MOUNT AIRY LODGE REDEVELOPMENT
TRAFFIC IMPACT STUDY

For Submission To
PENNDOT DISTRICT 5-0

TPD # CECO.B.00008

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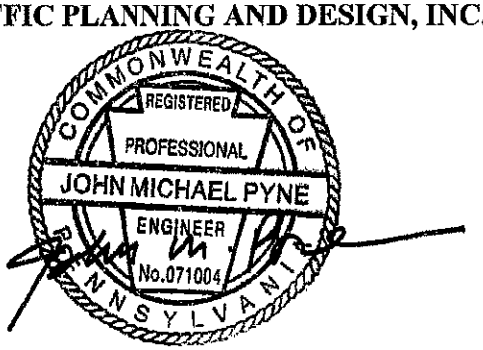

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EXECUTIVE SUMMARY

The purpose of this study is to examine the potential traffic impact of the proposed Mount Airy Lodge redevelopment on the surrounding transportation system in Paradise Township, Monroe County, Pennsylvania. Upon completion of the traffic impact study the following has been determined:

- The site for the proposed development is located on the southern side of Woodland Road, between Carlton Road and Bowman Road. The proposed redevelopment will consist of a 3,000 machine slot parlor including food and beverage support services, and a 200-room hotel.
- Access to the proposed development will be provided by two (2) full-access site driveways to Woodland Road. The full-access site driveways will be located approximately 1,400 feet and 2,700 feet east of the centerline of Meadowside Road, respectively. The site driveways will be designed as high-volume driveways with two entering lanes and two exiting lanes, with proper channelization. In addition, left and right-turn lanes will be provided on the Woodland Road approaches to the site driveways.
- The proposed development will generate 1,020 new vehicle-trips during the Friday P.M. peak hour (approximately 17 new vehicle-trips every minute) and 1,140 new vehicle-trips during the Saturday P.M. peak hour (approximately 19 new vehicle-trips every minute).
- Future condition traffic volumes were calculated to include existing traffic, traffic due to thirteen (13) nearby planned developments, future "background" traffic growth, and all traffic due to the redevelopment of the Mount Airy Lodge facility.
- Analyses were conducted to determine the quality of operation (i.e. level of service) at the study area intersections for Existing, 2007 Base, 2017 Base, 2007 Projected, and 2017 Projected Conditions. Additional analyses were conducted at the site driveway intersections for 2007 and 2017 Projected Conditions.
- The following roadway improvements are proposed by others at the study area intersections regardless of redevelopment of the Mount Airy Lodge:

Route 611

- Based on conversations with PennDOT District 5-0, it is TPD's understanding these improvements will include resurfacing Route 611 from Fairview Avenue in Mount Pocono Borough to Woodland Road in Paradise Township. In conjunction with the resurfacing, left-turn lanes will be constructed along Route 611 at the intersections of Grange Road, Meadowside Road/Trinity Hill Road and Wiscasset Road. These improvements are currently scheduled during the first four-year period (October 2004 – September 2008) of the PennDOT 12-Year Plan. It is TPD's understanding that the improvements in Mount Pocono Borough will be completed in 2005, and the improvements in Paradise Township will be completed in 2006.
- There is also a safety improvement project programmed for Route 611 from Scotrun to Swiftwater. The project will include the four lane section of Route 611 beginning just south of Shine Hill Road and extending north to just south of the Route 611 and Route 314

intersection. This safety improvement project will widen the roadway to allow for turning lanes at specific locations throughout the corridor. It will improve the safety of the roadway by taking the turning traffic out of the passing lane into a designated turning lane. A traffic signal will also be installed at the Brookdale Road intersection with Route 611. Furthermore, the bridge near Anthony's Steak House will be replaced with a Reinforced Concrete Box Culvert. These improvements are currently scheduled during the first four-year period (October 2004 – September 2008) of the PennDOT 12-Year Plan.

Interstate 80

- There is also a safety improvement project programmed for Interstate-80 exits 298 (Route 611) and 299 (Route 715). Based on conversations with PennDOT District 5-0, it is TPD's understanding that a study has been completed which investigates potential roadway improvements at the interchanges. These improvements are currently scheduled during the first four-year period (October 2004 – September 2008) of the PennDOT 12-Year Plan. It is further TPD's understanding that a $15 million earmark has been secured for improvements to Interstate-80 in Monroe County. The intent of this earmark, in addition to I-80 mainline improvements, was to provide safety improvements to state and local roads (in particular Route 611 and Route 715) connecting to Interstate-80. At this time the particular allocation of the earmarked funds has not been determined, however it is likely that a portion of the funds will be used to implement improvements to exits 298 and 299 of Interstate-80.

Route 940

- It is also TPD's understanding that the intersections of Route 940/Carlton Road/Caesar's Resort Driveway (recently completed) and Route 940/Route 390 are planned to be signalized. As part of the signalization of the intersection of Route 940/Route 390, the southbound Route 390 approach to the intersection will be reconfigured to form a "T" intersection, thus eliminating the bifurcation.

- As a result of the traffic impact study, the following site-related recommendations have been offered:

Woodland Road

Widen Woodland Road from Route 611 to Carlton Road (approximately 2 miles) as follows:

- Widen Woodland Road from a two-lane (20-22 foot wide roadway) to a three-lane, 40-foot wide curbed roadway from Route 611 to 500 feet east of the proposed eastern Mount Airy Lodge site drive. The third lane will be striped as a center left turn lane resulting in left turn lanes on Woodland Road at its intersections with the Pocono Mountain School District Driveway, Bowman Road, Meadowside Road, and two Mount Airy Lodge site driveways.
- Widen Woodland Road to provide 250-foot long right turn deceleration lanes with 180-foot long tapers on Woodland Road at its intersections with the Pocono Mountain School District Driveway, Bowman Road, Meadowside Road, and two Mount Airy Lodge site driveways.
- Widen Woodland Road from 500 feet east of the proposed eastern Mount Airy Lodge site drive to Carlton Road to provide 11-foot wide travel lanes and 5-foot shoulders. This section of Woodland Road will remain two lanes wide.

- Horizontal and vertical geometric and alignment improvements along sections of Woodland Road including realignment in some sections, and superelevation.
- It is recommended that the speed limit for Woodland Road be reduced from 40 mph to 35 mph from Route 611 to 500 feet east of the proposed eastern Mount Airy Lodge site drive as a result of the horizontal geometry and curbing proposed for the roadway. It is further recommended that advisory 25 mph speed limit signs be placed for the three horizontal curves between Bowman Road and Meadowside Road.
- Based on the Township's recommendation, realign the eastbound Woodland Road approach to Carlton Road within the existing Right-of-Way to allow Woodland Road to intersect Carlton Road at a 90° angle.

Route 611 and Woodland Road/ Strickland's Road/Big Daddy's Driveway

- Construct a separate 250-foot long left-turn lane, with a 100-foot long taper on the westbound Woodland Road approach to Route 611.
- Construct a 250-foot long right-turn lane, with a 180-foot long taper on the westbound Woodland Road approach to Route 611.
- Re-designate the existing westbound Woodland Road approach to Route 611 in order to provide a shared left/through travel lane.
- Construct a separate 350-foot long right-turn lane, with a 210-foot long taper on the northbound Route 611 approach to Woodland Road.
- Close the Strickland's Road approach to the Route 611/Woodland Road/Big Daddy's intersection, thus eliminating the 5-leg intersection.
- Install new traffic signal equipment (controller, mast arms, signal heads) at the intersection of Route 611 and Woodland Road/Big Daddy's Driveway in order to accommodate the proposed traffic signal phasing.

Route 940 and Carlton Road

- Construct separate 100-foot long left-turn lanes, with 100-foot long tapers on the Route 940 approaches to Carlton Road/Caesar's Resort Drive.

Route 611 and Route 314 (Eastern Leg)

- Coordinate the existing traffic signal with the proposed traffic signal at the intersection of Route 611 and Route 314 (Western Leg).

Route 611 and Route 314 (Western Leg)

- Install a traffic signal at the intersection of Route 611 and Route 314 (Western Leg). Coordinate the traffic signal with the existing traffic signal at the intersection of Route 611 and Route 314 (Eastern Leg). Based upon the analyses performed, it is TPD's opinion that the signalized scenario in which the eastbound left-turn movement from Route 314 to Route 611 would be eliminated, thus creating a "Half Signal" under which the northbound Route 611 through traffic would never stop is the preferred scenario from a level of service standpoint.

Route 611 and I-80 (Interchange #298)

- Due to the fact that an earmark has been secured for improvements to Interstate-80 in Monroe County, and improvements to the interchange are likely forthcoming, it is recommended in the interim to widen/reconfigure/re-stripe the WB I-80 off-ramp at its intersection with Route 611 to provide dual left-turns and a shared right-turn. Providing the dual left-turns from the I-80 off-ramp will require northbound Route 611 to be re-striped in order to provide two through travel lanes. The two through travel lanes will be provided utilizing the two-way center left-turn lane which currently exists on Route 611.

- The improvements outlined above should be implemented to improve future level of service deficiencies, offset level of service impacts, and to provide safe and efficient access to the proposed development.
- Level of service matrices for the study area intersections are shown in Tables I and II on the following pages for the Friday P.M. and Saturday P.M. peak hours.

TABLE I
LEVEL OF SERVICE SUMMARY
FRIDAY P.M. PEAK HOUR

Intersection	Approach/ Movement		2005 Existing	2007 Base	2007 Projected*	2017 Base	2017 Projected*
Route 611 & I-80 (Interchange #298)	EB	L	E	F(233.9)	F(172.2)	F(369.6)	F(255.2)
	EB	R	B	B		B	
	NB	T	B	E	A	F	A
	SB	T	B	E	E	F(151.1)	F(144.5)
	ILOS		**C**	**F(108.0)**	**F(83.2)**	**F(196.7)**	**F(134.9)**
Route 611 & Route 314 (Eastern Leg)	WB	L	C	C	D	C	D
	WB	R	B	B	C	B	C
	NB	T/R	C	F (94.8)	F (88.9)	F (241.1)	F (233.5)
	SB	L	B	B	C	C	C
	SB	T	A	A	A	B	B
	ILOS		**B**	**D**	**D**	**F (122.1)**	**F (124.0)**
Route 611 & Route 314 (Western Leg)	EB	L	F	F(**)	F (**)	F (**)	F (**)
	EB	R	C	D	E	F (58.5)	F (139.1)
	NB	L	B	C	F (56.9)	F (74.8)	F (210.3)
Route 611 & Woodland Road/ Strickland's Road/ Big Daddy's Driveway	EB	L/T/R	C	C	C	C	C
	WB	L	C	C	C	D	C
	WB	L/T			C		C
	WB	R			B		B
	NB	L	A	B	B	B	B
	NB	T	B	B	B	C	C
	NB	R			A		A
	SB	L	A	B	B	B	B
	SB	T/R	A	A	A	B	A
	SWB	L/T/R	C	D	---	D	---
	ILOS		**B**	**B**	**B**	**C**	**B**
Route 611 & Meadowside Road/ Trinity Hill Road	EB	L/T/R	B	B	B	B	B
	WB	L/T/R	C	D	D	E	E
	NB	L	A	B	B	B	B
	SB	L	A	B	B	B	B
Route 611 & Grange Road/ Green Springs Driveway	EB	L/T/R	---	F (292.0)	F (531.6)	F (1229.0)	F (**)
	WB	L/T/R	C	F (207.5)	F (337.9)	F (720.4)	F (1142.2)
	NB	L	---	B	B	B	B
	SB	L	A	B	B	B	B

* = With Site-Related Recommendations
** = Unable to Calculate

TABLE I - CONTINUED

Intersection	Approach/ Movement		2005 Existing	2007 Base	2007 Projected*	2017 Base	2017 Projected*
Woodland Road & Pocono Mountain School Road	WB	L	A	A	A	A	A
	NB	L/R	B	B	D	B	D
Woodland Road & Bowman Road	WB	L	A	A	A	A	B
	NB	L/R	A	B	C	B	C
Woodland Road & Meadowside Road	EB	L	A	A	A	A	A
	SB	L/R	A	A	C	B	C
Woodland Road & Carlton Road	EB	L/T	B	B	C	B	C
	NB	L	A	A	A	A	A
Route 940 & Carlton Road/ Caesar's Resort Driveway	EB	L	A	B	B	B	C
	EB	T/R	---				
	WB	L	A	B	A	C	B
	WB	T/R			A		A
	NB	L/T/R	D	C	B	D	C
	SB	L/T/R	E	C	B	C	B
	ILOS		---	**B**	**B**	**C**	**B**
Route 940 & Route 390	EB	L	A	B	B	D	D
	EB	T	---				
	WB	T/R	---	B	B	B	B
	SB	L	B	D	D	D	D
	SB	R	B				
	ILOS		---	**C**	**C**	**D**	**D**
Route 940 & Route 191/ Red Rock Road	EB	L/T/R	A	A	A	A	A
	WB	L/T/R	A	A	A	A	A
	NB	L/T/R	B	C	C	C	C
	SB	L/T/R	C	C	C	E	E
Woodland Road & Eastern Site Driveway	WB	L	---	---	A	---	A
	NB	L	---	---	C	---	C
	NB	R	---	---	A	---	A
Woodland Road & Western Site Driveway	WB	L	---	---	A	---	A
	NB	L	---	---	D	---	D
	NB	R	---	---	B	---	B

* = With Site-Related Recommendations

TABLE II
LEVEL OF SERVICE SUMMARY
SATURDAY P.M. PEAK HOUR

Intersection	Approach/ Movement		2005 Existing	2007 Base	2007 Projected*	2017 Base	2017 Projected*
Route 611 & I-80 (Interchange #298)	EB	L	B	D	C	E	E
	EB	R	B	B		B	
	NB	T	B	D	A	F	A
	SB	T	A	B	C	D	D
	ILOS		**B**	**C**	**C**	**E**	**D**
Route 611 & Route 314 (Eastern Leg)	WB	L	C	C	D	C	D
	WB	R	C	C	C	C	C
	NB	T/R	A	B	B	C	C
	SB	L	A	A	B	B	C
	SB	T	A	A	A	A	A
	ILOS			**A**	**B**	**B**	**B**
Route 611 & Route 314 (Western Leg)	EB	L	D	F (203.9)	F (**)	F (1183.2)	F (**)
	EB	R	B	B	C	C	C
	NB	L	A	B	C	B	C
Route 611 & Woodland Road/ Strickland's Road/ Big Daddy's Driveway	EB	L/T/R	C	C	C	C	C
	WB	L	D	C	C	C	C
	WB	L/T			C		C
	WB	R			B		B
	NB	L	A	A	B	A	B
	NB	T	A	B	C	B	C
	NB	R			A		A
	SB	L	A	A	B	A	B
	SB	T/R	A	A	A	A	A
	SWB	L/T/R	D	D	---	D	---
	ILOS			**A**	**A**	**B**	**B**
Route 611 & Meadowside Road/ Trinity Hill Road	EB	L/T/R	B	D	F (50.6)	F (99.6)	F (**)
	WB	L/T/R	C	F (96.6)	F (133.7)	F (337.5)	F (514.3)
	NB	L	A	B	B	B	B
	SB	L	A	B	B	B	B
Route 611 & Grange Road/ Green Springs Driveway	EB	L/T/R	---	F (114.9)	F (201.8)	F (319.8)	F (549.3)
	WB	L/T/R	C	F (244.4)	F (406.0)	F (706.6)	F (1095.2)
	NB	L	---	B	B	B	B
	SB	L	A	B	B	B	B

* = With Site-Related Recommendations
** = Unable to Calculate

TABLE II - CONTINUED

Intersection	Approach/ Movement		2005 Existing	2007 Base	2007 Projected*	2017 Base	2017 Projected*
Woodland Road & Pocono Mountain School Road	WB	L	A	A	A	A	A
	NB	L/R	A	A	B	A	B
Woodland Road & Bowman Road	WB	L	A	A	A	A	A
	NB	L/R	A	A	C	A	C
Woodland Road & Meadowside Road	EB	L	A	A	A	A	A
	SB	L/R	A	A	C	A	C
Woodland Road & Carlton Road	EB	L/T	B	B	B	B	B
	NB	L	A	A	A	A	A
Route 940 & Carlton Road/ Caesar's Resort Driveway	EB	L	A	B	B	B	B
	EB	T/R	---				
	WB	L	A	A	A	B	A
	WB	T/R			A		A
	NB	L/T/R	C	C	B	C	B
	SB	L/T/R	B	B	B	C	B
	ILOS		---	**B**	**B**	**B**	**B**
Route 940 & Route 390	EB	L	A	B	B	C	C
	EB	T	---				
	WB	T/R	---	B	B	B	B
	SB	L	B	C	C	D	D
	SB	R					
	ILOS		---	**B**	**B**	**C**	**C**
Route 940 & Route 191/ Red Rock Road	EB	L	A	A	A	A	A
	WB	L	A	A	A	A	A
	NB	L/T/R	B	C	C	C	C
	SB	L/T/R	B	C	C	E	E
Woodland Road & Eastern Site Driveway	WB	L	---	---	A	---	A
	NB	L	---	---	C	---	C
	NB	R	---	---	A	---	A
Woodland Road & Western Site Driveway	WB	L	---	---	A	---	A
	NB	L	---	---	C	---	D
	NB	R	---	---	A	---	A

* = With Site-Related Recommendations

INTRODUCTION

Traffic Planning and Design, Inc. (TPD) has completed a traffic impact study (TIS) for the proposed Mount Airy Lodge redevelopment in Paradise Township, Monroe County, Pennsylvania. As shown in Figure 1, the site for the proposed development is located on the southern side of Woodland Road, between Carlton Road and Bowman Road. The proposed redevelopment will consist of a 3,000 machine slot parlor including food and beverage support services, and a 200-room hotel (see Figure 2). It should be noted that, as requested by PennDOT, a separate traffic impact analysis was conducted at the intersection of Route 611/Route 940/Route 196 (5-Points) to determine the incremental impacts of the proposed site on that intersection. The traffic impact analysis for the "5-Points" intersection is included in Appendix M.

EXISTING ROAD NETWORK

A survey of the existing roadway system in the study area is provided below in Table 1. The existing lane configurations and intersection controls are depicted in Figure 3. Photographs of the study area intersections are included in Appendix A.

TABLE 1
EXISTING ROADWAY CHARACTERISTICS

Roadway	Roadway Jurisdiction	Posted Speed Limit	Travel Lane Width	Shoulder Width
Route 611	State (S.R. 0611)	45 m.p.h.	11-12'	0-10'
Route 314 (East)	State (S.R. 0314)	35 m.p.h.	12-13'	0'
Route 314 (West)	State (S.R. 0314)	40 m.p.h.	10'	4'
Woodland Road	Township (T-700)	40 m.p.h.	10-13'	0-2'
Strickland's Road	Township (T-612)	35 m.p.h.	11'	0'
Big Daddy's Drive	Private	Not Posted	15'	0'
Meadowside Road	Township (T-610)	35 m.p.h.	10-12'	0'
Trinity Hill Road	Township (T-563)	35 m.p.h.	13'	0'
Grange Road	Township/Borough (T-559)	35 m.p.h.	10'	0'
Route 940	State (S.R. 0940)	45 m.p.h.	11'	2-10'
Carlton Road	State (S.R. 1011)	45 m.p.h.	11'	0-4'
Caesar's Resort Drive	Private	15 m.p.h.	11'	0'
Route 390	State (S.R. 0390)	45 m.p.h.	11'	0-4'
Route 191	State (S.R. 0191)	45 m.p.h.	11'	0'
Red Rock Road	Township (T-635)	35 m.p.h.	8'	0'
School Access	Private	25 m.p.h.	11'	3'
Bowman Road	Township (T-563)	35 m.p.h.	11'	0'
I-80 Off Ramp (Exit 298)	State (S.R. 8006)	Not Posted	13-14'	10-12'

SITE ACCESS

Access to the proposed development will be provided by two (2) full-access site driveways to Woodland Road. The full-access site driveways will be located approximately 1,400 feet and 2,700 feet east of the centerline of Meadowside Road, respectively.

The site driveways will be designed as high-volume driveways with two entering lanes and two exiting lanes, with proper channelization. In addition, left and right-turn lanes will be provided on the Woodland Road approaches to the site driveways.

SIGHT DISTANCE ANALYSIS

A sight distance analysis was performed for the proposed site driveways. In general, recommended safe sight distances depend upon the posted speed limit, roadway grades, and the number of travel lanes. The proposed sight distances at the site driveways were measured and compared to the desirable sight distance standards as specified in Title 67 of the PA Code, Chapter 441, "Access to and Occupancy of Highways by Driveways and Local Roads," August, 1996. The proposed sight distances were also compared to PennDOT's safe stopping sight distance (SSSD) standard as calculated by the following equation:

$$\mathbf{SSSD = 1.47VT + V^2/[30(f \pm g)]}$$

SSSD = safe stopping sight distance (acceptable sight distance)
V = 85th Percentile Speed
T = Perception Reaction Time of Driver (2.5 seconds)
f = Coefficient of Friction for Wet Pavements (average of 0.30)
g = Percent of Roadway Grade Divided by 100

PennDOT's desirable and safe stopping sight distance standards both exceed the stopping sight distance requirements as specified in A Policy on Geometric Design of Highways and Streets, of the American Association of State Highway and Transportation Officials (AASHTO), Chapter III, "Elements of Design," 2001.

Eastern Full-Access Site Driveway

Table 2 shows the proposed, desirable, and safe stopping sight distances at the eastern site driveway for vehicles entering and exiting the site.

TABLE 2
SIGHT DISTANCE ANALYSIS
PROPOSED EASTERN SITE DRIVEWAY

	Direction	Design Speed (mph)	Grade[1] (%)	*Sight Distances (feet)*		
				DES	SSSD	**PROP**
Exiting Movements	To the left	40	+1	538	319	**600**
	To the right	40	-4	460	352	**500+**
Entering Left-Turns	Approaching same direction	40	-4	N/A	352	**500+**
	Approaching opposite direction	40	+1	373	319	**400+**

DES = PennDOT Desirable Sight Distance
SSSD = PennDOT Safe Stopping Sight Distance
PROP = Proposed Sight Distance
1. Roadway Grade Approaching Site Access
N/A = Not Applicable

As shown in Table 2, the proposed sight distances at the proposed eastern site driveway will exceed the applicable PennDOT sight distance requirements in all cases.

Western Full-Access Site Driveway

Table 3 shows the proposed, desirable, and safe stopping sight distances at the western site driveway for vehicles entering and exiting the site.

TABLE 3
SIGHT DISTANCE ANALYSIS
PROPOSED WESTERN SITE DRIVEWAY

	Direction	Design Speed (mph)	Grade[1] (%)	*Sight Distances (feet)*		
				DES	SSSD	**PROP**
Exiting Movements	To the left	40	+1	538	319	**600+**
	To the right	40	-5	460	360	**500+**
Entering Left-Turns	Approaching same direction	40	-5	N/A	360	**500+**
	Approaching opposite direction	40	+1	373	319	**400+**

DES = PennDOT Desirable Sight Distance
SSSD = PennDOT Safe Stopping Sight Distance
PROP = Proposed Sight Distance
1. Roadway Grade Approaching Site Access
N/A = Not Applicable

As shown in Table 3, the proposed sight distances at the western site driveway will exceed the applicable PennDOT sight distance requirements in all cases.

PLANNED ROADWAY IMPROVEMENTS

Non Site-Related Improvements

Based on a review of the PennDOT 12-Year Plan, there are programmed roadway improvements scheduled in the vicinity of the proposed site. Descriptions of the improvements are outlined below.

Route 611

Based on conversations with PennDOT District 5-0, it is TPD's understanding these improvements will include resurfacing Route 611 from Fairview Avenue in Mount Pocono Borough to Woodland Road in Paradise Township. In conjunction with the resurfacing, left-turn lanes will be constructed along Route 611 at the intersections of Grange Road, Meadowside Road/Trinity Hill Road and Wiscasset Road. These improvements are currently scheduled during the first four-year period (October 2004 – September 2008) of the PennDOT 12-Year Plan. It is TPD's understanding that the improvements in Mount Pocono Borough will be completed in 2005, and the improvements in Paradise Township will be completed in 2006.

There is also a safety improvement project programmed for Route 611 from Scotrun to Swiftwater. The project will include the four lane section of Route 611 beginning just south of Shine Hill Road and extending north to just south of the Route 611 and Route 314 intersection. This safety improvement project will widen the roadway to allow for turning lanes at specific locations throughout the corridor. It will improve the safety of the roadway by taking the turning traffic out of the passing lane into a designated turning lane. A traffic signal will also be installed at the Brookdale Road intersection with Route 611. Furthermore, the bridge near Anthony's Steak House will be replaced with a Reinforced Concrete Box Culvert. These improvements are currently scheduled during the first four-year period (October 2004 – September 2008) of the PennDOT 12-Year Plan.

Interstate 80

There is also a safety improvement project programmed for Interstate-80 exits 298 (Route 611) and 299 (Route 715). Based on conversations with PennDOT District 5-0, it is TPD's understanding that a study has been completed which investigates potential roadway improvements at the interchanges. These improvements are currently scheduled during the first four-year period (October 2004 – September 2008) of the PennDOT 12-Year Plan. It is further TPD's understanding that a $15 million earmark has been secured for improvements to Interstate-80 in Monroe County. The intent of this earmark, in addition to I-80 mainline improvements, was to provide safety improvements to state and local roads (in particular Route 611 and Route 715) connecting to Interstate-80. At this time the particular allocation of the earmarked funds has not been determined, however it is likely that a portion of the funds will be used to implement improvements to exits 298 and 299 of Interstate-80.

Route 940

It is also TPD's understanding that the intersections of Route 940/Carlton Road/Caesar's Resort Driveway (recently completed) and Route 940/Route 390 are planned to be signalized. As part of the signalization of the intersection of Route 940/Route 390, the southbound Route 390 approach to the intersection will be reconfigured to form a "T" intersection, thus eliminating the bifurcation.

The above-outlined roadway improvements have been included in all future condition analysis (base and projected conditions).

Site-Related Improvements

The following improvements are recommended in conjunction with redevelopment of the Mount Airy Lodge facility:

Woodland Road

Widen Woodland Road from Route 611 to Carlton Road (approximately 2 miles) as follows:

- Widen Woodland Road from a two-lane (20-22 foot wide roadway) to a three-lane, 40-foot wide curbed roadway from Route 611 to 500 feet east of the proposed eastern Mount Airy Lodge site drive. The third lane will be striped as a center left turn lane resulting in left turn lanes on Woodland Road at its intersections with the Pocono Mountain School District Driveway, Bowman Road, Meadowside Road, and two Mount Airy Lodge site driveways.
- Widen Woodland Road to provide 250-foot long right turn deceleration lanes with 180-foot long tapers on Woodland Road at its intersections with the Pocono Mountain School District Driveway, Bowman Road, Meadowside Road, and two Mount Airy Lodge site driveways.
- Widen Woodland Road from 500 feet east of the proposed eastern Mount Airy Lodge site drive to Carlton Road to provide 11-foot wide travel lanes and 5-foot shoulders. This section of Woodland Road will remain two lanes wide.
- Horizontal and vertical geometric and alignment improvements along sections of Woodland Road including realignment in some sections, and superelevation.
- It is recommended that the speed limit for Woodland Road be reduced from 40 mph to 35 mph from Route 611 to 500 feet east of the proposed eastern Mount Airy Lodge site drive as a result of the horizontal geometry and curbing proposed for the roadway. It is further recommended that advisory 25 mph speed limit signs be placed for the three horizontal curves between Bowman Road and Meadowside Road.
- Based on the Township's recommendation, realign the eastbound Woodland Road approach to Carlton Road within the existing Right-of-Way to allow Woodland Road to intersect Carlton Road at a 90° angle.

Route 611 and Woodland Road/ Strickland's Road/Big Daddy's Driveway

- Construct a separate 250-foot long left-turn lane, with a 100-foot long taper on the westbound Woodland Road approach to Route 611.
- Construct a 250-foot long right-turn lane, with a 180-foot long taper on the westbound Woodland Road approach to Route 611.
- Re-designate the existing westbound Woodland Road approach to Route 611 in order to provide a shared left/through travel lane.
- Construct a separate 350-foot long right-turn lane, with a 210-foot long taper on the northbound Route 611 approach to Woodland Road.
- Close the Strickland's Road approach to the Route 611/Woodland Road/Big Daddy's intersection, thus eliminating the 5-leg intersection.
- Install new traffic signal equipment (controller, mast arms, signal heads) at the intersection of Route 611 and Woodland Road/Big Daddy's Driveway in order to accommodate the proposed traffic signal phasing.

Route 940 and Carlton Road

- Construct separate 100-foot long left-turn lanes, with 100-foot long tapers on the Route 940 approaches to Carlton Road/Caesar's Resort Drive.

Route 611 and Route 314 (Eastern Leg)

- Coordinate the existing traffic signal with the proposed traffic signal at the intersection of Route 611 and Route 314 (Western Leg).

Route 611 and Route 314 (Western Leg)

- Install a traffic signal at the intersection of Route 611 and Route 314 (Western Leg). Coordinate the traffic signal with the existing traffic signal at the intersection of Route 611 and Route 314 (Eastern Leg). Based upon the analyses performed, it is TPD's opinion that the signalized scenario in which the eastbound left-turn movement from Route 314 to Route 611 would be eliminated, thus creating a "Half Signal" under which the northbound Route 611 through traffic would never stop is the preferred scenario from a level of service standpoint.

Route 611 and I-80 (Interchange #298)

- Due to the fact that an earmark has been secured for improvements to Interstate-80 in Monroe County, and improvements to the interchange are likely forthcoming, it is recommended in the interim to widen/reconfigure/re-stripe the WB I-80 off-ramp at its intersection with Route 611 to provide dual left-turns and a shared right-turn. Providing the dual left-turns from the I-80 off-ramp will require northbound Route 611 to be re-striped in order to provide two through travel lanes. The two through travel lanes will be provided utilizing the two-way center left-turn lane which currently exists on Route 611.

The above-outlined roadway improvements have been included in all future condition analysis with redevelopment of the Mount Airy Lodge facility (projected conditions). The future lane configurations and intersection controls with redevelopment of the Mount Airy Lodge facility are shown in Figure 4.

EXISTING TRAFFIC VOLUMES

Manual traffic counts were conducted during the Friday evening (4:00-8:00 P.M.) and Saturday evening (3:00-7:00 P.M.) peak hours of adjacent street traffic at the following intersections:

- Route 611 and I-80 WB Off-Ramp/EB On-Ramp (Interchange #298);
- Route 611 and Route 314 (Eastern Leg);
- Route 611 and Route 314 (Western Leg);
- Route 611 and Woodland Road/Strickland's Road/Big Daddy's Driveway;
- Route 611 and Meadowside Road/Trinity Hill Road;
- Route 611 and Grange Road;
- Woodland Road and Pocono Mountain School District Driveway (2:00-8:00 P.M.);
- Woodland Road and Bowman Road;
- Woodland Road and Meadowside Road;
- Woodland Road and Carlton Road;
- Route 940 and Carlton Road/Caesar's Resort Driveway;
- Route 940 and Route 390;
- Route 940 and Route 191/Red Rock Road.

The counts were taken at fifteen-minute intervals on the following days:

- Friday, May 20, 2005 between 4:00-8:00 P.M.;
- Saturday, May 21, 2005 between 3:00-7:00 P.M.;
- Saturday, June 18, 2005 between 3:00-7:00 P.M;
- Tuesday, November 29, 2005 between 2:00-8:00 P.M.
- Friday, February 3, 2006 between 4:00-8:00 P.M.;
- Saturday, February 4, 2006 between 3:00-7:00 P.M.

The purpose of the counts was to determine the traffic volume and directional distribution of traffic currently using the roadways in the vicinity of the site. For a given peak traffic period, the "peak hour" consists of the four consecutive 15-minute intervals during which the highest traffic volumes occur. The Existing Condition traffic volumes during the Friday P.M. and Saturday P.M. peak hours are shown in Figures 5 and 6, respectively.

In addition, the traffic volume map contained on the PennDOT Internet Traffic Monitoring System (ITMS) website was reviewed to determine the Average Daily Traffic (ADT) for a typical weekday along the State-maintained roadways in the vicinity of the proposed site. The ADT information from the ITMS website is summarized below in Table 4.

TABLE 4
AVERAGE DAILY TRAFFIC (ADT) IN VICINTY OF PROPOSED SITE

Roadway	Average Daily Traffic for Typical Weekday[1]
Route 611	14,690 vehicles per day
Woodland Road	2,552 vehicles per day
Route 314 (East)	3,814 vehicles per day
Route 314 (West)	3,529 vehicles per day
Carlton Road	3,268 vehicles per day
Route 940	7,769 vehicles per day
Route 390	7,124 vehicles per day
Route 191	2,377 vehicles per day

1 = Based on data contained on the PennDOT Internet Traffic Monitoring System website

The manual traffic count printouts and PennDOT ITMS data sheets are included in Appendix B.

BASE CONDITIONS

Background Growth

A background growth factor for the roadways in the study area was developed based on information supplied by the PennDOT Bureau of Planning and Research (BPR). According to the BPR, growth values were determined utilizing an average of the last 9 years of growth information and comparing it to an average calculated from 9 years of historical growth. Based on the calculations, the PennDOT BPR recommends utilizing a background growth trend factor of 1.022 (2.2%) per year in Monroe County for Functional Class Groups (FCG) 4 and 6, pertaining to rural minor arterial roadways and rural major collector roadways, respectively. Therefore, base condition traffic volumes (assuming a no-build scenario) were developed for the opening year of 2007 using a background growth factor of 1.044 (2.2% per year increase compounded for two years) and for the design year of 2017 using a background growth factor of 1.298 (2.2% per year increase compounded for twelve years) to adjust existing Friday P.M. and Saturday P.M. peak hour traffic volumes.

Nearby Planned Developments

Base (future no-build) traffic conditions were calculated to include traffic volumes from proposed developments which, though not operating under existing conditions, may be operating by the opening year of the proposed development (2007). Based on discussions with staff from Paradise Township, Mount Pocono Borough, Pocono Township and Stroud Township, the following thirteen (13) developments were considered in this study:

Pocono Mountain School District Elementary School, located in Paradise Township along the western side of Bowman Road, between Woodland Road and Upper Swiftwater Road. The development will consist of an elementary school which will accommodate up to 1,000 students. The traffic generated by this development was calculated based on the equations contained in the ITE manual Trip Generation for elementary school (ITE Land Use Code #520). The site-generated trips were distributed throughout the study area based on existing traffic patterns.

Tall Oaks Residential Development, located in Paradise Township along Grange Road, between Route 611 and Route 940. The development will consist of 26 single-family dwelling units. The traffic generated by this development was calculated based on the equations contained in the ITE manual Trip Generation for single-family detached housing (ITE Land Use Code #210). The site-generated trips were distributed throughout the study area based on existing traffic patterns.

Grange Road/Route 940 Residential Development, located in Paradise Township in the vicinity of the Grange Road and Route 940 intersection. The development will consist of 20 townhouse units. The traffic generated by this development was calculated based on the equations contained in the ITE manual Trip Generation for residential condominium/townhouse (ITE Land Use Code #230). The site-generated trips were distributed throughout the study area based on existing traffic patterns.

Lowe's Home Improvement Store & Hirshland Development, located in Mount Pocono Borough along Route 940 in the vicinity of Industrial Park Drive. The Lowe's development will consist of a 161,659 square foot Lowe's Home Improvement Store, three high turnover sit-down restaurants consisting of 6,750, 6,800 and 7,100 square feet, respectively and 8,800 square feet of retail space. The Hirshland development will consist of 39,200 square feet of retail space, a 5,884 square foot convenience store with gas pumps, a 4,200 square foot high turnover sit-down restaurant and a 4,658 square foot high turnover sit down restaurant. The traffic generated by this development and the distribution of site-generated trips were obtained from the TIS performed by TPD, dated March 20, 2003, revised June 30, 2005.

Pocono Country Place, located in Mount Pocono Borough along Route 611, to the north of Route 940. The development will consist of an additional 1,200 single family residential units which are expected to be built out over the next 10 years. The traffic generated by this development was calculated based on the equations contained in the ITE manual Trip Generation for single-family detached housing (ITE Land Use Code #210). The site-generated trips were distributed throughout the study area based on existing traffic patterns.

Green Springs Age-Qualified Residential Community, located on the western side of Route 611, opposite Grange Road. The development will consist of 436 age-qualified dwelling units. The traffic generated by this development was calculated based on the equations contained in the ITE manual Trip Generation for senior adult housing - detached (ITE Land Use Code #251). The site-generated trips were distributed throughout the study area based on existing traffic patterns.

Great Wolf Lodge, located in Pocono Township on the western side of Route 611, north of the I-80 Interchange. The development will consist of a 400 room lodge. The traffic generated by this development and the distribution of site-generated trips were obtained from the TIS performed by Borton-Lawson Engineering.

Crossroads Mall of the Poconos, located in Stroud Township along Route 611, opposite the Route 33 Interchange. The development will consist of 300,000 square feet of retail space, an 8,000 square foot high turnover sit-down restaurant, and a convenience store with 8 gas pumps (16 fueling positions). The traffic generated by this development and the distribution of site-generated trips were obtained from the TIS performed by Benchmark Civil Engineering Services, Inc., dated March 14, 2003, revised December 15, 2004.

DEPG Stroud Associates, located in the vicinity of the proposed Crossroads Mall of the Poconos. The development will consist of a 5,615 square foot high turnover sit-down restaurant, a convenience store with 8 gas pumps (16 fueling positions), a hotel containing 105 rooms, and a 14,560 square foot pharmacy with drive-thru. The traffic generated by this development and the distribution of site-generated trips were obtained from the TIS performed by Benchmark Civil Engineering Services, Inc. for the Crossroads Mall of the Poconos, dated March 14, 2003, revised December 15, 2004.

Darlak Properties (Phase I), located in the vicinity of the proposed Crossroads Mall of the Poconos. The development will consist of 22,000 square feet of general office space and a hotel containing 105 rooms. The traffic generated by this development and the distribution of site-generated trips were obtained from the TIS performed by Benchmark Civil Engineering Services, Inc. for the Crossroads Mall of the Poconos, dated March 14, 2003, revised December 15, 2004.

Stroudsburg School District Middle School, located in the vicinity of the proposed Crossroads Mall of the Poconos. The development will consist of a middle school which will accommodate up to 1,200 students. The traffic generated by this development and the distribution of site-generated trips were obtained from the TIS performed by Benchmark Civil Engineering Services, Inc. for the Crossroads Mall of the Poconos, dated March 14, 2003, revised December 15, 2004.

Paradigm Development, located in the vicinity of the proposed Crossroads Mall of the Poconos. The development will consist of a 138,310 square feet of retail space. The traffic generated by this development and the distribution of site-generated trips were obtained from the TIS performed by Benchmark Civil Engineering Services, Inc. for the Crossroads Mall of the Poconos, dated March 14, 2003, revised December 15, 2004.

The background growth trend factor of 2.2% per year utilized to develop base condition traffic volumes accounts for traffic generated by the following nearby planned developments due to their location with respect to the Mount Airy Lodge, their type of land use, and the amount of traffic generated by the development:

Knobb Crest, located in Mount Pocono Borough along Knobb Road. The development will consist of 49 senior apartment units.

Geisinger Clinic, located in Mount Pocono Borough along Commerce Drive. The development will consist of an approximate 16,800 square foot clinic.

Industrial Site, located in Mount Pocono Borough along Commerce Drive. The development will consist of an approximately 70-acre industrial park.

Pocono Mountain Industrial Park, located in Mount Pocono Borough north of Route 940. The development will consist of an approximately 104-acre industrial park.

Summit Heights, located in Pocono Township along Summit Road. The development will consist of 8 single-family dwelling units.

The additional traffic volumes due to background growth and the thirteen (13) nearby planned developments were added to the existing traffic volumes to produce 2007 and 2017 Base Condition traffic volumes for the Friday P.M. and Saturday P.M. peak hours. The 2007 Base Condition traffic volumes for the Friday P.M. and Saturday P.M. peak hours are shown in Figures 7 and 8, respectively. The 2017 Base Condition traffic volumes for the Friday P.M. and Saturday P.M. peak hours are shown in Figures 9 and 10, respectively. The trip distributions for the nearby planned developments are included in Appendix C.

TRIP GENERATION

Due to the lack of available data in the ITE Trip Generation Manual regarding this type of development, a Trip Generation Study for an existing similar facility was conducted to develop trip generation rates for the proposed facility. The similar existing facility studied, Dover Downs in Dover Delaware, currently consists of a 2,500 machine slot parlor including food and beverage support services, and a 232 room hotel.

Dover Downs Trip Generation

Existing Trip Generation

TPD conducted manual traffic counts at the existing site access driveways at the Dover Downs facility in Dover, Delaware. The counts were taken at 15-minute intervals from 4:00 P.M.-9:00 P.M. on Friday, April 29, 2005 and 11:00 A.M.-9:00 P.M. on Saturday, April 30, 2005. The purpose of the counts was to determine the existing trip generation of the facility, determine the peak traffic time periods of the facility, and develop trip generation rates for the P.M. peak hour of adjacent street traffic (one hour between 4:00-6:00 P.M. on a Friday) and on a peak generator hour basis for the existing facility for a typical Saturday. The Dover Downs manual traffic count printouts are included in Appendix D. Table 5 shows the existing trip generation of the Dover Downs facility for the Friday and Saturday peak hours.

TABLE 5
DOVER DOWNS - TRIP GENERATION

Time Period	Total	Enter	Exit
Friday P.M. Peak Hour of Adjacent Street Traffic (5:15-6:15 P.M.)	851	496	355
Saturday Peak Hour of the Generator (5:15-6:15 P.M.)	941	523	418

Trip Generation Rate Calculation

Based on the information collected at the Dover Downs facility, as presented in Table 5, a trip generation rate was calculated to relate the number of trips generated during the peak hour time periods analyzed, to the number of slot machines at the existing facility (2,500). The directional distribution of traffic (enter/exit) was also calculated for each of the peak times. Table 6 shows the results of these calculations.

TABLE 6
DOVER DOWNS - TRIP GENERATION RATES

Time Period	Trip Generation Rate	Directional Distribution	
		Enter	Exit
Friday P.M. Peak Hour of Adjacent Street Traffic	T = 0.34(X)	58%	42%
Saturday Peak Hour of the Generator	T = 0.38(X)	56%	44%

T = Total trips generated, X = # of Slot Machines

Mount Airy Lodge Proposed Trip Generation

The proposed Mount Airy Lodge facility will consist of a 3,000 machine slot parlor including food and beverage support services. It will also include a hotel with approximately 200 rooms. Therefore, since the proposed facility will have approximately the same number of slot machines, and approximately the same number of hotel rooms, the trip generation rates calculated from the counts performed at Dover Downs were utilized to develop the trip generation for the proposed Mount Airy Lodge. The proposed trip generation for the Mount Airy Lodge facility during the Friday and Saturday peak time periods is shown in Table 7.

TABLE 7
PROPOSED TRIP GENERATION – MOUNT AIRY LODGE FACILITY

Time Period	X	R	Total	Enter	Exit
Friday P.M. Peak Hour of Adjacent Street Traffic	3,000	0.34	1,020	592	428
Saturday Peak Hour of the Generator	3,000	0.38	1,140	638	502

X = # of Slot Machines, R = Trip Generation Rate

TRIP DISTRIBUTION

The distribution of trips generated by the proposed Mount Airy Lodge was based on the local roadway network, the existing traffic patterns, the proposed use of the site, and a marketing study prepared for the Mount Airy Lodge. Based on the marketing study prepared for the Mount Airy Lodge, TPD prepared a trip distribution gravity model for an approximate 200-mile radius. Utilizing the results of the gravity model, the trips for the proposed development were distributed to the local roadway network based on the percentages shown in Table 8, and also shown in Figure 11. The results of the gravity model are contained in Appendix E.

TABLE 8
TRIP DISTRIBUTION PERCENTAGES

Direction - To/From	Distribution %
I-80 (Interchange #298)	55%
North via 611	15%
North via Route 390	5%
South via Route 611	10%
South via Bowman Road	1%
South via Carlton Road	1%
West via Route 314	5%
East via Route 940	6%
West via Route 940	2%

The assignment of site-generated trips for the proposed development during the Friday P.M. and Saturday P.M. peak hours are shown in Figures 12 and 13, respectively.

PROJECTED CONDITION TRAFFIC VOLUMES

The site-generated trips were added to the 2007 and 2017 Base Condition traffic volumes to develop the 2007 and 2017 Projected Condition traffic volumes for the Friday P.M and Saturday P.M. peak hours. The 2007 Projected Condition traffic volumes for the Friday P.M and Saturday P.M. peak hours are shown in Figures 14 and 15, respectively. The 2017 Projected Condition traffic volumes for the Friday P.M and Saturday P.M. peak hours are shown in Figures 16 and 17, respectively. These volumes include existing traffic, traffic due to thirteen (13) planned nearby developments, future "background" traffic growth, and all traffic due to the redevelopment of the Mount Airy Lodge facility.

LEVELS OF SERVICE (LOS) FOR AN INTERSECTION

For analysis of intersections, level of service is defined in terms of delay, which is a measure of driver discomfort and frustration, fuel consumption, and lost travel time. Level of service criteria is stated in terms of control delay per vehicle for a one-hour analysis period. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The criteria are shown in Table 9. Delay, as it relates to level of service, is a complex measure and is dependent upon a number of variables. For signalized intersections, these variables include the quality of vehicle progression, the cycle length, the green time ratio, and the volume/capacity ratio for the lane group in question. For unsignalized intersections, delay is related to the availability of gaps in the flow of traffic on the major street and the driver's discretion in selecting an appropriate gap for a particular movement from the minor street (straight across, left or right turn).

TABLE 9
LEVEL OF SERVICE CRITERIA*

	Control Delay Per Vehicle (Seconds)	
Level of Service	**Signalized**	**Unsignalized**
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

* Obtained from the Transportation Research Board's Highway Capacity Manual, 2000 Edition.

CAPACITY ANALYSIS METHODOLOGY

Capacity analyses were conducted for the Friday P.M and Saturday P.M. peak hours for the following intersections:

- Route 611 and I-80 WB Off-Ramp/EB On-Ramp (Interchange #298);
- Route 611 and Route 314 (Eastern Leg);
- Route 611 and Route 314 (Western Leg);
- Route 611 and Woodland Road/Strickland's Road/Big Daddy's Driveway;
- Route 611 and Meadowside Road/Trinity Hill Road;
- Route 611 and Grange Road;
- Woodland Road and Pocono Mountain School District Driveway;
- Woodland Road and Bowman Road;
- Woodland Road and Meadowside Road;
- Woodland Road and Carlton Road;
- Route 940 and Carlton Road/Caesar's Resort Driveway;
- Route 940 and Route 390;
- Route 940 and Route 191/Red Rock Road.

These analyses were conducted according to the methodologies contained in the 2000 Highway Capacity Manual (HCM) for the following conditions:

- Existing Conditions;
- 2007 Base Conditions (Future opening year without development);
- 2007 Projected Conditions (Future opening year with development);
- 2017 Base Conditions (Future design year without development);
- 2017 Projected Conditions (Future design year with development).

In addition, capacity analyses were conducted at the proposed site driveway intersections with Woodland Road under 2007 and 2017 Projected Conditions. The capacity analysis worksheets are included in Appendix F.

LEVELS OF SERVICE IN THE STUDY AREA

Existing Conditions

Existing Condition levels of service at the study area intersections are shown in Figures 18 and 19 for the Friday P.M. and Saturday P.M. peak hours, respectively.

2007 Base Conditions (Future Opening Year Without Development)

The 2007 Base Condition traffic volumes were developed assuming a background growth factor of 1.044 (2.2% per year increase compounded for two years), traffic from thirteen (13) nearby planned developments, the non site-related improvements outlined in the Planned Roadway Improvements section of this report, and no development of the proposed site (the no-build scenario). The 2007 Base Condition levels of service at the study area intersections are shown in Figures 20 and 21 for the Friday P.M. and Saturday P.M. peak hours, respectively.

2007 Projected Conditions (Future Opening Year With Development)

The 2007 Projected Condition traffic volumes were developed assuming a background growth factor of 1.044 (2.2% per year increase compounded for two years), traffic from thirteen (13) nearby planned developments, all of the improvements outlined in the Planned Roadway Improvements section of this report, and development of the proposed site (the build scenario). The 2007 Projected Condition levels of service at the study area intersections are shown in Figures 22 and 23 for the Friday P.M. and Saturday P.M. peak hours, respectively.

2017 Base Conditions (Future Design Year Without Development)

The 2017 Base Condition traffic volumes were developed assuming a background growth factor of 1.298(2.2% per year increase compounded for twelve years), traffic from thirteen (13) nearby planned developments, the non site-related improvements outlined in the Planned Roadway Improvements section of this report, and no development of the proposed site (the no-build scenario). The 2017 Base Condition levels of service at the study area intersections are shown in Figures 24 and 25 for the Friday P.M. and Saturday P.M. peak hours, respectively.

2017 Projected Conditions (Future Design Year With Development)

The 2017 Projected Condition traffic volumes were developed assuming a background growth factor of 1.298 (2.2% per year increase compounded for twelve years), traffic from thirteen (13) nearby planned developments, all of the improvements outlined in the Planned Roadway Improvements section of this report, and development of the proposed site (the build scenario). The 2017 Projected Condition levels of service at the study area intersections are shown in Figures 26 and 27 for the Friday P.M. and Saturday P.M. peak hours, respectively.

Level of service matrices for the study area intersections are shown in Tables 10 and 11 for the Friday P.M. and Saturday P.M. peak hours, respectively.

TABLE 10
LEVEL OF SERVICE SUMMARY
FRIDAY P.M. PEAK HOUR

Intersection	Approach/ Movement		2005 Existing	2007 Base	2007 Projected*	2017 Base	2017 Projected*
Route 611 & I-80 (Interchange #298)	EB	L	E	F(233.9)	F(172.2)	F(369.6)	F(255.2)
	EB	R	B	B		B	
	NB	T	B	E	A	F	A
	SB	T	B	E	E	F(151.1)	F(144.5)
	ILOS		**C**	**F(108.0)**	**F(83.2)**	**F(196.7)**	**F(134.9)**
Route 611 & Route 314 (Eastern Leg)	WB	L	C	C	D	C	D
	WB	R	B	B	C	B	C
	NB	T/R	C	F (94.8)	F (88.9)	F (241.1)	F (233.5)
	SB	L	B	B	C	C	C
	SB	T	A	A	A	B	B
	ILOS		**B**	**D**	**D**	**F (122.1)**	**F (124.0)**
Route 611 & Route 314 (Western Leg)	EB	L	F	F(**)	F (**)	F (**)	F (**)
	EB	R	C	D	E	F (58.5)	F (139.1)
	NB	L	B	C	F (56.9)	F (74.8)	F (210.3)
Route 611 & Woodland Road/ Strickland's Road/ Big Daddy's Driveway	EB	L/T/R	C	C	C	C	C
	WB	L	C	C	C	D	C
	WB	L/T			C		C
	WB	R			B		B
	NB	L	A	B	B	B	B
	NB	T	B	B	B	C	C
	NB	R			A		A
	SB	L	A	B	B	B	B
	SB	T/R	A	A	A	B	A
	SWB	L/T/R	C	D	---	D	---
	ILOS		**B**	**B**	**B**	**C**	**B**
Route 611 & Meadowside Road/ Trinity Hill Road	EB	L/T/R	B	B	B	B	B
	WB	L/T/R	C	D	D	E	E
	NB	L	A	B	B	B	B
	SB	L	A	B	B	B	B
Route 611 & Grange Road/ Green Springs Driveway	EB	L/T/R	---	F (292.0)	F (531.6)	F (1229.0)	F (**)
	WB	L/T/R	C	F (207.5)	F (337.9)	F (720.4)	F (1142.2)
	NB	L	---	B	B	B	B
	SB	L	A	B	B	B	B

* = With Site-Related Recommendations
** = Unable to Calculate

TABLE 10 - CONTINUED

Intersection	Approach/ Movement		2005 Existing	2007 Base	2007 Projected*	2017 Base	2017 Projected*
Woodland Road & Pocono Mountain School Road	WB	L	A	A	A	A	A
	NB	L/R	B	B	D	B	D
Woodland Road & Bowman Road	WB	L	A	A	A	A	B
	NB	L/R	A	B	C	B	C
Woodland Road & Meadowside Road	EB	L	A	A	A	A	A
	SB	L/R	A	A	C	B	C
Woodland Road & Carlton Road	EB	L/T	B	B	C	B	C
	NB	L	A	A	A	A	A
Route 940 & Carlton Road/ Caesar's Resort Driveway	EB	L	A	B	B	B	C
	EB	T/R	---				
	WB	L	A	B	A	C	B
	WB	T/R			A		A
	NB	L/T/R	D	C	B	D	C
	SB	L/T/R	E	C	B	C	B
	ILOS		**---**	**B**	**B**	**C**	**B**
Route 940 & Route 390	EB	L	A	B	B	D	D
	EB	T	---				
	WB	T/R	---	B	B	B	B
	SB	L	B	D	D	D	D
	SB	R	B				
	ILOS		**---**	**C**	**C**	**D**	**D**
Route 940 & Route 191/ Red Rock Road	EB	L/T/R	A	A	A	A	A
	WB	L/T/R	A	A	A	A	A
	NB	L/T/R	B	C	C	C	C
	SB	L/T/R	C	C	C	E	E
Woodland Road & Eastern Site Driveway	WB	L	---	---	A	---	A
	NB	L	---	---	C	---	C
	NB	R	---	---	A	---	A
Woodland Road & Western Site Driveway	WB	L	---	---	A	---	A
	NB	L	---	---	D	---	D
	NB	R	---	---	B	---	B

* = With Site-Related Recommendations

TABLE 11
LEVEL OF SERVICE SUMMARY
SATURDAY P.M. PEAK HOUR

Intersection	Approach/ Movement		2005 Existing	2007 Base	2007 Projected*	2017 Base	2017 Projected*
Route 611 & I-80 (Interchange #298)	EB	L	B	D	C	E	E
	EB	R	B	B		B	
	NB	T	B	D	A	F	A
	SB	T	A	B	C	D	D
	ILOS		**B**	**C**	**C**	**E**	**D**
Route 611 & Route 314 (Eastern Leg)	WB	L	C	C	D	C	D
	WB	R	C	C	C	C	C
	NB	T/R	A	B	B	C	C
	SB	L	A	A	B	B	C
	SB	T	A	A	A	A	A
	ILOS			**A**	**B**	**B**	**B**
Route 611 & Route 314 (Western Leg)	EB	L	D	F (203.9)	F (**)	F (1183.2)	F (**)
	EB	R	B	B	C	C	C
	NB	L	A	B	C	B	C
Route 611 & Woodland Road/ Strickland's Road/ Big Daddy's Driveway	EB	L/T/R	C	C	C	C	C
	WB	L	D	C	C	C	C
	WB	L/T			C		C
	WB	R			B		B
	NB	L	A	A	B	A	B
	NB	T	A	B	C	B	C
	NB	R			A		A
	SB	L	A	A	B	A	B
	SB	T/R	A	A	A	A	A
	SWB	L/T/R	D	D	---	D	---
	ILOS			**A**	**A**	**B**	**B**
Route 611 & Meadowside Road/ Trinity Hill Road	EB	L/T/R	B	D	F (50.6)	F (99.6)	F (**)
	WB	L/T/R	C	F (96.6)	F (133.7)	F (337.5)	F (514.3)
	NB	L	A	B	B	B	B
	SB	L	A	B	B	B	B
Route 611 & Grange Road/ Green Springs Driveway	EB	L/T/R	---	F (114.9)	F (201.8)	F (319.8)	F (549.3)
	WB	L/T/R	C	F (244.4)	F (406.0)	F (706.6)	F (1095.2)
	NB	L	---	B	B	B	B
	SB	L	A	B	B	B	B

* = With Site-Related Recommendations
** = Unable to Calculate

TABLE 11 - CONTINUED

Intersection	Approach/ Movement		2005 Existing	2007 Base	2007 Projected*	2017 Base	2017 Projected*
Woodland Road & Pocono Mountain School Road	WB	L	A	A	A	A	A
	NB	L/R	A	A	B	A	B
Woodland Road & Bowman Road	WB	L	A	A	A	A	A
	NB	L/R	A	A	C	A	C
Woodland Road & Meadowside Road	EB	L	A	A	A	A	A
	SB	L/R	A	A	C	A	C
Woodland Road & Carlton Road	EB	L/T	B	B	B	B	B
	NB	L	A	A	A	A	A
Route 940 & Carlton Road/ Caesar's Resort Driveway	EB	L	A	B	B	B	B
	EB	T/R	---				
	WB	L	A	A	A	B	A
	WB	T/R			A		A
	NB	L/T/R	C	C	B	C	B
	SB	L/T/R	B	B	B	C	B
	ILOS		**---**	**B**	**B**	**B**	**B**
Route 940 & Route 390	EB	L	A	B	B	C	C
	EB	T	---				
	WB	T/R	---	B	B	B	B
	SB	L	B	C	C	D	D
	SB	R					
	ILOS		**---**	**B**	**B**	**C**	**C**
Route 940 & Route 191/ Red Rock Road	EB	L	A	A	A	A	A
	WB	L	A	A	A	A	A
	NB	L/T/R	B	C	C	C	C
	SB	L/T/R	B	C	C	E	E
Woodland Road & Eastern Site Driveway	WB	L	---	---	A	---	A
	NB	L	---	---	C	---	C
	NB	R	---	---	A	---	A
Woodland Road & Western Site Driveway	WB	L	---	---	A	---	A
	NB	L	---	---	C	---	D
	NB	R	---	---	A	---	A

* = With Site-Related Recommendations

As shown in Tables 10 and 11, under 2007 Projected Conditions, all approaches and turning movements at the study area intersections will operate at LOS D or better during the Friday P.M. and Saturday P.M. peak hours, except for the following:

Route 611 and I-80 (Interchange #298)

- Under 2007 and 2017 Projected Conditions, the westbound I-80 off-ramp approach to Route 611 which will continue to operate at LOS F during the Friday P.M. peak hour. (Same LOS as 2007 and 2017 Base Conditions). The delay for the LOS F will decrease from 233.9 seconds under 2007 Base Conditions to 172.2 seconds under 2007 Projected Conditions, and will decrease from 369.6 seconds under 2017 Base Conditions to 255.2 seconds under 2017 Projected Conditions.
- Under 2017 Projected Conditions, the westbound I-80 off-ramp approach to Route 611 which will continue to operate at LOS E during the Saturday P.M. peak hour. (Same LOS as 2017 Base Conditions).
- Under 2007 Projected Conditions, the southbound Route 611 to the I-80 off-ramp which will continue to operate at LOS E during the Friday P.M. peak hour. (Same LOS as 2007 Base Conditions).
- Under 2017 Projected Conditions, the southbound Route 611 to the I-80 off-ramp which will continue to operate at LOS F during the Friday P.M. peak hour. (Same LOS as 2017 Base Conditions). The delay for the LOS F will decrease from 151.1 seconds under 2007 Base Conditions to 144.5 seconds under 2007 Projected Conditions.

The overall intersection will operate at ILOS F under 2007 and 2017 Projected Conditions during the Friday P.M. peak hour. The delay for the ILOS F will decrease from 108.0 seconds under 2007 Base Conditions to 83.2 seconds under 2007 Projected Conditions, and will decrease from 196.7 seconds under 2017 Base Conditions to 134.9 seconds under 2017 Projected Conditions.

Route 611 and Route 314 (Eastern Leg)

- Under 2007 and 2017 Projected Conditions, the northbound Route 611 through/right movement at Route 314 (Eastern Leg) will continue to operate at LOS F during the Friday P.M. peak hour. (Same LOS as 2007 and 2017 Base Conditions)

The delay for the LOS F will decrease from 94.8 seconds under 2007 Base Conditions to 88.9 seconds under 2007 Projected Conditions, and will decrease from 241.1 seconds under 2017 Base Conditions to 233.5 seconds under 2017 Projected Conditions. Furthermore, the overall intersection will operate at LOS D under 2007 Projected Conditions and LOS F (124.0 seconds of delay) under 2017 Projected Conditions. The overall intersection delay will minimally increase by 1.9 under 2017 conditions, when compared to base conditions.

Route 611 and Route 314 (Western Leg)

- Under 2007 and 2017 Projected Conditions, the eastbound Route 314 (western leg) left-turn movement to Route 611 will continue to operate at LOS F during the Friday P.M. and Saturday P.M. peak hours. (Same LOS as 2007 and 2017 Base Conditions)
- Under 2007 Projected Conditions, the eastbound Route 314 (western leg) right-turn movement to Route 611 will operate at LOS E during the Friday P.M. peak hour. (LOS D under 2007 Base Conditions)
- Under 2017 Projected Conditions, the eastbound Route 314 (western leg) right-turn movement to Route 611 will continue to operate at LOS F during the Friday P.M. peak hour. (Same LOS as 2017 Base Conditions)
- Under 2007 and 2017 Projected Conditions, the northbound Route 611 left-turn movement to Route 314 (western leg) will operate at LOS F during the Friday P.M. peak hour. (LOS C under 2007 Base Conditions and Same LOS as 2017 Base Conditions)

As indicated in the Signal Warrant Analysis section of this report, traffic signal warrants are satisfied at the intersection of Route 611 and Route 314 (Western Leg). Therefore, an improvement scenario was analyzed in which a traffic signal would be installed at the intersection. The capacity analyses conducted for the signalized scenario assumed that the eastbound left-turn movement from Route 314 to Route 611 would be eliminated. This was assumed due to the fact that eliminating the left-turn movement would allow the signal phasing to operate in such a manner that northbound Route 611 through traffic would not be controlled by the traffic signal, and thus would never stop. Additionally, northbound Route 611 left-turn traffic to Route 314 would be controlled by a left-turn phase of the traffic signal with southbound Route 611 traffic stopping. By providing this signal phasing, the queue of vehicles on northbound Route 611 will not extend into the intersection of Route 611 and Route 314 (Eastern Leg) which is located approximately 1,100 feet south of the centerline of Route 314 (Western Leg). With signalization, under 2007 and 2017 Projected Conditions, all approaches and turning movements at the intersection would operate at LOS C or better during the Friday P.M. and Saturday P.M. peak hours. It should be noted that under this scenario, the left-turn movements from Route 314 to Route 611 were redistributed such that the vehicles would make a right-turn from Route 314 to southbound Route 611, and then make a u-turn at the intersection of Route 611 and Route 314 (Eastern Leg) which is not prohibited to get back to their desired route of traveling northbound on Route 611.

Furthermore, at the request of PennDOT, the proposed signalized scenario that assumes that the eastbound left-turn movement from Route 314 to Route 611 would be eliminated has been compared to a signalized scenario in which the left-turn movement is not eliminated (i.e. signalization of the existing lane configuration). The results of this comparison are summarized below in Tables 12 and 13 for the Friday P.M. and Saturday P.M. peak hours, respectively.

TABLE 12
LEVEL OF SERVICE COMPARISON - FRIDAY P.M. PEAK HOUR

Intersection	Approach/ Movement		2007 Projected[1]	2007 Projected[2]	2017 Projected[1]	2017 Projected[2]
Route 611 & Route 314 (Eastern Leg)	WB	L	D	D	D	D
	WB	R	C	C	C	C
	NB	T/R	F(92.0)	F(92.1)	F(247.8)	F(225.5)
	SB	L	D	C	D	C
	SB	T	A	A	A	A
	ILOS		**D**	**D**	**F(128.4)**	**F(116.6)**
Route 611 & Route 314 (Western Leg)	EB	L	---	D	---	D
	EB	R	C	F	D	F
	NB	L	B	D	B	F
	NB	T	A	B	A	B
	SB	T/R	B	D	B	F
	ILOS		**A**	**C**	**B**	**E**

1 = Signalization **with** the elimination of the eastbound left-turn movement from Route 314 to Route 611
2 = Signalization **without** the elimination of the eastbound left-turn movement from Route 314 to Route 611

TABLE 13
LEVEL OF SERVICE COMPARISON - SATURDAY P.M. PEAK HOUR

Intersection	Approach/ Movement		2007 Projected[1]	2007 Projected[2]	2017 Projected[1]	2017 Projected[2]
Route 611 & Route 314 (Eastern Leg)	WB	L	D	D	D	D
	WB	R	C	C	C	C
	NB	T/R	B	B	C	C
	SB	L	C	D	D	D
	SB	T	A	A	A	A
	ILOS		**B**	**B**	**B**	**B**
Route 611 & Route 314 (Western Leg)	EB	L	---	D	---	C
	EB	R	D	D	D	D
	NB	L	A	C	C	D
	NB	T	A	A	A	A
	SB	T/R	A	B	A	C
	ILOS		**A**	**B**	**A**	**B**

1 = Signalization **with** the elimination of the eastbound left-turn movement from Route 314 to Route 611
2 = Signalization **without** the elimination of the eastbound left-turn movement from Route 314 to Route 611

Based upon the analyses performed, it is TPD's opinion that the signalized scenario in which the eastbound left-turn movement from Route 314 to Route 611 would be eliminated, thus creating a "Half Signal" under which the northbound Route 611 through traffic would never stop is the preferred scenario from a level of service standpoint.

Additional information regarding the potential signalization of the intersection of Route 611 and Route 314 (Western Leg) is included in Appendix G. This information includes traffic volumes and capacity analysis worksheets for the affected intersections along Route 611.

Route 611 and Meadowside Road/Trinity Hill Road

- Under 2007 and 2017 Projected Conditions, the eastbound Trinity Hill Road approach to Route 611 will operate at LOS F during the Saturday P.M. peak hour. (LOS D under 2007 Base Conditions and Same LOS as 2017 Base Conditions)
- Under 2007 Projected Conditions, the westbound Meadowside Road approach to Route 611 will operate at LOS F during the Saturday P.M. peak hour. (Same LOS as 2007 Base Conditions)
- Under 2017 Projected Conditions, the westbound Meadowside Road approach to Route 611 will operate at LOS E during the Friday P.M. peak hour and LOS F during the Saturday P.M. peak hour. (Same LOS as 2017 Base Conditions)

The only improvement that would improve the deficient levels of service for the stop-controlled approaches would be the installation of a traffic signal. However, as indicated in the Signal Warrant Analysis section of this report, traffic signal warrants are not currently satisfied, and will not be satisfied with development of the proposed site, and therefore a traffic signal could not be installed at this time.

Route 611 and Grange Road/Green Springs Driveway

- Under 2007 and 2017 Projected Conditions, the eastbound Green Springs Driveway approach to Route 611 will operate at LOS F during the Friday P.M. and Saturday P.M. peak hours. (Same LOS as 2007 and 2017 Base Conditions)
- Under 2007 and 2017 Projected Conditions, the westbound Grange Road approach to Route 611 will operate at LOS F during the Friday P.M. and Saturday P.M. peak hours. (Same LOS as 2007 and 2017 Base Conditions)

The only improvement that would improve the deficient levels of service for the stop-controlled approaches would be the installation of a traffic signal. As indicated in the Signal Warrant Analysis section of this report, traffic signal warrants for the intersection will be satisfied under 2007 Base Conditions. The signal warrants at the intersection will be satisfied based upon traffic volumes from the Green Springs Driveway which will serve the 436-units, and not as a direct result of site-generated traffic on Grange Road.

Route 940 and Route 191/Red Rock Road

- Under 2017 Projected Conditions, the southbound Route 191 approach to Route 940 will operate at LOS E during the Friday P.M. and Saturday P.M. peak hours. (Same LOS as 2017 Base Conditions) It should be noted that an LOS E condition is often deemed acceptable for unsignalized intersections.

SIGNAL WARRANT ANALYSIS

Per PennDOT Publication 212, Official Traffic Control Devices, a preliminary traffic signal warrant analysis was conducted in accordance with the guidelines contained in the 2003 Federal Manual on Uniform Traffic Control Devices (MUTCD), Section 4, "Highway Traffic Signals".

TPD examined traffic volumes at the following intersections to determine if Warrant 3, the Peak Hour Volume Warrant, is currently satisfied, or will be satisfied in the future:

- Route 611 and Route 314 (Western Leg) **(satisfied under Existing Conditions)**;
- Route 611 and Grange Road/Green Springs Driveway **(Not satisfied)**;
- Route 611 and Meadowside Road/Trinity Hill Road **(Not satisfied)**;
- Woodland Road and Eastern Site Driveway **(Not satisfied)**;
- Woodland Road and Western Site Driveway **(Not satisfied).**

At the request of PennDOT, TPD also examined traffic volumes at the following intersections to determine if Warrant 2, the Four-Hour Volume Warrant, is currently satisfied, or will be satisfied in the future:

- Route 611 and Grange Road/Green Springs Driveway **(satisfied under 2007 Base Conditions as a result of the 436-unit Green Springs Development)**;
- Route 611 and Meadowside Road/Trinity Hill Road **(Not satisfied)**;
- Woodland Road and Eastern Site Driveway **(Not satisfied)**;
- Woodland Road and Western Site Driveway **(Not satisfied)**.

The four-hour traffic volumes were developed for the Friday P.M. hours of 4:00-8:00 P.M. and the Saturday P.M. hours of 3:00-7:00 P.M. utilizing the manual traffic counts contained in Appendix B, the PennDOT recommended background growth factor, traffic from the thirteen (13) nearby planned developments contained in Appendix C, and the site-generated traffic from the proposed development (Figures 12 and 13). It should be noted that the corresponding Friday P.M. and Saturday P.M. peak hour volumes for the site-generated traffic were applied to the hourly adjacent-street volume totals between 4:00-8:00 P.M. and 3:00-7:00 P.M., respectively.

The signal warrant analysis worksheets and supporting traffic volumes are included in Appendix H.

AUXILIARY LANE ANALYSIS

Left-Turn Lane

TPD performed analyses at the proposed site driveway intersections using Highway Research Record (HRR) 211, which is the standard reference used by PennDOT and the "AASHTO Green Book", to determine if left-turn lane warrants will be satisfied. In HRR 211, the following variables are taken into account to determine the need for a left-turn lane:

- V_A = advancing volume (through, left-turning, and right-turning vehicles, vph);
- V_L = left-turning volume (vph);
- $L = V_L/V_A$ proportion of left turns in the total advancing traffic stream;
- V_O = opposing volume (opposing through and right-turning vehicles, vph);
- v = operating speed (mph).

Right-Turn Deceleration Lane

TPD performed analyses at the proposed site driveway intersections using the National Cooperative Highway Research Program (NCHRP) Report 279, Intersection Channelization Design Guide, 1985 to determine if right-turn deceleration lane warrants will be satisfied. The NCHRP Report 279 gives guidelines for the addition of right-turn deceleration lanes at intersections in graphical form.

Findings:

Woodland Road and Proposed Eastern Site Driveway

Based on HRR 211, left-turn lane warrants are not satisfied at the proposed Woodland Road eastern site driveway intersection for vehicles entering the site via a left-turn movement. As outlined in the planned roadway improvements section of this report, a 100-foot long left-turn lane, with a 100-foot long taper will be provided at the eastern site driveway for vehicles entering the site via a left-turn movement.

Based on the NCHRP Report 279, guidelines indicate that a full-width turn lane and taper is required at the proposed Woodland Road eastern site driveway intersection. As outlined in the planned roadway improvements section of this report, a 250-foot long right-turn deceleration lane with a 100-foot long taper will be provided on the eastbound Woodland Road approach to the proposed eastern site driveway for vehicles entering the site via a right-turn movement.

Woodland Road and Proposed Western Site Driveway

Based on HRR 211, left-turn lane warrants are satisfied at the proposed Woodland Road western site driveway intersection for vehicles entering the site via a left-turn movement. As outlined in the planned roadway improvements section of this report, a 100-foot long left-turn lane, with a 100-foot long taper will be provided at the western site driveway for vehicles entering the site via a left-turn movement.

Based on the NCHRP Report 279, guidelines indicate that a full-width turn lane and taper is required at the proposed Woodland Road western site driveway intersection. As outlined in the planned roadway improvements section of this report, a 250-foot long right-turn deceleration lane with a 100-foot long taper will be provided on the eastbound Woodland Road approach to the proposed western site driveway for vehicles entering the site via a right-turn movement.

The auxiliary turn-lane analysis worksheets are included in Appendix I.

QUEUE LENGTH ANALYSIS

Queue lengths at the study area intersections were analyzed using SYNCHRO to determine the 95th percentile queue lengths. The 95th percentile queue is the maximum back of queue with 95th percentile traffic volumes. The 95th percentile queue length is the queue exceeded at some point during 5% of the signal cycles.

The results of 95th percentile queue length analysis are contained in Appendix J.

RECOMMENDATIONS

TPD has made the following recommendations in relation to the proposed Mount Airy Lodge redevelopment in Paradise Township, Monroe County, Pennsylvania:

Woodland Road

Widen Woodland Road from Route 611 to Carlton Road (approximately 2 miles) as follows:

- ***Widen Woodland Road from a two-lane (20-22 foot wide roadway) to a three-lane, 40-foot wide curbed roadway from Route 611 to 500 feet east of the proposed eastern Mount Airy Lodge site drive. The third lane will be striped as a center left turn lane resulting in left turn lanes on Woodland Road at its intersections with the Pocono Mountain School District Driveway, Bowman Road, Meadowside Road, and two Mount Airy Lodge site driveways.***
- ***Widen Woodland Road to provide 250-foot long right turn deceleration lanes with 180-foot long tapers on Woodland Road at its intersections with the Pocono Mountain School District Driveway, Bowman Road, Meadowside Road, and two Mount Airy Lodge site driveways.***
- ***Widen Woodland Road from 500 feet east of the proposed eastern Mount Airy Lodge site drive to Carlton Road to provide 11-foot wide travel lanes and 5-foot shoulders. This section of Woodland Road will remain two lanes wide.***
- ***Horizontal and vertical geometric and alignment improvements along sections of Woodland Road including realignment in some sections, and superelevation.***
- ***It is recommended that the speed limit for Woodland Road be reduced from 40 mph to 35 mph from Route 611 to 500 feet east of the proposed eastern Mount Airy Lodge site drive as a result of the horizontal geometry and curbing proposed for the roadway. It is further recommended that advisory 25 mph speed limit signs be placed for the three horizontal curves between Bowman Road and Meadowside Road.***
- ***Based on the Township's recommendation, realign the eastbound Woodland Road approach to Carlton Road within the existing Right-of-Way to allow Woodland Road to intersect Carlton Road at a 90° angle.***

Route 611 and Woodland Road/ Strickland's Road/Big Daddy's Driveway

- ***Construct a separate 250-foot long left-turn lane, with a 100-foot long taper on the westbound Woodland Road approach to Route 611.***
- ***Construct a 250-foot long right-turn lane, with a 180-foot long taper on the westbound Woodland Road approach to Route 611.***
- ***Re-designate the existing westbound Woodland Road approach to Route 611 in order to provide a shared left/through travel lane.***
- ***Construct a separate 350-foot long right-turn lane, with a 210-foot long taper on the northbound Route 611 approach to Woodland Road.***
- ***Close the Strickland's Road approach to the Route 611/Woodland Road/Big Daddy's intersection, thus eliminating the 5-leg intersection.***
- ***Install new traffic signal equipment (controller, mast arms, signal heads) at the intersection of Route 611 and Woodland Road/Big Daddy's Driveway in order to accommodate the proposed traffic signal phasing.***

Route 940 and Carlton Road

- ***Construct separate 100-foot long left-turn lanes, with 100-foot long tapers on the Route 940 approaches to Carlton Road/Caesar's Resort Drive.***

Route 611 and Route 314 (Eastern Leg)

- ***Coordinate the existing traffic signal with the proposed traffic signal at the intersection of Route 611 and Route 314 (Western Leg).***

Route 611 and Route 314 (Western Leg)

- ***Install a traffic signal at the intersection of Route 611 and Route 314 (Western Leg). Coordinate the traffic signal with the existing traffic signal at the intersection of Route 611 and Route 314 (Eastern Leg). Based upon the analyses performed, it is TPD's opinion that the signalized scenario in which the eastbound left-turn movement from Route 314 to Route 611 would be eliminated, thus creating a "Half Signal" under which the northbound Route 611 through traffic would never stop is the preferred scenario from a level of service standpoint.***

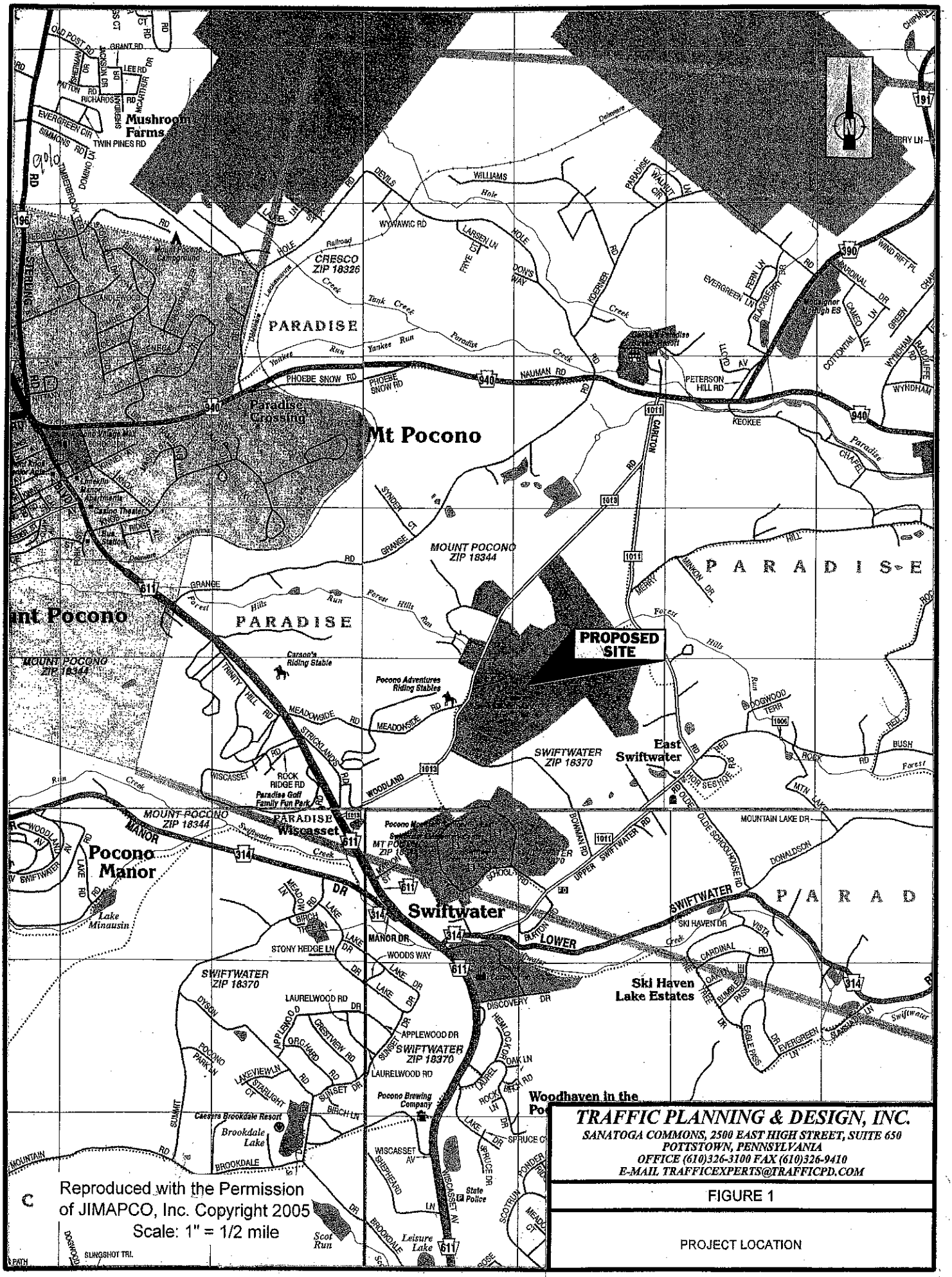
Route 611 and I-80 (Interchange #298)

- ***Due to the fact that an earmark has been secured for improvements to Interstate-80 in Monroe County, and improvements to the interchange are likely forthcoming, it is recommended in the interim to widen/reconfigure/re-stripe the WB I-80 off-ramp at its intersection with Route 611 to provide dual left-turns and a shared right-turn. Providing the dual left-turns from the I-80 off-ramp will require northbound Route 611 to be re-striped in order to provide two through travel lanes. The two through travel lanes will be provided utilizing the two-way center left-turn lane which currently exists on Route 611.***

CONCLUSIONS

The following conclusions were made as a result of this traffic impact study:

- ***Access to the proposed development will be provided by two (2) full-access site driveways to Woodland Road (T-700). The full-access site driveways will be located approximately 1,400 feet and 2,700 feet east of the centerline of Meadowside Road, respectively. The site driveways will be designed as high-volume driveways with two entering lanes and two exiting lanes, with proper channelization. In addition, left and right-turn lanes will be provided on the Woodland Road approaches to the site driveways.***
- ***The proposed development will generate 1,020 new vehicle-trips during the Friday P.M. peak hour (approximately 17 new vehicle-trips every minute) and 1,140 new vehicle-trips during the Saturday P.M. peak hour (approximately 19 new vehicle-trips every minute).***
- ***Future condition traffic volumes were calculated to include existing traffic, traffic due to thirteen (13) nearby planned developments, future "background" traffic growth, and all traffic due to the redevelopment of the Mount Airy Lodge facility.***
- ***Analyses were conducted to determine the quality of operation (i.e. level of service) at the study area intersections for Existing, 2007 Base, 2017 Base, 2007 Projected, and 2017 Projected Conditions. Additional analyses were conducted at the site driveway intersections for 2007 and 2017 Projected Conditions.***
- ***The improvements outlined in the recommendations section of this report should be implemented to improve future level of service deficiencies, offset level of service impacts, and to provide safe and efficient access to the proposed development.***



TRAFFIC PLANNING & DESIGN, INC.

