV}	*0*	*0*	*0*	*1*	*1*	*1*
Percent grade (%)	*0*			*0*		
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
Volume, v (vph)	*37*	*2*		*11*			*171*	
Capacity, c_m (vph)	*1286*	*1200*		*324*			*556*	
v/c ratio	*0.03*	*0.00*		*0.03*			*0.31*	
Queue length (95%)	*0.09*	*0.01*		*0.11*			*1.30*	
Control Delay (s/veh)	*7.9*	*8.0*		*16.5*			*14.3*	
LOS	*A*	*A*		*C*			*B*	
Approach delay (s/veh)	--	--	*16.5*			*14.3*		
Approach LOS	--	--	*C*			*B*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*AAC*	Intersection	*Lake Road & Beaver Brook Rd*
Agency/Co.	*TMA*	Jurisdiction	*Town of Blooming Grove*
Date Performed	*12/22/2003*	Analysis Year	*Build*
Analysis Time Period	*AM Peak*		

Project Description *Lake Blooming Grove*

East/West Street: *Beaver Brook Road* | North/South Street: *Lake Road*

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

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*55*	*10*	*12*	*22*	*0*
Peak-Hour Factor, PHF	*1.00*	*0.91*	*0.91*	*0.78*	*0.78*	*1.00*
Hourly Flow Rate, HFR	*0*	*60*	*10*	*15*	*28*	*0*
Percent Heavy Vehicles	*0*	--	--	*6*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*14*	*0*	*23*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.88*	*1.00*	*0.88*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR	*15*	*0*	*26*	*0*	*0*	*0*
Percent Heavy Vehicles	*3*	*0*	*3*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*15*		*41*				
C (m) (vph)		*1506*		*942*				
v/c		*0.01*		*0.04*				
95% queue length		*0.03*		*0.14*				
Control Delay		*7.4*		*9.0*				
LOS		*A*		*A*				
Approach Delay	--	--	*9.0*					
Approach LOS	--	--	*A*					

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*AAC*
Agency/Co.	*TMA*
Date Performed	*12/22/2003*
Analysis Time Period	*AM Peak*

Site Information

Intersection	*Lake Road & Jackson Ave/Deerbr*
Jurisdiction	*Town of Blooming Grove*
Analysis Year	*Build*

Project Description *Lake Blooming Grove*

East/West Street: *Lake Road* | North/South Street: *Jackson Ave/Deerbrook Rd*

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

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*0*	*95*	*3*	*20*	*29*	*1*
Peak-hour factor, PHF	*0.78*	*0.78*	*0.78*	*0.77*	*0.77*	*0.77*
Hourly Flow Rate (veh/h)	*0*	*121*	*3*	*25*	*37*	*1*
Proportion of heavy vehicles, P_{HV}	*3*	--	--	*5*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*1*	*0*	*36*	*5*	*0*	*0*
Peak-hour factor, PHF	*0.73*	*0.73*	*0.73*	*0.63*	*0.63*	*0.63*
Hourly Flow Rate (veh/h)	*1*	*0*	*49*	*7*	*0*	*0*
Proportion of heavy vehicles, P_{HV}	*2*	*2*	*2*	*0*	*0*	*0*
Percent grade (%)		*0*			*0*	
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
Volume, v (vph)	*0*	*25*		*50*			*7*	
Capacity, c_m (vph)	*1566*	*1444*		*924*			*677*	
v/c ratio	*0.00*	*0.02*		*0.05*			*0.01*	
Queue length (95%)	*0.00*	*0.05*		*0.17*			*0.03*	
Control Delay (s/veh)	*7.3*	*7.5*		*9.1*			*10.4*	
LOS	*A*	*A*		*A*			*B*	
Approach delay (s/veh)	--	--	*9.1*			*10.4*		
Approach LOS	--	--	*A*			*B*		

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*AAC*
Agency/Co.	*TMA*
Date Performed	*12/22/2003*
Analysis Time Period	*PM Peak Hour*

Site Information

Intersection	*Route 94 & Lake Road*
Jurisdiction	*Town of Blooming Grove*
Analysis Year	*Build*

Project Description *Lake Blooming Grove*

East/West Street: *Route 94* | North/South Street: *Lake Road*

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

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*98*	*215*	*2*	*1*	*273*	*47*
Peak-hour factor, PHF	*0.95*	*0.95*	*0.95*	*0.90*	*0.90*	*0.90*
Hourly Flow Rate (veh/h)	*103*	*226*	*2*	*1*	*303*	*52*
Proportion of heavy vehicles, P_{HV}	*3*	--	--	*1*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*1*	*2*	*3*	*23*	*1*	*60*
Peak-hour factor, PHF	*0.75*	*0.75*	*0.75*	*0.81*	*0.81*	*0.81*
Hourly Flow Rate (veh/h)	*1*	*2*	*4*	*28*	*1*	*74*
Proportion of heavy vehicles, P_{HV}	*0*	*0*	*0*	*2*	*2*	*2*
Percent grade (%)		*0*			*0*	
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
Volume, v (vph)	*103*	*1*		*7*			*103*	
Capacity, c_m (vph)	*1198*	*1346*		*445*			*507*	
v/c ratio	*0.09*	*0.00*		*0.02*			*0.20*	
Queue length (95%)	*0.28*	*0.00*		*0.05*			*0.75*	
Control Delay (s/veh)	*8.3*	*7.7*		*13.2*			*13.9*	
LOS	*A*	*A*		*B*			*B*	
Approach delay (s/veh)	--	--	*13.2*			*13.9*		
Approach LOS	--	--	*B*			*B*		

