

TRAFFIC IMPACT STUDY

Proposed Residential Project on Railway Road

Proposed Residential Development Sussex County, Delaware

> Prepared for Linder & Company, Inc.

DELAWARE DEPARTMENT OF TRANSPORTATION

AUG 0 3 2005

DIVISION OF PLANNING

Prepared by Orth-Rodgers & Associates, Inc. July 29, 2005

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EXECUTIVE SUMMARY

Orth-Rodgers & Associates, Inc. (ORA) has conducted a traffic study for Linder & Company, Inc.'s proposed residential project on Railway Road. The site is located on 125 acres adjacent to the existing Bethany Bay development on the north side of Railway Road in Sussex County, Delaware. The proposed land use includes 480 condominiums. The land is currently zoned MR-RPC and a rezoning to MR-2-RPC would be necessary for this project to proceed. Since this development is located at the end point of Railway Road, there is technically no new access driveway to analyze as part of this project. The first phase of construction is expected to begin shortly after approvals and permits are obtained, with the project being completed by 2015.

The Delaware Department of Transportation (DelDOT) defined the scope of work in a July 8, 2004 memorandum. It was noted that the study area should include analyzing existing and future traffic conditions at the following intersections:

- 1. Old Mill Road (Rd 349) and Railway Road
- 2. Old Mill Road (Rd 349) and Clubhouse Road (Rd 351)
- 3. Delaware Route 26 & Delaware Route 17
- 4. Delaware Route 26 & Railway Road
- 5. Delaware Route 26 & Old Mill Road (Rd 349)
- 6. Delaware Route 26 & Central Avenue (Rd 84/Rd 357)

Traffic volumes were collected for a typical weekday during the morning (6:30-9:00 AM) and evening (4:00-6:00 PM) peak periods and on a summer Saturday from 9:00 AM to 2:00 PM. The data was collected in July and August of 2004 for the weekday counts and on July 17, 2004 for the Saturday counts. Due to the resort nature of this area, the Saturday traffic volumes significantly drop off during the off-season (between Labor Day and Memorial Day). Since the Saturday counts were completed during the summer, so no seasonal adjustment factors were applied to the Saturday data. The weekday peak hour traffic volumes were seasonally adjusted as per the factors supplied by DelDOT.

DelDOT provided ORA with annual growth factors in a letter dated October 20, 2004, which is included in Appendix H. The growth factors were used to project future (2015) peak hour volumes. Other committed development trips were then added to the 2015 background volumes to get 2015 no build traffic volumes. The trips expected from the development were calculated using data contained in the Institute of Transportation Engineers' *Trip Generation, 7th Edition*. Diversion of pass-by trips and internal trip capture were not included in this analysis. The site traffic was then distributed and assigned to the roadway network to determine future traffic volumes for the build conditions.

Capacity and level of service analysis were performed for each intersection in the study area. The analysis was done for three separate scenarios; they are 2004 existing, 2015 no build, and 2015 full build. The latest version of HCS (version 4.1e) was used in the analysis. The results show that acceptable levels of service can be achieved for all three-peak periods during the 2004 existing conditions. For the 2015 future no build scenario:

- A.M. peak hour all intersections operate with acceptable levels of service
 - P.M. peak hour the following two intersections have unacceptable levels of service: • Delaware Route 26 and Railway Road
 - o Delaware Route 26 and Old Mill Road (Rd 349)/Millville Town Center

- Saturday peak hour all four intersections along Delaware Route 26 experience poor levels of service. They are:
 - o Delaware Route 26 and Delaware Route 17,
 - o Delaware Route 26 and Railway Road,
 - o Delaware Route 26 and Old Mill Road (Rd 349)/Millville Town Center, and
 - o Delaware Route 26 and Central Avenue (Rd 84/Rd 357)

The 2015 future full build scenario shows the same intersections with poor levels of service with one addition, which is the intersection of Delaware Route 26 and Delaware Route 17 for the p.m. peak period. It should be noted that all of these intersections would have poor levels of service with or without the proposed development.

DelDOT, as part of their Delaware Route 26 Improvement Project, has identified improvements for this study area. The following improvements stem from this project:

- Delaware Route 26 and Railway Road installation of a by-pass lane for eastbound Delaware Route 26 traffic and the realignment Railway Road intersecting with Delaware Route 26.
- Delaware Route 26 and Old Mill Road (Rd 349)
 - Separate left, through, and right-turn lanes on both approaches of Delaware Route 26.
- ▶ Delaware Route 26 and Central Avenue (Rd 84/Rd 357) -
 - The northbound approach of Central Avenue will be widened to provide separate lanes for each movement,
 - The southbound approach of Central Avenue will be widened to provide separate lanes for each movement,
 - Both the eastbound and westbound approaches of Route 26 will include an exclusive left-turn lane and a shared straight/right-turn lane, and
 - A redesigned traffic signal and timing plan will also be needed to accommodate these physical improvements.

Other projects affecting study intersections include the Millville Town Center development and the Bay Forest Development. From the Millville Town Center development the northbound approach to Delaware Route 26 will have a separate left, through, and right-turn lane while the southbound approach of Old Mill Road (Rd 349) will change lane assignments to have a separate left turn lane and shared through/right lane. From the Bay Forest development, a channelized westbound right-turn lane on Delaware Route 26 is proposed approaching Central Avenue.

The Delaware Route 26 Improvement Project, Millville Town Center development, and Bay Forest development improvements have been incorporated into the 2015 no build and 2015 full build analysis.

Even with the above improvements from other projects, the intersections along Delaware Route 26 continue to have unacceptable levels of service, specifically during the Saturday peak hour. In order to mitigate the level of service deficiencies, certain improvements have been identified. The recommendations are as follows:

Delaware Route 26 and Railway Road - Recommendations include widening the intersection approach for Railway Road to have a separate left and right turn lane. Although this improvement does not improve the intersection to acceptable levels of service, it does significantly decrease the delay from what is would be if no improvements were made. Due to the high number of committed developments and the fact that this intersection would be congested with or without the site, this improvement should be shared with other developers and should not be the sole responsibility of this project.

<u>Railway Road and Site Entrance</u> - Since this proposed development is located at the end point of Railway Road, there is technically no access driveway to analyze since trips originating and ending are not intersecting with Railway Road. Site traffic would gain access to Railway road via the existing entrance facility currently used for the Bethany Bay Site. Therefore no site access improvements are recommended.

PROJECT DESCRIPTION

This project is for the development of about 125 acres adjacent to the existing Bethany Bay development (Tax parcel 1-34-8.00-42.00) located on the north side of Railway Road (Rd 350), north of Old Mill Road (Rd 349) in Sussex County, Delaware. The site will have access on Railway Road. The location of the proposed development is illustrated in Figure 1.

As currently proposed, the site is to be developed with 480 condominiums. The land is currently zoned MR-RPC with a rezoning to MR-2-RPC in order for this project to proceed. The proposed land use and the corresponding Institute of Transportation Engineer's (ITE) land use codes are described in Table I below.

Land Use	ITE-Code	Quantity
Condominiums	230	480 Units

The proposed site is expected to be developed over a ten-year period with full build out expected in the year 2015. This traffic impact study will evaluate the following scenarios:

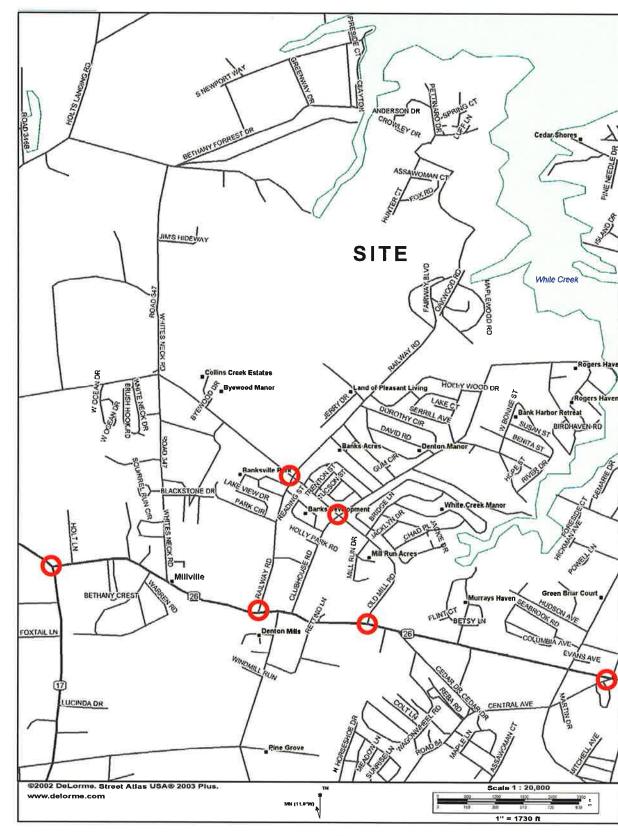
- 2004 existing a.m., p.m., and Saturday peaks,
- 2015 a.m., p.m., and Saturday peaks without the development,
- 2015 a.m., p.m., and Saturday peaks with the development.



FIGURE 1

Site Location Map Proposed Residential Project on Railway Road SUSSEX COUNTY, DELAWARE



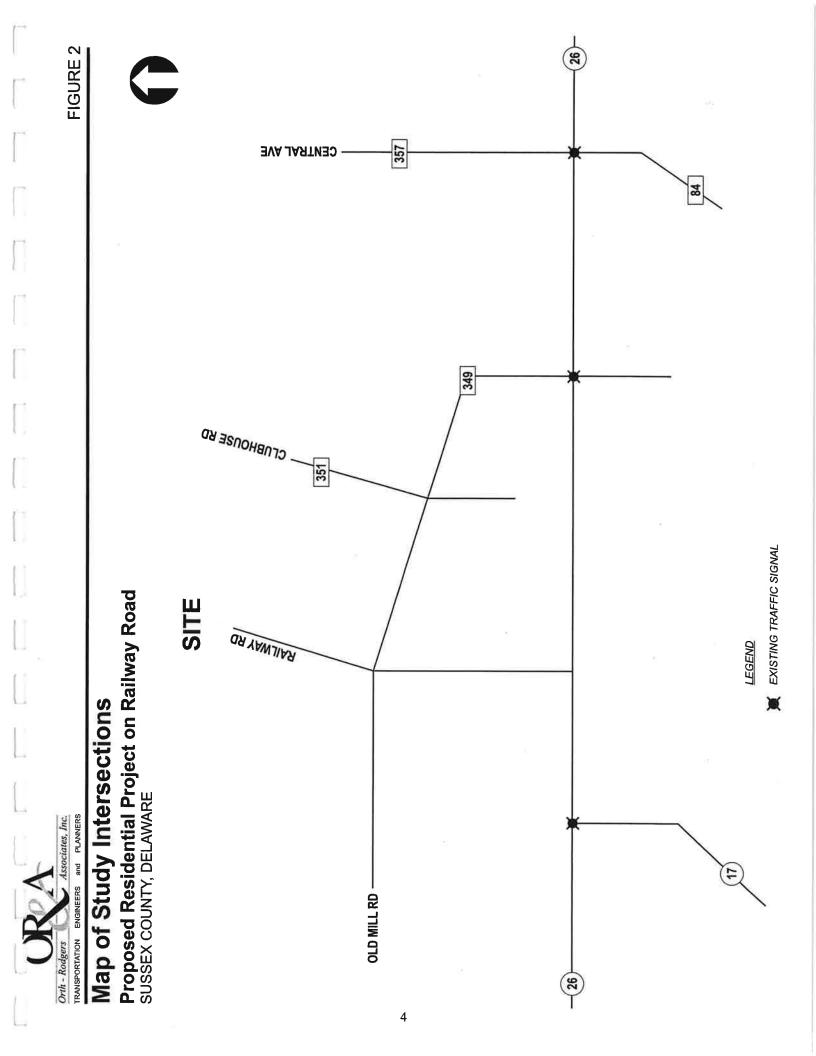


STUDY AREA

As determined at a meeting with DelDOT representatives on July 1, 2004, the study area will focus on six intersections. These include:

- 1. Old Mill Road (Rd 349) & Railway Road
- 2. Old Mill Road & Clubhouse Road (Sussex Road 351)
- 3. Delaware Route 26 & Delaware Route 17 (Roxana Rd)
- 4. Delaware Route 26 & Railway Road
- 5. Delaware Route 26 & Old Mill Road (Rd 349)
- 6. Delaware Route 26 & Central Avenue (Sussex Roads 84 & 357)

Figure 2 illustrates the location of the study area intersections.



EXISTING TRAFFIC

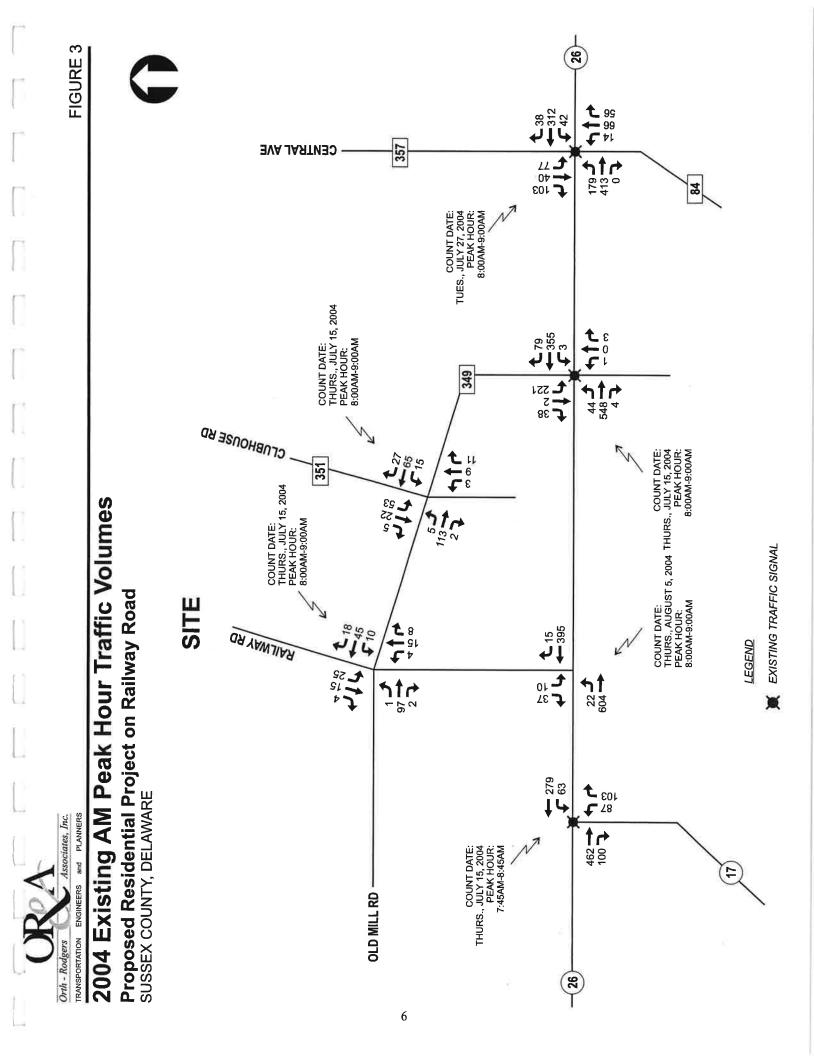
Manual traffic counts for the weekday were performed at the study intersections during the months of July and August of 2004 with the summer Saturday counts collected on July 17, 2004. All traffic counts were conducted by ORA. The weekday counts were conducted between the hours of 6:30 a.m. to 9:00 a.m. for the morning peak period, 4:00 p.m. to 6:00 p.m. for the evening peak period, while the Saturday counts were conducted between the hours of 9:00 a.m. to 2:00 p.m., as specified by DelDOT. The existing a.m., p.m., and Saturday peak hour traffic volumes can be found in Figures 3, 4, and 5. The raw traffic count data is included in Appendix A of this report.

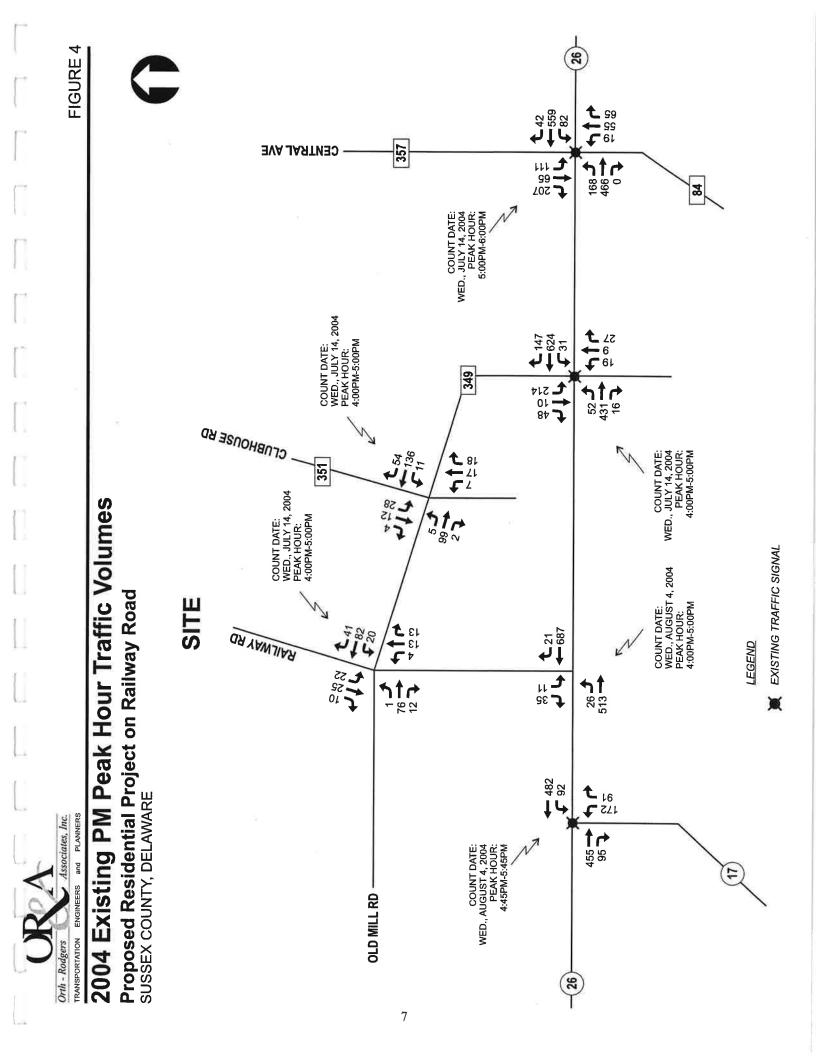
As specified by DelDOT in the July 8, 2004 scope of work letter (Appendix H), the Saturday counts were to be conducted during the summer months while schools were closed and therefore did not need to be seasonally adjusted. However, as noted in DelDOT's October 20, 2004 count approval letter (Appendix H), the weekday a.m. and p.m. peak hour volumes did require seasonal adjustments. These weekday seasonal adjustments are illustrated in Table II:

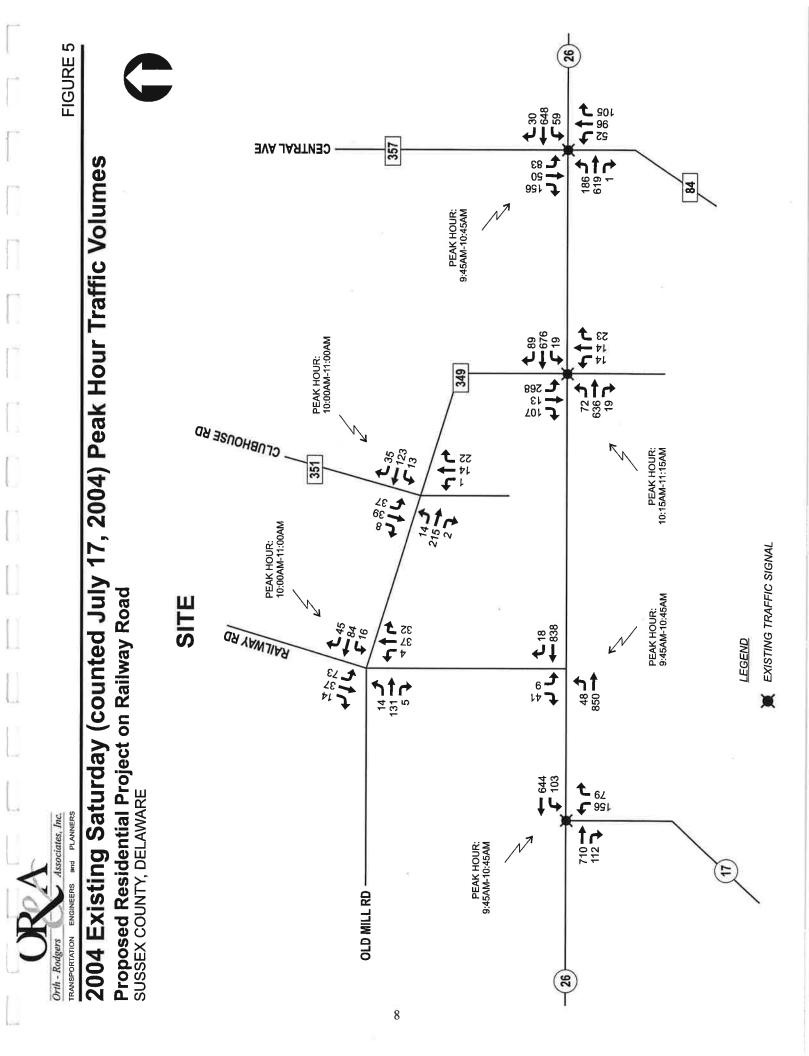
Road	July	<u>August</u>
Atlantic Avenue (Rte 26)	0.718	0.723
Roxana Road (Rte 17)	0.718	0.723
Old Mill Road (Rd 349)	1.008	1.021
Railway Road (Rd 350)	1.008	1.021
Clubhouse Road (Rd 351)	1.008	1.021
Central Avenue (Rd 84)	1.008	1.021
Central Avenue (Rd 357)	0.826	0.852

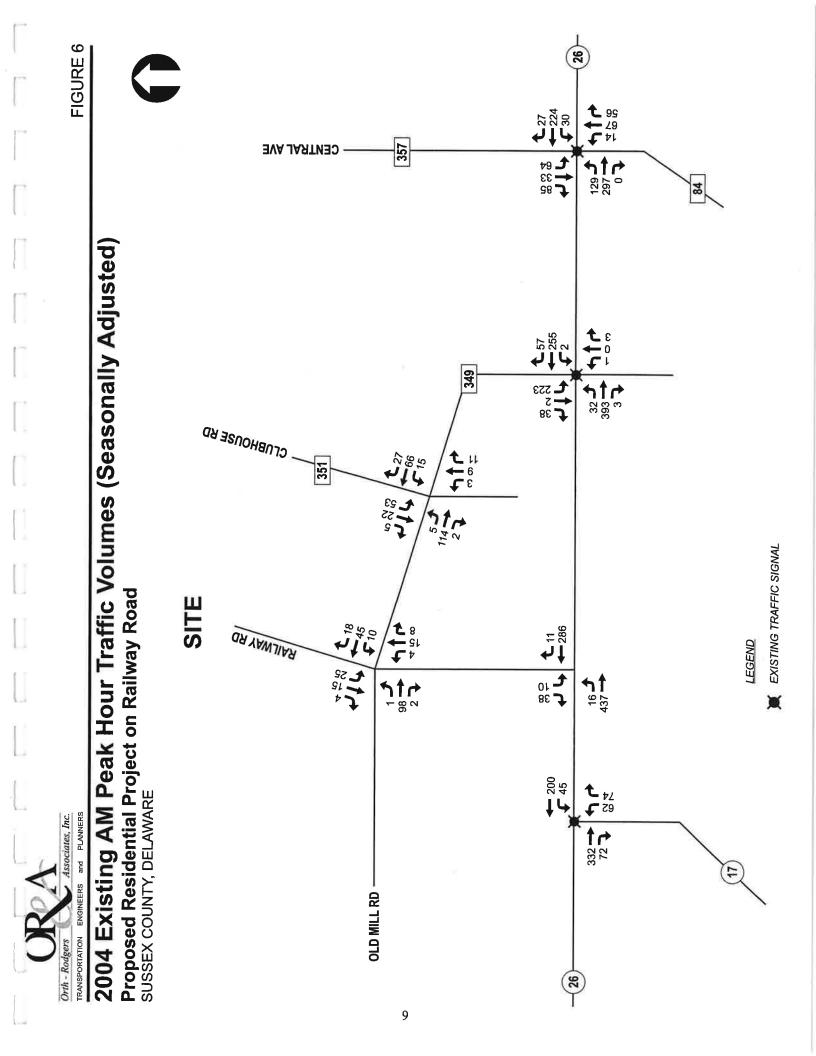
 Table II. Seasonal Adjustment Factors

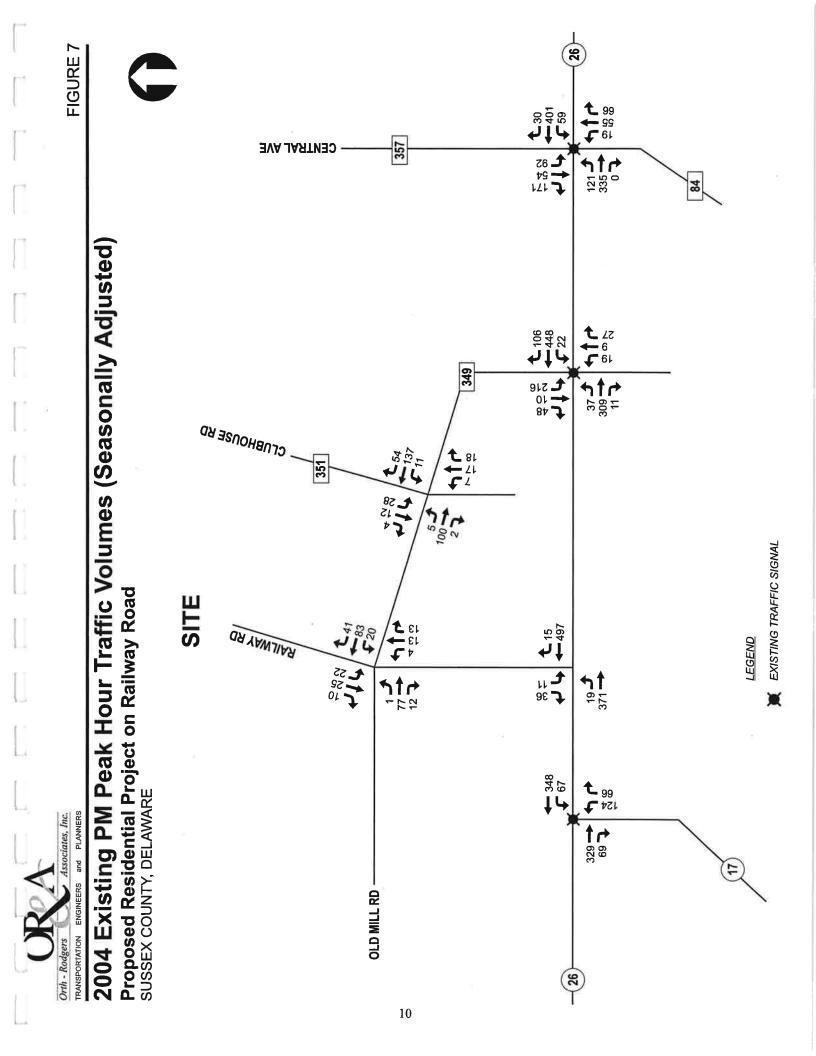
The seasonally adjusted a.m. and p.m. peak hour traffic volumes are illustrated in Figures 6 and 7. The existing traffic volumes, the distributions for other committed developments, and the procedures used to seasonally adjust the weekday traffic volumes were reviewed and commented on by DelDOT in their letter dated October 20, 2004. All comments in this letter have been addressed.











EXISTING ROADWAY FACILITIES

As part of the traffic analysis for this report, a detailed field view was conducted for the study intersections and roadways within the study area, as specified by DelDOT. In general there appeared to be no major deficiencies along the existing roadway. However the following items were noted:

- 1. Along Railway Road, the overall pavement condition is acceptable, but in certain sections the edges of the roadway were showing signs of deterioration.
- 2. The intersection of Old Mill Road and Railway Road is missing stop bars on all four legs of the intersection.
- 3. The intersection of Old Mill Road and Clubhouse Road is missing stop bars on the Old Mill Road approaches.
- 4. At the intersection of Route 26 and Route 17 there is no signal ahead sign posted on the westbound approach of Route 26.
- 5. Railway Road is lacking a stop bar on the southbound approach to Route 26.

The following describes the existing conditions of the roadway facilities found within the study area.

Railway Road from Delaware Route 26 to the

Site: This section of roadway, approximately 2.3 miles long, is a two-lane roadway with no shoulders. Lane widths vary from 9' to 12' wide with the speed limit 35 mph near Delaware Route 26 to 40 mph north of Old Mill Road. The pavement is worn, especially the edges of the roadway which looked like they were recently patched due to deterioration. The pavement markings seem to be in adequate shape.



Railway Rd SB approach to Old Mill Rd



Old Mill Road from Delaware Route 26 to

Railway Road: This section of roadway, approximately 0.75 miles long, is a two-lane roadway with no shoulders. Lane widths vary from 9.5' to 11.5' wide with a posted speed limit of 35 mph. The pavement and pavement markings are in good shape. There is a sharp curve north of the Food Lion shopping center with a curve warning sign for the eastbound approach of Old Mill Road.

Old Mill Rd EB approaching curve

Intersection of Old Mill Road & Railway Road

This intersection operates as four-way stop controlled. The posted speed limit on Old Mill Road is 35 mph while Railway Road varies from 35 mph on the south leg to 40 mph on the north leg. Both approaches of Old Mill Road and the southbound approach of Railway Road have a stop-

ahead sign. The asphalt looks worn on Railway Road while the Old Mill Road roadway looks newly paved. The pavement markings appear to be in adequate condition, but there are no stop bars on any approaches toward the intersection. Old Mill Road is 20' wide with no paved shoulders and Railway Road ranges from 20.5' to 21.5' wide with no paved shoulders. Overhead street lighting does exist and there is no curbing or sidewalks. The land use in this area is residential.



Old Mill Rd EB approach to Railway Rd

Intersection of Old Mill Road & Clubhouse Road

This intersection operates as four-way stop controlled. The posted speed limit on both streets is 35 mph and all approaches have stopahead signs. The pavement and pavement markings are in good condition, although there are no stop bars on the Old Mill Road approaches. Old Mill Road ranges from 20.5' to 22.5' wide, while Clubhouse Road is 21' wide with no paved shoulders. Overhead street lighting does not exist and there is no curbing or sidewalks. The land use in this area is residential.



Clubhouse Rd SB approach to Old Mill Rd

Intersection of Delaware Route 26 and Delaware Route 17

The intersection consists of a 'T' intersection that is signalized. The posted speed limit on Delaware Route 26 is 40 MPH while there is no speed limit posted on Delaware Route 17 near this intersection. The northbound approach of Delaware Route 17 is striped to provide an exclusive right-turn lane (9.5' wide) and an exclusive left-turn lane (11' wide and 140' of storage); the Delaware Route 26 eastbound approach consist of a 12' wide shared through/right



Del Rte 26 EB approach to Del Rte 17

turn lane (eastbound approach has a painted right turn island but not a separate right turn lane) while the westbound approach has a 12' wide through lane and an 11' wide left-turn lane (155' of storage). The asphalt and pavement markings are in good condition. Overhead street lighting does exist, there are no sidewalks, and only the southeast corner has curbing. The land use in this area is mainly commercial. It was noted that there were signal-ahead signs posted for every approach except the westbound approach of Delaware Route 26.

Intersection of Delaware Route 26 & Railway Road

This is a stop-sign controlled 'T' intersection with both roads operating as 2-lane roads. This intersection is along a curve section of Delaware Route 26. The southbound approach of Railway Road is stop sign controlled while the eastbound and westbound approaches of Delaware Route 26 is free flowing. The posted speed limit on Delaware Route 26 and Railway Road is 35 mph. Railway Road southbound approach has a stop ahead sign while there is no intersection ahead signs on Delaware Route 26. The asphalt and pavement markings appear to be in relatively good

condition, but there is no stop bar on Railway Road. Delaware Route 26 eastbound approach has a 10.5' wide shared left/through lane with a total roadway width of 27' while the westbound approach has a 10.5' wide shared right/through lane with a total roadway width of 26'. There are shoulders on both approaches of Delaware Route 26 ranging from 2' to 3.5'. Railway Road has an 11' wide shared left/right turn lane with a total roadway width of 21.5'. Overhead street lighting does exist on the northwest corner. There is no curbing or sidewalks while the land use in this area is a mix of residential/commercial.



Del Rte 26 WB approach to Railway Rd

Intersection of Delaware Route 26 and Old Mill Road

This intersection is a signalized full movement intersection and is located approximately 1.3 miles east of the signalized intersection at Delaware Route 17. Delaware Route 26 eastbound has a 10' wide left-turn lane and 10' wide shared through/right lane while the westbound approach has a 10' wide left-turn lane, 12' wide through lane and a 12' wide channelized right-turn lane. Old Mill Road southbound approach has a 12' wide shared left/through lane and a 20' wide right-



turn lane. The northbound approach from the Banks Wine and Spirits store has a 15' wide shared left/through/right lane. Old Mill Road southbound approach has a signal ahead sign. The posted speed limit along Delaware Route 26 and Old Mill Road is 35 mph. The pavements markings and roadway conditions were noted as being in very good condition during the field view. Signal timings conducted shows split phasing on the side-street approaches of Old Mill Road/Banks Wine and Spirits driveway.

Del Rte 26 WB approach to Old Mill Rd

Intersection of Delaware Route 26 and S 84 (Central Ave)

The intersection of Delaware Route 26 and Central Avenue (Rd 84/Rd 357) is a signalized four way intersection controlled by a multi-phase fully actuated traffic signal located approximately one-mile east of the signal at Old Mill Road. Delaware Route 26 eastbound approach has a 10.5' wide left-turn lane (95' storage), an 11.5' wide through lane (right-turns are prohibited on this approach), and a 5' wide shoulder for a total roadway width of 38'. Delaware Route 26 westbound approach consists of a 10.5' wide left-turn lane (60' storage) and a 10.5' wide

through/right lane for a total roadway width of 33'. Central Avenue northbound approach has a 11.5' wide shared left/through/right lane for a total roadway width of 23' while the southbound approach has a 14' wide shared left/through/right lane with a total roadway width of 29'. The posted speed limit on Route 26 is 35 MPH and on Central Avenue the speed limit is 30 MPH. The pavement and pavement markings on all approaches are in good condition.

During the field view, it was noted that this intersection appears to be the most congested location within the study area. It is characterized by poor horizontal alignment on S84, and insufficient

clear zone between edgelines and utility poles. The northbound and southbound approaches of Central Avenue are aligned with the intersection at different angles, making permissive left-turns onto Route 26 difficult. Several utility poles are located in the shoulder areas between the edgeline and the sidewalk; other poles are positioned just beyond the curb line with less than 1 foot of clearance from the travel lanes. There are signal-ahead signs for every approach except for the northbound approach of Central Avenue. Street lighting is present on the northwest corner.



Central Ave NB approach to Del Rte 26

As previously noted, right-turns from Route 26 eastbound onto Central Avenue are prohibited. However, there is a destination sign in advance of the intersection that directs motorists going to Camp Barnes to make a right-turn onto Central Avenue. The no right-turn sign and the destination sign are contradicting and should be corrected.

FUTURE TRAFFIC WITHOUT DEVELOPMENT

In order to review the development's traffic impact, future traffic volumes for the year 2015 were developed. These volumes are based on the existing 2004 volumes being projected to the future design year using the following annual growth rates as supplied by DelDOT:

- A 1.025 annual growth rate for Delaware Route 26,
- A 1.02 annual growth rate for Delaware Route 17 (Sussex Road 352),
- A 1.02 annual growth rate for Old Mill Road (Sussex Road 349),
- A 1.02 annual growth rate for Railway Road (Sussex Road 350),
- A 1.02 annual growth rate for Clubhouse Road (Sussex Road 351), and
- A 1.02 annual growth rate for Central Avenue (Sussex Road 84 & 357).

By applying these factors to the existing traffic volumes, we get future background traffic. The projected 2015 a.m., p.m., and Saturday peak hour background traffic volumes are shown in Figures 8, 9, and 10 respectively. The background growth rates used in this report were obtained from DelDOT in their October 20, 2004 letter, included in Appendix H.