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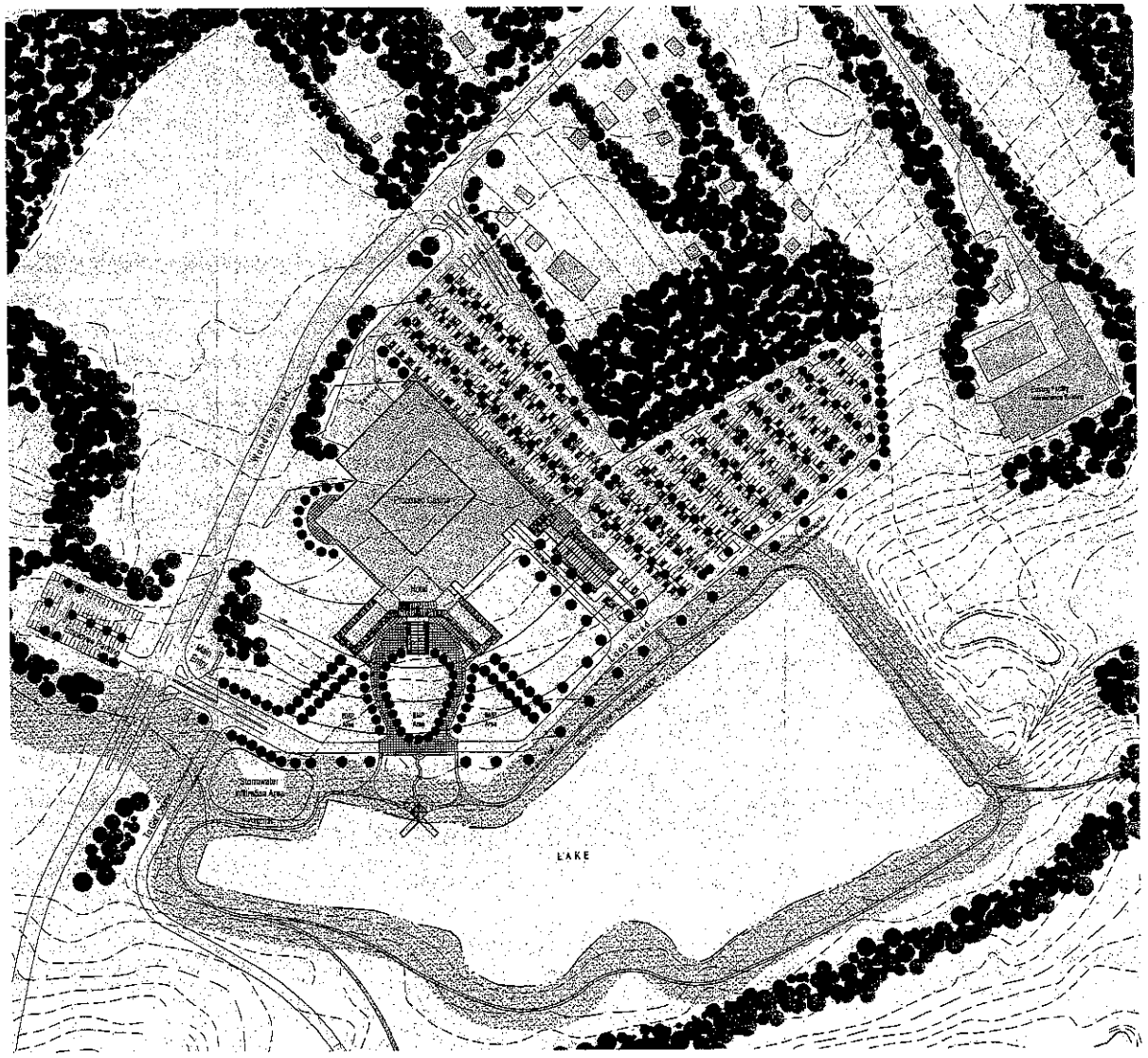
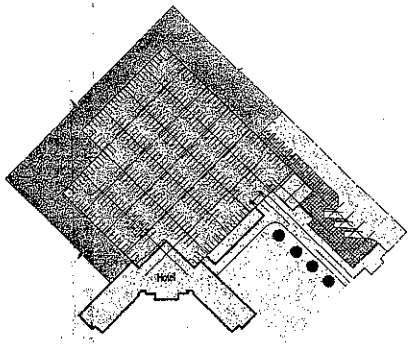
FIGURE 1

PROJECT LOCATION

Proposed Mount Airy Lodge Resort and Casino



Site Plan



Parking Garage Plan
(under Proposed Casino)

N

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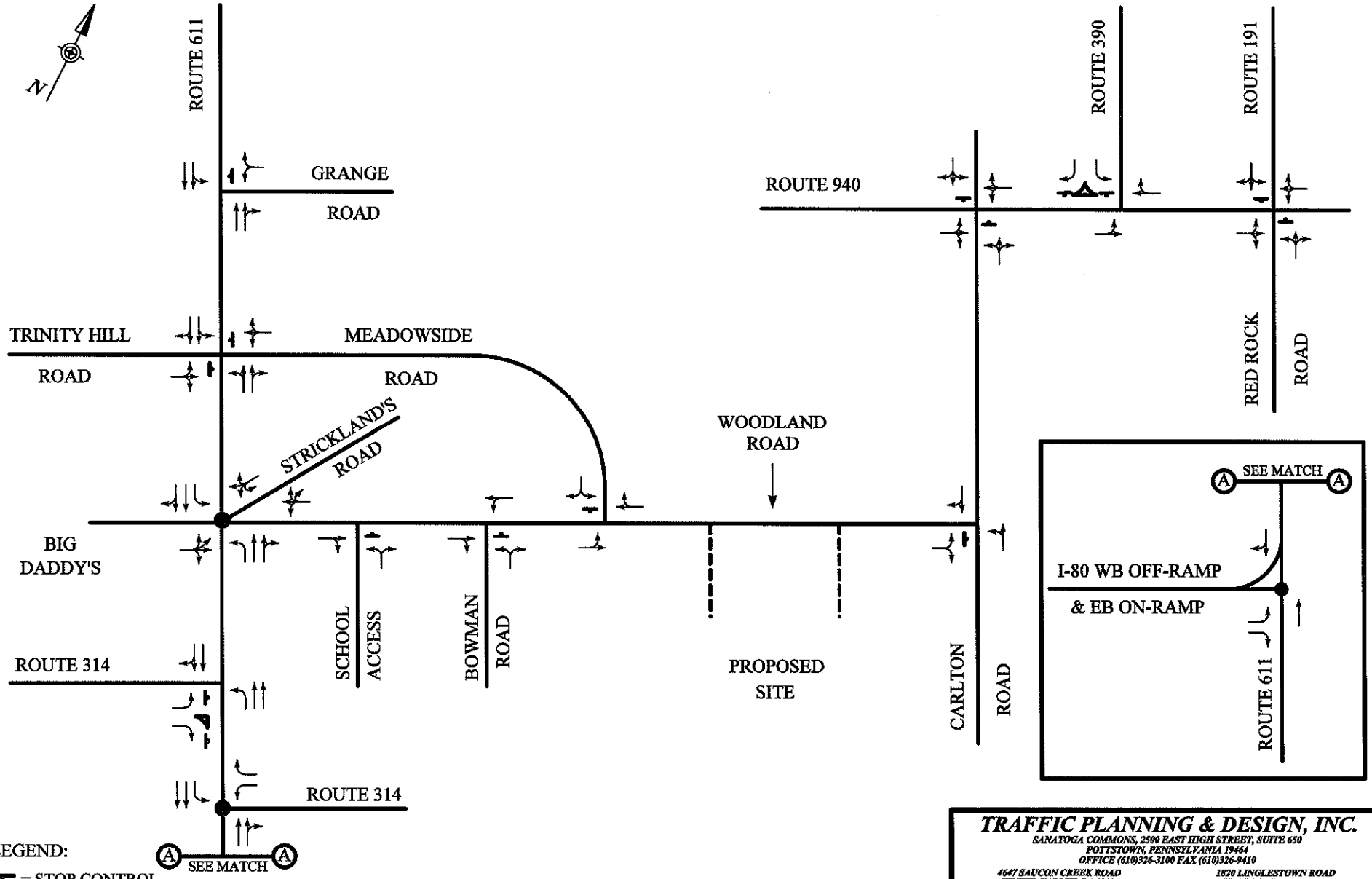
FIGURE 2

PROJECT SITE



LEGEND:
= STOP CONTROL
= PLANNED SIGNAL CONTROL BY OTHERS
= EXISTING SIGNAL CONTROL
= PROPOSED SITE DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE

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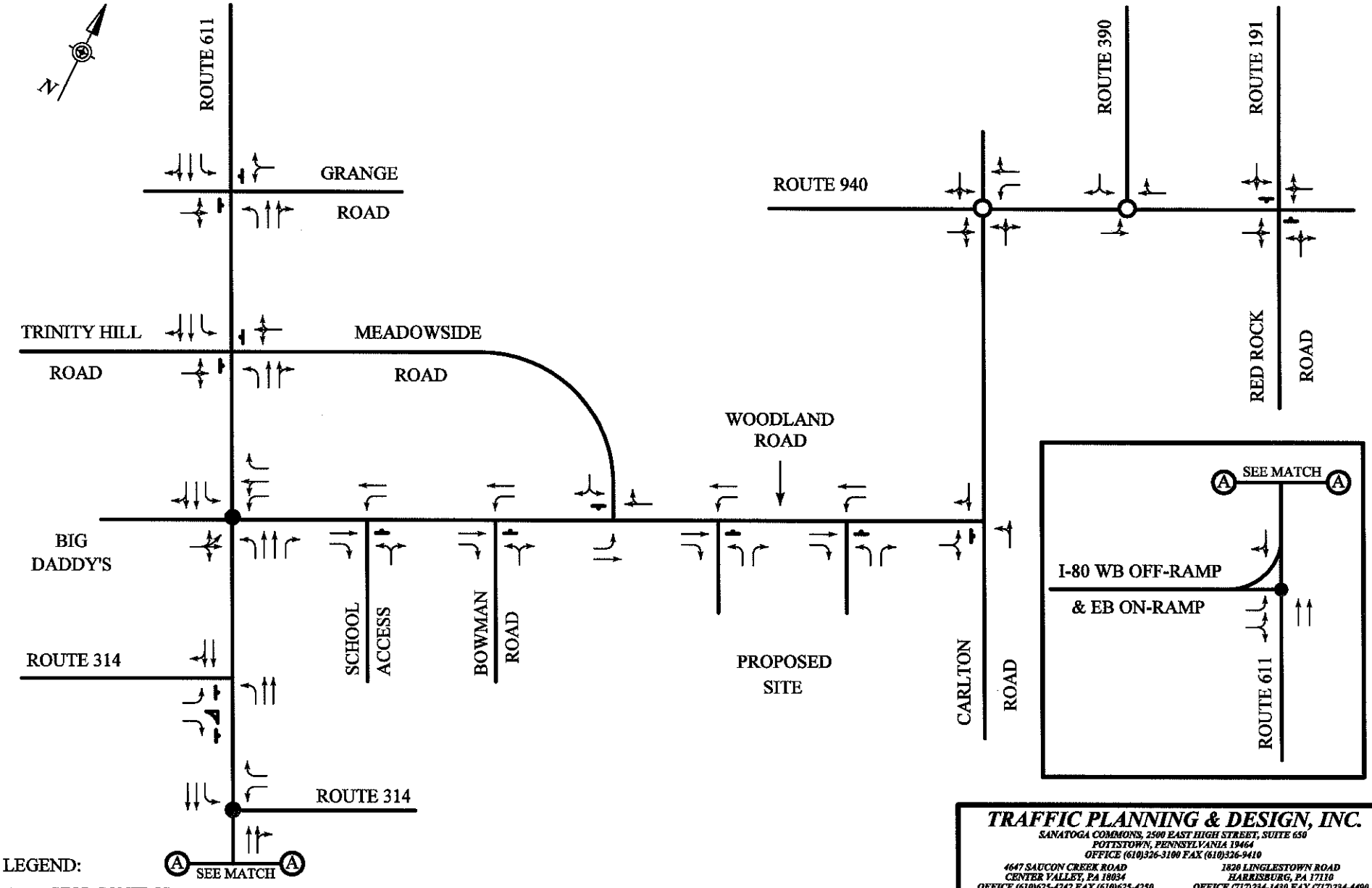
FIGURE 3

EXISTING LANE CONFIGURATIONS
AND INTERSECTION CONTROLS



LEGEND:

= STOP CONTROL

= PLANNED SIGNAL CONTROL BY OTHERS

= EXISTING SIGNAL CONTROL

SCHEMATIC DRAWING: NOT TO SCALE

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FIGURE 4

FUTURE LANE CONFIGURATIONS
AND INTERSECTION CONTROLS

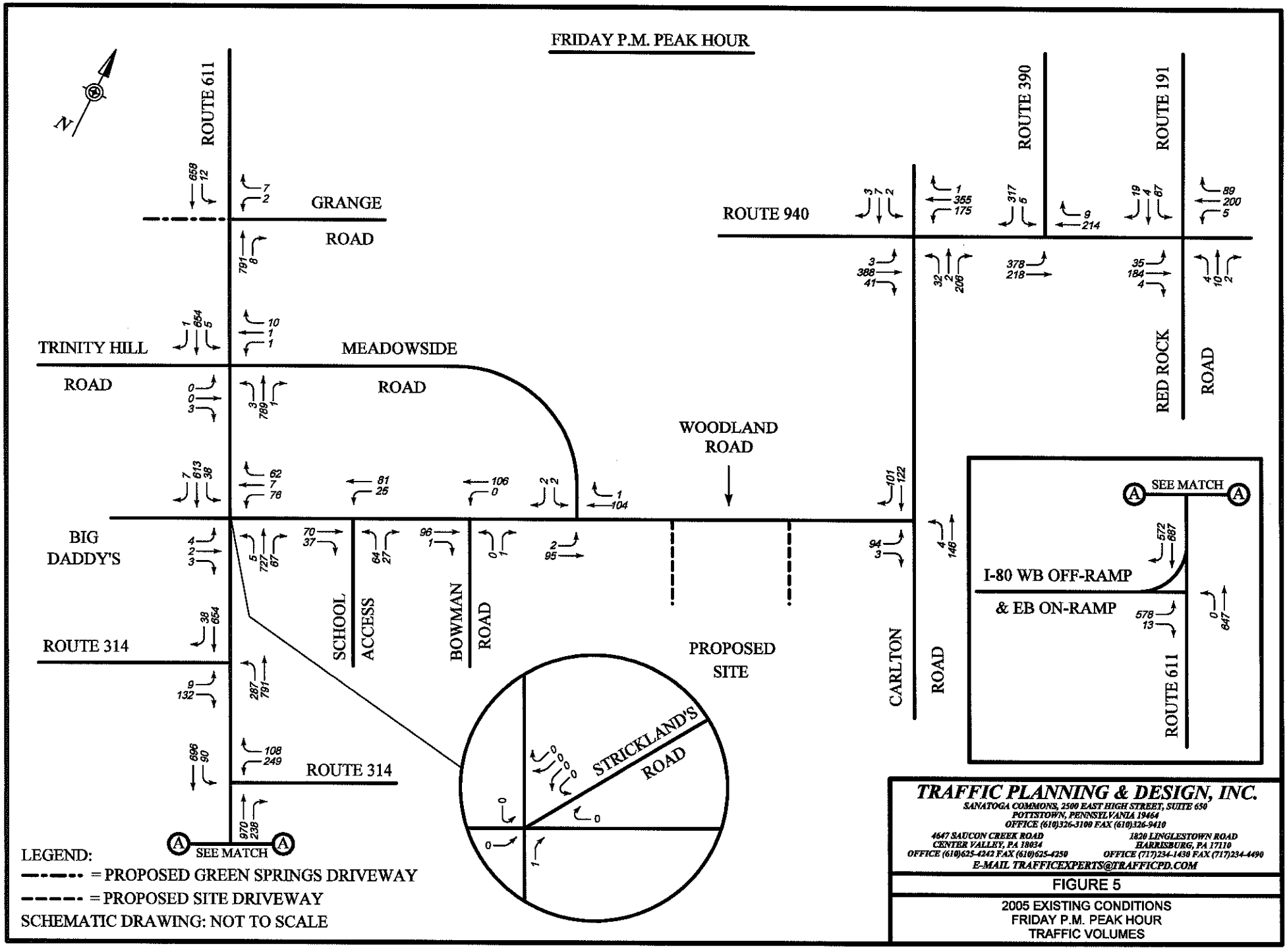

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FIGURE 5

2005 EXISTING CONDITIONS
FRIDAY P.M. PEAK HOUR
TRAFFIC VOLUMES

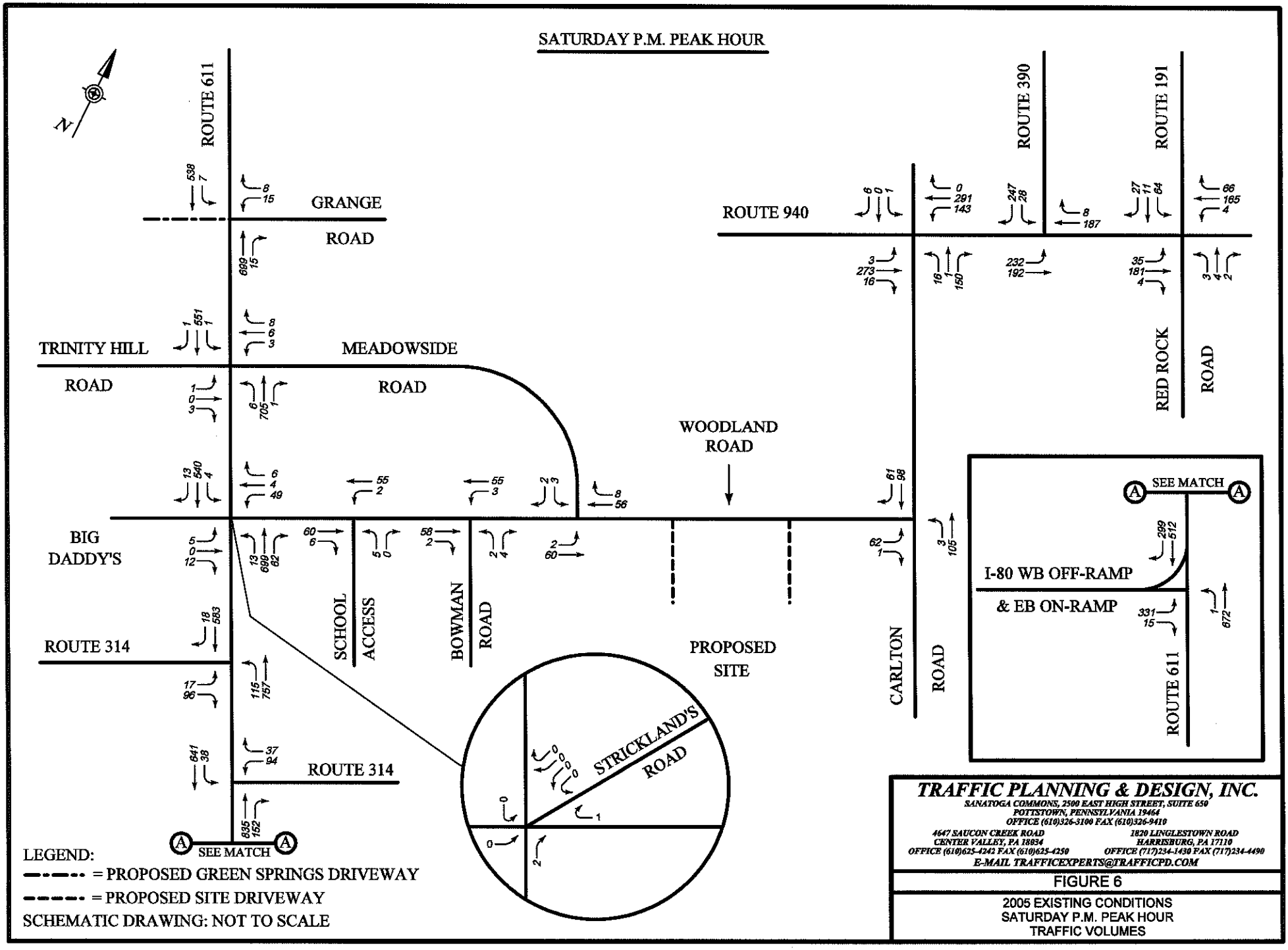

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FIGURE 6

2005 EXISTING CONDITIONS
SATURDAY P.M. PEAK HOUR
TRAFFIC VOLUMES

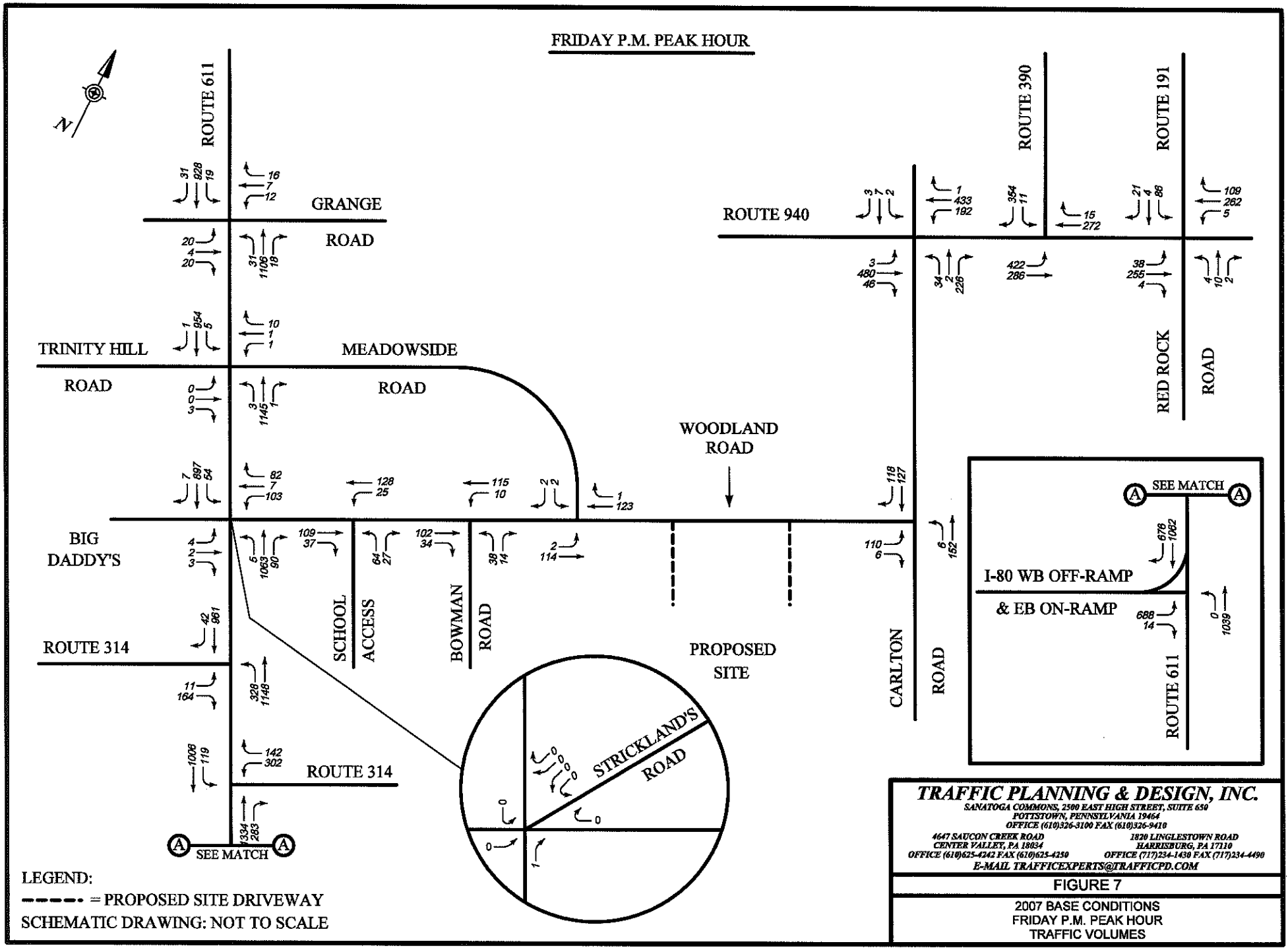

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FIGURE 7

2007 BASE CONDITIONS
FRIDAY P.M. PEAK HOUR
TRAFFIC VOLUMES

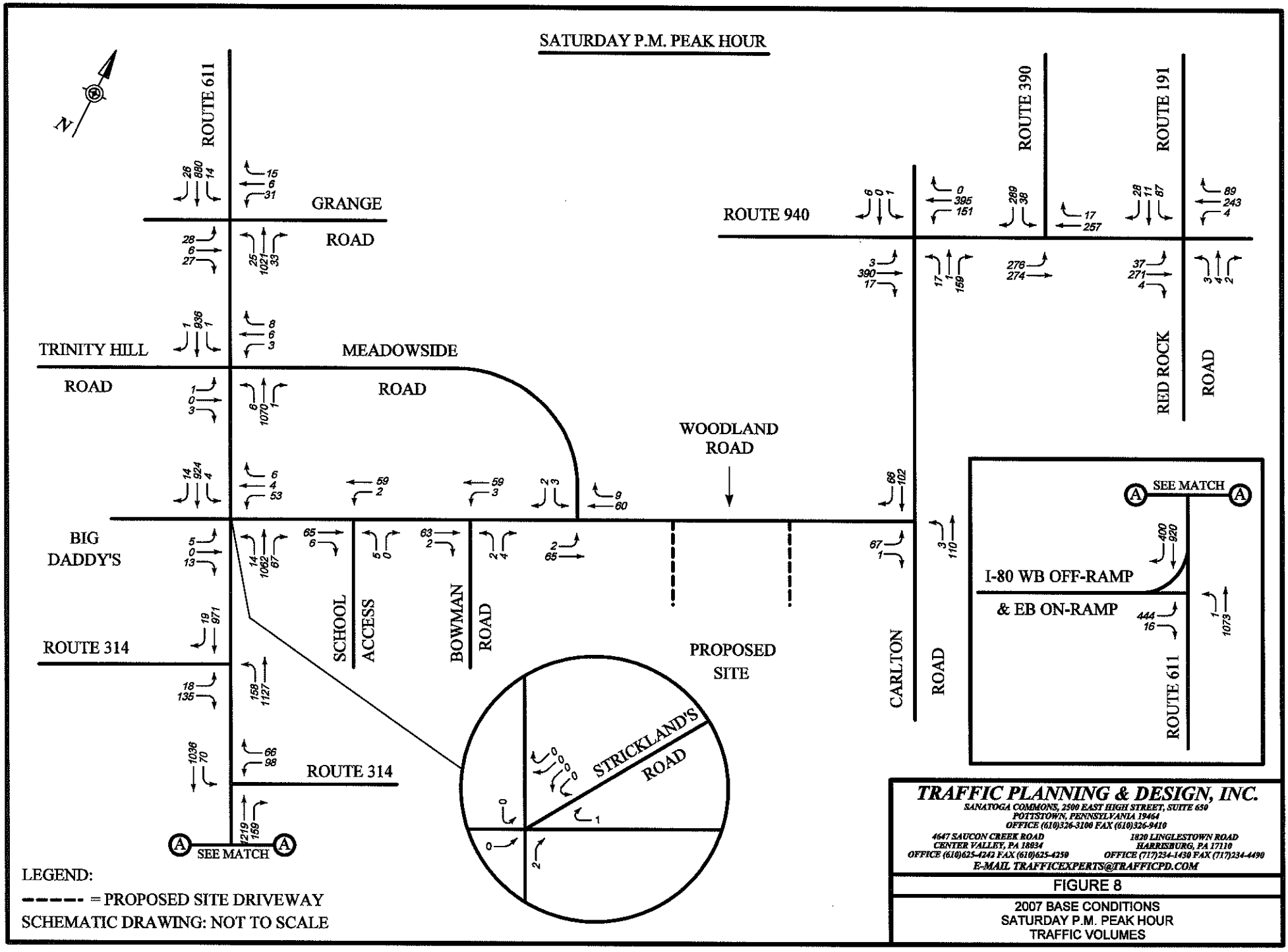

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FIGURE 8

2007 BASE CONDITIONS
SATURDAY P.M. PEAK HOUR
TRAFFIC VOLUMES

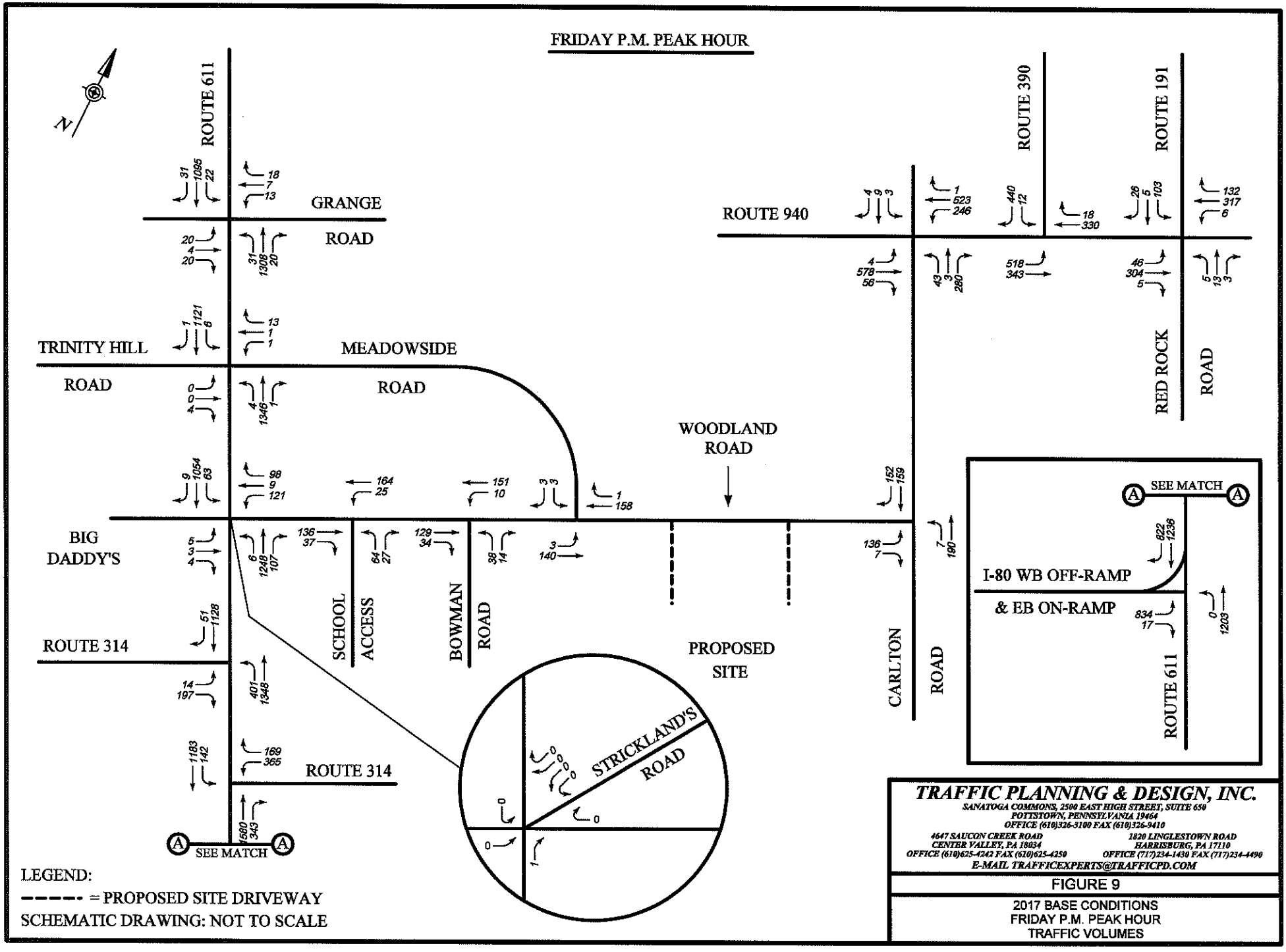

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FIGURE 9

2017 BASE CONDITIONS
FRIDAY P.M. PEAK HOUR
TRAFFIC VOLUMES

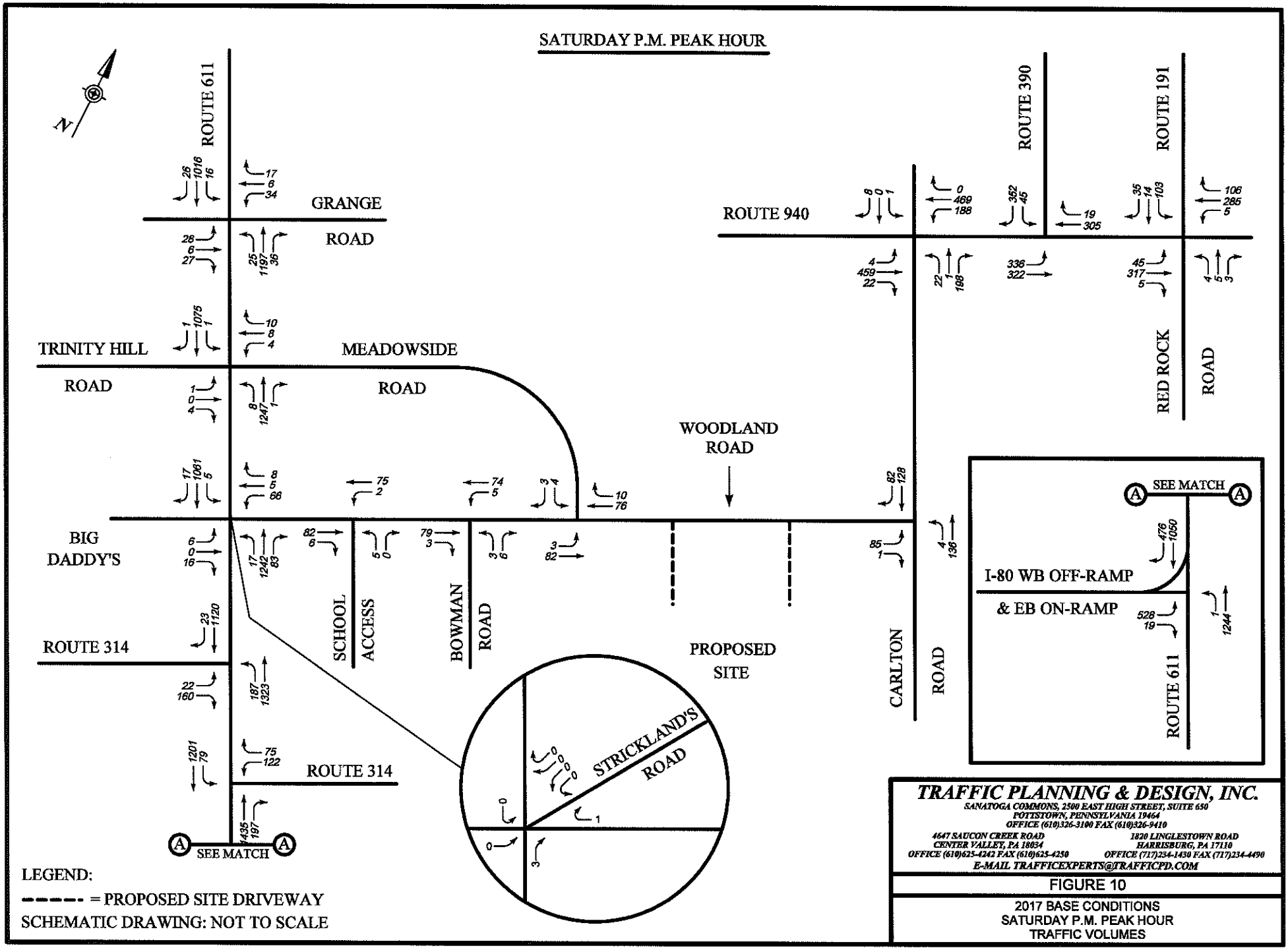

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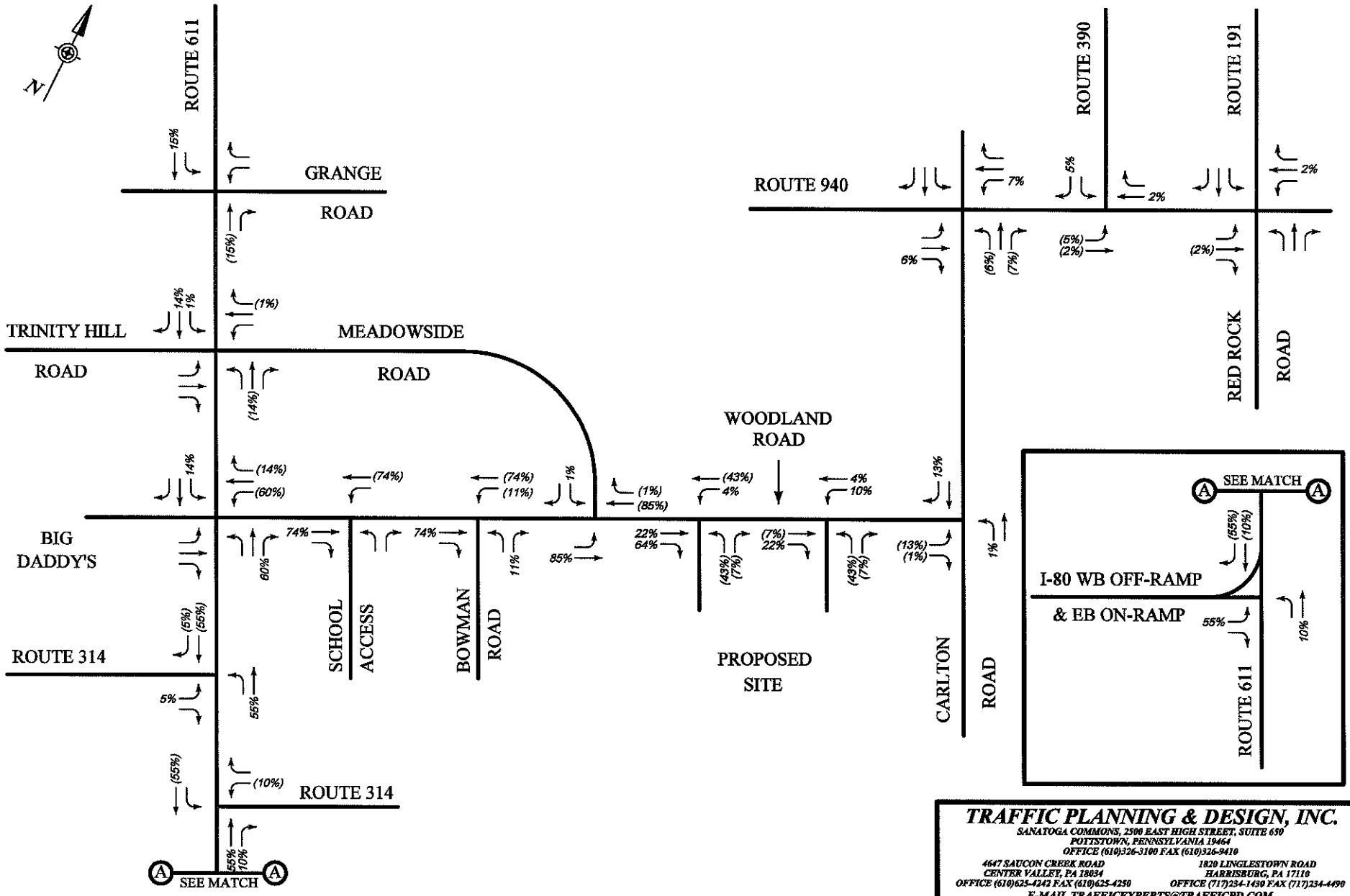
FIGURE 10

2017 BASE CONDITIONS
SATURDAY P.M. PEAK HOUR
TRAFFIC VOLUMES



LEGEND:
ENTERING PERCENTAGE (EXITING PERCENTAGE)
SCHEMATIC DRAWING: NOT TO SCALE

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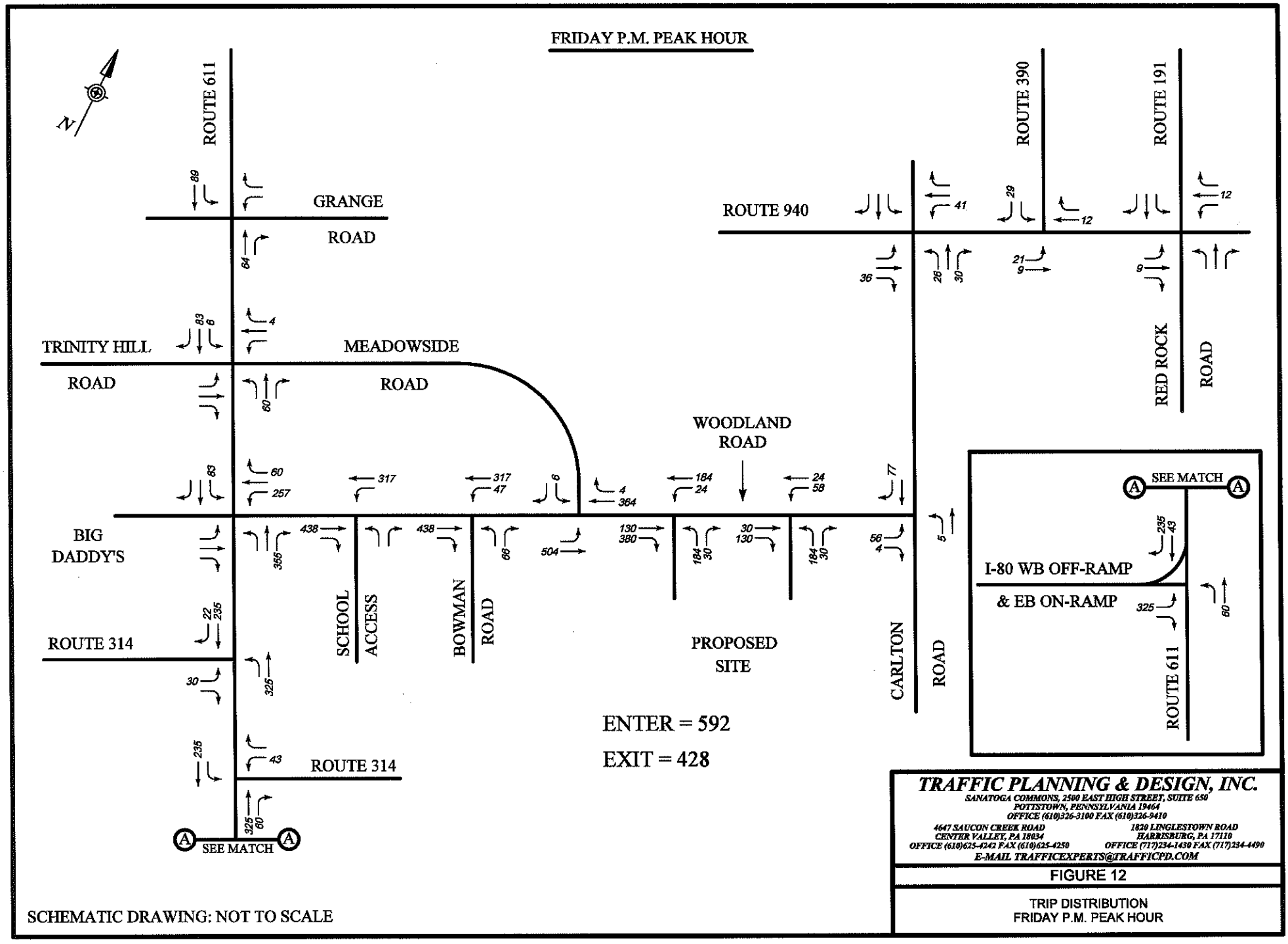
FIGURE 11

TRIP DISTRIBUTION PERCENTAGES



SCHEMATIC DRAWING: NOT TO SCALE

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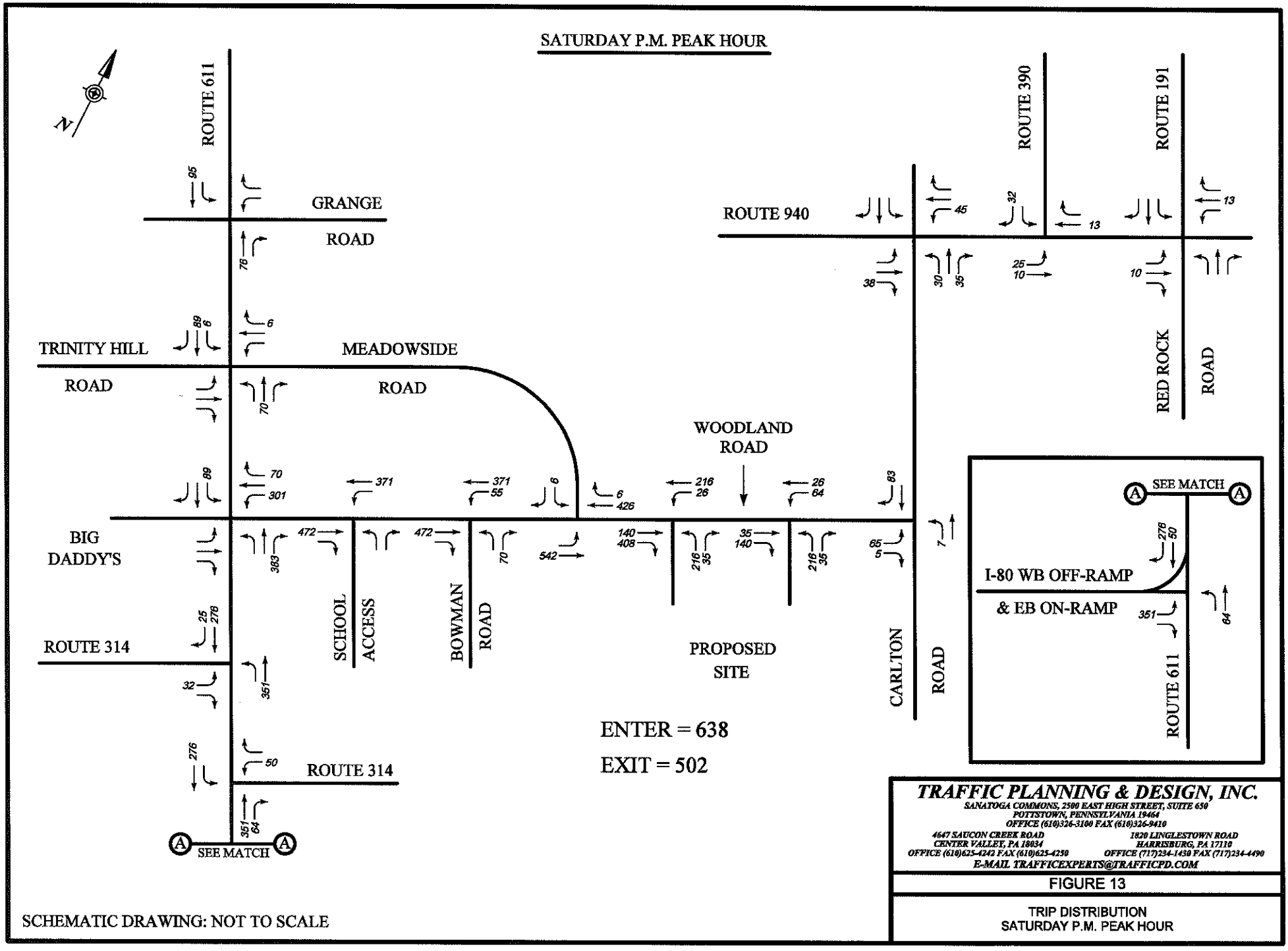
FIGURE 12

TRIP DISTRIBUTION
FRIDAY P.M. PEAK HOUR



SCHEMATIC DRAWING: NOT TO SCALE

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FIGURE 13

TRIP DISTRIBUTION
SATURDAY P.M. PEAK HOUR

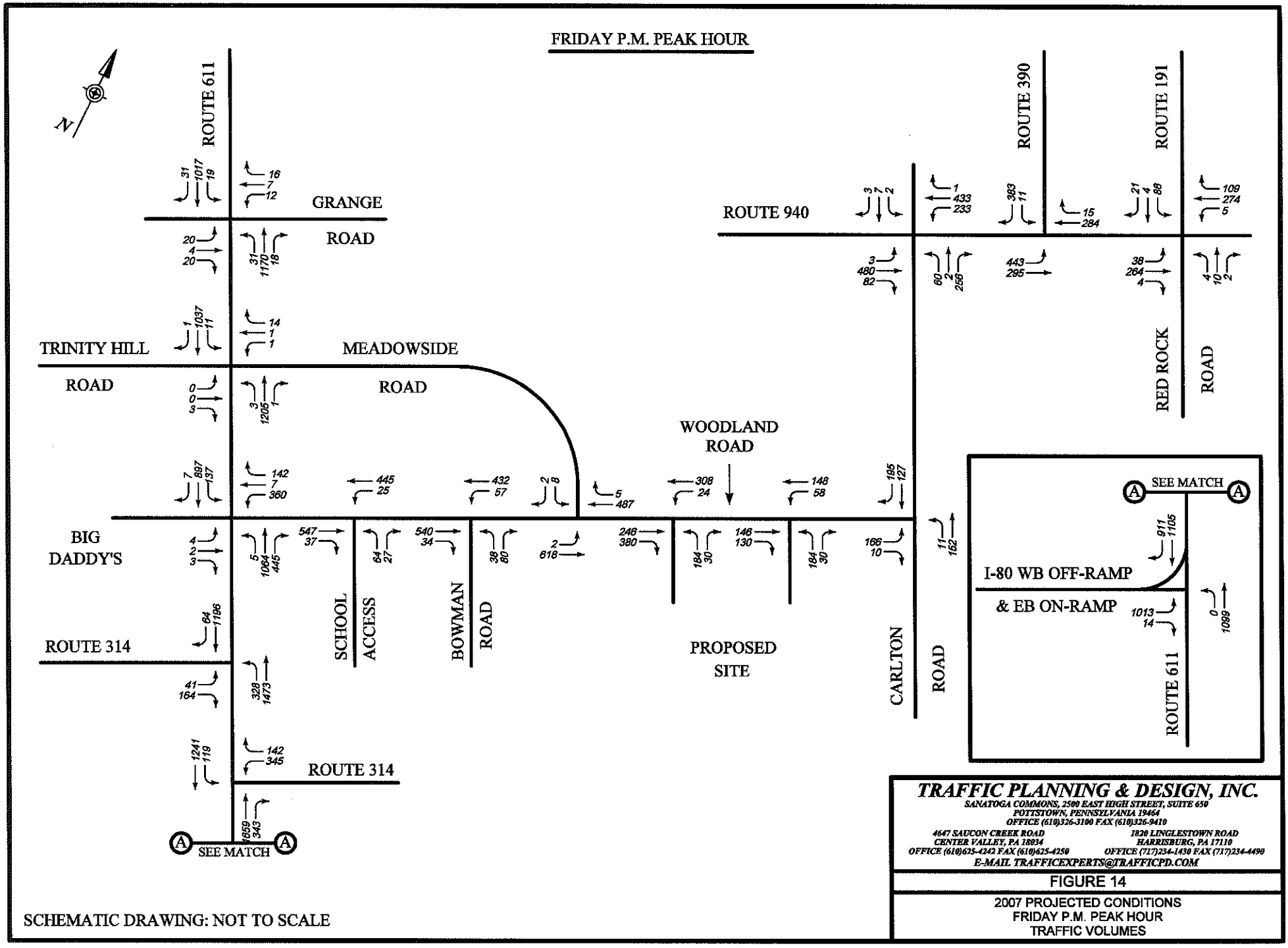

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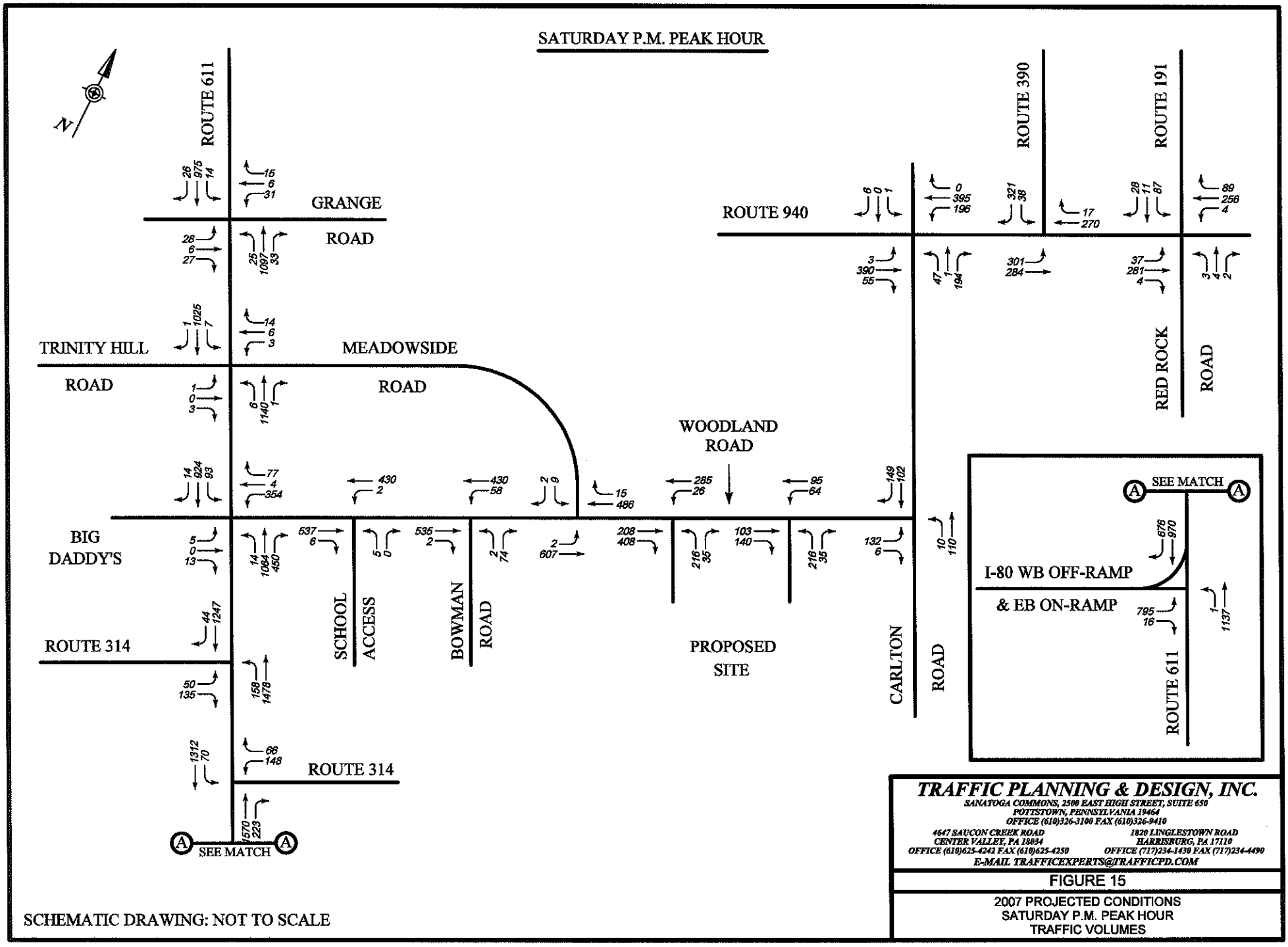
FIGURE 14

2007 PROJECTED CONDITIONS
FRIDAY P.M. PEAK HOUR
TRAFFIC VOLUMES



SCHEMATIC DRAWING: NOT TO SCALE

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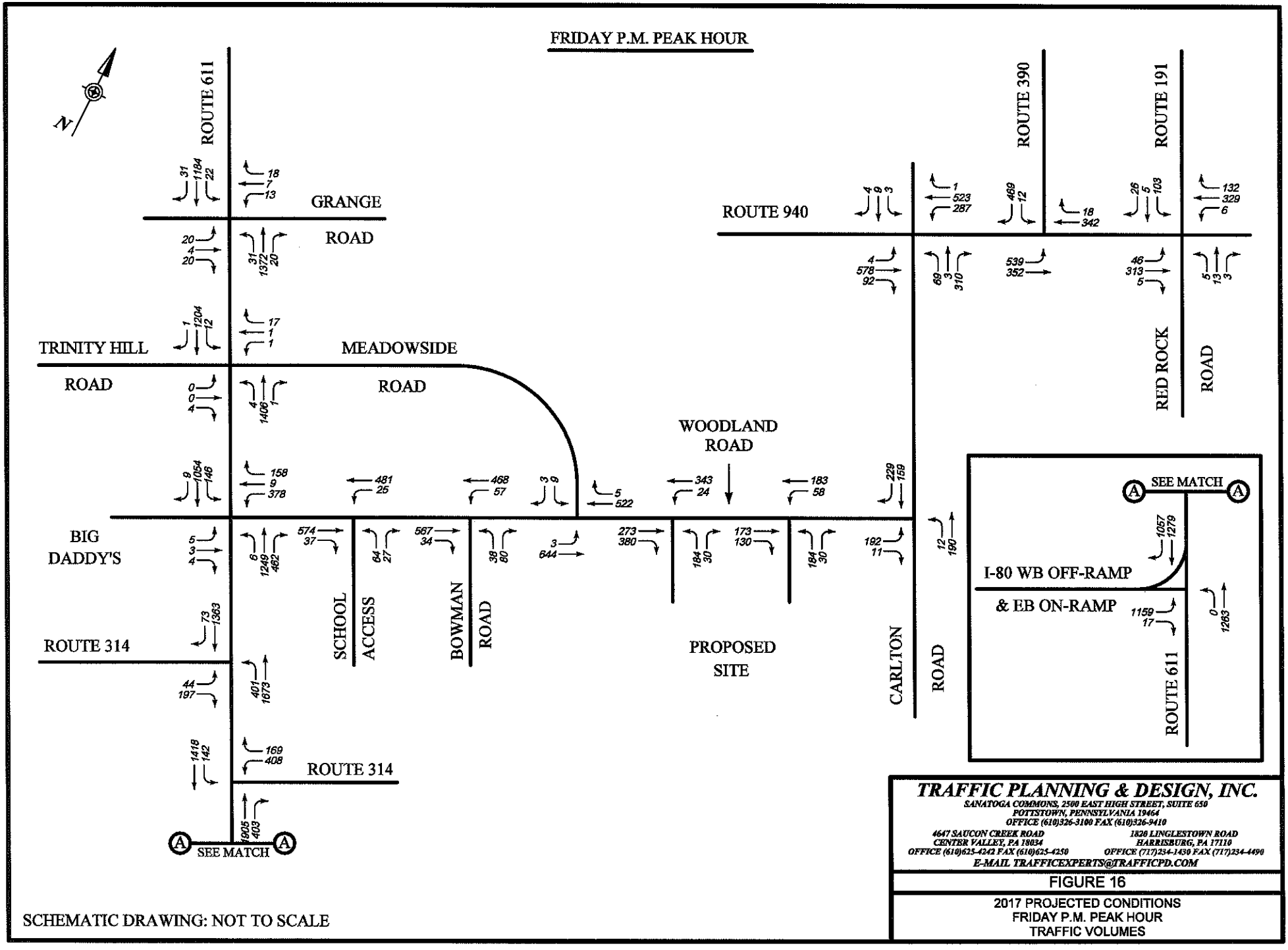
FIGURE 15

2007 PROJECTED CONDITIONS
SATURDAY P.M. PEAK HOUR
TRAFFIC VOLUMES



SCHEMATIC DRAWING: NOT TO SCALE

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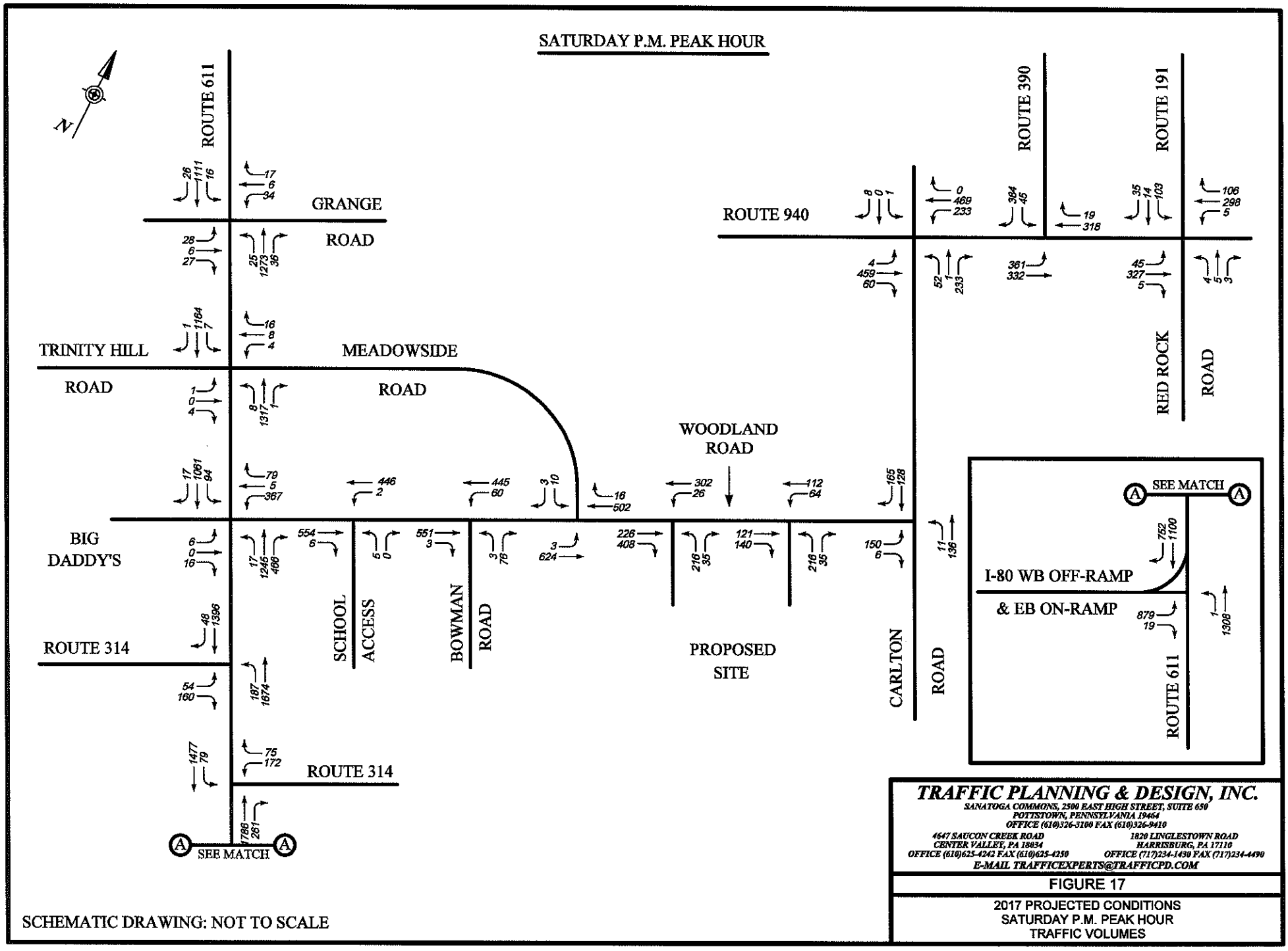
FIGURE 16

2017 PROJECTED CONDITIONS
FRIDAY P.M. PEAK HOUR
TRAFFIC VOLUMES



SCHEMATIC DRAWING: NOT TO SCALE

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FIGURE 17

2017 PROJECTED CONDITIONS
SATURDAY P.M. PEAK HOUR
TRAFFIC VOLUMES

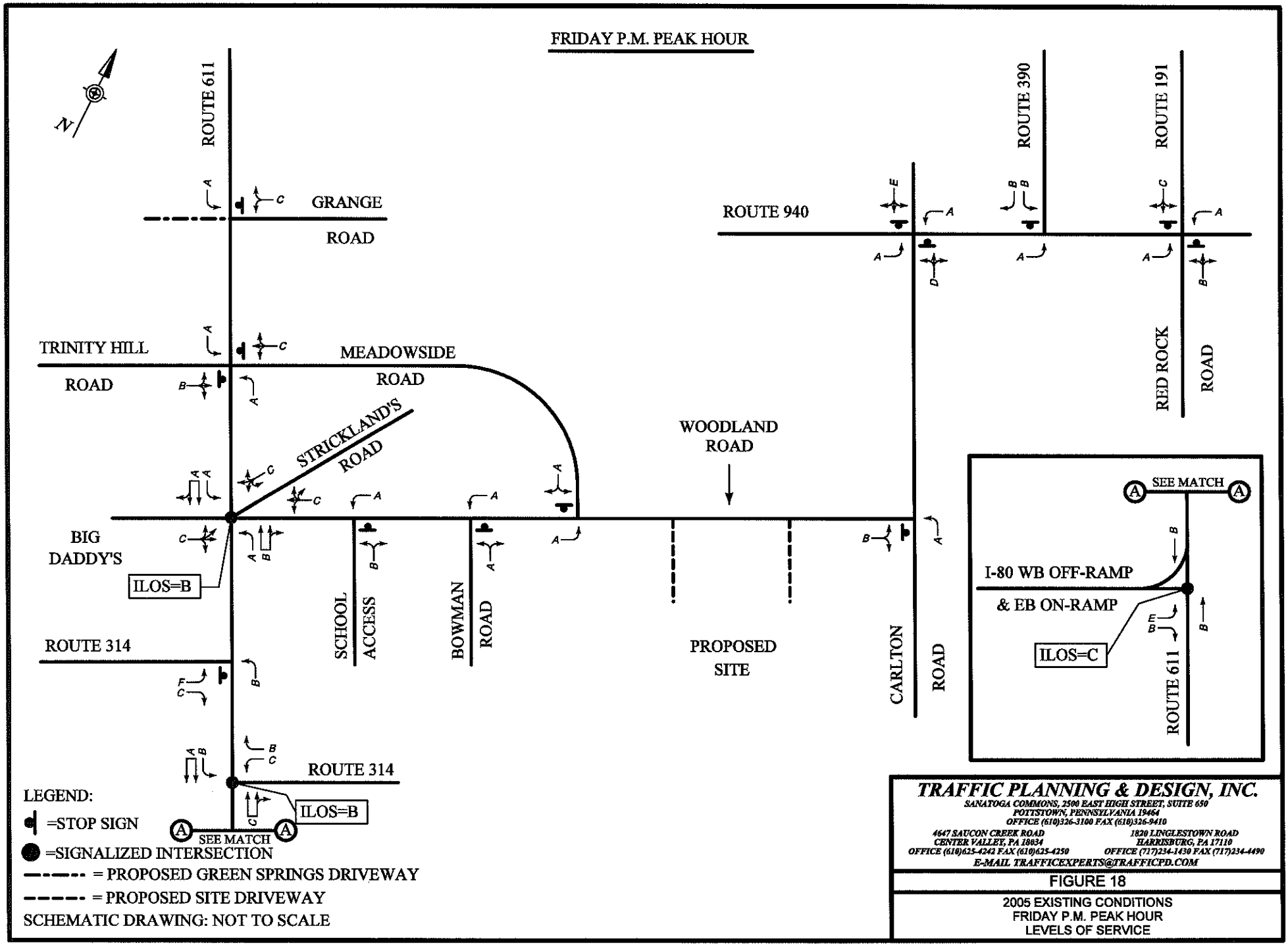

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FIGURE 18

2005 EXISTING CONDITIONS
FRIDAY P.M. PEAK HOUR
LEVELS OF SERVICE

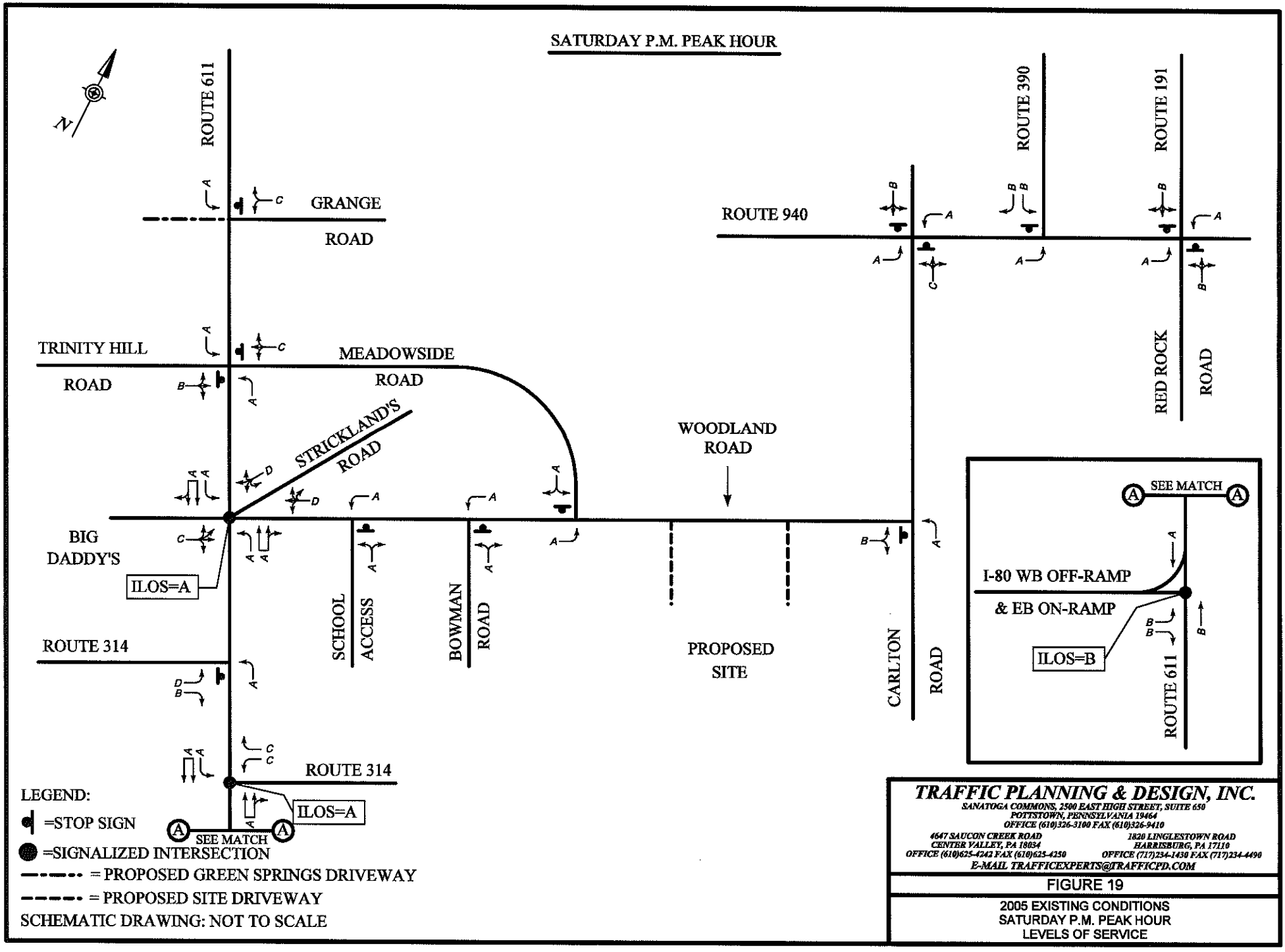

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FIGURE 19

2005 EXISTING CONDITIONS
SATURDAY P.M. PEAK HOUR
LEVELS OF SERVICE

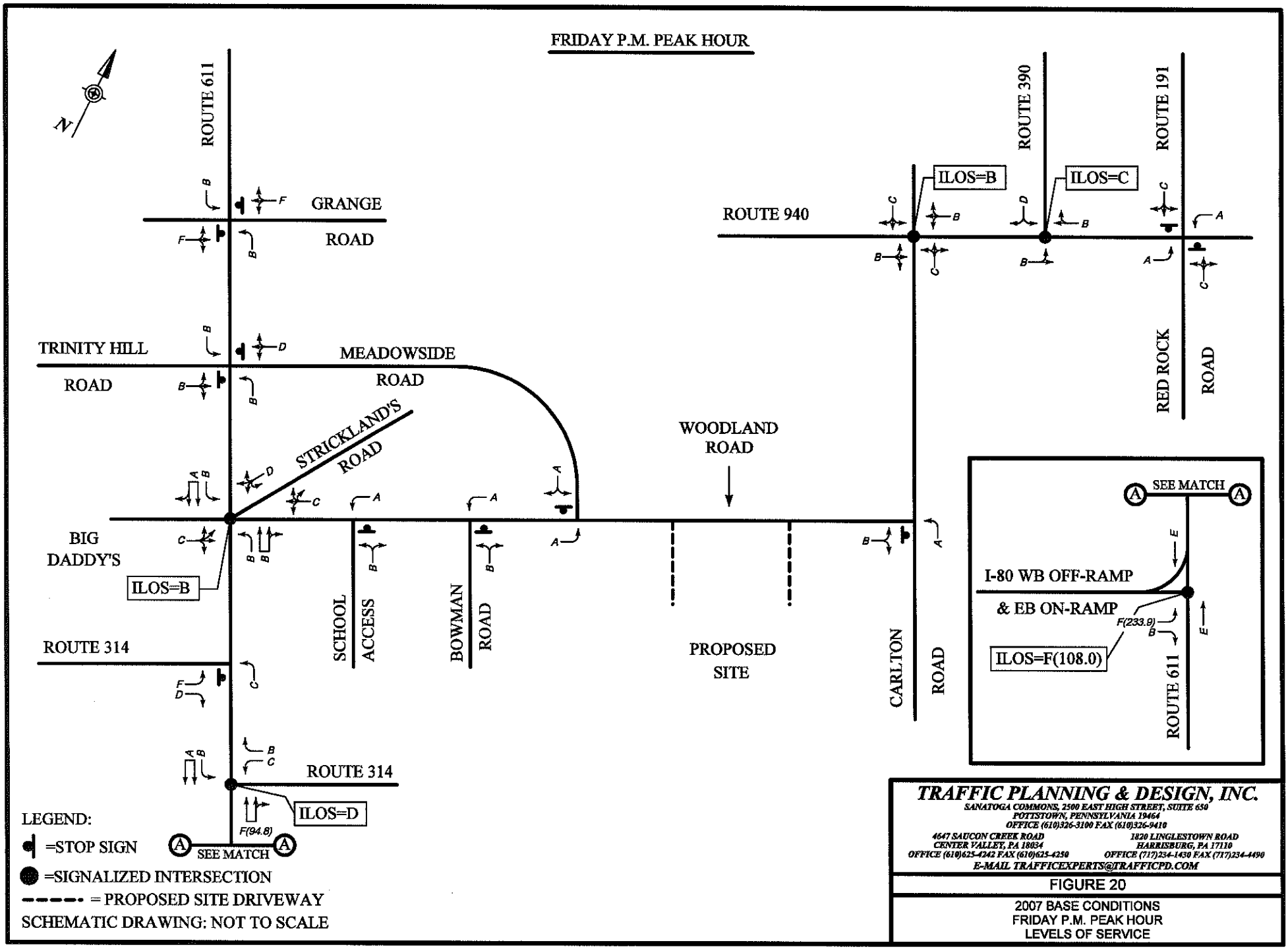
FRIDAY P.M. PEAK HOUR
N
ROUTE 611
GRANGE
ROAD
TRINITY HILL
ROAD
MEADOWSIDE
ROAD
STRICKLAND'S
ROAD
BIG
DADDY'S
ILOS=B
ROUTE 314
SCHOOL
ACCESS
BOWMAN
ROAD
WOODLAND
ROAD
PROPOSED
SITE
CARLTON
ROAD
ROUTE 940
ILOS=B
ILOS=C
ROUTE 390
ROUTE 191
RED ROCK
ROAD
SEE MATCH
I-80 WB OFF-RAMP
& EB ON-RAMP
F(233.9)
ILOS=F(108.0)
ROUTE 611
ROUTE 314
ILOS=D
F(94.8)
SEE MATCH
LEGEND:
=STOP SIGN
=SIGNALIZED INTERSECTION
= PROPOSED SITE DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE
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FIGURE 20
2007 BASE CONDITIONS
FRIDAY P.M. PEAK HOUR
LEVELS OF SERVICE