TWO-WAY STOP CONTROL SUMMARY

General Information		Site Information	
Analyst	*AAC*	Intersection	*Lake Road & Beaver Brook Rd*
Agency/Co.	*TMA*	Jurisdiction	*Town of Blooming Grove*
Date Performed	*12/22/2003*	Analysis Year	*Build*
Analysis Time Period	*P M Peak*		

Project Description *Lake Blooming Grove*

East/West Street: *Beaver Brook Road* | North/South Street: *Lake Road*

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

Vehicle Volumes and Adjustments

Major Street	Northbound			Southbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume	*0*	*34*	*13*	*12*	*71*	*0*
Peak-Hour Factor, PHF	*1.00*	*0.75*	*0.75*	*0.82*	*0.82*	*1.00*
Hourly Flow Rate, HFR	*0*	*45*	*17*	*14*	*86*	*0*
Percent Heavy Vehicles	*0*	--	--	*0*	--	--
Median Type	*Undivided*					
RT Channelized			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration			*TR*	*LT*		
Upstream Signal		*0*			*0*	

Minor Street	Westbound			Eastbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume	*9*	*0*	*12*	*0*	*0*	*0*
Peak-Hour Factor, PHF	*0.79*	*1.00*	*0.79*	*1.00*	*1.00*	*1.00*
Hourly Flow Rate, HFR	*11*	*0*	*15*	*0*	*0*	*0*
Percent Heavy Vehicles	*0*	*0*	*0*	*0*	*0*	*0*
Percent Grade (%)		*0*			*0*	
Flared Approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized			*0*			*0*
Lanes	*0*	*0*	*0*	*0*	*0*	*0*
Configuration		*LR*				

Delay, Queue Length, and Level of Service

Approach	NB	SB	Westbound			Eastbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration		*LT*		*LR*				
v (vph)		*14*		*26*				
C (m) (vph)		*1554*		*924*				
v/c		*0.01*		*0.03*				
95% queue length		*0.03*		*0.09*				
Control Delay		*7.3*		*9.0*				
LOS		*A*		*A*				
Approach Delay	--	--	*9.0*					
Approach LOS	--	--	*A*					

TWO-WAY STOP CONTROL SUMMARY

General Information

Analyst	*AAC*
Agency/Co.	*TMA*
Date Performed	*12/22/2003*
Analysis Time Period	*PM Peak*

Site Information

Intersection	*Lake Road & JAckson Ave/Deerbr*
Jurisdiction	*Town of Blooming Grove*
Analysis Year	*Build*

Project Description *Lake Blooming Grove*

East/West Street: *Lake Road* | North/South Street: *Jackson Ave/Deerbrook Rd*

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

Vehicle Volumes and Adjustments

Major Street	Eastbound			Westbound		
Movement	1	2	3	4	5	6
	L	T	R	L	T	R
Volume (veh/h)	*1*	*42*	*4*	*26*	*87*	*1*
Peak-hour factor, PHF	*0.90*	*0.90*	*0.90*	*0.81*	*0.81*	*0.81*
Hourly Flow Rate (veh/h)	*1*	*46*	*4*	*32*	*107*	*1*
Proportion of heavy vehicles, P_{HV}	*3*	--	--	*5*	--	--
Median type	*Undivided*					
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration	*LTR*			*LTR*		
Upstream Signal		*0*			*0*	

Minor Street	Northbound			Southbound		
Movement	7	8	9	10	11	12
	L	T	R	L	T	R
Volume (veh/h)	*2*	*1*	*12*	*0*	*0*	*1*
Peak-hour factor, PHF	*0.70*	*0.70*	*0.70*	*0.75*	*0.75*	*0.75*
Hourly Flow Rate (veh/h)	*2*	*1*	*17*	*0*	*0*	*1*
Proportion of heavy vehicles, P_{HV}	*2*	*2*	*2*	*0*	*0*	*0*
Percent grade (%)		*0*			*0*	
Flared approach		*N*			*N*	
Storage		*0*			*0*	
RT Channelized?			*0*			*0*
Lanes	*0*	*1*	*0*	*0*	*1*	*0*
Configuration		*LTR*			*LTR*	

Control Delay, Queue Length, Level of Service

Approach	EB	WB	Northbound			Southbound		
Movement	1	4	7	8	9	10	11	12
Lane Configuration	*LTR*	*LTR*		*LTR*			*LTR*	
Volume, v (vph)	*1*	*32*		*20*			*1*	
Capacity, c_m (vph)	*1476*	*1537*		*955*			*951*	
v/c ratio	*0.00*	*0.02*		*0.02*			*0.00*	
Queue length (95%)	*0.00*	*0.06*		*0.06*			*0.00*	
Control Delay (s/veh)	*7.4*	*7.4*		*8.9*			*8.8*	
LOS	*A*	*A*		*A*			*A*	
Approach delay (s/veh)	--	--	*8.9*			*8.8*		
Approach LOS	--	--	*A*			*A*		