There are also several other committed developments included as part of the no build future traffic volumes. For each of these developments a.m., p.m., and Saturday peak hour trips were calculated for the un-built portion of the sites. Information regarding the proposed land use and percent occupied was researched for each development and only the un-built portions were added to the base traffic volumes. These developments and their remaining portions include:

- <u>Silver Woods</u> (Figures 11, 12, and 13) Located on the south side of Beaver Dam Road between Central Avenue and Parker House Road, this development will consist of 400 single family homes. At the time of this study, there were no occupied units.
- <u>Bethany Meadows</u> (Figures 14, 15, and 16) Located on the south side of Beaver Dam Road between Parker House Road and Muddy Neck Road. This development has 2 single-family homes unoccupied.
- <u>Water Side</u> (Figures 17, 18, and 19) Located on the north side of Muddy Neck Road between Beaver Dam Road and Sussex Road 363. This development has 13 singlefamily homes and 8 townhouses unoccupied.
- <u>Southampton</u> (Figures 20, 21, and 22) Located on the north side of Beaver Dam Road between Parker House Road and Muddy Neck Road. This development has 2 singlefamily homes, 21 townhouses, and 132 public storage units to be built and occupied.
- Hunter's Run Located on the east side of Muddy Neck Road between Parker House Road and Beaver Dam Road. This development is completely built and occupied.
- <u>Bear Trap Dunes</u> (Figures 23, 24, and 25) Located north of Beaver Dam Road between Central Avenue and Parker House Road. This development has 20,000 SF of retail space, 55 townhouses/condos, and 49 single-family homes remaining to be built and/or occupied.
- <u>Korotki Property</u> Located south of Woodland Avenue between Central Avenue and Muddy Neck Road. This development is completely built and occupied.
- Wedgefield/Avon Park (Figures 26, 27, and 28) Wedgefield is located north of Central Avenue between Windmill Road and Cedar Avenue while Avon Park is located west of Windmill Road between Pine Grove Lane and Central Avenue. This development has 75 single-family homes accessed from Central Avenue and 25 single-family homes accessed from Windmill Road left to be built.

- <u>Bay Forest Club</u> (Figures 29, 30, and 31) Located on the east side of Whites Neck Rd just north of Old Mill Rd (Rd 349). This development is proposed to have 475 single-family homes and 326 townhouses/condominiums. At the time of this study, there were no occupied units.
- <u>Bay Forest Club West</u> This development was not approved by Sussex County Council, therefore it is not included in this report.
- Forest Landing (Figures 32, 33, and 34) Located on the southeast corner of Road 84 and Road 368 and is proposed to have 444 single-family homes. At the time of this study, there were no occupied units.
- <u>Fairway Village</u> (Figures 35, 36, and 37) Located on the west side of Road 84 between Windmill Road and Road 368 and is proposed to have 312 single-family homes. At the time of this study, there were no occupied units.
- <u>Windmill Property</u> (Figures 38, 39, and 40) Located on the west side of Windmill Drive between Delaware Route 26 and Road 353 and is proposed to have 106 townhouses. At the time of this study, there were no occupied units.
- <u>Doves Landing</u> (Figures 41, 42, and 43) Located on the east side of Delaware Route 17 in between Delaware Route 26 and Road 353 and is proposed to have 140 single-family homes, 142 townhouses, 120 apartments, and 147,500 SF shopping center. At the time of this study, there were no occupied units.
- <u>Barrington Park</u> (Figures 44, 45, and 46) Located on the south side of Road 353 in between Road 366 and Windmill Drive and is proposed to have 150 single-family homes and 300 condominiums. At the time of this study, there were no occupied units.
- <u>Millville Town Center</u> (Figures 47, 48, and 49) Located on the south side of Delaware Route 26 opposite Old Mill Road (Rd 349) and is proposed to have 68 townhouses and 106,500 SF shopping center. At the time of this study, there were no occupied units.
- <u>Bethany Bay</u> (Figures 50, 51, and 52) Located on the west side of Railway Road north of Old Mill Road (Rd 349) and is proposed to have an additional 100 condominiums built. At the time of this study, these additional units were not built.

In order to account for the increased traffic volumes associated with the above-mentioned developments, the trip generation volumes were calculated by using the data found in the Institute of Transportation Engineers (ITE) *seventh edition of the Trip Generation Manual*. As a result, the following a.m., p.m., and Saturday peak hour trips are anticipated from the remaining portions of those developments:

	ITE	AM peak hour			External trips			Pass-by	Interna
Land use	Code	Enter	Exit	Total	Enter	Exit	Total	%	Trip 9
Silver Woods	1			<u> </u>			1		
- Single-family homes (400 du)	210	72	217	289	72	217	289	0%	0%
Bethany Meadows									
- Single-family homes (2 du)	210	0	2	2	0	2	2	0%	0%
Waterside									
- Single-family homes (13 du)	210	5	14	19	5	14	19	0%	0%
- Townhouses (8 du)	230	1	6	7	1	6	7	0%	0%
Southampton			-						
- Single-family homes (2 du)	210	0	1	1	0	1	1	0%	0%
- Townhouses (21 du)	230	2	9	11	2	9	11	0%	0%
- Mini storage (132 units)	151	2	1	3	2	1	3	0%	0%
Bear Trap Dunes	-								
- Single-family homes (49 du)	210	9	25	34	9	25	34	0%	0%
- Townhouses/condos (55 du)	230	3	14	17	3	14	17	0%	0%
- Retail (20,000 sf)	820	25	17	42	25	17	42	0%	0%
Wedgefield/Avon Park	_								
- Single-family homes (75 du)	210	13	40	53	13	40	53	0%	0%
- Single-family homes (25 du)	210	7	20	27	7	20	27	0%	0%
Bay Forest Club									
- Single-family homes (475 du)	210	86	256	342	86	256	342	0%	0%
- Townhouses/condos (326 du)	230	23	110	133	23	110	133	0%	0%
Forest Landing									
- Single-family homes (444 du)	210	80	240	320	80	240	320	0%	0%
Fairway Village	_								
- Single-family homes (312 du)	210	57	171	228	57	171	228	0%	0%
Windmill Property						-			
- Townhouses (106 du)	230	9	45	54	9	45	54	0%	0%
Doves Landing									
- Single-family homes (140 du)	210	27	80	107	27	80	107	0%	0%
- Apartments (120 su)	220	13	50	63	13	50	63	0%	0%
- Townhouses (142 du)	230	12	56	68	12	56	68	0%	0%
- Retail (147,500 sf)	820	121	77	198	121	77	198	0%	0%
Barrington Park									
- Single-family homes (150 du)	210	29	86	115	29	86	115	0%	0%
- Condominiums (300 du)	230	21	103	124	21	103	124	0%	0%
Millville Town Center									
- Townhouses (68 du)	230	6	32	38	6	32	38	0%	0%
- Retail (106,500 sf)	820	99	64	163	99	64	163	0%	0%
Bethany Bay									
- Condominiums (100 du)	230	9	43	52	9	43	52	0%	0%
TOTAL AM Peak Hour Trips	-	731	1779	2510	731	1779	2510		

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Table IV. Other committee	ITE					xternal tr	Pass-by	Internal	
Land use	Code	Enter	Exit	Total	Enter	Exit	Total	%	Trip %
Silver Woods	_								
- Single-family homes (400 du)	210	235	138	373	235	138	373	0%	0%
Bethany Meadows									
- Single-family homes (2 du)	210	2	0	2	2	0	2	0%	0%
Waterside			-						
- Single-family homes (13 du)	210	11	6	17	11	6	17	0%	0%
- Townhouses (8 du)	230	5	3	8	5	3	8	0%	0%
Southampton							-		
- Single-family homes (2 du)	210	1	0	1	1	0	1	0%	0%
- Townhouses (21 du)	230	7	5	12	7	5	12	0%	0%
- Mini storage (132 units)	151	3	2	5	3	2	5	0%	0%
Bear Trap Dunes									
- Single-family homes (49 du)	210	28	16	44	21	11	32	0%	25%
- Townhouses/condos (55 du)	230	14	7	21	11	5	16	0%	25%
- Retail (20,000 sf)	820	78	86	164	27	29	56	62%	10%
Wedgefield/Avon Park									
- Single-family homes (75 du)	210	47	27	74	47	27	74	0%	0%
- Single-family homes (25 du)	210	20	11	31	20	11	31	0%	0%
Bay Forest Club							-		
- Single-family homes (475 du)	210	275	· 161	436	275	161	436	0%	0%
- Townhouses/condos (326 du)	230	106	52	158	106	52	158	0%	0%
Forest Landing				· · · · · · · · · · · · · · · · · · ·					
- Single-family homes (444 du)	210	258	152	410	258	152	410	0%	0%
Fairway Village									
- Single-family homes (312 du)	210	188	110	298	188	110	298	0%	0%
Windmill Property									
- Townhouses (106 du)	230	42	21	63	42	21	63	0%	0%
Doves Landing									
- Single-family homes (140 du)	210	91	54	145	67	37	104	0%	28%
- Apartments (120 su)	220	55	29	84	41	20	61	0%	28%
- Townhouses (142 du)	230	54	26	80	41	17	58	0%	28%
- Retail (147,500 sf)	820	388	421	809	229	241	470	35%	11%
Barrington Park									
- Single-family homes (150 du)	210	97	57	154	97	57	154	0%	0%
- Condominiums (300 du)	230	99	49	148	99	49	148	0%	0%
Millville Town Center									
- Townhouses (68 du)	230	29	15	44	20	7	27	0%	39%
- Retail (106,500 sf)	820	313	340	653	189	205	394	38%	3%
Bethany Bay									1.0
- Condominiums (100 du)	230	39	21	60	39	21	60	0%	0%
TOTAL AM Peak Hour Trips		2485	1809	4294	2081	1387	3468	3	×.

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Table V. Other committed	ITE	Satu	irday pea	External tr			
Land use	Code	Enter	Exit	Total	Enter	Exit	
Silver Woods							
- Single-family homes (400 du)	210	198	169	367	198	169	
Bethany Meadows						102	
- Single-family homes (2 du)	210	1	0	1	1	0	
Waterside	210	1	0	1	1	0	
	210	7		12	_		
- Single-family homes (13 du)	210	7	6	13	7	6	
- Townhouses (8 du)	230	2	2	4	2	2	
Southampton							
- Single-family homes (2 du)	210	1	1	2	1	1	
- Townhouses (21 du)	230	3	4	7	3	4	
- Mini storage (132 units)	151	2	2	4	2	2	
Bear Trap Dunes							
- Single-family homes (49 du)	210	24	20	44	18	16	
- Townhouses/condos (55 du)	230	8	8	16	6	6	
- Retail (20,000 sf)	820	119	110	229	70	64	
Wedgefield/Avon Park							
- Single-family homes (75 du)	210	36	30	66	36	30	
- Single-family homes (25 du)	210	18	15	33	18	15	
Bay Forest Club							
- Single-family homes (475 du)	210	234	200	434	234	200	
- Townhouses/condos (326 du)	230	- 75	63	138	75	63	
Forest Landing							
- Single-family homes (444 du)	210	219	187	406	219	187	
Fairway Village							
- Single-family homes (312 du)	210	156	133	289	156	133	
Windmill Property							
- Townhouses (106 du)	230	39	34	73	39	34	
Doves Landing							
- Single-family homes (140 du)	210	73	63	136	55	50	
- Apartments (120 su)	220	34	34	68	25	27	
- Townhouses (142 du)	230	45	39	84	35	30	
- Retail (147,500 sf)	820	579	535	1114	358	324	
Barrington Park							
- Single-family homes (150 du)	210	78	66	144	78	66	
- Condominiums (300 du)	230	70	60	130	70	60	
Millville Town Center							
- Townhouses (68 du)	230	33	29	62	22	18	
- Retail (106,500 sf)	820	469	433	902	293	270	
Bethany Bay							
- Condominiums (100 du)	230	39	33	72	39	33	
TOTAL AM Peak Hour Trips	-	2562	2276	4838	2060	1810	

our trip generation.

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Total

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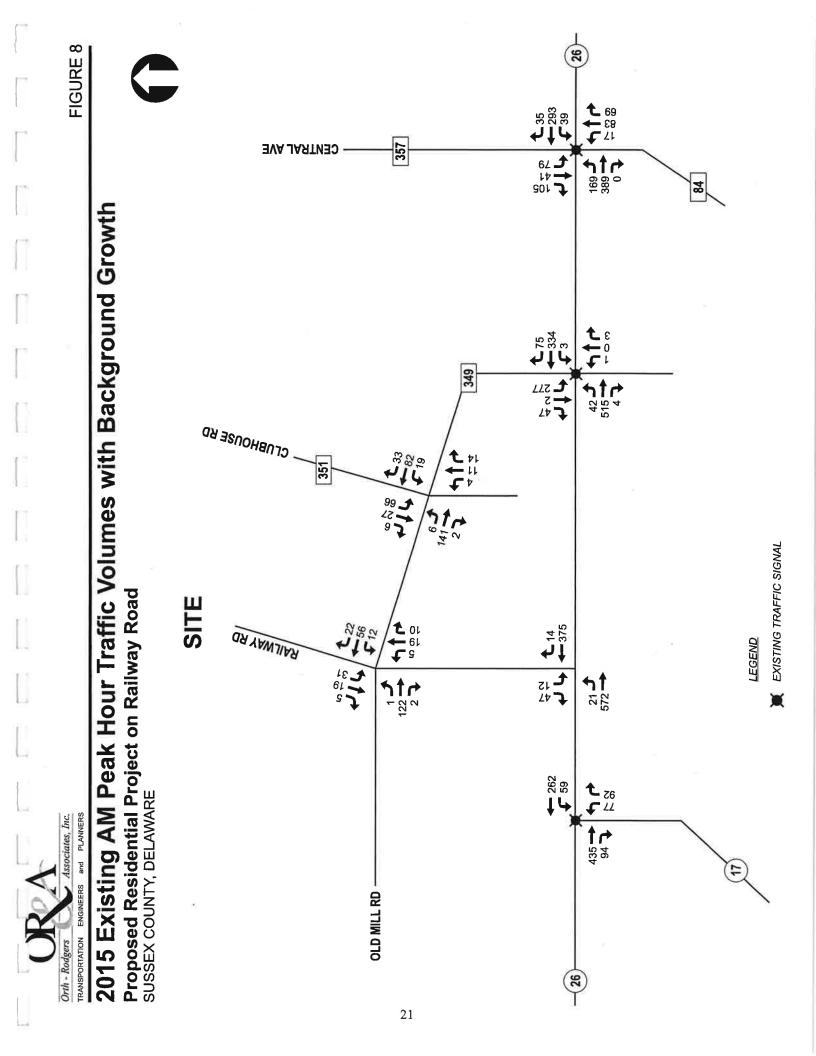
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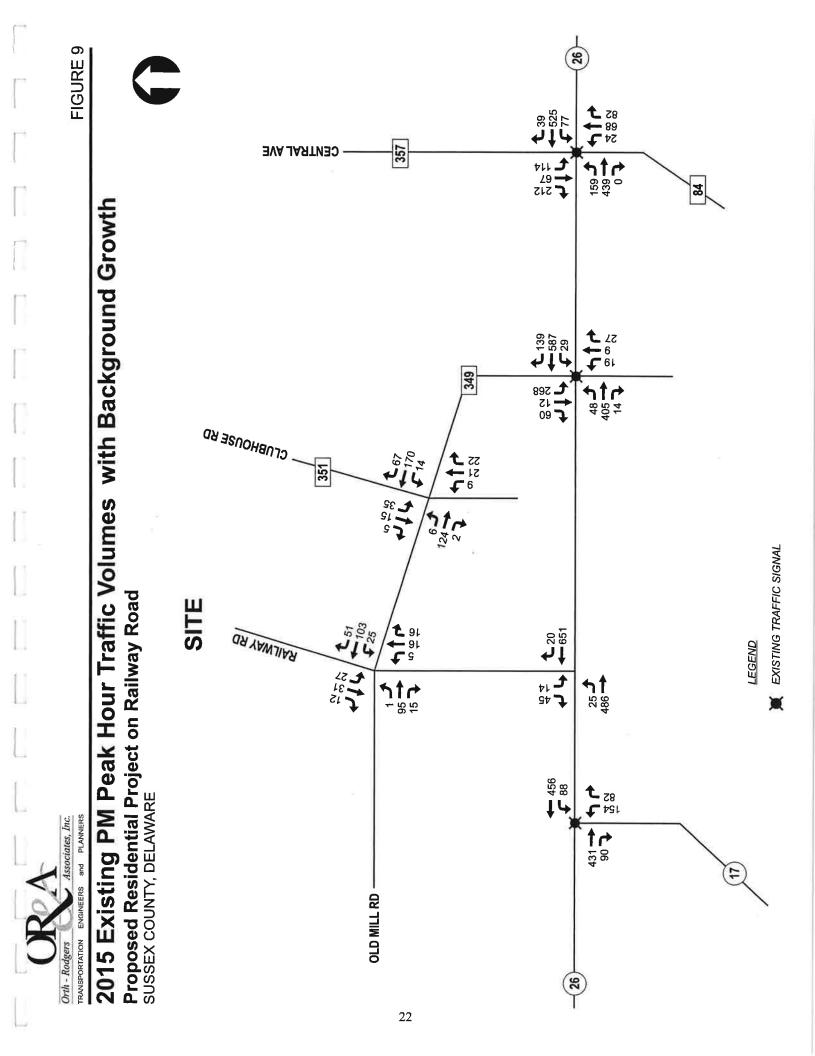
The total amount of traffic added by these other committed developments during the a.m., p.m., and Saturday peak hours are illustrated in Figures 53, 54, and 55 respectively. It is important to note that only the unbuilt and unoccupied portion of each development was included in the trip generation tabulation. Information on the status of each site along with the estimated traffic distribution for each of these other committed developments is included in Appendix B.