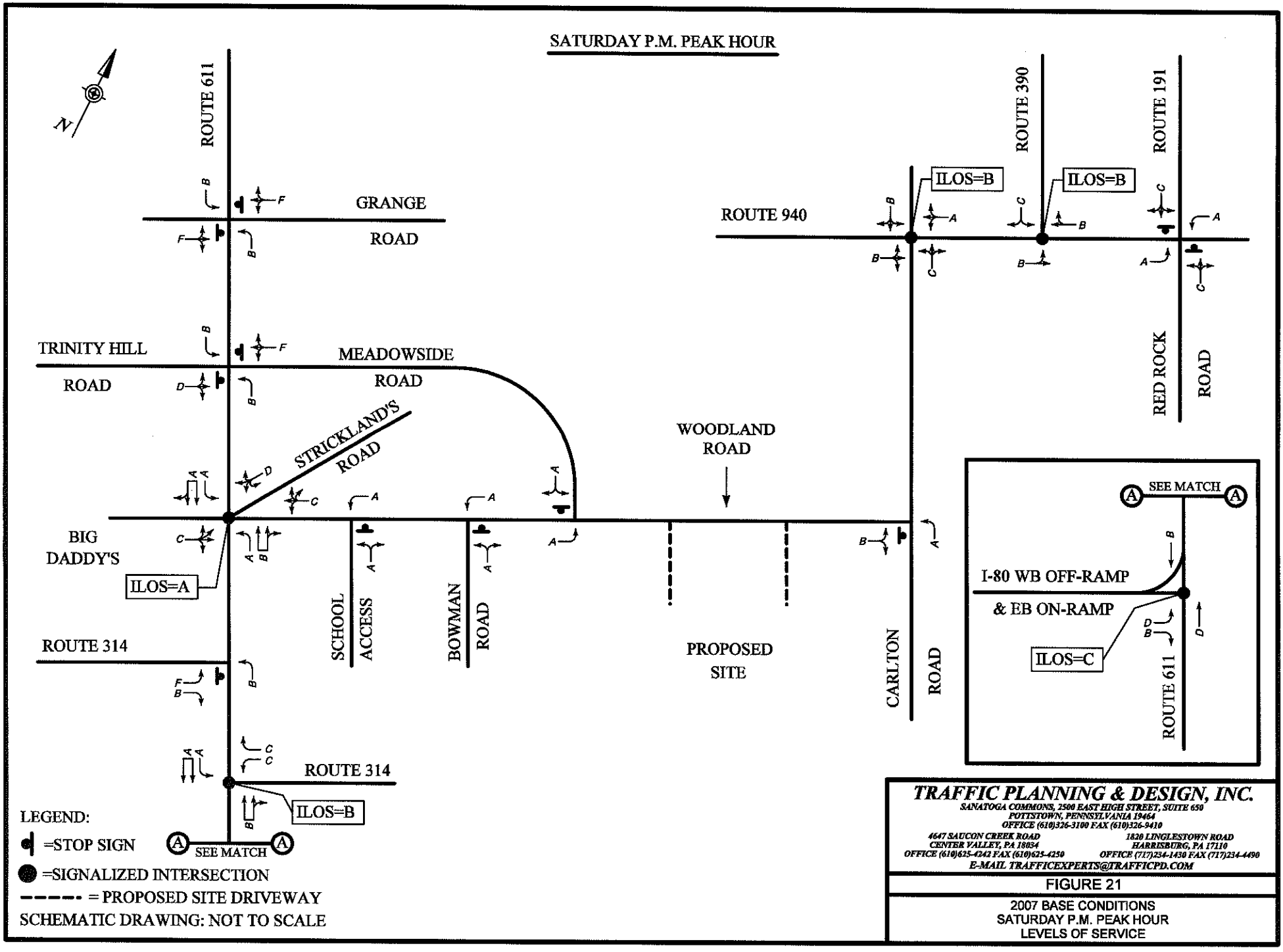

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FIGURE 21

2007 BASE CONDITIONS
SATURDAY P.M. PEAK HOUR
LEVELS OF SERVICE

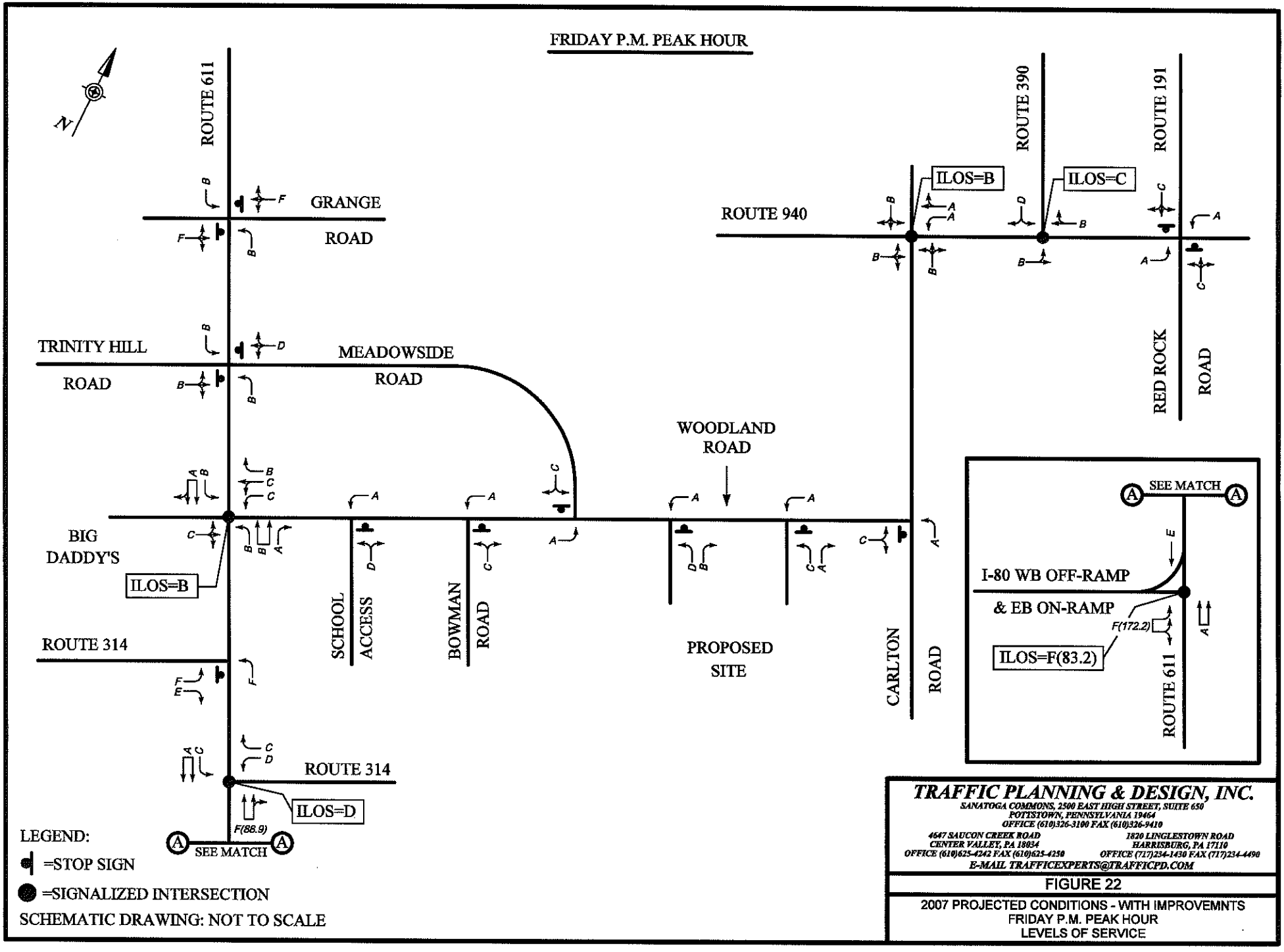

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FIGURE 22

2007 PROJECTED CONDITIONS - WITH IMPROVEMNTS
FRIDAY P.M. PEAK HOUR
LEVELS OF SERVICE

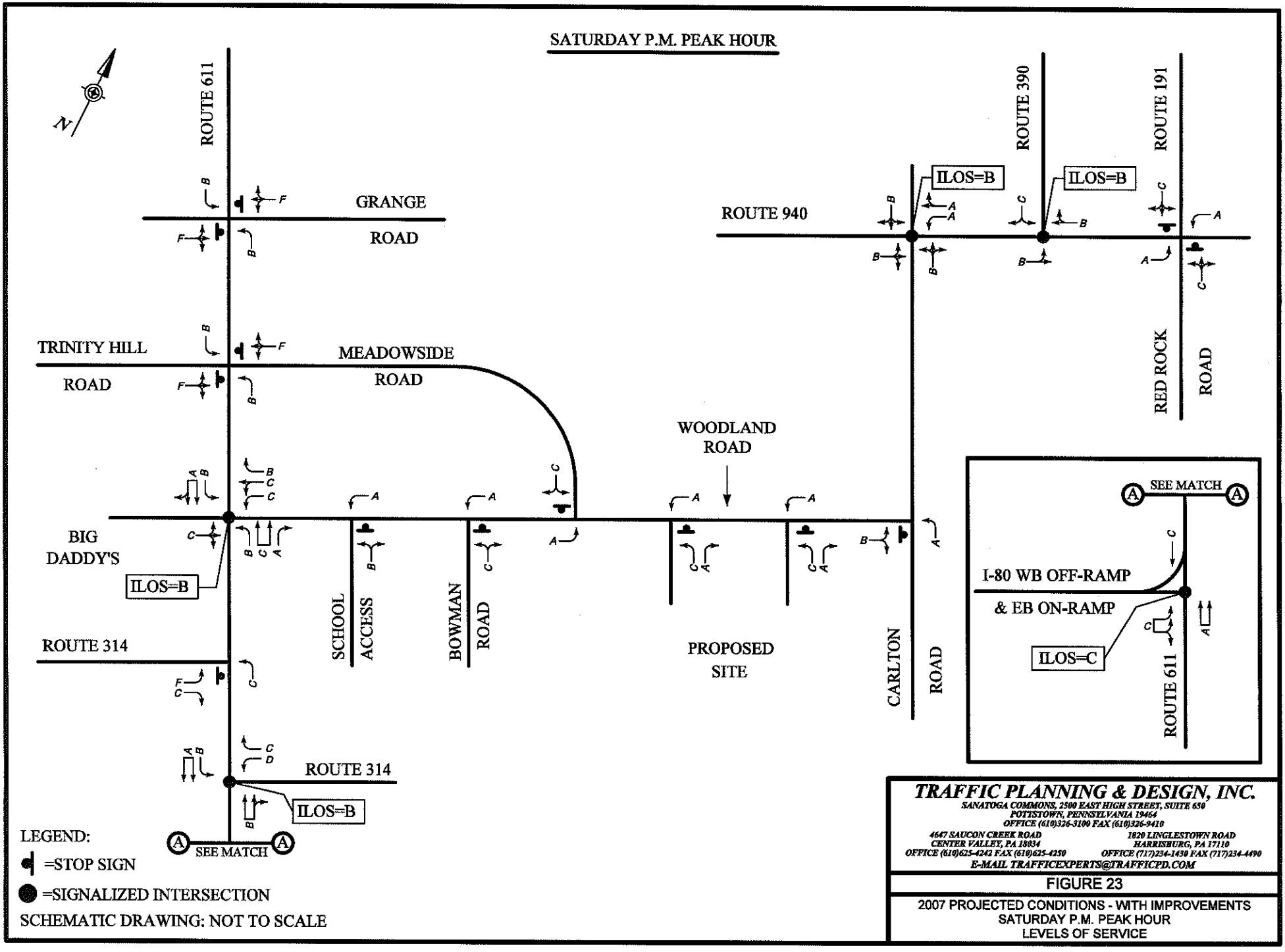

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FIGURE 23

2007 PROJECTED CONDITIONS - WITH IMPROVEMENTS
SATURDAY P.M. PEAK HOUR
LEVELS OF SERVICE

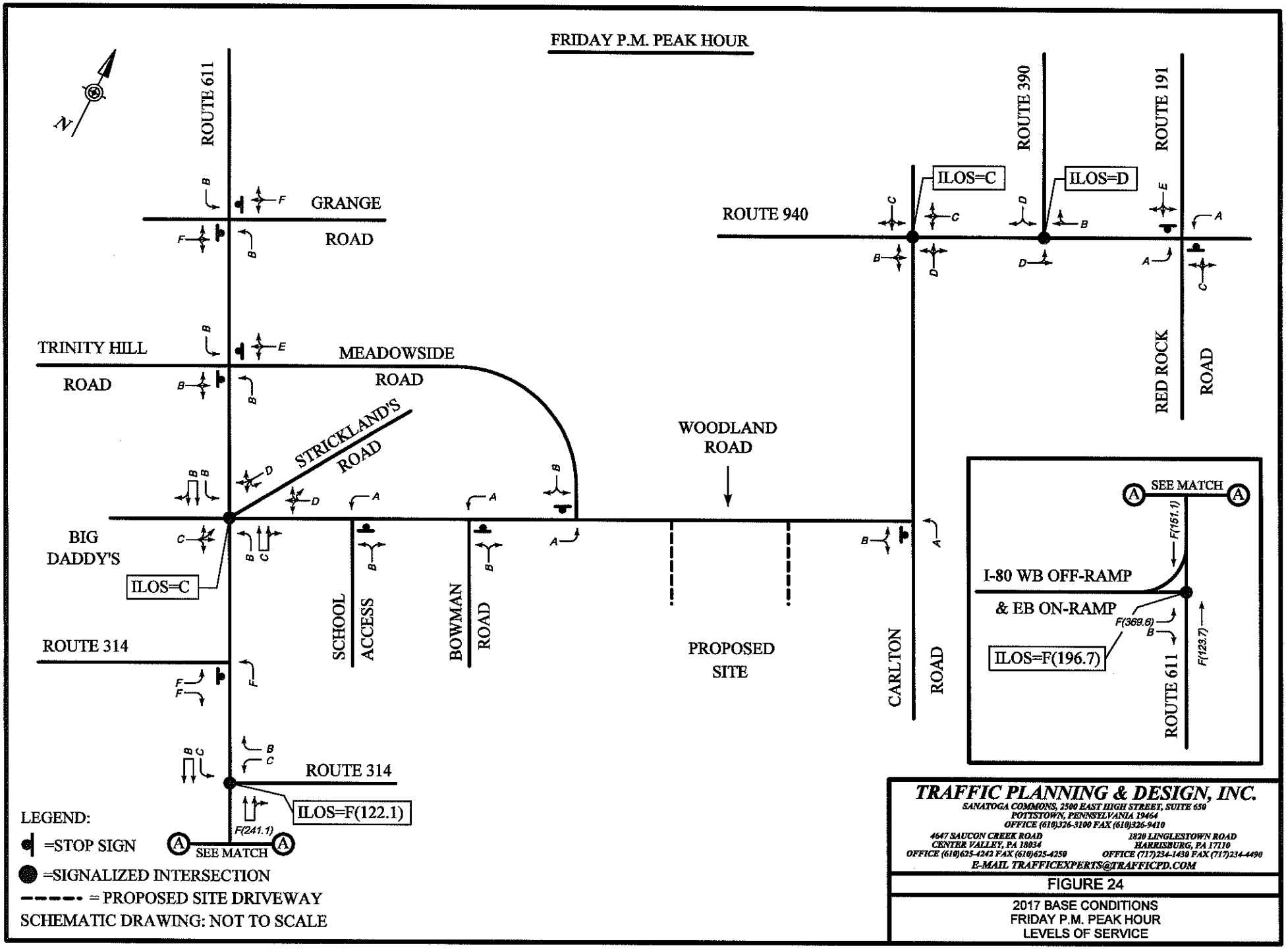

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FIGURE 24

2017 BASE CONDITIONS
FRIDAY P.M. PEAK HOUR
LEVELS OF SERVICE

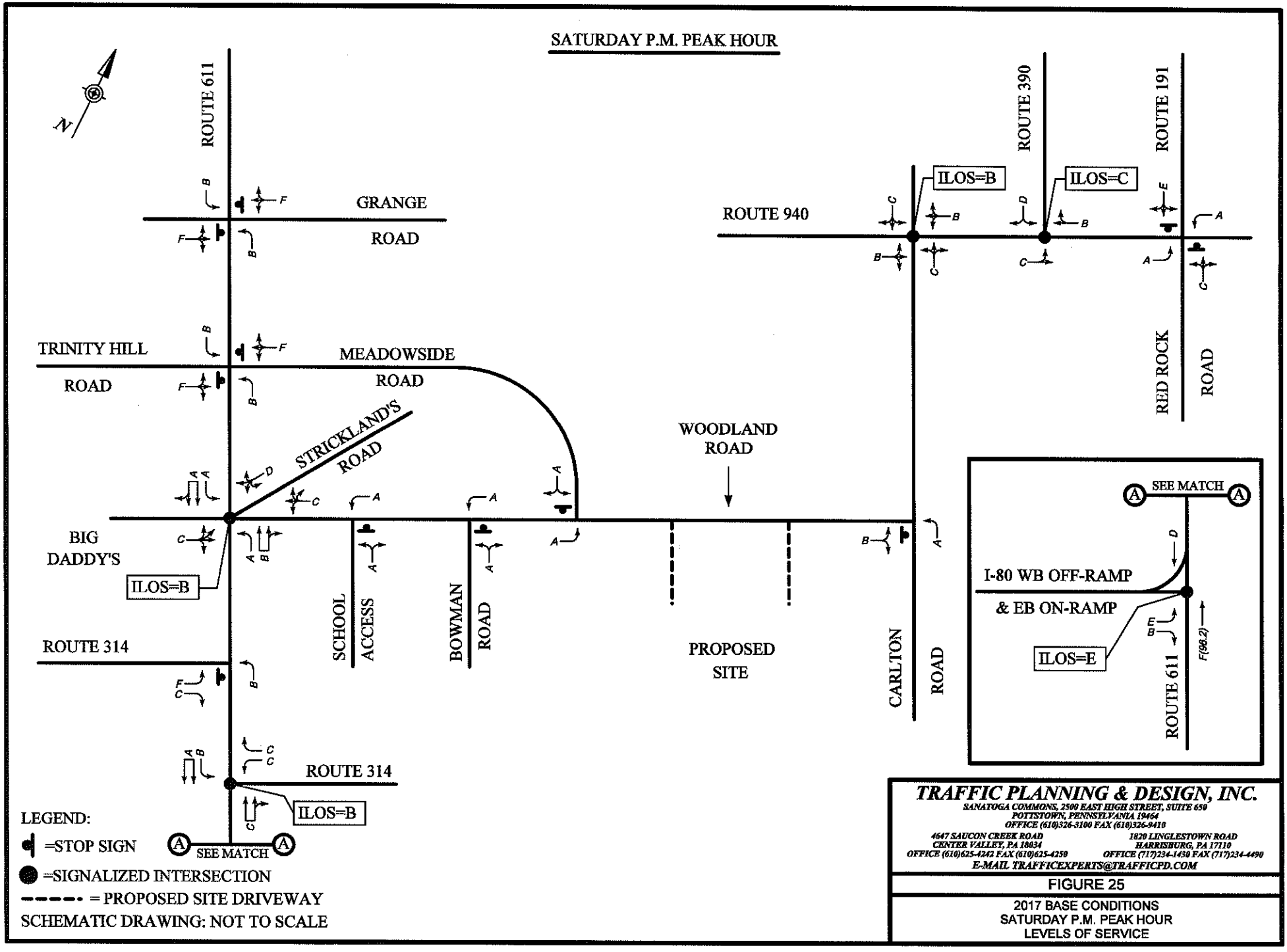

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FIGURE 25

2017 BASE CONDITIONS
SATURDAY P.M. PEAK HOUR
LEVELS OF SERVICE

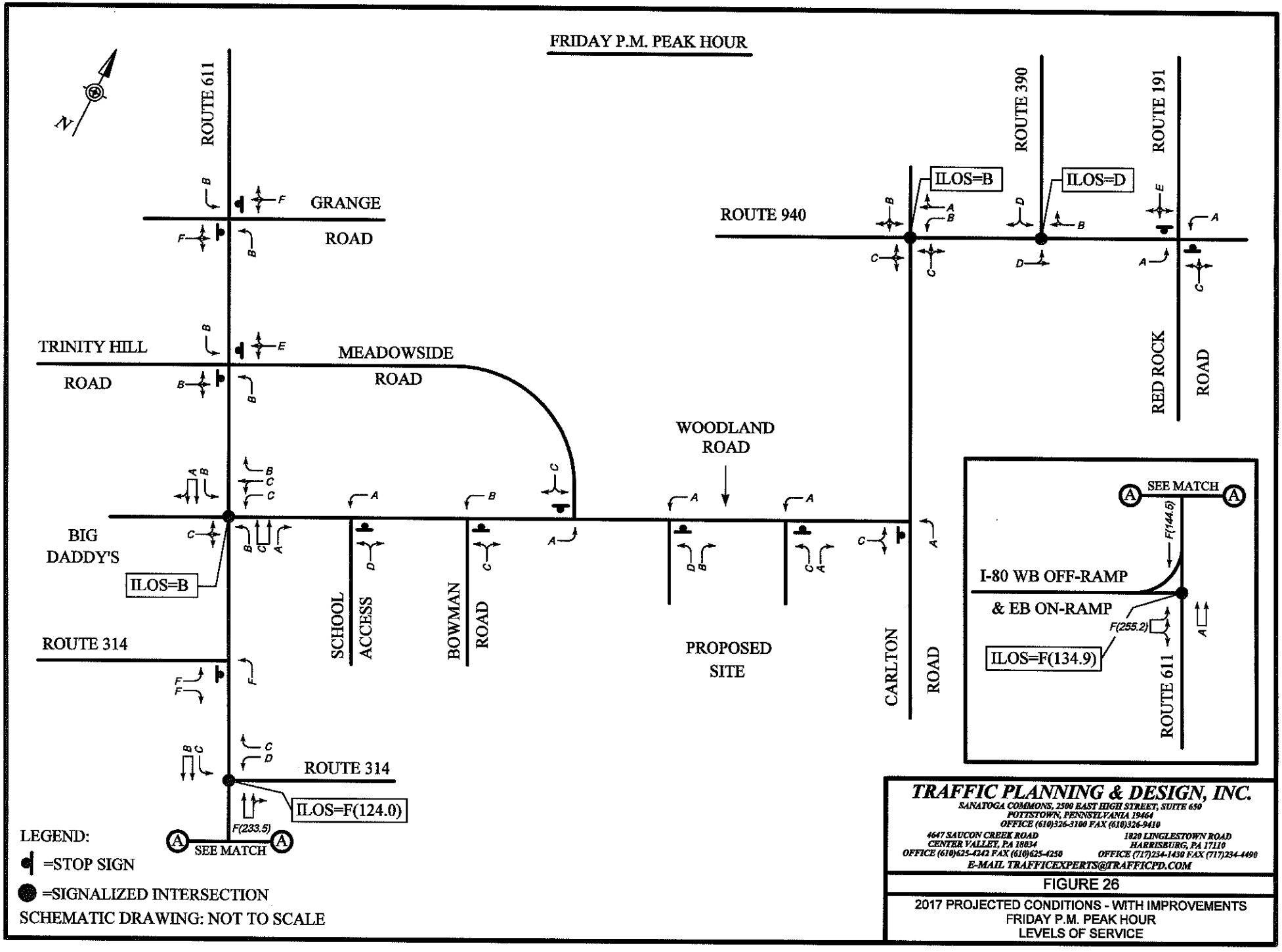

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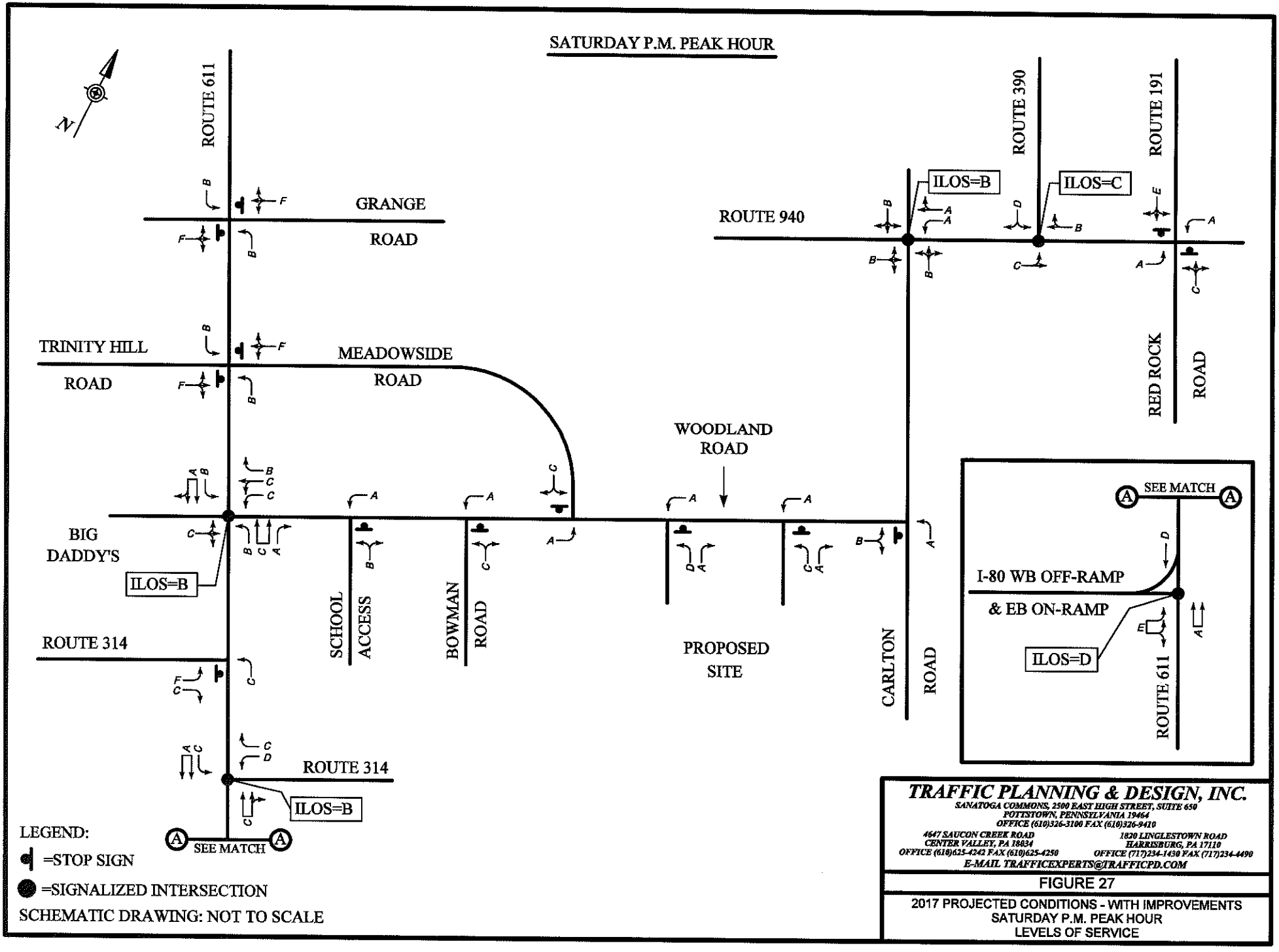
FIGURE 26

2017 PROJECTED CONDITIONS - WITH IMPROVEMENTS
FRIDAY P.M. PEAK HOUR
LEVELS OF SERVICE



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SANATOGA COMMONS, 2500 EAST HIGH STREET, SUITE 650
POTTSTOWN, PENNSYLVANIA 19464
OFFICE (610)326-3100 FAX (610)326-9410
4647 SAUCON CREEK ROAD
CENTER VALLEY, PA 18034
OFFICE (610)625-4242 FAX (610)625-4250
1820 LINGLESTOWN ROAD
HARRISBURG, PA 17110
OFFICE (717)234-1430 FAX (717)234-4490
E-MAIL TRAFFICEXPERTS@TRAFFICPD.COM

FIGURE 27

2017 PROJECTED CONDITIONS - WITH IMPROVEMENTS
SATURDAY P.M. PEAK HOUR
LEVELS OF SERVICE

APPENDIX A

STUDY AREA PHOTOGRAPHS

Job #: *CECO.A.00008* *Date Taken:* *2/14/2006* *Intersection Of:* *Route 611 & I-80 Ramps (#298)*

Direction / Road: Northbound Route 611

Approach / Departure: Approaching I-80 Ramps (#298)

Direction / Road: Southbound Route 611

Approach / Departure: Approaching I-80 Ramps (#298)

Job #: *CECO.A.00008* *Date Taken:* *2/14/2006* *Intersection Of:* *Route 611 & I-80 Ramps (#298)*

Direction / Road: WB I-80 (#298) Exit Ramp

Approach / Departure: Approaching Route 611

Job #: *CECO.A.00008* *Date Taken:* *7/7/2005* *Intersection Of:* *Route 611 & Route 314 (East)*

Direction / Road: Northbound Route 611

Approach / Departure: Approaching Route 314

Direction / Road: Southbound Route 611

Approach / Departure: Approaching Route 314

Job #: *CECO.A.00008* *Date Taken:* *7/7/2005* *Intersection Of:* *Route 611 & Route 314 (East)*

Direction / Road: Westbound Route 314

Approach / Departure: Approaching Route 611

Job #: *CECO.A.00008* *Date Taken:* *7/7/2005* *Intersection Of:* *Route 611 & Route 314 (West)*

Direction / Road: Northbound Route 611

Approach / Departure: Approaching Route 314

Direction / Road: Southbound Route 611

Approach / Departure: Approaching Route 314

Job #: *CECO.A.00008* *Date Taken:* *7/7/2005* *Intersection Of:* *Route 611 & Route 314 (West)*

Direction / Road: Eastbound Route 314

Approach / Departure: Approaching Route 611

Job #: *CECO.A.00008* *Date Taken:* *7/7/2005* *Intersection Of:* *Route 611 & Woodland/Strickland Road*

Direction / Road: Northbound Route 611

Approach / Departure: Approaching Woodland Road

Direction / Road: Southbound Route 611

Approach / Departure: Approaching Woodland Road

Job #: *CECO.A.00008* *Date Taken:* *7/7/2005* *Intersection Of:* *Route 611 & Woodland/Strickland*

Direction / Road: Westbound Woodland Road

Approach / Departure: Approaching Route 611

Direction / Road: Westbound Strickland's Road

Approach / Departure: Approach Route 611

Job #: *CECO.A.00008* *Date Taken:* *7/7/2005* *Intersection Of:* *Route 611 & Woodland/Strickland*

Direction / Road: Eastbound Big daddy's Driveway

Approach / Departure: Approaching Route 611

Job #: *CECO.A.00008* *Date Taken:* *7/7/2005* *Intersection Of:* *Route 611 & Meadowside Road/Trinity Hill*

Direction / Road: Northbound Route 611

Approach / Departure: Approaching Meadowside Road/Trinity Hill Road

Direction / Road: Southbound Route 611

Approach / Departure: Approaching Meadowside Road/Trinity Hill Road

Job #: *CECO.A.00008* *Date Taken:* *7/7/2005* *Intersection Of:* *Route 611 & Meadowside Road/Trinity Hill*

Direction / Road: Westbound Meadowside Road

Approach / Departure: Approaching Route 611

Direction / Road: Eastbound Trinity Hill Road

Approach / Departure: Approaching Route 611

Job #: *CECO.A.00008* *Date Taken:* *7/7/2005* *Intersection Of:* *Route 611 & Grange Road*

Direction / Road: Northbound Route 611

Approach / Departure: Approaching Grange Road

Direction / Road: Southbound Route 611

Approach / Departure: Approaching Grange Road

Job #: *CECO.A.00008* *Date Taken:* *7/7/2005* *Intersection Of:* *Route 611 & Grange Road*

Direction / Road: Westbound Grange Road

Approach / Departure: Approaching Route 611

Job #: *CECO.A.00008* *Date Taken:* *4/29/2005* *Intersection Of:* *Woodland Road & School Driveway*

Direction / Road: Eastbound Woodland Road

Approach / Departure: Approaching School Driveway

Direction / Road: Westbound Woodland Road

Approach / Departure: Approaching School Driveway

Job #: *CECO.A.00008* *Date Taken:* *4/29/2005* *Intersection Of:* *Woodland Road & School Driveway*

Direction / Road: Northbound School Driveway

Approach / Departure: Approaching Woodland Road

Job #: *CECO.A.00008* *Date Taken:* *4/29/2005* *Intersection Of:* *Woodland Road & Bowman Road*

Direction / Road: Eastbound Woodland Road

Approach / Departure: Approaching Bowman Road

Direction / Road: Westbound Bowman Road

Approach / Departure: Approaching Woodland Road

Job #: *CECO.A.00008* *Date Taken:* *4/29/2005* *Intersection Of:* *Woodland Road & Bowman Road*

Direction / Road: Northbound Bowman Road

Approach / Departure: Approaching Woodland Road

Job #: *CECO.A.00008* *Date Taken:* *4/29/2005* *Intersection Of:* *Woodland Road & Meadowside Road*

Direction / Road: Eastbound Woodland Road

Approach / Departure: Approaching Meadowside Road

Direction / Road: Westbound Woodland Road

Approach / Departure: Approaching Meadowside Road

Job #: *CECO.A.00008* *Date Taken:* *4/29/2005* *Intersection Of:* *Woodland Road & Meadowside Road*

Direction / Road: Southbound Meadowsided Road

Approach / Departure: Approaching Woodland Road

Job #: *CECO.A.00008* *Date Taken:* *7/7/2005* *Intersection Of:* *Carlton Road & Woodland Road*

Direction / Road: Northbound Carlton Road

Approach / Departure: Approaching Woodland Road

Direction / Road: Southbound Carlton Road

Approach / Departure: Approaching Woodland Road

Job #: *CECO.A.00008* *Date Taken:* *7/7/2005* *Intersection Of:* *Carlton Road & Woodland Road*

Direction / Road: Eastbound Woodland Road

Approach / Departure: Approaching Carlton Road

Job #: CECO.A.00008 *Date Taken: 7/7/2005* *Intersection Of: Route 940 & Carlton Road/Caesar's Resort*

Direction / Road: Northbound Carlton Road

Approach / Departure: Approaching Route 940

Direction / Road: Southbound Caesar's Resort driveway

Approach / Departure: Approaching Route 940

Job #: CECO.A.00008 Date Taken: 7/7/2005 Intersection Of: Route 940 & Carlton Road/Caesar's Resort

Direction / Road: Eastbound Route 940

Approach / Departure: Approaching Carlton Road/Caesar's Resort driveway

Direction / Road: Westbound Route 940

Approach / Departure: Approaching Carlton Road/Caesar's Resort driveway

Job #: *CECO.A.00008* *Date Taken:* *7/7/2005* *Intersection Of:* *Route 940 & Route 390*

Direction / Road: Eastbound Route 940

Approach / Departure: Approaching Route 390

Direction / Road: Westbound Route 940

Approach / Departure: Approaching Route 390

Job #: *CECO.A.00008* *Date Taken:* *7/7/2005* *Intersection Of:* *Route 940 & Route 390*

Direction / Road: Southbound Route 390

Approach / Departure: Approaching Route 940

Job #: *CECO.A.00008* *Date Taken:* *7/7/2005* *Intersection Of:* *Route 940 & Route 191/Red Rock Road*

Direction / Road: Northbound Red rock Road

Approach / Departure: Approaching Route 940

Direction / Road: Southbound Route 191

Approach / Departure: Approaching Route 940

Job #: CECO.A.00008 *Date Taken: 7/7/2005* *Intersection Of: Route 940 & Route 191/Red Rock Road*

Direction / Road: Eastbound Route 940

Approach / Departure: Approaching Route 191/Red Rock Road

Direction / Road: Westbound route 940

Approach / Departure: Approaching Route 191/Red Rock Road

APPENDIX B

MANUAL TRAFFIC COUNT PRINTOUTS & ITMS DATA SHEETS

MANUAL TRAFFIC COUNT PRINTOUTS

Traffic Planning and Design, Inc.
4647 Saucon Creek Road, Suite 201
Center Valley, PA 18034

Route 611 & I-80 Ramps

Counter: 14
Counted by: A. Carrillo
Westher:
Saved as: FRIPM611_80

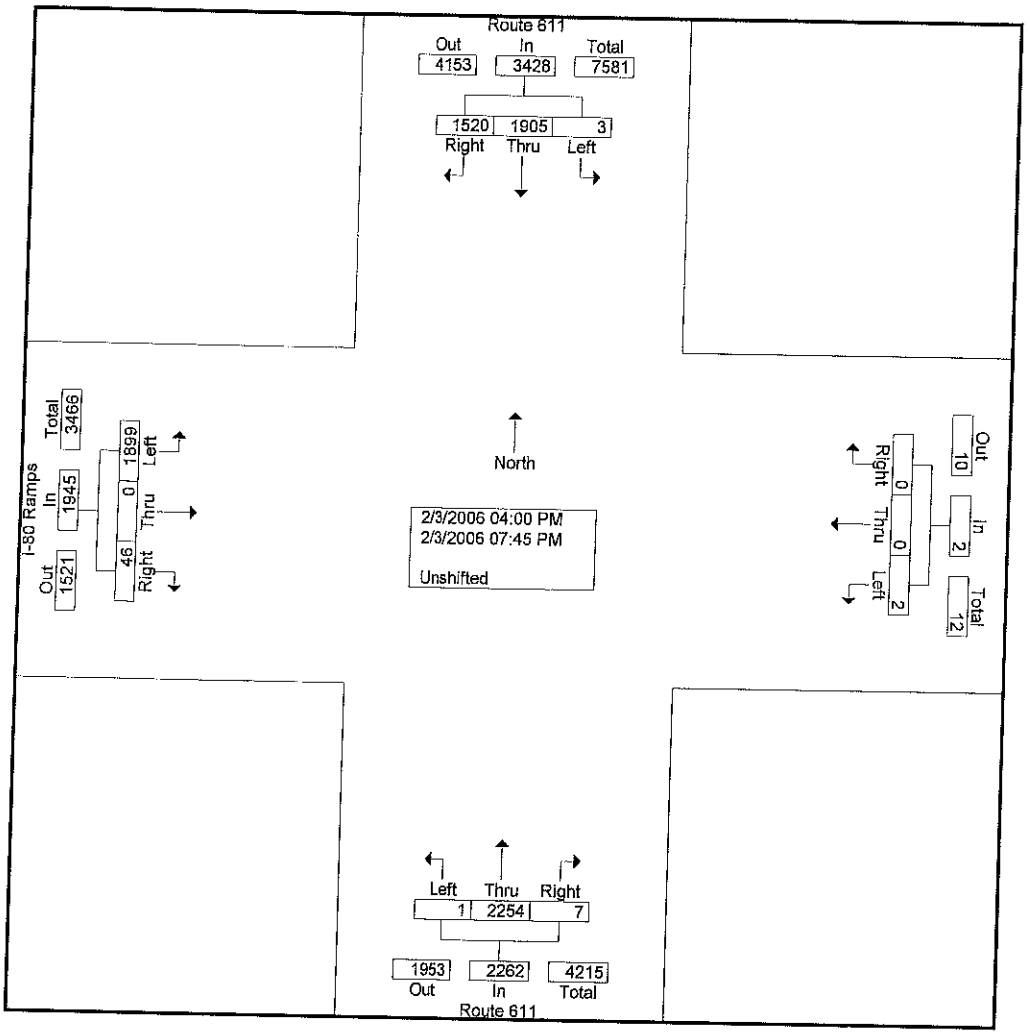
File Name : FRIPM611_80
Site Code : 00000000
Start Date : 2/3/2006
Page No : 1

Groups Printed- Unshifted

	Route 611 Southbound					Westbound					Route 611 Northbound					I-80 Ramps Eastbound							
Start Time	Right	Thru	Left	Trucks	App. Total	Right	Thru	Left	Trucks	App. Total	Right	Thru	Left	Trucks	App. Total	Right	Thru	Left	Trucks	App. Total	Exclu. Total	Inclu. Total	Int. Total
04:00 PM	87	148	2	9	237	0	0	0	0	0	0	183	1	10	184	1	0	107	0	108	19	529	548
04:15 PM	89	159	0	5	248	0	0	0	0	0	1	157	0	21	158	4	0	132	4	136	30	542	572
04:30 PM	118	149	0	7	267	0	0	0	0	0	2	156	0	5	158	4	0	103	3	107	15	532	547
04:45 PM	161	195	0	6	356	0	0	0	0	0	2	157	0	2	159	3	0	153	7	156	15	671	686
Total	455	651	2	27	1108	0	0	0	0	0	5	653	1	38	659	12	0	495	14	507	79	2274	2353
05:00 PM	156	189	0	8	345	0	0	1	0	1	0	179	0	6	179	5	0	142	3	147	17	672	689
05:15 PM	138	171	0	1	309	0	0	0	0	0	1	136	0	2	137	4	0	164	3	168	6	614	620
05:30 PM	117	132	0	10	249	0	0	0	0	0	0	175	0	2	175	1	0	119	2	120	14	544	558
05:45 PM	89	114	0	7	203	0	0	0	0	0	0	160	0	5	160	4	0	102	2	106	14	469	483
Total	500	606	0	26	1106	0	0	1	0	1	1	650	0	15	651	14	0	527	10	541	51	2299	2350
06:00 PM	87	92	1	4	180	0	0	0	0	0	0	158	0	7	158	4	0	151	3	155	14	493	507
06:15 PM	104	116	0	4	220	0	0	0	0	0	1	120	0	3	121	1	0	104	1	105	8	446	454
06:30 PM	76	92	0	9	168	0	0	1	0	1	0	131	0	1	131	1	0	94	1	95	11	395	406
06:45 PM	67	84	0	5	151	0	0	0	0	0	0	114	0	0	114	3	0	99	5	102	10	367	377
Total	334	384	1	22	719	0	0	1	0	1	1	523	0	11	524	9	0	448	10	457	43	1701	1744
07:00 PM	75	62	0	5	137	0	0	0	0	0	0	124	0	4	124	6	0	94	1	100	10	361	371
07:15 PM	53	79	0	3	132	0	0	0	0	0	0	117	0	6	117	2	0	117	3	119	12	368	380
07:30 PM	57	71	0	1	128	0	0	0	0	0	0	99	0	1	99	1	0	111	1	112	3	339	342
07:45 PM	46	52	0	3	98	0	0	0	0	0	0	88	0	1	88	2	0	107	3	109	7	295	302
Total	231	264	0	12	495	0	0	0	0	0	0	428	0	12	428	11	0	429	8	440	32	1363	1395
			3	87	3428	0	0	2	0	2	7		1	76	2262	46	0		42	1945	205	7637	7842
Apprch %			0.1			0	0	100			0.3		0			2.4	0						
Total %			0		44.9	0	0	0		0	0.1		0		29.6	0.6	0			25.5	2.6	97.4	

Traffic Planning and Design, Inc.
4647 Saucon Creek Road, Suite 201
Center Valley, PA 18034
Route 611 & I-80 Ramps

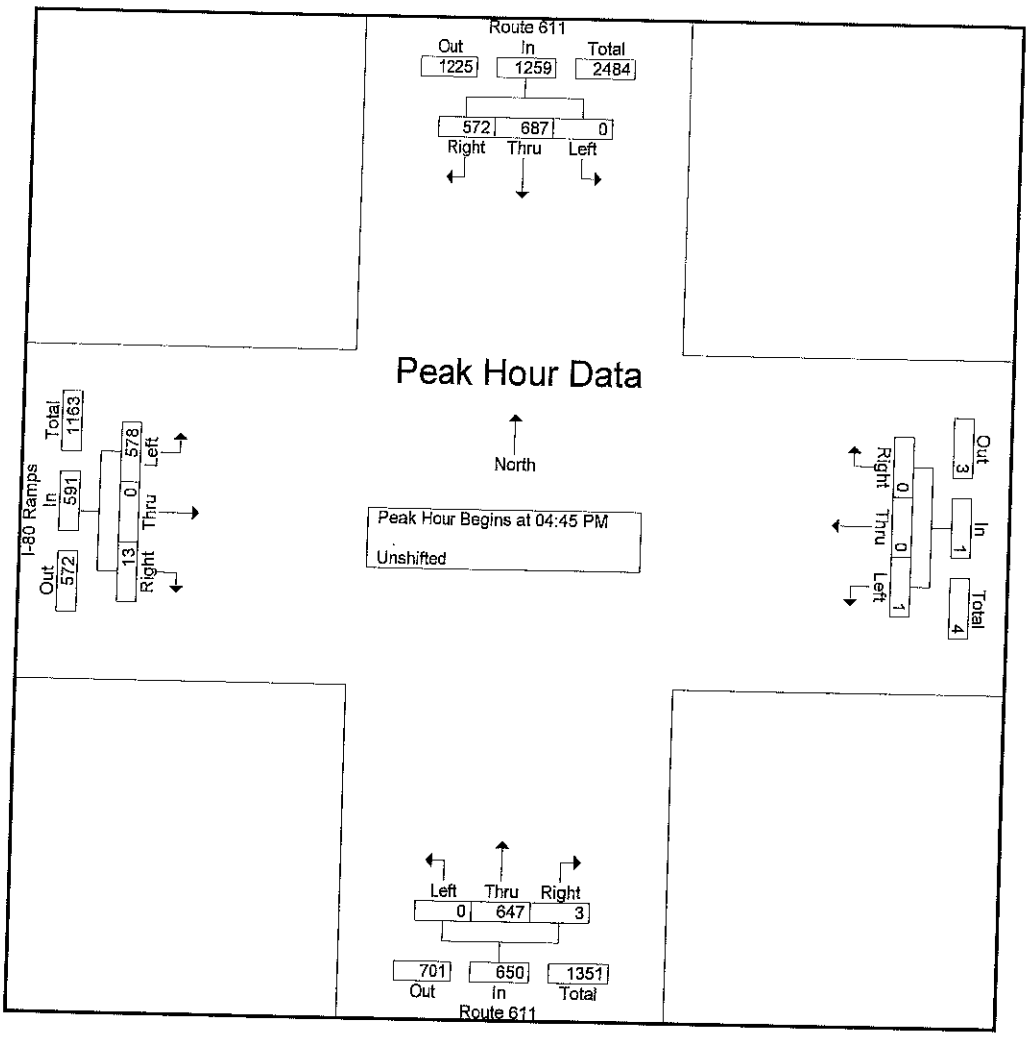
File Name : FRIPM611_80
Site Code : 00000000
Start Date : 2/3/2006
Page No : 2



Traffic Planning and Design, Inc.
4647 Saucon Creek Road, Suite 201
Center Valley, PA 18034
Route 611 & I-80 Ramps

File Name : FRIPM611_80
Site Code : 00000000
Start Date : 2/3/2006
Page No : 3

	Route 611 Southbound				Westbound				Route 611 Northbound				I-80 Ramps Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 07:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	**161**	**195**	0	**356**	0	0	0	0	**2**	157	0	159	3	0	153	156	671
05:00 PM	156	189	0	345	0	0	**1**	**1**	0	**179**	0	**179**	**5**	0	142	147	**672**
05:15 PM	138	171	0	309	0	0	0	0	1	136	0	137	4	0	**164**	**168**	614
05:30 PM	117	132	0	249	0	0	0	0	0	175	0	175	1	0	119	120	544
Total Volume	572	687	0	1259	0	0	1	1	3	647	0	650	13	0	578	591	2501
% App. Total	45.4	54.6	0		0	0	100		0.5	99.5	0		2.2	0	97.8		
PHF	.888	.881	.000	.884	.000	.000	.250	.250	.375	.904	.000	.908	.650	.000	.881	.879	.930



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Route 314

Counter: 28
Counted By: S. Gault
Weather: clear
Saved As: PM314611

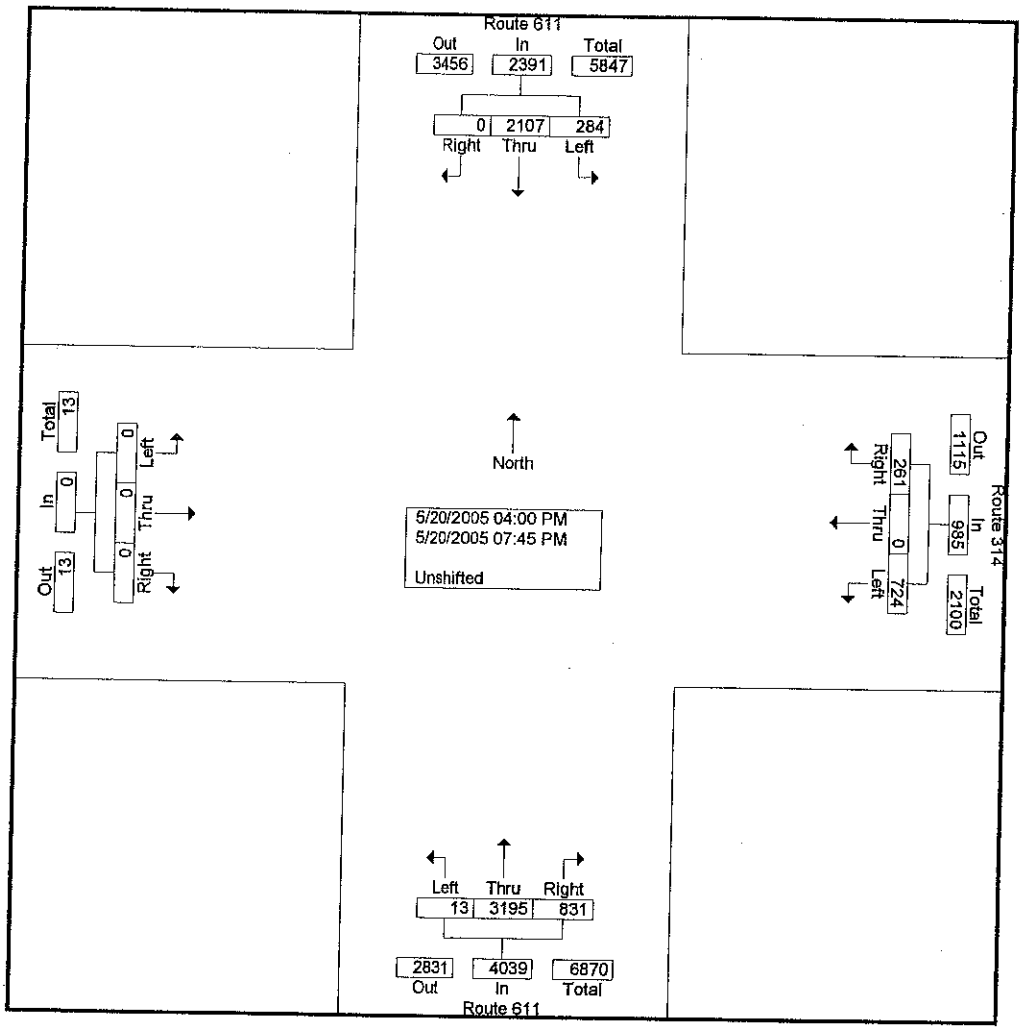
File Name : PM314611
Site Code : 00000000
Start Date : 5/20/2005
Page No : 1

Groups Printed- Unshifted

	Route 611 Southbound					Route 314 Westbound					Route 611 Northbound					Eastbound							
Start Time	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
04:00 PM	17	154	0	3	171	76	0	22	0	98	0	172	55	7	227	0	0	0	0	0	10	496	506
04:15 PM	19	169	0	7	188	61	0	18	1	79	1	224	67	22	292	0	0	0	0	0	30	559	589
04:30 PM	25	209	0	1	234	74	0	40	0	114	1	239	58	9	298	0	0	0	0	0	10	646	656
04:45 PM	29	172	0	3	201	71	0	28	0	99	1	232	55	3	288	0	0	0	0	0	6	588	594
Total	90	704	0	14	794	282	0	108	1	390	3	867	235	41	1105	0	0	0	0	0	56	2289	2345
05:00 PM	17	135	0	0	152	43	0	22	0	65	3	231	58	2	292	0	0	0	0	0	2	509	511
05:15 PM	10	124	0	2	134	58	0	32	0	90	1	248	51	2	300	0	0	0	0	0	4	524	528
05:30 PM	17	136	0	3	153	51	0	18	3	69	1	242	54	3	297	0	0	0	0	0	9	519	528
05:45 PM	17	128	0	3	145	37	0	12	1	49	1	231	45	6	277	0	0	0	0	0	10	471	481
Total	61	523	0	8	584	189	0	84	4	273	6	952	208	13	1166	0	0	0	0	0	25	2023	2048
06:00 PM	21	133	0	2	154	40	0	10	0	50	0	224	68	4	292	0	0	0	0	0	6	496	502
06:15 PM	15	128	0	1	143	51	0	12	1	63	0	187	68	4	255	0	0	0	0	0	6	461	467
06:30 PM	18	129	0	2	147	37	0	4	0	41	0	178	60	3	238	0	0	0	0	0	5	426	431
06:45 PM	21	120	0	4	141	30	0	7	0	37	1	177	55	5	233	0	0	0	0	0	9	411	420
Total	75	510	0	9	585	158	0	33	1	191	1	766	251	16	1018	0	0	0	0	0	26	1794	1820
07:00 PM	11	92	0	3	103	14	0	11	0	25	0	146	38	2	184	0	0	0	0	0	5	312	317
07:15 PM	19	103	0	7	122	35	0	4	0	39	1	164	32	5	197	0	0	0	0	0	12	358	370
07:30 PM	11	93	0	0	104	26	0	12	0	38	0	142	29	2	171	0	0	0	0	0	2	313	315
07:45 PM	17	82	0	2	99	20	0	9	1	29	2	158	38	4	198	0	0	0	0	0	7	326	333
Total	58	370	0	12	428	95	0	36	1	131	3	610	137	13	750	0	0	0	0	0	26	1309	1335
Grand Total	284	2107	0	43	2391	724	0	261	7	985	13	3195	831	83	4039	0	0	0	0	0	133	7415	7548
Apprch %	11.9	88.1	0			73.5	0	26.5			0.3	79.1	20.6			0	0	0					
Total %	3.8	28.4	0		32.2	9.8	0	3.5		13.3	0.2	43.1	11.2		54.5	0	0	0		0	1.8	98.2	

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Route 314

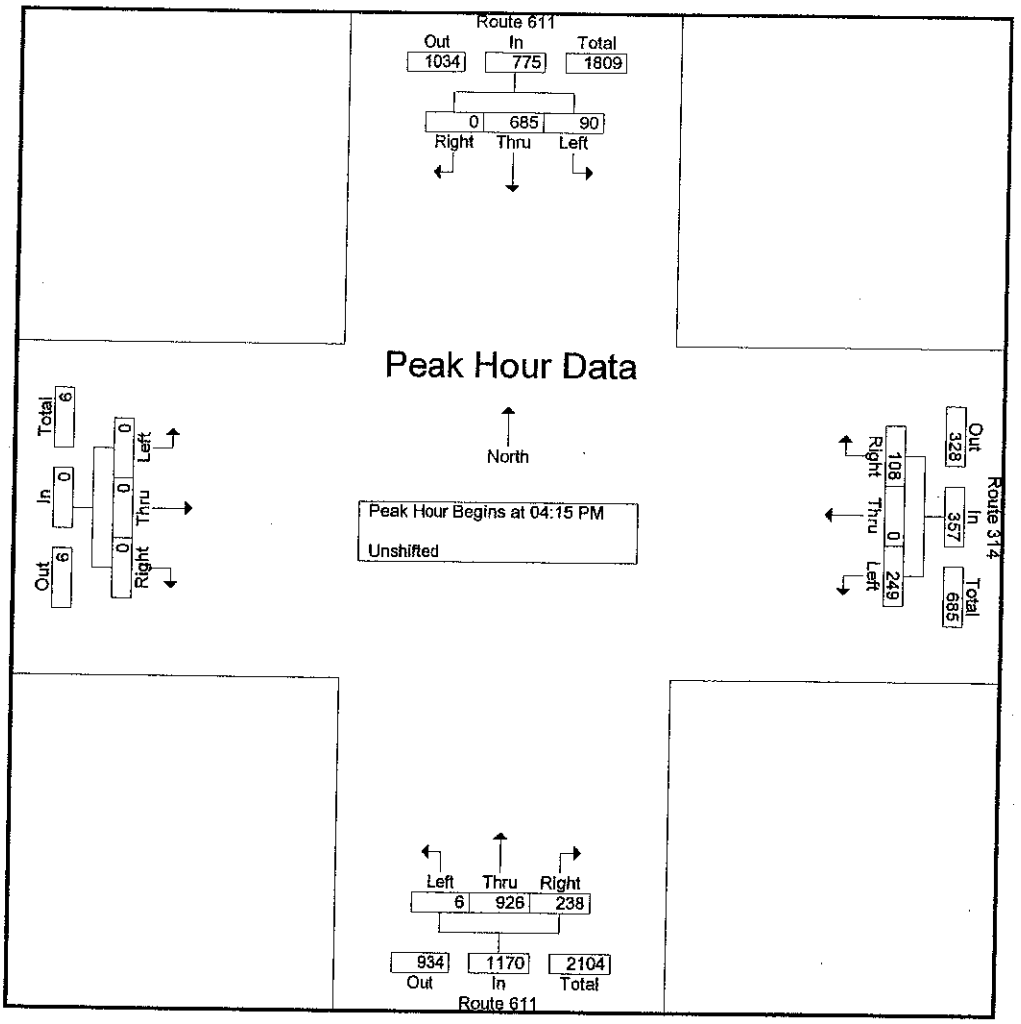
File Name : PM314611
Site Code : 00000000
Start Date : 5/20/2005
Page No : 2



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Route 314

File Name : PM314611
Site Code : 00000000
Start Date : 5/20/2005
Page No : 3

	Route 611 Southbound				Route 314 Westbound				Route 611 Northbound				Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 07:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	19	169	0	188	61	0	18	79	1	224	67	292	0	0	0	0	559
04:30 PM	25	209	0	234	74	0	40	114	1	239	58	298	0	0	0	0	646
04:45 PM	29	172	0	201	71	0	28	99	1	232	55	288	0	0	0	0	588
05:00 PM	17	135	0	152	43	0	22	65	3	231	58	292	0	0	0	0	509
Total Volume	90	685	0	775	249	0	108	357	6	926	238	1170	0	0	0	0	2302
% App. Total	11.6	88.4	0		69.7	0	30.3		0.5	79.1	20.3		0	0	0		
PHF	.776	.819	.000	.828	.841	.000	.675	.783	.500	.969	.888	.982	.000	.000	.000	.000	.891



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Route 314

Counter: 3
Counted By: D. Bitterlich
Weather: clear
Saved As: PM611314

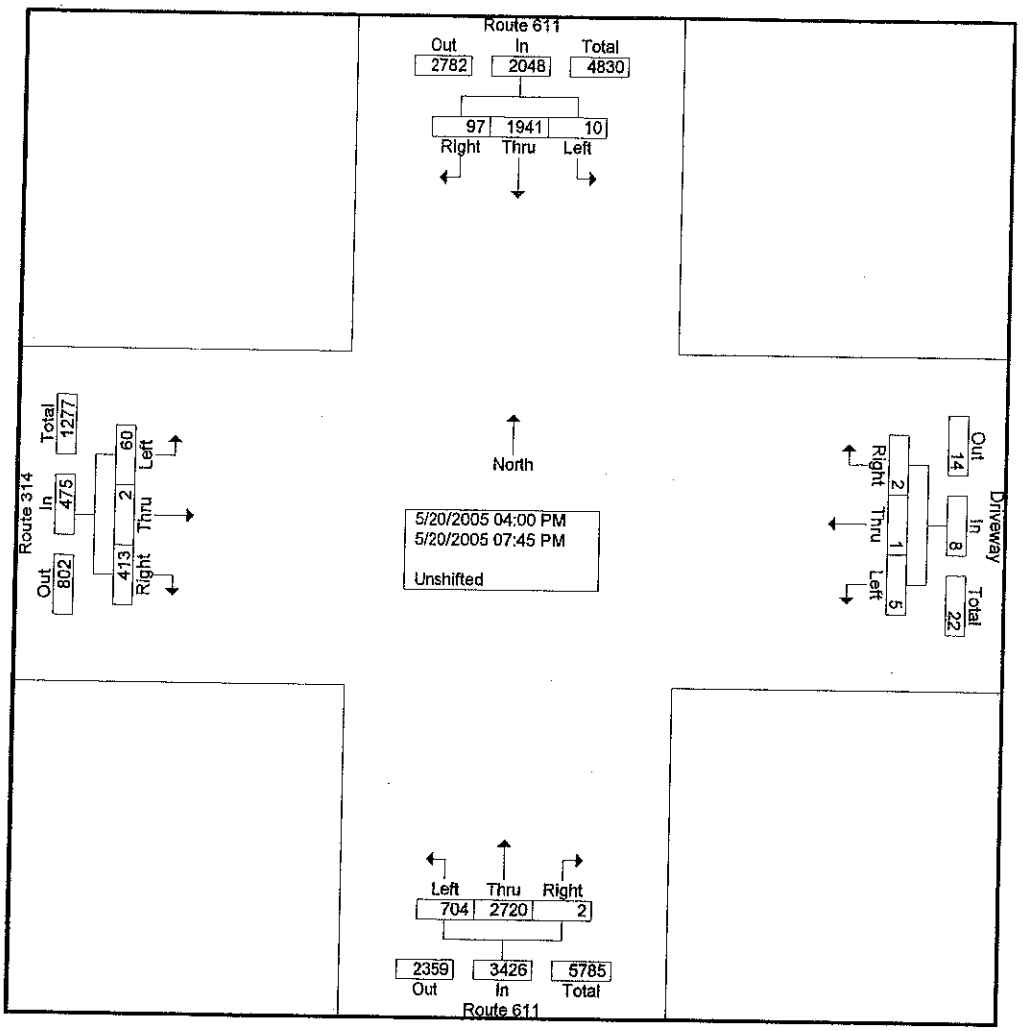
File Name : PM611314
Site Code : 00000000
Start Date : 5/20/2005
Page No : 1

Groups Printed- Unshifted

	Route 611 Southbound					Driveway Westbound					Route 611 Northbound					Route 314 Eastbound							
Start Time	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
04:00 PM	0	137	10	2	147	0	0	0	0	0	47	162	0	9	209	2	0	30	4	32	15	388	403
04:15 PM	2	163	3	7	168	0	0	0	0	0	59	168	0	7	227	5	1	30	3	36	17	431	448
04:30 PM	1	198	4	7	203	0	0	1	0	1	81	197	0	3	278	2	0	32	0	34	10	516	526
04:45 PM	1	150	9	7	160	0	0	0	0	0	61	191	0	3	252	5	0	48	2	53	12	465	477
Total	4	648	26	23	678	0	0	1	0	1	248	718	0	22	966	14	1	140	9	155	54	1800	1854
05:00 PM	0	111	6	4	117	1	0	0	0	1	67	196	0	4	263	0	0	34	1	34	9	415	424
05:15 PM	2	124	12	1	138	0	0	0	0	0	78	207	0	3	285	2	0	18	2	20	6	443	449
05:30 PM	1	125	5	4	131	0	0	0	0	0	60	202	0	3	262	3	0	31	1	34	8	427	435
05:45 PM	1	121	5	2	127	0	0	0	0	0	52	191	0	6	243	3	0	20	1	23	9	393	402
Total	4	481	28	11	513	1	0	0	0	1	257	796	0	16	1053	8	0	103	5	111	32	1678	1710
06:00 PM	1	121	6	3	128	0	0	0	0	0	38	179	0	2	217	10	0	27	0	37	5	382	387
06:15 PM	0	122	4	4	126	0	0	0	0	0	28	191	0	4	219	9	0	26	0	35	8	380	388
06:30 PM	0	117	5	3	122	0	0	0	0	0	32	161	0	4	193	4	0	31	0	35	7	350	357
06:45 PM	0	109	11	4	120	0	0	0	0	0	24	146	0	2	170	2	0	20	1	22	7	312	319
Total	1	469	26	14	496	0	0	0	0	0	122	677	0	12	799	25	0	104	1	129	27	1424	1451
07:00 PM	1	84	1	4	86	1	1	0	0	2	20	115	1	3	136	2	0	11	0	13	7	237	244
07:15 PM	0	93	3	5	96	0	0	0	0	0	22	140	1	3	163	2	0	22	2	24	10	283	293
07:30 PM	0	82	6	0	88	2	0	0	0	2	19	131	0	3	150	3	0	16	0	19	3	259	262
07:45 PM	0	84	7	3	91	1	0	1	0	2	16	143	0	6	159	6	1	17	0	24	9	276	285
Total	1	343	17	12	361	4	1	1	0	6	77	529	2	15	608	13	1	66	2	80	29	1055	1084
Grand Total	10	1941	97	60	2048	5	1	2	0	8	704	2720	2	65	3426	60	2	413	17	475	142	5957	6099
Apprch %	0.5	94.8	4.7			62.5	12.5	25			20.5	79.4	0.1			12.6	0.4	86.9					
Total %	0.2	32.6	1.6		34.4	0.1	0	0		0.1	11.8	45.7	0		57.5	1	0	6.9		8	2.3	97.7	

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Route 314

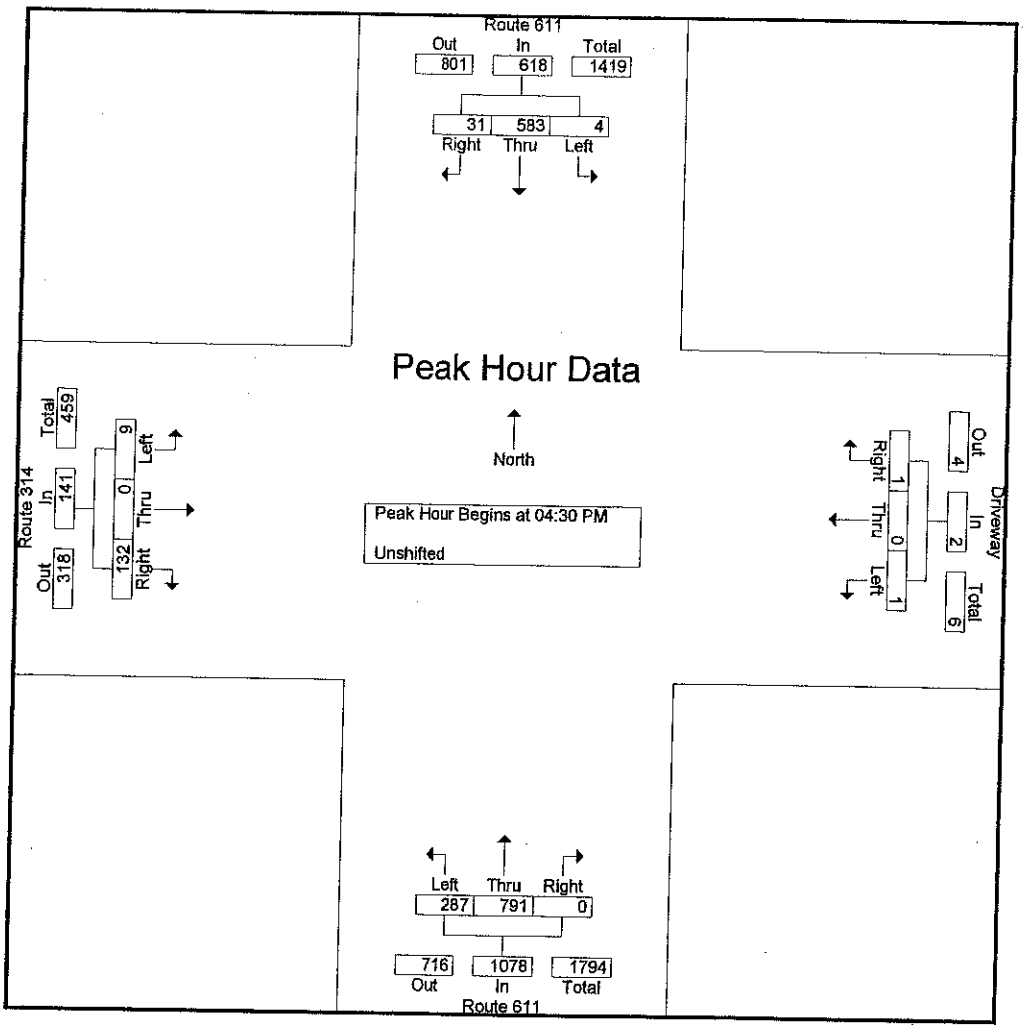
File Name : PM611314
Site Code : 00000000
Start Date : 5/20/2005
Page No : 2



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Route 314

File Name : PM611314
Site Code : 00000000
Start Date : 5/20/2005
Page No : 3

	Route 611 Southbound				Driveway Westbound				Route 611 Northbound				Route 314 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 07:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	1	**198**	4	**203**	0	0	**1**	**1**	**81**	197	0	278	2	0	32	34	**516**
04:45 PM	1	150	9	160	0	0	0	0	61	191	0	252	**5**	0	**48**	**53**	465
05:00 PM	0	111	6	117	**1**	0	0	1	67	196	0	263	0	0	34	34	415
05:15 PM	**2**	124	**12**	138	0	0	0	0	78	**207**	0	**285**	2	0	18	20	443
Total Volume	4	583	31	618	1	0	1	2	287	791	0	1078	9	0	132	141	1839
% App. Total	0.6	94.3	5		50	0	50		26.6	73.4	0		6.4	0	93.6		
PHF	.500	.736	.646	.761	.250	.000	.250	.500	.886	.955	.000	.946	.450	.000	.688	.665	.891



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Woodland Rd.

Counter: IMC 002
Counted By: E. Mountz
Weather: clear
Saved As: PMWR611

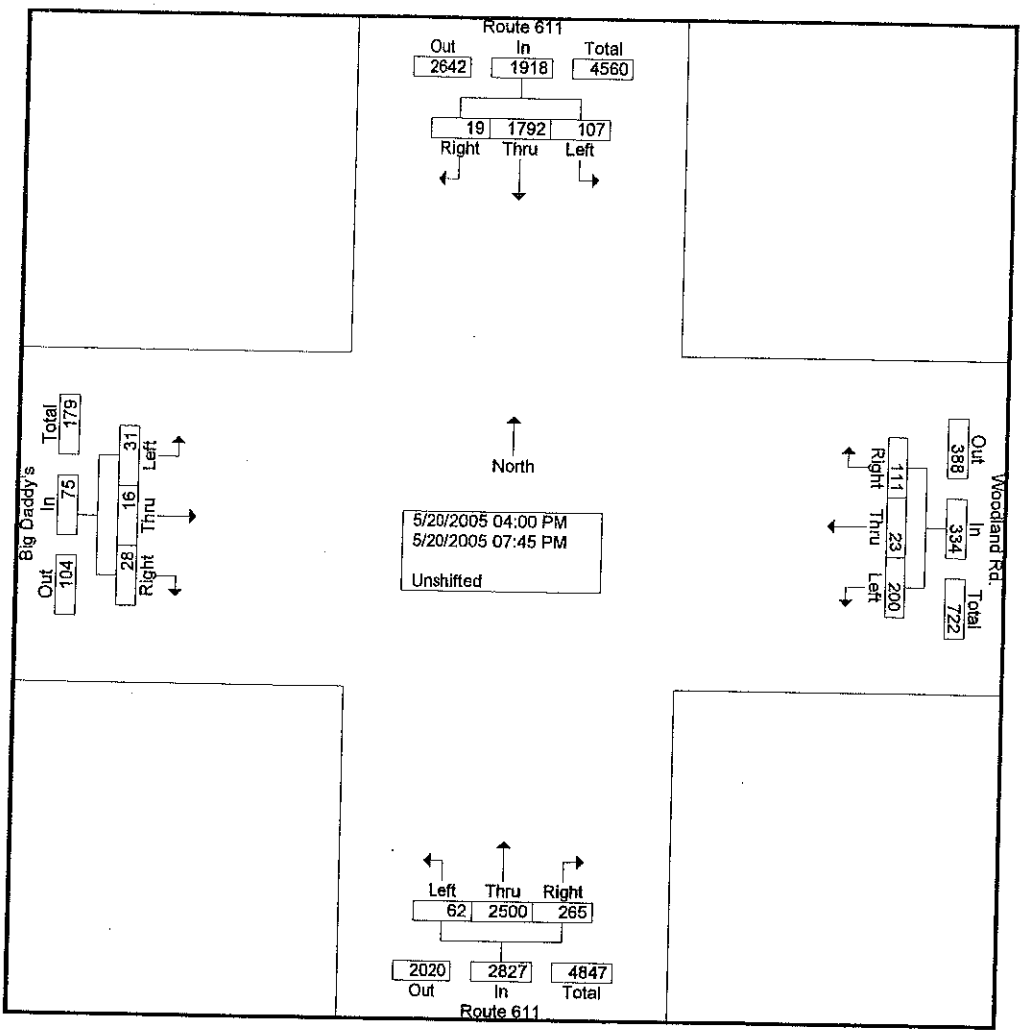
File Name : PMWR611
Site Code : 00000000
Start Date : 5/20/2005
Page No : 1

Groups Printed- Unshifted

	Route 611 Southbound					Woodland Rd. Westbound					Route 611 Northbound					Big Daddy's Eastbound							
Start Time	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
04:00 PM	6	124	1	5	131	25	1	9	1	35	2	139	15	4	156	1	0	0	0	1	10	323	333
04:15 PM	10	161	1	8	172	13	1	11	0	25	1	175	17	5	193	1	0	1	0	2	13	392	405
04:30 PM	10	187	2	2	199	12	1	10	1	23	1	182	12	1	195	1	1	2	0	4	4	421	425
04:45 PM	13	142	3	2	158	11	1	9	1	21	0	172	22	3	194	2	0	0	0	2	6	375	381
Total	39	614	7	17	660	61	4	39	3	104	4	668	66	13	738	5	1	3	0	9	33	1511	1544
05:00 PM	5	115	1	0	121	11	4	12	0	27	3	173	16	1	192	0	1	0	0	1	1	341	342
05:15 PM	4	103	3	0	110	16	1	7	0	24	13	186	12	0	211	1	2	0	0	3	0	348	348
05:30 PM	4	112	2	1	118	17	5	5	1	27	5	185	13	3	203	0	0	0	0	0	5	348	353
05:45 PM	5	110	0	3	115	14	3	1	0	18	6	175	16	4	197	1	1	2	0	4	7	334	341
Total	18	440	6	4	464	58	13	25	1	96	27	719	57	8	803	2	4	2	0	8	13	1371	1384
06:00 PM	13	107	2	0	122	22	1	3	3	26	8	163	22	4	193	4	1	4	0	9	7	350	357
06:15 PM	5	105	0	1	110	11	1	6	0	18	6	171	24	3	201	4	1	2	0	7	4	336	340
06:30 PM	9	103	0	2	112	9	1	9	0	19	4	135	29	3	168	3	2	1	0	6	5	305	310
06:45 PM	11	107	2	3	120	7	1	4	0	12	2	133	19	3	154	3	4	6	0	13	6	299	305
Total	38	422	4	6	464	49	4	22	3	75	20	602	94	13	716	14	8	13	0	35	22	1290	1312
07:00 PM	3	75	0	2	78	9	2	6	2	17	2	123	14	2	139	3	2	3	0	8	6	242	248
07:15 PM	4	87	1	3	92	11	0	3	0	14	3	125	6	3	134	3	0	0	0	3	6	243	249
07:30 PM	2	80	0	0	82	10	0	9	0	19	3	127	14	2	144	0	0	4	0	4	2	249	251
07:45 PM	3	74	1	2	78	2	0	7	0	9	3	136	14	5	153	4	1	3	0	8	7	248	255
Total	12	316	2	7	330	32	2	25	2	59	11	511	48	12	570	10	3	10	0	23	21	982	1003
Grand Total	107	1792	19	34	1918	200	23	111	9	334	62	2500	265	46	2827	31	16	28	0	75	89	5154	5243
Apprch %	5.6	93.4	1			59.9	6.9	33.2			2.2	88.4	9.4			41.3	21.3	37.3					
Total %	2.1	34.8	0.4		37.2	3.9	0.4	2.2		6.5	1.2	48.5	5.1		54.9	0.6	0.3	0.5		1.5	1.7	98.3	

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Woodland Rd.

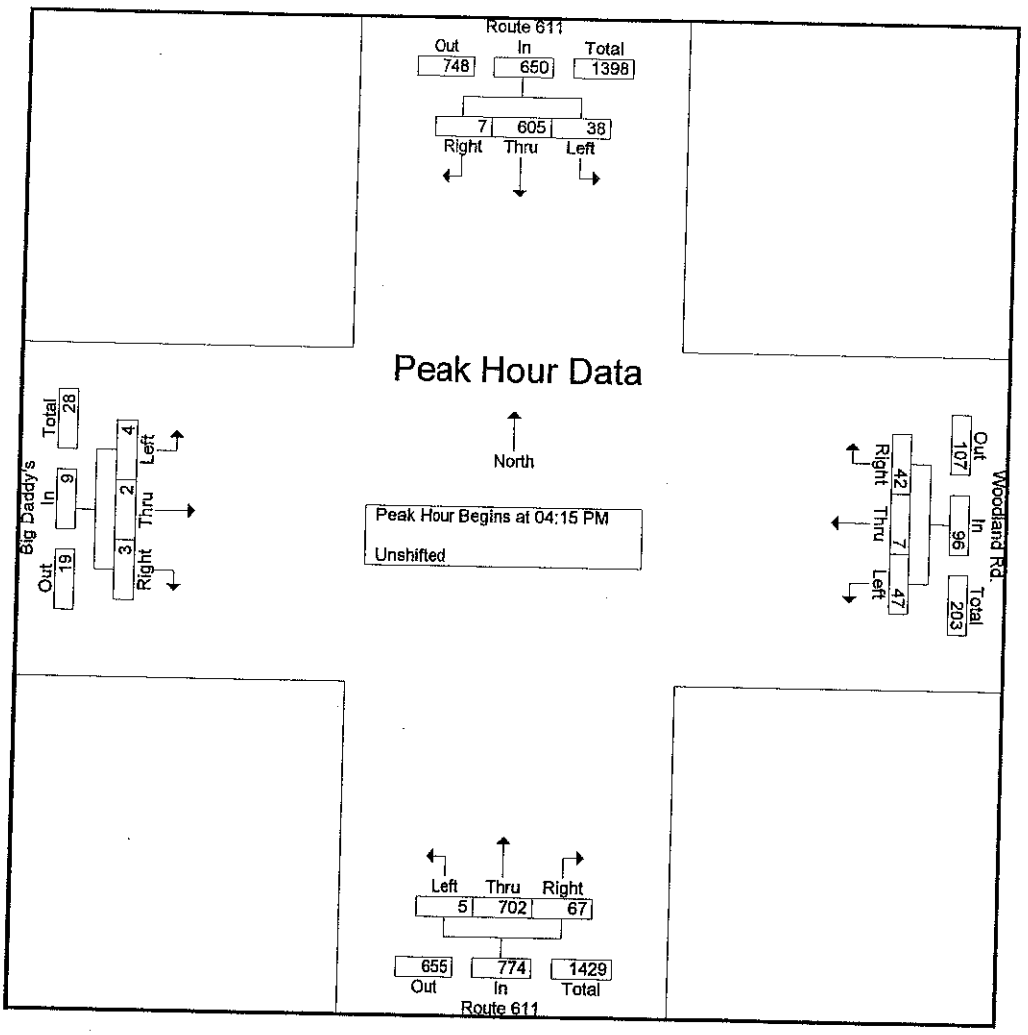
File Name : PMWR611
Site Code : 00000000
Start Date : 5/20/2005
Page No : 2



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Woodland Rd.

File Name : PMWR611
Site Code : 00000000
Start Date : 5/20/2005
Page No : 3

	Route 611 Southbound				Woodland Rd. Westbound				Route 611 Northbound				Big Daddy's Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 07:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	10	161	1	172	**13**	1	11	25	1	175	17	193	1	0	1	2	392
04:30 PM	10	**187**	2	**199**	12	1	10	23	1	**182**	12	**195**	1	**1**	**2**	**4**	**421**
04:45 PM	**13**	142	**3**	158	11	1	9	21	0	172	**22**	194	**2**	0	0	2	375
05:00 PM	5	115	1	121	11	**4**	**12**	**27**	**3**	173	16	192	0	1	0	1	341
Total Volume	38	605	7	650	47	7	42	96	5	702	67	774	4	2	3	9	1529
% App. Total	5.8	93.1	1.1		49	7.3	43.8		0.6	90.7	8.7		44.4	22.2	33.3		
PHF	.731	.809	.583	.817	.904	.438	.875	.889	.417	.964	.761	.992	.500	.500	.375	.563	.908



Job #: CECO.A.00008
Date: 5/20/05 (Friday)
Technician: E. Mountz

Peak Hour

Turning Movements To/From Strickland's Road								
Time	From SB Route 611	From NB Route 611	From Big Daddy's	From Woodland Road	To SB Route 611	To NB Route 611	To Big Daddy's	To Woodland Road
4:00 - 4:15 PM								
4:15 -4:30 PM								
4:30 - 4:45 PM		I						
4:45 - 5:00 PM								
5:00 - 5:15 PM								
5:15 - 5:30 PM						II		
5:30 - 5:45 PM								
5:45 - 6:00 PM								
6:00 - 6:15 PM								
6:15 -6:30 PM						I		
6:30 - 6:45 PM						I		I
6:45 - 7:00 PM		I						
7:00 - 7:15 PM								
7:15 - 7:30 PM								
7:30 - 7:45 PM						I		I
7:45 - 8:00 PM								

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Meadowside Rd.

Counter: TPD 4
Counted By: W.Wagner
Weather: PRT Cloudy Cool

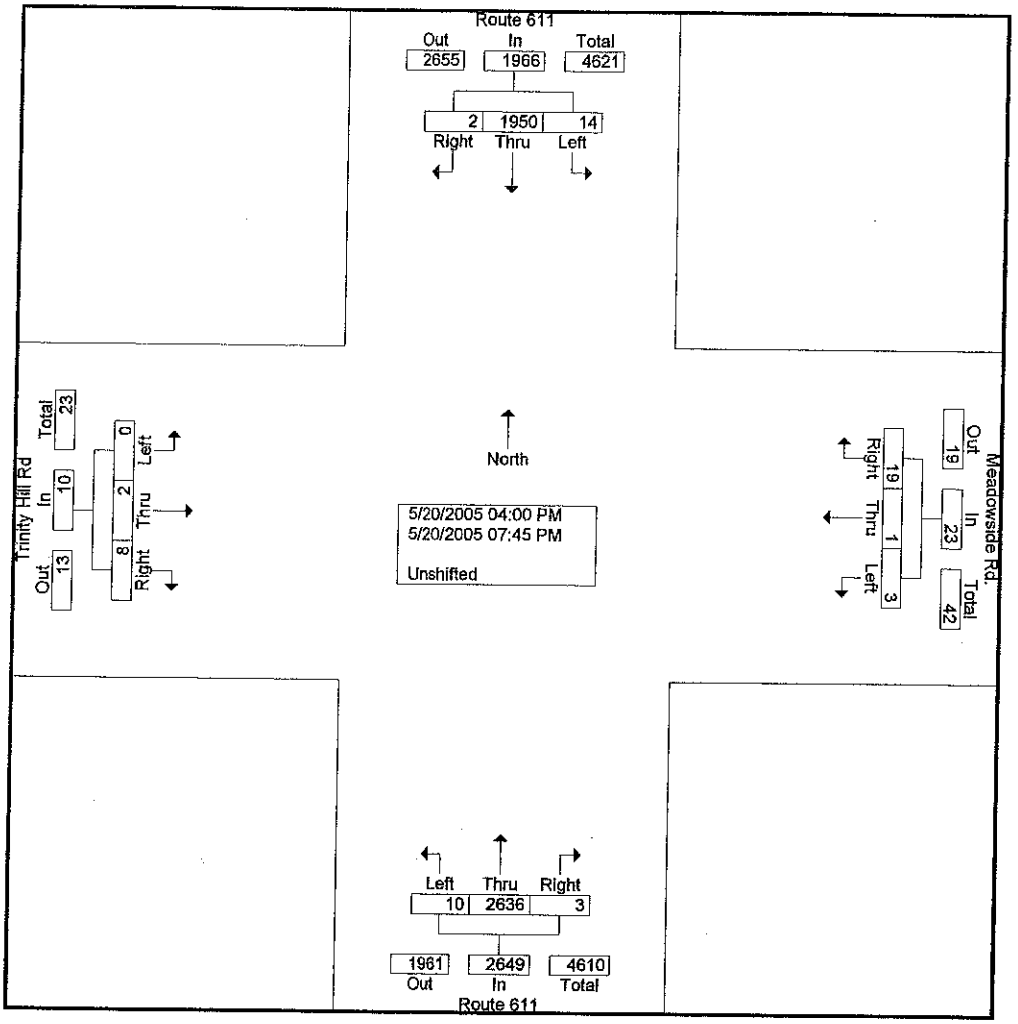
File Name : PM_RT611MR
Site Code : 00055555
Start Date : 5/20/2005
Page No : 1

Groups Printed- Unshifted

	Route 611 Southbound					Meadowside Rd. Westbound					Route 611 Northbound					Trinity Hill Rd Eastbound							
Start Time	Left	Thru	Right	Trucks	App. Total	Left	Thru	Right	Trucks	App. Total	Left	Thru	Right	Trucks	App. Total	Left	Thru	Right	Trucks	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
04:00 PM	1	132	0	7	133	0	0	2	1	2	1	147	0	6	148	0	1	0	0	1	14	284	298
04:15 PM	0	177	0	11	177	0	0	2	0	2	1	182	0	6	183	0	0	1	0	1	17	363	380
04:30 PM	2	198	0	7	200	1	1	4	0	6	0	193	1	3	194	0	0	0	0	0	10	400	410
04:45 PM	1	155	1	8	157	0	0	1	0	1	0	184	0	2	184	0	0	1	0	1	10	343	353
Total	4	662	1	33	667	1	1	9	1	11	2	706	1	17	709	0	1	2	0	3	51	1390	1441
05:00 PM	2	124	0	4	126	0	0	3	0	3	2	187	0	0	189	0	0	1	0	1	4	319	323
05:15 PM	0	105	0	1	105	0	0	0	0	0	0	194	0	1	194	0	0	0	0	0	2	299	301
05:30 PM	1	124	0	5	125	1	0	0	0	1	1	190	0	4	191	0	0	2	0	2	9	319	328
05:45 PM	1	127	0	2	128	0	0	2	0	2	0	183	0	6	183	0	0	0	0	0	8	313	321
Total	4	480	0	12	484	1	0	5	0	6	3	754	0	11	757	0	0	3	0	3	23	1250	1273
06:00 PM	1	118	0	0	119	0	0	1	0	1	0	168	1	4	169	0	0	0	0	0	4	289	293
06:15 PM	0	124	0	5	124	0	0	1	0	1	1	173	1	4	175	0	0	2	0	2	9	302	311
06:30 PM	1	119	0	2	120	0	0	0	0	0	0	143	0	3	143	0	0	0	0	0	5	263	268
06:45 PM	1	121	1	3	123	1	0	1	0	2	0	142	0	5	142	0	0	0	0	0	8	267	275
Total	3	482	1	10	486	1	0	3	0	4	1	626	2	16	629	0	0	2	0	2	26	1121	1147
07:00 PM	1	83	0	5	84	0	0	0	0	0	2	133	0	1	135	0	0	0	0	0	6	219	225
07:15 PM	0	89	0	3	89	0	0	2	0	2	0	126	0	5	126	0	0	1	0	1	8	218	226
07:30 PM	1	78	0	1	79	0	0	0	0	0	1	141	0	5	142	0	0	0	0	0	6	221	227
07:45 PM	1	76	0	4	77	0	0	0	0	0	1	150	0	6	151	0	1	0	0	1	10	229	239
Total	3	326	0	13	329	0	0	2	0	2	4	550	0	17	554	0	1	1	0	2	30	887	917
Grand Total	14	1950	2	68	1966	3	1	19	1	23	10	2636	3	61	2649	0	2	8	0	10	130	4648	4778
Apprch %	0.7	99.2	0.1			13	4.3	82.6			0.4	99.5	0.1			0	20	80					
Total %	0.3	42	0		42.3	0.1	0	0.4		0.5	0.2	56.7	0.1		57	0	0	0.2		0.2	2.7	97.3	

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Meadowside Rd.