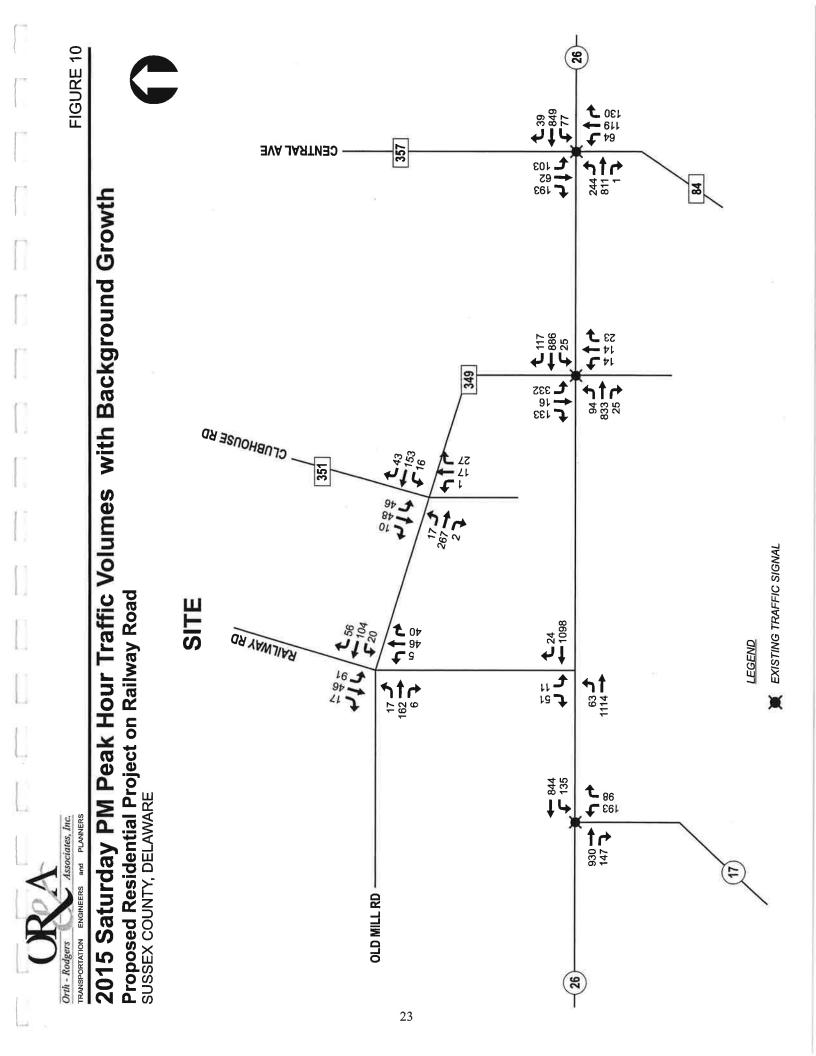
In addition to the projected growth rates and other committed development traffic, DelDOT's Route 26 Planning Study has developed several potential improvements that will affect future traffic within the study area. Data regarding the Route 26 Planning Study can be found in Appendix B. As noted in the study's Analysis and Needs Report, it is anticipated that improvements may consist of some or all of the following:

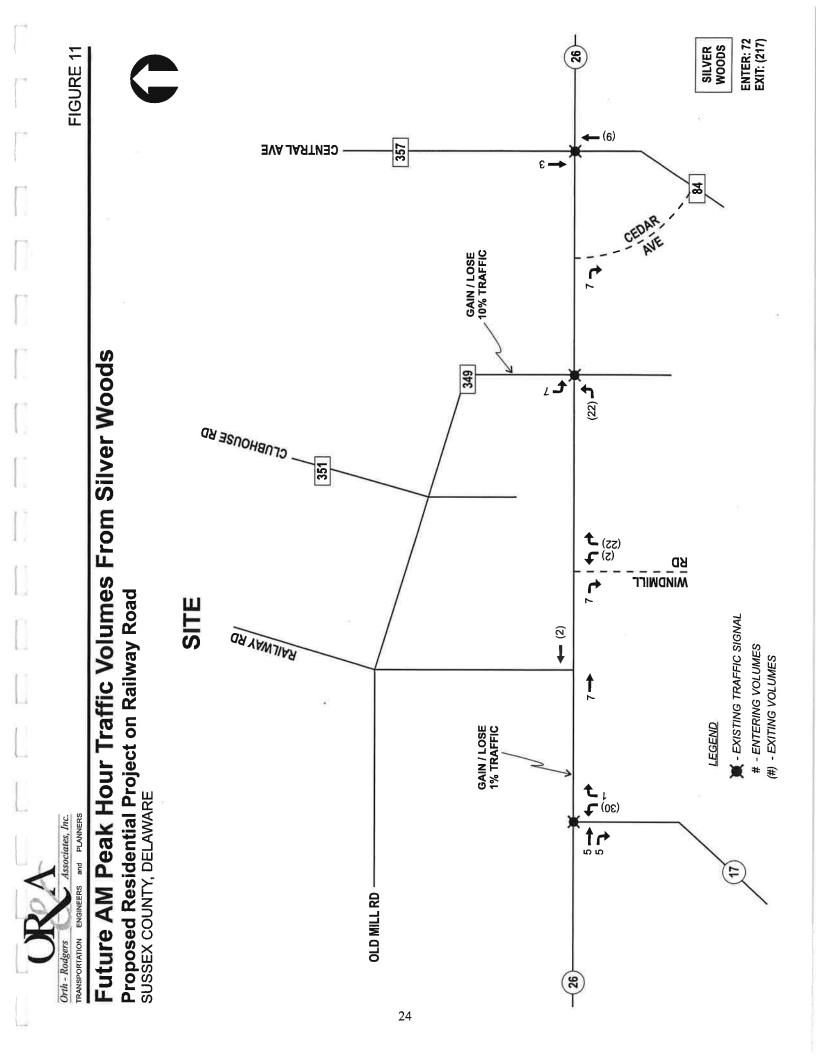
- Access improvements (combining driveways, addition of curbing)
- Additional turn lanes at intersections
- Auxiliary through lanes at unsignalized T-intersections
- Upgrade/addition of shoulders
- Traffic signal improvements (adjustment of timing/phasing)
- Additional traffic signals
- Variable message signs to re-direct traffic to less congested routes
- Improvements to existing secondary roads, for traffic to use as an alternate to Route 26.

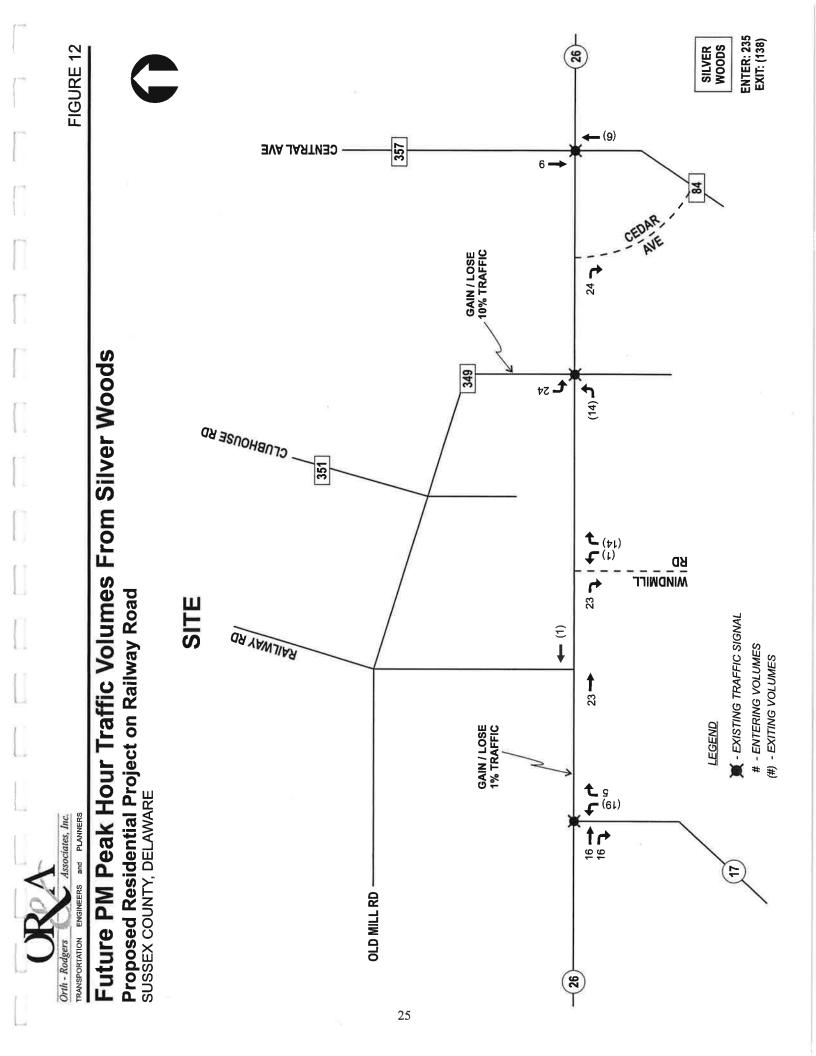
In order to account for traffic diversions associated with the alternative route improvements, DelDOT has supplied ORA with volume diversion data as found in their Route 26 Alternatives Analysis and Traffic Summary dated January 2001, prepared by McCormick Taylor. These projected diversions are included in Appendix B. The projected diversion data shows low and high-end projections. As such, this analysis uses the average of the two projections. The Saturday peak hour diversions are illustrated in Figure 56, while no diversions were assumed for the weekday conditions. By applying these diversions to the future background growth volumes and adding traffic from other committed developments, we get 2015 future No Build traffic volumes. The a.m., p.m., and Saturday 2015 No Build peak hour traffic volumes are shown in Figures 57, 58, and 59, respectively.