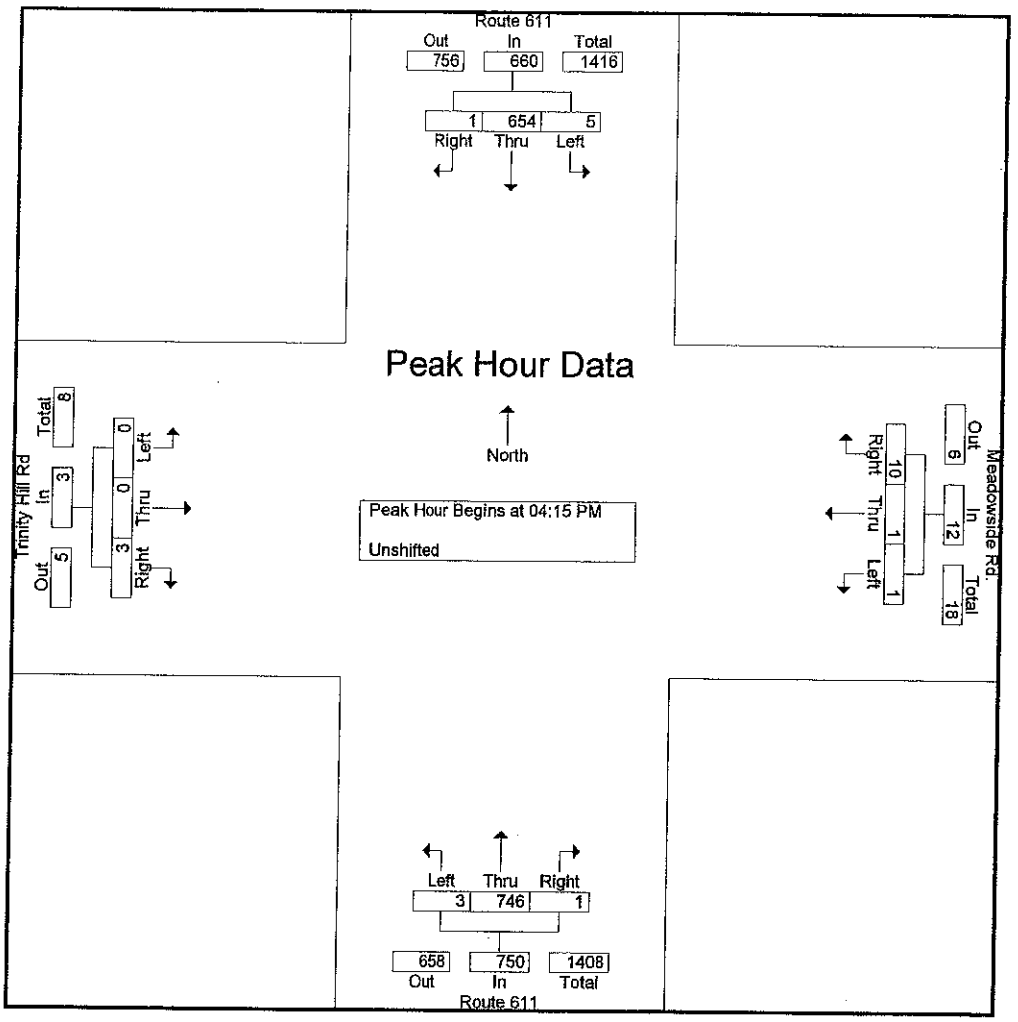
File Name : PM_RT611MR
Site Code : 00055555
Start Date : 5/20/2005
Page No : 2



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Meadowside Rd.

File Name : PM_RT611MR
Site Code : 00055555
Start Date : 5/20/2005
Page No : 3

	Route 611 Southbound				Meadowside Rd. Westbound				Route 611 Northbound				Trinity Hill Rd Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 07:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	177	0	177	0	0	2	2	1	182	0	183	0	0	1	1	363
04:30 PM	**2**	**198**	0	**200**	**1**	**1**	**4**	**6**	0	**193**	**1**	**194**	0	0	0	0	**400**
04:45 PM	1	155	**1**	157	0	0	1	1	0	184	0	184	0	0	1	1	343
05:00 PM	2	124	0	126	0	0	3	3	**2**	187	0	189	0	0	1	1	319
Total Volume	5	654	1	660	1	1	10	12	3	746	1	750	0	0	3	3	1425
% App. Total	0.8	99.1	0.2		8.3	8.3	83.3		0.4	99.5	0.1		0	0	100		
PHF	.625	.826	.250	.825	.250	.250	.625	.500	.375	.966	.250	.966	.000	.000	.750	.750	.891



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Grange Rd.

Counter:
Counted By:
Weather:
Other:

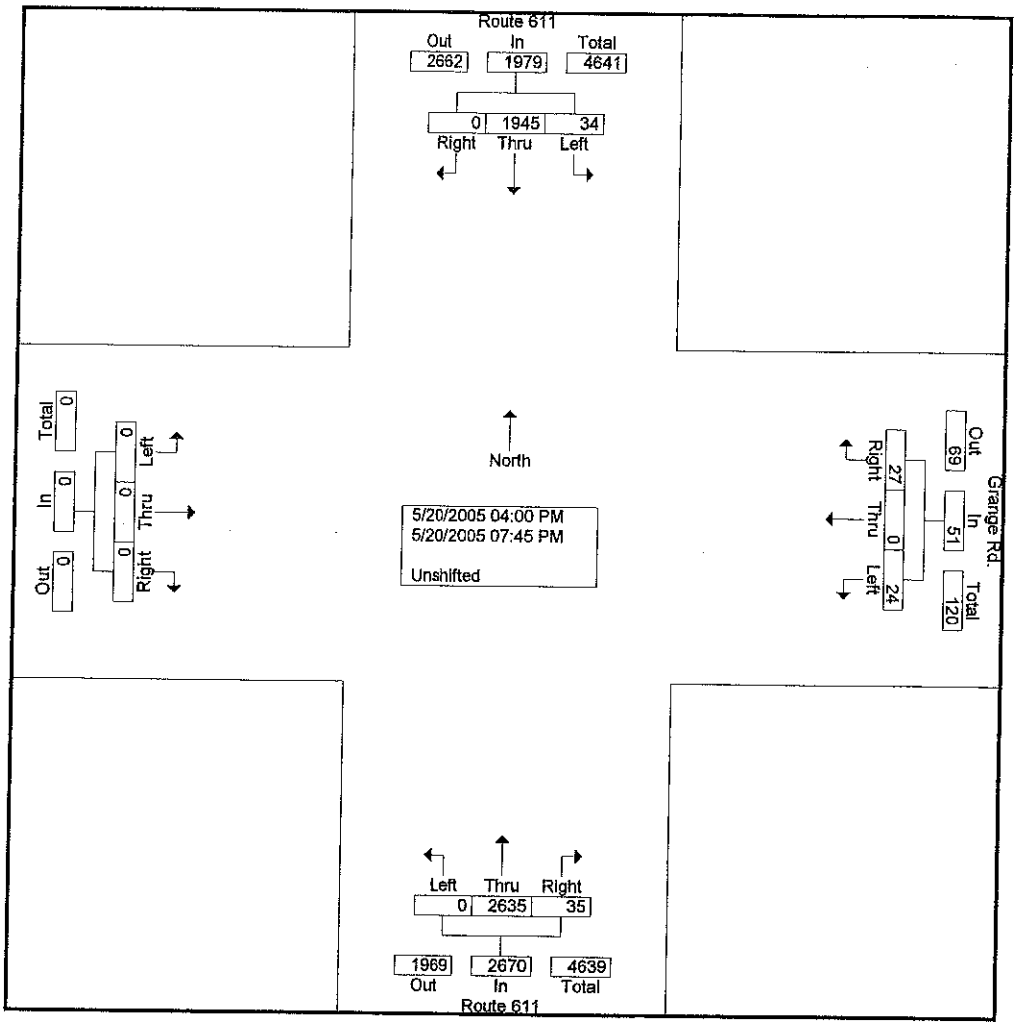
File Name : PM611GR
Site Code : 07314555
Start Date : 5/20/2005
Page No : 1

Groups Printed- Unshifted

	Route 611 Southbound					Grange Rd. Westbound					Route 611 Northbound					Eastbound							
Start Time	Left	Thru	Right	Trucks	App. Total	Left	Thru	Right	Trucks	App. Total	Left	Thru	Right	Trucks	App. Total	Left	Thru	Right	Trucks	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
04:00 PM	1	146	0	9	147	3	0	5	1	8	0	153	1	6	154	0	0	0	0	0	16	309	325
04:15 PM	5	172	0	6	177	0	0	2	0	2	0	188	3	5	191	0	0	0	0	0	11	370	381
04:30 PM	4	207	0	3	211	1	0	0	0	1	0	197	2	2	199	0	0	0	0	0	5	411	416
04:45 PM	1	137	0	4	138	1	0	2	0	3	0	184	1	2	185	0	0	0	0	0	6	326	332
Total	11	662	0	22	673	5	0	9	1	14	0	722	7	15	729	0	0	0	0	0	38	1416	1454
05:00 PM	2	125	0	1	127	0	0	3	0	3	0	193	2	0	195	0	0	0	0	0	1	325	326
05:15 PM	3	110	0	0	113	0	0	3	0	3	0	195	4	1	199	0	0	0	0	0	1	315	316
05:30 PM	3	120	0	3	123	0	0	1	0	1	0	193	0	4	193	0	0	0	0	0	7	317	324
05:45 PM	3	124	0	2	127	4	0	3	0	7	0	171	1	2	172	0	0	0	0	0	4	306	310
Total	11	479	0	6	490	4	0	10	0	14	0	752	7	7	759	0	0	0	0	0	13	1263	1276
06:00 PM	2	124	0	0	126	2	0	2	0	4	0	172	2	3	174	0	0	0	0	0	3	304	307
06:15 PM	2	120	0	4	122	4	0	2	0	6	0	163	4	3	167	0	0	0	0	0	7	295	302
06:30 PM	1	120	0	1	121	1	0	3	0	4	0	138	2	3	140	0	0	0	0	0	4	265	269
06:45 PM	3	117	0	4	120	1	0	1	0	2	0	143	2	3	145	0	0	0	0	0	7	267	274
Total	8	481	0	9	489	8	0	8	0	16	0	616	10	12	626	0	0	0	0	0	21	1131	1152
07:00 PM	1	92	0	5	93	1	0	0	0	1	0	127	2	1	129	0	0	0	0	0	6	223	229
07:15 PM	3	78	0	2	81	2	0	0	0	2	0	135	1	3	136	0	0	0	0	0	5	219	224
07:30 PM	0	79	0	0	79	2	0	0	0	2	0	136	2	2	138	0	0	0	0	0	2	219	221
07:45 PM	0	74	0	4	74	2	0	0	0	2	0	147	6	4	153	0	0	0	0	0	8	229	237
Total	4	323	0	11	327	7	0	0	0	7	0	545	11	10	556	0	0	0	0	0	21	890	911
Grand Total	34	1945	0	48	1979	24	0	27	1	51	0	2635	35	44	2670	0	0	0	0	0	93	4700	4793
Apprch %	1.7	98.3	0			47.1	0	52.9			0	98.7	1.3			0	0	0					
Total %	0.7	41.4	0		42.1	0.5	0	0.6		1.1	0	56.1	0.7		56.8	0	0	0		0	1.9	98.1	

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Grange Rd.

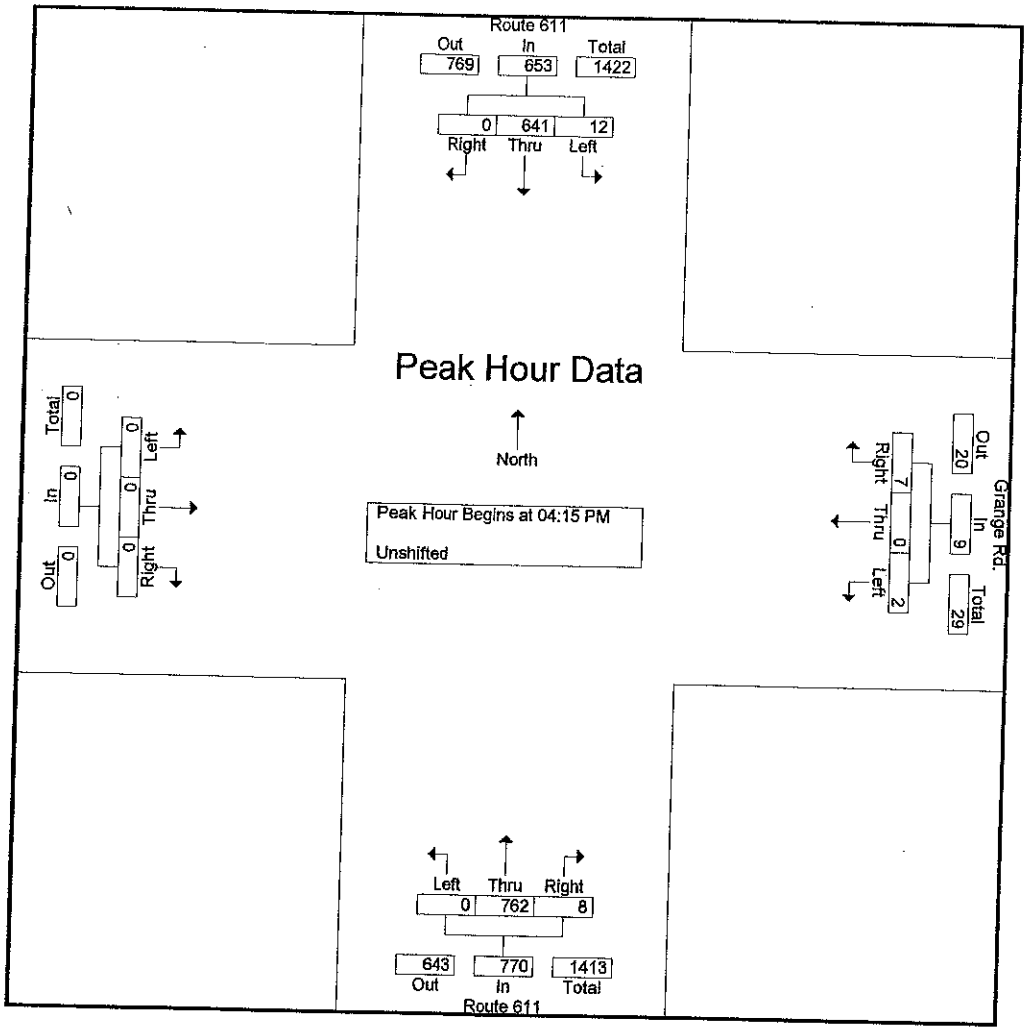
File Name : PM611GR
Site Code : 07314555
Start Date : 5/20/2005
Page No : 2



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Grange Rd.

File Name : PM611GR
Site Code : 07314555
Start Date : 5/20/2005
Page No : 3

	Route 611 Southbound				Grange Rd. Westbound				Route 611 Northbound				Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	**5**	172	0	177	0	0	2	2	0	188	**3**	191	0	0	0	0	370
04:30 PM	4	**207**	0	**211**	**1**	0	0	1	0	**197**	2	**199**	0	0	0	0	**411**
04:45 PM	1	137	0	138	1	0	2	**3**	0	184	1	185	0	0	0	0	326
05:00 PM	2	125	0	127	0	0	**3**	3	0	193	2	195	0	0	0	0	325
Total Volume	12	641	0	653	2	0	7	9	0	762	8	770	0	0	0	0	1432
% App. Total	1.8	98.2	0		22.2	0	77.8		0	99	1		0	0	0		
PHF	.600	.774	.000	.774	.500	.000	.583	.750	.000	.967	.667	.967	.000	.000	.000	.000	.871



Traffic Planning & Design, Inc.
2500 E. High St. Suite 650
Pottstown, PA 19464

Woodland Road & School Access Driveway

Counter #:
Counted by: J. Funk/A. Carrillo
Weather: Overcast
Saved as: PMWRSAR

File Name : pmwrsar
Site Code : 00282828
Start Date : 11/29/2005
Page No : 1

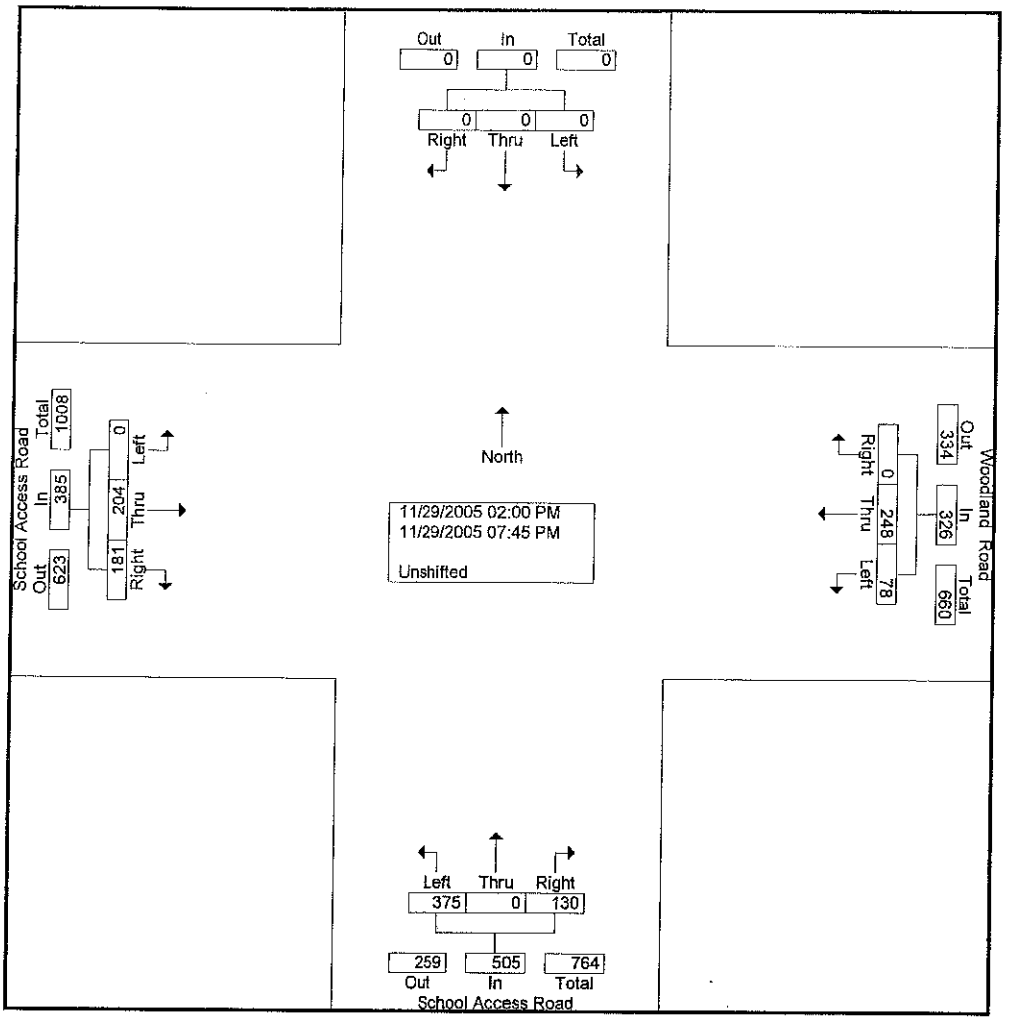
Groups Printed- Unshifted

	Southbound					Woodland Road Westbound					School Access Road Northbound					School Access Road Eastbound							
Start Time	Left	Thru	Right	Trucks	App. Total	Left	Thru	Right	Trucks	App. Total	Left	Thru	Right	Trucks	App. Total	Left	Thru	Right	Trucks	App. Total	Exclu. Total	Inclu. Total	Int. Total
02:00 PM	0	0	0	0	0	2	7	0	0	9	3	0	2	1	5	0	17	9	1	26	2	40	42
02:15 PM	0	0	0	0	0	5	13	0	0	18	3	0	6	5	9	0	3	10	2	13	7	40	47
02:30 PM	0	0	0	0	0	6	17	0	3	23	13	0	7	0	20	0	7	16	1	23	4	66	70
02:45 PM	0	0	0	0	0	6	12	0	0	18	83	0	23	20	106	0	3	15	1	18	21	142	163
Total	0	0	0	0	0	19	49	0	3	68	102	0	38	26	140	0	30	50	5	80	34	288	322
03:00 PM	0	0	0	0	0	7	13	0	2	20	27	0	5	0	32	0	8	14	4	22	6	74	80
03:15 PM	0	0	0	0	0	4	22	0	0	26	17	0	6	2	23	0	9	20	5	29	7	78	85
03:30 PM	0	0	0	0	0	0	13	0	0	13	23	0	7	2	30	0	8	7	3	15	5	58	63
03:45 PM	0	0	0	0	0	3	14	0	2	17	39	0	6	11	45	0	11	7	1	18	14	80	94
Total	0	0	0	0	0	14	62	0	4	76	106	0	24	15	130	0	36	48	13	84	32	290	322
04:00 PM	0	0	0	0	0	4	16	0	2	20	20	0	3	0	23	0	13	8	6	21	8	64	72
04:15 PM	0	0	0	0	0	9	7	0	3	16	8	0	5	0	13	0	16	13	8	29	11	58	69
04:30 PM	0	0	0	0	0	0	7	0	1	7	26	0	15	0	41	0	12	5	0	17	1	65	66
04:45 PM	0	0	0	0	0	1	15	0	0	16	10	0	4	0	14	0	16	4	1	20	1	50	51
Total	0	0	0	0	0	14	45	0	6	59	64	0	27	0	91	0	57	30	15	87	21	237	258
05:00 PM	0	0	0	0	0	4	13	0	0	17	11	0	5	0	16	0	13	1	0	14	0	47	47
05:15 PM	0	0	0	0	0	4	13	0	1	17	10	0	3	0	13	0	11	16	0	27	1	57	58
05:30 PM	0	0	0	0	0	5	8	0	0	13	34	0	13	0	47	0	5	5	0	10	0	70	70
05:45 PM	0	0	0	0	0	4	8	0	1	12	14	0	5	0	19	0	6	8	0	14	1	45	46
Total	0	0	0	0	0	17	42	0	2	59	69	0	26	0	95	0	35	30	0	65	2	219	221
06:00 PM	0	0	0	0	0	2	12	0	0	14	3	0	2	0	5	0	11	5	0	16	0	35	35
06:15 PM	0	0	0	0	0	1	14	0	0	15	1	0	3	0	4	0	4	3	0	7	0	26	26
06:30 PM	0	0	0	0	0	4	8	0	0	12	4	0	0	0	4	0	6	4	1	10	1	26	27
06:45 PM	0	0	0	0	0	2	4	0	1	6	0	0	1	0	1	0	2	4	0	6	1	13	14
Total	0	0	0	0	0	9	38	0	1	47	8	0	6	0	14	0	23	16	1	39	2	100	102
07:00 PM	0	0	0	0	0	3	1	0	1	4	12	0	4	0	16	0	4	4	0	8	1	28	29
07:15 PM	0	0	0	0	0	1	3	0	0	4	2	0	3	0	5	0	6	0	0	6	0	15	15
07:30 PM	0	0	0	0	0	1	2	0	0	3	2	0	0	0	2	0	6	2	0	8	0	13	13
07:45 PM	0	0	0	0	0	0	6	0	0	6	10	0	2	0	12	0	7	1	0	8	0	26	26
Total	0	0	0	0	0	5	12	0	1	17	26	0	9	0	35	0	23	7	0	30	1	82	83
Grand Total	0	0	0	0	0	78	248	0	17	326	375	0	130	41	505	0	204	181	34	385	92	1216	1308
Apprch %	0	0	0			23.9	76.1	0			74.3	0	25.7			0	53	47					
Total %	0	0	0		0	6.4	20.4	0		26.8	30.8	0	10.7		41.5	0	16.8	14.9		31.7	7	93	

Traffic Planning & Design, Inc.
2500 E. High St. Suite 650
Pottstown, PA 19464

Woodland Road & School Access Driveway

File Name : pmwrsar
Site Code : 00282828
Start Date : 11/29/2005
Page No : 2

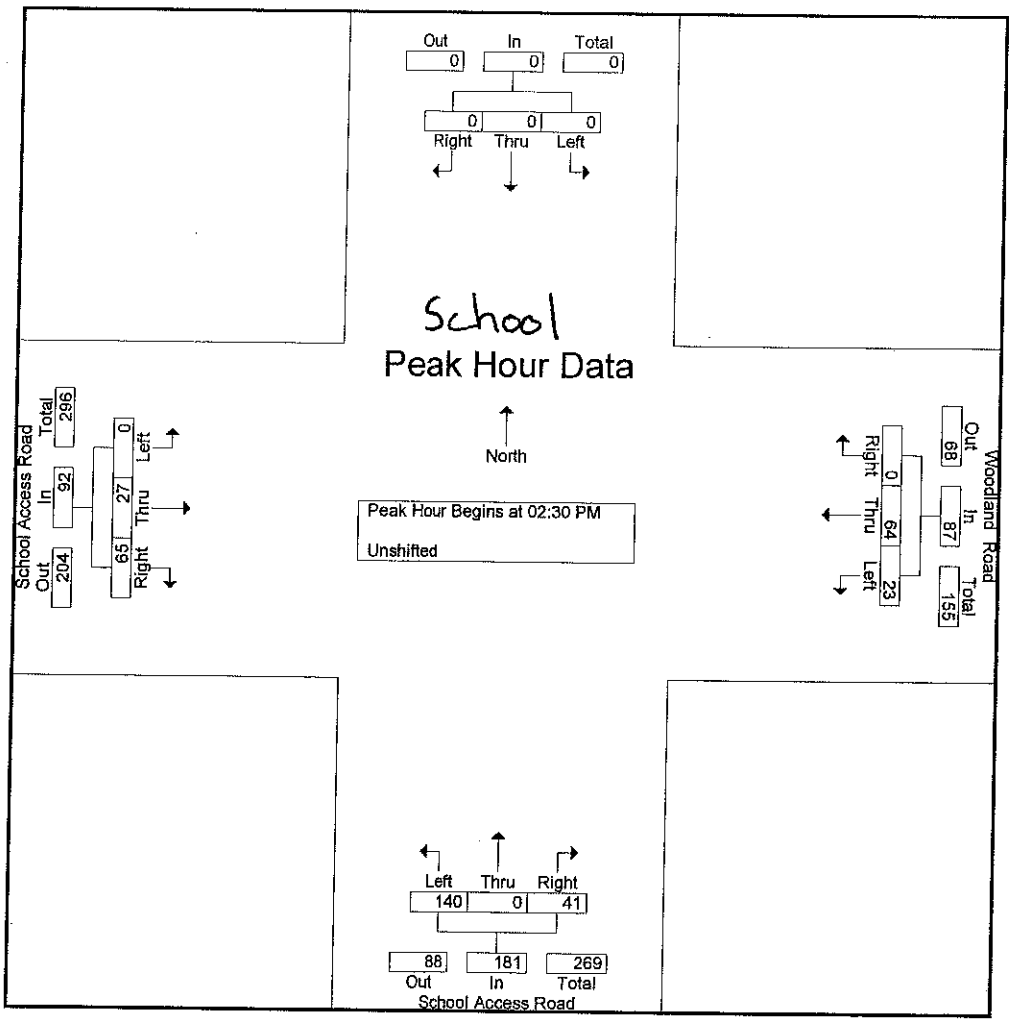


Traffic Planning & Design, Inc.
2500 E. High St. Suite 650
Pottstown, PA 19464

Woodland Road & School Access Driveway

File Name : pmwrsar
Site Code : 00282828
Start Date : 11/29/2005
Page No : 3

	Southbound				Woodland Road Westbound				School Access Road Northbound				School Access Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 02:00 PM to 03:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 02:30 PM																	
02:30 PM	0	0	0	0	6	17	0	23	13	0	7	20	0	7	16	23	66
02:45 PM	0	0	0	0	6	12	0	18	**83**	0	**23**	**106**	0	3	15	18	**142**
03:00 PM	0	0	0	0	7	13	0	20	27	0	5	32	0	8	14	22	74
03:15 PM	0	0	0	0	4	**22**	0	**26**	17	0	6	23	0	**9**	**20**	**29**	78
Total Volume	0	0	0	0	23	64	0	87	140	0	41	181	0	27	65	92	360
% App. Total	0	0	0		26.4	73.6	0		77.3	0	22.7		0	29.3	70.7		
PHF	.000	.000	.000	.000	.821	.727	.000	.837	.422	.000	.446	.427	.000	.750	.813	.793	.634

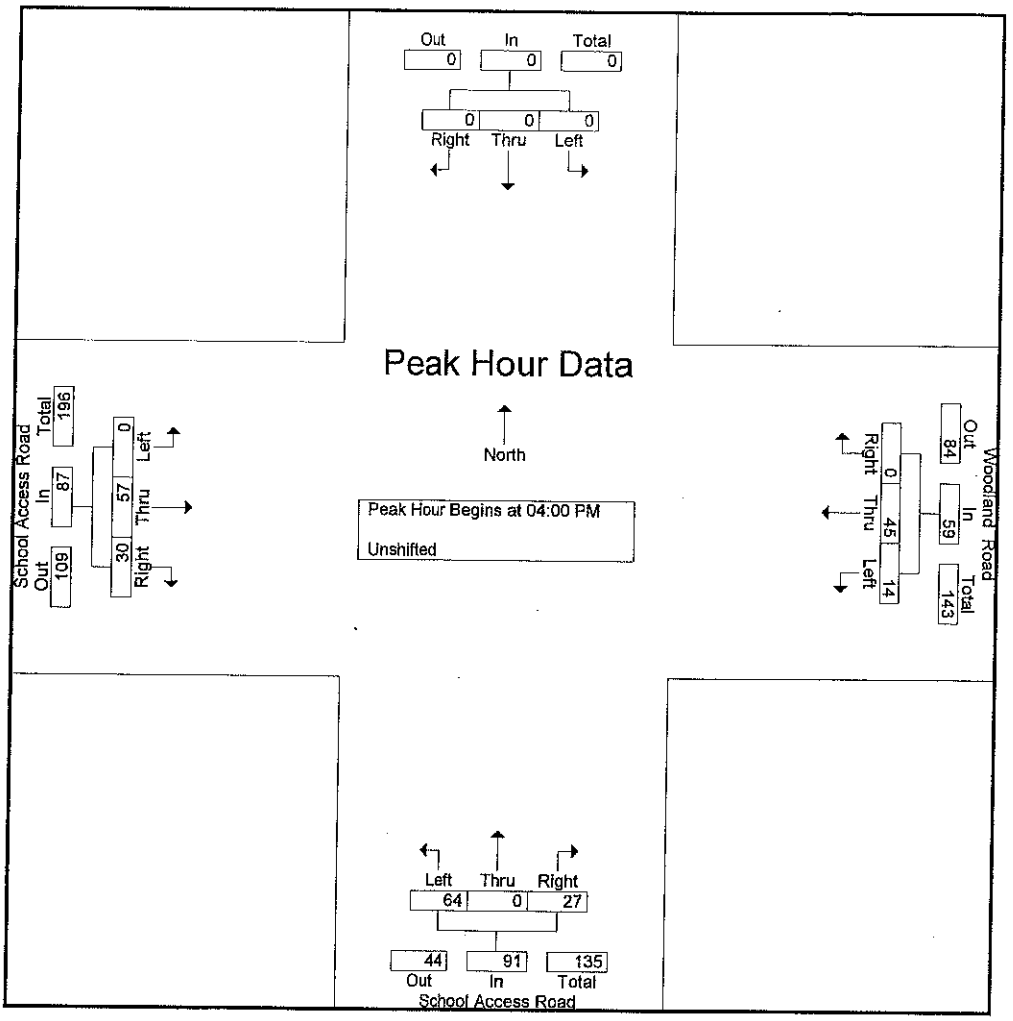


Traffic Planning & Design, Inc.
2500 E. High St. Suite 650
Pottstown, PA 19464

Woodland Road & School Access Driveway

File Name : pmwrsar
Site Code : 00282828
Start Date : 11/29/2005
Page No : 3

	Southbound				Woodland Road Westbound				School Access Road Northbound				School Access Road Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 07:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	4	**16**	0	**20**	20	0	3	23	0	13	8	21	64
04:15 PM	0	0	0	0	**9**	7	0	16	8	0	5	13	0	**16**	**13**	**29**	58
04:30 PM	0	0	0	0	0	7	0	7	**26**	0	**15**	**41**	0	12	5	17	**65**
04:45 PM	0	0	0	0	1	15	0	16	10	0	4	14	0	16	4	20	50
Total Volume	0	0	0	0	14	45	0	59	64	0	27	91	0	57	30	87	237
% App. Total	0	0	0		23.7	76.3	0		70.3	0	29.7		0	65.5	34.5		
PHF	.000	.000	.000	.000	.389	.703	.000	.738	.615	.000	.450	.555	.000	.891	.577	.750	.912



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Woodland Rd. & Bowman Rd.

Counter: 9
Counted By: R. Kearney
Weather: clear
Saved As: PMWRBR

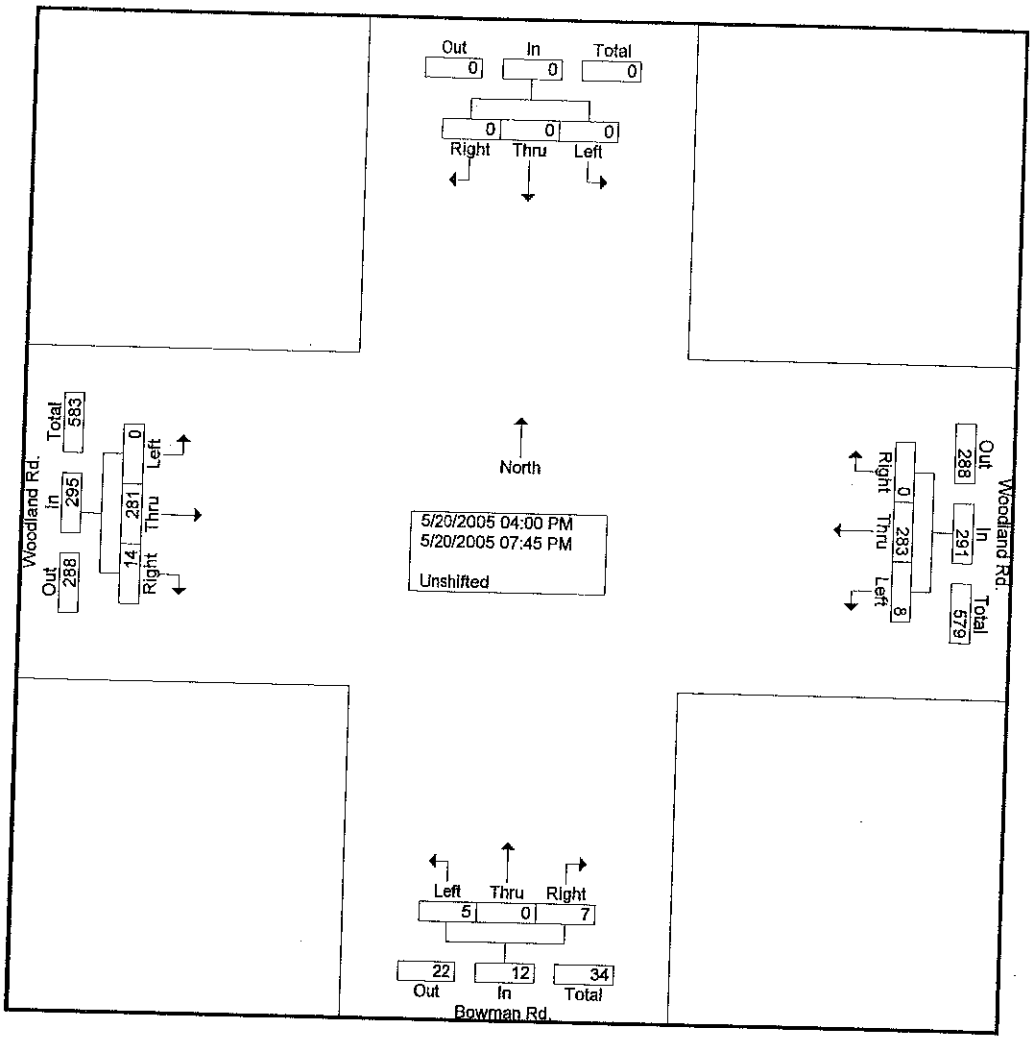
File Name : PMWRBR
Site Code : 00000000
Start Date : 5/20/2005
Page No : 1

Groups Printed- Unshifted

	Southbound					Woodland Rd. Westbound					Bowman Rd. Northbound					Woodland Rd. Eastbound							
Start Time	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
04:00 PM	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	0	16	2	2	18	2	32	34
04:15 PM	0	0	0	0	0	0	18	0	5	18	0	0	1	0	1	0	26	2	2	28	7	47	54
04:30 PM	0	0	0	0	0	0	14	0	3	14	2	0	2	0	4	0	15	4	2	19	5	37	42
04:45 PM	0	0	0	0	0	2	19	0	1	21	1	0	0	0	1	0	22	2	2	24	3	46	49
Total	0	0	0	0	0	2	65	0	9	67	3	0	3	0	6	0	79	10	8	89	17	162	179
05:00 PM	0	0	0	0	0	1	12	0	0	13	0	0	2	0	2	0	18	0	1	18	1	33	34
05:15 PM	0	0	0	0	0	0	24	0	0	24	1	0	1	0	2	0	14	1	0	15	0	41	41
05:30 PM	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	0	16	0	1	16	1	30	31
05:45 PM	0	0	0	0	0	0	24	0	2	24	0	0	0	0	0	0	15	0	1	15	3	39	42
Total	0	0	0	0	0	1	74	0	2	75	1	0	3	0	4	0	63	1	3	64	5	143	148
06:00 PM	0	0	0	0	0	0	31	0	2	31	0	0	0	0	0	0	22	0	0	22	2	53	55
06:15 PM	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	0	16	0	0	16	0	34	34
06:30 PM	0	0	0	0	0	0	33	0	0	33	0	0	1	0	1	0	27	1	0	28	0	62	62
06:45 PM	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	0	16	1	0	17	0	31	31
Total	0	0	0	0	0	0	96	0	2	96	0	0	1	0	1	0	81	2	0	83	2	180	182
07:00 PM	0	0	0	0	0	2	16	0	0	18	0	0	0	0	0	0	13	0	1	13	1	31	32
07:15 PM	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	15	0	0	15	0	25	25
07:30 PM	0	0	0	0	0	1	12	0	0	13	0	0	0	0	0	0	13	0	0	13	0	26	26
07:45 PM	0	0	0	0	0	2	10	0	0	12	1	0	0	0	1	0	17	1	0	18	0	31	31
Total	0	0	0	0	0	5	48	0	0	53	1	0	0	0	1	0	58	1	1	59	1	113	114
Grand Total	0	0	0	0	0	8	283	0	13	291	5	0	7	0	12	0	281	14	12	295	25	598	623
Apprch %	0	0	0			2.7	97.3	0			41.7	0	58.3			0	95.3	4.7					
Total %	0	0	0		0	1.3	47.3	0		48.7	0.8	0	1.2		2	0	47	2.3		49.3	4	96	

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Woodland Rd. & Bowman Rd.

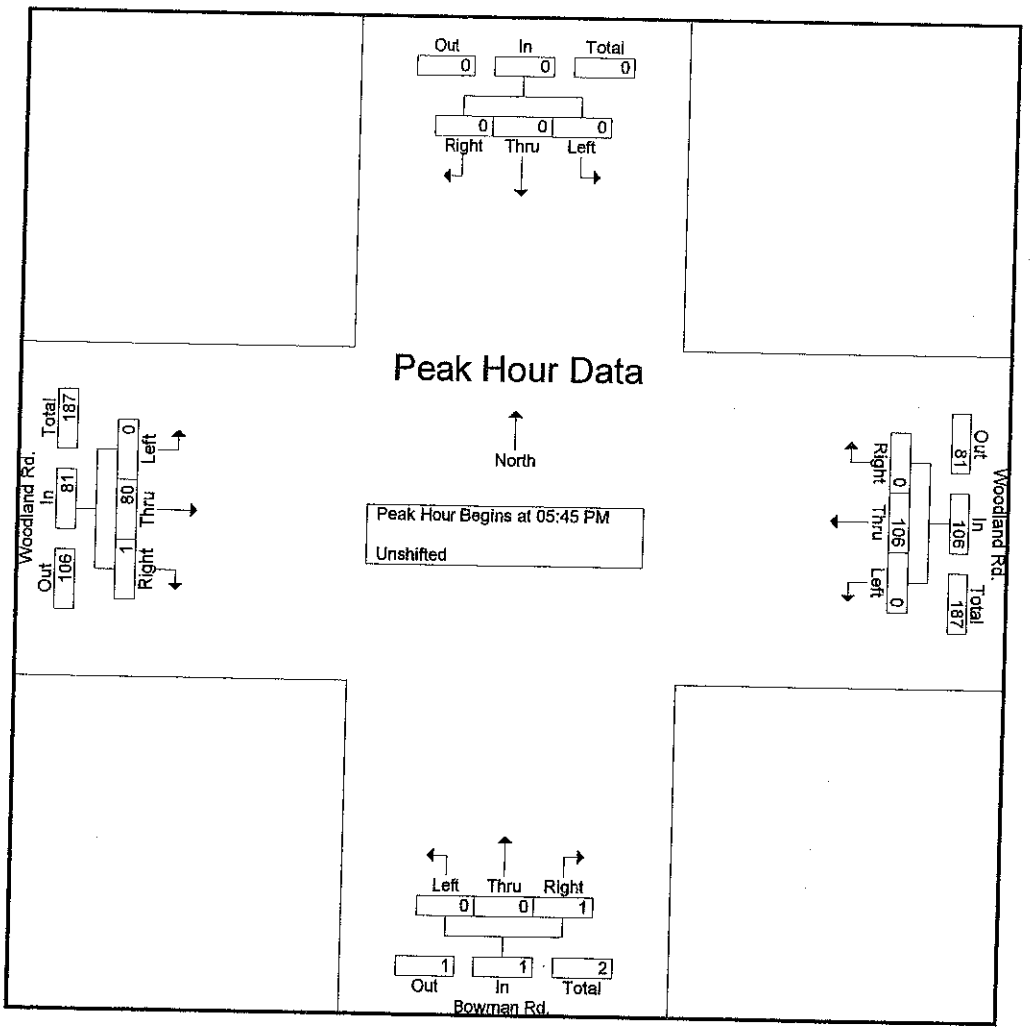
File Name : PMWRBR
Site Code : 00000000
Start Date : 5/20/2005
Page No : 2



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Woodland Rd. & Bowman Rd.

File Name : PMWRBR
Site Code : 00000000
Start Date : 5/20/2005
Page No : 3

	Southbound				Woodland Rd. Westbound				Bowman Rd. Northbound				Woodland Rd. Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 07:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:45 PM																	
05:45 PM	0	0	0	0	0	24	0	24	0	0	0	0	0	15	0	15	39
06:00 PM	0	0	0	0	0	31	0	31	0	0	0	0	0	22	0	22	53
06:15 PM	0	0	0	0	0	18	0	18	0	0	0	0	0	16	0	16	34
06:30 PM	0	0	0	0	0	**33**	0	**33**	0	0	**1**	**1**	0	**27**	**1**	**28**	**62**
Total Volume	0	0	0	0	0	106	0	106	0	0	1	1	0	80	1	81	188
% App. Total	0	0	0		0	100	0		0	0	100		0	98.8	1.2		
PHF	.000	.000	.000	.000	.000	.803	.000	.803	.000	.000	.250	.250	.000	.741	.250	.723	.758



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Woodland Rd. & Meadowside Rd.

Counter: 1
Counted By: M. McGarrigle
Weather: clear
Saved As: PMWRMR

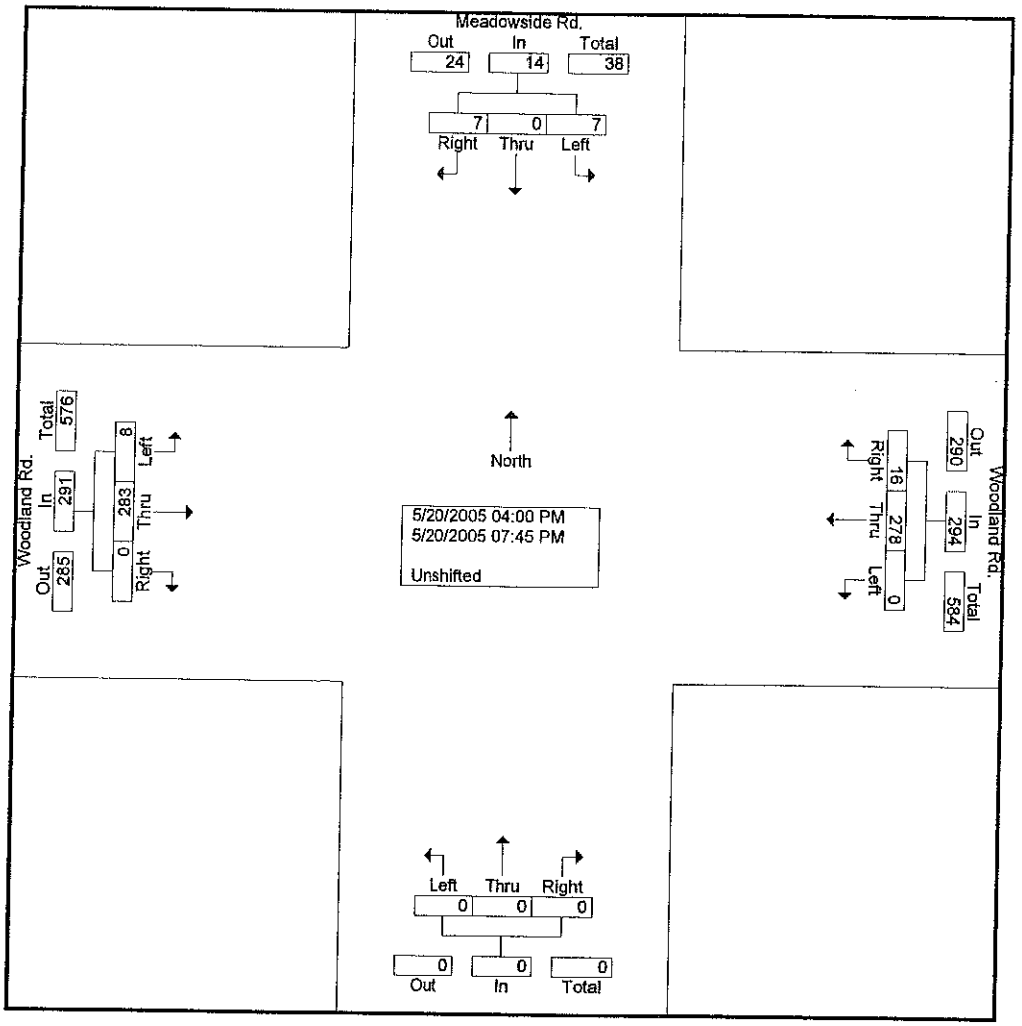
File Name : PMWRMR
Site Code : 00052005
Start Date : 5/20/2005
Page No : 1

Groups Printed- Unshifted

	Meadowside Rd. Southbound					Woodland Rd. Westbound					Northbound					Woodland Rd. Eastbound							
Start Time	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
04:00 PM	5	0	0	0	5	0	18	3	1	21	0	0	0	0	0	0	19	0	2	19	3	45	48
04:15 PM	0	0	0	0	0	0	15	1	5	16	0	0	0	0	0	0	25	0	2	25	7	41	48
04:30 PM	0	0	0	0	0	0	12	3	1	15	0	0	0	0	0	1	18	0	0	19	1	34	35
04:45 PM	0	0	0	0	0	0	13	2	1	15	0	0	0	0	0	0	17	0	0	17	1	32	33
Total	5	0	0	0	5	0	58	9	8	67	0	0	0	0	0	1	79	0	4	80	12	152	164
05:00 PM	0	0	0	0	0	0	22	2	0	24	0	0	0	0	0	1	20	0	1	21	1	45	46
05:15 PM	0	0	1	0	1	0	19	1	0	20	0	0	0	0	0	0	18	0	0	18	0	39	39
05:30 PM	0	0	1	0	1	0	19	1	0	20	0	0	0	0	0	1	19	0	0	20	0	41	41
05:45 PM	0	0	1	0	1	0	22	1	2	23	0	0	0	0	0	0	20	0	0	20	2	44	46
Total	0	0	3	0	3	0	82	5	2	87	0	0	0	0	0	2	77	0	1	79	3	169	172
06:00 PM	1	0	0	0	1	0	32	0	2	32	0	0	0	0	0	0	17	0	1	17	3	50	53
06:15 PM	0	0	0	0	0	0	18	0	0	18	0	0	0	0	0	1	23	0	0	24	0	42	42
06:30 PM	1	0	1	0	2	0	26	0	0	26	0	0	0	0	0	1	25	0	0	26	0	54	54
06:45 PM	0	0	1	0	1	0	19	1	0	20	0	0	0	0	0	0	18	0	0	18	0	39	39
Total	2	0	2	0	4	0	95	1	2	96	0	0	0	0	0	2	83	0	1	85	3	185	188
07:00 PM	0	0	1	0	1	0	11	0	0	11	0	0	0	0	0	0	10	0	0	10	0	22	22
07:15 PM	0	0	0	0	0	0	11	1	0	12	0	0	0	0	0	1	9	0	0	10	0	22	22
07:30 PM	0	0	0	0	0	0	12	0	0	12	0	0	0	0	0	0	14	0	0	14	0	26	26
07:45 PM	0	0	1	0	1	0	9	0	0	9	0	0	0	0	0	2	11	0	0	13	0	23	23
Total	0	0	2	0	2	0	43	1	0	44	0	0	0	0	0	3	44	0	0	47	0	93	93
Grand Total	7	0	7	0	14	0	278	16	12	294	0	0	0	0	0	8	283	0	6	291	18	599	617
Apprch %	50	0	50			0	94.6	5.4			0	0	0			2.7	97.3	0					
Total %	1.2	0	1.2		2.3	0	46.4	2.7		49.1	0	0	0		0	1.3	47.2	0		48.6	2.9	97.1	

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Woodland Rd. & Meadowside Rd.

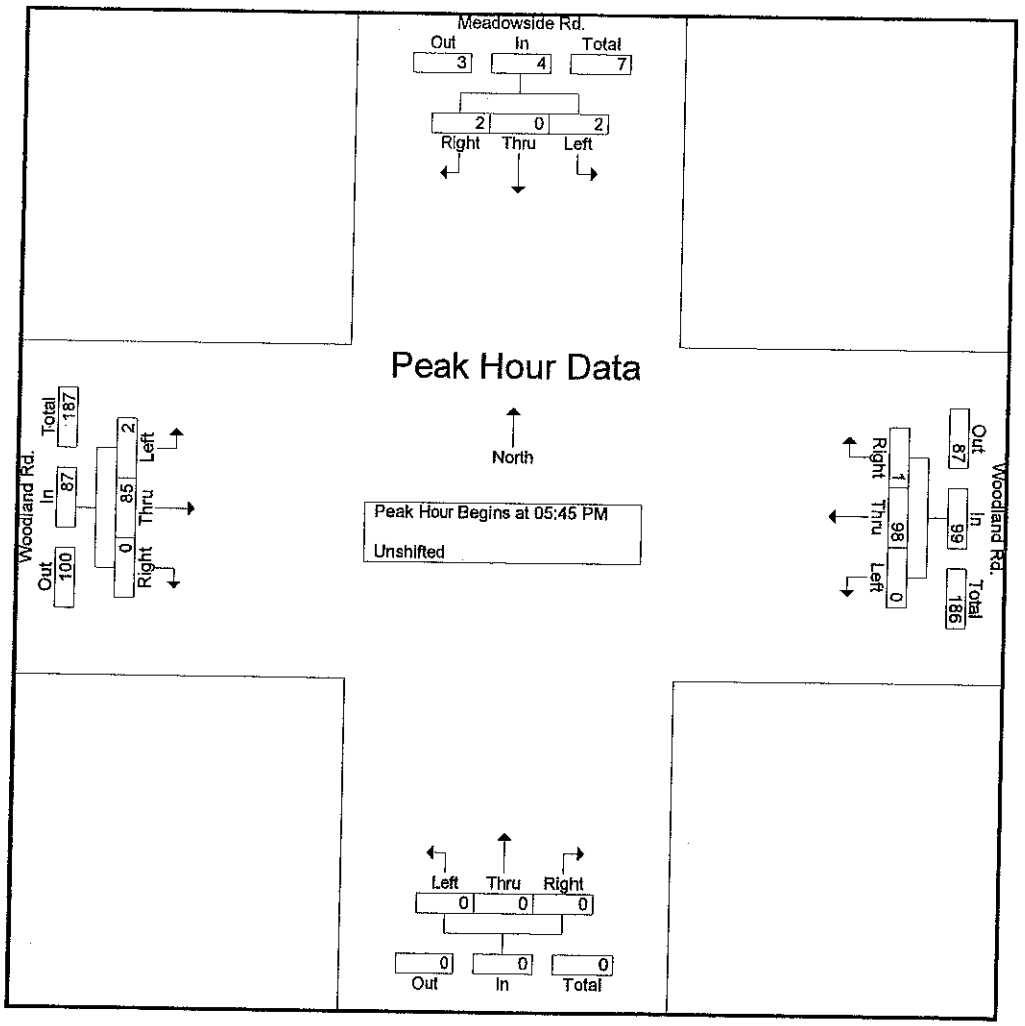
File Name : PMWRMR
Site Code : 00052005
Start Date : 5/20/2005
Page No : 2



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Woodland Rd. & Meadowside Rd.

File Name : PMWRMR
Site Code : 00052005
Start Date : 5/20/2005
Page No : 3

	Meadowside Rd. Southbound				Woodland Rd. Westbound				Northbound				Woodland Rd. Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 07:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:45 PM																	
05:45 PM	0	0	1	1	0	22	1	23	0	0	0	0	0	20	0	20	44
06:00 PM	1	0	0	1	0	32	0	32	0	0	0	0	0	17	0	17	50
06:15 PM	0	0	0	0	0	18	0	18	0	0	0	0	1	23	0	24	42
06:30 PM	1	0	1	2	0	26	0	26	0	0	0	0	1	25	0	26	54
Total Volume	2	0	2	4	0	98	1	99	0	0	0	0	2	85	0	87	190
% App. Total	50	0	50		0	99	1		0	0	0		2.3	97.7	0		
PHF	.500	.000	.500	.500	.000	.766	.250	.773	.000	.000	.000	.000	.500	.850	.000	.837	.880



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Woodland Rd. & Carlton Rd.

Counter: 17
Counted By: M. Bressler
Weather: clear
Saved As: PMCRWR

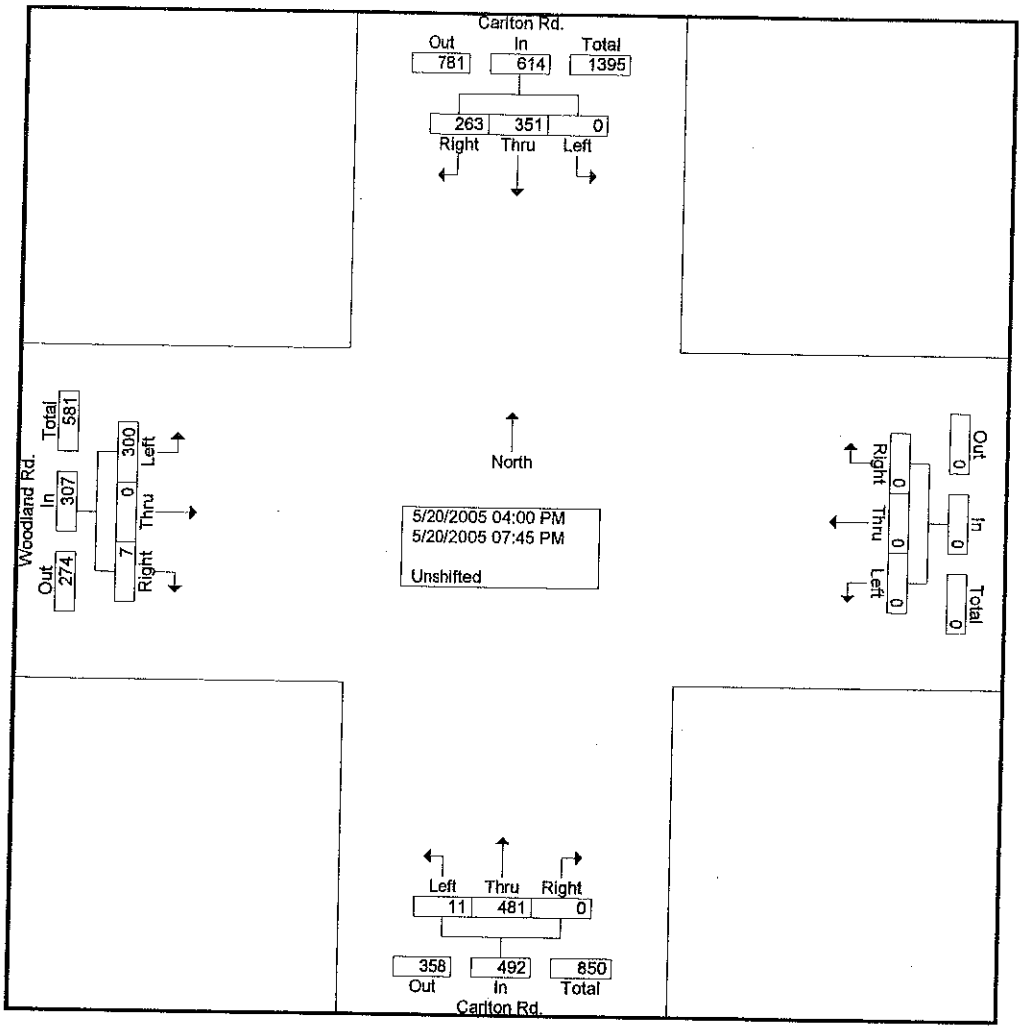
File Name : PMCRWR
Site Code : 00000011
Start Date : 5/20/2005
Page No : 1

Groups Printed- Unshifted

	Carlton Rd. Southbound					Westbound					Carlton Rd. Northbound					Woodland Rd. Eastbound							
Start Time	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
04:00 PM	0	30	18	5	48	0	0	0	0	0	1	32	0	0	33	21	0	2	3	23	8	104	112
04:15 PM	0	24	17	4	41	0	0	0	0	0	1	33	0	1	34	26	0	1	3	27	8	102	110
04:30 PM	0	22	15	1	37	0	0	0	0	0	2	37	0	1	39	19	0	2	0	21	2	97	99
04:45 PM	0	28	19	2	47	0	0	0	0	0	0	38	0	0	38	24	0	0	0	24	2	109	111
Total	0	104	69	12	173	0	0	0	0	0	4	140	0	2	144	90	0	5	6	95	20	412	432
05:00 PM	0	36	12	2	48	0	0	0	0	0	0	35	0	0	35	18	0	0	1	18	3	101	104
05:15 PM	0	36	23	0	59	0	0	0	0	0	1	36	0	0	37	16	0	0	0	16	0	112	112
05:30 PM	0	19	12	0	31	0	0	0	0	0	0	38	0	1	38	17	0	0	0	17	1	86	87
05:45 PM	0	28	26	2	54	0	0	0	0	0	0	30	0	0	30	16	0	1	0	17	2	101	103
Total	0	119	73	4	192	0	0	0	0	0	1	139	0	1	140	67	0	1	1	68	6	400	406
06:00 PM	0	27	28	2	55	0	0	0	0	0	2	32	0	1	34	19	0	0	1	19	4	108	112
06:15 PM	0	22	18	1	40	0	0	0	0	0	1	29	0	1	30	21	0	0	0	21	2	91	93
06:30 PM	0	21	23	0	44	0	0	0	0	0	0	27	0	1	27	24	0	0	0	24	1	95	96
06:45 PM	0	14	13	0	27	0	0	0	0	0	3	28	0	2	31	26	0	1	0	27	2	85	87
Total	0	84	82	3	166	0	0	0	0	0	6	116	0	5	122	90	0	1	1	91	9	379	388
07:00 PM	0	10	15	1	25	0	0	0	0	0	0	18	0	1	18	14	0	0	2	14	4	57	61
07:15 PM	0	13	9	1	22	0	0	0	0	0	0	20	0	1	20	12	0	0	0	12	2	54	56
07:30 PM	0	8	8	0	16	0	0	0	0	0	0	21	0	0	21	12	0	0	0	12	0	49	49
07:45 PM	0	13	7	0	20	0	0	0	0	0	0	27	0	0	27	15	0	0	0	15	0	62	62
Total	0	44	39	2	83	0	0	0	0	0	0	86	0	2	86	53	0	0	2	53	6	222	228
Grand Total	0	351	263	21	614	0	0	0	0	0	11	481	0	10	492	300	0	7	10	307	41	1413	1454
Apprch %	0	57.2	42.8			0	0	0			2.2	97.8	0			97.7	0	2.3					
Total %	0	24.8	18.6		43.5	0	0	0		0	0.8	34	0		34.8	21.2	0	0.5		21.7	2.8	97.2	

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Woodland Rd. & Carlton Rd.

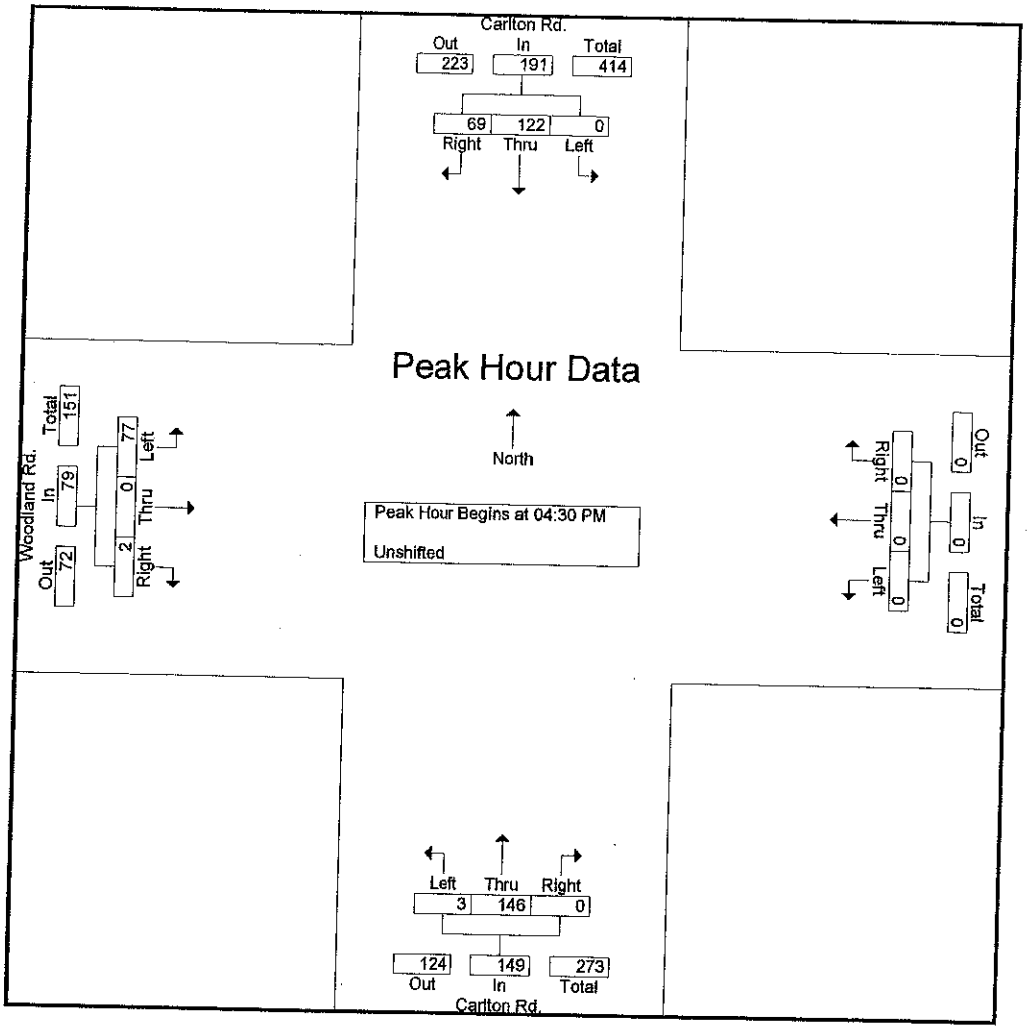
File Name : PMCRWR
Site Code : 00000011
Start Date : 5/20/2005
Page No : 2



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Woodland Rd. & Carlton Rd.

File Name : PMCRWR
Site Code : 00000011
Start Date : 5/20/2005
Page No : 3

	Carlton Rd. Southbound				Westbound				Carlton Rd. Northbound				Woodland Rd. Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 07:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	0	22	15	37	0	0	0	0	**2**	37	0	**39**	19	0	**2**	21	97
04:45 PM	0	28	19	47	0	0	0	0	0	**38**	0	38	**24**	0	0	**24**	109
05:00 PM	0	**36**	12	48	0	0	0	0	0	35	0	35	18	0	0	18	101
05:15 PM	0	36	**23**	**59**	0	0	0	0	1	36	0	37	16	0	0	16	**112**
Total Volume	0	122	69	191	0	0	0	0	3	146	0	149	77	0	2	79	419
% App. Total	0	63.9	36.1		0	0	0		2	98	0		97.5	0	2.5		
PHF	.000	.847	.750	.809	.000	.000	.000	.000	.375	.961	.000	.955	.802	.000	.250	.823	.935



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 940 & Carlton Rd.

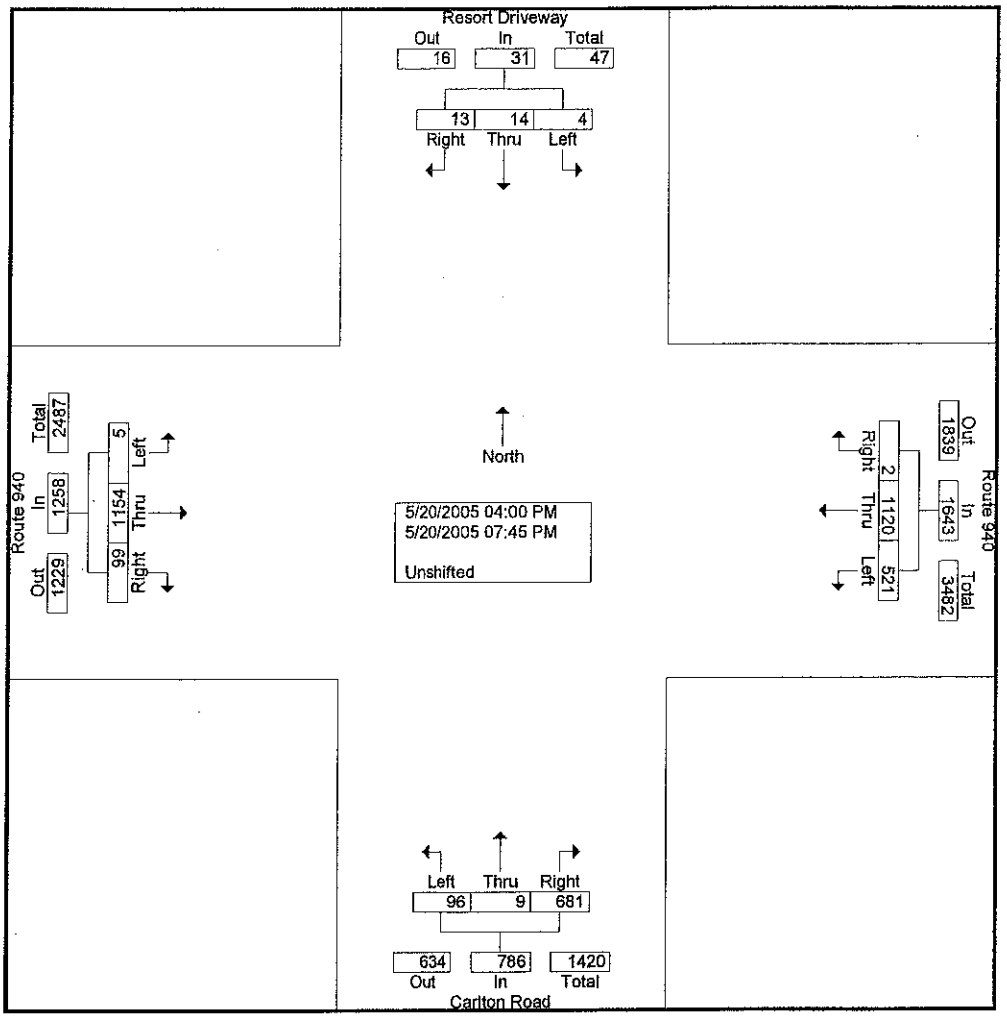
File Name : FRI940CR
Site Code : 05202005
Start Date : 5/20/2005
Page No : 1

Groups Printed- Unshifted

	Resort Driveway Southbound					Route 940 Westbound					Carlton Road Northbound					Route 940 Eastbound							
Start Time	Left	Thru	Right	Trucks	App. Total	Left	Thru	Right	Trucks	App. Total	Left	Thru	Right	Trucks	App. Total	Left	Thru	Right	Trucks	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
04:00 PM	1	0	2	0	3	39	75	0	9	114	8	0	46	3	54	0	84	9	0	93	12	264	276
04:15 PM	0	1	1	0	2	33	87	1	2	121	9	0	44	3	53	0	113	10	1	123	6	299	305
04:30 PM	0	2	0	0	2	34	91	0	5	125	8	1	56	3	65	1	95	6	3	102	11	294	305
04:45 PM	0	3	2	0	5	37	91	0	2	128	5	0	45	1	50	0	94	9	0	103	3	286	289
Total	1	6	5	0	12	143	344	1	18	488	30	1	191	10	222	1	386	34	4	421	32	1143	1175
05:00 PM	2	1	0	0	3	39	86	0	3	125	8	1	48	1	57	2	86	9	3	97	7	282	289
05:15 PM	0	0	2	0	2	50	81	0	2	131	4	0	52	0	56	1	77	7	0	85	2	274	276
05:30 PM	0	1	0	0	1	28	100	0	1	128	5	3	54	0	62	0	74	8	1	82	2	273	275
05:45 PM	0	1	1	0	2	44	73	1	3	118	6	1	46	0	53	0	67	9	2	76	5	249	254
Total	2	3	3	0	8	161	340	1	9	502	23	5	200	1	228	3	304	33	6	340	16	1078	1094
06:00 PM	1	3	0	0	4	50	59	0	1	109	3	1	42	0	46	0	73	8	0	81	1	240	241
06:15 PM	0	0	2	0	2	36	60	0	1	96	6	0	46	1	52	0	76	4	0	80	2	230	232
06:30 PM	0	2	0	0	2	34	63	0	1	97	6	0	45	1	51	1	62	5	0	68	2	218	220
06:45 PM	0	0	2	0	2	24	58	0	0	82	11	1	32	2	44	0	63	2	1	65	3	193	196
Total	1	5	4	0	10	144	240	0	3	384	26	2	165	4	193	1	274	19	1	294	8	881	889
07:00 PM	0	0	0	0	0	19	59	0	1	78	4	0	30	1	34	0	52	5	0	57	2	169	171
07:15 PM	0	0	1	0	1	20	55	0	0	75	5	0	24	0	29	0	41	3	0	44	0	149	149
07:30 PM	0	0	0	0	0	17	26	0	0	43	2	0	31	0	33	0	42	1	0	43	0	119	119
07:45 PM	0	0	0	0	0	17	56	0	1	73	6	1	40	0	47	0	55	4	0	59	1	179	180
Total	0	0	1	0	1	73	196	0	2	269	17	1	125	1	143	0	190	13	0	203	3	616	619
Grand Total	4	14	13	0	31	521	1120	2	32	1643	96	9	681	16	786	5	1154	99	11	1258	59	3718	3777
Apprch %	12.9	45.2	41.9			31.7	68.2	0.1			12.2	1.1	86.6			0.4	91.7	7.9					
Total %	0.1	0.4	0.3		0.8	14	30.1	0.1		44.2	2.6	0.2	18.3		21.1	0.1	31	2.7		33.8	1.6	98.4	

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 940 & Carlton Rd.

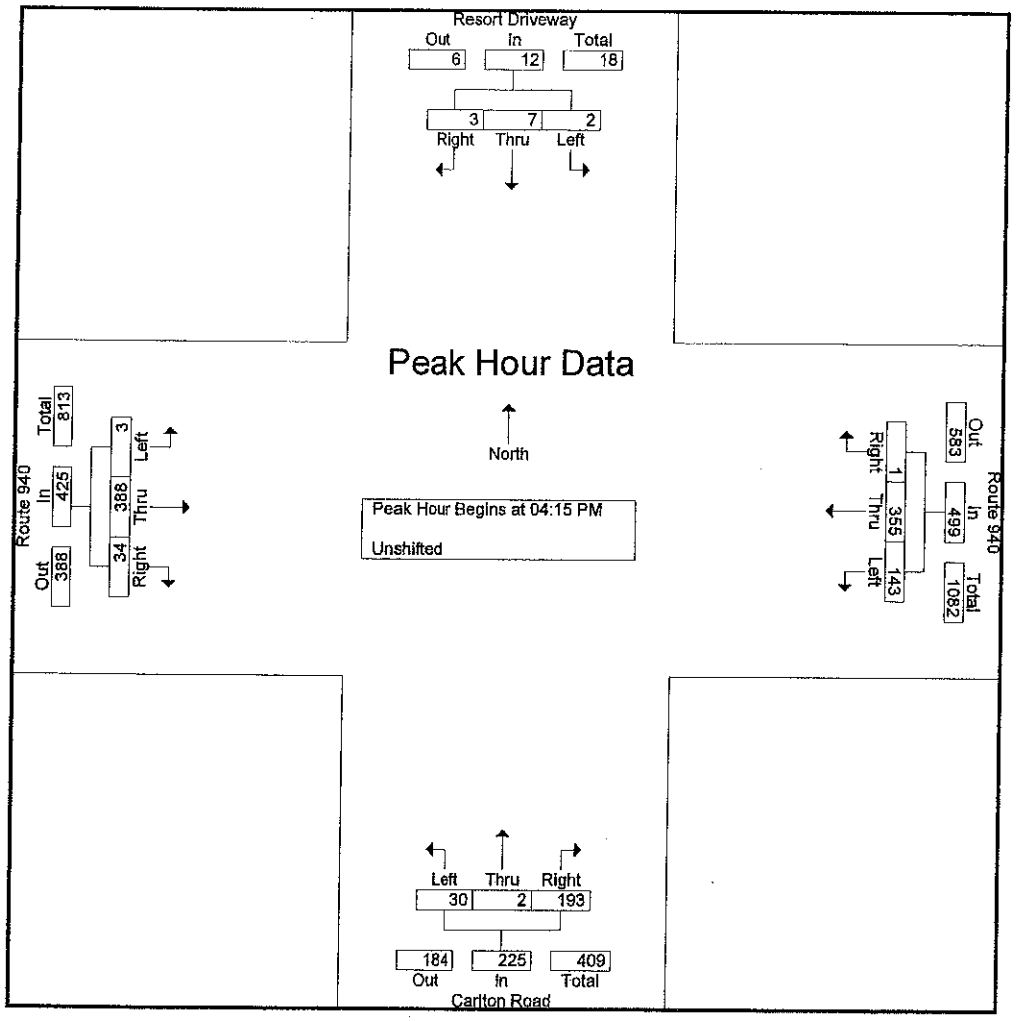
File Name : FRI940CR
Site Code : 05202005
Start Date : 5/20/2005
Page No : 2



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 940 & Carlton Rd.

File Name : FRI940CR
Site Code : 05202005
Start Date : 5/20/2005
Page No : 3

	Resort Driveway Southbound				Route 940 Westbound				Carlton Road Northbound				Route 940 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 07:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	1	1	2	33	87	**1**	121	**9**	0	44	53	0	**113**	**10**	**123**	**299**
04:30 PM	0	2	0	2	34	**91**	0	125	8	**1**	**56**	**65**	1	95	6	102	294
04:45 PM	0	**3**	**2**	**5**	37	91	0	**128**	5	0	45	50	0	94	9	103	286
05:00 PM	**2**	1	0	3	**39**	86	0	125	8	1	48	57	**2**	86	9	97	282
Total Volume	2	7	3	12	143	355	1	499	30	2	193	225	3	388	34	425	1161
% App. Total	16.7	58.3	25		28.7	71.1	0.2		13.3	0.9	85.8		0.7	91.3	8		
PHF	.250	.583	.375	.600	.917	.975	.250	.975	.833	.500	.862	.865	.375	.858	.850	.864	.971



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 940 & Route 390

Counter: 30
Counted By: S. Natale
Weather: clear
Saved As: PM390940

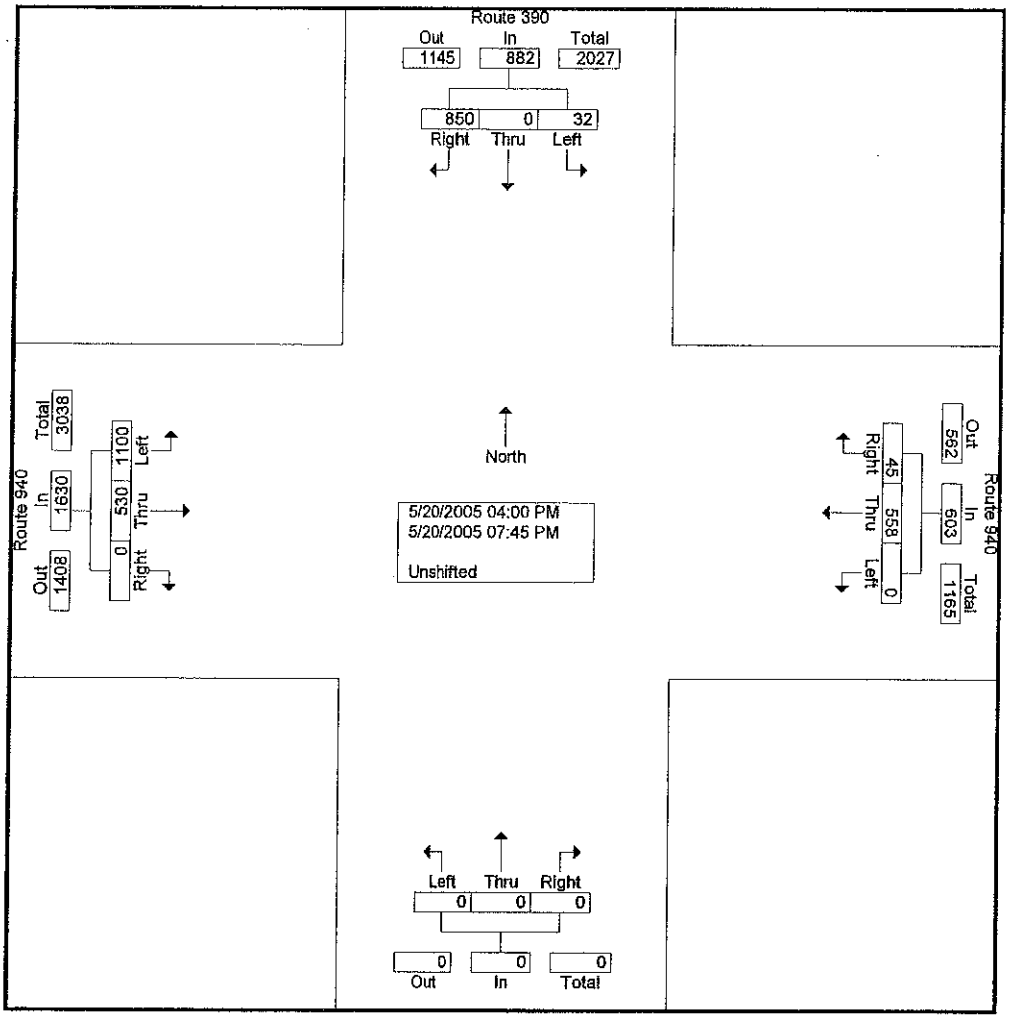
File Name : PM390940
Site Code : 00000000
Start Date : 5/20/2005
Page No : 1

Groups Printed- Unshifted

	Route 390 Southbound					Route 940 Westbound					Northbound					Route 940 Eastbound							
Start Time	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
04:00 PM	4	0	48	4	52	0	38	4	3	42	0	0	0	0	0	62	31	0	0	93	7	187	194
04:15 PM	2	0	48	2	50	0	39	4	0	43	0	0	0	0	0	74	40	0	4	114	6	207	213
04:30 PM	1	0	59	4	60	0	36	2	1	38	0	0	0	0	0	77	60	0	4	137	9	235	244
04:45 PM	3	0	54	1	57	0	40	3	1	43	0	0	0	0	0	90	31	0	2	121	4	221	225
Total	10	0	209	11	219	0	153	13	5	166	0	0	0	0	0	303	162	0	10	465	26	850	876
05:00 PM	1	0	70	3	71	0	45	2	0	47	0	0	0	0	0	77	42	0	3	119	6	237	243
05:15 PM	0	0	86	4	86	0	44	2	0	46	0	0	0	0	0	66	45	0	0	111	4	243	247
05:30 PM	2	0	50	0	52	0	47	2	0	49	0	0	0	0	0	78	31	0	2	109	2	210	212
05:45 PM	3	0	55	5	58	0	33	1	0	34	0	0	0	0	0	71	22	0	2	93	7	185	192
Total	6	0	261	12	267	0	169	7	0	176	0	0	0	0	0	292	140	0	7	432	19	875	894
06:00 PM	1	0	80	1	81	0	31	5	0	36	0	0	0	0	0	81	34	0	2	115	3	232	235
06:15 PM	1	0	48	0	49	0	41	1	3	42	0	0	0	0	0	74	44	0	1	118	4	209	213
06:30 PM	1	0	62	0	63	0	32	4	0	36	0	0	0	0	0	64	32	0	1	96	1	195	196
06:45 PM	1	0	43	0	44	0	29	4	0	33	0	0	0	0	0	73	18	0	3	91	3	168	171
Total	4	0	233	1	237	0	133	14	3	147	0	0	0	0	0	292	128	0	7	420	11	804	815
07:00 PM	4	0	42	1	46	0	29	4	0	33	0	0	0	0	0	48	28	0	3	76	4	155	159
07:15 PM	1	0	46	0	47	0	25	1	0	26	0	0	0	0	0	51	24	0	1	75	1	148	149
07:30 PM	4	0	23	0	27	0	18	5	0	23	0	0	0	0	0	53	19	0	1	72	1	122	123
07:45 PM	3	0	36	3	39	0	31	1	0	32	0	0	0	0	0	61	29	0	0	90	3	161	164
Total	12	0	147	4	159	0	103	11	0	114	0	0	0	0	0	213	100	0	5	313	9	586	595
Grand Total	32	0	850	28	882	0	558	45	8	603	0	0	0	0	0	1100	530	0	29	1630	65	3115	3180
Apprch %	3.6	0	96.4			0	92.5	7.5			0	0	0			67.5	32.5	0					
Total %	1	0	27.3		28.3	0	17.9	1.4		19.4	0	0	0		0	35.3	17	0		52.3	2	98	

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 940 & Route 390

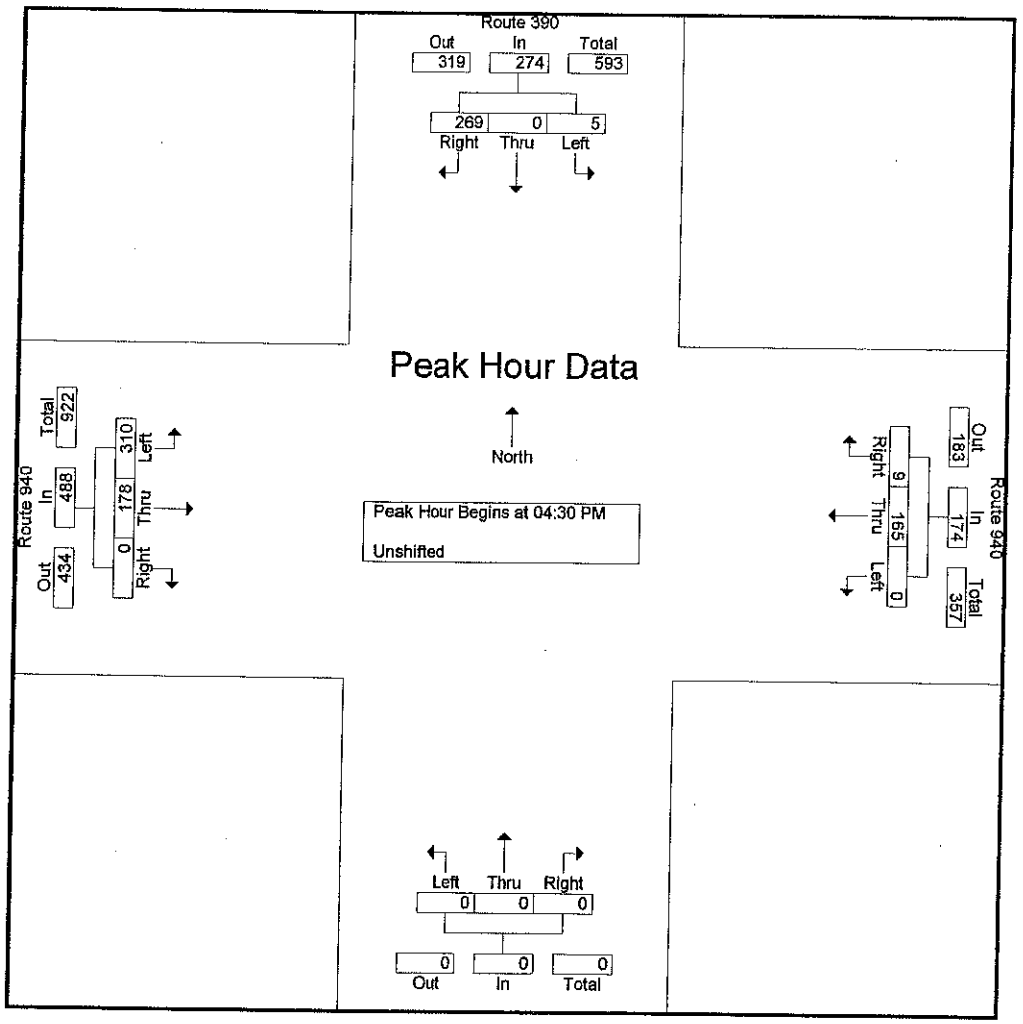
File Name : PM390940
Site Code : 00000000
Start Date : 5/20/2005
Page No : 2



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 940 & Route 390

File Name : PM390940
Site Code : 00000000
Start Date : 5/20/2005
Page No : 3

	Route 390 Southbound				Route 940 Westbound				Northbound				Route 940 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 07:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:30 PM																	
04:30 PM	1	0	59	60	0	36	2	38	0	0	0	0	77	**60**	0	**137**	235
04:45 PM	**3**	0	54	57	0	40	**3**	43	0	0	0	0	**90**	31	0	121	221
05:00 PM	1	0	70	71	0	**45**	2	**47**	0	0	0	0	77	42	0	119	237
05:15 PM	0	0	**86**	**86**	0	44	2	46	0	0	0	0	66	45	0	111	**243**
Total Volume	5	0	269	274	0	165	9	174	0	0	0	0	310	178	0	488	936
% App. Total	1.8	0	98.2		0	94.8	5.2		0	0	0		63.5	36.5	0		
PHF	.417	.000	.782	.797	.000	.917	.750	.926	.000	.000	.000	.000	.861	.742	.000	.891	.963



Traffic Planning & Design, Inc.
2500 E. High St. Suite 650
Pottstown, PA 19464

Counter #:
Counted by: J. Choi
Weather: Sunny
Saved as: FRI191940

Route 940 & Route 191/Red Rock Road

File Name : FRI191~1-rotated
Site Code : 00000123
Start Date : 5/20/2005
Page No : 1

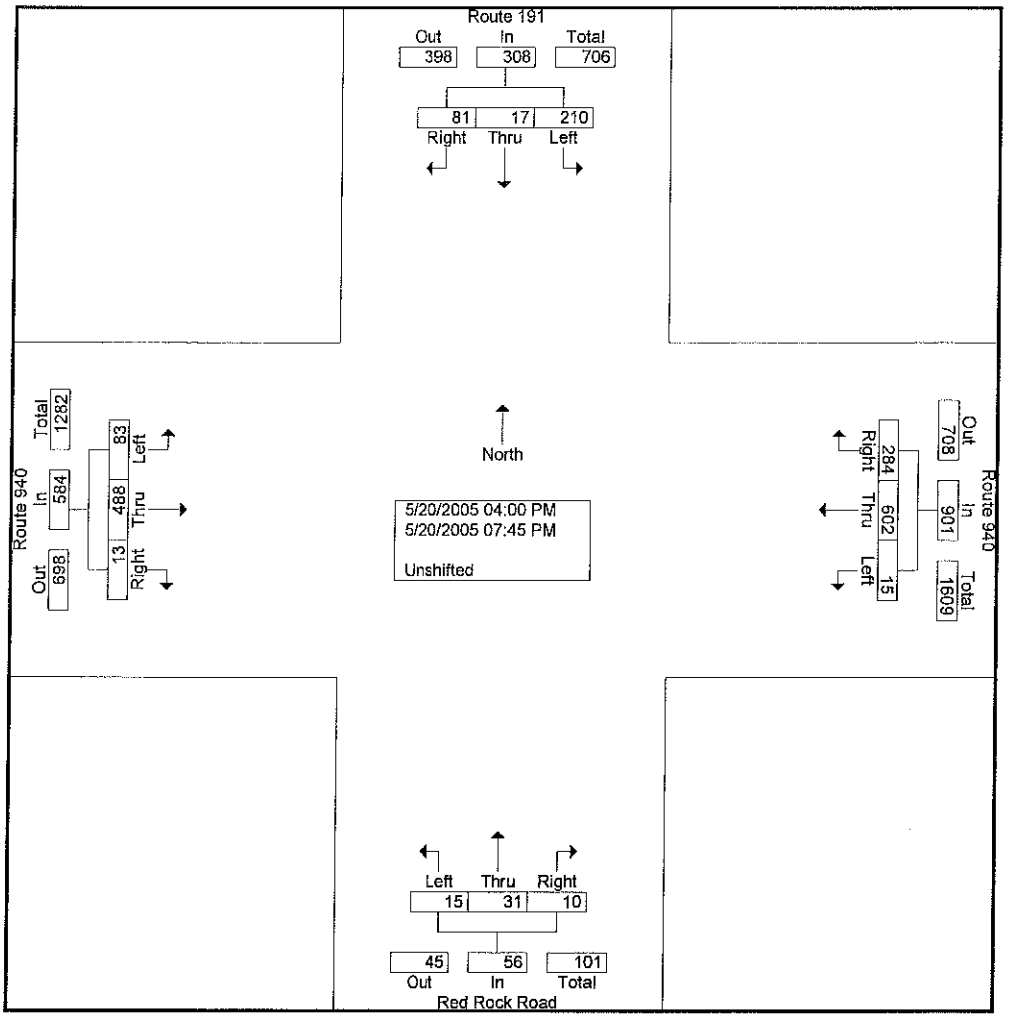
Groups Printed- Unshifted

	Route 191 Southbound					Route 940 Westbound					Red Rock Road Northbound					Route 940 Eastbound							
Start Time	Left	Thru	Right	Trucks	App. Total	Left	Thru	Right	Trucks	App. Total	Left	Thru	Right	Trucks	App. Total	Left	Thru	Right	Trucks	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
04:00 PM	23	0	3	0	26	1	47	23	2	71	2	3	0	0	5	6	38	1	0	45	2	147	149
04:15 PM	12	2	3	0	17	1	55	19	0	75	1	2	0	0	3	7	49	1	1	57	1	152	153
04:30 PM	14	1	10	0	25	1	41	18	2	60	1	3	1	0	5	11	45	1	1	57	3	147	150
04:45 PM	18	1	3	1	22	2	57	29	2	88	0	2	1	0	3	11	33	1	0	45	3	158	161
Total	67	4	19	1	90	5	200	89	6	294	4	10	2	0	16	35	165	4	2	204	9	604	613
05:00 PM	22	0	4	0	26	4	43	18	1	65	2	0	3	0	5	6	37	0	1	43	2	139	141
05:15 PM	25	3	9	0	37	0	42	33	0	75	0	2	1	0	3	7	31	1	0	39	0	154	154
05:30 PM	9	1	14	0	24	1	58	21	0	80	1	2	0	0	3	3	28	1	0	32	0	139	139
05:45 PM	7	2	6	1	15	1	34	19	1	54	0	2	0	0	2	1	26	0	0	27	2	98	100
Total	63	6	33	1	102	6	177	91	2	274	3	6	4	0	13	17	122	2	1	141	4	530	534
06:00 PM	17	2	4	0	23	1	31	12	1	44	1	1	1	0	3	3	28	0	0	31	1	101	102
06:15 PM	6	0	2	1	8	2	40	13	3	55	2	4	1	0	7	5	35	1	0	41	4	111	115
06:30 PM	15	1	7	1	23	0	24	26	0	50	0	0	0	0	0	8	23	1	0	32	1	105	106
06:45 PM	17	2	3	0	22	1	29	15	1	45	1	2	0	0	3	4	27	0	0	31	1	101	102
Total	55	5	16	2	76	4	124	66	5	194	4	7	2	0	13	20	113	2	0	135	7	418	425
07:00 PM	8	0	3	1	11	0	32	14	0	46	1	4	0	0	5	2	28	2	0	32	1	94	95
07:15 PM	5	0	2	0	7	0	26	10	0	36	1	3	0	0	4	3	17	0	0	20	0	67	67
07:30 PM	4	2	2	0	8	0	19	7	0	26	0	1	1	0	2	3	20	2	0	25	0	61	61
07:45 PM	8	0	6	0	14	0	24	7	0	31	2	0	1	0	3	3	23	1	0	27	0	75	75
Total	25	2	13	1	40	0	101	38	0	139	4	8	2	0	14	11	88	5	0	104	1	297	298
Grand Total	210	17	81	5	308	15	602	284	13	901	15	31	10	0	56	83	488	13	3	584	21	1849	1870
Apprch %	68.2	5.5	26.3			1.7	66.8	31.5			26.8	55.4	17.9			14.2	83.6	2.2					
Total %	11.4	0.9	4.4		16.7	0.8	32.6	15.4		48.7	0.8	1.7	0.5		3	4.5	26.4	0.7		31.6	1.1	98.9	

Traffic Planning & Design, Inc.
2500 E. High St. Suite 650
Pottstown, PA 19464

Route 940 & Route 191/Red Rock Road

File Name : FRI191~1-rotated
Site Code : 00000123
Start Date : 5/20/2005
Page No : 2

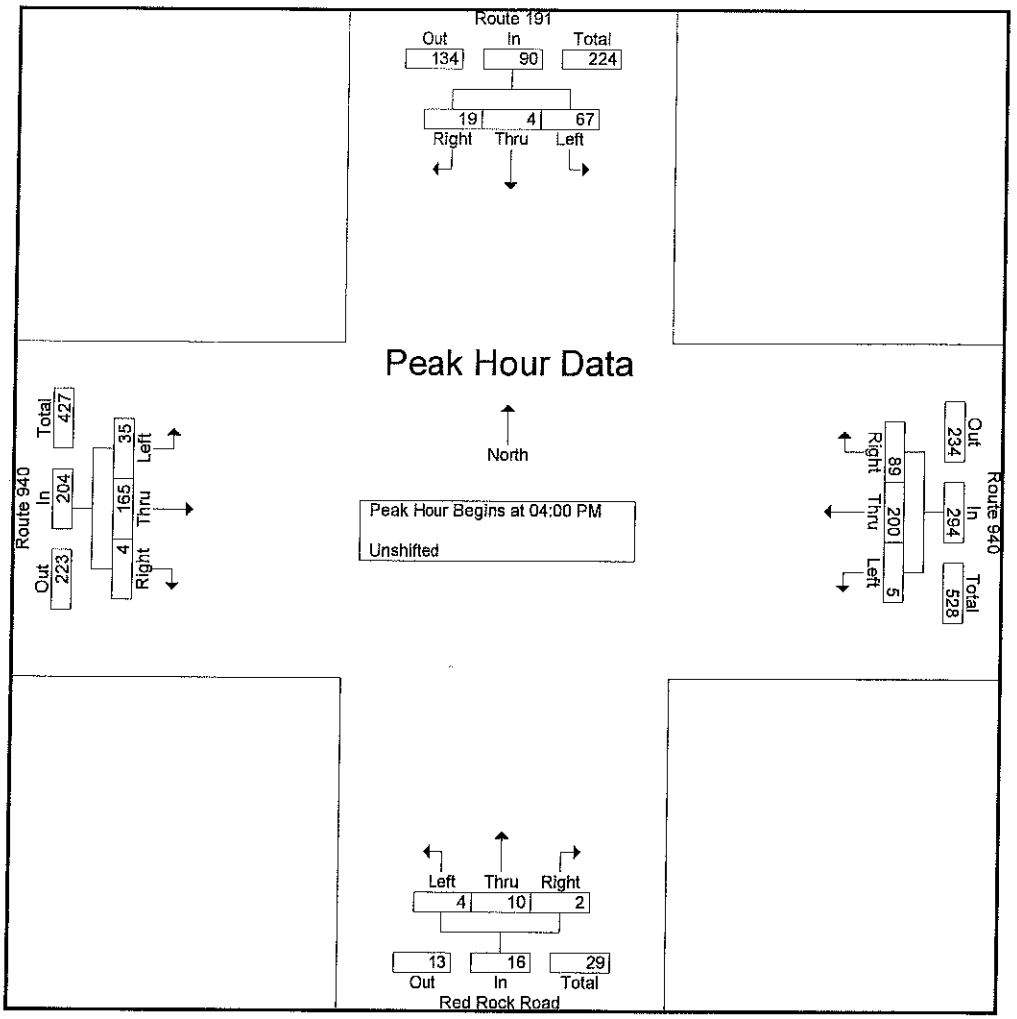


Traffic Planning & Design, Inc.
2500 E. High St. Suite 650
Pottstown, PA 19464

Route 940 & Route 191/Red Rock Road

File Name : FRI191~1-rotated
Site Code : 00000123
Start Date : 5/20/2005
Page No : 3

	Route 191 Southbound				Route 940 Westbound				Red Rock Road Northbound				Route 940 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 07:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**23**	0	3	**26**	1	47	23	71	**2**	**3**	0	**5**	6	38	**1**	45	147
04:15 PM	12	**2**	3	17	1	55	19	75	1	2	0	3	7	**49**	1	**57**	152
04:30 PM	14	1	**10**	25	1	41	18	60	1	3	**1**	5	**11**	45	1	57	147
04:45 PM	18	1	3	22	**2**	**57**	**29**	**88**	0	2	1	3	11	33	1	45	**158**
Total Volume	67	4	19	90	5	200	89	294	4	10	2	16	35	165	4	204	604
% App. Total	74.4	4.4	21.1		1.7	68	30.3		25	62.5	12.5		17.2	80.9	2		
PHF	.728	.500	.475	.865	.625	.877	.767	.835	.500	.833	.500	.800	.795	.842	1.000	.895	.956



Traffic Planning and Design, Inc.
4647 Saucon Creek Road, Suite 201
Center Valley, PA 18034

Route 611 & I-80 Ramps

Counter: 14
Counted by: A. Carrillo
Westher: Cloudy
Saved as: SATPM611_80

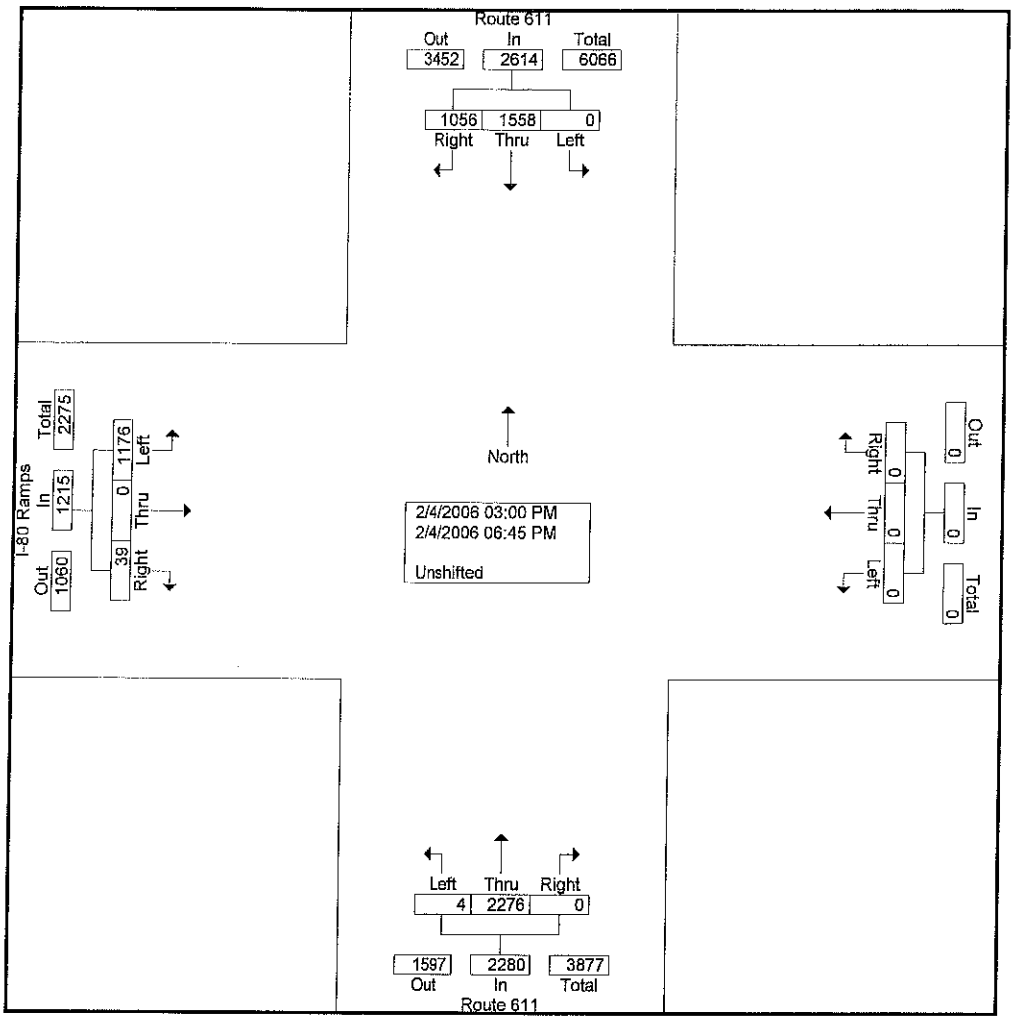
File Name : SATPM611_80
Site Code : 00061180
Start Date : 2/4/2006
Page No : 1

Groups Printed- Unshifted

	Route 611 Southbound					Westbound					Route 611 Northbound					I-80 Ramps Eastbound							
Start Time	Right	Thru	Left	Trucks	App. Total	Right	Thru	Left	Trucks	App. Total	Right	Thru	Left	Trucks	App. Total	Right	Thru	Left	Trucks	App. Total	Exclu. Total	Inclu. Total	Int. Total
03:00 PM	61	130	0	4	191	0	0	0	0	0	0	168	0	1	168	5	0	85	2	90	7	449	456
03:15 PM	69	120	0	1	189	0	0	0	0	0	0	165	0	2	165	4	0	79	0	83	3	437	440
03:30 PM	84	128	0	1	212	0	0	0	0	0	0	162	1	0	163	2	0	86	4	88	5	463	468
03:45 PM	85	134	0	3	219	0	0	0	0	0	0	177	0	1	177	4	0	81	1	85	5	481	486
Total	299	512	0	9	811	0	0	0	0	0	0	672	1	4	673	15	0	331	7	346	20	1830	1850
04:00 PM	90	99	0	4	189	0	0	0	0	0	0	163	0	1	163	6	0	73	0	79	5	431	436
04:15 PM	71	109	0	3	180	0	0	0	0	0	0	167	0	3	167	1	0	78	0	79	6	426	432
04:30 PM	61	117	0	1	178	0	0	0	0	0	0	147	1	3	148	1	0	82	0	83	4	409	413
04:45 PM	78	123	0	5	201	0	0	0	0	0	0	143	1	2	144	5	0	76	0	81	7	426	433
Total	300	448	0	13	748	0	0	0	0	0	0	620	2	9	622	13	0	309	0	322	22	1692	1714
05:00 PM	53	87	0	2	140	0	0	0	0	0	0	136	0	0	136	1	0	87	0	88	2	364	366
05:15 PM	46	71	0	3	117	0	0	0	0	0	0	138	1	0	139	1	0	75	1	76	4	332	336
05:30 PM	74	91	0	3	165	0	0	0	0	0	0	124	0	0	124	3	0	57	1	60	4	349	353
05:45 PM	53	79	0	3	132	0	0	0	0	0	0	135	0	1	135	2	0	60	0	62	4	329	333
Total	226	328	0	11	554	0	0	0	0	0	0	533	1	1	534	7	0	279	2	286	14	1374	1388
06:00 PM	50	81	0	4	131	0	0	0	0	0	0	135	0	2	135	1	0	61	0	62	6	328	334
06:15 PM	66	71	0	1	137	0	0	0	0	0	0	116	0	0	116	1	0	62	0	63	1	316	317
06:30 PM	68	64	0	3	132	0	0	0	0	0	0	90	0	0	90	2	0	66	2	68	5	290	295
06:45 PM	47	54	0	2	101	0	0	0	0	0	0	110	0	0	110	0	0	68	1	68	3	279	282
Total	231	270	0	10	501	0	0	0	0	0	0	451	0	2	451	4	0	257	3	261	15	1213	1228
			0	43	2614	0	0	0	0	0	0		4	16	2280	39	0		12	1215	71	6109	6180
Apprch %			0			0	0	0			0		0.2			3.2	0						
Total %			0		42.8	0	0	0		0	0		0.1		37.3	0.6	0			19.9	1.1	98.9	

Traffic Planning and Design, Inc.
4647 Saucon Creek Road, Suite 201
Center Valley, PA 18034
Route 611 & I-80 Ramps

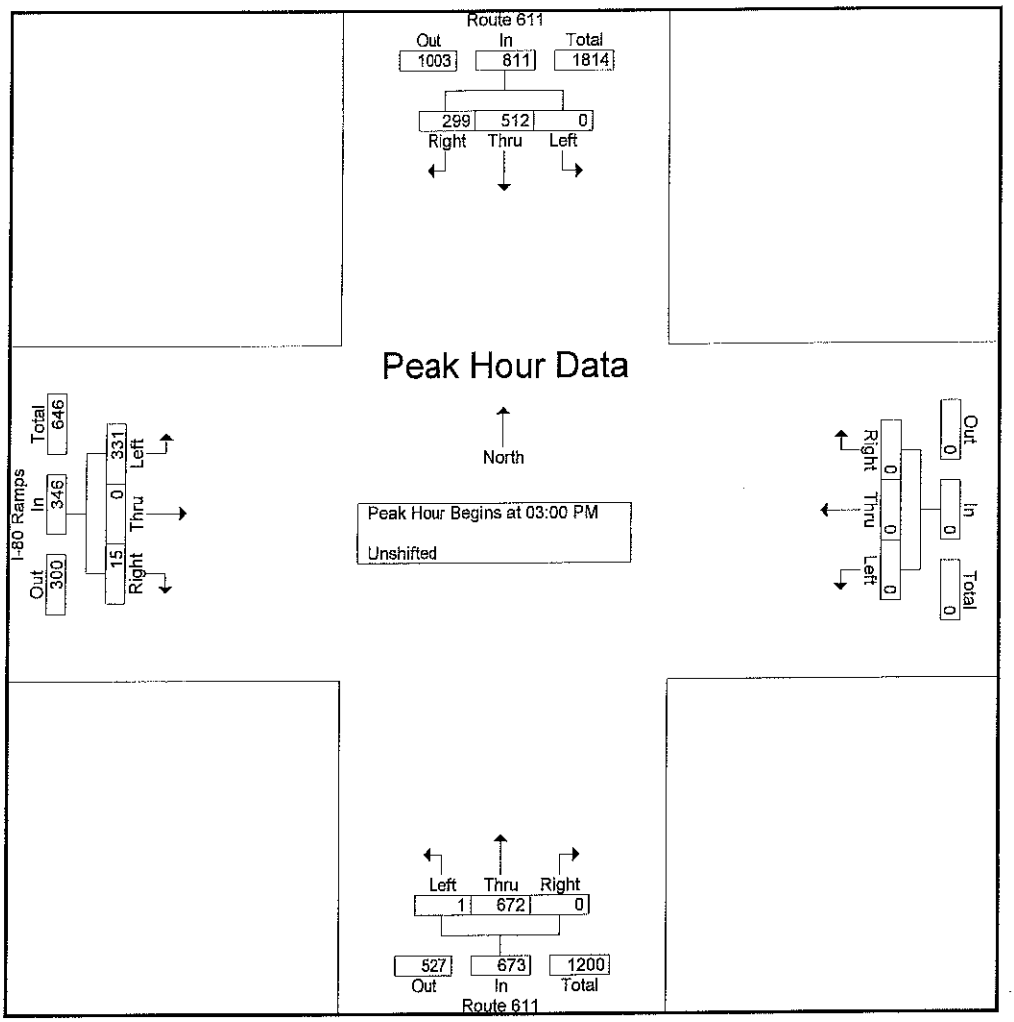
File Name : SATPM611_80
Site Code : 00061180
Start Date : 2/4/2006
Page No : 2



Traffic Planning and Design, Inc.
4647 Saucon Creek Road, Suite 201
Center Valley, PA 18034
Route 611 & I-80 Ramps

File Name : SATPM611_80
Site Code : 00061180
Start Date : 2/4/2006
Page No : 3

	Route 611 Southbound				Westbound				Route 611 Northbound				I-80 Ramps Eastbound				
Start Time	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Right	Thru	Left	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	61	130	0	191	0	0	0	0	0	168	0	168	**5**	0	85	**90**	449
03:15 PM	69	120	0	189	0	0	0	0	0	165	0	165	4	0	79	83	437
03:30 PM	84	128	0	212	0	0	0	0	0	162	**1**	163	2	0	**86**	88	463
03:45 PM	**85**	**134**	0	**219**	0	0	0	0	0	**177**	0	**177**	4	0	81	85	**481**
Total Volume	299	512	0	811	0	0	0	0	0	672	1	673	15	0	331	346	1830
% App. Total	36.9	63.1	0		0	0	0		0	99.9	0.1		4.3	0	95.7		
PHF	.879	.955	.000	.926	.000	.000	.000	.000	.000	.949	.250	.951	.750	.000	.962	.961	.951



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Route 314

Counter: 16
Counted By: M. Rosen
Weather: clear
Saved As: SA314611

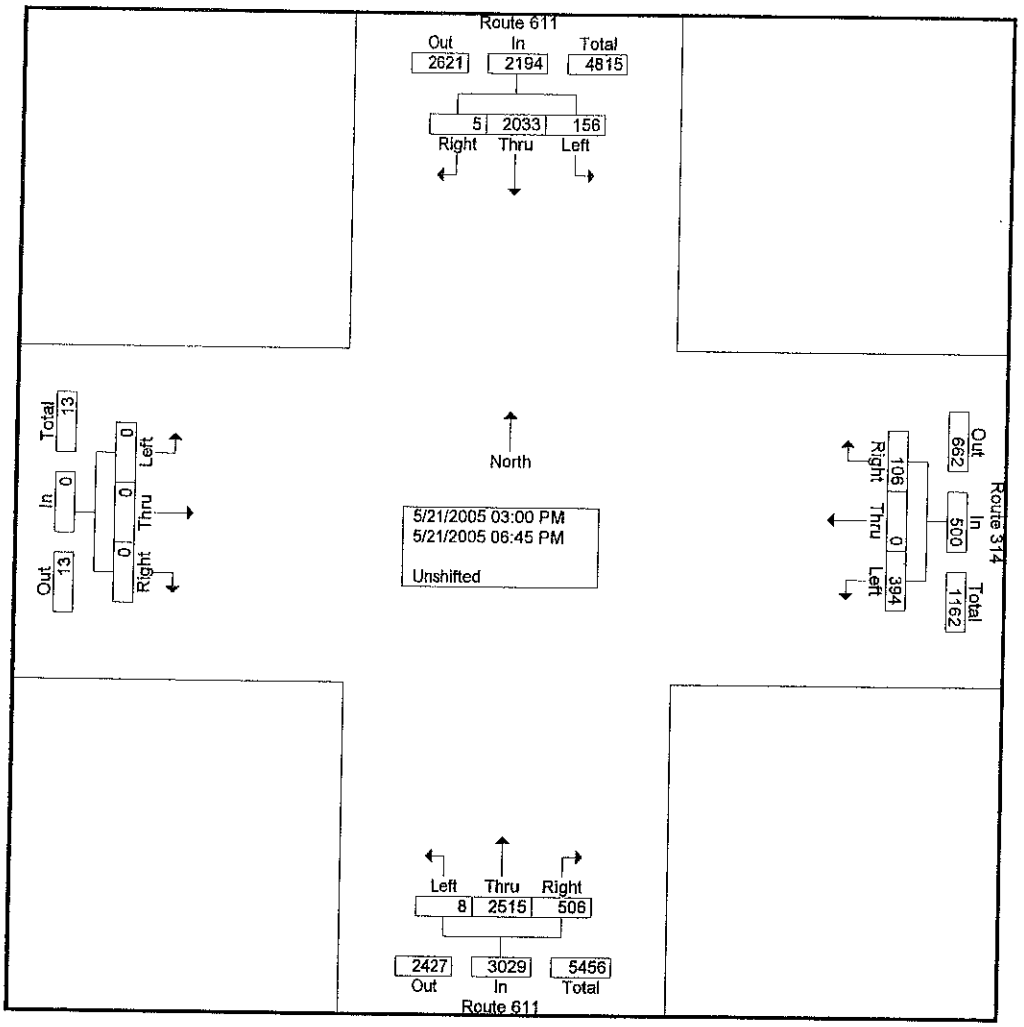
File Name : SA3146112
Site Code : 00000000
Start Date : 5/21/2005
Page No : 1

Groups Printed- Unshifted

	Route 611 Southbound					Route 314 Westbound					Route 611 Northbound					Eastbound							
Start Time	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
03:00 PM	15	144	0	1	159	19	0	4	0	23	0	167	29	0	196	0	0	0	0	0	1	378	379
03:15 PM	10	161	0	3	171	27	0	4	0	31	0	179	34	3	213	0	0	0	0	0	6	415	421
03:30 PM	10	133	0	3	143	18	0	11	1	29	0	167	38	2	205	0	0	0	0	0	6	377	383
03:45 PM	11	160	0	0	171	21	0	10	1	31	0	178	47	2	225	0	0	0	0	0	3	427	430
Total	46	598	0	7	644	85	0	29	2	114	0	691	148	7	839	0	0	0	0	0	16	1597	1613
04:00 PM	7	147	5	1	159	28	0	7	1	35	0	174	33	0	207	0	0	0	0	0	2	401	403
04:15 PM	11	121	0	0	132	36	0	4	2	40	0	164	32	3	196	0	0	0	0	0	5	368	373
04:30 PM	10	146	0	1	156	20	0	7	1	27	3	172	21	0	196	0	0	0	0	0	2	379	381
04:45 PM	16	118	0	0	134	29	0	6	0	35	0	161	28	1	189	0	0	0	0	0	1	358	359
Total	44	532	5	2	581	113	0	24	4	137	3	671	114	4	788	0	0	0	0	0	10	1506	1516
05:00 PM	9	129	0	0	138	29	0	8	1	37	0	170	48	4	218	0	0	0	0	0	5	393	398
05:15 PM	6	110	0	0	116	21	0	10	1	31	0	135	30	2	165	0	0	0	0	0	3	312	315
05:30 PM	6	120	0	0	126	28	0	6	0	34	0	143	29	0	172	0	0	0	0	0	0	332	332
05:45 PM	9	122	0	0	131	18	0	7	0	25	0	147	23	0	170	0	0	0	0	0	0	326	326
Total	30	481	0	0	511	96	0	31	2	127	0	595	130	6	725	0	0	0	0	0	8	1363	1371
06:00 PM	11	112	0	0	123	35	0	4	1	39	5	151	22	0	178	0	0	0	0	0	1	340	341
06:15 PM	13	107	0	0	120	26	0	8	1	34	0	128	23	0	151	0	0	0	0	0	1	305	306
06:30 PM	6	94	0	0	100	28	0	6	1	34	0	156	33	2	189	0	0	0	0	0	3	323	326
06:45 PM	6	109	0	0	115	11	0	4	0	15	0	123	36	0	159	0	0	0	0	0	0	289	289
Total	36	422	0	0	458	100	0	22	3	122	5	558	114	2	677	0	0	0	0	0	5	1257	1262
Grand Total	156	2033	5	9	2194	394	0	106	11	500	8	2515	506	19	3029	0	0	0	0	0	39	5723	5762
Apprch %	7.1	92.7	0.2			78.8	0	21.2			0.3	83	16.7			0	0	0					
Total %	2.7	35.5	0.1		38.3	6.9	0	1.9		8.7	0.1	43.9	8.8		52.9	0	0	0		0	0.7	99.3	

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Route 314

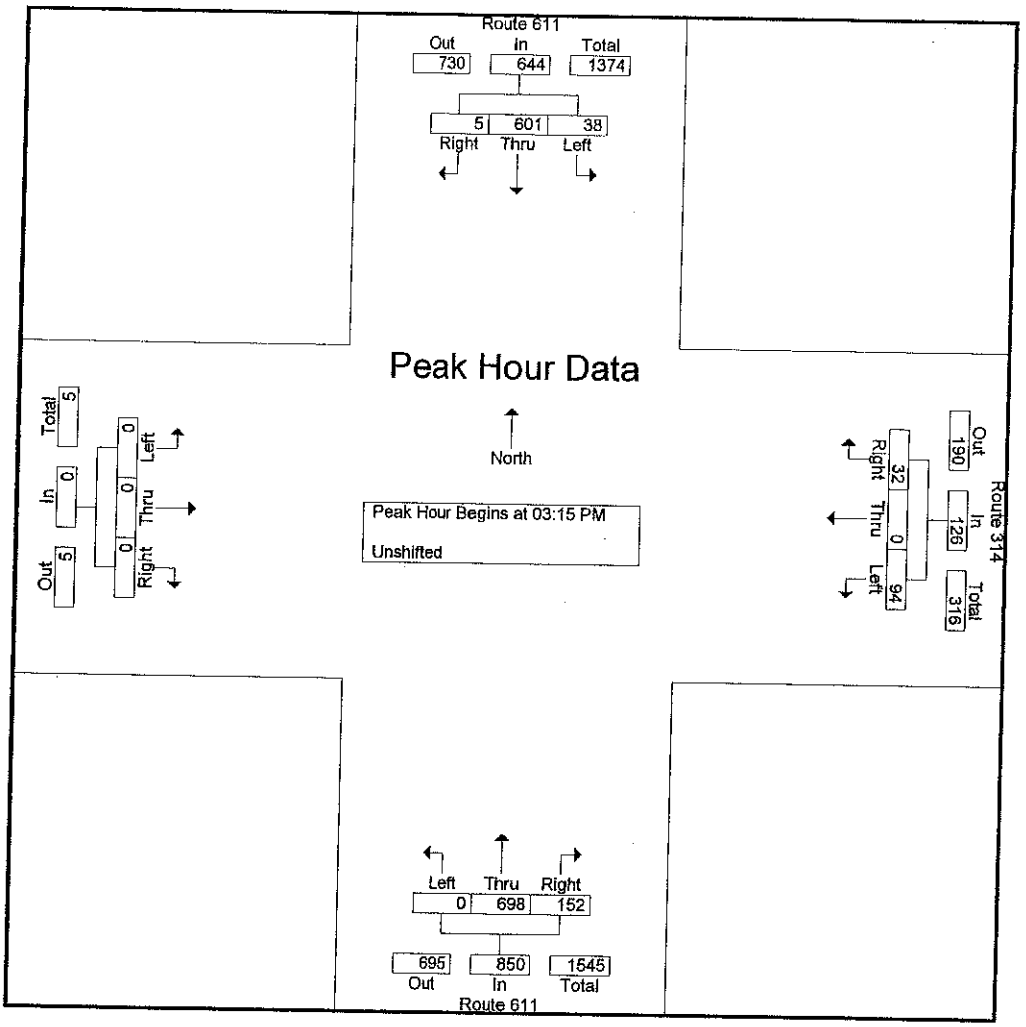
File Name : SA3146112
Site Code : 00000000
Start Date : 5/21/2005
Page No : 2



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Route 314

File Name : SA3146112
Site Code : 00000000
Start Date : 5/21/2005
Page No : 3

	Route 611 Southbound				Route 314 Westbound				Route 611 Northbound				Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:15 PM																	
03:15 PM	10	**161**	0	**171**	27	0	4	31	0	**179**	34	213	0	0	0	0	415
03:30 PM	10	133	0	143	18	0	**11**	29	0	167	38	205	0	0	0	0	377
03:45 PM	**11**	160	0	171	21	0	10	31	0	178	**47**	**225**	0	0	0	0	**427**
04:00 PM	7	147	**5**	159	**28**	0	7	**35**	0	174	33	207	0	0	0	0	401
Total Volume	38	601	5	644	94	0	32	126	0	698	152	850	0	0	0	0	1620
% App. Total	5.9	93.3	0.8		74.6	0	25.4		0	82.1	17.9		0	0	0		
PHF	.864	.933	.250	.942	.839	.000	.727	.900	.000	.975	.809	.944	.000	.000	.000	.000	.948



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Route 314

Counter: 3
Counted By: D. Bitterlich
Weather: clear
Saved As: SA611314

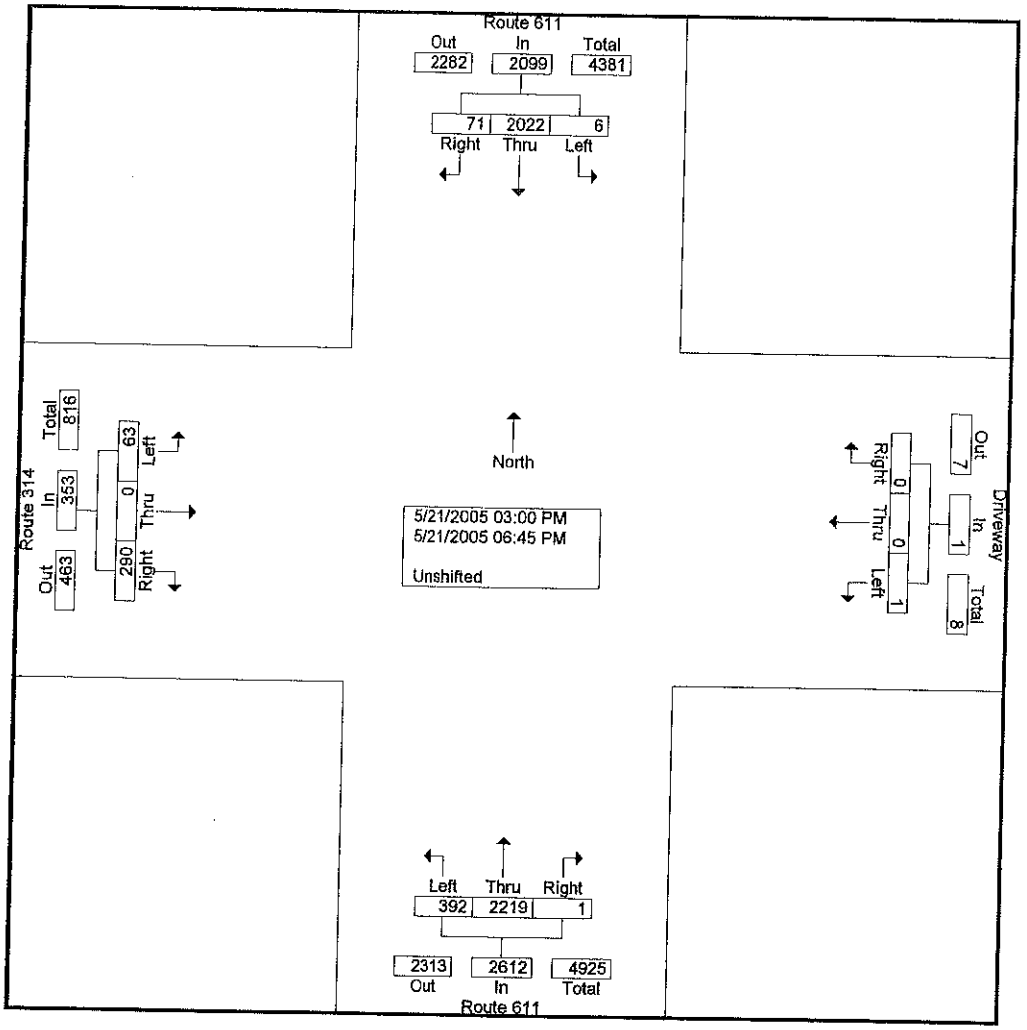
File Name : SA611314
Site Code : 00000002
Start Date : 5/21/2005
Page No : 1

Groups Printed- Unshifted

	Route 611 Southbound					Driveway Westbound					Route 611 Northbound					Route 314 Eastbound							
Start Time	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
03:00 PM	0	145	4	1	149	0	0	0	0	0	27	153	0	1	180	3	0	24	0	27	2	356	358
03:15 PM	0	142	2	1	144	0	0	0	0	0	20	142	0	1	162	4	0	26	4	30	6	336	342
03:30 PM	0	134	4	4	138	0	0	0	0	0	38	144	0	2	182	4	0	18	0	22	6	342	348
03:45 PM	1	143	6	1	150	0	0	0	0	0	30	148	0	2	178	6	0	28	0	34	3	362	365
Total	1	564	16	7	581	0	0	0	0	0	115	587	0	6	702	17	0	96	4	113	17	1396	1413
04:00 PM	0	144	5	2	149	0	0	0	0	0	32	120	0	0	152	2	0	21	0	23	2	324	326
04:15 PM	0	130	2	0	132	0	0	0	0	0	34	152	0	0	186	3	0	9	0	12	0	330	330
04:30 PM	0	139	4	0	143	0	0	0	0	0	26	139	0	0	165	4	0	23	1	27	1	335	336
04:45 PM	0	128	5	0	133	0	0	0	0	0	24	166	0	2	190	4	0	21	1	25	3	348	351
Total	0	541	16	2	557	0	0	0	0	0	116	577	0	2	693	13	0	74	2	87	6	1337	1343
05:00 PM	0	125	5	0	130	0	0	0	0	0	18	143	0	3	161	5	0	21	0	26	3	317	320
05:15 PM	1	127	3	1	131	0	0	0	0	0	29	168	0	3	197	3	0	22	0	25	4	353	357
05:30 PM	2	119	4	1	125	0	0	0	0	0	24	116	0	1	140	6	0	12	0	18	2	283	285
05:45 PM	0	114	6	0	120	0	0	0	0	0	22	123	0	0	145	2	0	17	0	19	0	284	284
Total	3	485	18	2	506	0	0	0	0	0	93	550	0	7	643	16	0	72	0	88	9	1237	1246
06:00 PM	0	112	7	0	119	0	0	0	0	0	15	125	1	0	141	3	0	13	0	16	0	276	276
06:15 PM	1	123	3	0	127	1	0	0	0	1	16	134	0	2	150	8	0	12	0	20	2	298	300
06:30 PM	1	92	7	0	100	0	0	0	0	0	26	127	0	1	153	3	0	9	0	12	1	265	266
06:45 PM	0	105	4	1	109	0	0	0	0	0	11	119	0	0	130	3	0	14	0	17	1	256	257
Total	2	432	21	1	455	1	0	0	0	1	68	505	1	3	574	17	0	48	0	65	4	1095	1099
Grand Total	6	2022	71	12	2099	1	0	0	0	1	392	2219	1	18	2612	63	0	290	6	353	36	5065	5101
Apprch %	0.3	96.3	3.4			100	0	0			15	85	0			17.8	0	82.2					
Total %	0.1	39.9	1.4		41.4	0	0	0		0	7.7	43.8	0		51.6	1.2	0	5.7		7	0.7	99.3	

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Route 314

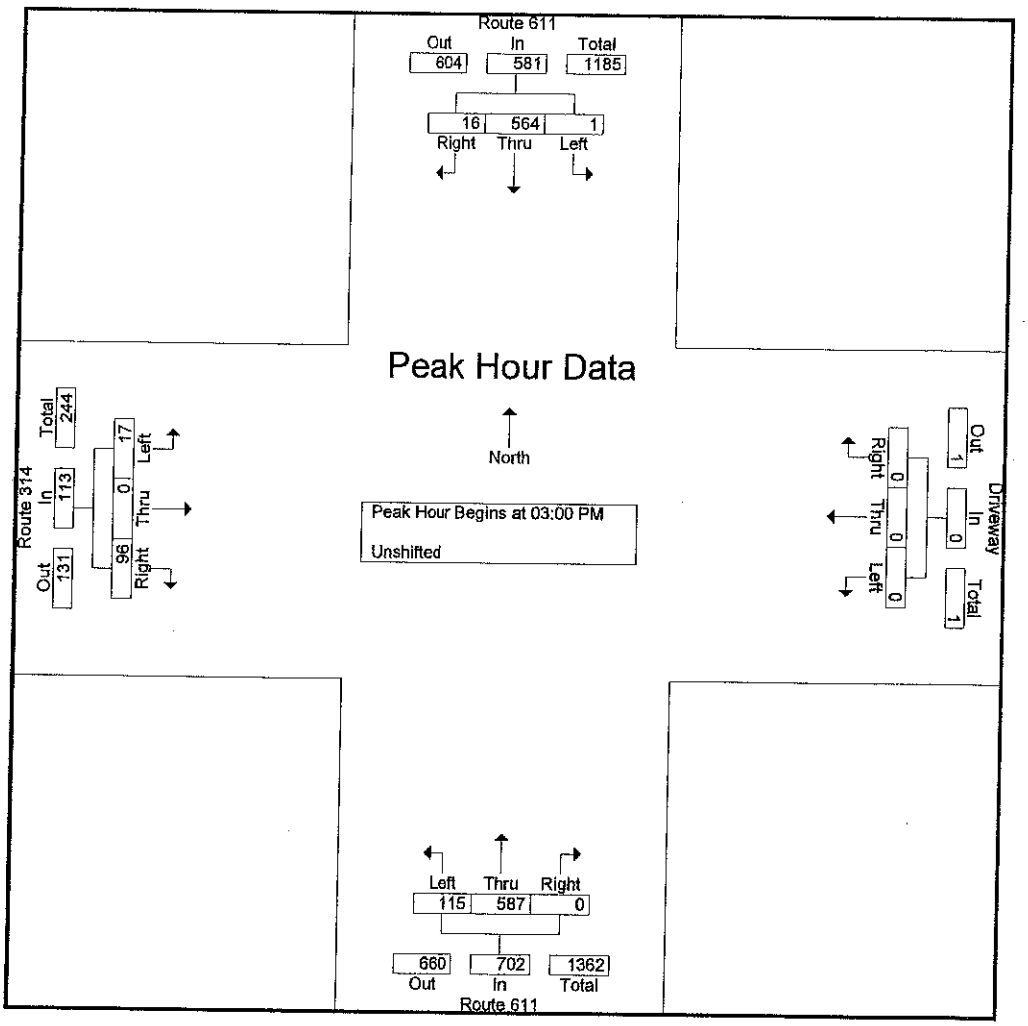
File Name : SA611314
Site Code : 00000002
Start Date : 5/21/2005
Page No : 2



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Route 314

File Name : SA611314
Site Code : 00000002
Start Date : 5/21/2005
Page No : 3

	Route 611 Southbound				Driveway Westbound				Route 611 Northbound				Route 314 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	0	**145**	4	149	0	0	0	0	27	**153**	0	180	3	0	24	27	356
03:15 PM	0	142	2	144	0	0	0	0	20	142	0	162	4	0	26	30	336
03:30 PM	0	134	4	138	0	0	0	0	**38**	144	0	**182**	4	0	18	22	342
03:45 PM	**1**	143	**6**	**150**	0	0	0	0	30	148	0	178	**6**	0	**28**	**34**	**362**
Total Volume	1	564	16	581	0	0	0	0	115	587	0	702	17	0	96	113	1396
% App. Total	0.2	97.1	2.8		0	0	0		16.4	83.6	0		15	0	85		
PHF	.250	.972	.667	.968	.000	.000	.000	.000	.757	.959	.000	.964	.708	.000	.857	.831	.964



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Woodland Rd.

Counter: IMC 001
Counted By: C. Burnley
Weather: clear/rain
Saved As: SAWR611

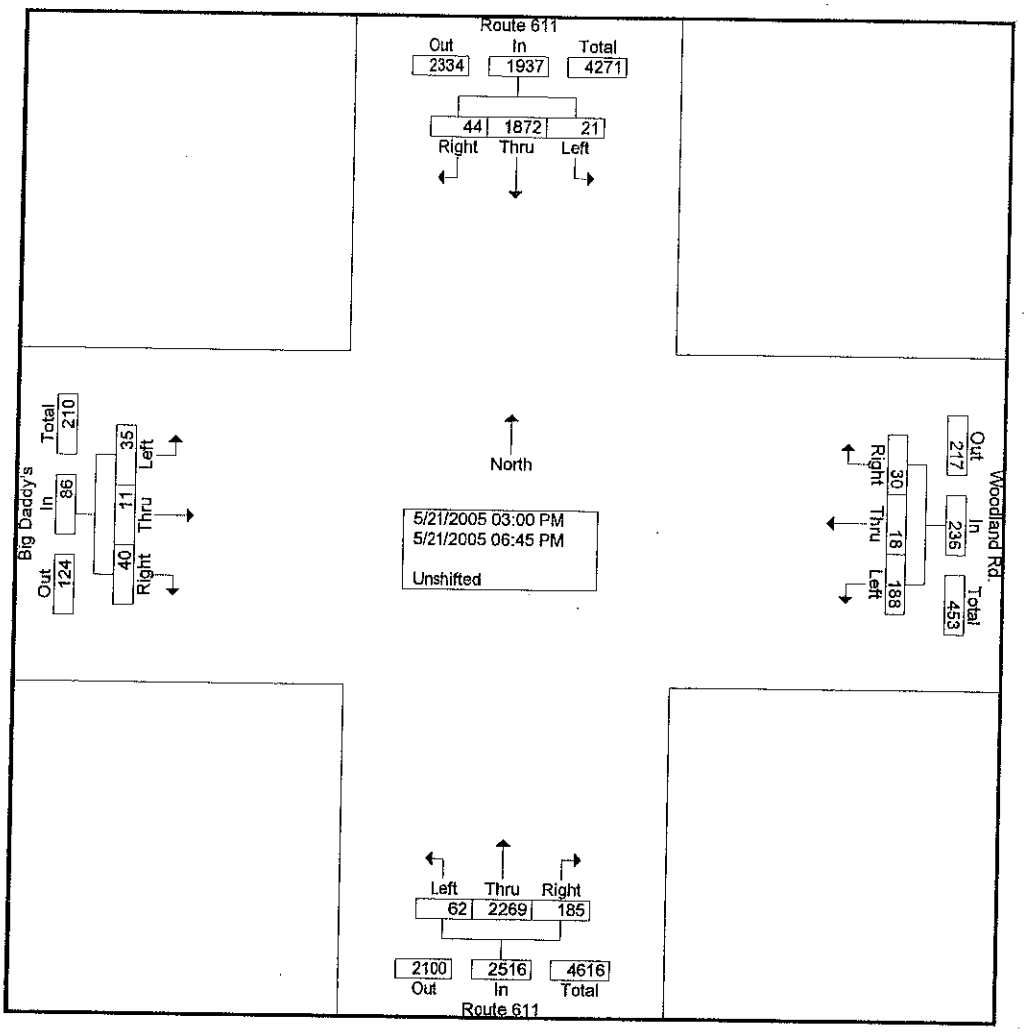
File Name : SAWR6112
Site Code : 00000000
Start Date : 5/21/2005
Page No : 1

Groups Printed- Unshifted

	Route 611 Southbound					Woodland Rd. Westbound					Route 611 Northbound					Big Daddy's Eastbound							
Start Time	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
03:00 PM	0	134	2	1	136	14	0	1	0	15	1	155	10	1	166	3	0	4	0	7	2	324	326
03:15 PM	2	130	4	1	136	11	0	1	0	12	1	145	11	0	157	0	0	1	0	1	1	306	307
03:30 PM	2	128	3	2	133	11	0	3	0	14	4	148	12	0	164	2	0	4	0	6	2	317	319
03:45 PM	0	125	4	0	129	9	4	1	0	14	7	138	18	1	163	0	0	3	0	3	1	309	310
Total	4	517	13	4	534	45	4	6	0	55	13	586	51	2	650	5	0	12	0	17	6	1256	1262
04:00 PM	2	140	2	1	144	10	1	2	0	13	1	114	13	0	128	3	1	0	0	4	1	289	290
04:15 PM	3	122	2	2	127	11	1	1	0	13	1	161	13	0	175	2	2	1	0	5	2	320	322
04:30 PM	1	123	4	0	128	10	0	2	0	12	0	146	13	0	159	1	0	6	0	7	0	306	306
04:45 PM	2	129	3	1	134	14	3	3	0	20	5	144	11	0	160	2	0	3	1	5	2	319	321
Total	8	514	11	4	533	45	5	8	0	58	7	565	50	0	622	8	3	10	1	21	5	1234	1239
05:00 PM	0	107	4	0	111	17	0	1	0	18	6	158	11	1	175	2	0	0	0	2	1	306	307
05:15 PM	1	111	3	0	115	15	1	3	0	19	4	156	10	0	170	3	1	1	0	5	0	309	309
05:30 PM	0	114	3	0	117	13	2	4	1	19	2	155	9	2	166	4	2	2	0	8	3	310	313
05:45 PM	1	99	1	1	101	11	2	1	0	14	5	128	11	1	144	1	1	1	0	3	2	262	264
Total	2	431	11	1	444	56	5	9	1	70	17	597	41	4	655	10	4	4	0	18	6	1187	1193
06:00 PM	1	115	2	0	118	15	0	0	0	15	3	134	8	0	145	3	1	3	0	7	0	285	285
06:15 PM	2	96	2	0	100	11	1	5	0	17	8	135	8	1	151	5	1	2	0	8	1	276	277
06:30 PM	0	95	3	0	98	11	1	1	0	13	4	128	10	1	142	1	0	4	0	5	1	258	259
06:45 PM	4	104	2	2	110	5	2	1	0	8	10	124	17	1	151	3	2	5	0	10	3	279	282
Total	7	410	9	2	426	42	4	7	0	53	25	521	43	3	589	12	4	14	0	30	5	1098	1103
Grand Total	21	1872	44	11	1937	188	18	30	1	236	62	2269	185	9	2516	35	11	40	1	86	22	4775	4797
Apprch %	1.1	96.6	2.3			79.7	7.6	12.7			2.5	90.2	7.4			40.7	12.8	46.5					
Total %	0.4	39.2	0.9		40.6	3.9	0.4	0.6		4.9	1.3	47.5	3.9		52.7	0.7	0.2	0.8		1.8	0.5	99.5	

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Woodland Rd.

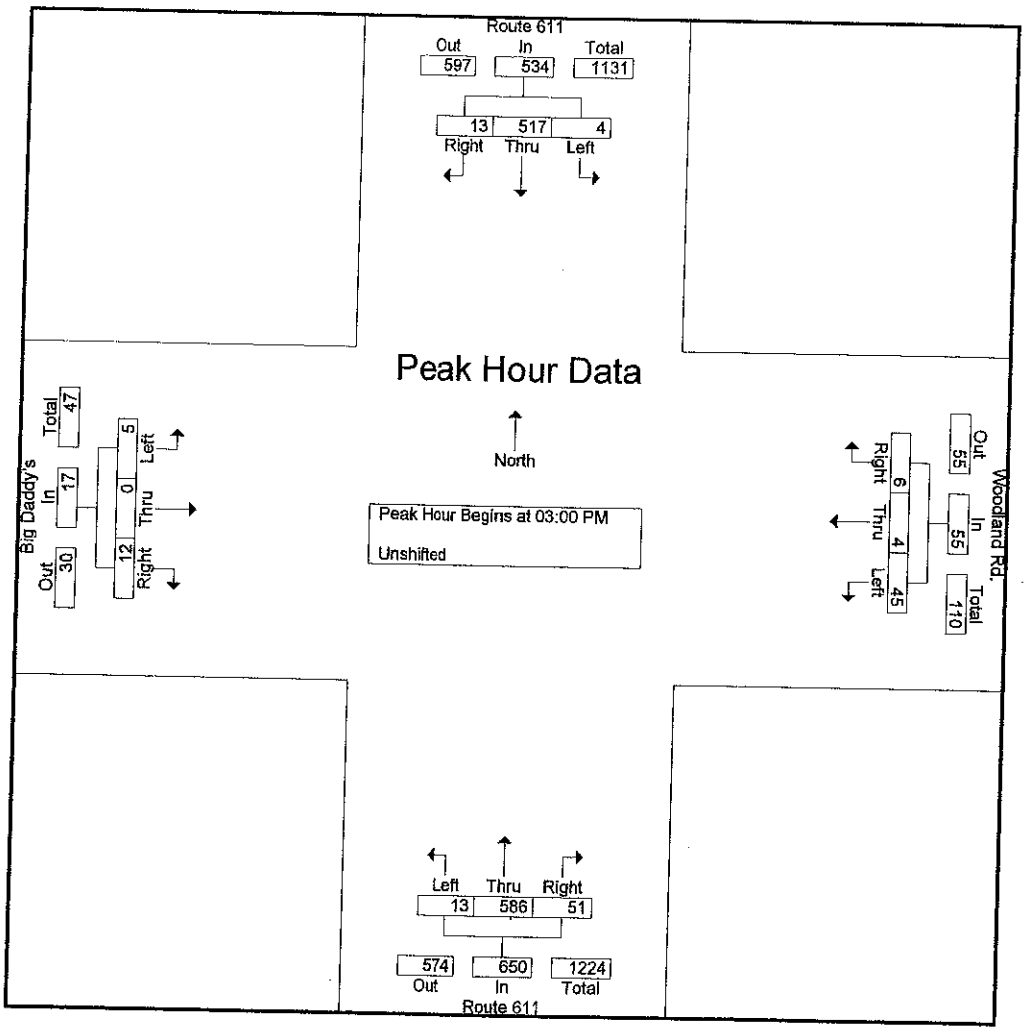
File Name : SAWR6112
Site Code : 00000000
Start Date : 5/21/2005
Page No : 2



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Woodland Rd.

File Name : SAWR6112
Site Code : 00000000
Start Date : 5/21/2005
Page No : 3

	Route 611 Southbound				Woodland Rd. Westbound				Route 611 Northbound				Big Daddy's Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 04:15 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:00 PM																	
03:00 PM	0	**134**	2	**136**	**14**	0	1	**15**	1	**155**	10	**166**	**3**	0	**4**	7	**324**
03:15 PM	**2**	130	**4**	136	11	0	1	12	1	145	11	157	0	0	1	1	306
03:30 PM	2	128	3	133	11	0	**3**	14	4	148	12	164	2	0	4	6	317
03:45 PM	0	125	4	129	9	**4**	1	14	**7**	138	**18**	163	0	0	3	3	309
Total Volume	4	517	13	534	45	4	6	55	13	586	51	650	5	0	12	17	1256
% App. Total	0.7	96.8	2.4		81.8	7.3	10.9		2	90.2	7.8		29.4	0	70.6		
PHF	.500	.965	.813	.982	.804	.250	.500	.917	.464	.945	.708	.979	.417	.000	.750	.607	.969



Job #: C. Burnley
Date: 5/21/05 (Saturday)
Technician: C. Burnley

Peak Hour

Turning Movements To/From Strickland's Road								
Time	From SB Route 611	From NB Route 611	From Big Daddy's	From Woodland Road	To SB Route 611	To NB Route 611	To Big Daddy's	To Woodland Road
3:00 - 3:15 PM				I				
3:15 -3:30 PM		II						
3:30 - 3:45 PM								
3:45 - 4:00 PM								
4:00 - 4:15 PM								
4:15 -4:30 PM								
4:30 - 4:45 PM					I			
4:45 - 5:00 PM								
5:00 - 5:15 PM					I			
5:15 - 5:30 PM					I			
5:30 - 5:45 PM								
5:45 - 6:00 PM								
6:00 - 6:15 PM								
6:15 -6:30 PM								
6:30 - 6:45 PM								
6:45 - 7:00 PM								

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Meadowside Rd.

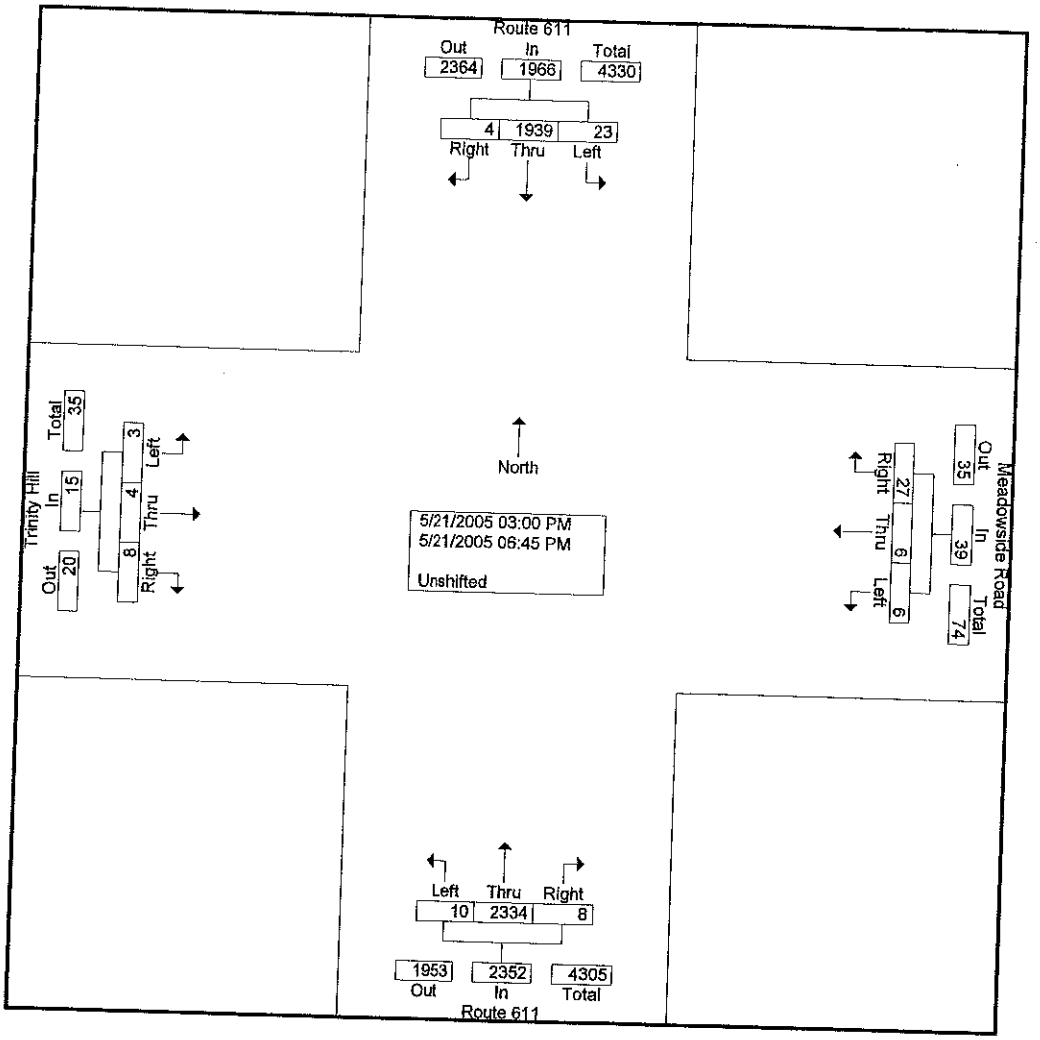
File Name : SAT611MRTH
Site Code : 00000000
Start Date : 5/21/2005
Page No : 1

Groups Printed- Unshifted

	Route 611 Southbound					Meadowside Road Westbound					Route 611 Northbound					Trinity Hill Eastbound							
Start Time	Left	Thru	Right	Trucks	App. Total	Left	Thru	Right	Trucks	App. Total	Left	Thru	Right	Trucks	App. Total	Left	Thru	Right	Trucks	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
03:00 PM	4	125	0	0	129	0	0	0	0	0	0	166	2	1	168	0	0	0	0	0	1	297	298
03:15 PM	3	125	0	2	128	0	0	0	0	0	1	146	1	0	148	0	0	0	0	0	2	276	278
03:30 PM	0	144	0	4	144	1	1	0	0	2	0	157	1	0	158	0	0	0	0	0	4	304	308
03:45 PM	1	124	0	0	125	0	1	0	0	1	3	144	0	1	147	1	0	1	0	2	1	275	276
Total	8	518	0	6	526	1	2	0	0	3	4	613	4	2	621	1	0	1	0	2	8	1152	1160
04:00 PM	0	154	1	2	155	2	3	6	0	11	3	118	0	0	121	0	0	1	0	1	2	288	290
04:15 PM	0	129	0	1	129	0	1	2	0	3	0	153	0	0	153	0	0	1	0	1	1	286	287
04:30 PM	2	122	1	0	125	0	0	3	0	3	0	152	0	0	152	1	0	0	0	1	0	281	281
04:45 PM	1	129	1	1	131	0	0	0	0	0	0	163	1	0	164	1	0	0	0	1	1	296	297
Total	3	534	3	4	540	2	4	11	0	17	3	586	1	0	590	2	0	2	0	4	4	1151	1155
05:00 PM	0	125	0	0	125	0	0	1	0	1	0	157	1	0	158	0	1	1	0	2	0	286	286
05:15 PM	1	126	1	0	128	1	0	2	0	3	0	156	0	2	156	0	0	1	0	1	2	288	290
05:30 PM	2	114	0	0	116	1	0	2	0	3	1	158	0	2	159	0	0	1	0	1	2	279	281
05:45 PM	1	108	0	1	109	0	0	0	0	0	0	140	0	0	140	0	1	0	0	1	1	250	251
Total	4	473	1	1	478	2	0	5	0	7	1	611	1	4	613	0	2	3	0	5	5	1103	1108
06:00 PM	2	107	0	0	109	0	0	3	0	3	0	131	0	0	131	0	0	0	0	0	0	243	243
06:15 PM	2	108	0	0	110	0	0	1	0	1	0	137	0	1	137	0	0	1	0	1	1	249	250
06:30 PM	2	94	0	0	96	1	0	5	0	6	2	133	0	1	135	0	0	0	0	0	1	237	238
06:45 PM	2	105	0	2	107	0	0	2	0	2	0	123	2	1	125	0	2	1	0	3	3	237	240
Total	8	414	0	2	422	1	0	11	0	12	2	524	2	3	528	0	2	2	0	4	5	966	971
Grand Total	23	1939	4	13	1966	6	6	27	0	39	10	2334	8	9	2352	3	4	8	0	15	22	4372	4394
Apprch %	1.2	98.6	0.2			15.4	15.4	69.2			0.4	99.2	0.3			20	26.7	53.3					
Total %	0.5	44.4	0.1		45	0.1	0.1	0.6		0.9	0.2	53.4	0.2		53.8	0.1	0.1	0.2		0.3	0.5	99.5	

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Meadowside Rd.

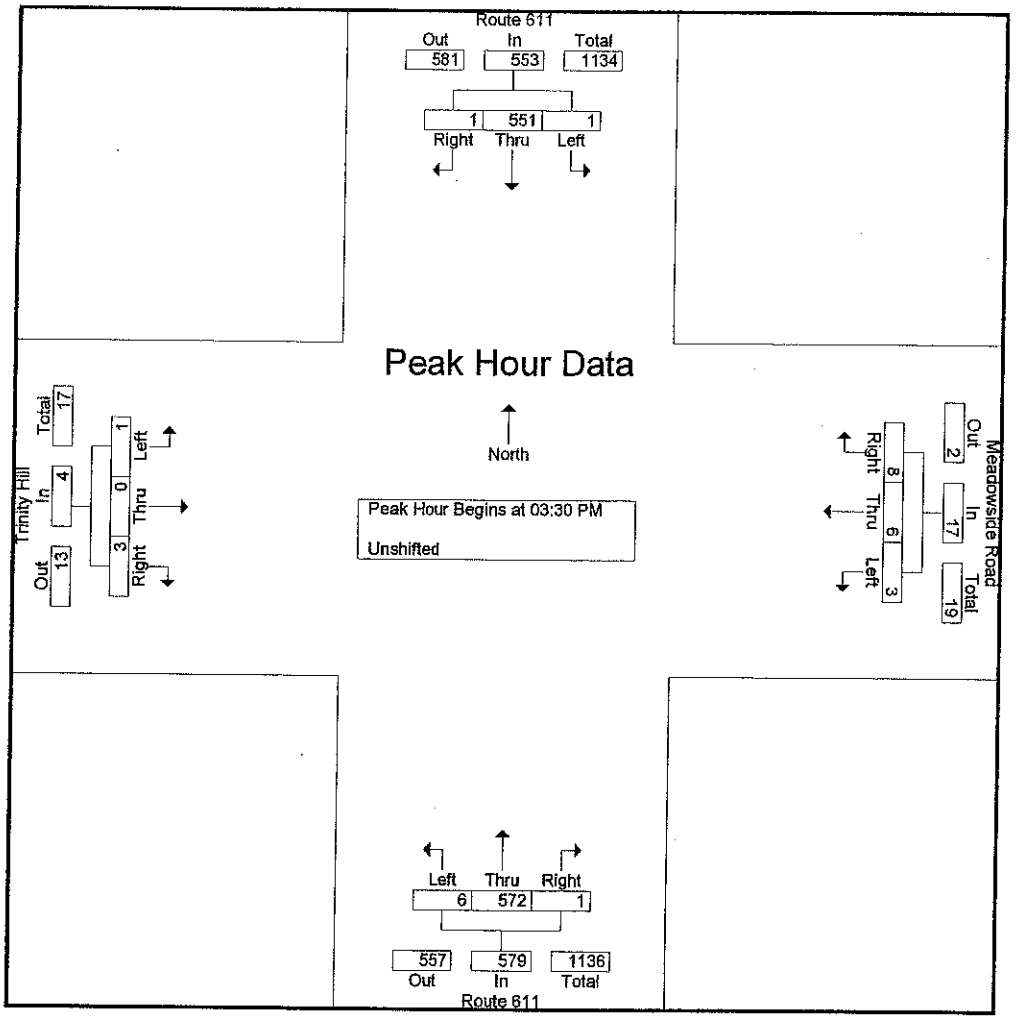
File Name : SAT611MRTH
Site Code : 00000000
Start Date : 5/21/2005
Page No : 2



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 611 & Meadowside Rd.

File Name : SAT611MRTH
Site Code : 00000000
Start Date : 5/21/2005
Page No : 3

	Route 611 Southbound				Meadowside Road Westbound				Route 611 Northbound				Trinity Hill Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:30 PM																	
03:30 PM	0	144	0	144	1	1	0	2	0	**157**	1	**158**	0	0	0	0	**304**
03:45 PM	1	124	0	125	0	1	0	1	3	144	0	147	1	0	1	2	275
04:00 PM	0	**154**	1	**155**	**2**	**3**	**6**	**11**	3	118	0	121	0	0	1	1	288
04:15 PM	0	129	0	129	0	1	2	3	0	153	0	153	0	0	1	1	286
Total Volume	1	551	1	553	3	6	8	17	6	572	1	579	1	0	3	4	1153
% App. Total	0.2	99.6	0.2		17.6	35.3	47.1		1	98.8	0.2		25	0	75		
PHF	.250	.894	.250	.892	.375	.500	.333	.386	.500	.911	.250	.916	.250	.000	.750	.500	.948



Traffic Planning & Design, Inc.
2500 E. High St. Suite 650
Pottstown, PA 19464

Route 611 & Grange Rd.

Counter: 1
Counted By: F. Montgomery
Weather: overcast
Saved As: SA611GR

File Name : SA611GR
Site Code : 00000000
Start Date : 6/18/2005
Page No : 1

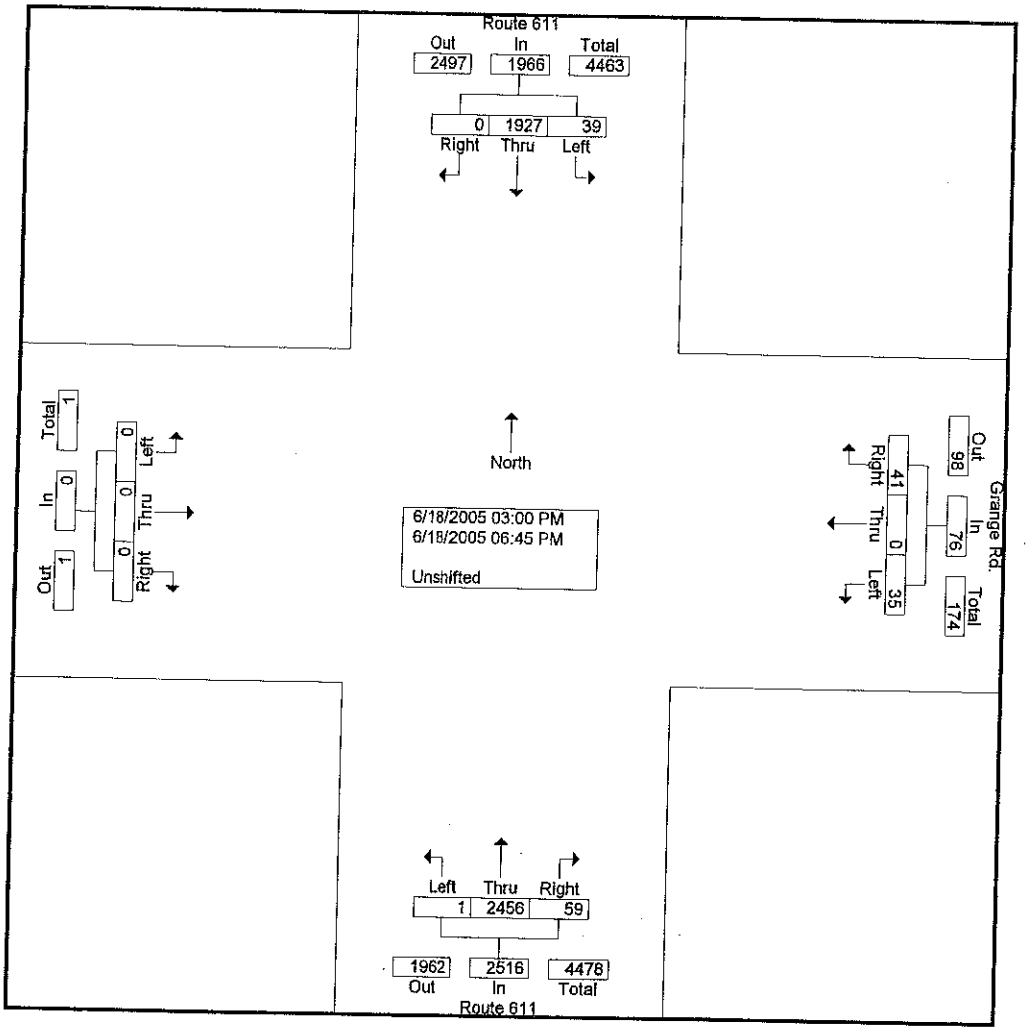
Groups Printed- Unshifted

	Route 611 Southbound					Grange Rd. Westbound					Route 611 Northbound					Eastbound							
Start Time	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
03:00 PM	2	125	0	0	127	2	0	1	0	3	0	133	13	1	146	0	0	0	0	0	1	276	277
03:15 PM	3	125	0	0	128	0	0	6	0	6	0	185	6	0	191	0	0	0	0	0	0	325	325
03:30 PM	3	104	0	1	107	3	0	1	0	4	1	162	8	0	171	0	0	0	0	0	1	282	283
03:45 PM	1	138	0	2	139	3	0	4	0	7	0	148	2	0	150	0	0	0	0	0	2	296	298
Total	9	492	0	3	501	8	0	12	0	20	1	628	29	1	658	0	0	0	0	0	4	1179	1183
04:00 PM	2	121	0	1	123	4	0	4	0	8	0	189	2	0	191	0	0	0	0	0	1	322	323
04:15 PM	2	128	0	0	130	3	0	1	0	4	0	174	4	1	178	0	0	0	0	0	1	312	313
04:30 PM	2	121	0	1	123	3	0	2	0	5	0	180	2	0	182	0	0	0	0	0	1	310	311
04:45 PM	1	133	0	0	134	5	0	1	0	6	0	156	7	0	163	0	0	0	0	0	0	303	303
Total	7	503	0	2	510	15	0	8	0	23	0	699	15	1	714	0	0	0	0	0	3	1247	1250
05:00 PM	2	112	0	0	114	1	0	3	0	4	0	157	0	1	157	0	0	0	0	0	1	275	276
05:15 PM	4	143	0	1	147	0	0	3	0	3	0	151	2	0	153	0	0	0	0	0	1	303	304
05:30 PM	4	123	0	0	127	0	0	2	0	2	0	144	3	0	147	0	0	0	0	0	0	276	276
05:45 PM	2	108	0	0	110	2	0	6	0	8	0	133	3	0	136	0	0	0	0	0	0	254	254
Total	12	486	0	1	498	3	0	14	0	17	0	585	8	1	593	0	0	0	0	0	2	1108	1110
06:00 PM	5	127	0	1	132	4	0	1	0	5	0	160	1	1	161	0	0	0	0	0	2	298	300
06:15 PM	3	114	0	0	117	1	0	1	0	2	0	130	2	0	132	0	0	0	0	0	0	251	251
06:30 PM	2	113	0	0	115	0	0	0	0	0	0	116	3	0	119	0	0	0	0	0	0	234	234
06:45 PM	1	92	0	0	93	4	0	5	0	9	0	138	1	0	139	0	0	0	0	0	0	241	241
Total	11	446	0	1	457	9	0	7	0	16	0	544	7	1	551	0	0	0	0	0	2	1024	1026
Grand Total	39	1927	0	7	1966	35	0	41	0	76	1	2456	59	4	2516	0	0	0	0	0	11	4558	4569
Apprch %	2	98	0			46.1	0	53.9			0	97.6	2.3			0	0	0					
Total %	0.9	42.3	0		43.1	0.8	0	0.9		1.7	0	53.9	1.3		55.2	0	0	0		0	0.2	99.8	

Traffic Planning & Design, Inc.
2500 E. High St. Suite 650
Pottstown, PA 19464

Route 611 & Grange Rd.