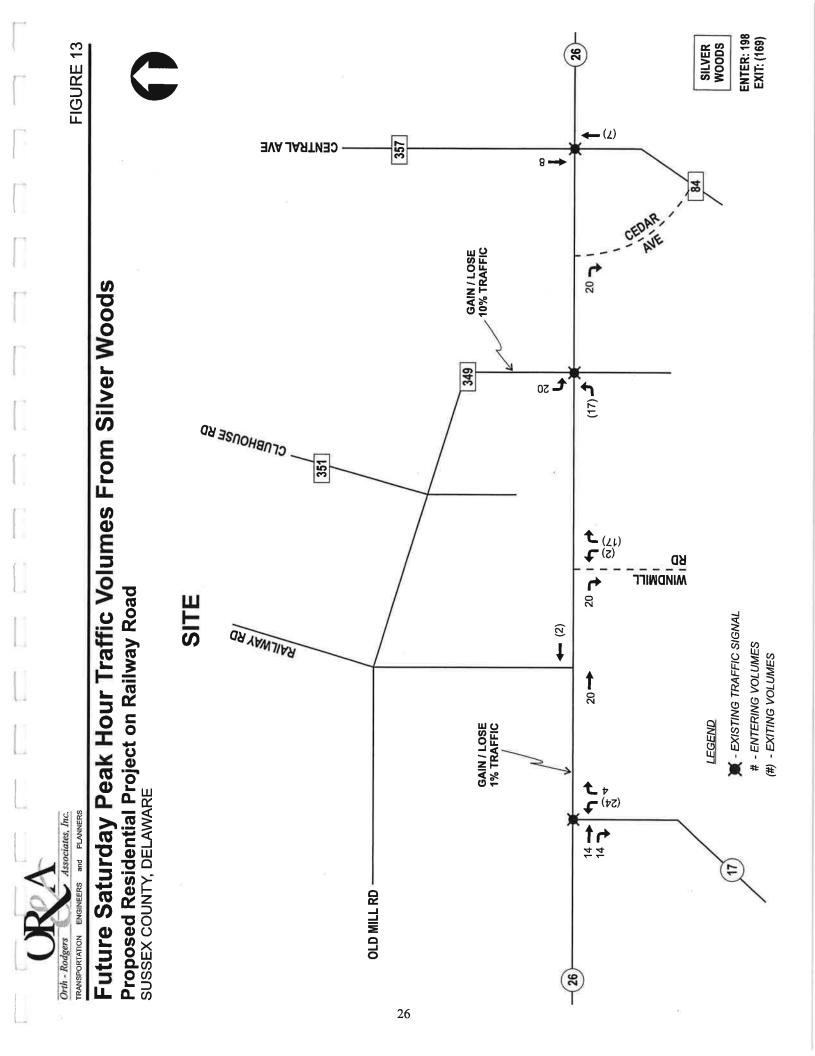


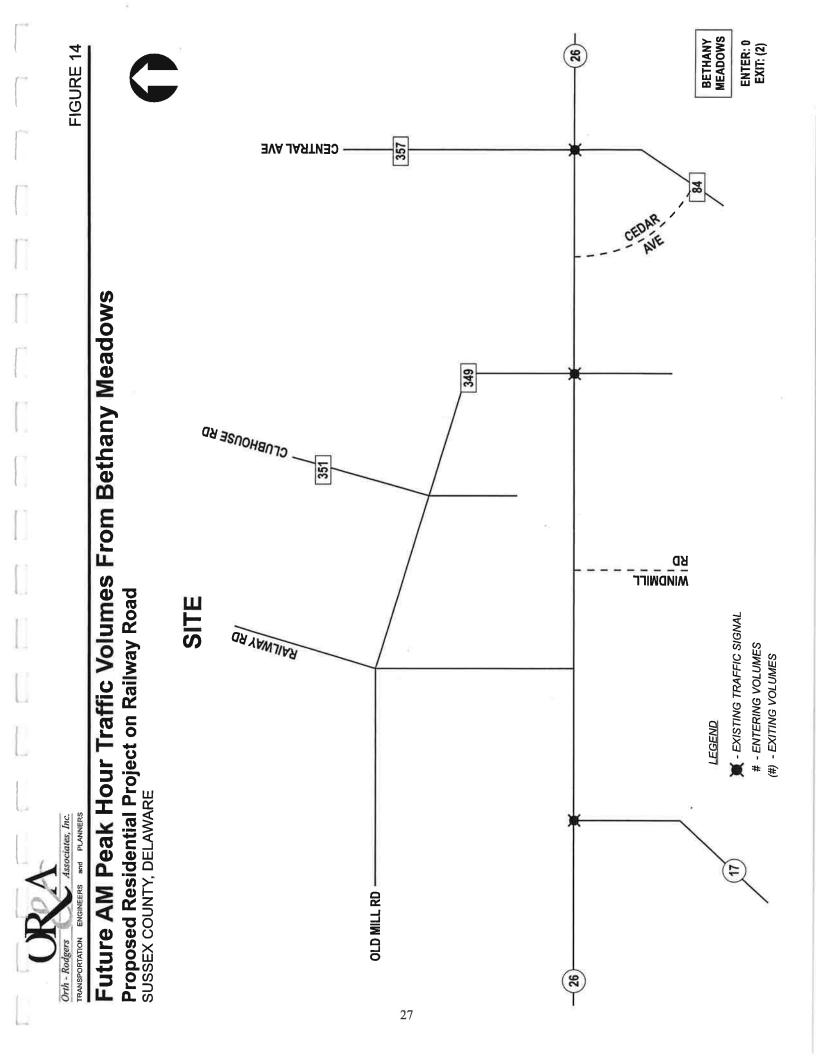


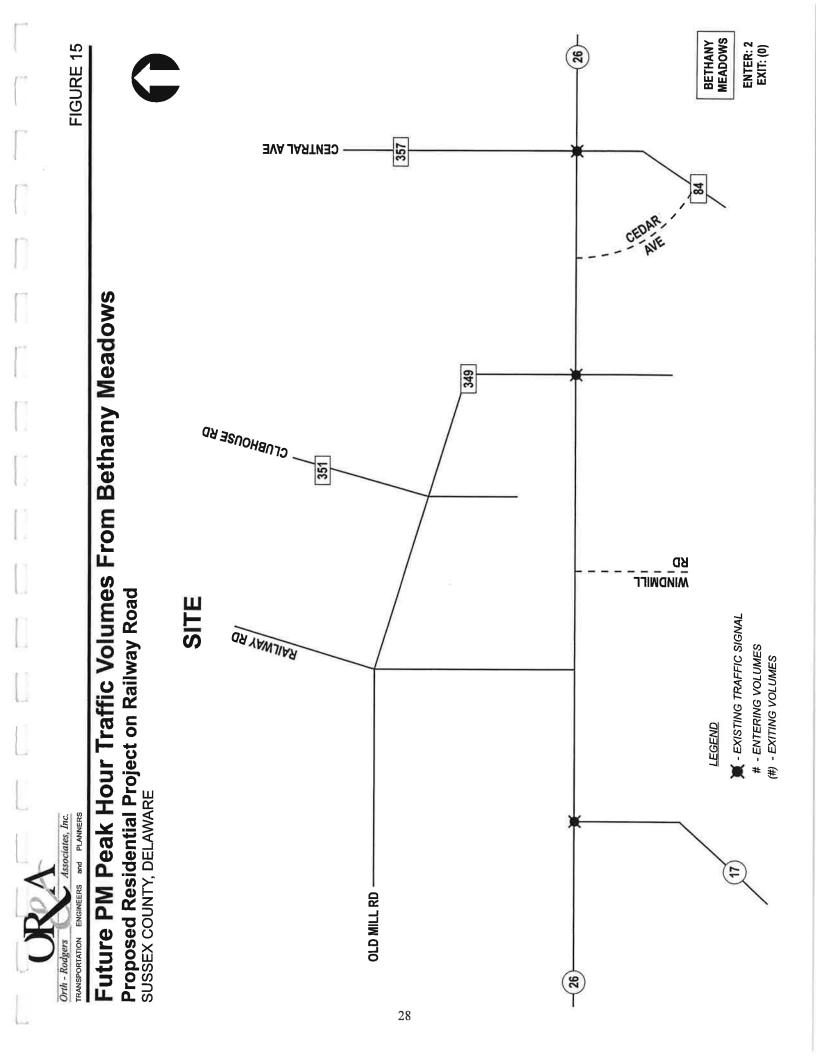


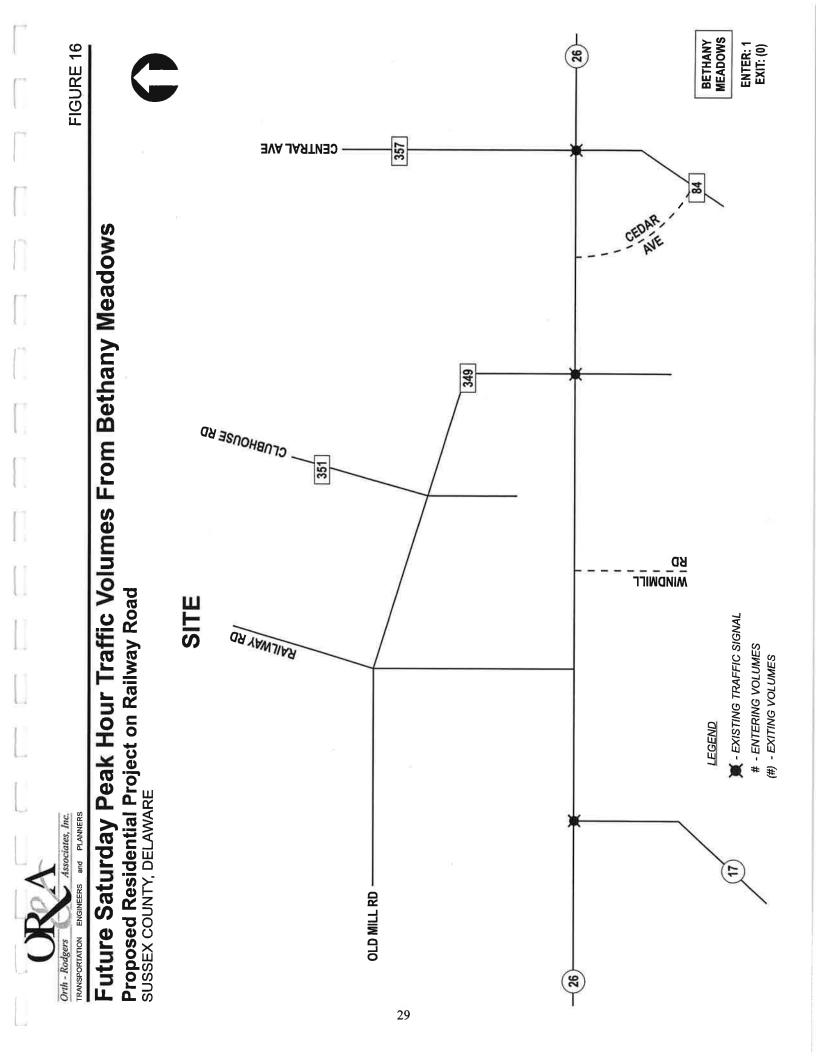


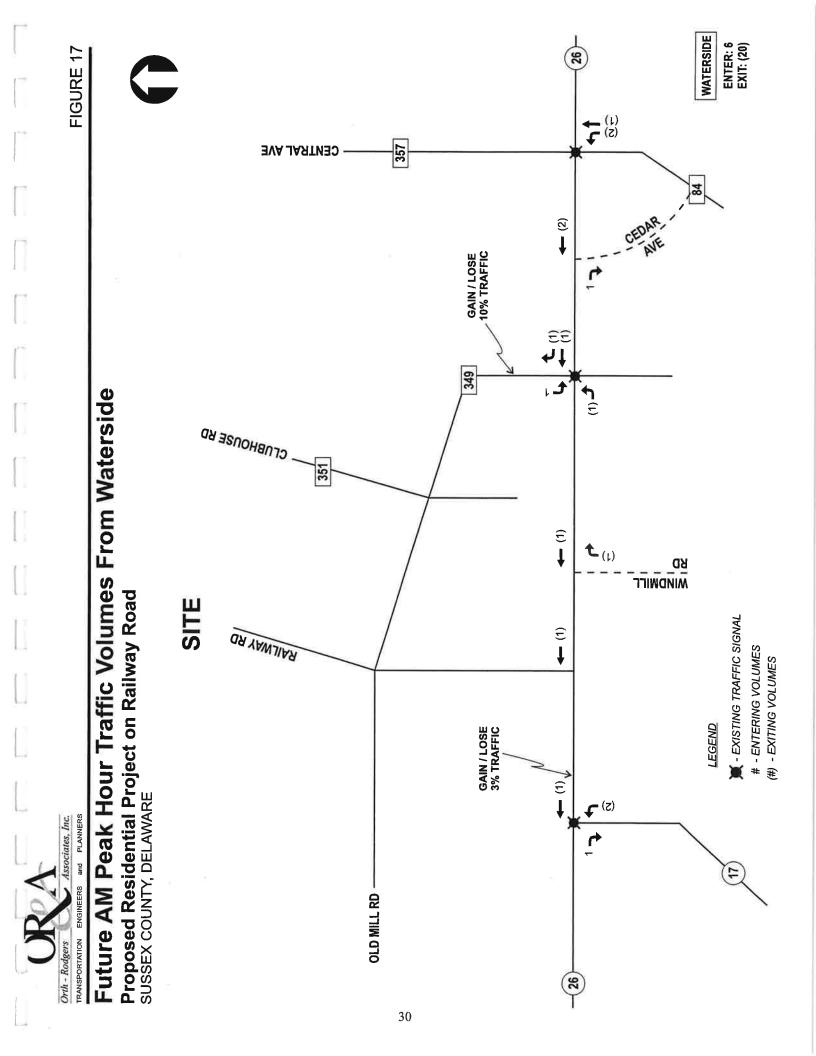


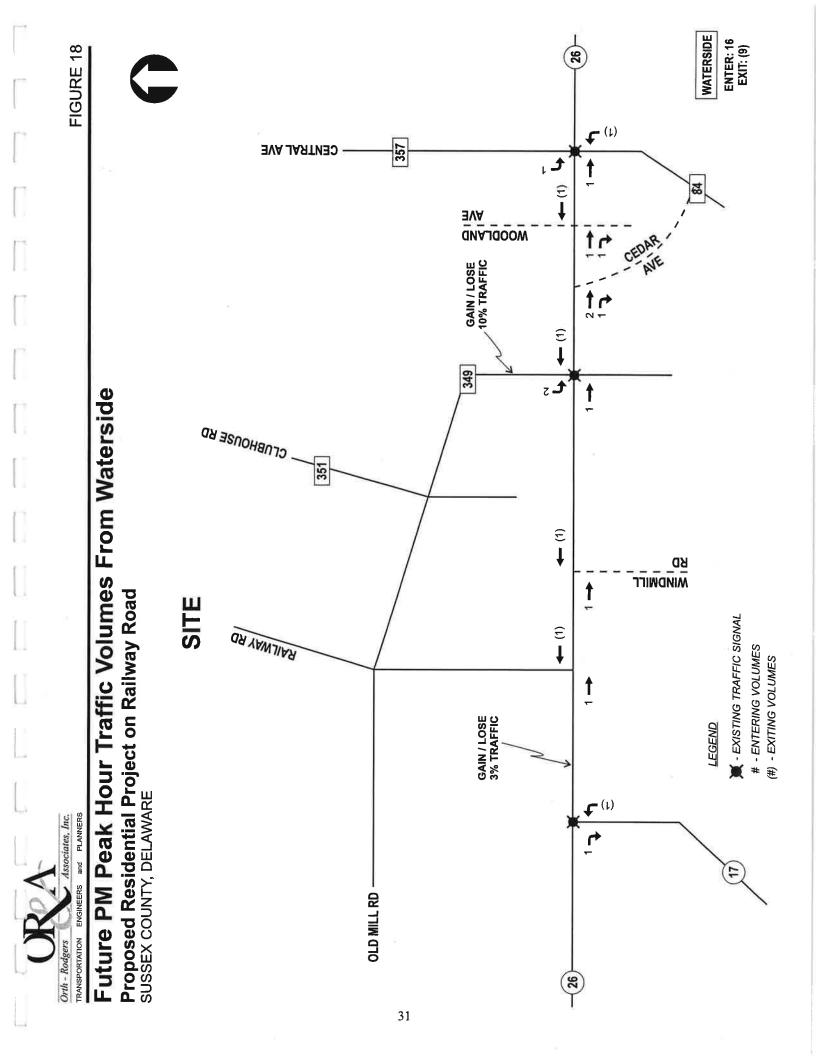


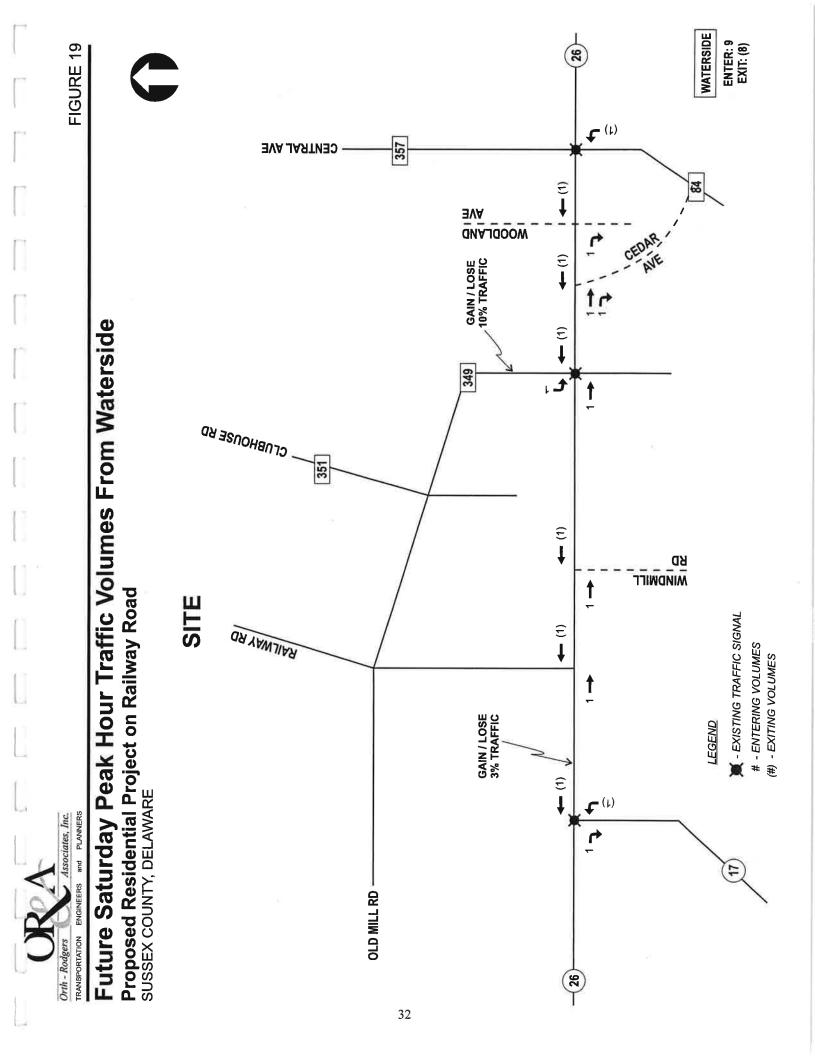


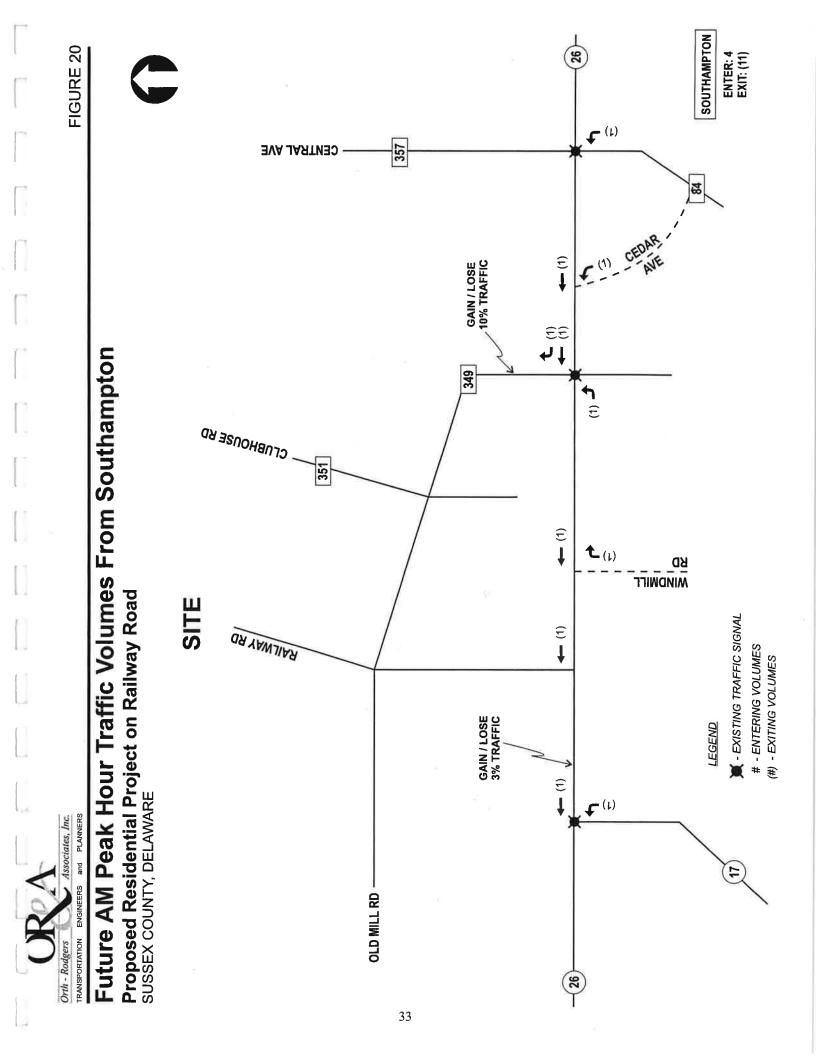