File Name : SA611GR
Site Code : 00000000
Start Date : 6/18/2005
Page No : 2

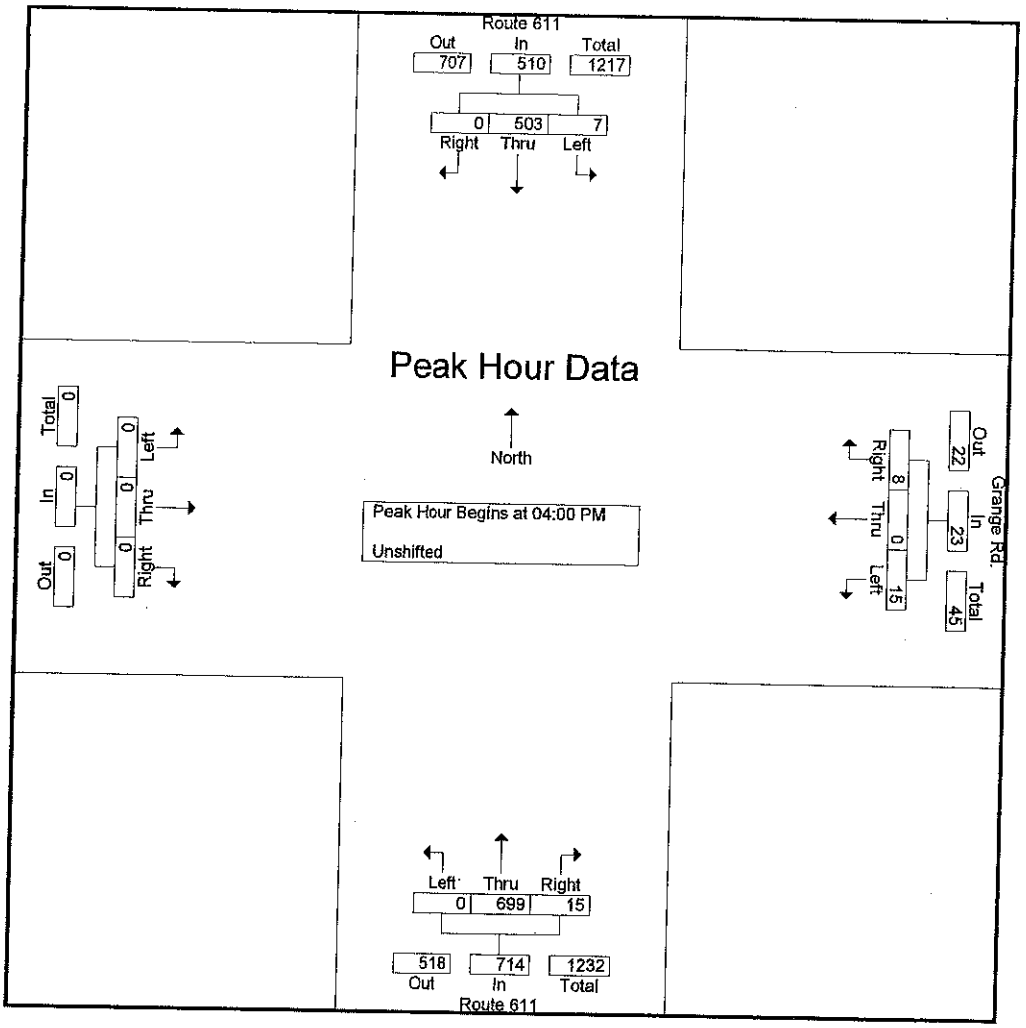


Traffic Planning & Design, Inc.
2500 E. High St. Suite 650
Pottstown, PA 19464

Route 611 & Grange Rd.

File Name : SA611GR
Site Code : 00000000
Start Date : 6/18/2005
Page No : 3

	Route 611 Southbound				Grange Rd. Westbound				Route 611 Northbound				Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**2**	121	0	123	**4**	0	**4**	**8**	0	**189**	2	**191**	0	0	0	0	**322**
04:15 PM	2	128	0	130	3	0	1	4	0	174	4	178	0	0	0	0	312
04:30 PM	2	121	0	123	3	0	2	5	0	180	2	182	0	0	0	0	310
04:45 PM	**1**	**133**	0	**134**	**5**	0	1	6	0	156	7	163	0	0	0	0	303
Total Volume	7	503	0	510	15	0	8	23	0	699	15	714	0	0	0	0	1247
% App. Total	1.4	98.6	0		65.2	0	34.8		0	97.9	2.1		0	0	0		
PHF	.875	.945	.000	.951	.750	.000	.500	.719	.000	.925	.536	.935	.000	.000	.000	.000	.968



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Woodland Rd. & School Access Rd.

Counter: 88
Counted By: G. DiMartino
Weather: clear
Saved As: SASAWR

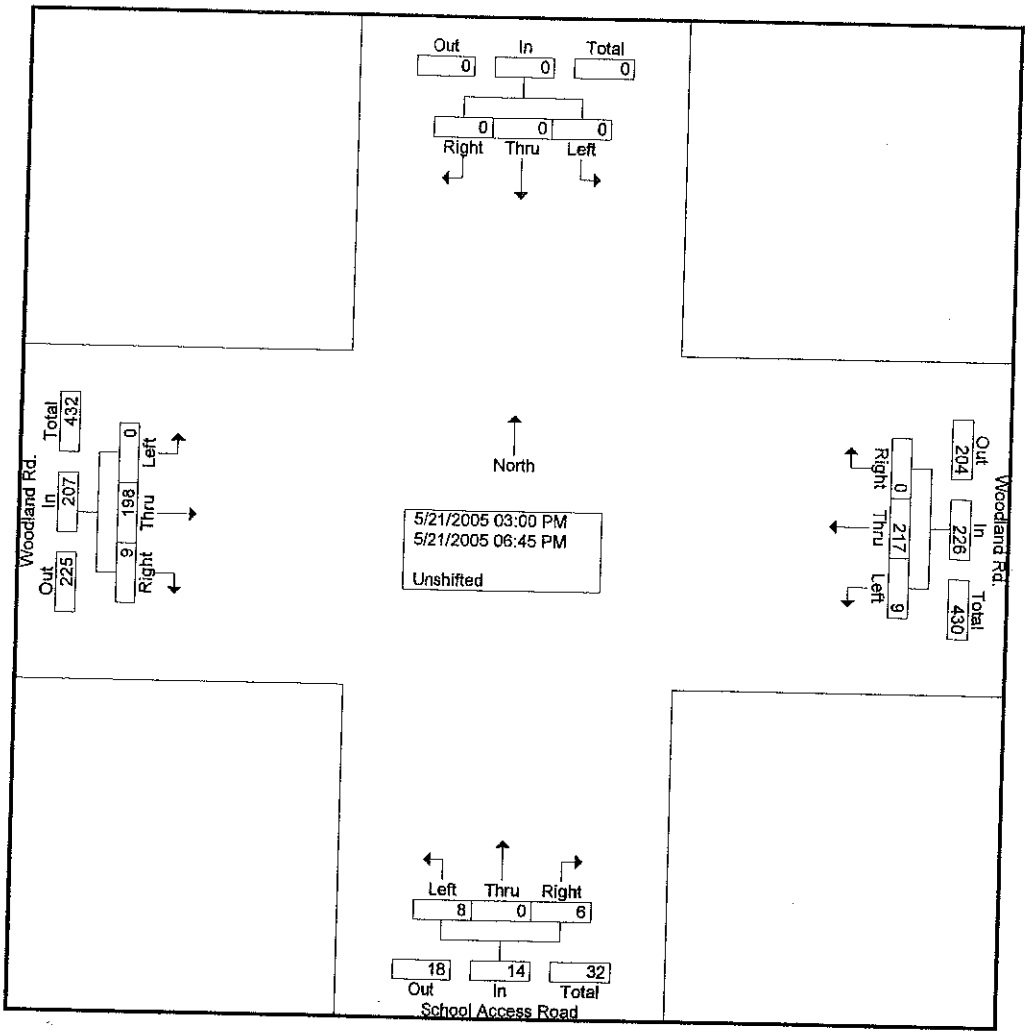
File Name : SASAWR
Site Code : 00000000
Start Date : 5/21/2005
Page No : 1

Groups Printed- Unshifted

	Southbound					Woodland Rd. Westbound					School Access Road Northbound					Woodland Rd. Eastbound							
Start Time	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
03:00 PM	0	0	0	0	0	0	17	0	0	17	0	0	1	0	1	0	10	0	0	10	0	28	28
03:15 PM	0	0	0	0	0	3	10	0	0	13	1	0	1	0	2	0	14	0	0	14	0	29	29
03:30 PM	0	0	0	0	0	0	14	0	0	14	1	0	0	0	1	0	13	2	0	15	0	30	30
03:45 PM	0	0	0	0	0	0	15	0	0	15	1	0	0	0	1	0	17	0	1	17	1	33	34
Total	0	0	0	0	0	3	56	0	0	59	3	0	2	0	5	0	54	2	1	56	1	120	121
04:00 PM	0	0	0	0	0	1	10	0	0	11	2	0	0	0	2	0	15	1	0	16	0	29	29
04:15 PM	0	0	0	0	0	1	13	0	0	14	1	0	0	0	1	0	15	3	0	18	0	33	33
04:30 PM	0	0	0	0	0	2	11	0	0	13	0	0	1	0	1	0	14	0	0	14	0	28	28
04:45 PM	0	0	0	0	0	0	18	0	0	18	1	0	0	0	1	0	13	0	0	13	0	32	32
Total	0	0	0	0	0	4	52	0	0	56	4	0	1	0	5	0	57	4	0	61	0	122	122
05:00 PM	0	0	0	0	0	0	18	0	0	18	0	0	1	0	1	0	10	0	0	10	0	29	29
05:15 PM	0	0	0	0	0	0	13	0	1	13	0	0	1	0	1	0	11	0	0	11	1	25	26
05:30 PM	0	0	0	0	0	1	13	0	0	14	0	0	1	0	1	0	10	2	0	12	0	27	27
05:45 PM	0	0	0	0	0	0	19	0	0	19	0	0	0	0	0	0	10	1	0	11	0	30	30
Total	0	0	0	0	0	1	63	0	1	64	0	0	3	0	3	0	41	3	0	44	1	111	112
06:00 PM	0	0	0	0	0	0	15	0	0	15	0	0	0	0	0	0	7	0	0	7	0	22	22
06:15 PM	0	0	0	0	0	0	14	0	0	14	0	0	0	0	0	0	11	0	0	11	0	25	25
06:30 PM	0	0	0	0	0	0	10	0	0	10	1	0	0	0	1	0	12	0	0	12	0	23	23
06:45 PM	0	0	0	0	0	1	7	0	0	8	0	0	0	0	0	0	16	0	0	16	0	24	24
Total	0	0	0	0	0	1	46	0	0	47	1	0	0	0	1	0	46	0	0	46	0	94	94
Grand Total	0	0	0	0	0	9	217	0	1	226	8	0	6	0	14	0	198	9	1	207	2	447	449
Apprch %	0	0	0			4	96	0			57.1	0	42.9			0	95.7	4.3					
Total %	0	0	0		0	2	48.5	0		50.6	1.8	0	1.3		3.1	0	44.3	2		46.3	0.4	99.6	

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Woodland Rd. & School Access Rd.

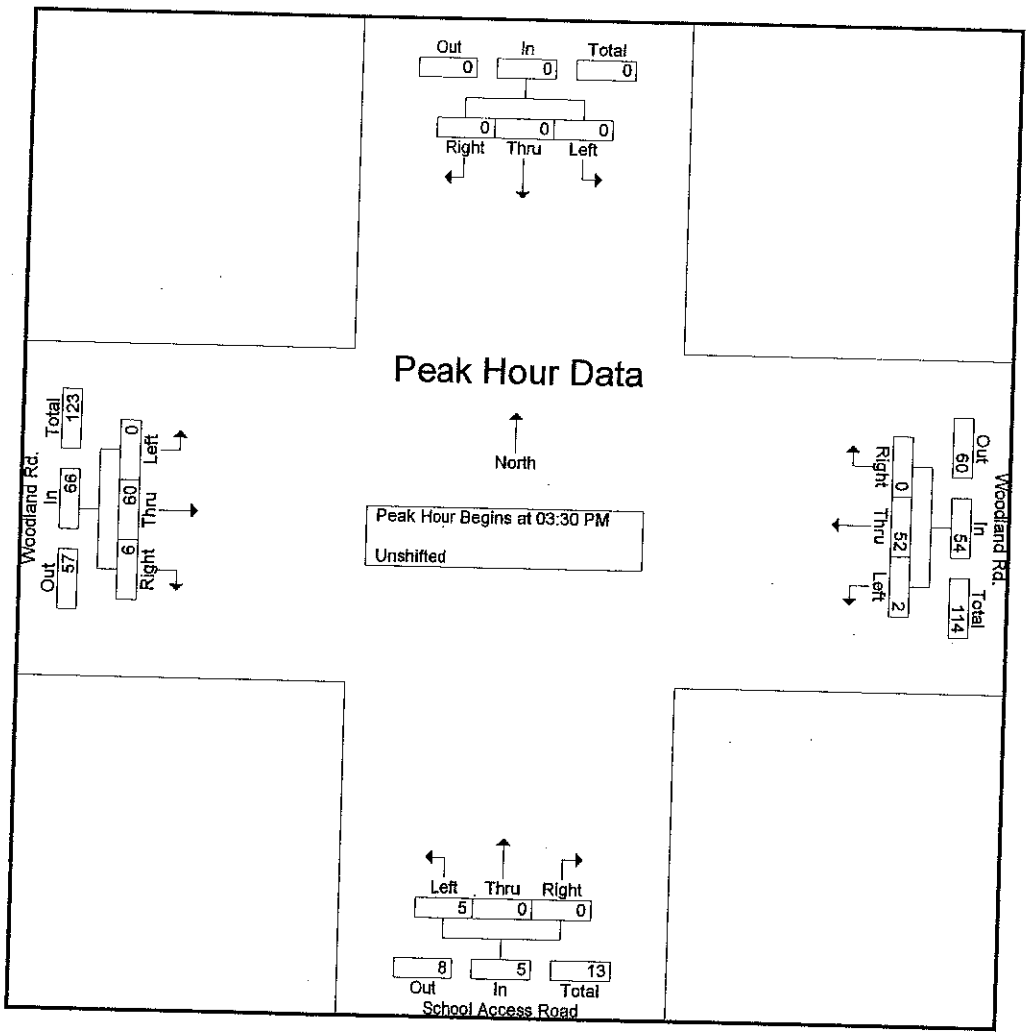
File Name : SASAWR
Site Code : 00000000
Start Date : 5/21/2005
Page No : 2



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Woodland Rd. & School Access Rd.

File Name : SASAWR
Site Code : 00000000
Start Date : 5/21/2005
Page No : 3

	Southbound				Woodland Rd. Westbound				School Access Road Northbound				Woodland Rd. Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:30 PM																	
03:30 PM	0	0	0	0	0	14	0	14	1	0	0	1	0	13	2	15	30
03:45 PM	0	0	0	0	0	**15**	0	**15**	1	0	0	1	0	**17**	0	17	**33**
04:00 PM	0	0	0	0	1	10	0	11	**2**	0	0	**2**	0	15	1	16	29
04:15 PM	0	0	0	0	1	13	0	14	1	0	0	1	0	15	**3**	18	33
Total Volume	0	0	0	0	2	52	0	54	5	0	0	5	0	60	6	66	125
% App. Total	0	0	0		3.7	96.3	0		100	0	0		0	90.9	9.1		
PHF	.000	.000	.000	.000	.500	.867	.000	.900	.625	.000	.000	.625	.000	.882	.500	.917	.947



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Woodland Rd. & Bowman Rd.

Counter: 9
Counted By: R. Kearney
Weather: clear
Saved As: SAWRBR

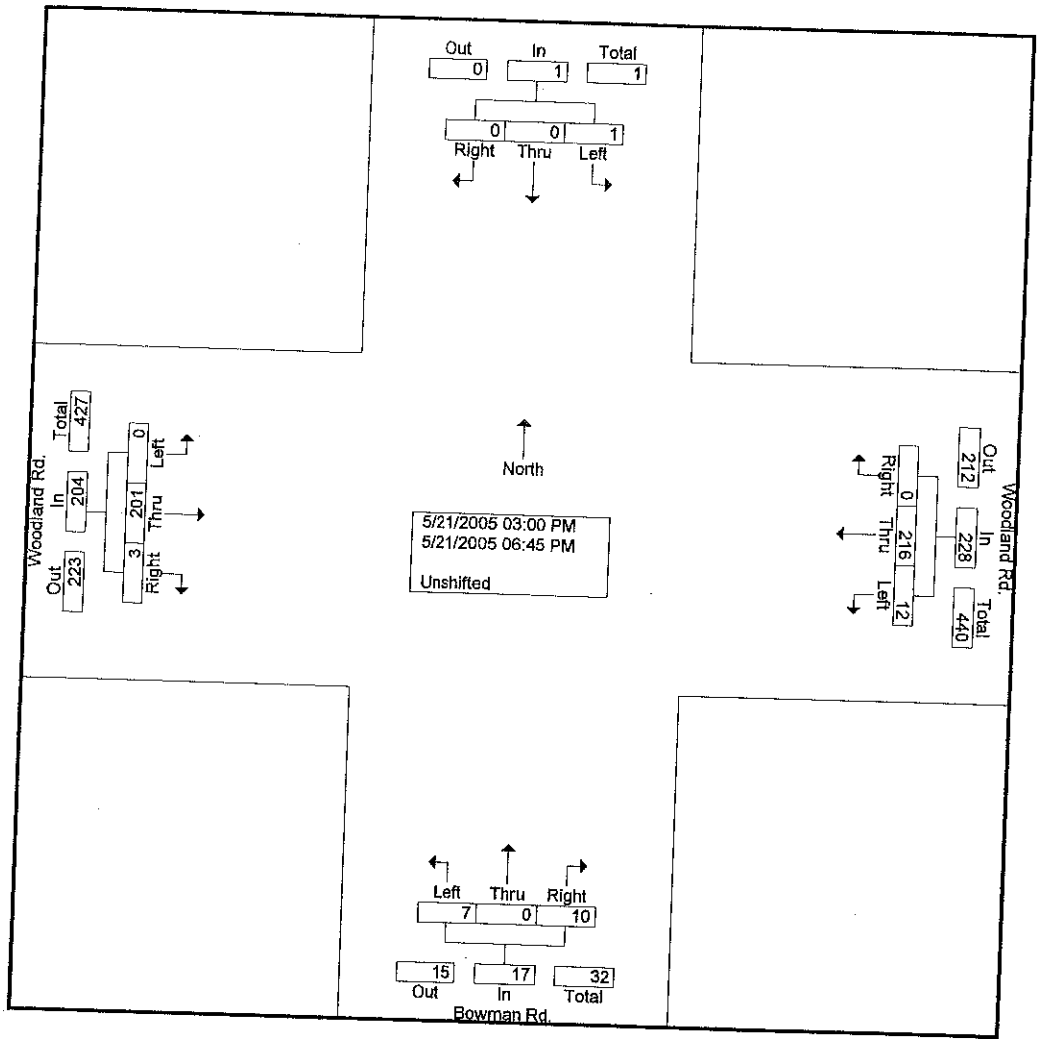
File Name : SAWRBR
Site Code : 00000000
Start Date : 5/21/2005
Page No : 1

Groups Printed- Unshifted

	Southbound					Woodland Rd. Westbound					Bowman Rd. Northbound					Woodland Rd. Eastbound							
Start Time	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
03:00 PM	1	0	0	0	1	0	17	0	0	17	0	0	0	0	0	0	10	0	0	10	0	28	28
03:15 PM	0	0	0	0	0	1	11	0	0	12	1	0	1	0	2	0	16	1	1	17	1	31	32
03:30 PM	0	0	0	0	0	1	16	0	0	17	0	0	1	0	1	0	15	0	0	15	0	33	33
03:45 PM	0	0	0	0	0	0	10	0	0	10	0	0	0	0	0	0	14	0	0	14	0	24	24
Total	1	0	0	0	1	2	54	0	0	56	1	0	2	0	3	0	55	1	1	56	1	116	117
04:00 PM	0	0	0	0	0	1	9	0	0	10	0	0	1	0	1	0	16	2	0	18	0	29	29
04:15 PM	0	0	0	0	0	0	15	0	0	15	1	0	2	0	3	0	11	0	0	11	0	29	29
04:30 PM	0	0	0	0	0	2	15	0	0	17	0	0	0	0	0	0	13	0	0	13	0	30	30
04:45 PM	0	0	0	0	0	0	16	0	0	16	1	0	1	0	2	0	16	0	1	16	1	34	35
Total	0	0	0	0	0	3	55	0	0	58	2	0	4	0	6	0	56	2	1	58	1	122	123
05:00 PM	0	0	0	0	0	1	16	0	0	17	1	0	0	0	1	0	10	0	0	10	0	28	28
05:15 PM	0	0	0	0	0	1	10	0	1	11	1	0	0	0	1	0	12	0	0	12	1	24	25
05:30 PM	0	0	0	0	0	0	18	0	0	18	0	0	1	0	1	0	11	0	0	11	0	30	30
05:45 PM	0	0	0	0	0	1	15	0	0	16	0	0	0	0	0	0	9	0	0	9	0	25	25
Total	0	0	0	0	0	3	59	0	1	62	2	0	1	0	3	0	42	0	0	42	1	107	108
06:00 PM	0	0	0	0	0	1	17	0	1	18	0	0	1	0	1	0	8	0	0	8	1	27	28
06:15 PM	0	0	0	0	0	1	10	0	0	11	0	0	0	0	0	0	9	0	0	9	0	20	20
06:30 PM	0	0	0	0	0	1	10	0	0	11	0	0	1	0	1	0	14	0	0	14	0	26	26
06:45 PM	0	0	0	0	0	1	11	0	0	12	2	0	1	0	3	0	17	0	0	17	0	32	32
Total	0	0	0	0	0	4	48	0	1	52	2	0	3	0	5	0	48	0	0	48	1	105	106
Grand Total	1	0	0	0	1	12	216	0	2	228	7	0	10	0	17	0	201	3	2	204	4	450	454
Apprch %	100	0	0			5.3	94.7	0			41.2	0	58.8			0	98.5	1.5					
Total %	0.2	0	0		0.2	2.7	48	0		50.7	1.6	0	2.2		3.8	0	44.7	0.7		45.3	0.9	99.1	

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Woodland Rd. & Bowman Rd.

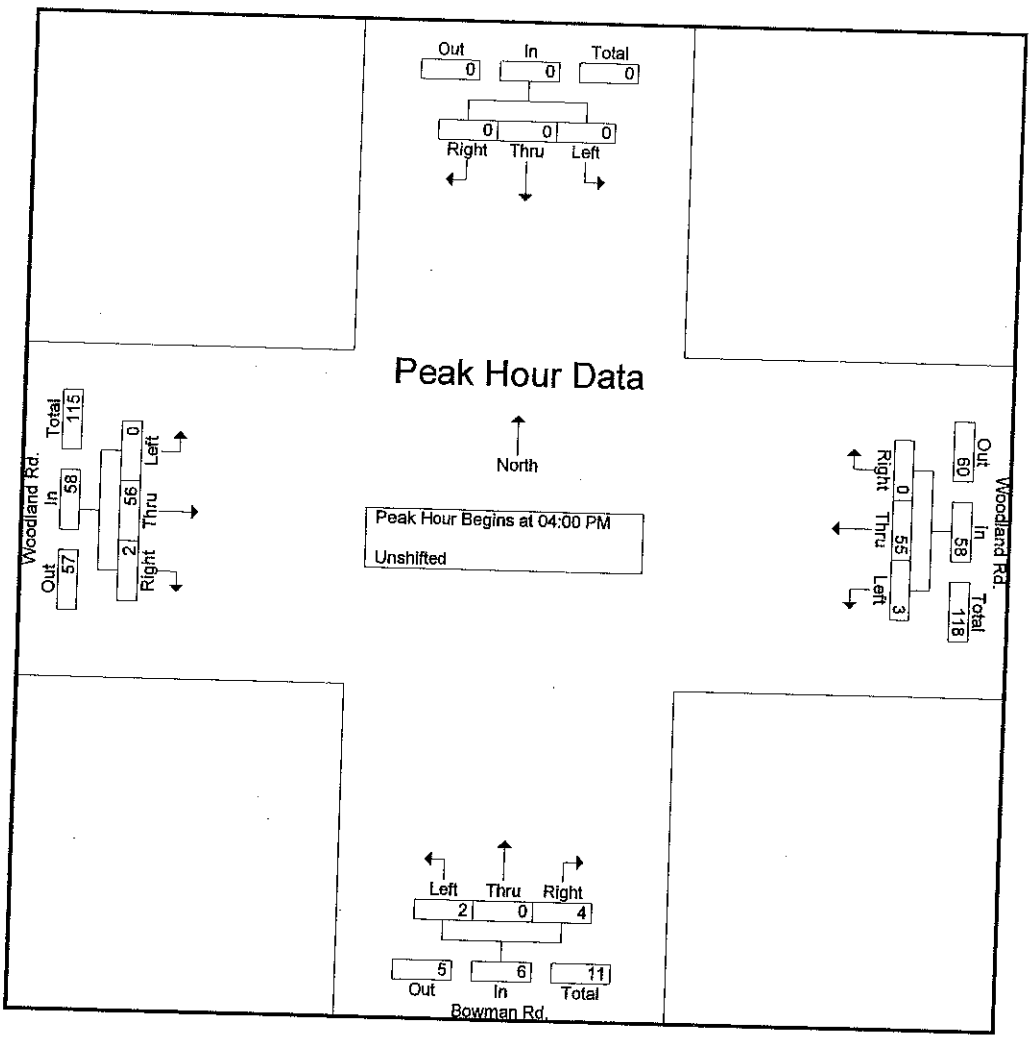
File Name : SAWRBR
Site Code : 00000000
Start Date : 5/21/2005
Page No : 2



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Woodland Rd. & Bowman Rd.

File Name : SAWRBR
Site Code : 00000000
Start Date : 5/21/2005
Page No : 3

	Southbound				Woodland Rd. Westbound				Bowman Rd. Northbound				Woodland Rd. Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	0	0	0	1	9	0	10	0	0	1	1	0	**16**	**2**	**18**	29
04:15 PM	0	0	0	0	0	15	0	15	**1**	0	**2**	**3**	0	11	0	11	29
04:30 PM	0	0	0	0	**2**	15	0	**17**	0	0	0	0	0	13	0	13	30
04:45 PM	0	0	0	0	0	**16**	0	16	1	0	1	2	0	16	0	16	**34**
Total Volume	0	0	0	0	3	55	0	58	2	0	4	6	0	56	2	58	122
% App. Total	0	0	0		5.2	94.8	0		33.3	0	66.7		0	96.6	3.4		
PHF	.000	.000	.000	.000	.375	.859	.000	.853	.500	.000	.500	.500	.000	.875	.250	.806	.897



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Woodland Rd. & Meadowside Rd.

Counter: 1
Counted By: M. McGarrigle
Weather: clear
Saved As: SAWRMR

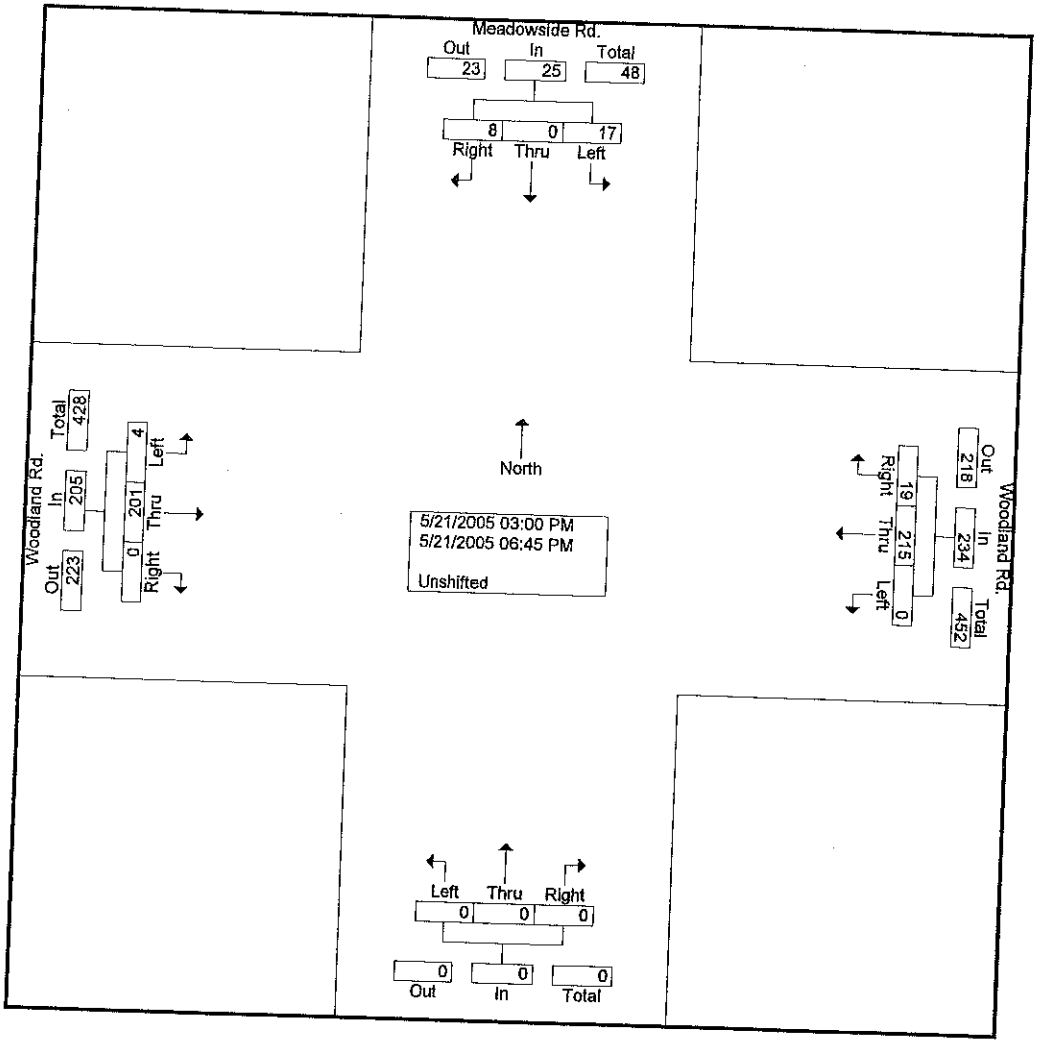
File Name : SAWRMR
Site Code : 00052105
Start Date : 5/21/2005
Page No : 1

Groups Printed- Unshifted

	Meadowside Rd. Southbound					Woodland Rd. Westbound					Northbound					Woodland Rd. Eastbound							
Start Time	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
03:00 PM	1	0	2	0	3	0	15	1	0	16	0	0	0	0	0	0	11	0	0	11	0	30	30
03:15 PM	1	0	1	0	2	0	12	0	0	12	0	0	0	0	0	0	15	0	0	15	0	29	29
03:30 PM	0	0	0	0	0	0	13	2	0	15	0	0	0	0	0	1	13	0	0	14	0	29	29
03:45 PM	1	0	1	0	2	0	15	2	0	17	0	0	0	0	0	1	14	0	0	15	0	34	34
Total	3	0	4	0	7	0	55	5	0	60	0	0	0	0	0	2	53	0	0	55	0	122	122
04:00 PM	1	0	0	0	1	0	11	3	0	14	0	0	0	0	0	0	13	0	0	13	0	28	28
04:15 PM	1	0	0	0	1	0	15	2	0	17	0	0	0	0	0	1	13	0	0	14	0	32	32
04:30 PM	0	0	1	0	1	0	14	1	0	15	0	0	0	0	0	0	15	0	0	15	0	31	31
04:45 PM	0	0	0	0	0	0	16	0	0	16	0	0	0	0	0	0	12	0	0	12	0	28	28
Total	2	0	1	0	3	0	56	6	0	62	0	0	0	0	0	1	53	0	0	54	0	119	119
05:00 PM	1	0	0	0	1	0	15	1	0	16	0	0	0	0	0	0	13	0	0	13	0	30	30
05:15 PM	1	0	0	0	1	0	13	1	1	14	0	0	0	0	0	0	13	0	0	13	1	28	29
05:30 PM	2	0	0	0	2	0	14	1	0	15	0	0	0	0	0	0	9	0	0	9	0	26	26
05:45 PM	2	0	0	0	2	0	16	0	0	16	0	0	0	0	0	0	10	0	0	10	0	28	28
Total	6	0	0	0	6	0	58	3	1	61	0	0	0	0	0	0	45	0	0	45	1	112	113
06:00 PM	2	0	1	0	3	0	14	1	0	15	0	0	0	0	0	0	8	0	0	8	0	26	26
06:15 PM	0	0	0	0	0	0	14	1	0	15	0	0	0	0	0	1	8	0	0	9	0	24	24
06:30 PM	1	0	1	0	2	0	10	3	0	13	0	0	0	0	0	0	15	0	0	15	0	30	30
06:45 PM	3	0	1	0	4	0	8	0	0	8	0	0	0	0	0	0	19	0	0	19	0	31	31
Total	6	0	3	0	9	0	46	5	0	51	0	0	0	0	0	1	50	0	0	51	0	111	111
Grand Total	17	0	8	0	25	0	215	19	1	234	0	0	0	0	0	4	201	0	0	205	1	464	465
Apprch %	68	0	32			0	91.9	8.1			0	0	0			2	98	0					
Total %	3.7	0	1.7		5.4	0	46.3	4.1		50.4	0	0	0		0	0.9	43.3	0		44.2	0.2	99.8	

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Woodland Rd. & Meadowside Rd.

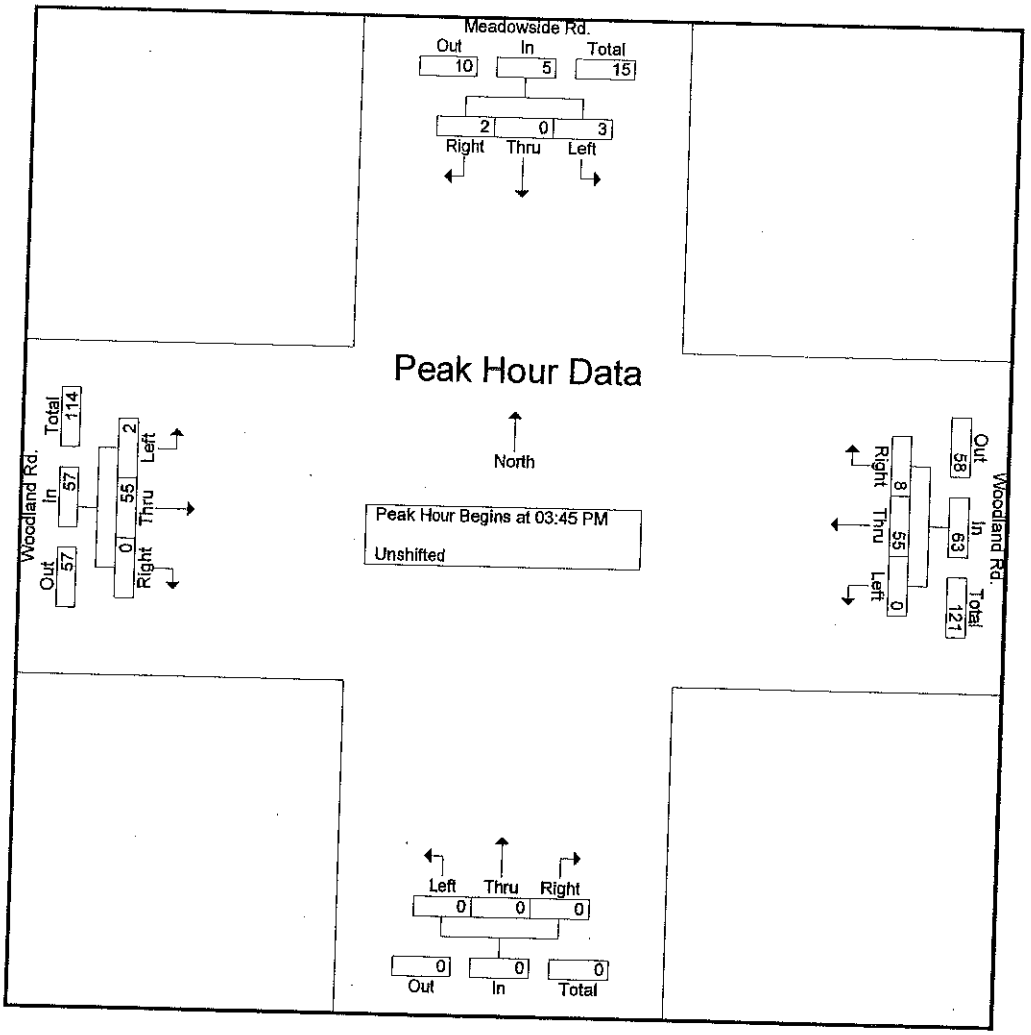
File Name : SAWRMR
Site Code : 00052105
Start Date : 5/21/2005
Page No : 2



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Woodland Rd. & Meadowside Rd.

File Name : SAWRMR
Site Code : 00052105
Start Date : 5/21/2005
Page No : 3

	Meadowside Rd. Southbound				Woodland Rd. Westbound				Northbound				Woodland Rd. Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 03:45 PM																	
03:45 PM	**1**	0	**1**	**2**	0	**15**	2	**17**	0	0	0	0	**1**	14	0	**15**	**34**
04:00 PM	1	0	0	1	0	11	**3**	14	0	0	0	0	0	13	0	13	28
04:15 PM	1	0	0	1	0	15	2	17	0	0	0	0	1	13	0	14	32
04:30 PM	0	0	1	1	0	14	1	15	0	0	0	0	0	**15**	0	15	31
Total Volume	3	0	2	5	0	55	8	63	0	0	0	0	2	55	0	57	125
% App. Total	60	0	40		0	87.3	12.7		0	0	0		3.5	96.5	0		
PHF	.750	.000	.500	.625	.000	.917	.667	.926	.000	.000	.000	.000	.500	.917	.000	.950	.919



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Woodland Rd. & Carlton Rd.

Counter: 17
Counted By: M. Bressler
Weather: clear
Saved As: SACRWR

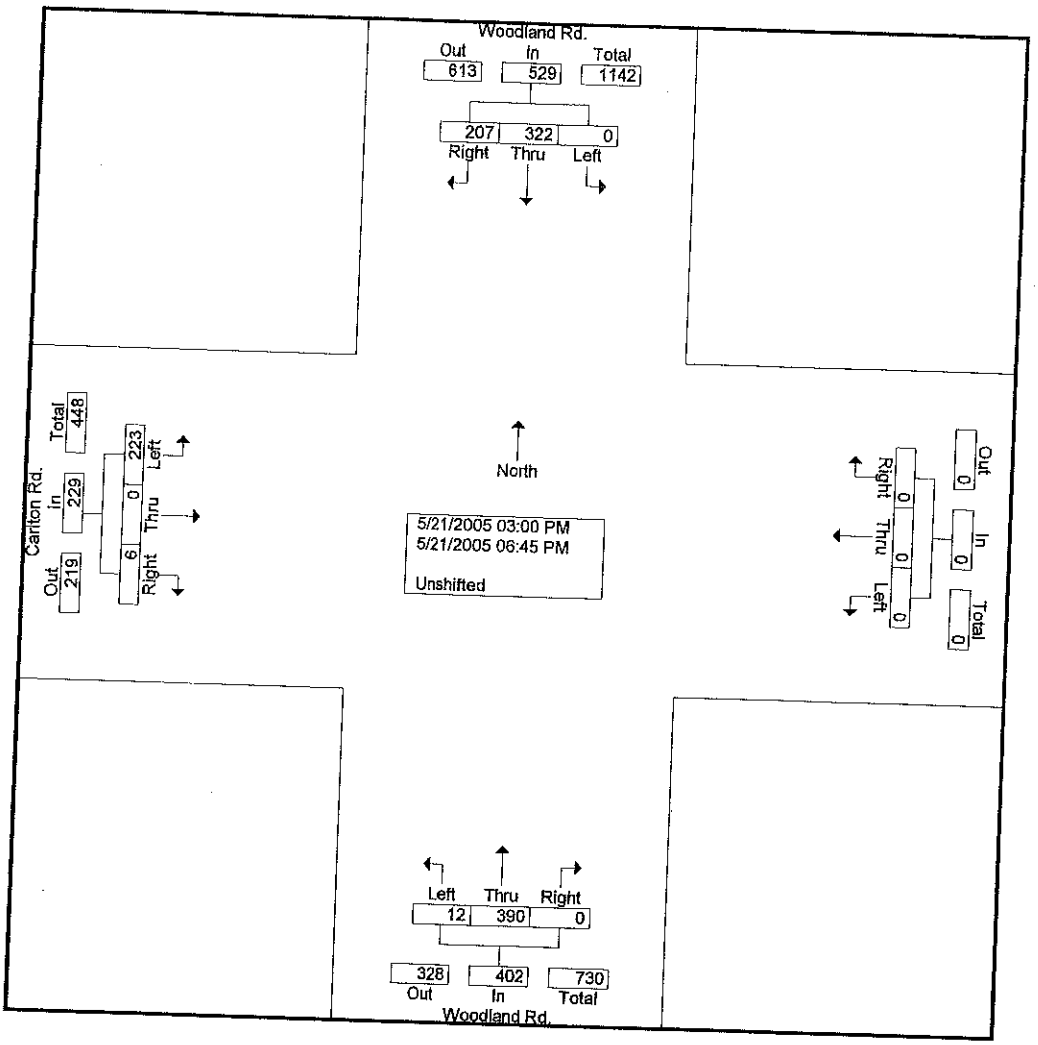
File Name : SACRWR
Site Code : 00000012
Start Date : 5/21/2005
Page No : 1

Groups Printed- Unshifted

	Woodland Rd. Southbound					Westbound					Woodland Rd. Northbound					Carlton Rd. Eastbound							
Start Time	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
03:00 PM	0	26	17	0	43	0	0	0	0	0	0	18	0	0	18	13	0	1	0	14	0	75	75
03:15 PM	0	12	11	0	23	0	0	0	0	0	1	25	0	1	26	10	0	0	0	10	1	59	60
03:30 PM	0	24	13	0	37	0	0	0	0	0	3	24	0	0	27	16	0	0	0	16	0	80	80
03:45 PM	0	19	14	0	33	0	0	0	0	0	0	29	0	1	29	12	0	0	0	12	1	74	75
Total	0	81	55	0	136	0	0	0	0	0	4	96	0	2	100	51	0	1	0	52	2	288	290
04:00 PM	0	20	11	1	31	0	0	0	0	0	2	31	0	0	33	14	0	0	0	14	1	78	79
04:15 PM	0	28	16	1	44	0	0	0	0	0	1	21	0	0	22	14	0	1	0	15	1	81	82
04:30 PM	0	20	12	0	32	0	0	0	0	0	1	27	0	0	28	15	0	0	0	15	0	75	75
04:45 PM	0	22	10	0	32	0	0	0	0	0	0	22	0	0	22	11	0	0	0	11	0	65	65
Total	0	90	49	2	139	0	0	0	0	0	4	101	0	0	105	54	0	1	0	55	2	299	301
05:00 PM	0	28	16	0	44	0	0	0	0	0	1	35	0	0	36	17	0	0	0	17	0	97	97
05:15 PM	0	18	10	1	28	0	0	0	0	0	2	24	0	0	26	11	0	1	0	12	1	66	67
05:30 PM	0	20	13	0	33	0	0	0	0	0	0	27	0	0	27	10	0	1	0	11	0	71	71
05:45 PM	0	12	17	0	29	0	0	0	0	0	0	19	0	0	19	16	0	0	0	16	0	64	64
Total	0	78	56	1	134	0	0	0	0	0	3	105	0	0	108	54	0	2	0	56	1	298	299
06:00 PM	0	24	10	0	34	0	0	0	0	0	0	17	0	0	17	11	0	0	0	11	0	62	62
06:15 PM	0	20	16	0	36	0	0	0	0	0	0	19	0	0	19	15	0	2	0	17	0	72	72
06:30 PM	0	24	15	1	39	0	0	0	0	0	0	23	0	2	23	10	0	0	0	10	3	72	75
06:45 PM	0	5	6	0	11	0	0	0	0	0	1	29	0	0	30	28	0	0	0	28	0	69	69
Total	0	73	47	1	120	0	0	0	0	0	1	88	0	2	89	64	0	2	0	66	3	275	278
Grand Total	0	322	207	4	529	0	0	0	0	0	12	390	0	4	402	223	0	6	0	229	8	1160	1168
Apprch %	0	60.9	39.1			0	0	0			3	97	0			97.4	0	2.6					
Total %	0	27.8	17.8		45.6	0	0	0		0	1	33.6	0		34.7	19.2	0	0.5		19.7	0.7	99.3	

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Woodland Rd. & Carlton Rd.

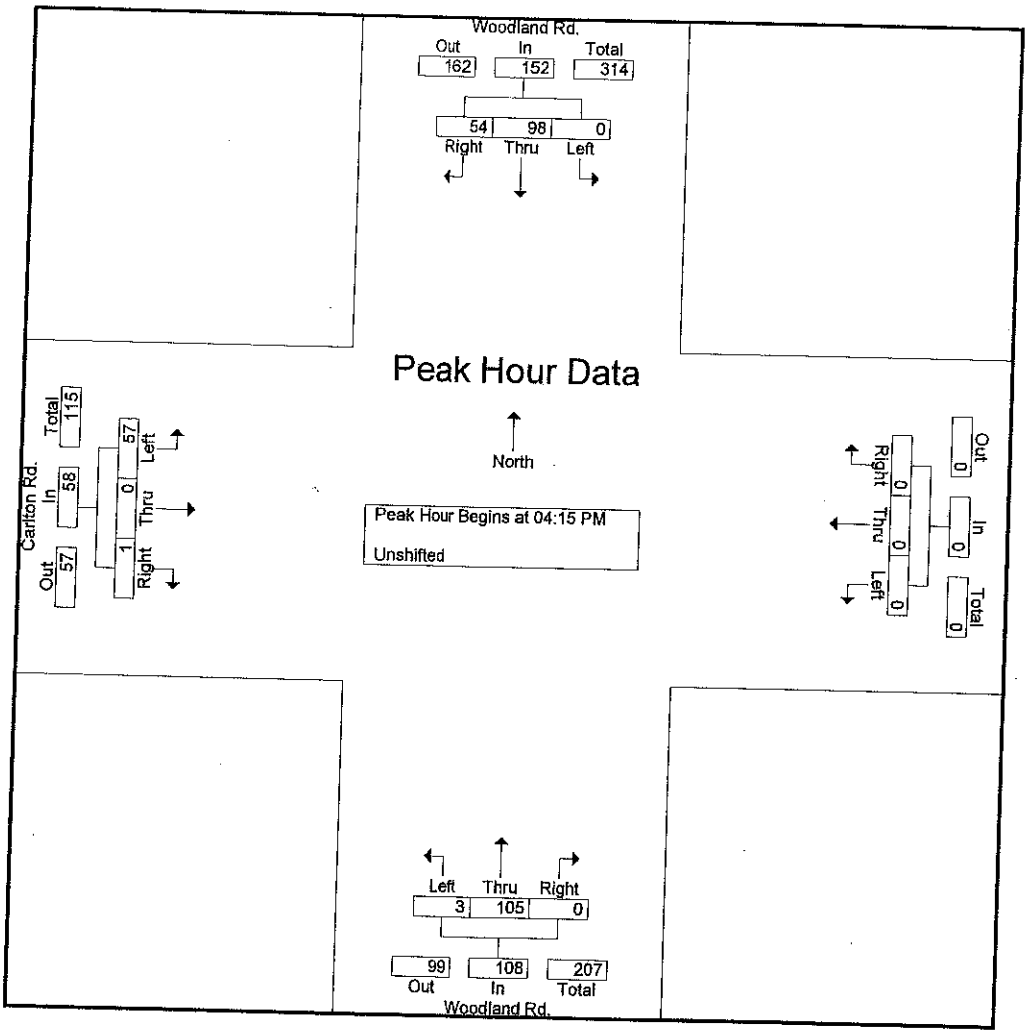
File Name : SACRWR
Site Code : 00000012
Start Date : 5/21/2005
Page No : 2



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Woodland Rd. & Carlton Rd.

File Name : SACRWR
Site Code : 00000012
Start Date : 5/21/2005
Page No : 3

	Woodland Rd. Southbound				Westbound				Woodland Rd. Northbound				Carlton Rd. Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	0	**28**	**16**	**44**	0	0	0	0	**1**	21	0	22	14	0	**1**	15	81
04:30 PM	0	20	12	32	0	0	0	0	1	27	0	28	15	0	0	15	75
04:45 PM	0	22	10	32	0	0	0	0	0	22	0	22	11	0	0	11	65
05:00 PM	0	28	16	44	0	0	0	0	1	**35**	0	**36**	**17**	0	0	**17**	**97**
Total Volume	0	98	54	152	0	0	0	0	3	105	0	108	57	0	1	58	318
% App. Total	0	64.5	35.5		0	0	0		2.8	97.2	0		98.3	0	1.7		
PHF	.000	.875	.844	.864	.000	.000	.000	.000	.750	.750	.000	.750	.838	.000	.250	.853	.820



Traffic Planning & Design, Inc.
2500 E High St. Suite 650
Pottstown, PA 19464
Route 940 & Carlton Rd./Resort Driveway

Counter: 2
Counted By: J. Janos
Weather: clear
Saved As: SA940CR

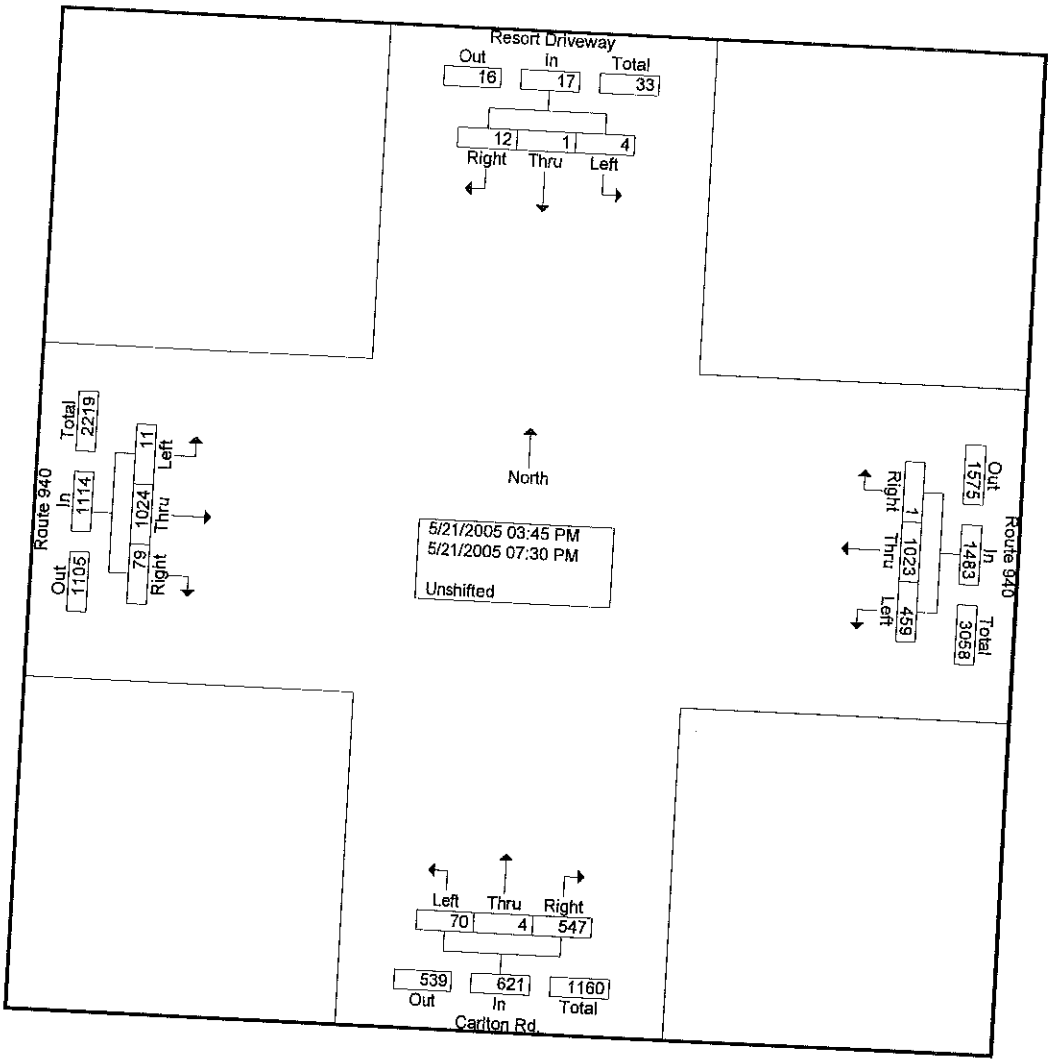
File Name : SA940CR
Site Code : 00000000
Start Date : 5/21/2005
Page No : 1

Groups Printed- Unshifted

	Resort Driveway Southbound					Route 940 Westbound					Carlton Rd. Northbound					Route 940 Eastbound							
Start Time	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
03:45 PM	0	0	1	0	1	29	78	0	0	107	7	0	34	0	41	4	74	2	0	80	0	229	229
Total	0	0	1	0	1	29	78	0	0	107	7	0	34	0	41	4	74	2	0	80	0	229	229
04:00 PM	0	1	0	0	1	33	67	0	0	100	7	1	40	0	48	0	70	3	0	73	0	222	222
04:15 PM	1	0	0	0	1	35	80	0	0	115	2	0	26	0	28	1	57	6	0	64	0	208	208
04:30 PM	0	0	2	0	2	25	76	0	0	101	4	0	38	0	42	1	58	0	0	59	0	204	204
04:45 PM	0	0	2	0	2	33	73	0	0	106	5	0	29	0	34	1	76	5	0	82	0	224	224
Total	1	1	4	0	6	126	296	0	0	422	18	1	133	0	152	3	261	14	0	278	0	858	858
05:00 PM	0	0	2	0	2	42	62	0	0	104	5	1	51	0	57	0	82	5	0	87	0	250	250
05:15 PM	0	0	0	0	0	17	65	0	0	82	5	0	30	0	35	1	69	7	0	77	0	194	194
05:30 PM	1	0	0	0	1	22	63	1	0	86	2	1	34	1	37	0	63	12	0	75	1	199	200
05:45 PM	0	0	3	0	3	23	56	0	0	79	5	0	34	0	39	0	68	4	0	72	0	193	193
Total	1	0	5	0	6	104	246	1	0	351	17	2	149	1	168	1	282	28	0	311	1	836	837
06:00 PM	0	0	0	0	0	34	62	0	0	96	4	0	27	0	31	0	63	6	0	69	0	196	196
06:15 PM	1	0	0	0	1	29	58	0	0	87	3	0	29	0	32	1	68	5	0	74	0	194	194
06:30 PM	1	0	0	0	1	35	65	0	0	100	4	0	42	0	46	0	67	6	0	73	0	220	220
06:45 PM	0	0	1	0	1	11	55	0	0	66	7	0	43	0	50	1	44	1	0	46	0	163	163
Total	2	0	1	0	3	109	240	0	0	349	18	0	141	0	159	2	242	18	0	262	0	773	773
07:00 PM	0	0	0	0	0	33	62	0	0	95	4	1	33	0	38	0	63	3	0	66	0	199	199
07:15 PM	0	0	1	0	1	32	48	0	0	80	2	0	33	0	35	1	52	5	0	58	0	174	174
07:30 PM	0	0	0	0	0	26	53	0	0	79	4	0	24	0	28	0	50	9	0	59	0	166	166
Grand Total	4	1	12	0	17	459	1023	1	0	1483	70	4	547	1	621	11	1024	79	0	1114	1	3235	3236
Apprch %	23.5	5.9	70.6			31	69	0.1			11.3	0.6	88.1			1	91.9	7.1					
Total %	0.1	0	0.4		0.5	14.2	31.6	0		45.8	2.2	0.1	16.9		19.2	0.3	31.7	2.4		34.4	0	100	

Traffic Planning & Design, Inc.
2500 E High St. Suite 650
Pottstown, PA 19464
Route 940 & Carlton Rd./Resort Driveway

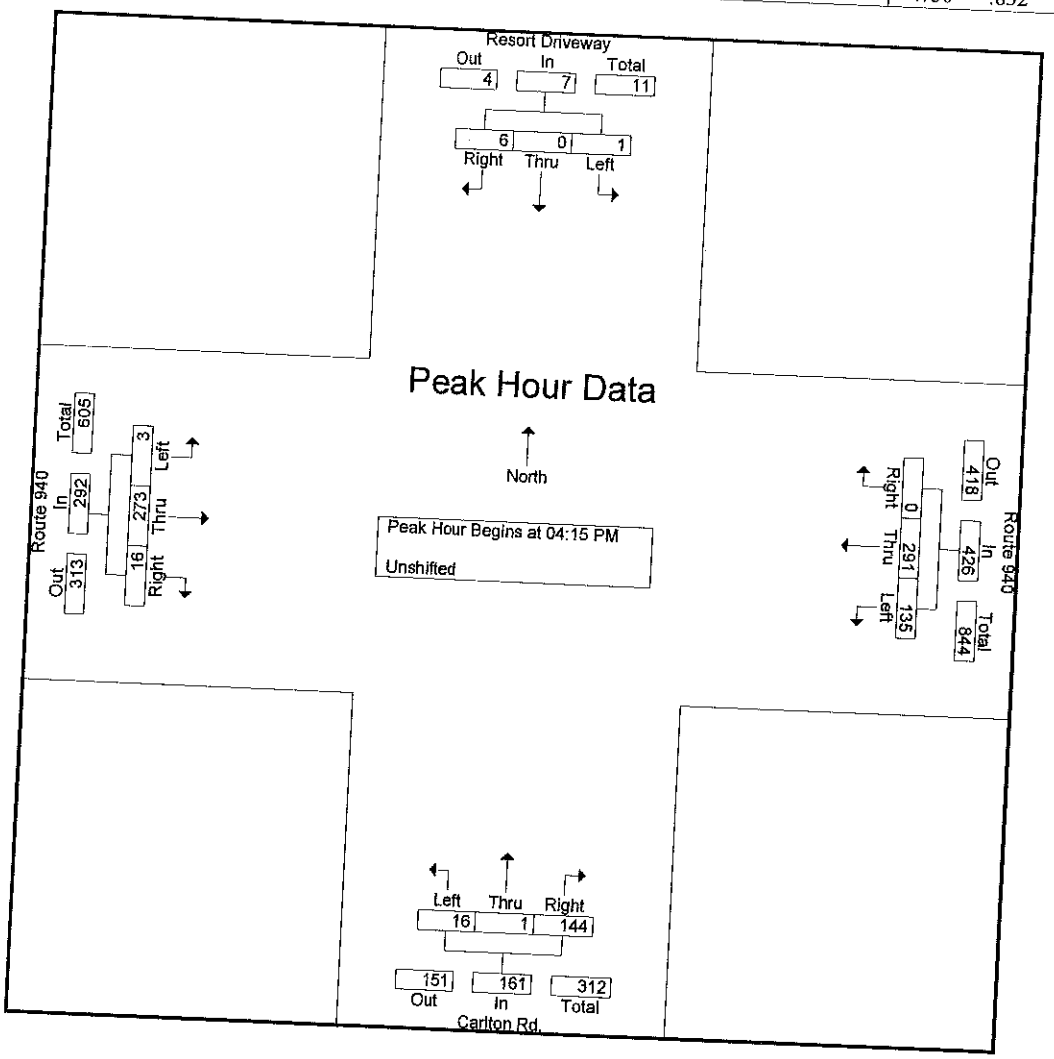
File Name : SA940CR
Site Code : 00000000
Start Date : 5/21/2005
Page No : 2



Traffic Planning & Design, Inc.
2500 E High St. Suite 650
Pottstown, PA 19464
Route 940 & Carlton Rd./Resort Driveway

File Name : SA940CR
Site Code : 00000000
Start Date : 5/21/2005
Page No : 3

	Resort Driveway Southbound				Route 940 Westbound				Carlton Rd. Northbound				Route 940 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:45 PM to 07:30 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	1	0	0	1	35	**80**	0	**115**	2	0	26	28	**1**	57	**6**	64	208
04:30 PM	0	0	**2**	**2**	25	76	0	101	4	0	38	42	1	58	0	59	204
04:45 PM	0	0	2	2	33	73	0	106	**5**	0	29	34	1	76	5	82	224
05:00 PM	0	0	2	2	**42**	62	0	104	5	**1**	**51**	**57**	0	**82**	5	**87**	**250**
Total Volume	1	0	6	7	135	291	0	426	16	1	144	161	3	273	16	292	886
% App. Total	14.3	0	85.7		31.7	68.3	0		9.9	0.6	89.4		1	93.5	5.5		
PHF	.250	.000	.750	.875	.804	.909	.000	.926	.800	.250	.706	.706	.750	.832	.667	.839	.886



Counter: 30
Counted By: C. Kent
Weather: clear
Saved As: SA390940

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 940 & Route 390

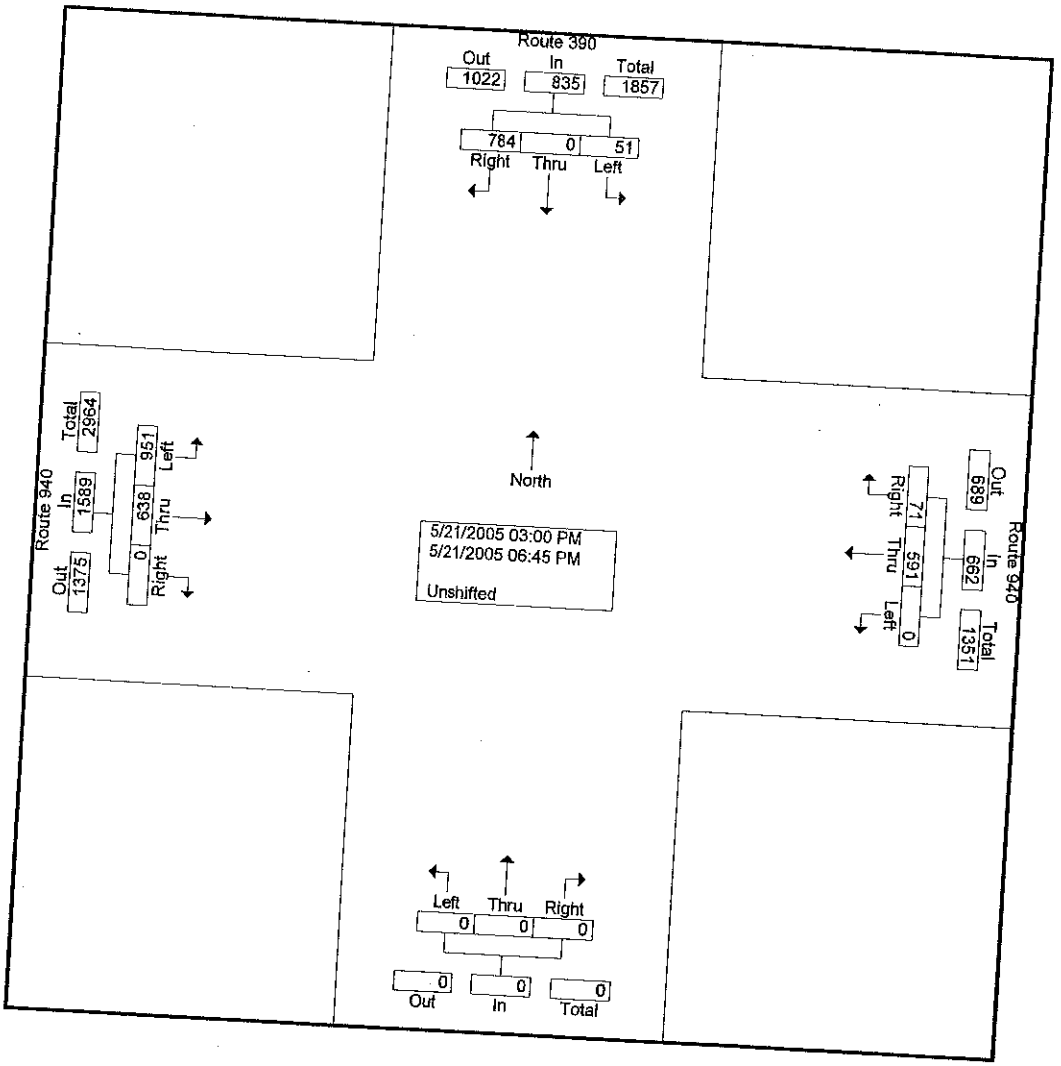
File Name : SA390940
Site Code : 00000000
Start Date : 5/21/2005
Page No : 1

Groups Printed- Unshifted

	Route 390 Southbound					Route 940 Westbound					Northbound					Route 940 Eastbound							
Start Time	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
03:00 PM	2	0	67	4	69	0	31	2	1	33	0	0	0	0	0	72	32	0	0	104	5	206	211
03:15 PM	5	0	59	0	64	0	37	4	1	41	0	0	0	0	0	69	31	0	1	100	2	205	207
03:30 PM	1	0	44	2	45	0	35	3	0	38	0	0	0	0	0	59	34	0	2	93	4	176	180
03:45 PM	3	0	51	4	54	0	49	6	1	55	0	0	0	0	0	61	39	0	3	100	8	209	217
Total	11	0	221	10	232	0	152	15	3	167	0	0	0	0	0	261	136	0	6	397	19	796	815
04:00 PM	1	0	48	3	49	0	27	5	0	32	0	0	0	0	0	63	40	0	3	103	6	184	190
04:15 PM	3	0	51	1	54	0	41	1	0	42	0	0	0	0	0	52	38	0	0	90	1	186	187
04:30 PM	1	0	46	0	47	0	44	1	1	45	0	0	0	0	0	54	45	0	2	99	3	191	194
04:45 PM	18	0	59	1	77	0	47	3	1	50	0	0	0	0	0	45	53	0	1	98	3	225	228
Total	23	0	204	5	227	0	159	10	2	169	0	0	0	0	0	214	176	0	6	390	13	786	799
05:00 PM	6	0	73	2	79	0	27	3	2	30	0	0	0	0	0	81	53	0	8	134	12	243	255
05:15 PM	3	0	40	1	43	0	33	4	1	37	0	0	0	0	0	55	39	0	1	94	3	174	177
05:30 PM	1	0	33	0	34	0	33	2	0	35	0	0	0	0	0	58	32	0	0	90	0	159	159
05:45 PM	6	0	50	1	56	0	27	8	3	35	0	0	0	0	0	62	43	0	3	105	7	196	203
Total	16	0	196	4	212	0	120	17	6	137	0	0	0	0	0	256	167	0	12	423	22	772	794
06:00 PM	0	0	46	4	46	0	39	1	1	40	0	0	0	0	0	52	32	0	1	84	6	170	176
06:15 PM	0	0	44	0	44	0	35	5	1	40	0	0	0	0	0	47	45	0	1	92	2	176	178
06:30 PM	0	0	50	2	50	0	39	17	0	56	0	0	0	0	0	67	40	0	1	107	3	213	216
06:45 PM	1	0	23	1	24	0	47	6	0	53	0	0	0	0	0	54	42	0	0	96	1	173	174
Total	1	0	163	7	164	0	160	29	2	189	0	0	0	0	0	220	159	0	3	379	12	732	744
Grand Total	51	0	784	26	835	0	591	71	13	662	0	0	0	0	0	951	638	0	27	1589	66	3086	3152
Apprch %	6.1	0	93.9			0	89.3	10.7			0	0	0			59.8	40.2	0					
Total %	1.7	0	25.4		27.1	0	19.2	2.3		21.5	0	0	0		0	30.8	20.7	0		51.5	2.1	97.9	

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 940 & Route 390

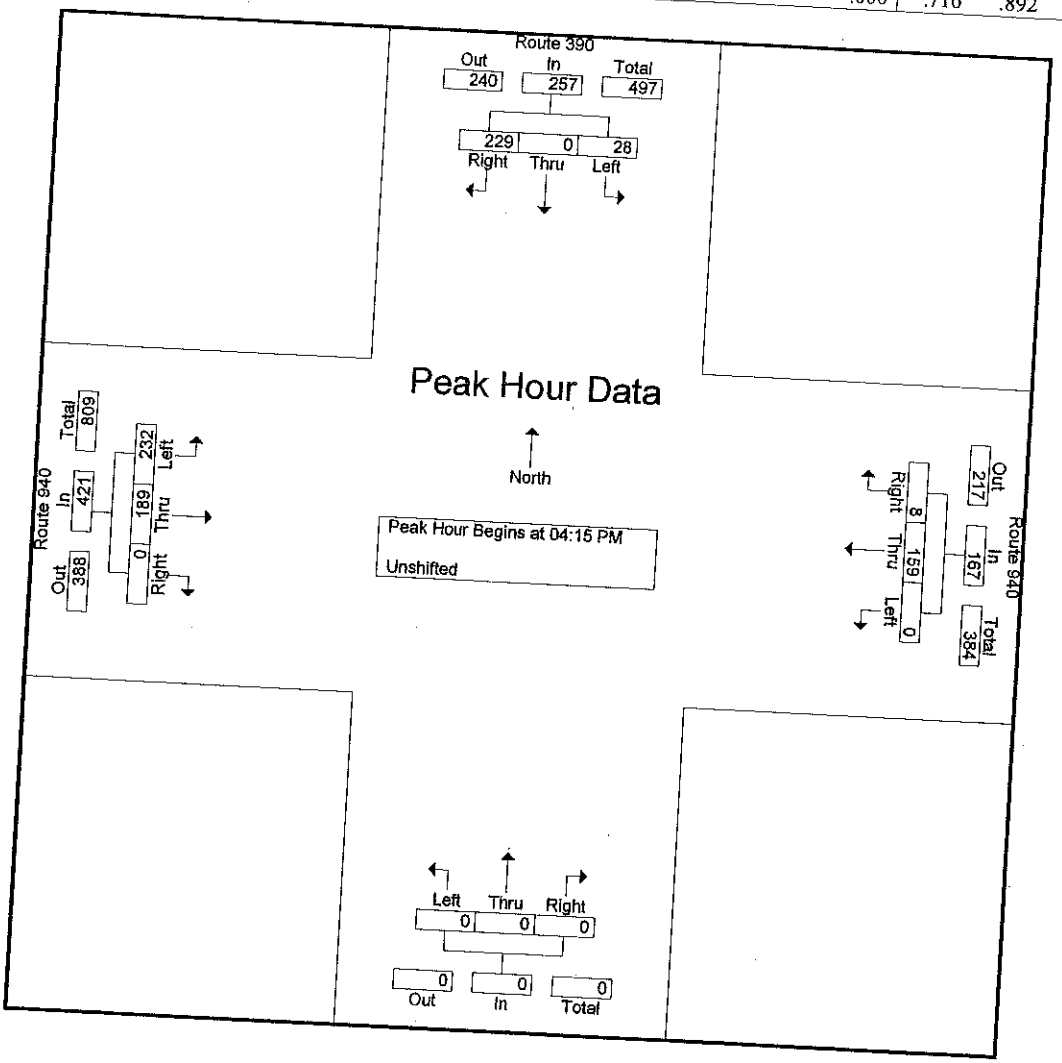
File Name : SA390940
Site Code : 00000000
Start Date : 5/21/2005
Page No : 2



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Route 940 & Route 390

File Name : SA390940
Site Code : 00000000
Start Date : 5/21/2005
Page No : 3

	Route 390 Southbound				Route 940 Westbound				Northbound				Route 940 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:15 PM																	
04:15 PM	3	0	51	54	0	41	1	42	0	0	0	0	52	38	0	90	186
04:30 PM	1	0	46	47	0	44	1	45	0	0	0	0	54	45	0	99	191
04:45 PM	**18**	0	59	77	0	**47**	**3**	**50**	0	0	0	0	45	**53**	0	98	225
05:00 PM	6	0	**73**	**79**	0	27	3	30	0	0	0	0	**81**	53	0	**134**	**243**
Total Volume	28	0	229	257	0	159	8	167	0	0	0	0	232	189	0	421	845
% App. Total	10.9	0	89.1		0	95.2	4.8		0	0	0		55.1	44.9	0		
PHF	.389	.000	.784	.813	.000	.846	.667	.835	.000	.000	.000	.000	.716	.892	.000	.785	.869



Traffic Planning & Design, Inc.
2500 E. High St. Suite 650
Pottstown, PA 19464

Roue 940 & Route 191/Red Rock Rd.

Counter: IMC 001
Counted By: C. Kent
Weather: overcast
Saved As: SA191940

File Name : SA191940
Site Code : 00011111
Start Date : 6/18/2005
Page No : 1

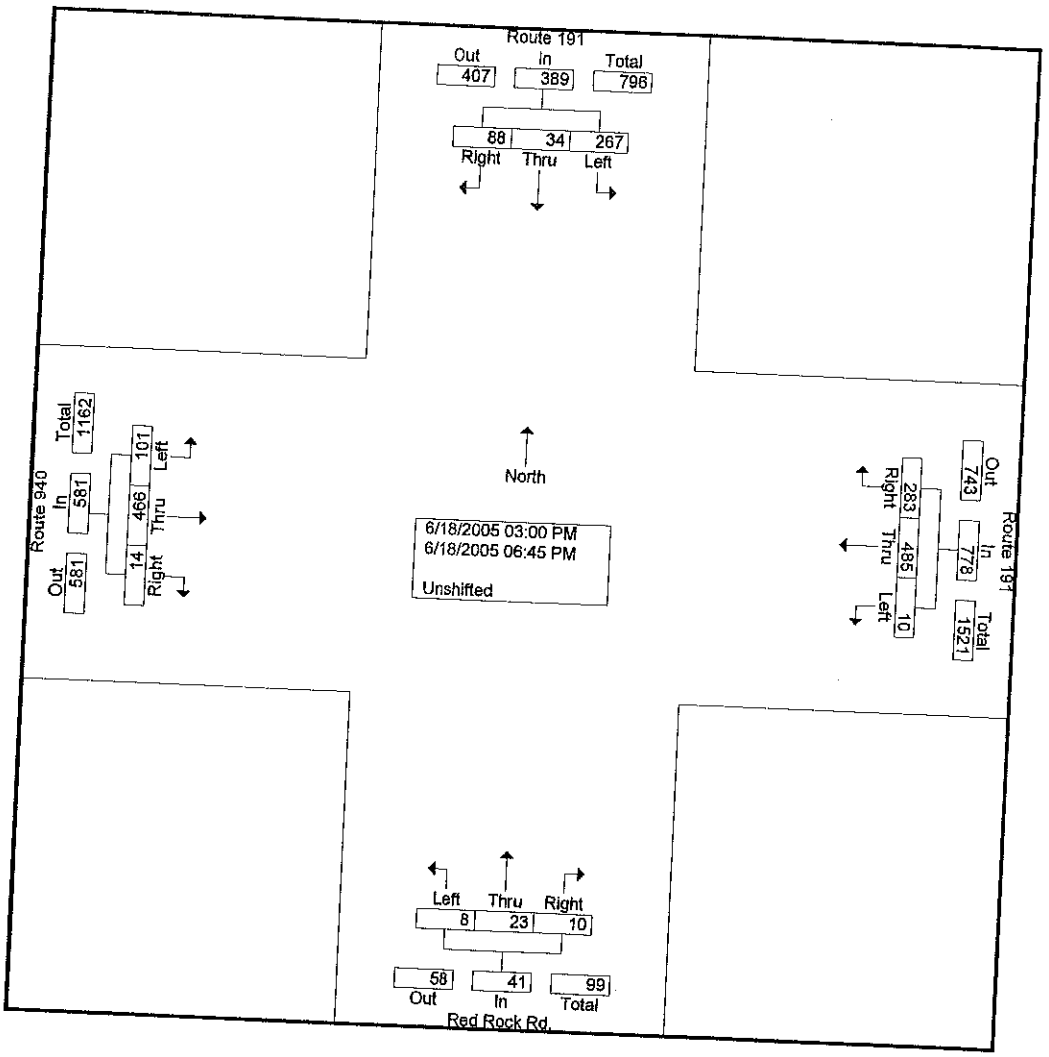
Groups Printed- Unshifted

	Route 191 Southbound					Route 191 Westbound					Red Rock Rd. Northbound					Route 940 Eastbound							
Start Time	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
03:00 PM	33	4	7	1	44	0	18	19	0	37	1	1	0	0	2	6	31	1	1	38	2	121	123
03:15 PM	9	4	6	0	19	0	27	24	0	51	0	0	0	0	0	5	24	1	2	30	2	100	102
03:30 PM	21	0	5	1	26	0	29	22	1	51	0	0	1	0	1	7	27	0	0	34	2	112	114
03:45 PM	21	0	3	0	24	0	17	23	0	40	0	1	1	0	2	5	23	0	0	28	0	94	94
Total	84	8	21	2	113	0	91	88	1	179	1	2	2	0	5	23	105	2	3	130	6	427	433
04:00 PM	9	1	4	0	14	2	39	14	2	55	0	1	0	0	1	8	31	3	2	42	4	112	116
04:15 PM	16	5	6	0	27	2	43	21	2	66	1	1	1	0	3	4	38	0	0	42	2	138	140
04:30 PM	9	0	4	0	13	0	40	19	0	59	0	0	1	0	1	8	18	0	1	26	1	99	100
04:45 PM	17	3	9	0	29	0	41	16	1	57	1	3	1	0	5	15	29	1	1	45	2	136	138
Total	51	9	23	0	83	4	163	70	5	237	2	5	3	0	10	35	116	4	4	155	9	485	494
05:00 PM	17	0	7	1	24	0	27	9	1	36	0	0	0	0	0	3	33	1	0	37	2	97	99
05:15 PM	11	4	6	1	21	1	40	17	1	58	2	1	1	0	4	5	37	2	2	44	4	127	131
05:30 PM	19	4	5	0	28	3	40	24	2	67	0	0	0	0	0	3	31	0	1	34	3	129	132
05:45 PM	23	2	0	2	25	0	28	18	0	46	0	1	0	0	1	4	31	2	0	37	2	109	111
Total	70	10	18	4	98	4	135	68	4	207	2	2	1	0	5	15	132	5	3	152	11	462	473
06:00 PM	18	0	1	0	19	1	22	11	0	34	2	1	2	2	5	6	36	0	0	42	2	100	102
06:15 PM	10	5	11	1	26	0	27	18	1	45	0	4	1	0	5	9	29	1	0	39	2	115	117
06:30 PM	20	1	7	1	28	1	23	15	0	39	1	8	0	0	9	7	24	1	0	32	1	108	109
06:45 PM	14	1	7	0	22	0	24	13	0	37	0	1	1	0	2	6	24	1	1	31	1	92	93
Total	62	7	26	2	95	2	96	57	1	155	3	14	4	2	21	28	113	3	1	144	6	415	421
Grand Total	267	34	88	8	389	10	485	283	11	778	8	23	10	2	41	101	466	14	11	581	32	1789	1821
Apprch %	68.6	8.7	22.6			1.3	62.3	36.4			19.5	56.1	24.4			17.4	80.2	2.4					
Total %	14.9	1.9	4.9		21.7	0.6	27.1	15.8		43.5	0.4	1.3	0.6		2.3	5.6	26	0.8		32.5	1.8	98.2	

Traffic Planning & Design, Inc.
2500 E. High St. Suite 650
Pottstown, PA 19464

Roue 940 & Route 191/Red Rock Rd.