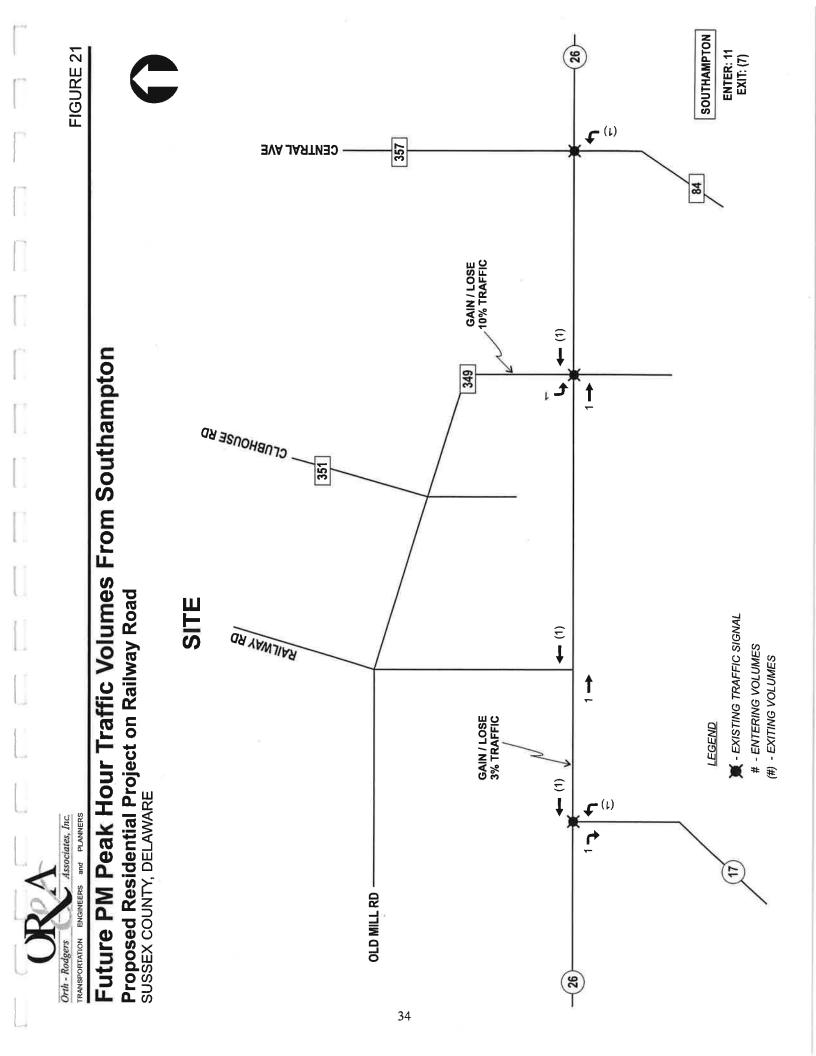


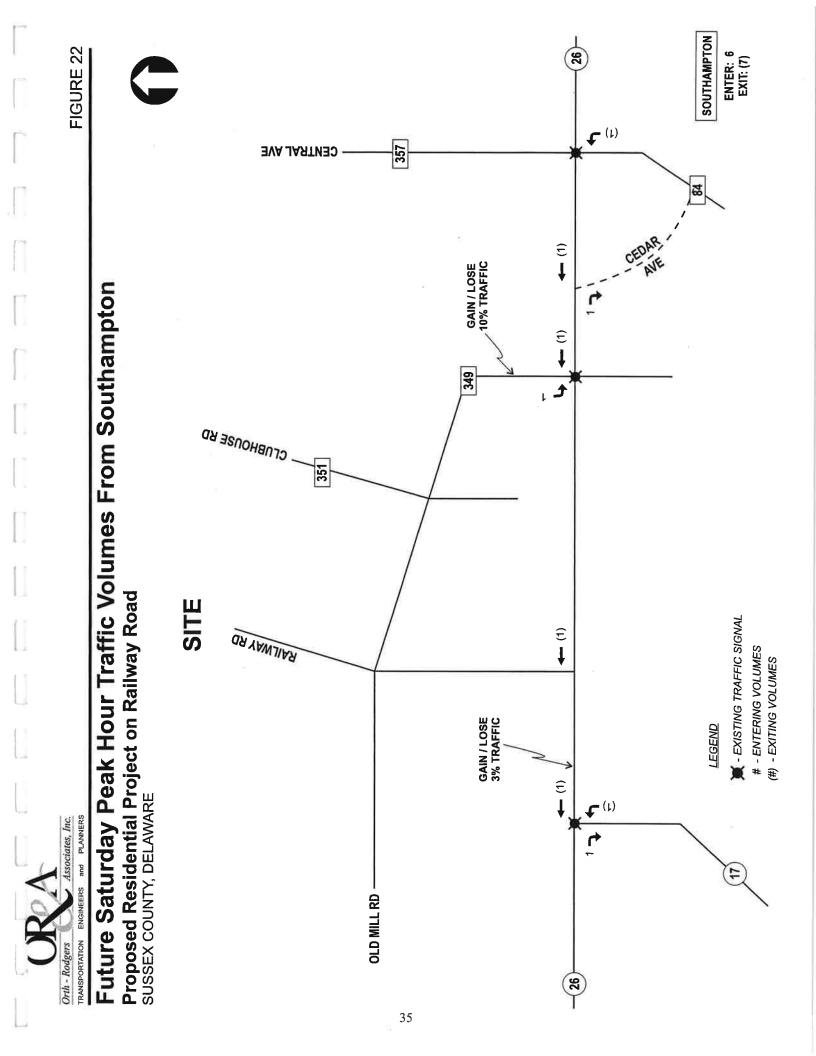


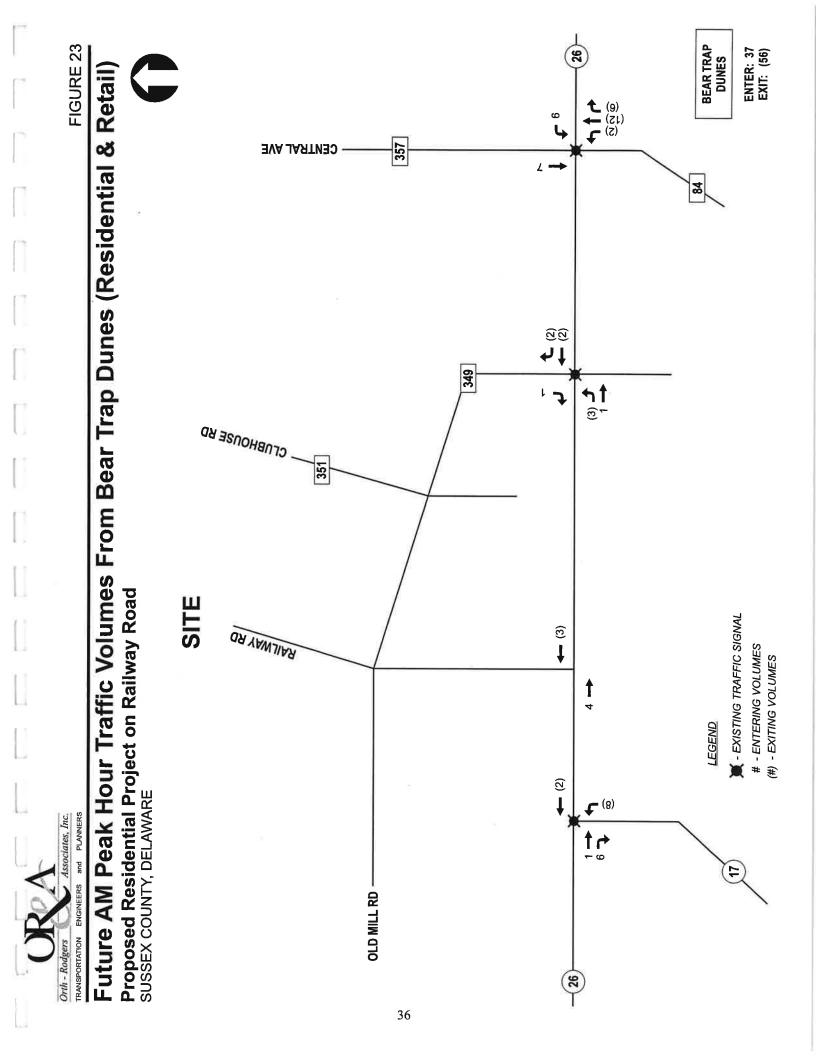


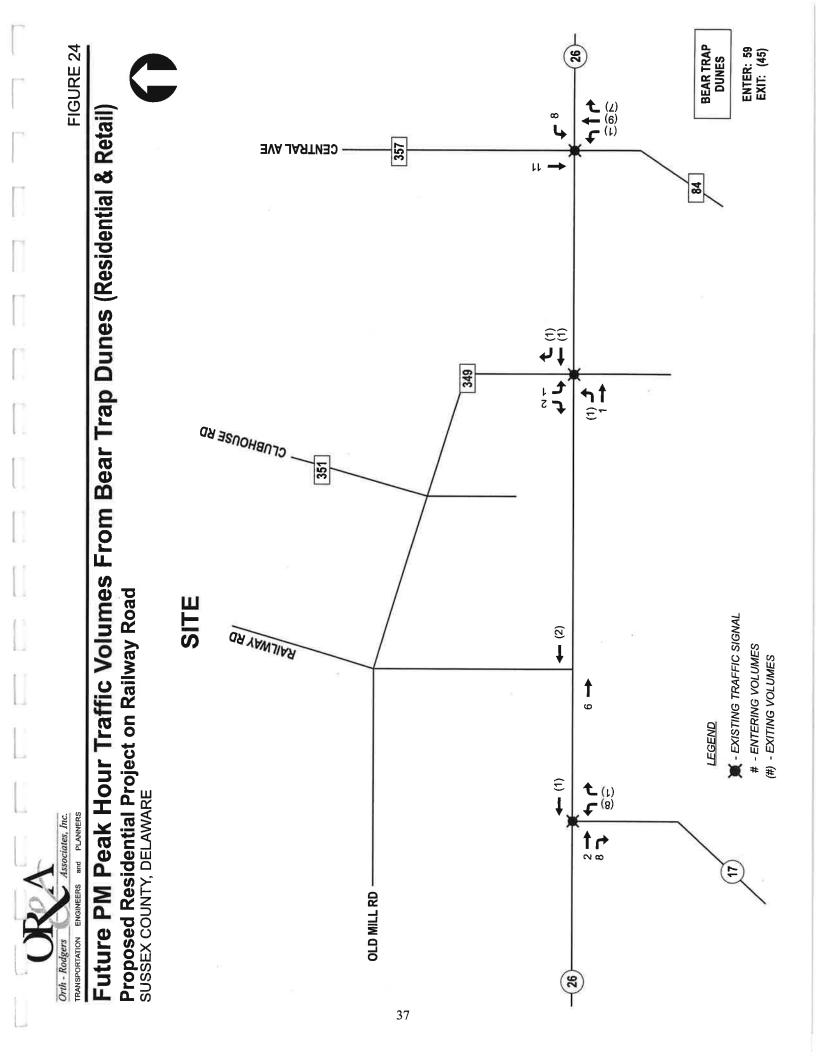


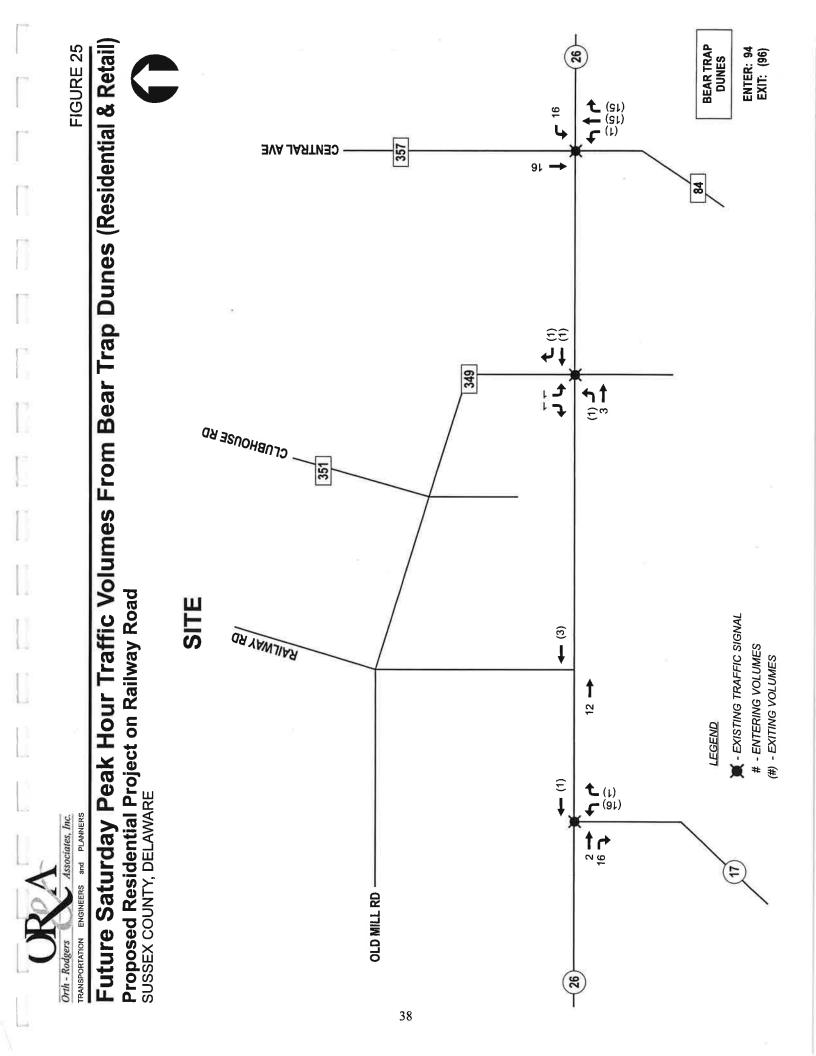


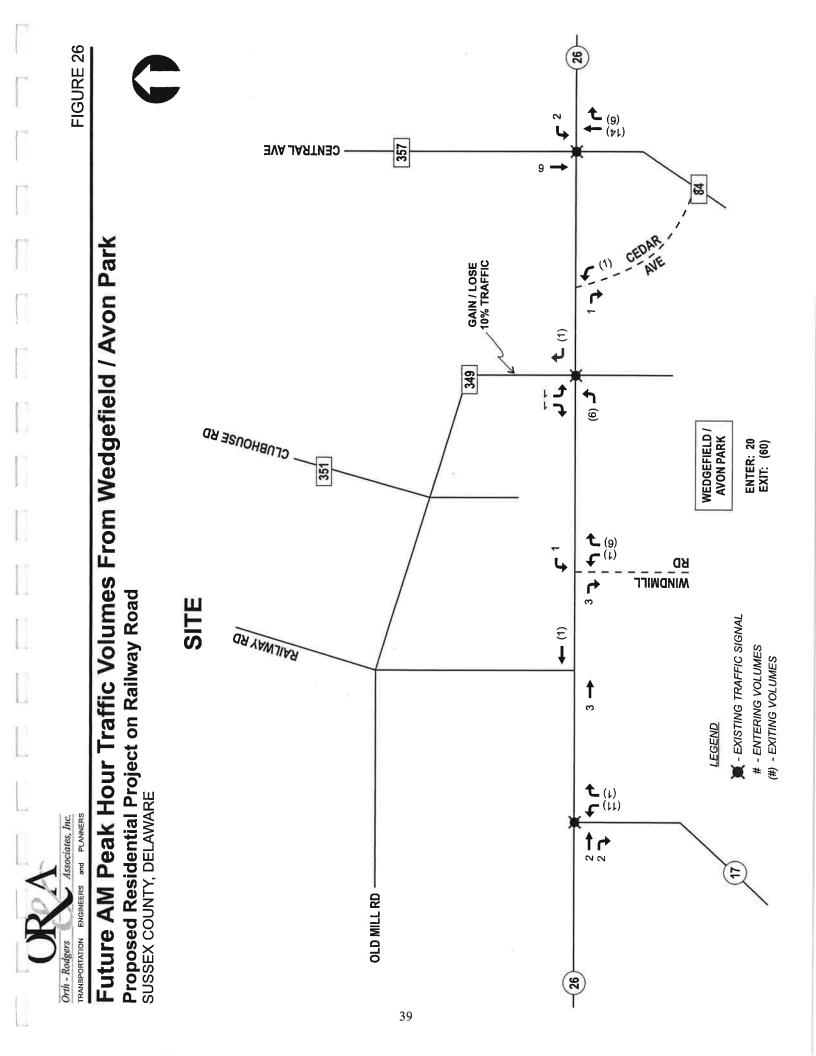


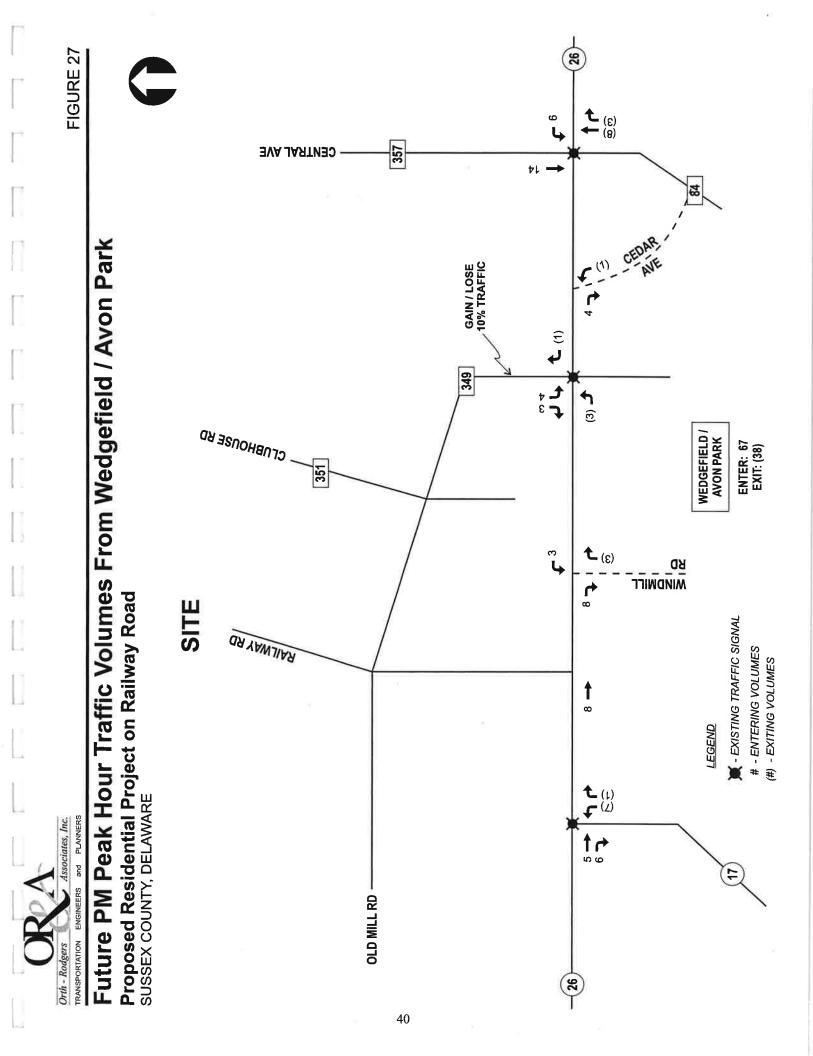


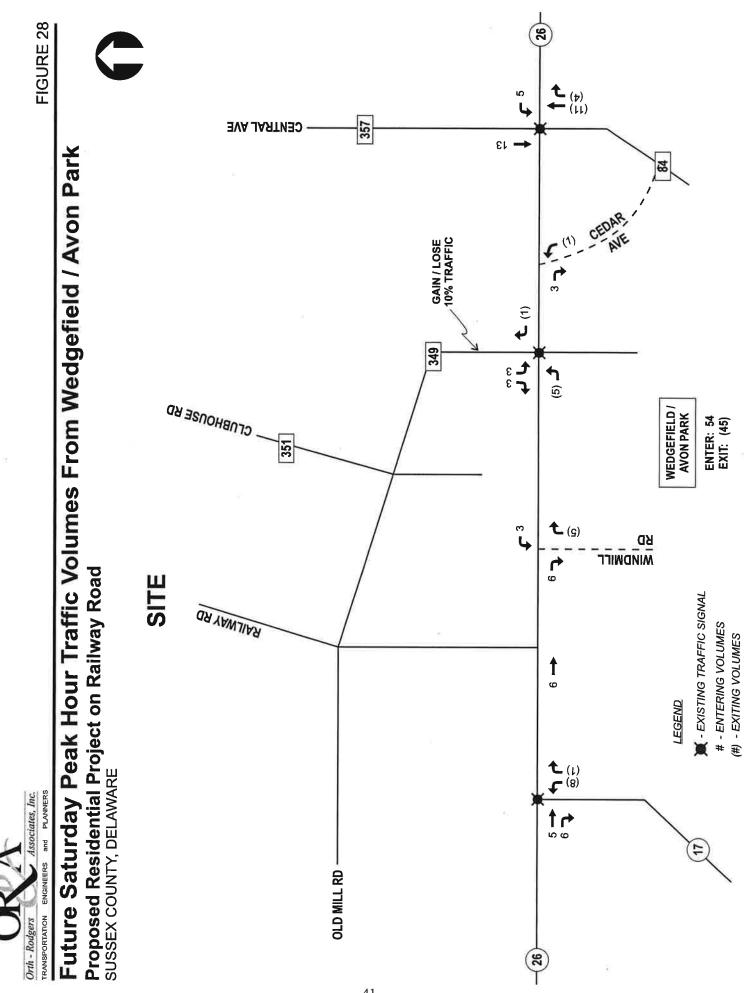