File Name : SA191940
Site Code : 00011111
Start Date : 6/18/2005
Page No : 2

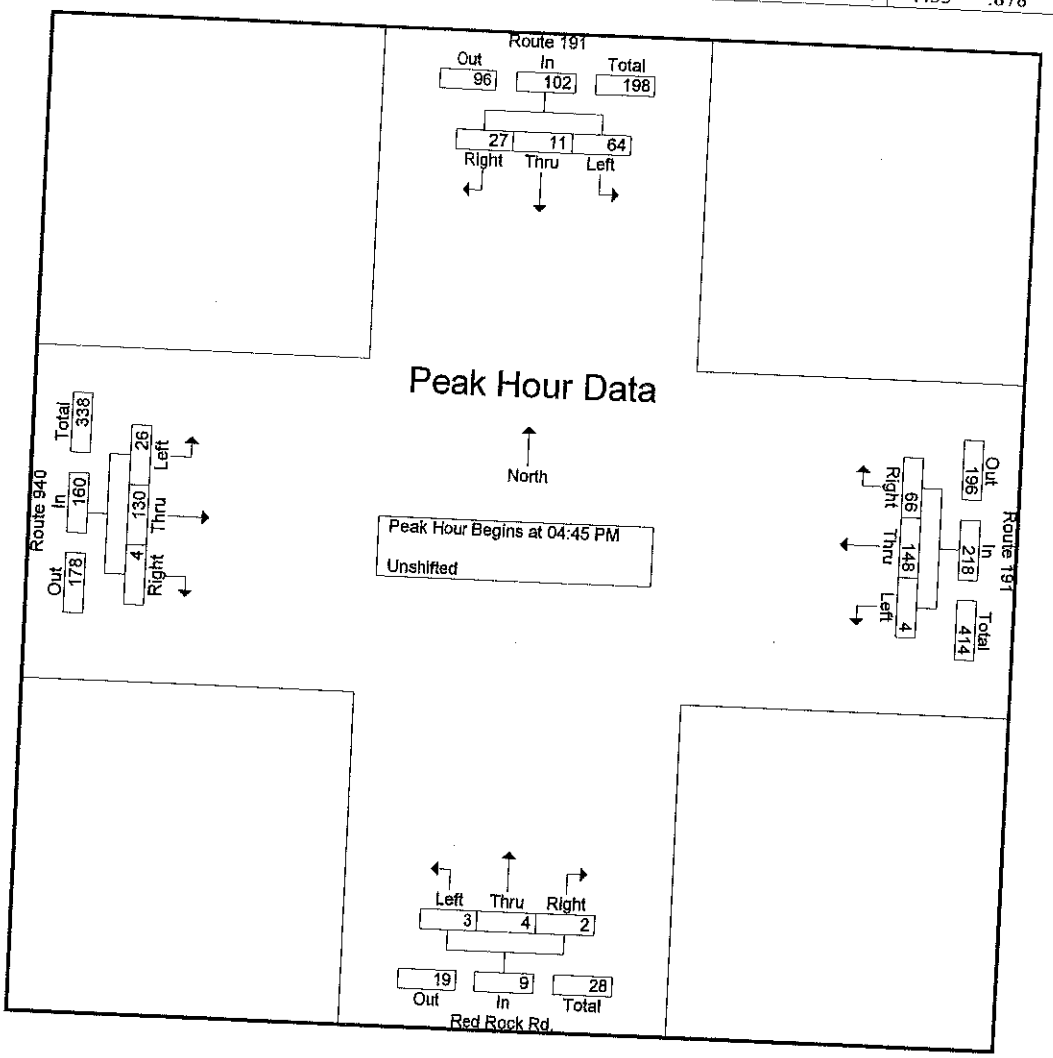


Traffic Planning & Design, Inc.
2500 E. High St. Suite 650
Pottstown, PA 19464

Roue 940 & Route 191/Red Rock Rd.

File Name : SA191940
Site Code : 00011111
Start Date : 6/18/2005
Page No : 3

	Route 191 Southbound				Route 191 Westbound				Red Rock Rd. Northbound				Route 940 Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 03:00 PM to 06:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:45 PM																	
04:45 PM	17	3	9	29	0	41	16	57	1	3	1	5	15	29	1	45	136
05:00 PM	17	0	7	24	0	27	9	36	0	0	0	0	3	33	1	37	97
05:15 PM	11	4	6	21	1	40	17	58	2	1	1	4	5	37	2	44	127
05:30 PM	19	4	5	28	3	40	24	67	0	0	0	0	3	31	0	34	129
Total Volume	64	11	27	102	4	148	66	218	3	4	2	9	26	130	4	160	489
% App. Total	62.7	10.8	26.5		1.8	67.9	30.3		33.3	44.4	22.2		16.2	81.2	2.5		
PHF	.842	.688	.750	.879	.333	.902	.688	.813	.375	.333	.500	.450	.433	.878	.500	.889	.899



ITMS DATA SHEETS

iTMS

Close

Print

SITE NO: 14129

County	Route	Dir	Current Average Daily Traffic	Current Average Daily Truck Volume
MONROE (45)	0611	N	6707	671
K Factor	**D Factor**	**T Factor**	**Truck Percent**	**Base Traffic Year**
8	50	5	10	2003

Traffic Pattern Group
NORTH RURAL - MINOR ARTERIALS

Online VideoLog

Fast(Cable, T1, DSL) Slow (Dial-up)

iTMS

Close

Print

SITE NO: 14129

County	Route	Dir	Current Average Daily Traffic	Current Average Daily Truck Volume
MONROE (45)	0611	S	7983	798
K Factor	**D Factor**	**T Factor**	**Truck Percent**	**Base Traffic Year**
8	50	5	10	2003

Traffic Pattern Group
CENTRAL RURAL- MINOR ARTERIALS

Online VideoLog

Fast(Cable, T1, DSL) Slow (Dial-up)

iTMS

Close

Print

SITE NO: 6914

County	Route	Dir	Current Average Daily Traffic	Current Average Daily Truck Volume
MONROE (45)	1013	B	2552	255
K Factor	**D Factor**	**T Factor**	**Truck Percent**	**Base Traffic Year**
12	55	5	10	2002

Traffic Pattern Group

NORTH RURAL - COLLECTORS AND LOCAL ROADS

Online VideoLog

Fast(Cable, T1, DSL) Slow (Dial-up)

iTMS

Close

Print

SITE NO: 37994

County	Route	Dir	Current Average Daily Traffic	Current Average Daily Truck Volume
MONROE (45)	0314	B	546	55
K Factor	**D Factor**	**T Factor**	**Truck Percent**	**Base Traffic Year**
12	55	5	10	1999

Traffic Pattern Group

CENTRAL RURAL- COLLECTORS AND LOCAL ROADS

Online VideoLog

Fast(Cable, T1, DSL) Slow (Dial-up)

iTMS

Close

Print

SITE NO: 13385

County	Route	Dir	Current Average Daily Traffic	Current Average Daily Truck Volume
MONROE (45)	0314	B	3529	106
K Factor	**D Factor**	**T Factor**	**Truck Percent**	**Base Traffic Year**
11	55	2	3	2003

Traffic Pattern Group

CENTRAL RURAL- COLLECTORS AND LOCAL ROADS

Online VideoLog

Fast(Cable, T1, DSL) Slow (Dial-up)

iTMS

Close

Print

SITE NO: 3809

County	Route	Dir	Current Average Daily Traffic	Current Average Daily Truck Volume
MONROE (45)	1011	B	3268	169
K Factor	**D Factor**	**T Factor**	**Truck Percent**	**Base Traffic Year**
10	60	5	5	2004

Traffic Pattern Group

CENTRAL RURAL- COLLECTORS AND LOCAL ROADS

Online VideoLog

Fast(Cable, T1, DSL) Slow (Dial-up)

iTMS

Close

Print

SITE NO: 6980

County	Route	Dir	Current Average Daily Traffic	Current Average Daily Truck Volume
MONROE (45)	0940	B	7769	388
K Factor	**D Factor**	**T Factor**	**Truck Percent**	**Base Traffic Year**
12	55	3	5	2001

Traffic Pattern Group
NORTH RURAL - MINOR ARTERIALS

Online VideoLog

Fast(Cable, T1, DSL) Slow (Dial-up)

iTMS

Close

Print

SITE NO: 13661

County	Route	Dir	Current Average Daily Traffic	Current Average Daily Truck Volume
MONROE (45)	0390	B	7124	510
K Factor	**D Factor**	**T Factor**	**Truck Percent**	**Base Traffic Year**
10	55	8	7	2004

Traffic Pattern Group
NORTH RURAL - MINOR ARTERIALS

Online VideoLog

Fast(Cable, T1, DSL) Slow (Dial-up)

Close

Print

SITE NO: 6900

County	Route	Dir	Current Average Daily Traffic	Current Average Daily Truck Volume
MONROE (45)	0191	B	2377	71
K Factor	**D Factor**	**T Factor**	**Truck Percent**	**Base Traffic Year**
12	55	2	3	2002

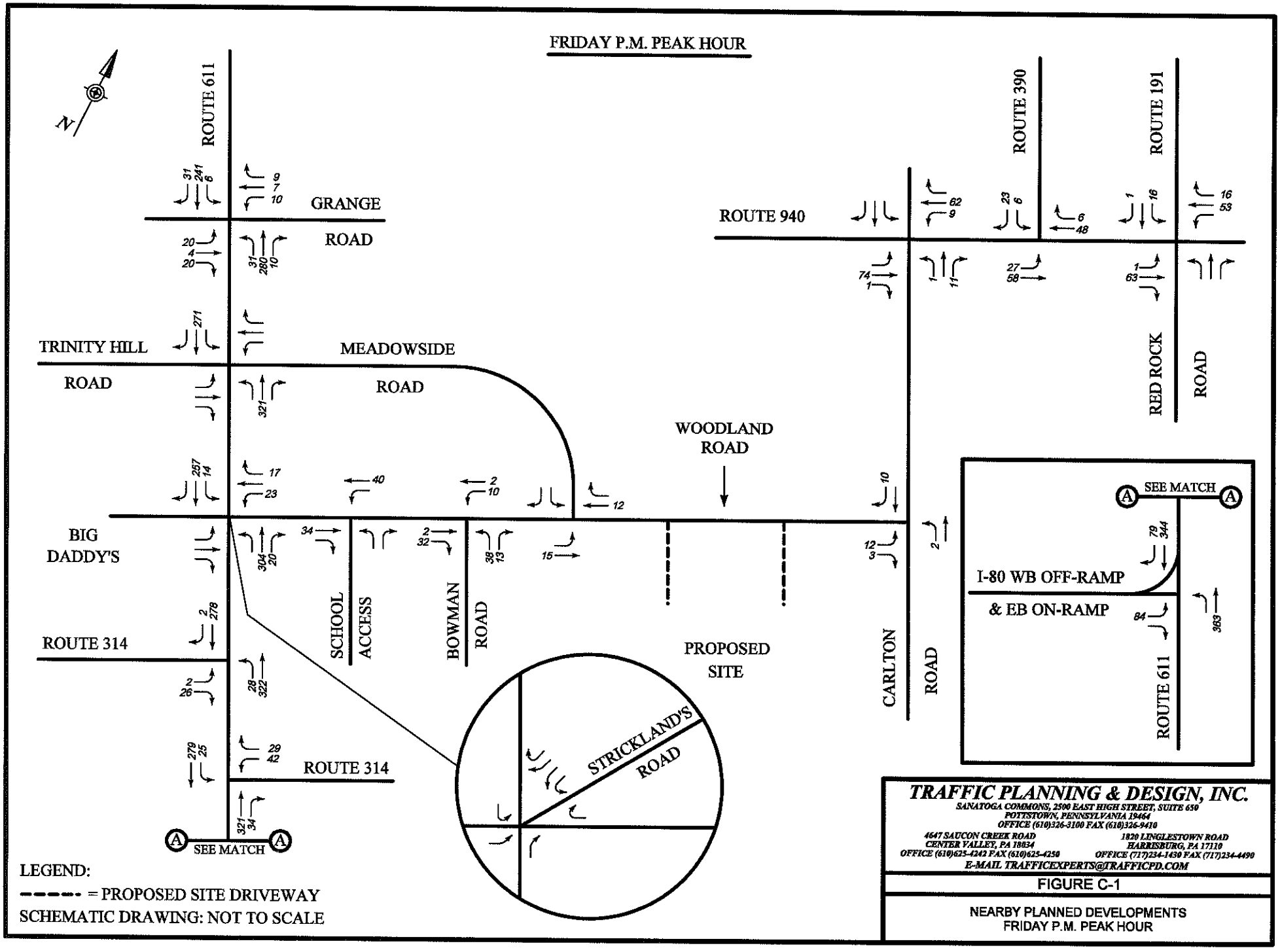
Traffic Pattern Group
NORTH RURAL - MINOR ARTERIALS

Online VideoLog

Fast(Cable, T1, DSL) Slow (Dial-up)

APPENDIX C

TRIP DISTRIBUTIONS: NEARBY PLANNED DEVELOPMENT



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HARRISBURG, PA 17110
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E-MAIL TRAFFICEXPERTS@TRAFFICPD.COM

FIGURE C-1

NEARBY PLANNED DEVELOPMENTS
FRIDAY P.M. PEAK HOUR

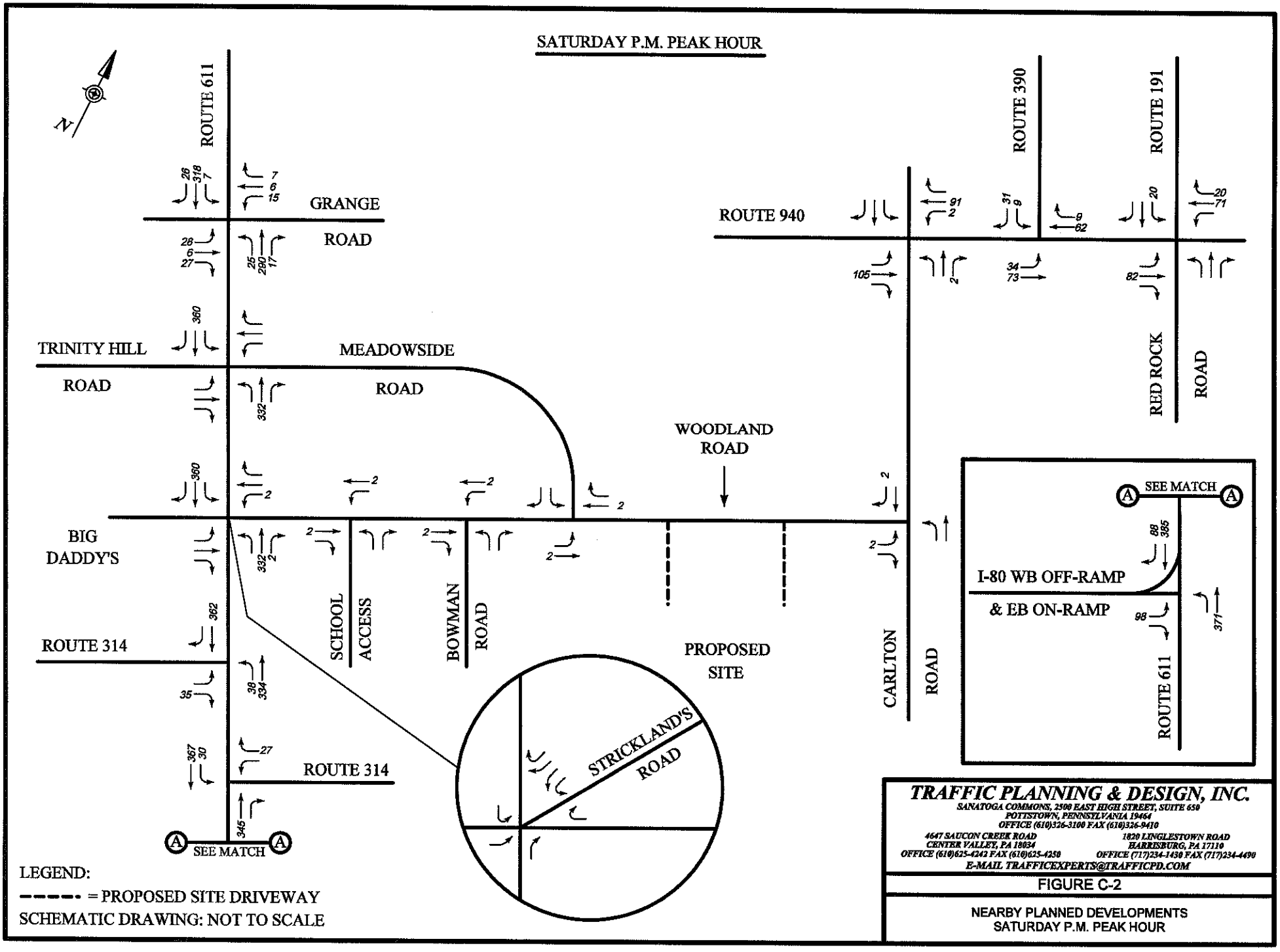

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FIGURE C-2

NEARBY PLANNED DEVELOPMENTS
SATURDAY P.M. PEAK HOUR

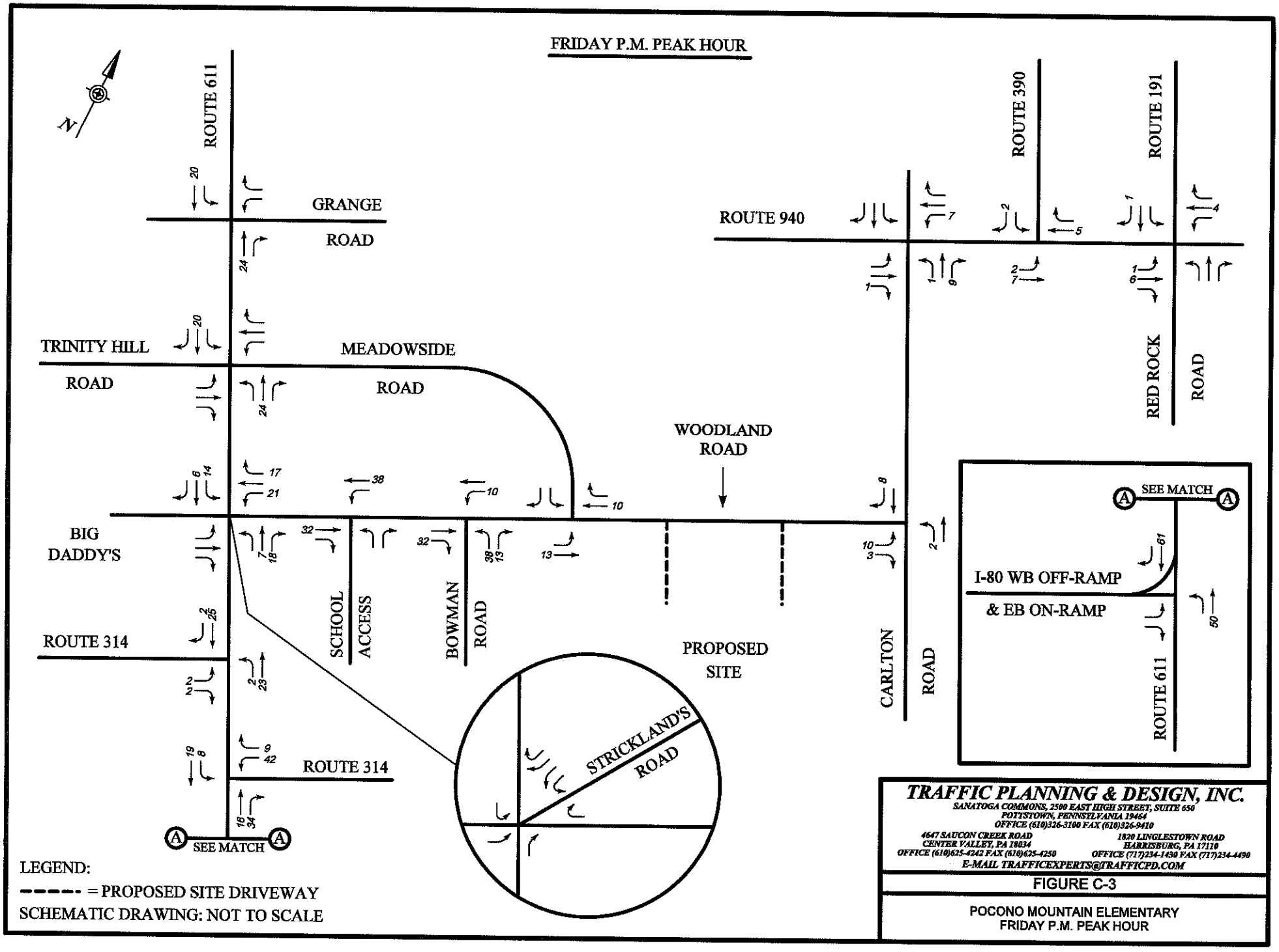
FRIDAY P.M. PEAK HOUR
N
ROUTE 611
GRANGE
ROAD
TRINITY HILL
ROAD
MEADOWSIDE
ROAD
BIG
DADDY'S
ROUTE 314
ROUTE 314
SEE MATCH
SCHOOL
ACCESS
BOWMAN
ROAD
WOODLAND
ROAD
PROPOSED
SITE
STRICKLAND'S
ROAD
ROUTE 940
CARLTON
ROAD
ROUTE 390
ROUTE 191
RED ROCK
ROAD
SEE MATCH
I-80 WB OFF-RAMP
& EB ON-RAMP
ROUTE 611
LEGEND:
= PROPOSED SITE DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE
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FIGURE C-3
POCONO MOUNTAIN ELEMENTARY
FRIDAY P.M. PEAK HOUR

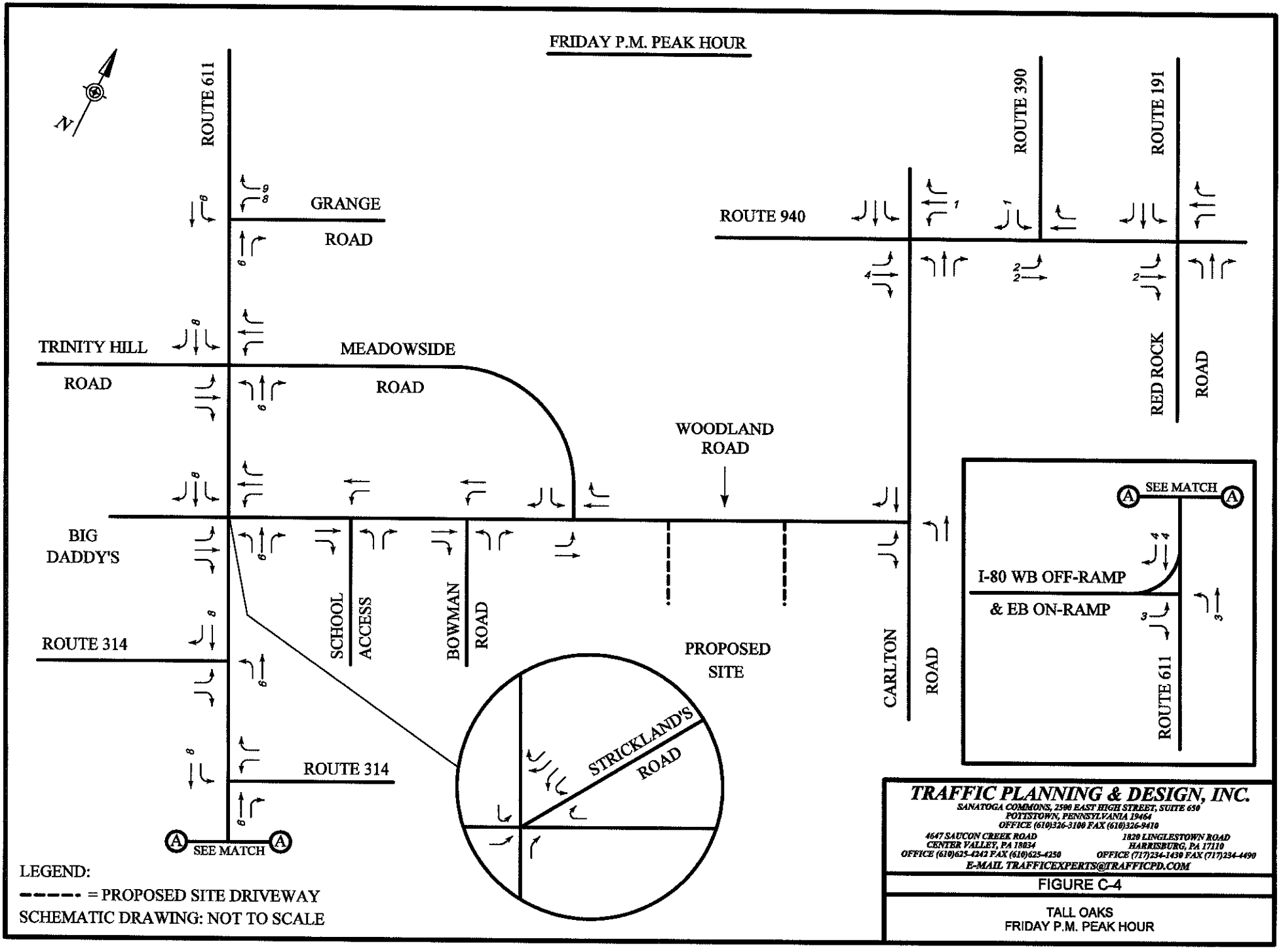
FRIDAY P.M. PEAK HOUR
N
ROUTE 611
GRANGE
ROAD
TRINITY HILL
ROAD
MEADOWSIDE
ROAD
BIG
DADDY'S
ROUTE 314
SCHOOL
ACCESS
BOWMAN
ROAD
WOODLAND
ROAD
PROPOSED
SITE
STRICKLAND'S
ROAD
ROUTE 314
SEE MATCH
A
ROUTE 940
ROUTE 390
ROUTE 191
RED ROCK
ROAD
CARLTON
ROAD
SEE MATCH
I-80 WB OFF-RAMP
& EB ON-RAMP
ROUTE 611
LEGEND:
= PROPOSED SITE DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE
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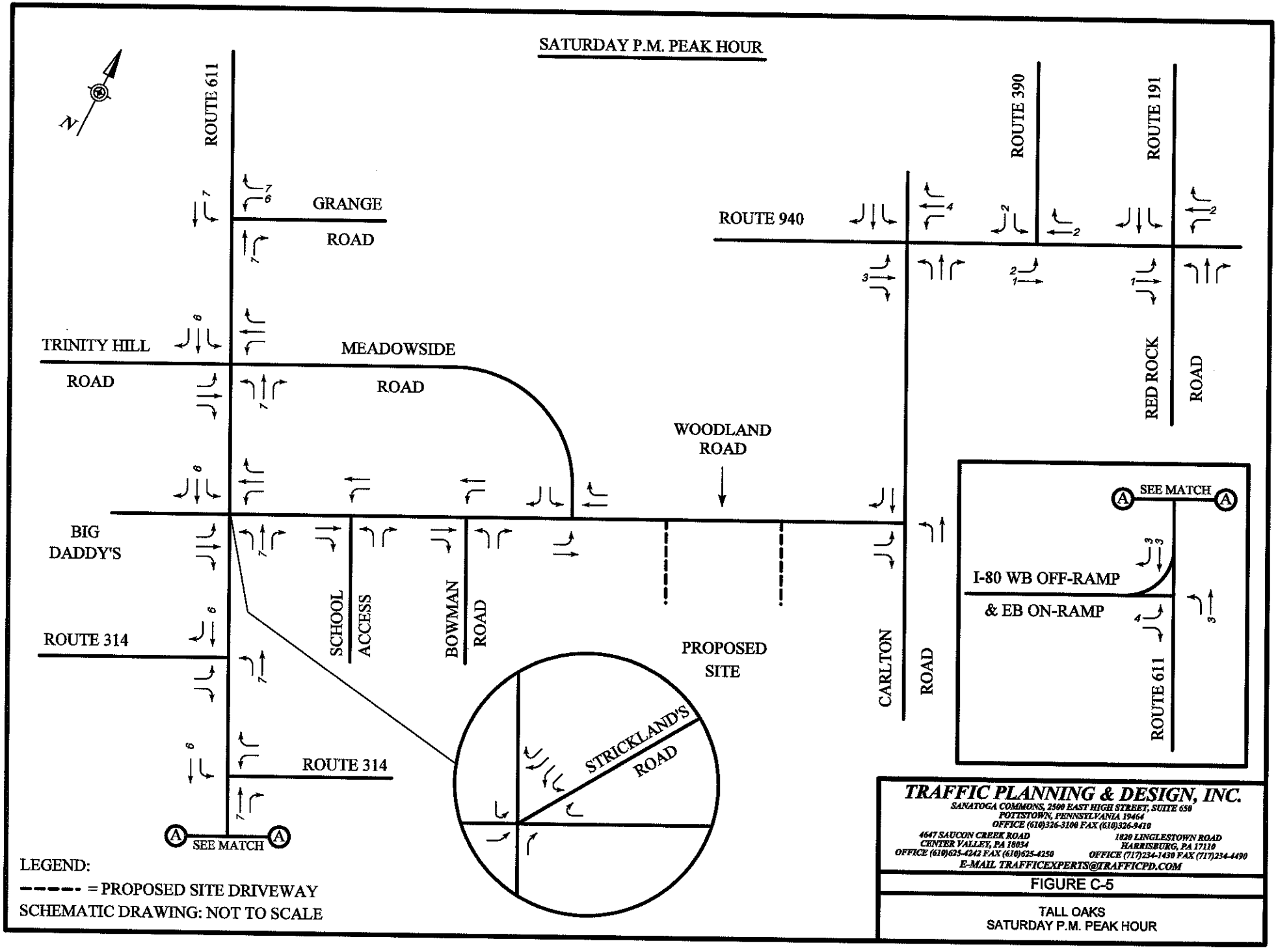
FIGURE C-4
TALL OAKS
FRIDAY P.M. PEAK HOUR


SATURDAY P.M. PEAK HOUR
N
ROUTE 611
GRANGE
ROAD
TRINITY HILL
ROAD
MEADOWSIDE
ROAD
BIG
DADDY'S
ROUTE 314
SCHOOL
ACCESS
BOWMAN
ROAD
WOODLAND
ROAD
PROPOSED
SITE
STRICKLAND'S
ROAD
ROUTE 314
SEE MATCH
A
ROUTE 940
CARLTON
ROAD
ROUTE 390
ROUTE 191
RED ROCK
ROAD
SEE MATCH
I-80 WB OFF-RAMP
& EB ON-RAMP
ROUTE 611
LEGEND:
= PROPOSED SITE DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE
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E-MAIL TRAFFICEXPERTS@TRAFFICPD.COM
FIGURE C-5
TALL OAKS
SATURDAY P.M. PEAK HOUR

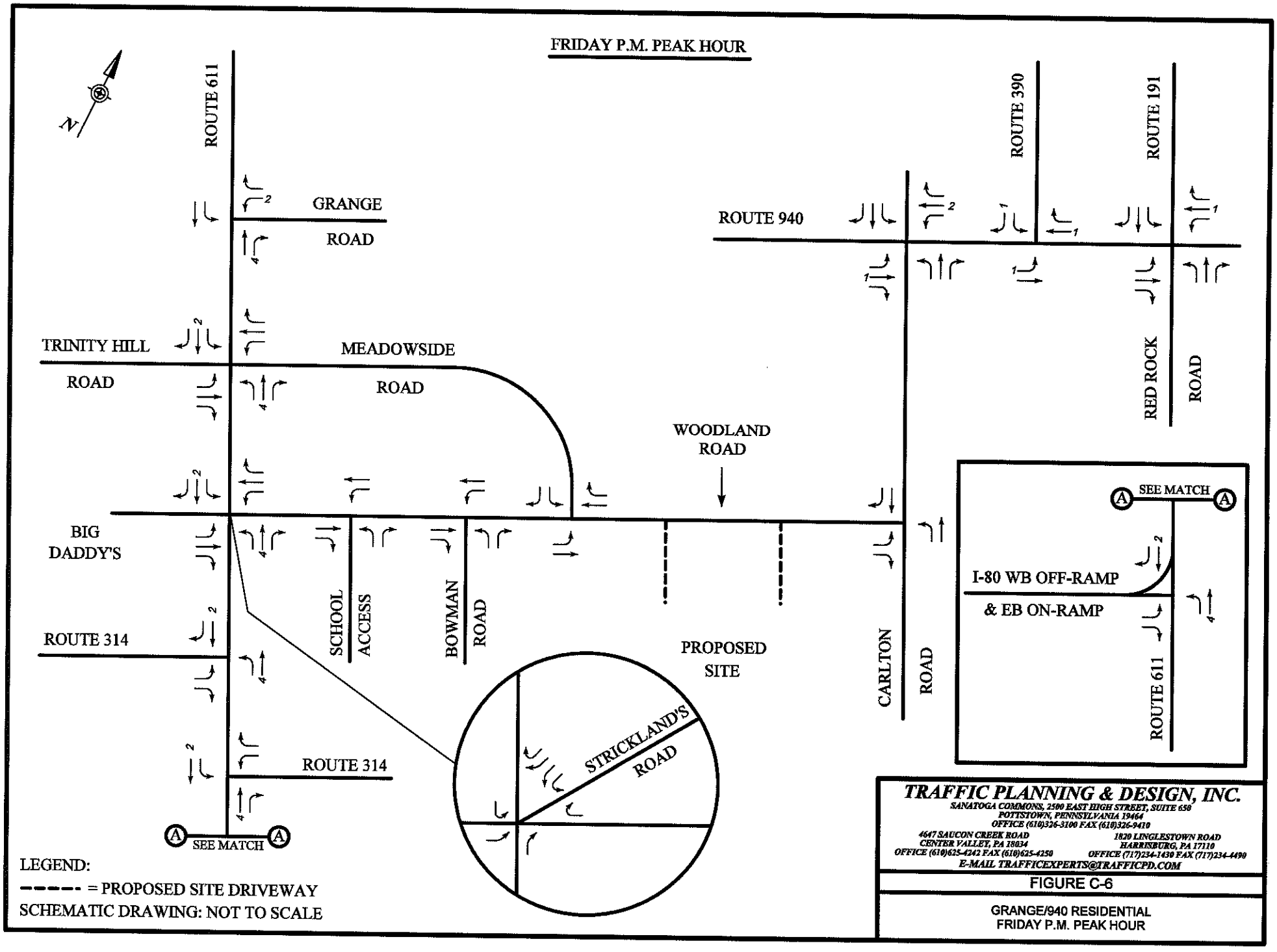
FRIDAY P.M. PEAK HOUR
N
ROUTE 611
GRANGE
ROAD
TRINITY HILL
ROAD
MEADOWSIDE
ROAD
BIG
DADDY'S
ROUTE 314
SCHOOL
ACCESS
BOWMAN
ROAD
WOODLAND
ROAD
PROPOSED
SITE
STRICKLAND'S
ROAD
ROUTE 314
SEE MATCH
A
ROUTE 940
CARLTON
ROAD
ROUTE 390
ROUTE 191
RED ROCK
ROAD
SEE MATCH
I-80 WB OFF-RAMP
& EB ON-RAMP
ROUTE 611
LEGEND:
= PROPOSED SITE DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE
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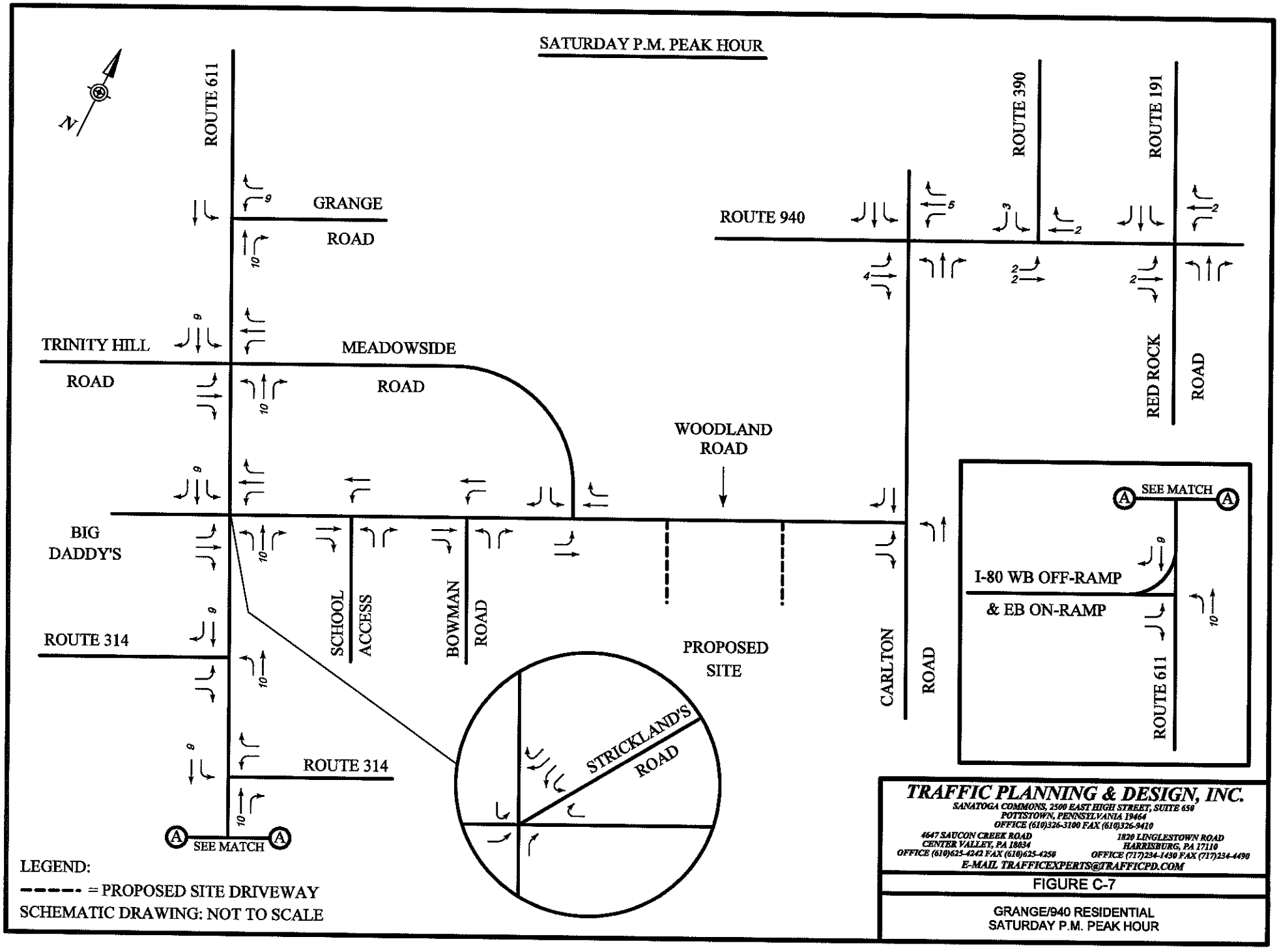
FIGURE C-6
GRANGE/940 RESIDENTIAL
FRIDAY P.M. PEAK HOUR


SATURDAY P.M. PEAK HOUR
N
ROUTE 611
GRANGE
ROAD
TRINITY HILL
ROAD
MEADOWSIDE
ROAD
BIG
DADDY'S
ROUTE 314
SCHOOL
ACCESS
BOWMAN
ROAD
WOODLAND
ROAD
PROPOSED
SITE
STRICKLAND'S
ROAD
ROUTE 314
SEE MATCH
ROUTE 940
CARLTON
ROAD
ROUTE 390
ROUTE 191
RED ROCK
ROAD
SEE MATCH
I-80 WB OFF-RAMP
& EB ON-RAMP
ROUTE 611
LEGEND:
= PROPOSED SITE DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE
TRAFFIC PLANNING & DESIGN, INC.
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E-MAIL TRAFFICEXPERTS@TRAFFICPD.COM
FIGURE C-7
GRANGE/940 RESIDENTIAL
SATURDAY P.M. PEAK HOUR

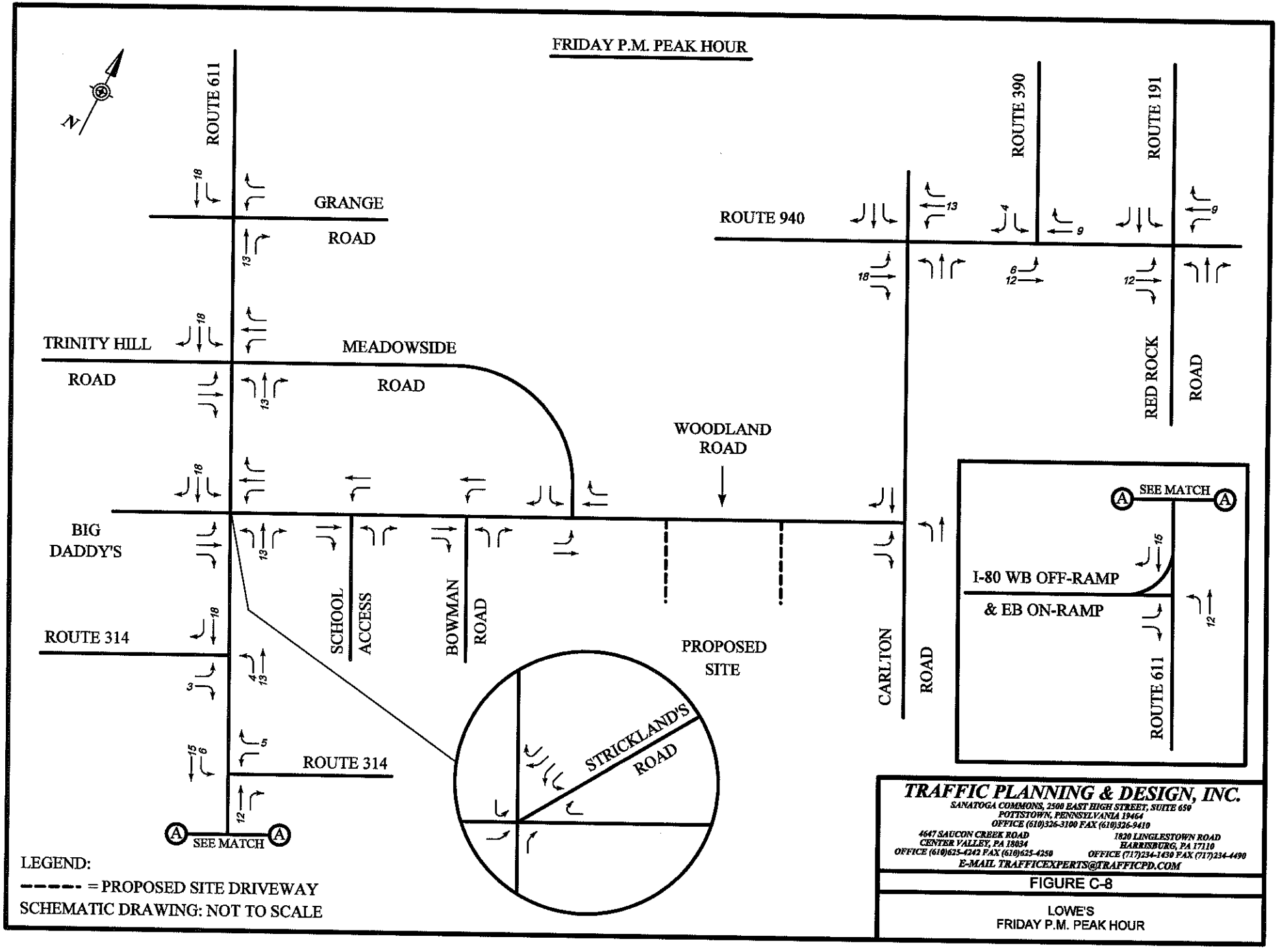

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FIGURE C-8

LOWE'S
FRIDAY P.M. PEAK HOUR

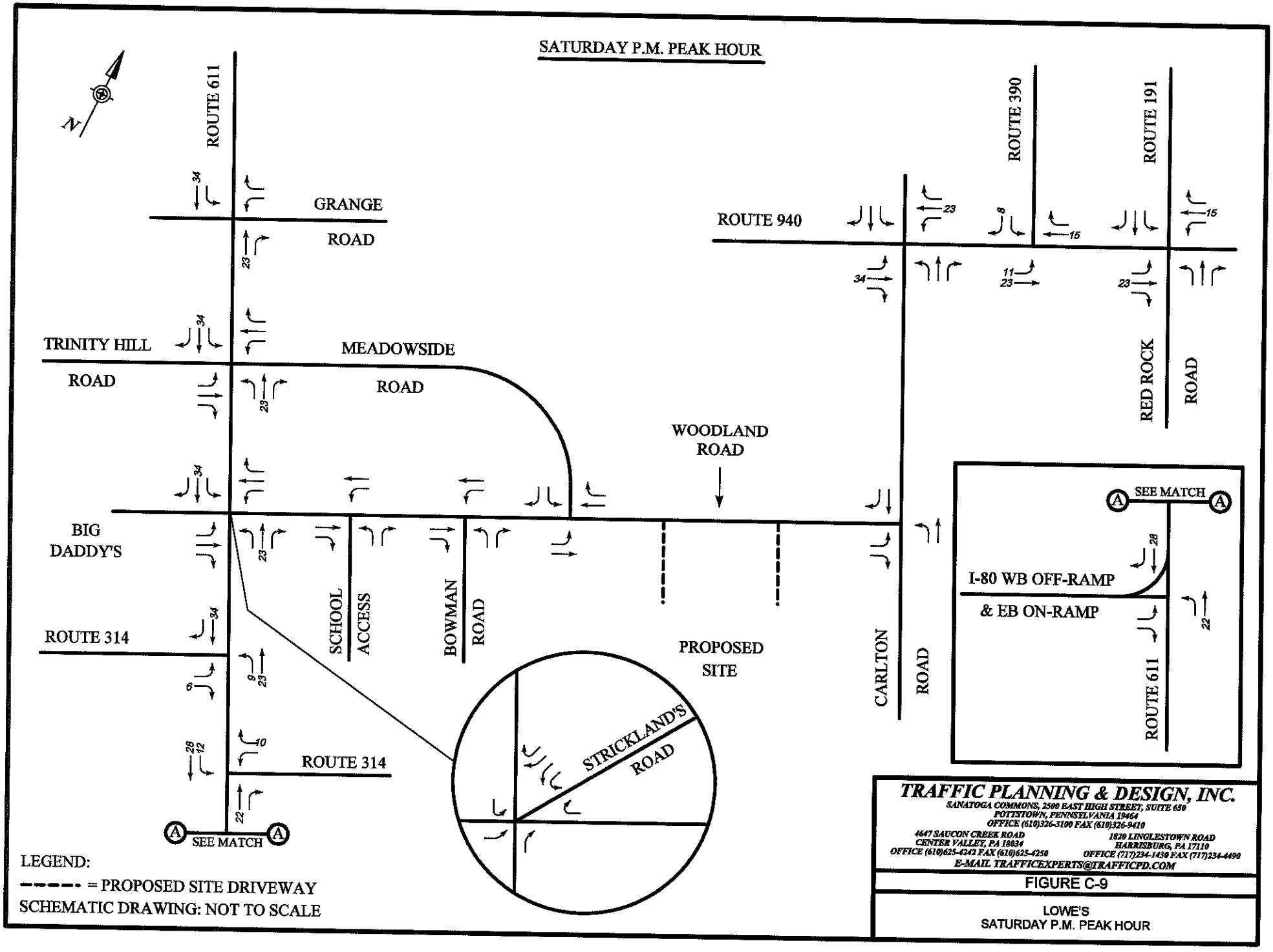
SATURDAY P.M. PEAK HOUR
N
ROUTE 611
GRANGE ROAD
TRINITY HILL ROAD
MEADOWSIDE ROAD
BIG DADDY'S
ROUTE 314
SCHOOL ACCESS
BOWMAN ROAD
WOODLAND ROAD
PROPOSED SITE
STRICKLAND'S ROAD
ROUTE 314
SEE MATCH
A
ROUTE 940
CARLTON ROAD
ROUTE 390
ROUTE 191
RED ROCK ROAD
SEE MATCH
I-80 WB OFF-RAMP
& EB ON-RAMP
ROUTE 611
LEGEND:
= PROPOSED SITE DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE
TRAFFIC PLANNING & DESIGN, INC.
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FIGURE C-9
LOWE'S
SATURDAY P.M. PEAK HOUR

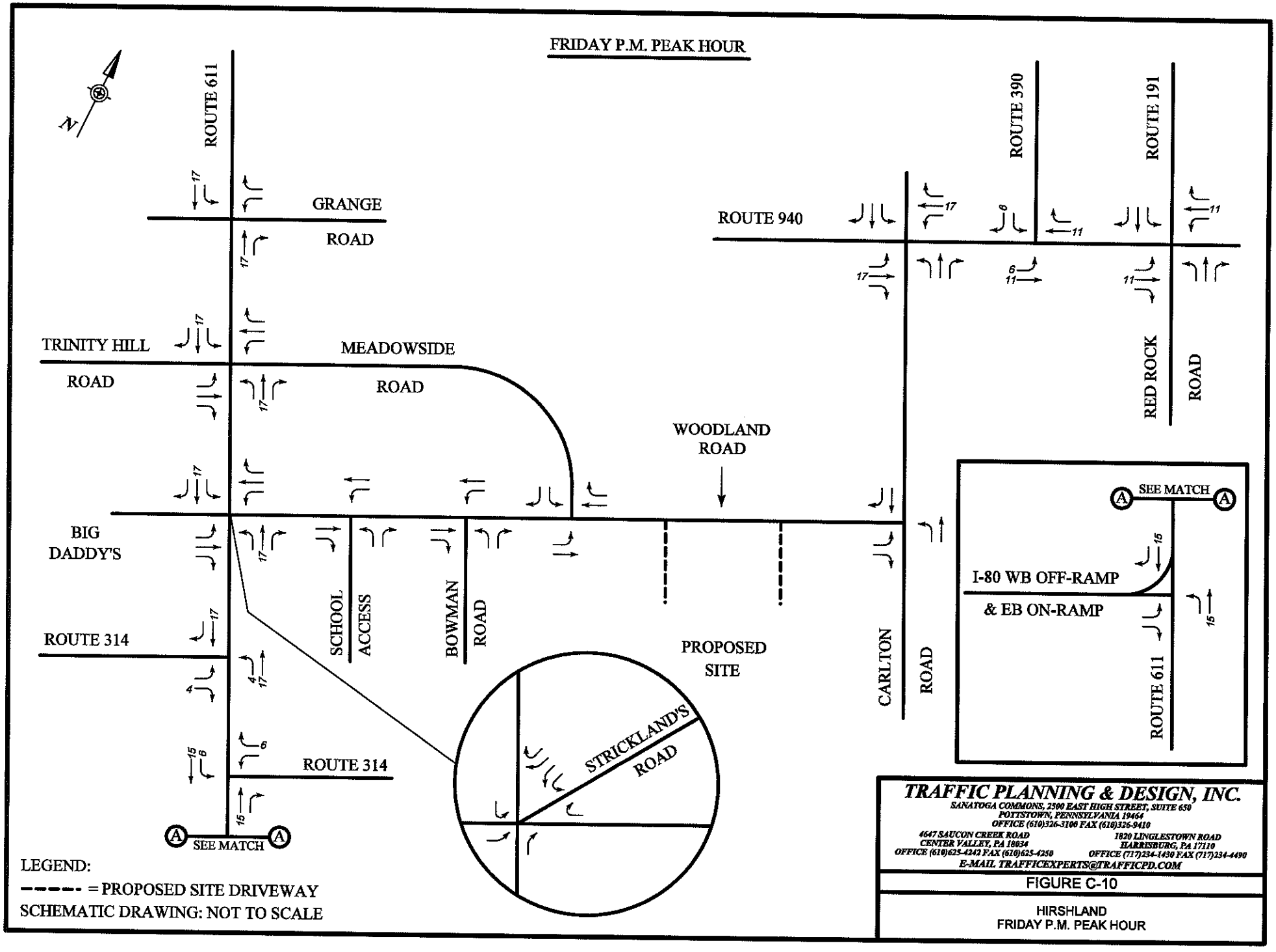
FRIDAY P.M. PEAK HOUR
N
ROUTE 611
GRANGE
ROAD
TRINITY HILL
ROAD
MEADOWSIDE
ROAD
BIG
DADDY'S
ROUTE 314
SCHOOL
ACCESS
BOWMAN
ROAD
WOODLAND
ROAD
PROPOSED
SITE
STRICKLAND'S
ROAD
ROUTE 314
SEE MATCH
ROUTE 940
CARLTON
ROAD
ROUTE 390
ROUTE 191
RED ROCK
ROAD
SEE MATCH
I-80 WB OFF-RAMP
& EB ON-RAMP
ROUTE 611
LEGEND:
= PROPOSED SITE DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE
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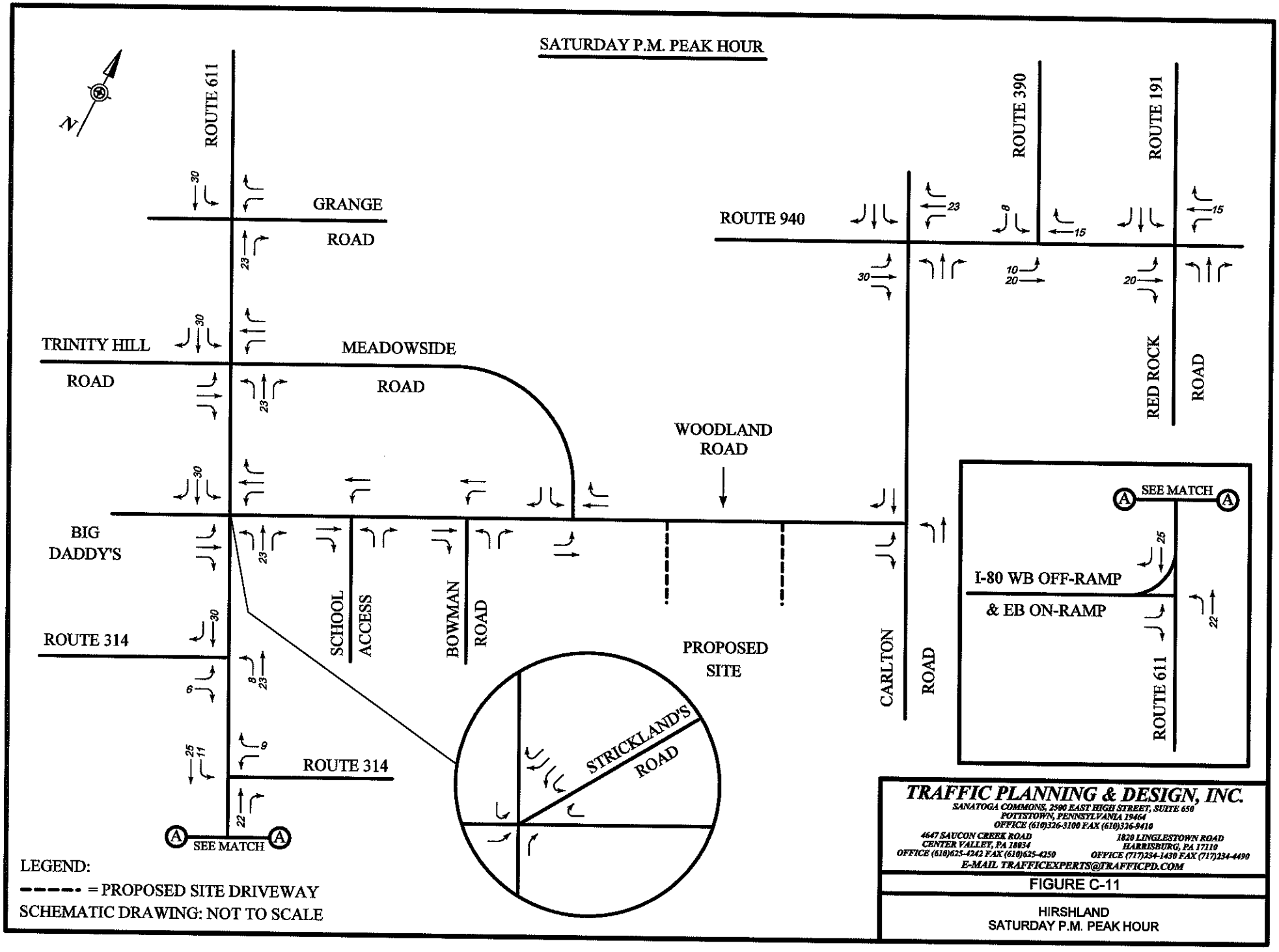
FIGURE C-10
HIRSHLAND
FRIDAY P.M. PEAK HOUR


SATURDAY P.M. PEAK HOUR
N
ROUTE 611
GRANGE
ROAD
TRINITY HILL
ROAD
MEADOWSIDE
ROAD
BIG
DADDY'S
ROUTE 314
ROUTE 314
SEE MATCH
SCHOOL
ACCESS
BOWMAN
ROAD
WOODLAND
ROAD
PROPOSED
SITE
STRICKLAND'S
ROAD
ROUTE 940
CARLTON
ROAD
ROUTE 390
ROUTE 191
RED ROCK
ROAD
SEE MATCH
I-80 WB OFF-RAMP
& EB ON-RAMP
ROUTE 611
LEGEND:
= PROPOSED SITE DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE
TRAFFIC PLANNING & DESIGN, INC.
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POTTSTOWN, PENNSYLVANIA 19464
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CENTER VALLEY, PA 18034
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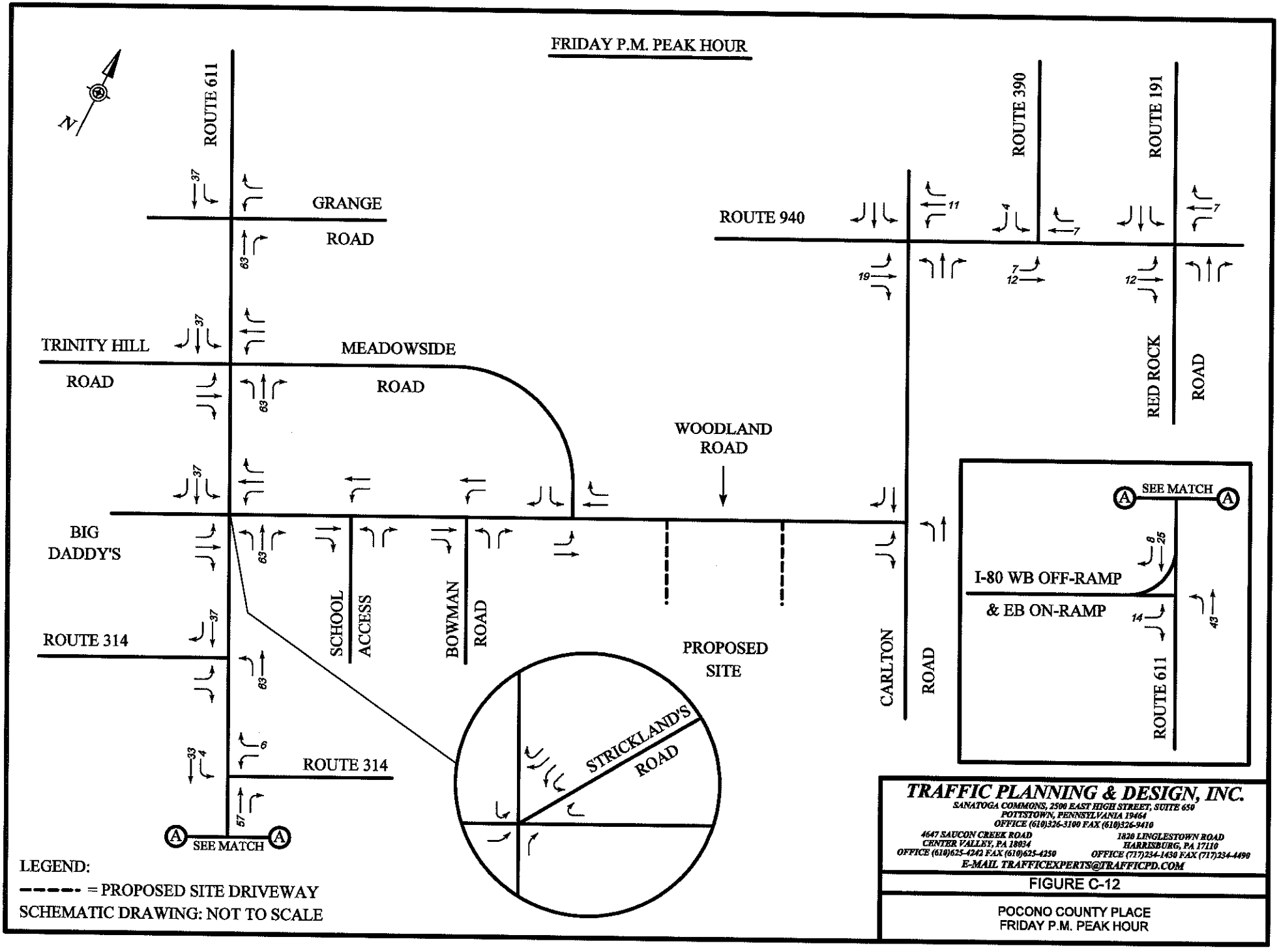
1820 LINGLESTOWN ROAD
HARRISBURG, PA 17110
OFFICE (717)234-1430 FAX (717)234-4490
E-MAIL TRAFFICEXPERTS@TRAFFICPD.COM
FIGURE C-11
HIRSHLAND
SATURDAY P.M. PEAK HOUR


FRIDAY P.M. PEAK HOUR
N
ROUTE 611
GRANGE ROAD
TRINITY HILL ROAD
MEADOWSIDE ROAD
BIG DADDY'S
ROUTE 314
SCHOOL ACCESS
BOWMAN ROAD
WOODLAND ROAD
PROPOSED SITE
STRICKLAND'S ROAD
CARLTON ROAD
ROUTE 940
ROUTE 390
ROUTE 191
RED ROCK ROAD
SEE MATCH
I-80 WB OFF-RAMP
& EB ON-RAMP
LEGEND:
= PROPOSED SITE DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE
TRAFFIC PLANNING & DESIGN, INC.
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CENTER VALLEY, PA 18034
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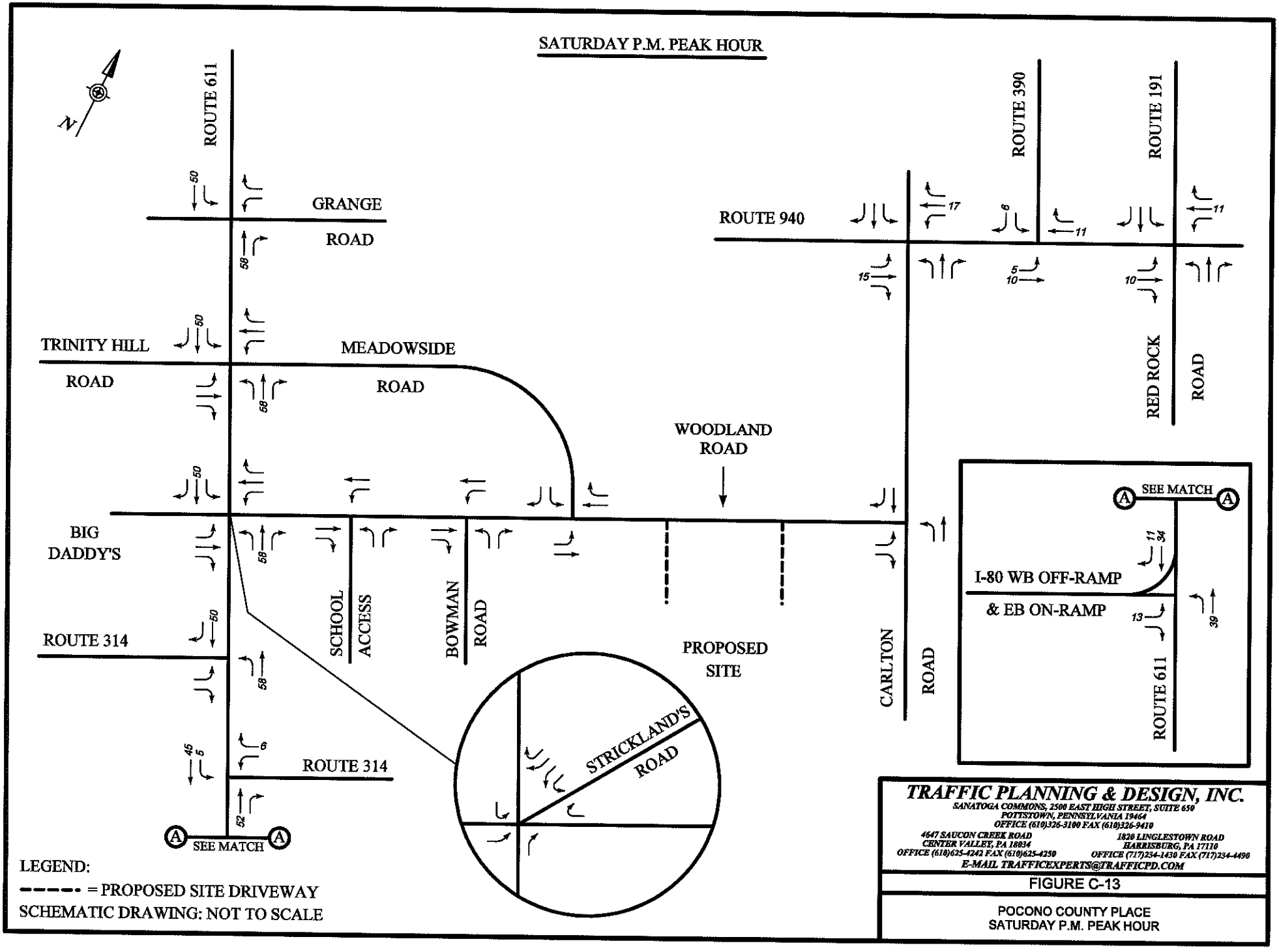
FIGURE C-12
POCONO COUNTY PLACE
FRIDAY P.M. PEAK HOUR


SATURDAY P.M. PEAK HOUR
N
ROUTE 611
GRANGE
ROAD
TRINITY HILL
ROAD
MEADOWSIDE
ROAD
BIG
DADDY'S
ROUTE 314
ROUTE 314
SEE MATCH
SCHOOL
ACCESS
BOWMAN
ROAD
WOODLAND
ROAD
PROPOSED
SITE
STRICKLAND'S
ROAD
ROUTE 940
CARLTON
ROAD
ROUTE 390
ROUTE 191
RED ROCK
ROAD
SEE MATCH
I-80 WB OFF-RAMP
& EB ON-RAMP
ROUTE 611
LEGEND:
= PROPOSED SITE DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE
TRAFFIC PLANNING & DESIGN, INC.
SANATOGA COMMONS, 2500 EAST HIGH STREET, SUITE 650
POTTSTOWN, PENNSYLVANIA 19464
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CENTER VALLEY, PA 18034
OFFICE (610)625-4242 FAX (610)625-4250
1820 LINGLESTOWN ROAD
HARRISBURG, PA 17110
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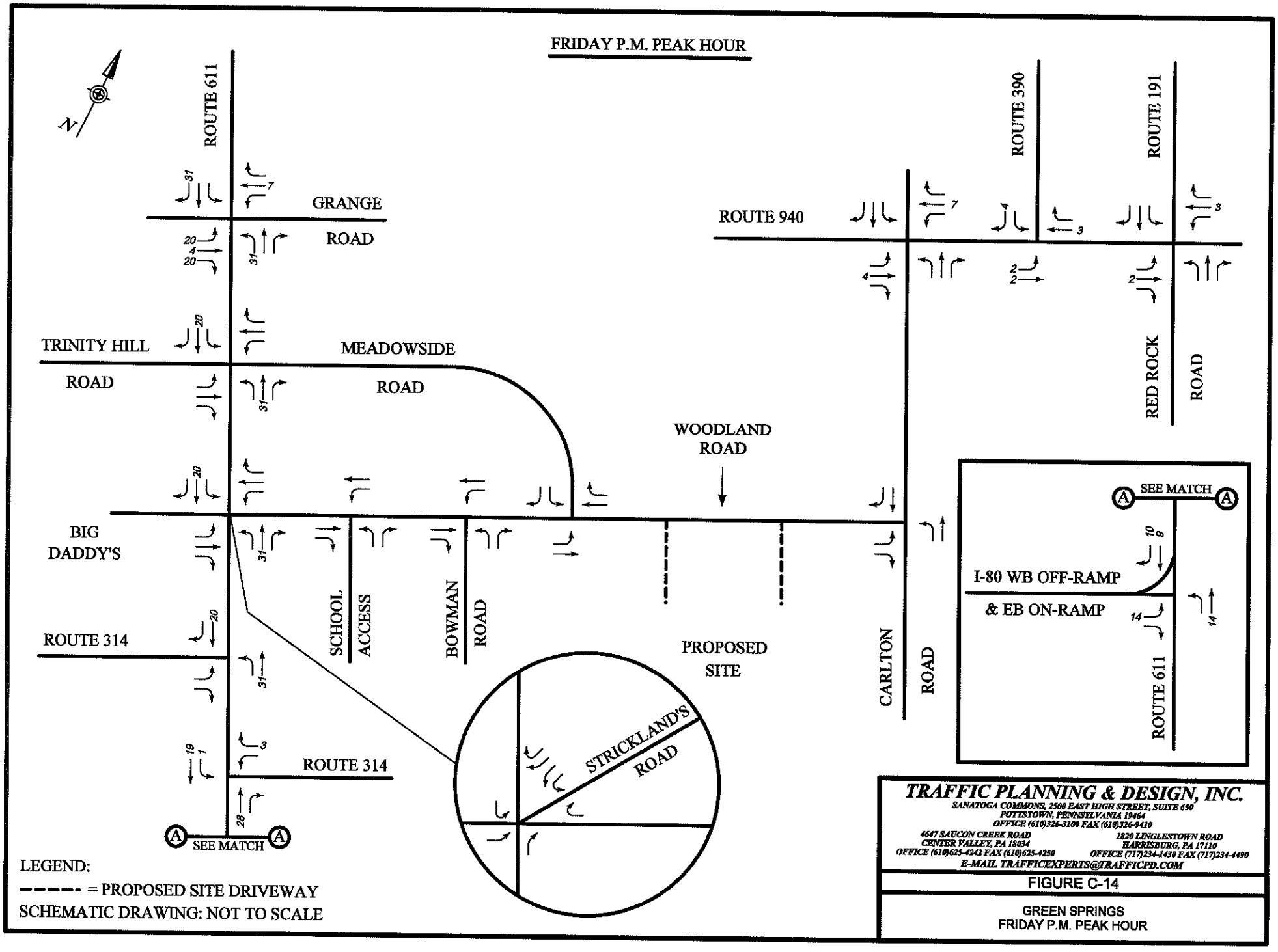
E-MAIL TRAFFICEXPERTS@TRAFFICPD.COM
FIGURE C-13
POCONO COUNTY PLACE
SATURDAY P.M. PEAK HOUR


FRIDAY P.M. PEAK HOUR
N
ROUTE 611
GRANGE ROAD
TRINITY HILL ROAD
MEADOWSIDE ROAD
BIG DADDY'S
ROUTE 314
SCHOOL ACCESS
BOWMAN ROAD
WOODLAND ROAD
PROPOSED SITE
STRICKLAND'S ROAD
ROUTE 940
CARLTON ROAD
ROUTE 390
ROUTE 191
RED ROCK ROAD
SEE MATCH
I-80 WB OFF-RAMP
& EB ON-RAMP
LEGEND:
= PROPOSED SITE DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE
TRAFFIC PLANNING & DESIGN, INC.
SANATOGA COMMONS, 2500 EAST HIGH STREET, SUITE 650
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CENTER VALLEY, PA 18034
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1820 LINGLESTOWN ROAD
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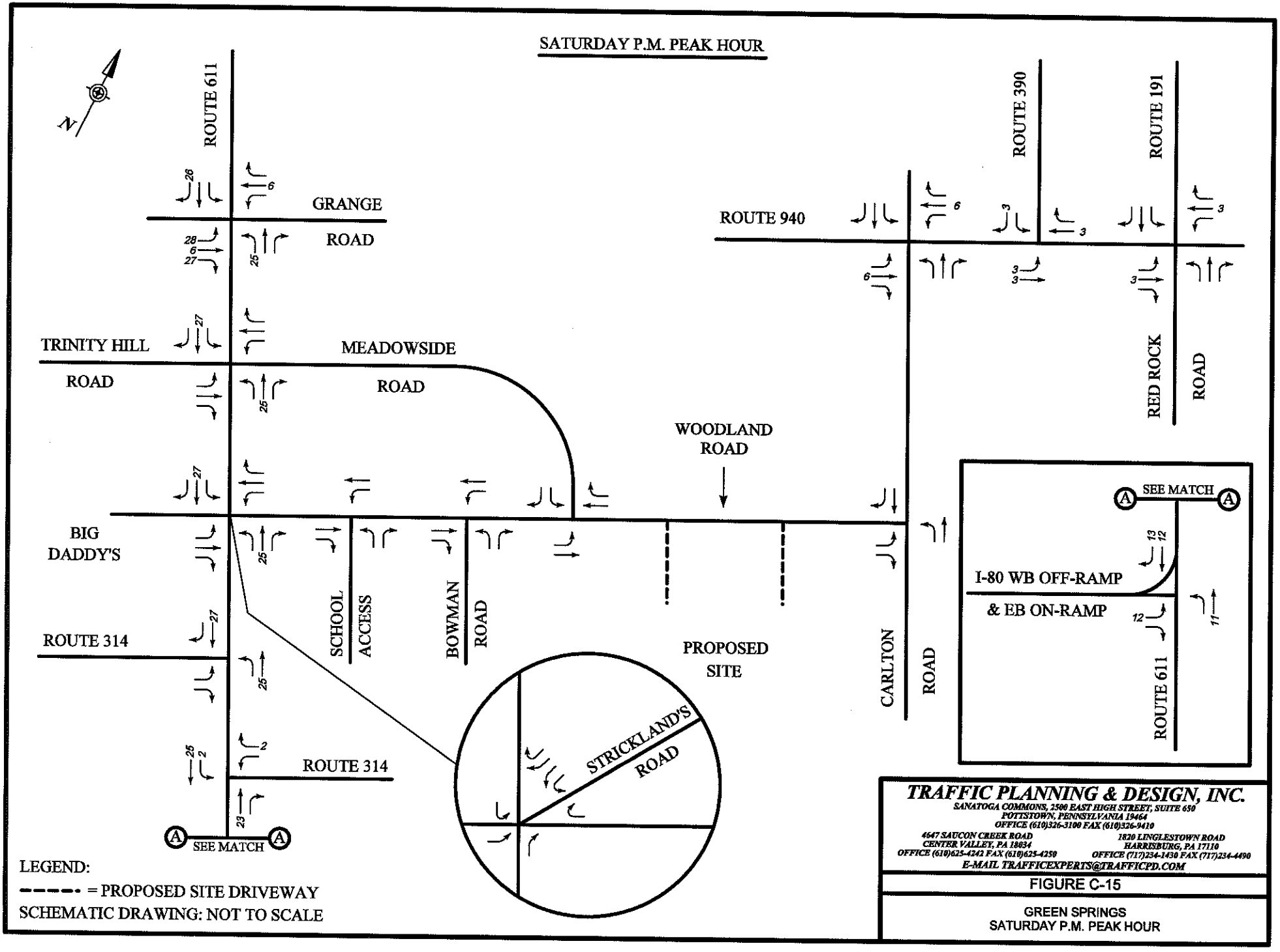
E-MAIL TRAFFICEXPERTS@TRAFFICPD.COM
FIGURE C-14
GREEN SPRINGS
FRIDAY P.M. PEAK HOUR


SATURDAY P.M. PEAK HOUR
N
ROUTE 611
GRANGE
ROAD
TRINITY HILL
ROAD
MEADOWSIDE
ROAD
BIG
DADDY'S
ROUTE 314
SCHOOL
ACCESS
BOWMAN
ROAD
WOODLAND
ROAD
PROPOSED
SITE
STRICKLAND'S
ROAD
ROUTE 314
SEE MATCH
ROUTE 940
CARLTON
ROAD
ROUTE 390
ROUTE 191
RED ROCK
ROAD
SEE MATCH
I-80 WB OFF-RAMP
& EB ON-RAMP
ROUTE 611
LEGEND:
= PROPOSED SITE DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE
TRAFFIC PLANNING & DESIGN, INC.
SANATOGA COMMONS, 2500 EAST HIGH STREET, SUITE 650
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1820 LINGLESTOWN ROAD
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FIGURE C-15
GREEN SPRINGS
SATURDAY P.M. PEAK HOUR

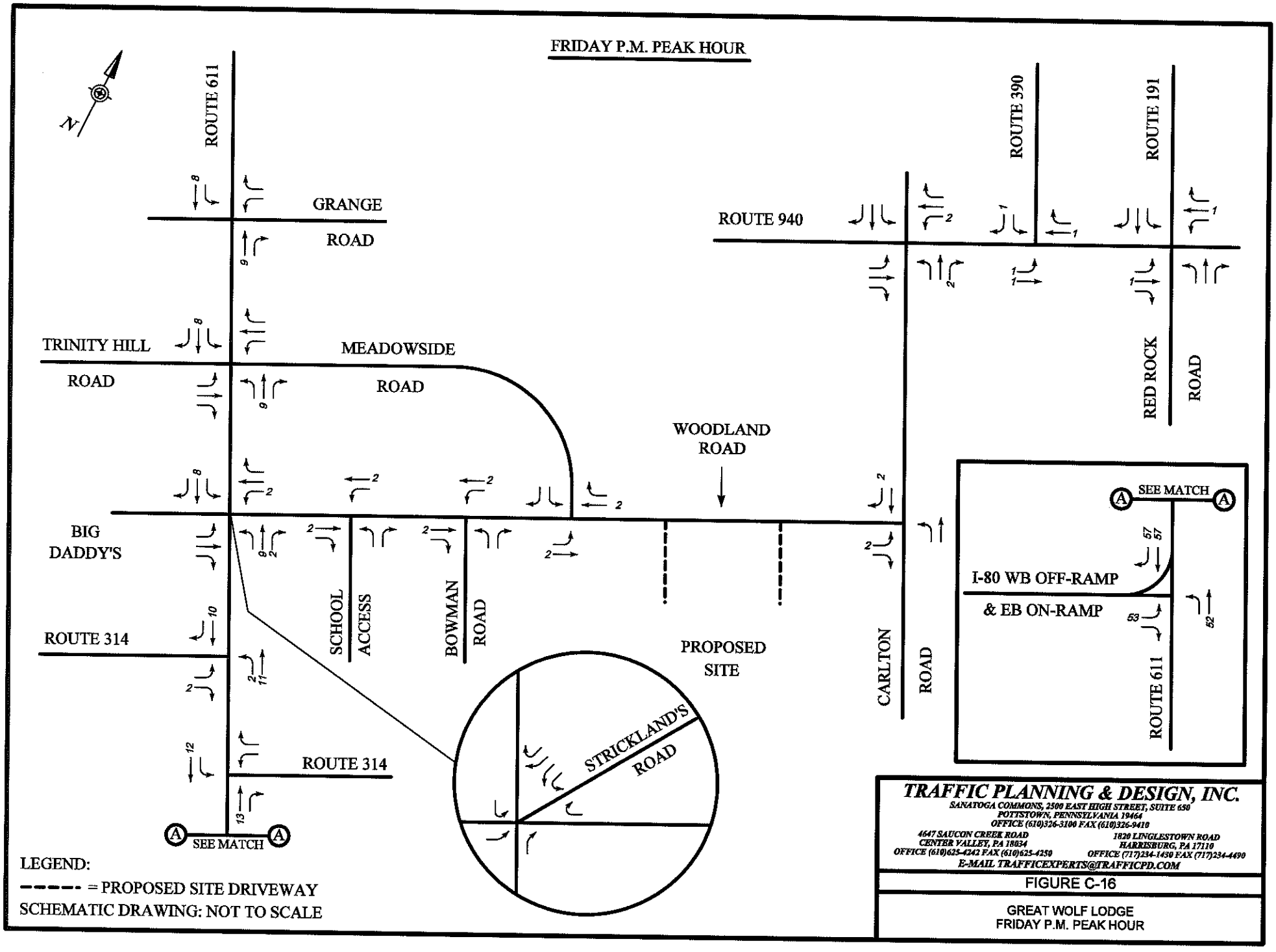
FRIDAY P.M. PEAK HOUR
N
ROUTE 611
GRANGE ROAD
TRINITY HILL ROAD
MEADOWSIDE ROAD
BIG DADDY'S
ROUTE 314
SCHOOL ACCESS
BOWMAN ROAD
WOODLAND ROAD
PROPOSED SITE
STRICKLAND'S ROAD
ROUTE 314
SEE MATCH
ROUTE 940
ROUTE 390
ROUTE 191
RED ROCK ROAD
CARLTON ROAD
SEE MATCH
I-80 WB OFF-RAMP
& EB ON-RAMP
ROUTE 611
LEGEND:
= PROPOSED SITE DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE
TRAFFIC PLANNING & DESIGN, INC.
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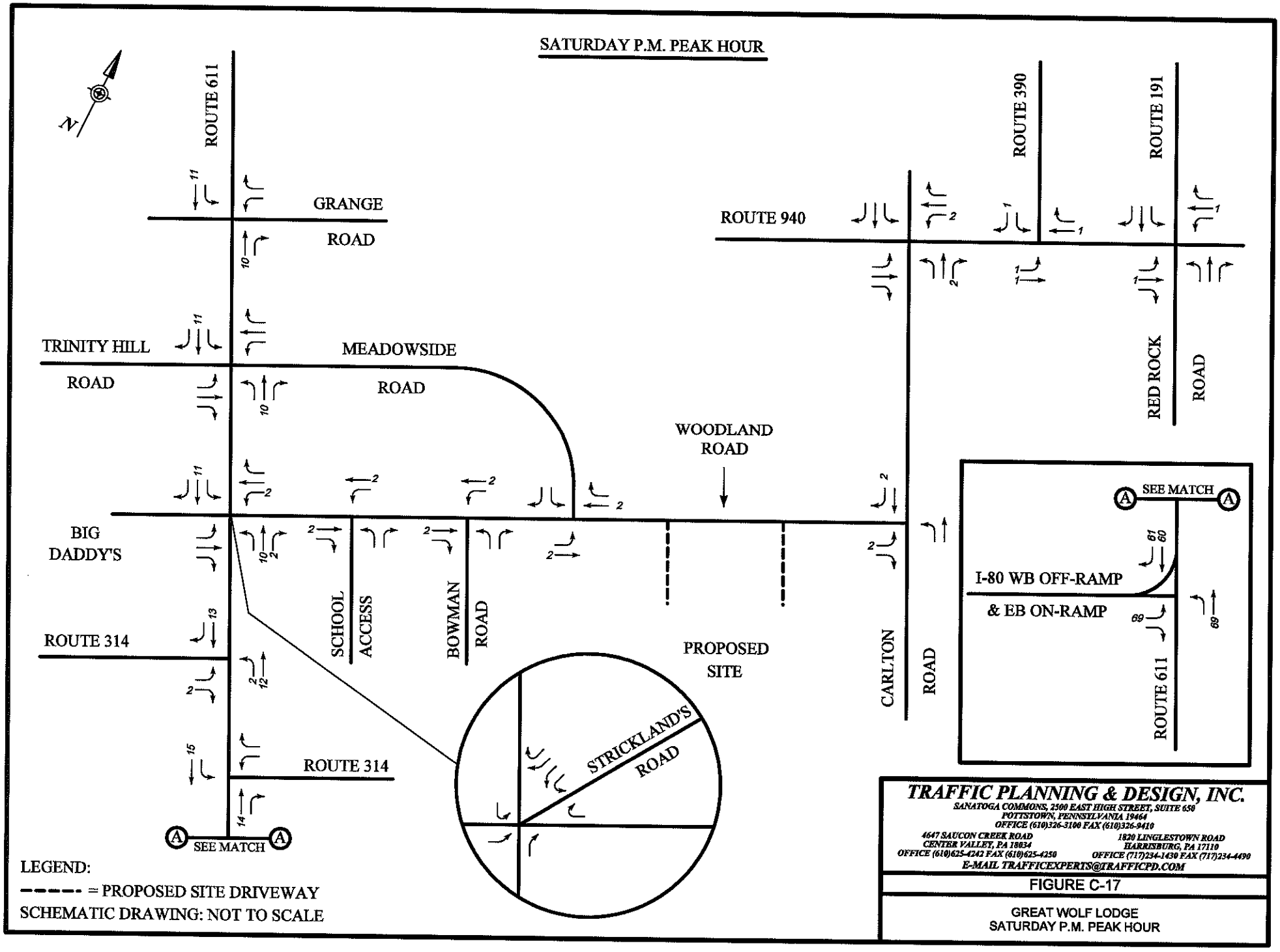
FIGURE C-16
GREAT WOLF LODGE
FRIDAY P.M. PEAK HOUR


SATURDAY P.M. PEAK HOUR
N
ROUTE 611
GRANGE ROAD
TRINITY HILL ROAD
MEADOWSIDE ROAD
BIG DADDY'S
ROUTE 314
SCHOOL ACCESS
BOWMAN ROAD
WOODLAND ROAD
PROPOSED SITE
STRICKLAND'S ROAD
ROUTE 314
SEE MATCH
ROUTE 940
CARLTON ROAD
ROUTE 390
ROUTE 191
RED ROCK ROAD
SEE MATCH
I-80 WB OFF-RAMP
& EB ON-RAMP
ROUTE 611
LEGEND:
= PROPOSED SITE DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE
TRAFFIC PLANNING & DESIGN, INC.
SANATOGA COMMONS, 2500 EAST HIGH STREET, SUITE 650
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4647 SAUCON CREEK ROAD
CENTER VALLEY, PA 18034
OFFICE (610)625-4242 FAX (610)625-4250
1820 LINGLESTOWN ROAD
HARRISBURG, PA 17110
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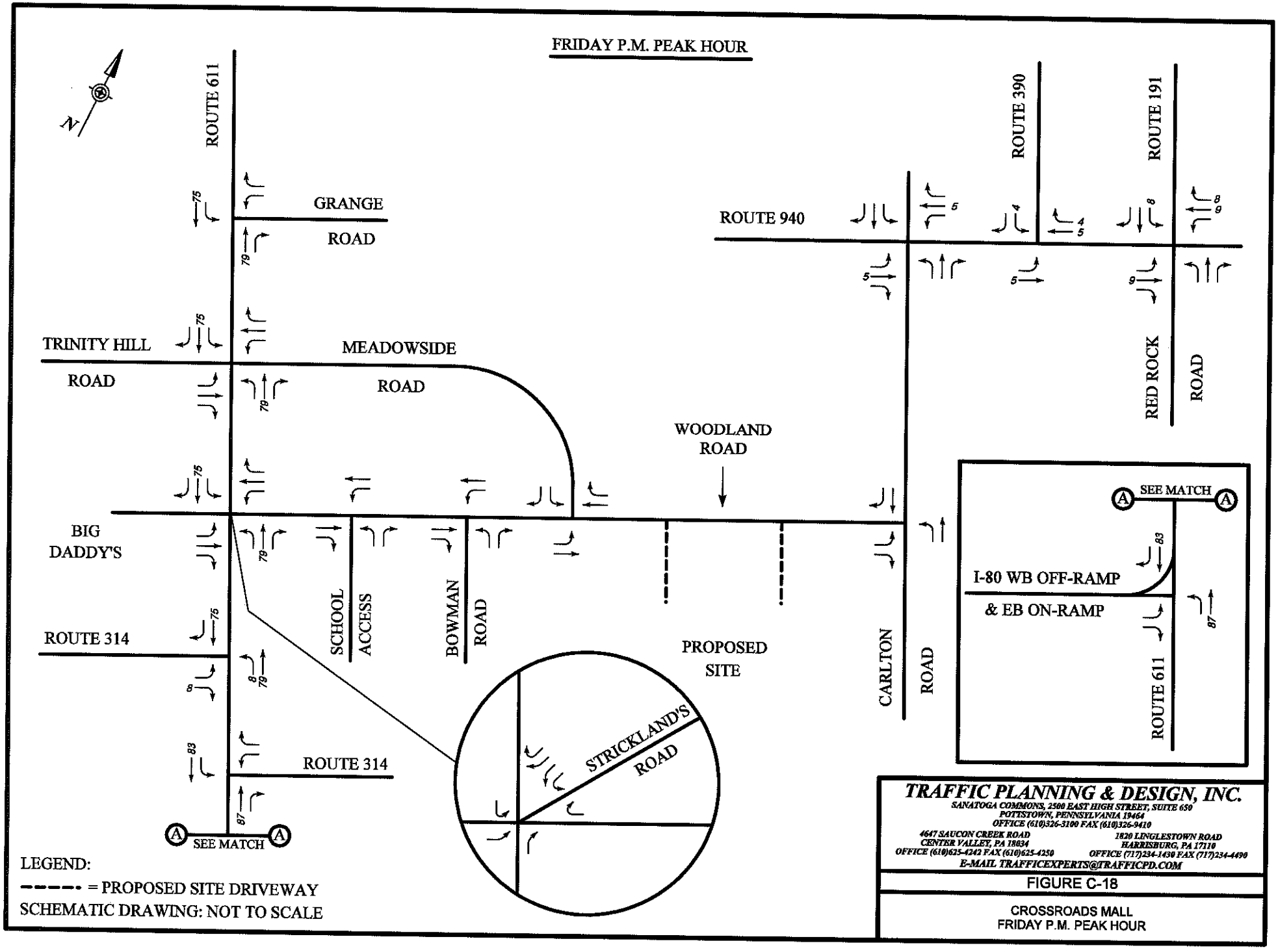
E-MAIL TRAFFICEXPERTS@TRAFFICPD.COM
FIGURE C-17
GREAT WOLF LODGE
SATURDAY P.M. PEAK HOUR



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1820 LINGLESTOWN ROAD
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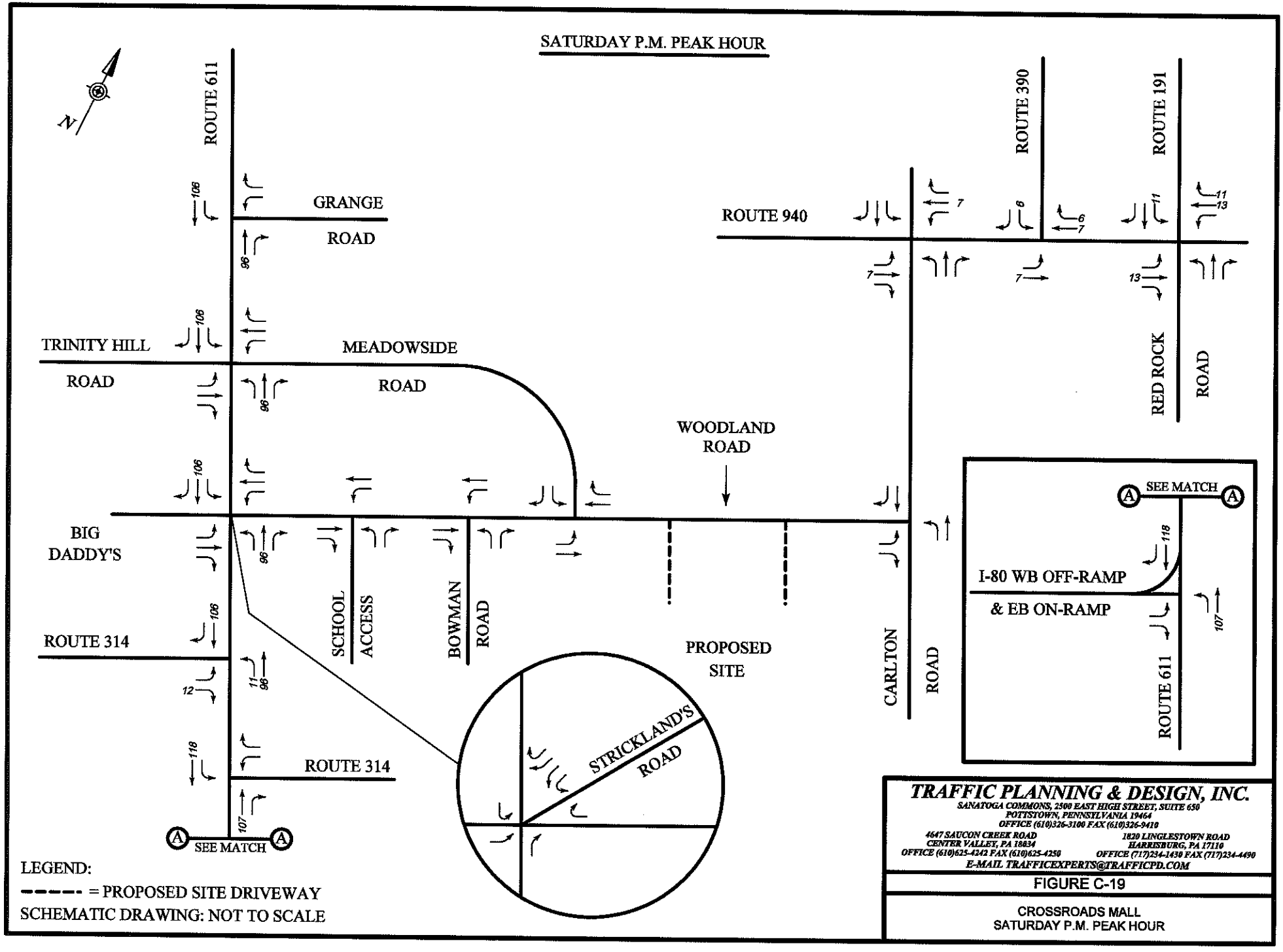
FIGURE C-18

CROSSROADS MALL
FRIDAY P.M. PEAK HOUR


SATURDAY P.M. PEAK HOUR
N
ROUTE 611
GRANGE
ROAD
TRINITY HILL
ROAD
MEADOWSIDE
ROAD
BIG
DADDY'S
ROUTE 314
ROUTE 314
SCHOOL
ACCESS
BOWMAN
ROAD
WOODLAND
ROAD
PROPOSED
SITE
STRICKLAND'S
ROAD
ROUTE 940
CARLTON
ROAD
ROUTE 390
ROUTE 191
RED ROCK
ROAD
SEE MATCH
I-80 WB OFF-RAMP
& EB ON-RAMP
ROUTE 611
SEE MATCH
LEGEND:
= PROPOSED SITE DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE
TRAFFIC PLANNING & DESIGN, INC.
SANATOGA COMMONS, 2500 EAST HIGH STREET, SUITE 650
POTTSTOWN, PENNSYLVANIA 19464
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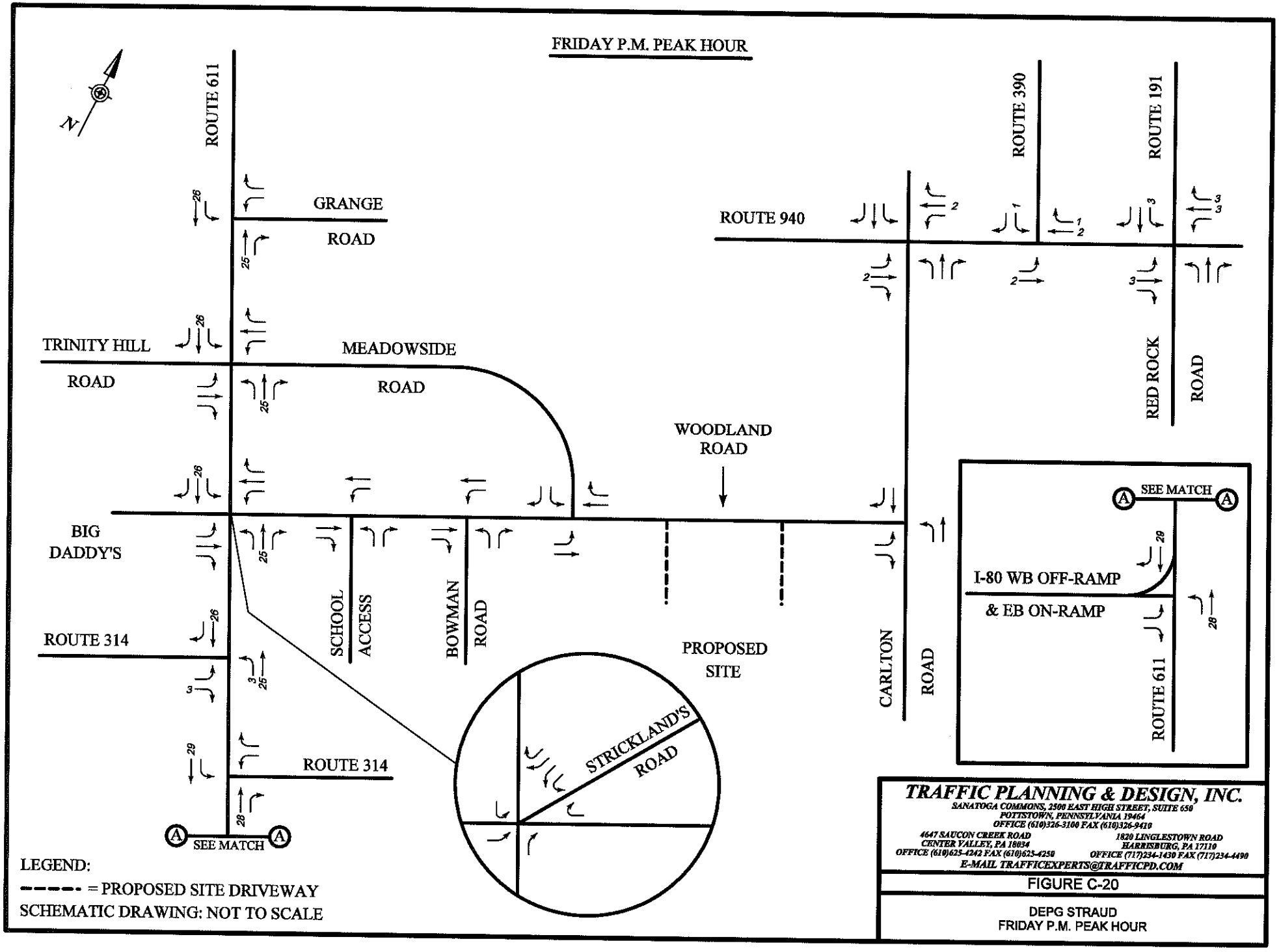
CENTER VALLEY, PA 18034
OFFICE (610)625-4242 FAX (610)625-4250
1820 LINGLESTOWN ROAD
HARRISBURG, PA 17110
OFFICE (717)234-1430 FAX (717)234-4490
E-MAIL TRAFFICEXPERTS@TRAFFICPD.COM
FIGURE C-19
CROSSROADS MALL
SATURDAY P.M. PEAK HOUR


FRIDAY P.M. PEAK HOUR
N
ROUTE 611
GRANGE
ROAD
TRINITY HILL
ROAD
MEADOWSIDE
ROAD
BIG
DADDY'S
ROUTE 314
ROUTE 314
SEE MATCH
SCHOOL
ACCESS
BOWMAN
ROAD
WOODLAND
ROAD
PROPOSED
SITE
STRICKLAND'S
ROAD
ROUTE 940
CARLTON
ROAD
ROUTE 390
ROUTE 191
RED ROCK
ROAD
SEE MATCH
I-80 WB OFF-RAMP
& EB ON-RAMP
ROUTE 611
LEGEND:
= PROPOSED SITE DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE
TRAFFIC PLANNING & DESIGN, INC.
SANATOGA COMMONS, 2500 EAST HIGH STREET, SUITE 650
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CENTER VALLEY, PA 18034
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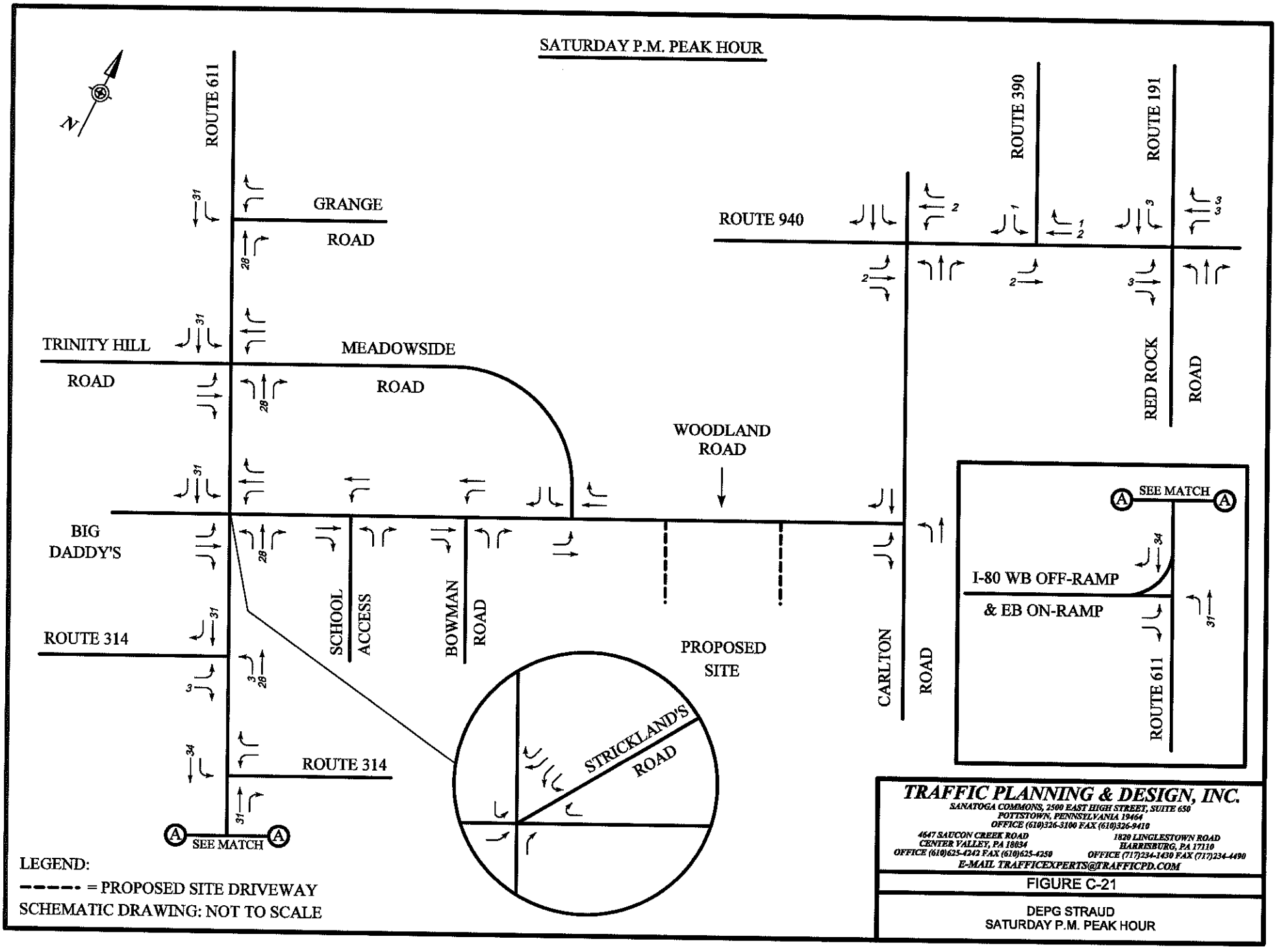
E-MAIL TRAFFICEXPERTS@TRAFFICPD.COM
FIGURE C-20
DEPG STRAUD
FRIDAY P.M. PEAK HOUR


SATURDAY P.M. PEAK HOUR
N
ROUTE 611
GRANGE ROAD
TRINITY HILL ROAD
MEADOWSIDE ROAD
BIG DADDY'S
ROUTE 314
SCHOOL ACCESS
BOWMAN ROAD
WOODLAND ROAD
PROPOSED SITE
STRICKLAND'S ROAD
CARLTON ROAD
ROUTE 940
ROUTE 390
ROUTE 191
RED ROCK ROAD
SEE MATCH
I-80 WB OFF-RAMP
& EB ON-RAMP
LEGEND:
= PROPOSED SITE DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE
TRAFFIC PLANNING & DESIGN, INC.
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CENTER VALLEY, PA 18034
OFFICE (610)625-4242 FAX (610)625-4250
1820 LINGLESTOWN ROAD
HARRISBURG, PA 17110
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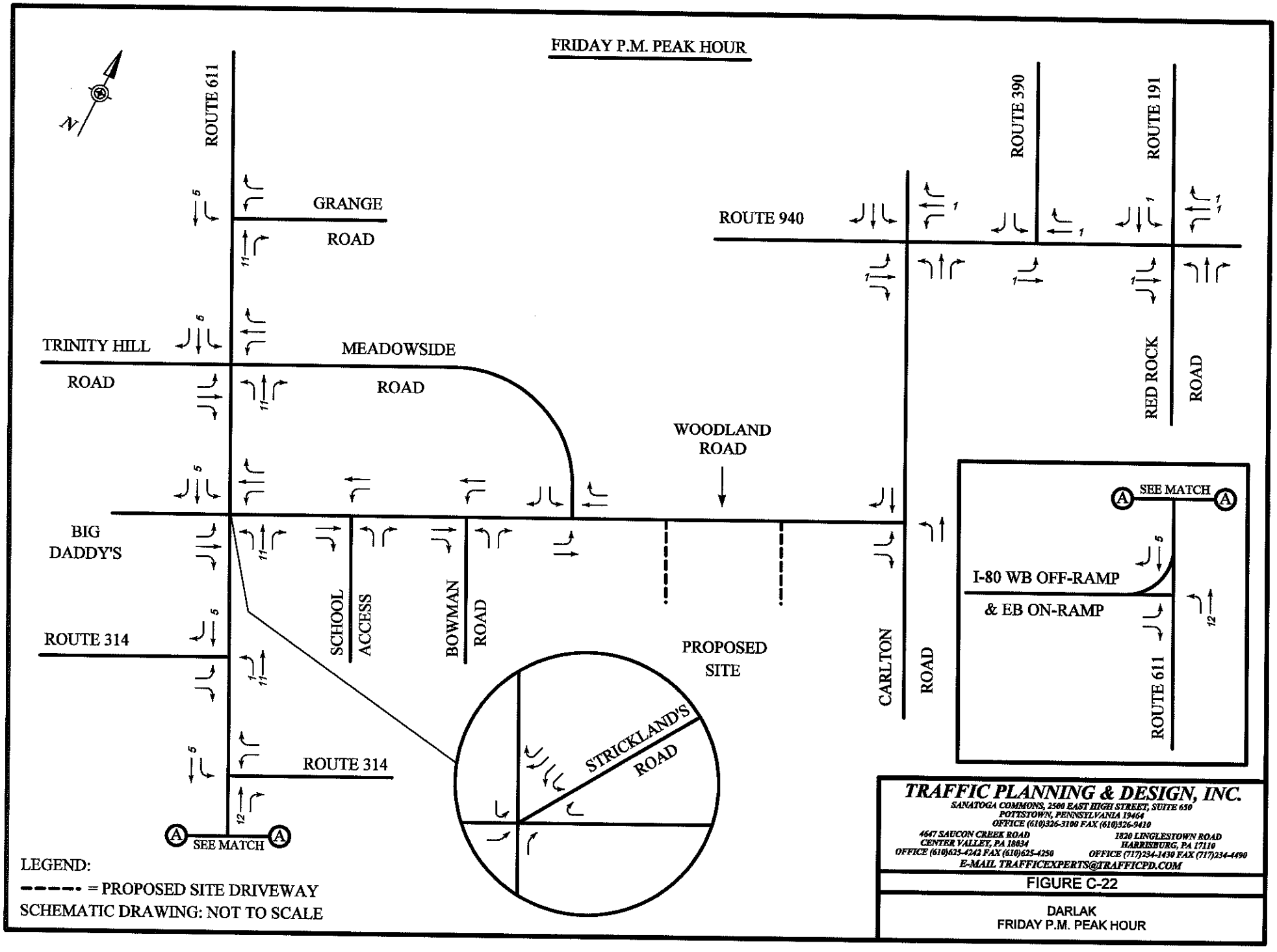
E-MAIL TRAFFICEXPERTS@TRAFFICPD.COM
FIGURE C-21
DEPG STRAUD
SATURDAY P.M. PEAK HOUR



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4647 SAUCON CREEK ROAD
CENTER VALLEY, PA 18034
OFFICE (610)625-4242 FAX (610)625-4250
1820 LINGLESTOWN ROAD
HARRISBURG, PA 17110
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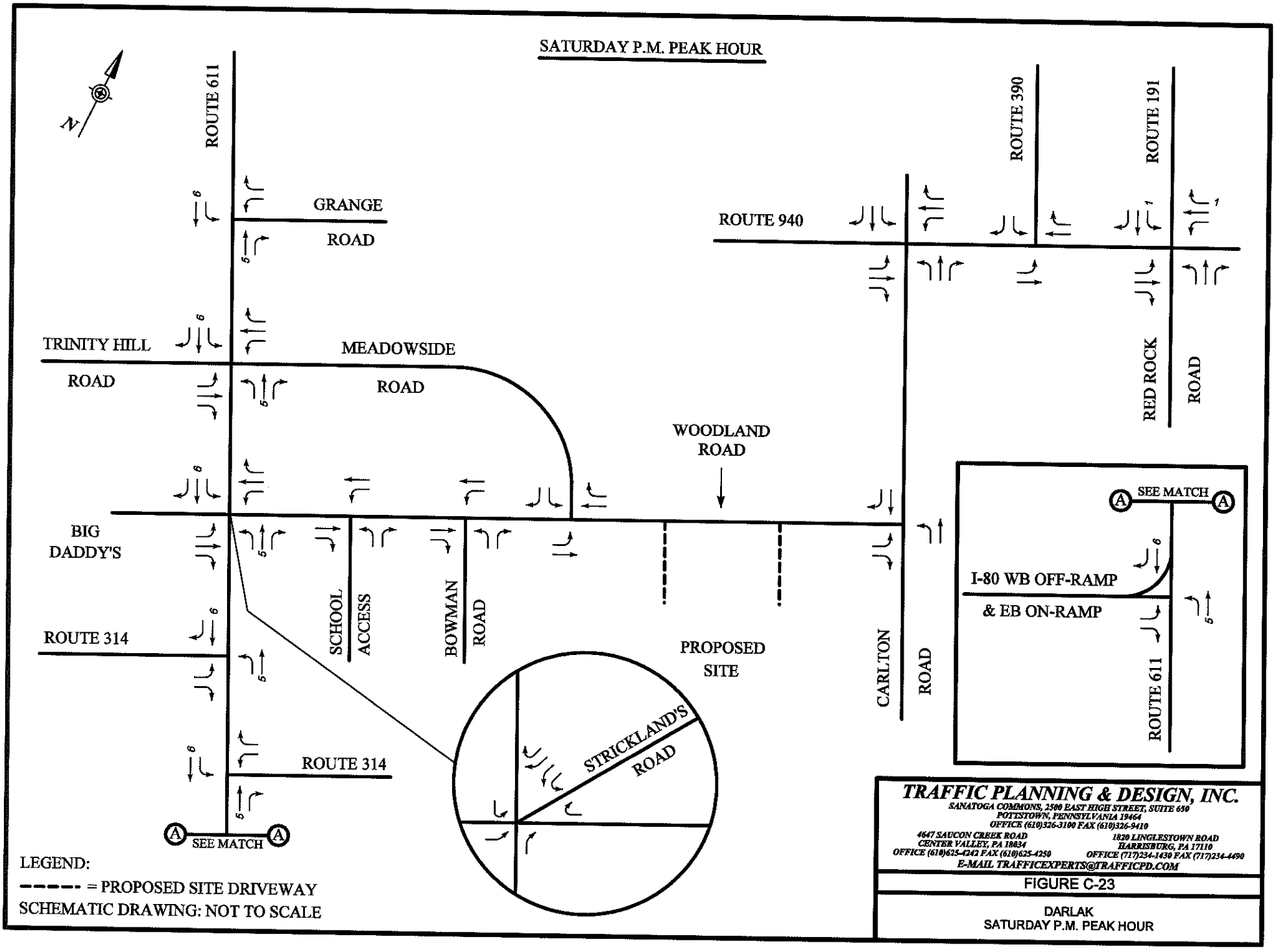
FIGURE C-22

DARLAK
FRIDAY P.M. PEAK HOUR



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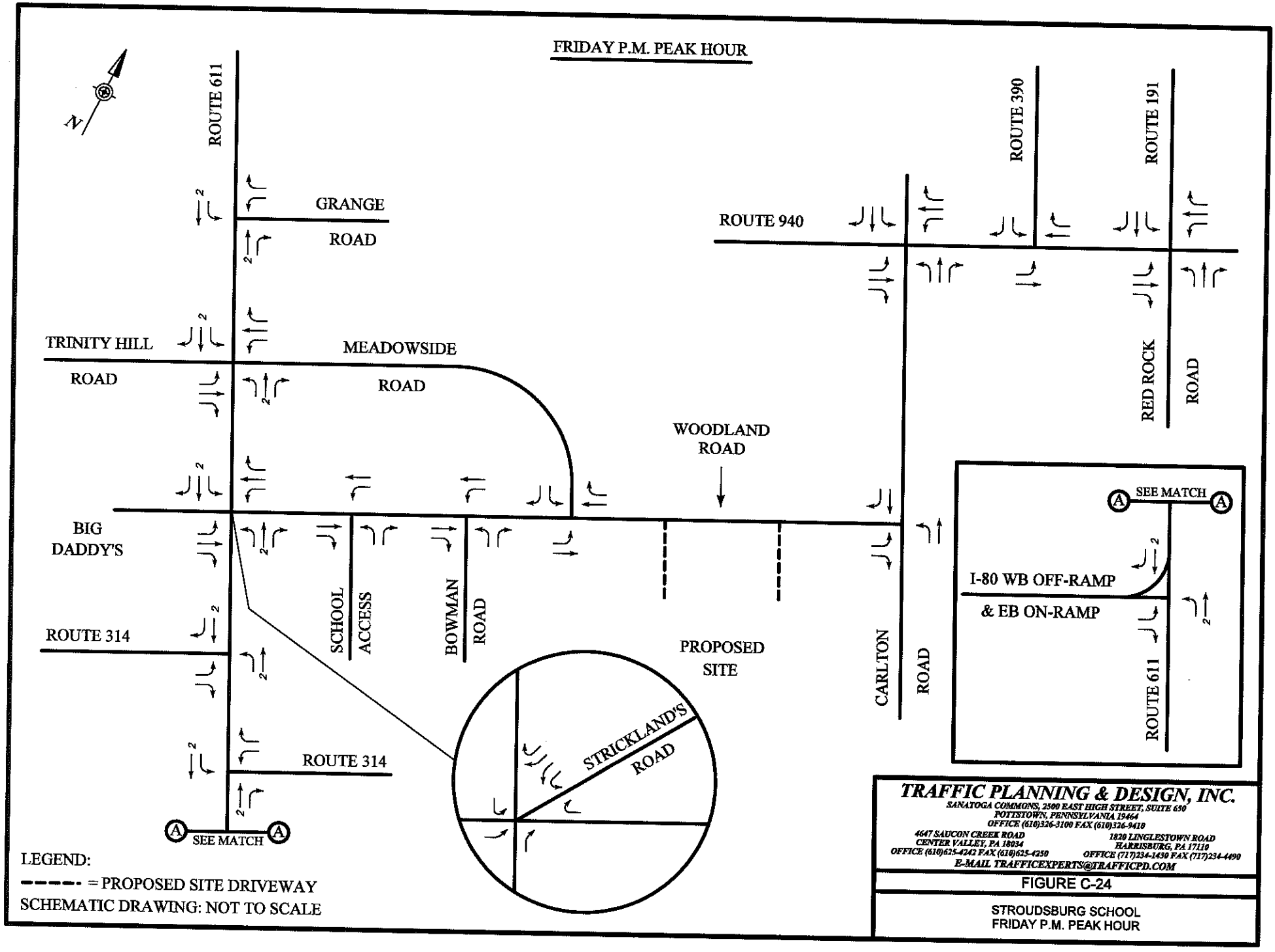
E-MAIL TRAFFICEXPERTS@TRAFFICPD.COM

FIGURE C-23

DARLAK
SATURDAY P.M. PEAK HOUR


FRIDAY P.M. PEAK HOUR
N
ROUTE 611
GRANGE
ROAD
TRINITY HILL
ROAD
MEADOWSIDE
ROAD
BIG
DADDY'S
ROUTE 314
SCHOOL
ACCESS
BOWMAN
ROAD
WOODLAND
ROAD
PROPOSED
SITE
STRICKLAND'S
ROAD
ROUTE 314
SEE MATCH
A
ROUTE 940
CARLTON
ROAD
ROUTE 390
ROUTE 191
RED ROCK
ROAD
SEE MATCH
I-80 WB OFF-RAMP
& EB ON-RAMP
ROUTE 611
LEGEND:
= PROPOSED SITE DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE
TRAFFIC PLANNING & DESIGN, INC.
SANATOGA COMMONS, 2500 EAST HIGH STREET, SUITE 650
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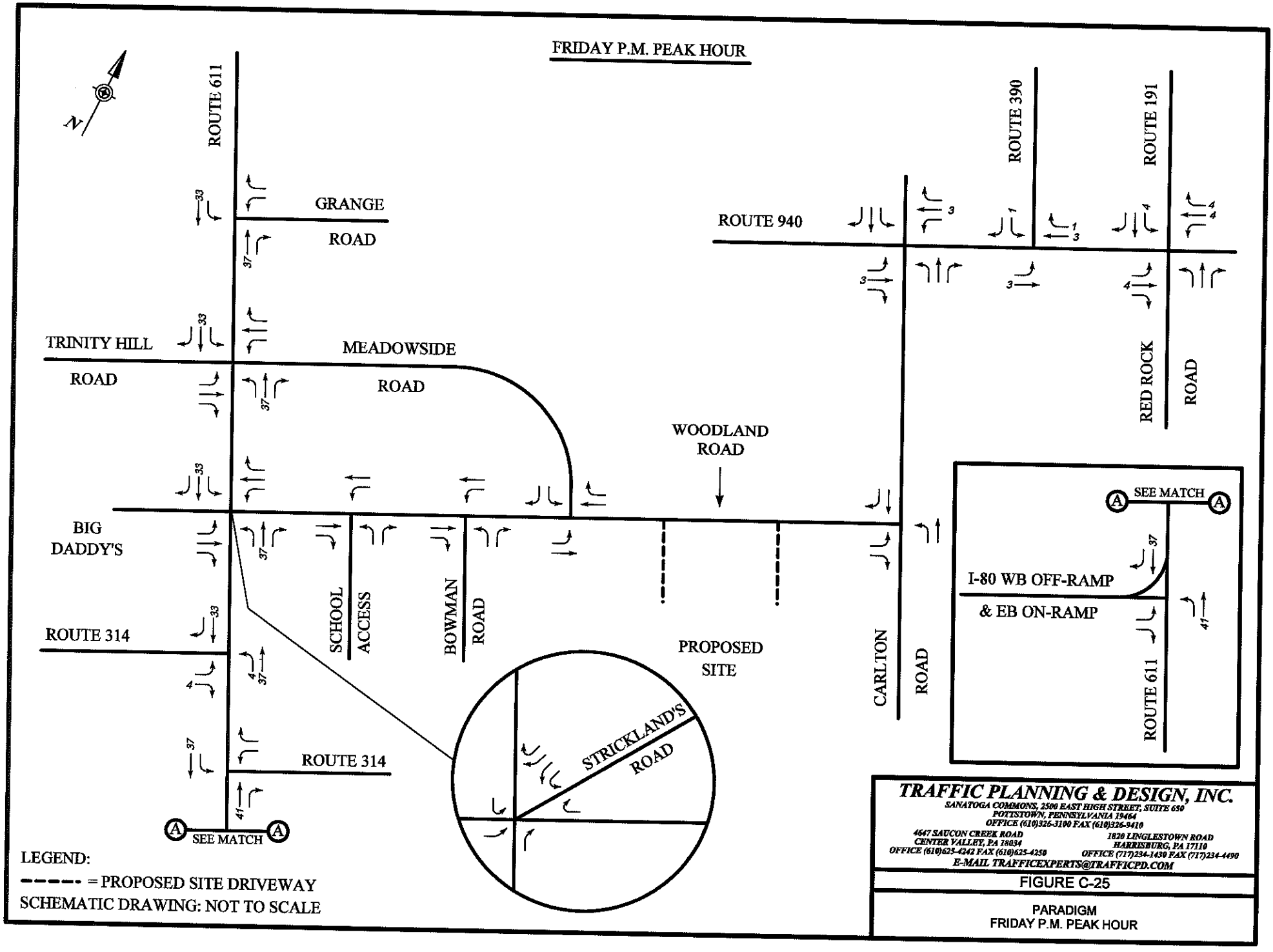
E-MAIL TRAFFICEXPERTS@TRAFFICPD.COM
FIGURE C-24
STROUDSBURG SCHOOL
FRIDAY P.M. PEAK HOUR



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E-MAIL TRAFFICEXPERTS@TRAFFICPD.COM

FIGURE C-25

PARADIGM
FRIDAY P.M. PEAK HOUR

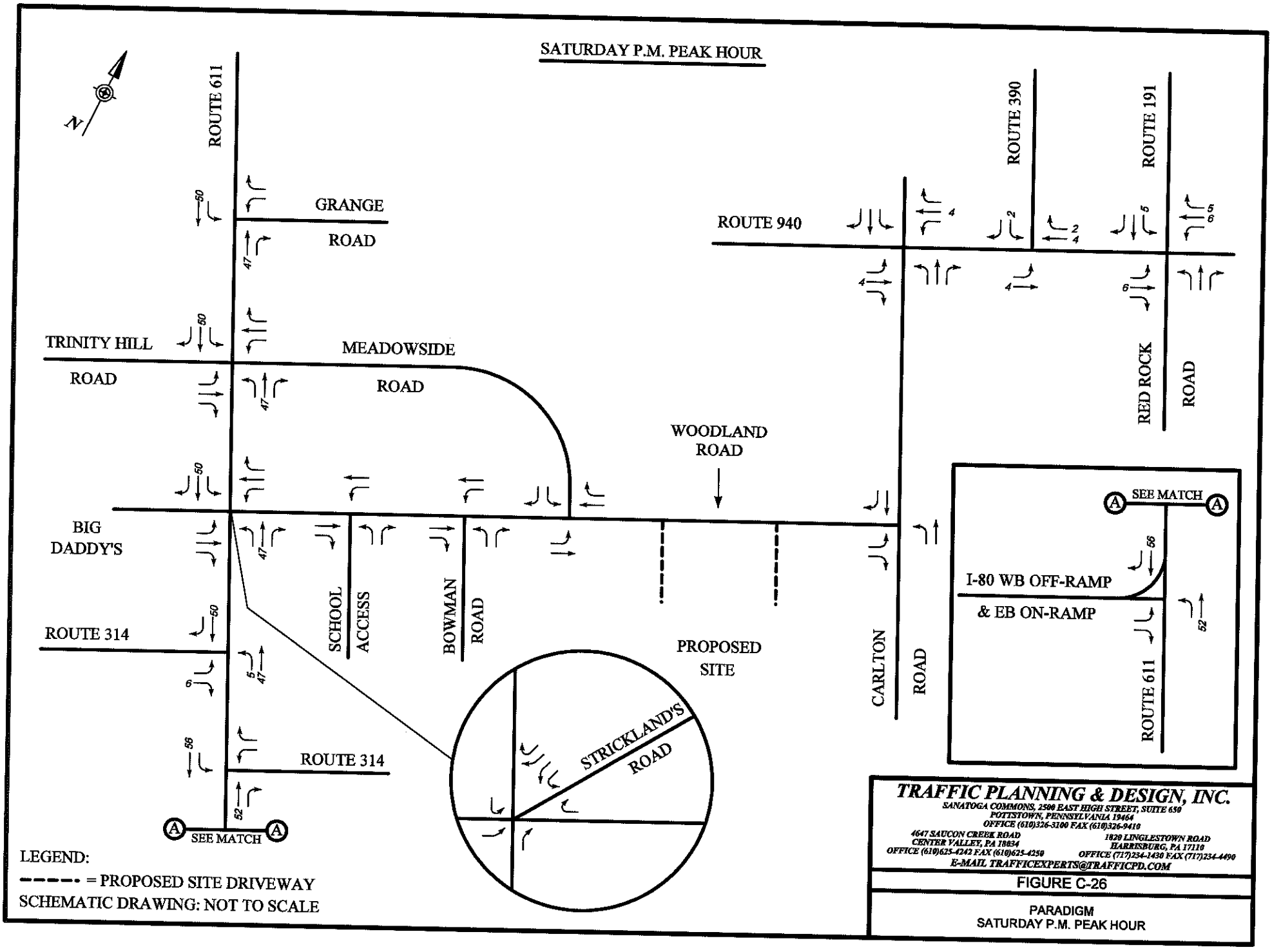
SATURDAY P.M. PEAK HOUR
N
ROUTE 611
GRANGE ROAD
TRINITY HILL ROAD
MEADOWSIDE ROAD
BIG DADDY'S
ROUTE 314
SCHOOL ACCESS
BOWMAN ROAD
WOODLAND ROAD
PROPOSED SITE
STRICKLAND'S ROAD
ROUTE 314
SEE MATCH
ROUTE 940
ROUTE 390
ROUTE 191
RED ROCK ROAD
CARLTON ROAD
SEE MATCH
I-80 WB OFF-RAMP
& EB ON-RAMP
ROUTE 611
LEGEND:
= PROPOSED SITE DRIVEWAY
SCHEMATIC DRAWING: NOT TO SCALE
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FIGURE C-26
PARADIGM
SATURDAY P.M. PEAK HOUR

APPENDIX D

DOVER DOWNS
MANUAL TRAFFIC COUNT PRINTOUTS

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Dover Downs Driveway

Counter: 28
Counted By: R. Kearney
Weather: clear
Saved As: FRIDD

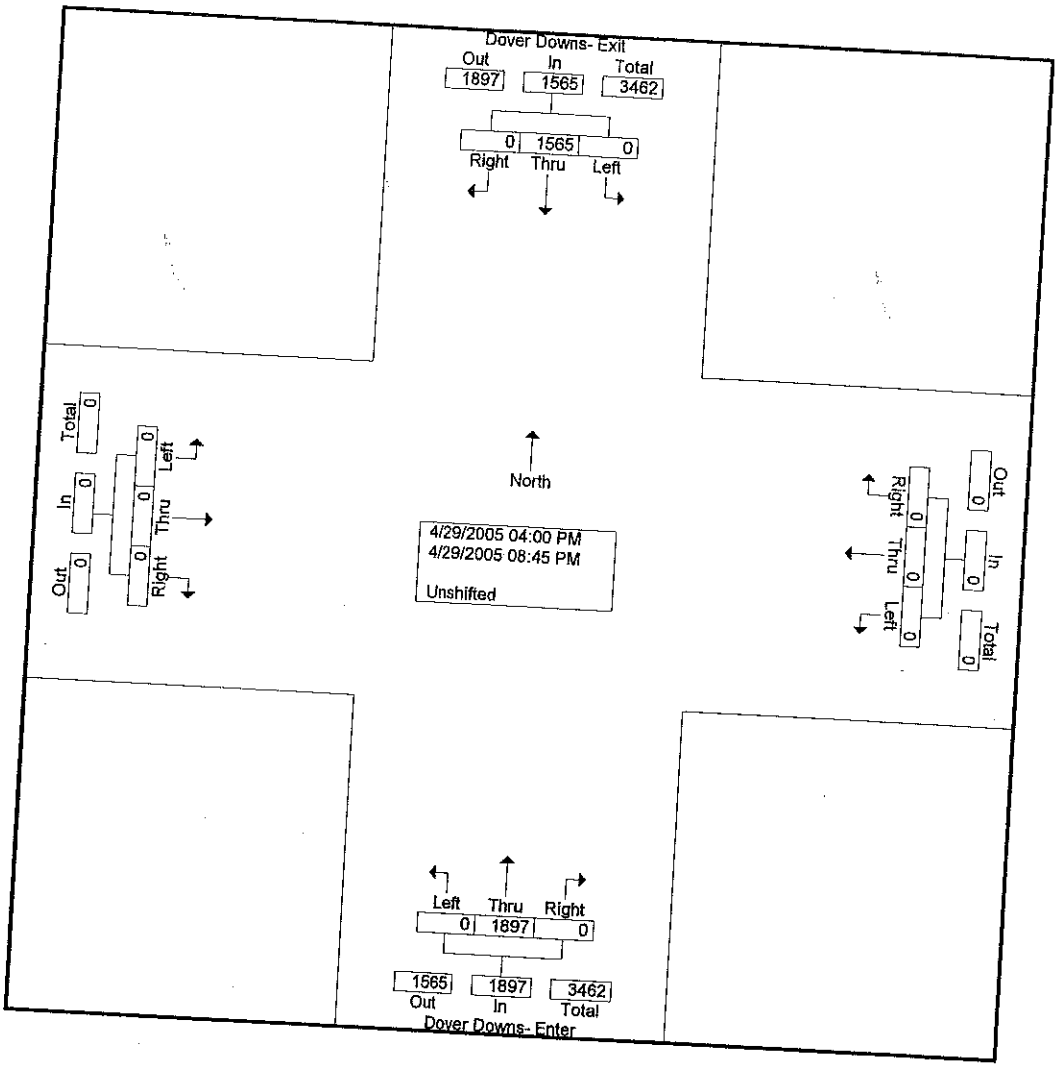
File Name : FRIDD
Site Code : 00000000
Start Date : 4/29/2005
Page No : 1

Groups Printed- Unshifted

	Dover Downs- Exit Southbound					Westbound					Dover Downs- Enter Northbound					Eastbound							
Start Time	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
04:00 PM	0	76	0	0	76	0	0	0	0	0	0	73	0	1	73	0	0	0	0	0	1	149	150
04:15 PM	0	48	0	1	48	0	0	0	0	0	0	72	0	1	72	0	0	0	0	0	2	120	122
04:30 PM	0	69	0	1	69	0	0	0	0	0	0	81	0	1	81	0	0	0	0	0	2	150	152
04:45 PM	0	60	0	3	60	0	0	0	0	0	0	96	0	1	96	0	0	0	0	0	4	156	160
Total	0	253	0	5	253	0	0	0	0	0	0	322	0	4	322	0	0	0	0	0	9	575	584
05:00 PM	0	129	0	0	129	0	0	0	0	0	0	72	0	0	72	0	0	0	0	0	0	201	201
05:15 PM	0	97	0	1	97	0	0	0	0	0	0	106	0	1	106	0	0	0	0	0	2	203	205
05:30 PM	0	98	0	0	98	0	0	0	0	0	0	117	0	1	117	0	0	0	0	0	1	215	216
05:45 PM	0	80	0	1	80	0	0	0	0	0	0	135	0	1	135	0	0	0	0	0	2	215	217
Total	0	404	0	2	404	0	0	0	0	0	0	430	0	3	430	0	0	0	0	0	5	834	839
06:00 PM	0	80	0	0	80	0	0	0	0	0	0	138	0	1	138	0	0	0	0	0	1	218	219
06:15 PM	0	69	0	0	69	0	0	0	0	0	0	132	0	2	132	0	0	0	0	0	2	201	203
06:30 PM	0	81	0	0	81	0	0	0	0	0	0	100	0	0	100	0	0	0	0	0	0	181	181
06:45 PM	0	49	0	0	49	0	0	0	0	0	0	85	0	1	85	0	0	0	0	0	1	134	135
Total	0	279	0	0	279	0	0	0	0	0	0	455	0	4	455	0	0	0	0	0	4	734	738
07:00 PM	0	70	0	0	70	0	0	0	0	0	0	82	0	0	82	0	0	0	0	0	0	152	152
07:15 PM	0	100	0	0	100	0	0	0	0	0	0	92	0	1	92	0	0	0	0	0	1	192	193
07:30 PM	0	73	0	0	73	0	0	0	0	0	0	87	0	0	87	0	0	0	0	0	0	160	160
07:45 PM	0	67	0	0	67	0	0	0	0	0	0	83	0	0	83	0	0	0	0	0	0	150	150
Total	0	310	0	0	310	0	0	0	0	0	0	344	0	1	344	0	0	0	0	0	1	654	655
08:00 PM	0	74	0	1	74	0	0	0	0	0	0	87	0	0	87	0	0	0	0	0	1	161	162
08:15 PM	0	84	0	2	84	0	0	0	0	0	0	100	0	0	100	0	0	0	0	0	2	184	186
08:30 PM	0	78	0	0	78	0	0	0	0	0	0	85	0	0	85	0	0	0	0	0	0	163	163
08:45 PM	0	83	0	3	83	0	0	0	0	0	0	74	0	1	74	0	0	0	0	0	4	157	161
Total	0	319	0	6	319	0	0	0	0	0	0	346	0	1	346	0	0	0	0	0	7	665	672
Grand Total	0	1565	0	13	1565	0	0	0	0	0	0	1897	0	13	1897	0	0	0	0	0	26	3462	3488
Apprch %	0	100	0			0	0	0			0	100	0			0	0	0					
Total %	0	45.2	0		45.2	0	0	0		0	0	54.8	0		54.8	0	0	0		0	0.7	99.3	

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Dover Downs Driveway

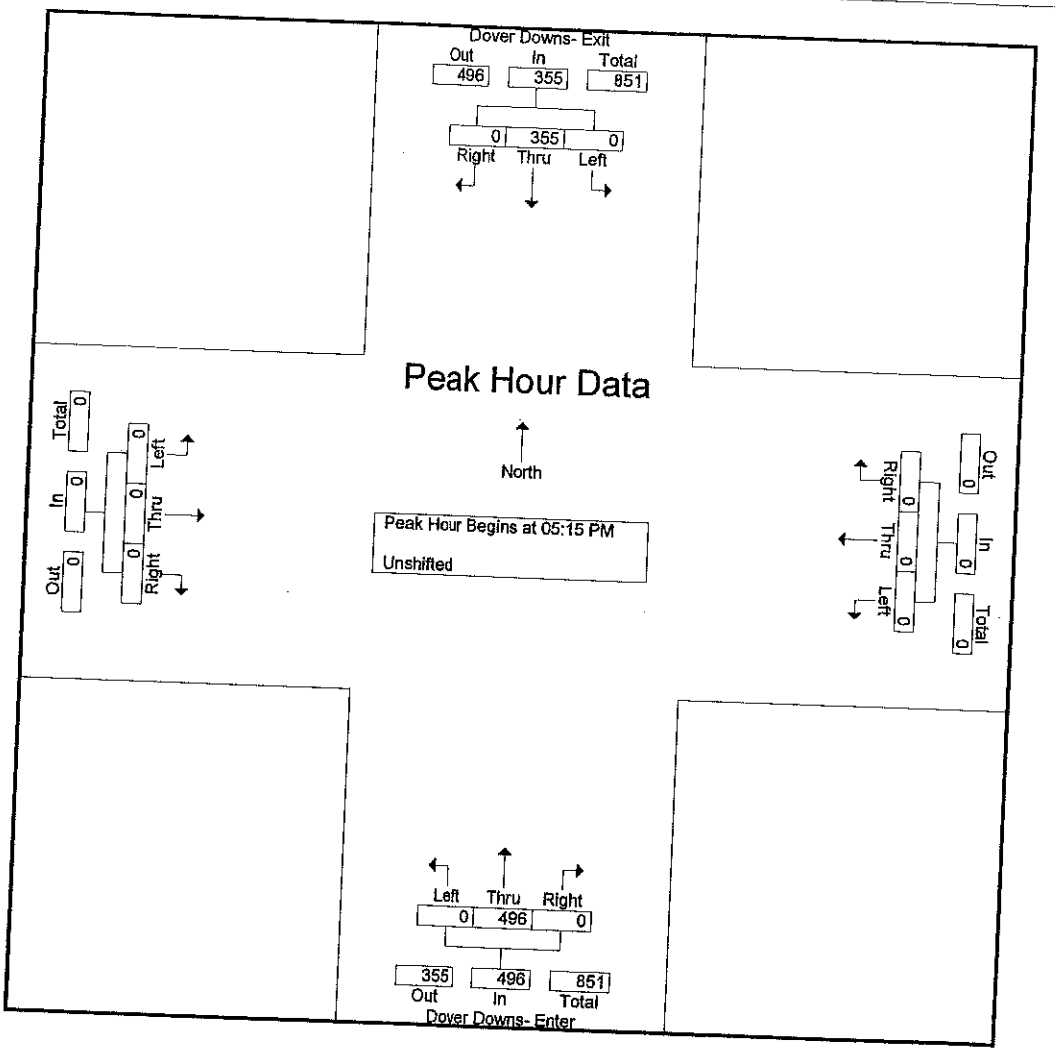
File Name : FRIDD
Site Code : 00000000
Start Date : 4/29/2005
Page No : 2



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Dover Downs Driveway

File Name : FRIDD
Site Code : 00000000
Start Date : 4/29/2005
Page No : 3

	Dover Downs- Exit Southbound				Westbound				Dover Downs- Enter Northbound				Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 08:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:15 PM																	
05:15 PM	0	97	0	97	0	0	0	0	0	106	0	106	0	0	0	0	203
05:30 PM	0	**98**	0	**98**	0	0	0	0	0	117	0	117	0	0	0	0	215
05:45 PM	0	80	0	80	0	0	0	0	0	135	0	135	0	0	0	0	215
06:00 PM	0	80	0	80	0	0	0	0	0	**138**	0	**138**	0	0	0	0	**218**
Total Volume	0	355	0	355	0	0	0	0	0	496	0	496	0	0	0	0	851
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.906	.000	.906	.000	.000	.000	.000	.000	.899	.000	.899	.000	.000	.000	.000	.976



Counter: 4
Counted By: N. Zipay/S. Gault
Weather: rain
Saved As: SATDD

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Dover Downs Driveway

File Name : SATDD
Site Code : 00000000
Start Date : 4/30/2005
Page No : 1

Groups Printed- Unshifted

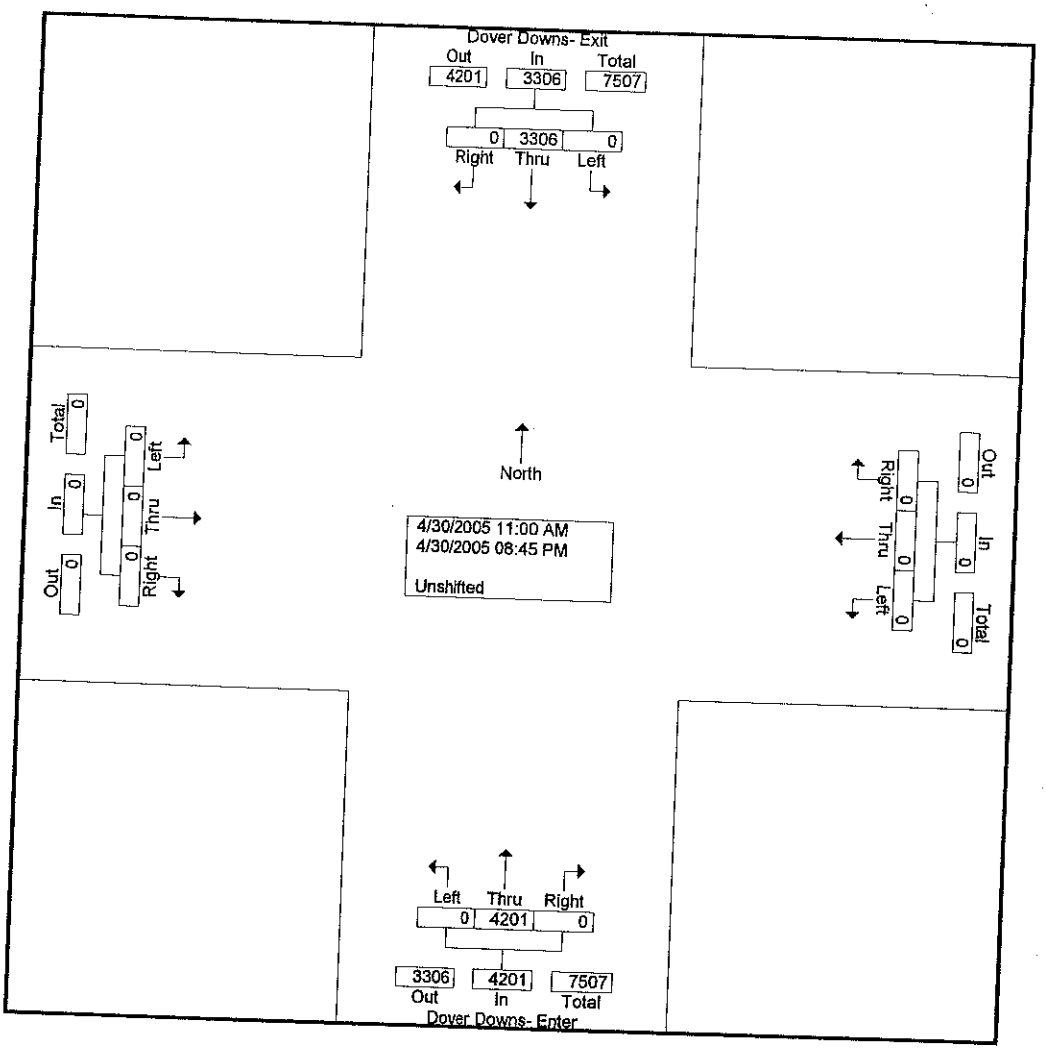
	Dover Downs- Exit Southbound					Westbound					Dover Downs- Enter Northbound					Eastbound							
Start Time	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
11:00 AM	0	42	0	2	42	0	0	0	0	0	0	94	0	1	94	0	0	0	0	0	3	136	139
11:15 AM	0	57	0	3	57	0	0	0	0	0	0	103	0	0	103	0	0	0	0	0	3	160	163
11:30 AM	0	58	0	0	58	0	0	0	0	0	0	109	0	0	109	0	0	0	0	0	0	167	167
11:45 AM	0	52	0	1	52	0	0	0	0	0	0	97	0	2	97	0	0	0	0	0	3	149	152
Total	0	209	0	6	209	0	0	0	0	0	0	403	0	3	403	0	0	0	0	0	9	612	621
12:00 PM	0	89	0	0	89	0	0	0	0	0	0	118	0	1	118	0	0	0	0	0	1	207	208
12:15 PM	0	71	0	0	71	0	0	0	0	0	0	104	0	1	104	0	0	0	0	0	1	175	176
12:30 PM	0	65	0	0	65	0	0	0	0	0	0	87	0	3	87	0	0	0	0	0	3	152	155
12:45 PM	0	63	0	0	63	0	0	0	0	0	0	93	0	0	93	0	0	0	0	0	0	156	156
Total	0	288	0	0	288	0	0	0	0	0	0	402	0	5	402	0	0	0	0	0	5	690	695
01:00 PM	0	69	0	1	69	0	0	0	0	0	0	90	0	3	90	0	0	0	0	0	4	159	163
01:15 PM	0	77	0	1	77	0	0	0	0	0	0	107	0	1	107	0	0	0	0	0	2	184	186
01:30 PM	0	50	0	0	50	0	0	0	0	0	0	99	0	0	99	0	0	0	0	0	0	149	149
01:45 PM	0	65	0	0	65	0	0	0	0	0	0	91	0	0	91	0	0	0	0	0	0	156	156
Total	0	261	0	2	261	0	0	0	0	0	0	387	0	4	387	0	0	0	0	0	6	648	654
02:00 PM	0	74	0	2	74	0	0	0	0	0	0	121	0	1	121	0	0	0	0	0	3	195	198
02:15 PM	0	62	0	1	62	0	0	0	0	0	0	91	0	0	91	0	0	0	0	0	1	153	154
02:30 PM	0	81	0	0	81	0	0	0	0	0	0	106	0	1	106	0	0	0	0	0	1	187	188
02:45 PM	0	79	0	1	79	0	0	0	0	0	0	106	0	2	106	0	0	0	0	0	3	185	188
Total	0	296	0	4	296	0	0	0	0	0	0	424	0	4	424	0	0	0	0	0	8	720	728
03:00 PM	0	86	0	1	86	0	0	0	0	0	0	102	0	1	102	0	0	0	0	0	2	188	190
03:15 PM	0	82	0	0	82	0	0	0	0	0	0	99	0	1	99	0	0	0	0	0	1	181	182
03:30 PM	0	98	0	2	98	0	0	0	0	0	0	95	0	0	95	0	0	0	0	0	2	193	195
03:45 PM	0	85	0	0	85	0	0	0	0	0	0	113	0	0	113	0	0	0	0	0	0	198	198
Total	0	351	0	3	351	0	0	0	0	0	0	409	0	2	409	0	0	0	0	0	5	760	765
04:00 PM	0	106	0	1	106	0	0	0	0	0	0	105	0	0	105	0	0	0	0	0	1	211	212
04:15 PM	0	111	0	0	111	0	0	0	0	0	0	109	0	0	109	0	0	0	0	0	0	220	220
04:30 PM	0	105	0	1	105	0	0	0	0	0	0	107	0	0	107	0	0	0	0	0	1	212	213
04:45 PM	0	66	0	0	66	0	0	0	0	0	0	92	0	0	92	0	0	0	0	0	0	158	158
Total	0	388	0	2	388	0	0	0	0	0	0	413	0	0	413	0	0	0	0	0	2	801	803
05:00 PM	0	104	0	0	104	0	0	0	0	0	0	105	0	1	105	0	0	0	0	0	1	209	210
05:15 PM	0	108	0	0	108	0	0	0	0	0	0	106	0	0	106	0	0	0	0	0	0	214	214
05:30 PM	0	91	0	0	91	0	0	0	0	0	0	143	0	0	143	0	0	0	0	0	0	234	234
05:45 PM	0	114	0	1	114	0	0	0	0	0	0	142	0	0	142	0	0	0	0	0	1	256	257
Total	0	417	0	1	417	0	0	0	0	0	0	496	0	1	496	0	0	0	0	0	2	913	915
06:00 PM	0	105	0	0	105	0	0	0	0	0	0	132	0	0	132	0	0	0	0	0	0	237	237
06:15 PM	0	73	0	1	73	0	0	0	0	0	0	102	0	1	102	0	0	0	0	0	2	175	177
06:30 PM	0	80	0	0	80	0	0	0	0	0	0	138	0	1	138	0	0	0	0	0	1	218	219
06:45 PM	0	83	0	1	83	0	0	0	0	0	0	126	0	2	126	0	0	0	0	0	3	209	212
Total	0	341	0	2	341	0	0	0	0	0	0	498	0	4	498	0	0	0	0	0	6	839	845
07:00 PM	0	87	0	1	87	0	0	0	0	0	0	100	0	0	100	0	0	0	0	0	1	187	188
07:15 PM	0	73	0	0	73	0	0	0	0	0	0	68	0	0	68	0	0	0	0	0	0	141	141
07:30 PM	0	94	0	1	94	0	0	0	0	0	0	76	0	0	76	0	0	0	0	0	1	170	171
07:45 PM	0	98	0	0	98	0	0	0	0	0	0	119	0	0	119	0	0	0	0	0	0	217	217
Total	0	352	0	2	352	0	0	0	0	0	0	363	0	0	363	0	0	0	0	0	2	715	717
08:00 PM	0	104	0	2	104	0	0	0	0	0	0	114	0	1	114	0	0	0	0	0	3	218	221
08:15 PM	0	92	0	0	92	0	0	0	0	0	0	98	0	0	98	0	0	0	0	0	0	190	190
08:30 PM	0	107	0	0	107	0	0	0	0	0	0	106	0	0	106	0	0	0	0	0	0	213	213
08:45 PM	0	100	0	1	100	0	0	0	0	0	0	88	0	1	88	0	0	0	0	0	2	188	190
Total	0	403	0	3	403	0	0	0	0	0	0	406	0	2	406	0	0	0	0	0	5	809	814

Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Dover Downs Driveway

File Name : SATDD
Site Code : 00000000
Start Date : 4/30/2005
Page No : 2

Groups Printed- Unshifted

	Dover Downs- Exit Southbound					Westbound					Dover Downs- Enter Northbound					Eastbound							
	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Left	Thru	Right	Truck	App. Total	Exclu. Total	Inclu. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0				
Grand Total	0	3306	0	25	3306	0	0	0	0	0	0	4201	0	25	4201	0	0	0	0	0	50	7507	7557
Apprch %	0	100	0			0	0	0			0	100	0			0	0	0					
Total %	0	44	0		44	0	0	0		0	0	56	0		56	0	0	0		0	0.7	99.3	



Traffic Planning and Design
2500 East High St. Suite 650
Pottstown, PA 19464
Dover Downs Driveway

File Name : SATDD
Site Code : 00000000
Start Date : 4/30/2005
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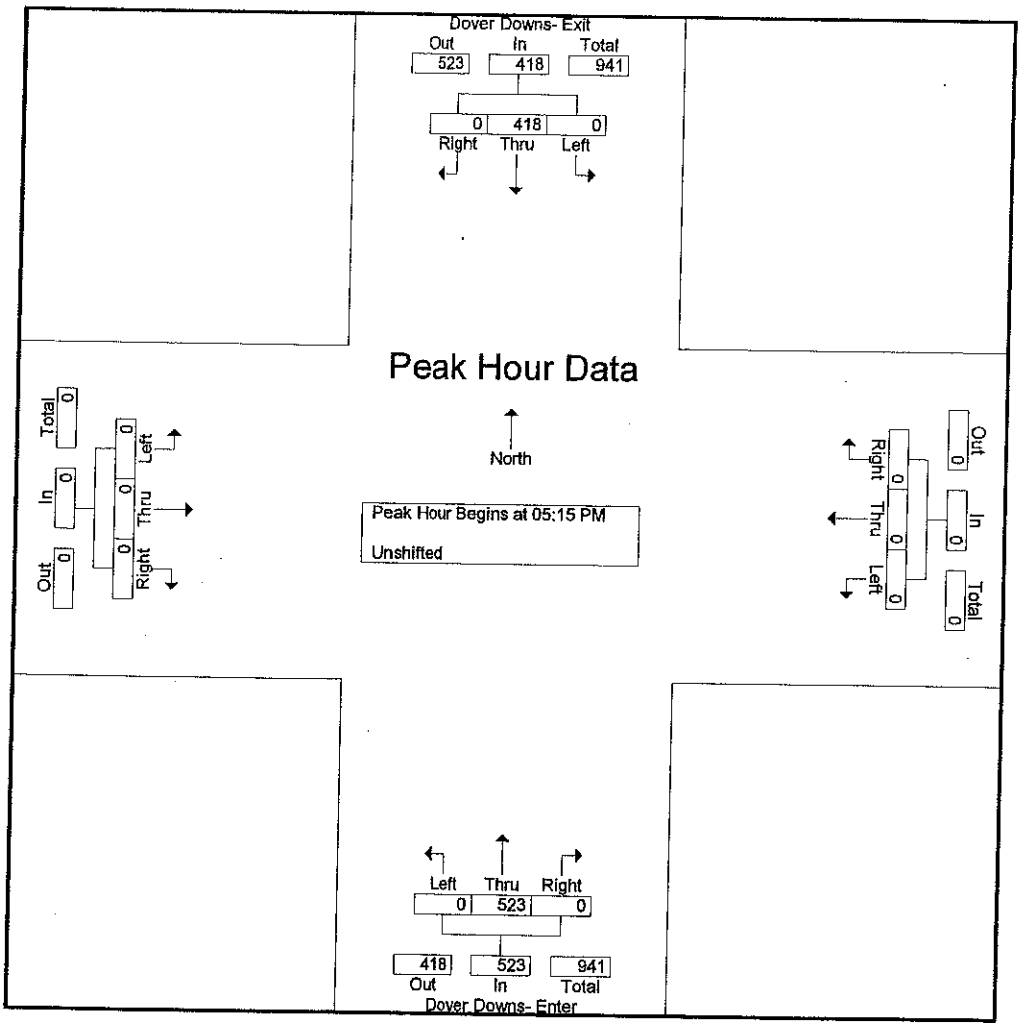
	Dover Downs- Exit Southbound				Westbound				Dover Downs- Enter Northbound				Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 11:00 AM to 08:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 05:15 PM																	
05:15 PM	0	108	0	108	0	0	0	0	0	106	0	106	0	0	0	0	214
05:30 PM	0	91	0	91	0	0	0	0	0	**143**	0	**143**	0	0	0	0	234
05:45 PM	0	**114**	0	**114**	0	0	0	0	0	142	0	142	0	0	0	0	**256**
06:00 PM	0	105	0	105	0	0	0	0	0	132	0	132	0	0	0	0	237
Total Volume	0	418	0	418	0	0	0	0	0	523	0	523	0	0	0	0	941
% App. Total	0	100	0		0	0	0		0	100	0		0	0	0		
PHF	.000	.917	.000	.917	.000	.000	.000	.000	.000	.914	.000	.914	.000	.000	.000	.000	.919



APPENDIX E

200-MILE RADIUS GRAVITY MODEL

TPD Job #: CECO.A.00008
Calculated by: EMM

Regional Gravity Model for Mount Airy Lodge[1] (200-mile Radius)

Location	County	State	Distance to Mt. Airy (Miles)	Potential Regional Gamblers	Percentage of Regional Gamblers to Mt. Airy	Potential Regional Gamblers to Mt. Airy	Percentage To Mt. Airly From Geographic Area[2]	Route to Mt. Airy				
								To/From East via 80	To/From West via 80	To/From North via 380	To/From North via 390	To/From North via 196
Local	Monroe County	PA	5	**66,853**	57.6%	**38,507**	**15.6%**					
Northwest	Chemung County	NY	145	16,178	4.5%	728				100%		
	Schuyler County	NY	165	3,999		0				100%		
	Steuben County	NY	200	15,472		0				100%		
	Bradford County	PA	90	6,930	6.3%	437				100%		
	Lackawanna County	PA	15	68,000	13.8%	9,384				100%		
	Sullivan County	PA	105	904	9.0%	81			100%			
	Susquehanna County	PA	70	5,784	9.3%	538				100%		
	Tioga County	PA	165	3,430	5.9%	202			100%			
	Wyoming County	PA	60	6,004	8.6%	516			100%			
	Total			**126,701**		**11,886**	**5.1%**		**0.3%**	**4.8%**		
North	Broome County	NY	75	30,150	5.3%	1,598				100%		
	Chenango County	NY	130	8,521	3.6%	307				100%		
	Cortland County	NY	125	10,066	2.5%	252				100%		
	Delaware County	NY	110	8,361	3.5%	293				100%		
	Otsego County	NY	160	8,770	4.0%	351				100%		
	Tioga County	NY	120	7,647	5.2%	398				100%		
	Tompkins County	NY	135	21,637		0				100%		
	Wayne County	PA	50	7,699	11.1%	855				100%		
	Total			**102,851**		**4,054**	**1.7%**			**1.4%**	**0.2%**	**0.1%**
Northeast	Fairfield County	CT	140	359,315	1.2%	4,312					60%	40%
	Dutchess County	NY	130	45,149	2.5%	1,129					60%	40%
	Greene County	NY	160	7,124	3.2%	228					60%	40%
	Sullivan County	NY	70	32,550	0.1%	33					60%	40%
	Ulster County	NY	160	41,538	2.5%	1,038					60%	40%
	Pike County	PA	35	9,610	24.2%	2,326					60%	40%
	Total			**495,286**		**9,066**	**3.9%**				**2.3%**	**1.6%**
East	Bergen County	NJ	85	328,257	2.3%	7,550		100%				
	Essex County	NJ	70	277,548	2.9%	8,049		100%				
	Hudson County	NJ	95	223,906	2.1%	4,702		100%				
	Hunterdon County	NJ	65	43,403	6.3%	2,734		100%				
	Mercer County	NJ	80	174,319	1.5%	2,615		100%				
	Middlesex County	NJ	100	266,340	2.6%	6,925		100%				
	Monmouth County	NJ	100	217,865	1.1%	2,397		100%				
	Morris County	NJ	55	162,642	7.1%	11,548		100%				
	Passiac County	NJ	85	170,973	3.4%	5,813		100%				
	Somerset County	NJ	80	101,586	4.4%	4,470		100%				
	Sussex County	NJ	55	47,105	11.4%	5,370		100%				
	Union County	NJ	85	187,525	2.9%	5,438		100%				
	Warren County	NJ	30	46,295	18.1%	8,379		100%				
	Bronx County	NY	100	302,621	1.2%	3,631		100%				
	Kings County	NY	100	632,966	1.6%	10,127		100%				
	Nassau County	NY	130	384,707	1.0%	3,847		100%				
	New York County	NY	90	489,111	1.8%	8,804		100%				
	Orange County	NY	80	85,037	3.1%	2,636					60%	40%
	Putnam County	NY	120	21,530	2.1%	452					60%	40%
	Queens County	NY	105	644,026	0.6%	3,864		100%				
	Richmond County	NY	100	125,647	2.2%	2,764		100%				
	Rockland County	NY	105	106,974	2.5%	2,674		100%				
	Suffolk County	NY	160	298,326		0		100%				
	Westchester	NY	110	464,759	1.6%	7,436					60%	40%
	Total			**5,803,468**		**122,225**	**52.8%**	**48.3%**			**2.7%**	**1.8%**

1 = Regional gravity model based upon marketing study (prepared by others)
2 = Number of potential gamblers from geographic area/totoal number of potential gamblers (200-mile radius)

TPD Job #: CECO.A.00008
Calculated by: EMM

Regional Gravity Model for Mount Airy Lodge[1] (200-mile Radius)

Southeast	Kent County	DE	200	20,747		0		100%				
	New Castle County	DE	160	124,604	0.1%	125		100%				
	Sussex County	DE	220	9,592		0		100%				
	Caroline County	MD	210	7,849		0		100%				
	Cecil County	MD	170	17,840	0.7%	125		100%				
	Dorchester County	MD	250	4,355		0		100%				
	Harford County	MD	170	31,435		0		100%				
	Kent County	MD	200	3,156		0		100%				
	Queen Anne's County	MD	200	6,541		0		100%				
	Talbot County	MD	210	5,925		0		100%				
	Atlantic County	NJ	160	125,635		0		100%				
	Burlington County	NJ	150	212,372	0.5%	1,062		100%				
	Camden County	NJ	135	248,160	0.4%	993		100%				
	Cape May County	NJ	210	44,529		0		100%				
	Cumberland County	NJ	170	52,136		0		100%				
	Gloucester County	NJ	150	123,820	0.3%	371		100%				
	Ocean County	NJ	145	171,807	0.3%	515		100%				
	Salem County	NJ	145	31,795	0.3%	95		100%				
	Total			**1,242,298**		**3,286**	**1.4%**	**1.4%**				
South	Baltimore City	MD	200	67,454		0		100%				
	Baltimore County	MD	200	87,153		0			100%			
	Carrol County	MD	180	18,154		0			100%			
	Howard County	MD	200	26,972		0			100%			
	Berks County	PA	95	67,675	3.5%	2,369		100%				
	Bucks County	PA	70	204,400	1.5%	3,066		100%				
	Chester County	PA	125	101,888	1.3%	1,325		100%				
	Delaware County	PA	120	227,192	0.6%	1,363		100%				
	Lehigh County	PA	50	158,150	3.1%	4,903		100%				
	Montgomery County	PA	105	274,806	1.3%	3,572		100%				
	Northampton County	PA	30	134,532	5.3%	7,130		100%				
	Philadelphia County	PA	120	686,104	0.0%	0		100%				
	Total			**2,054,480**		**23,728**	**10.3%**	**10.3%**	**0.0%**			
Southwest	Anne Arundel County	MD	220	56,365		0		100%				
	Adams County	PA	175	11,278		0			100%			
	Carbon County	PA	50	12,415	16.9%	2,098			100%			
	Cumberland County	PA	165	44,180		0			100%			
	Dauphin County	PA	120	119,306	0.5%	597			100%			
	Juniata County	PA	150	3,112		0			100%			
	Lancaster County	PA	125	87,213	1.7%	1,483		100%				
	Lebanon County	PA	110	44,180	1.2%	530			100%			
	Perry County	PA	135	7,781	1.8%	140			100%			
	Schuylkill County	PA	85	26,886	6.4%	1,721			100%			
	Snyder County	PA	115	5,680	3.6%	204			100%			
	York County	PA	150	70,565	1.6%	1,129			100%			
	Total			**488,961**		**7,902**	**3.4%**	**0.6%**	**2.8%**			
West	Centre County	PA	150	13,700		0			100%			
	Clinton County	PA	140	3,272		0			100%			
	Columbia County	PA	70	10,515	7.2%	757			100%			
	Luzerne County	PA	40	139,227	5.8%	8,075			100%			
	Lycoming County	PA	150	13,075	6.6%	863			100%			
	Mifflin County	PA	120	4,961		0			100%			
	Montour County	PA	80	2,501	6.4%	160			100%			
	Northumberland County	PA	95	16,712	5.3%	886			100%			
	Union County	PA	120	6,074	5.2%	316			100%			
	Total			**210,037**		**11,057**	**4.8%**		**4.8%**			
Total				**10,590,935**		**231,711**		**60.6%**	**7.9%**	**6.2%**	**5.2%**	**3.5%**

1 = Regional gravity model based upon marketing study (prepared by others)
2 = Number of potential gamblers from geographic area/totoal number of potential gamblers (200-mile radius)

TPD Job #: CECO.A.00008
Calculated by: EMM

Local Traffic (Monroe County) Gravity Model[1]

Municipality	2000 Population	Percentage	Route to Mt. Airy								
			To/From East via 80	To/From East via 940	To/From West via 80	To/From West via 940	To/From North via 611	To/From North via 196	To/From North via 191	To/From North via 390	To/From South via 611
Barret Township	3,880	2.8%							5%	95%	
Chestnuthill Township	14,418	10.4%	25%								75%
Coolbaugh Township	15,205	11.0%					50%	50%			
Delaware Water Gap Borough	744	0.5%	100%								
East Stroudsburg Borough	9,888	7.1%	100%								
Eldred Township	2,665	1.9%	100%								
Hamilton Township	8,235	5.9%	100%								
Jackson Township	5,979	4.3%									
Middle Smithfield Township	11,495	8.3%	25%	75%							100%
Mount Pocono Borough	2,742	2.0%				50%	50%				
Paradise Township	2,671	1.9%		20%		20%	10%		20%	20%	10%
Pocono Township	9,607	6.9%									100%
Polk Township	6,533	4.7%	50%								50%
Price Township	2,649	1.9%		50%					10%	40%	
Ross Township	5,435	3.9%	100%								
Smithfield Township	5,672	4.1%	90%								10%
Stroud Township	13,978	10.1%	80%								20%
Stroudsburg Borough	5,756	4.2%	100%								
Tobyhanna Township	6,152	4.4%				100%					
Tunkhannock Township	4,983	3.6%				100%					
Total	138,687	100.0%	58755	10480	0	13040	9241	7603	993	5280	33296
Percentage of Traffic From Monroe County			**7.0%**	**1.3%**	**0.0%**	**1.6%**	**1.1%**	**0.9%**	**0.1%**	**0.6%**	**4.0%**

1 = Based upon 2000 United States Census Bureau Data prepared by the Pennsylvania State Data Center