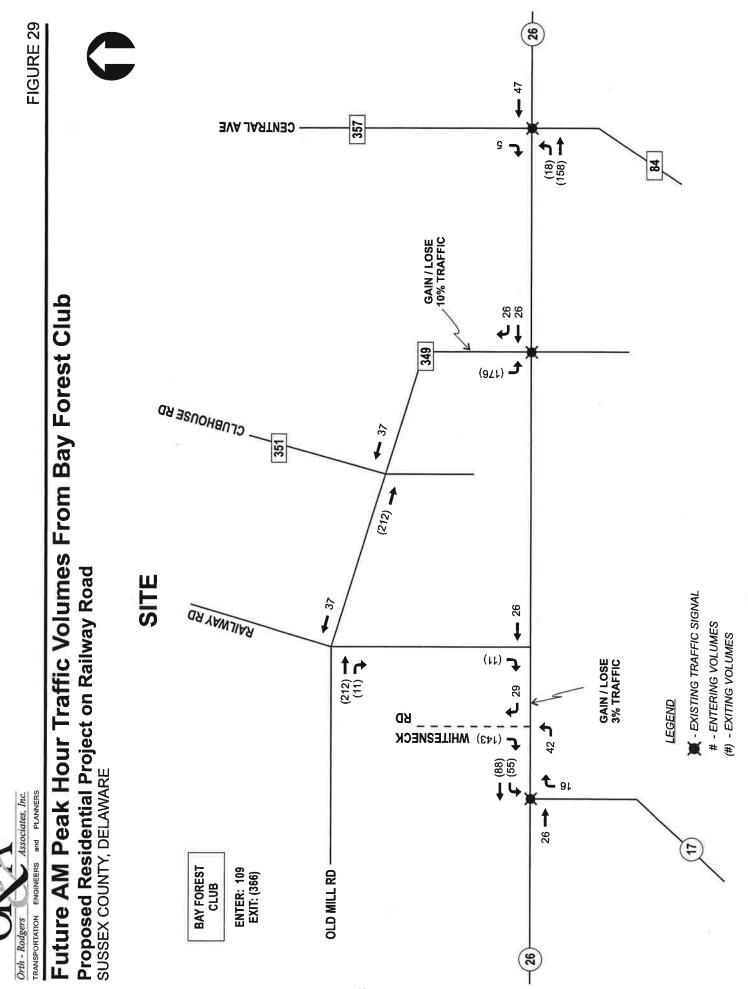


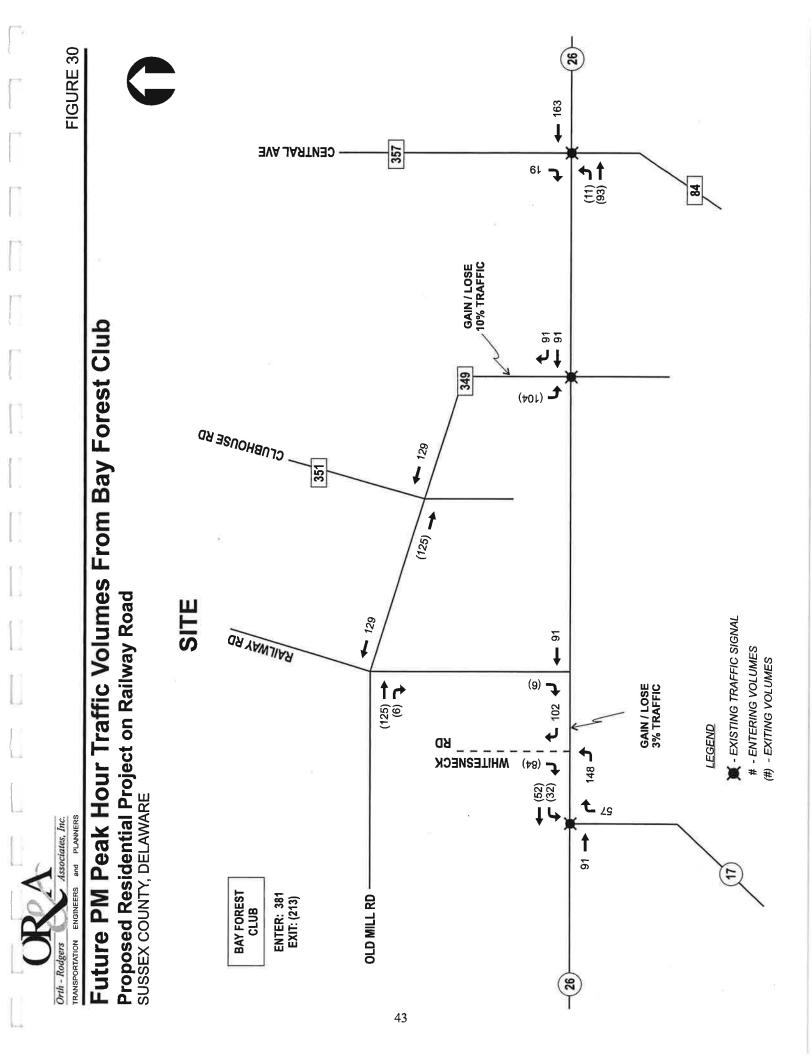


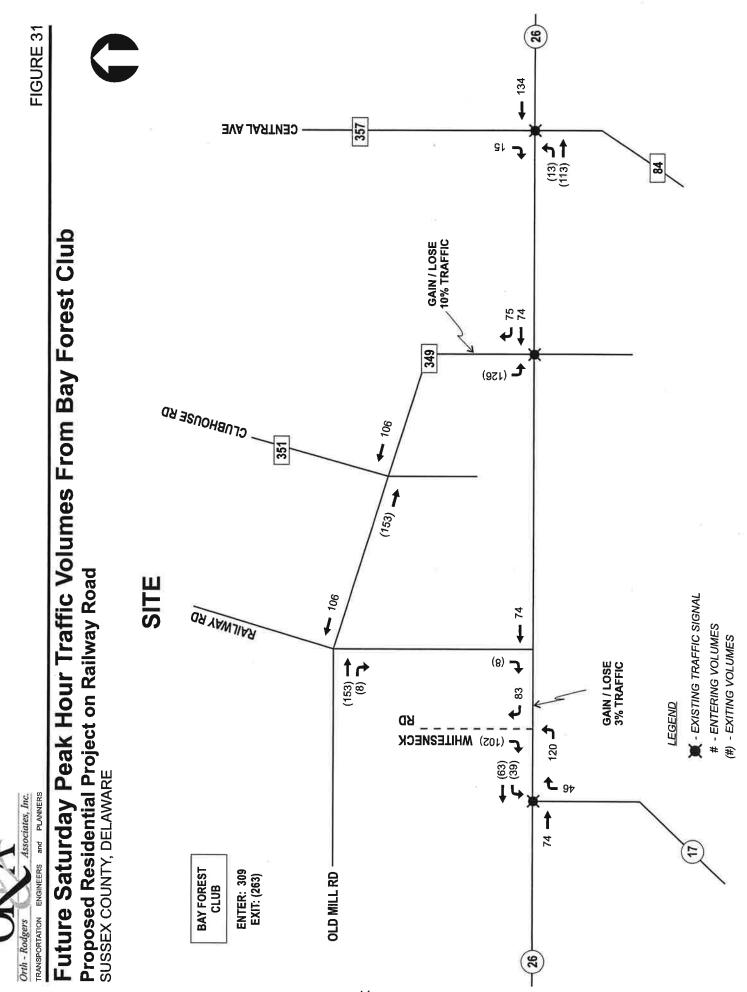


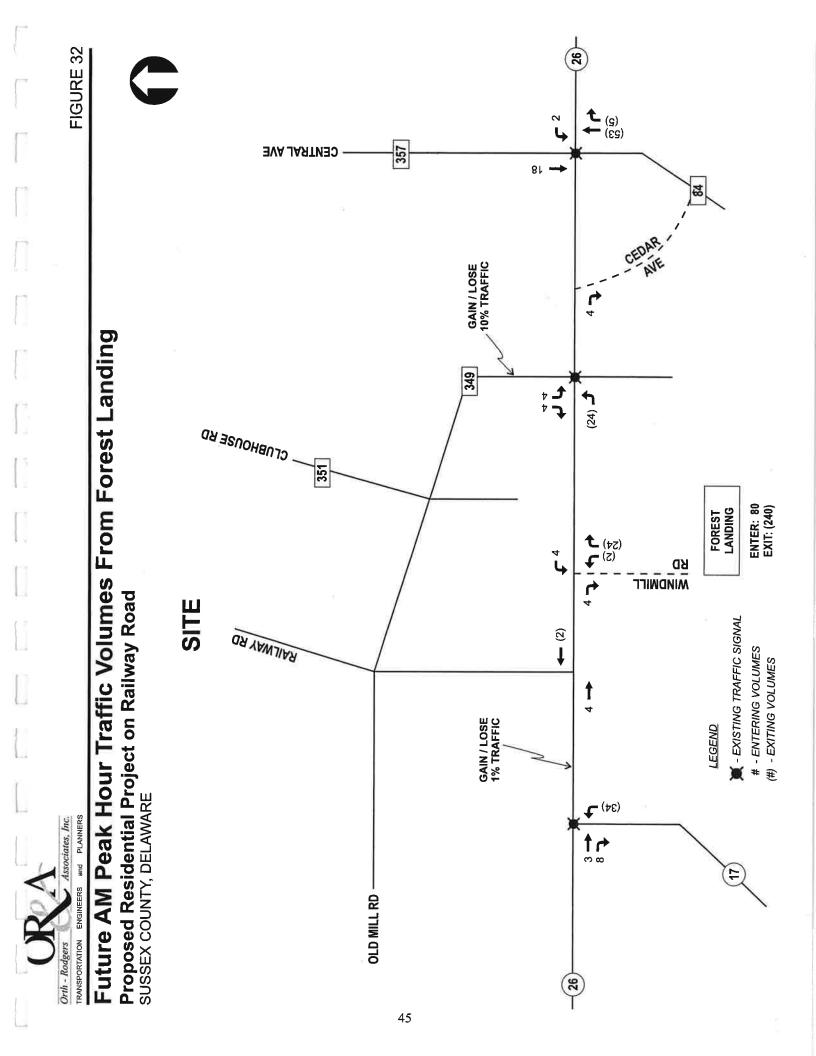


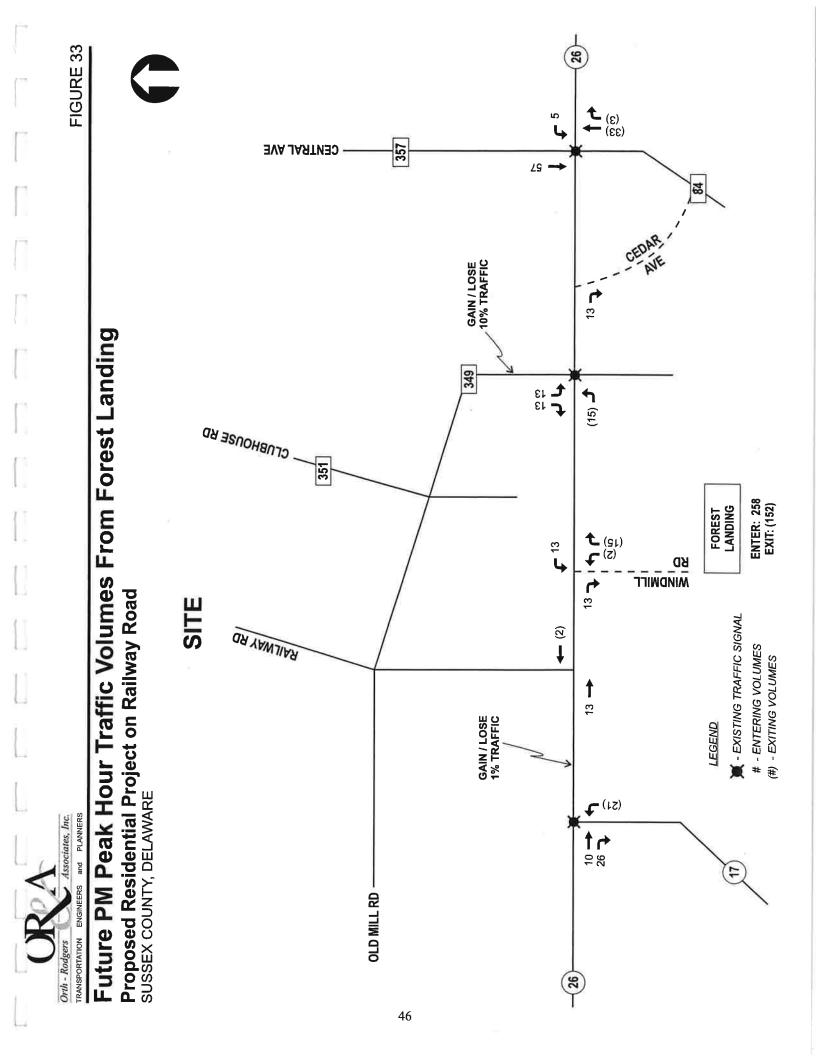


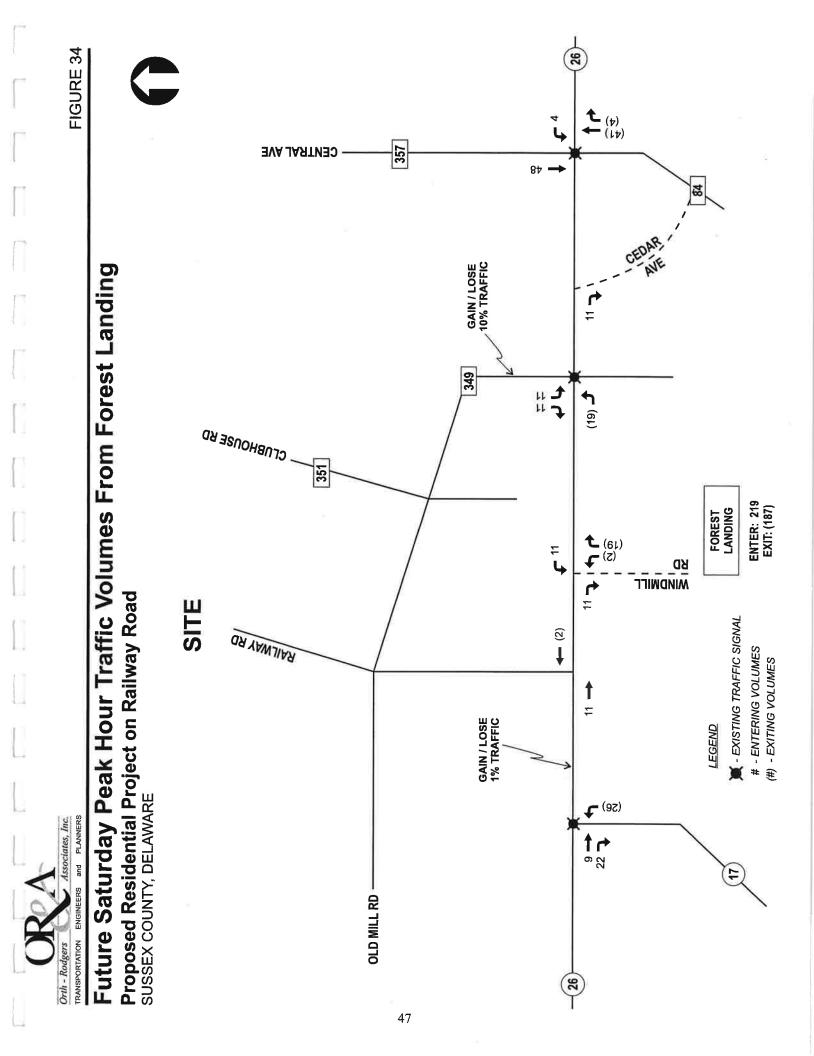


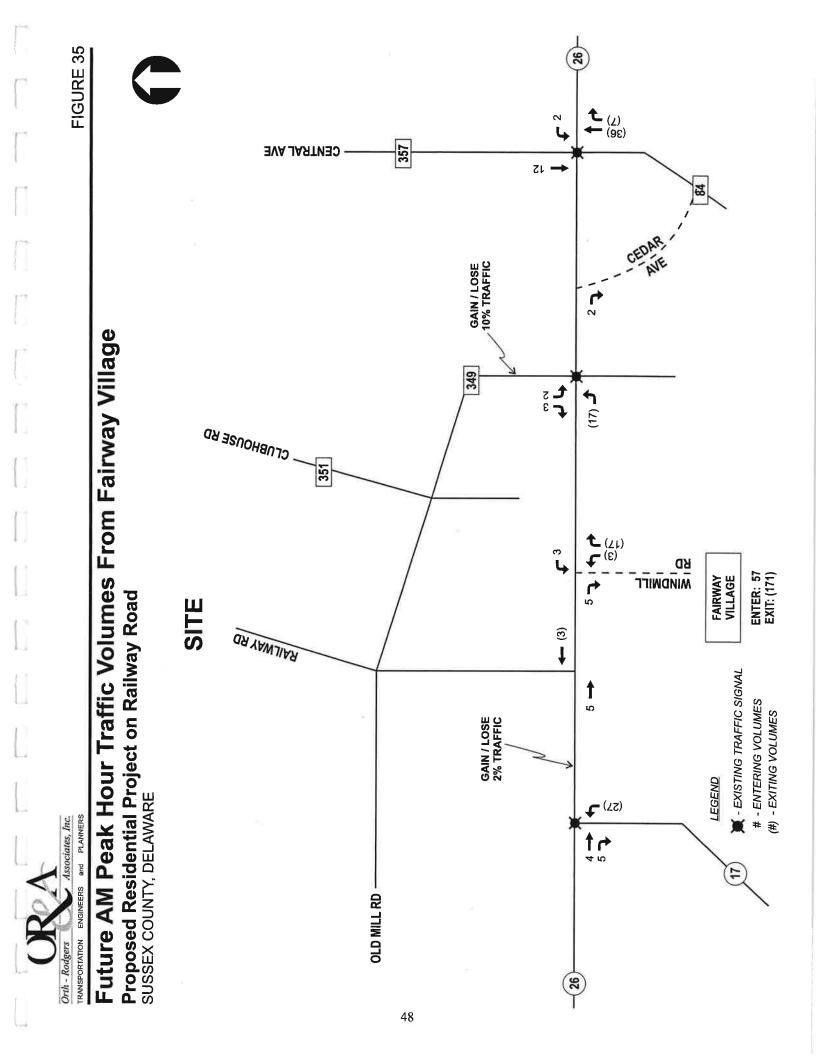


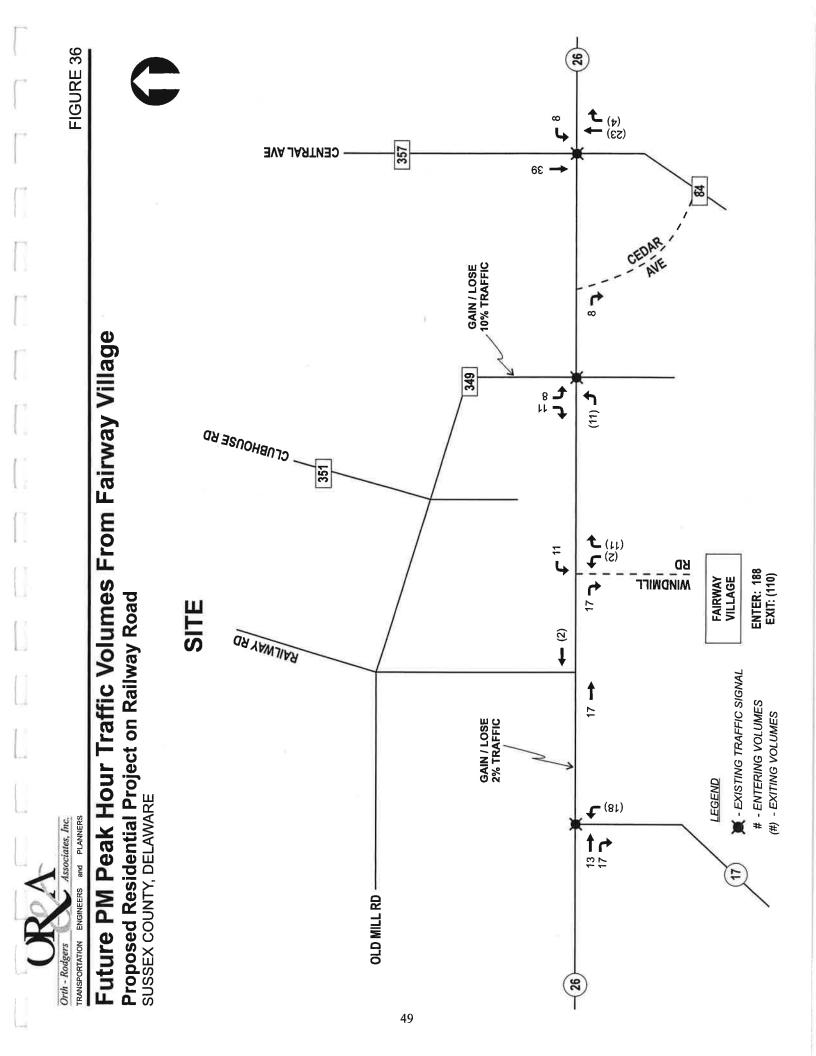


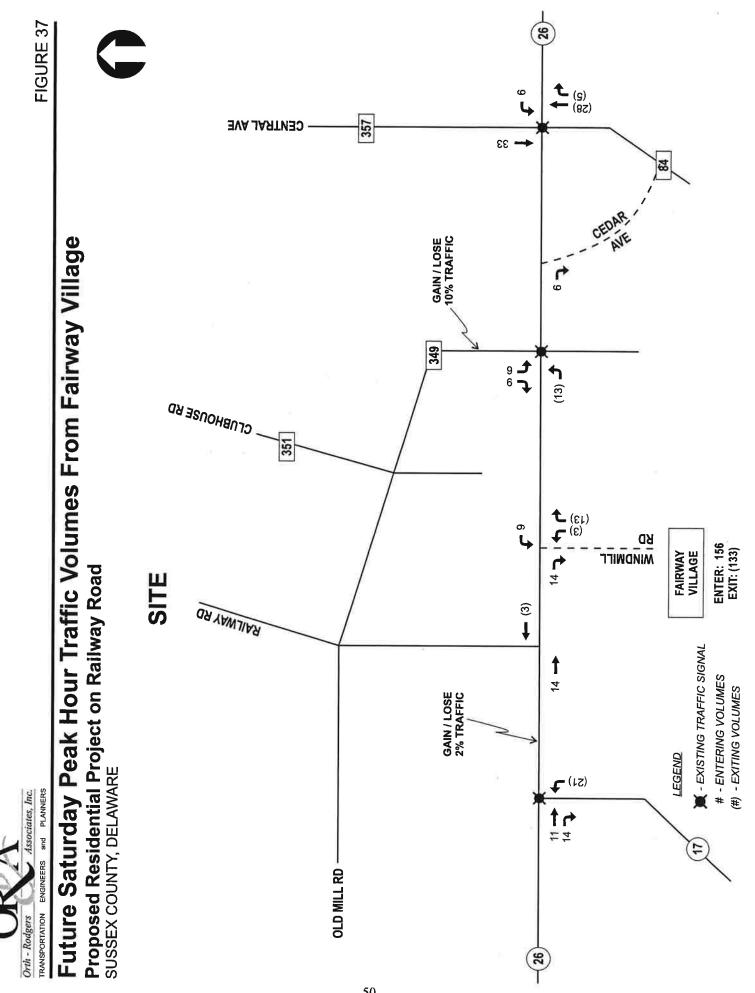


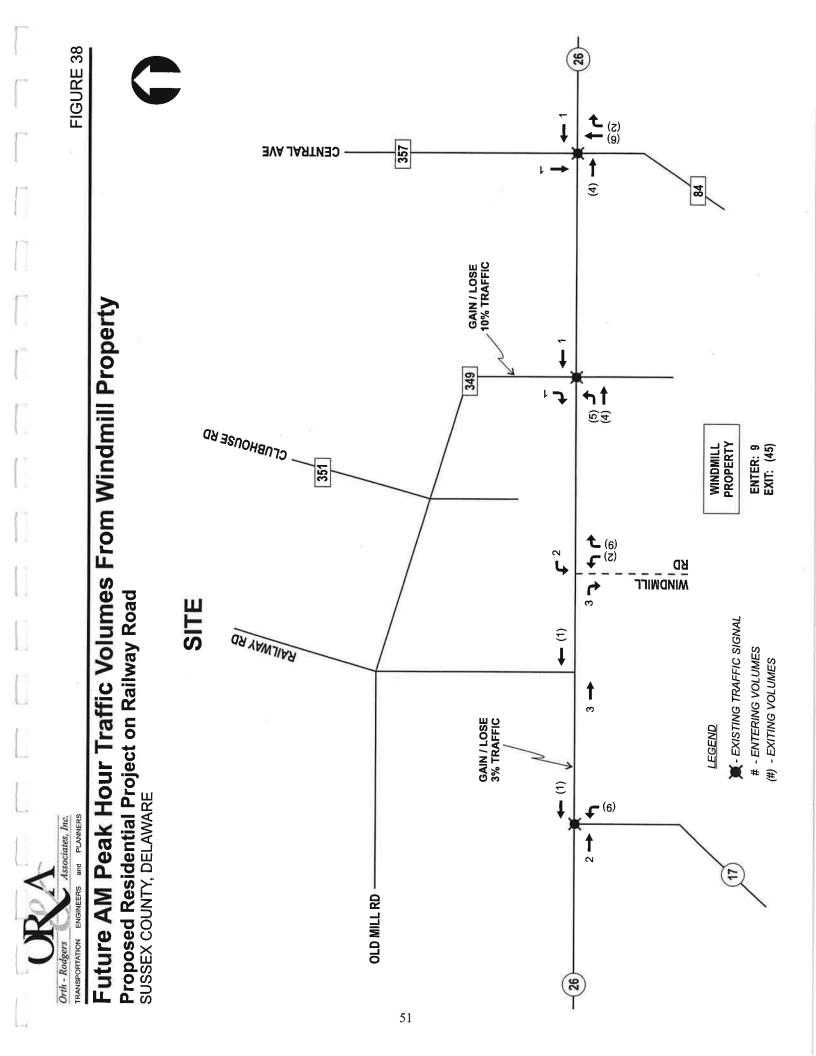


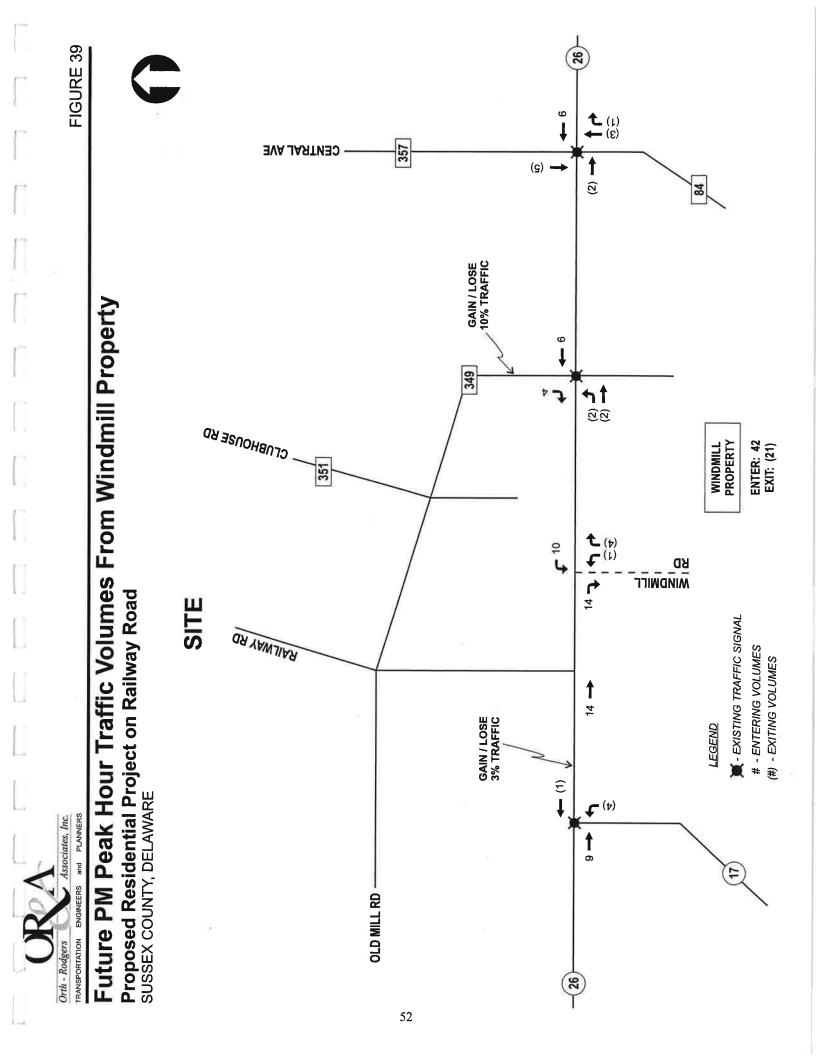


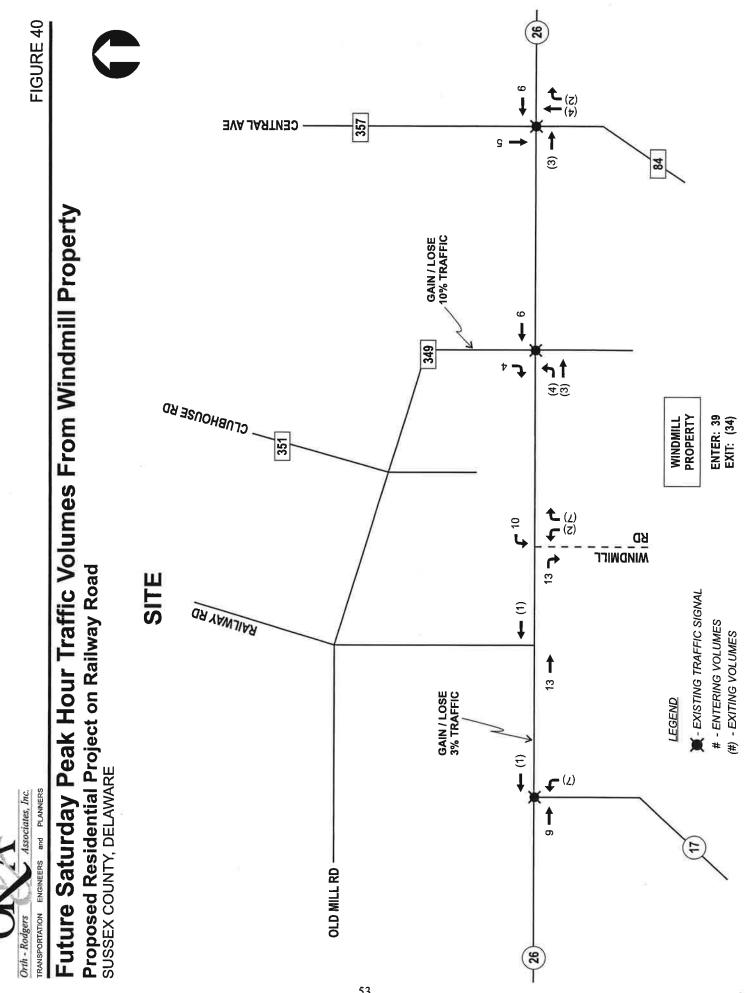


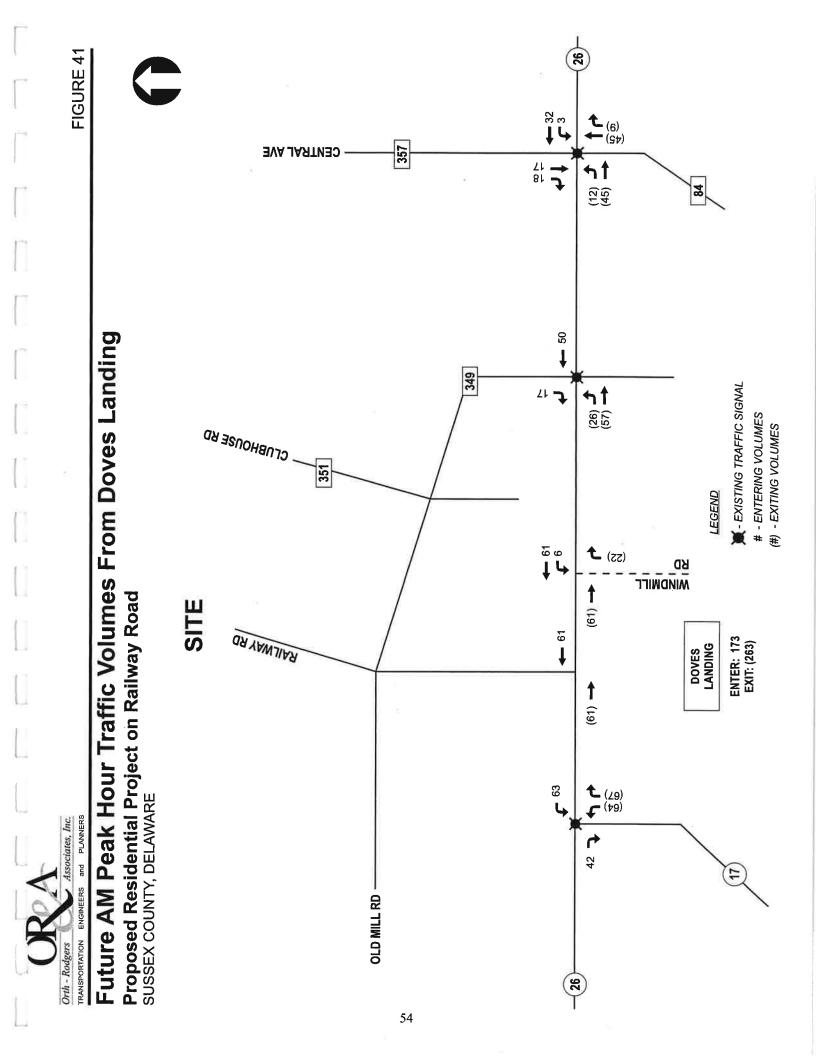


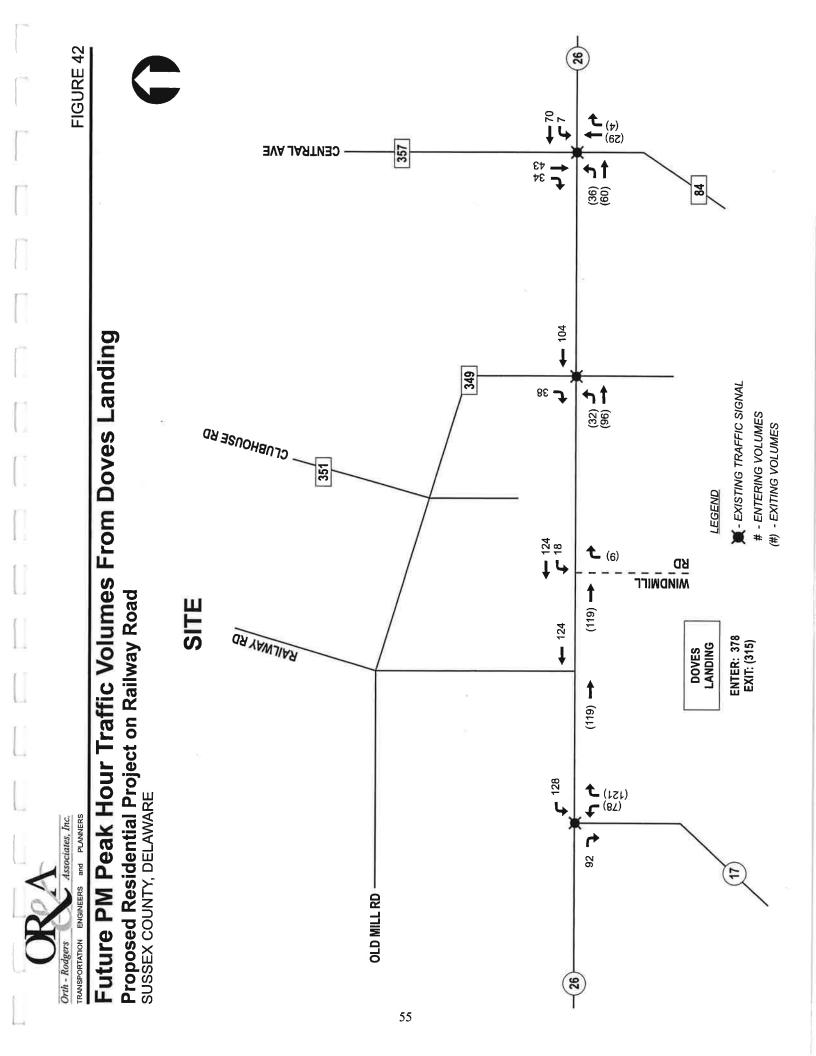


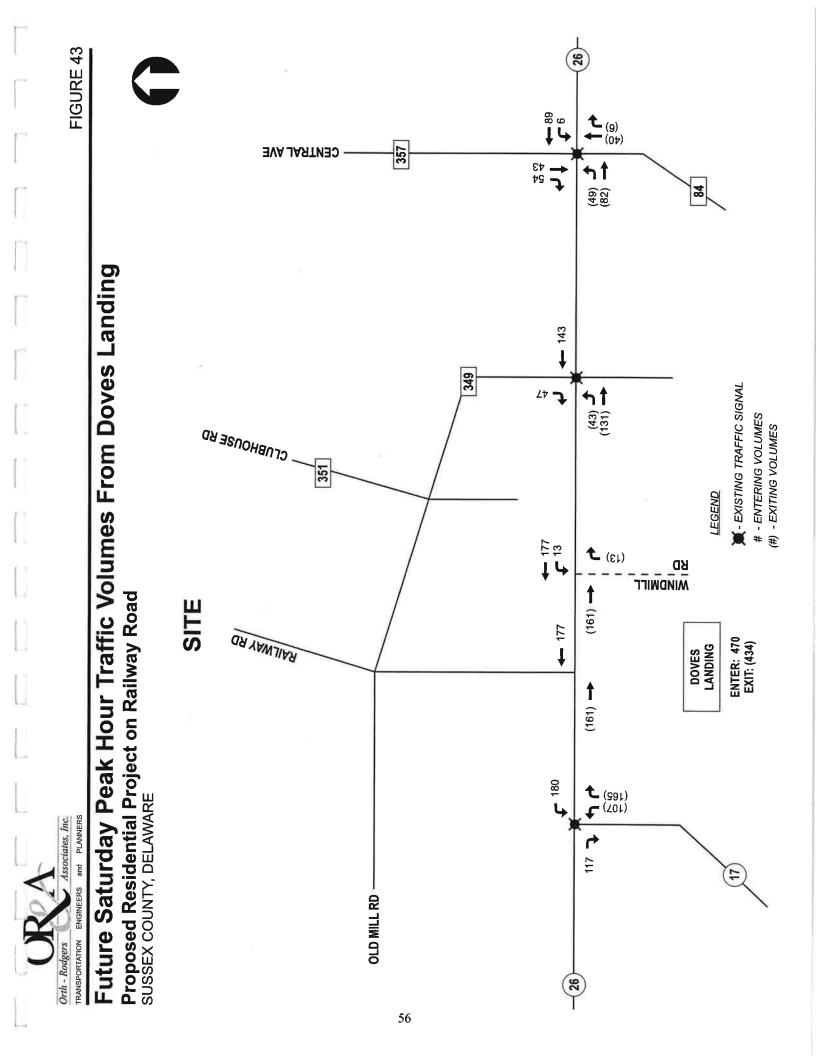


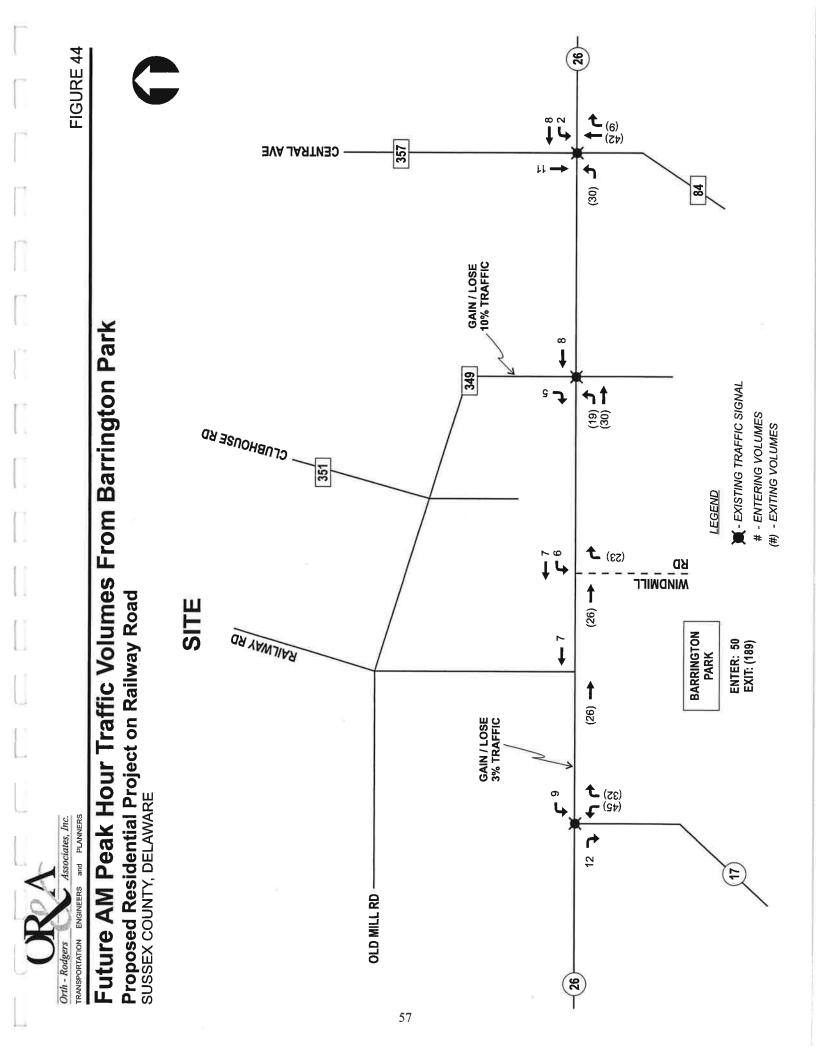


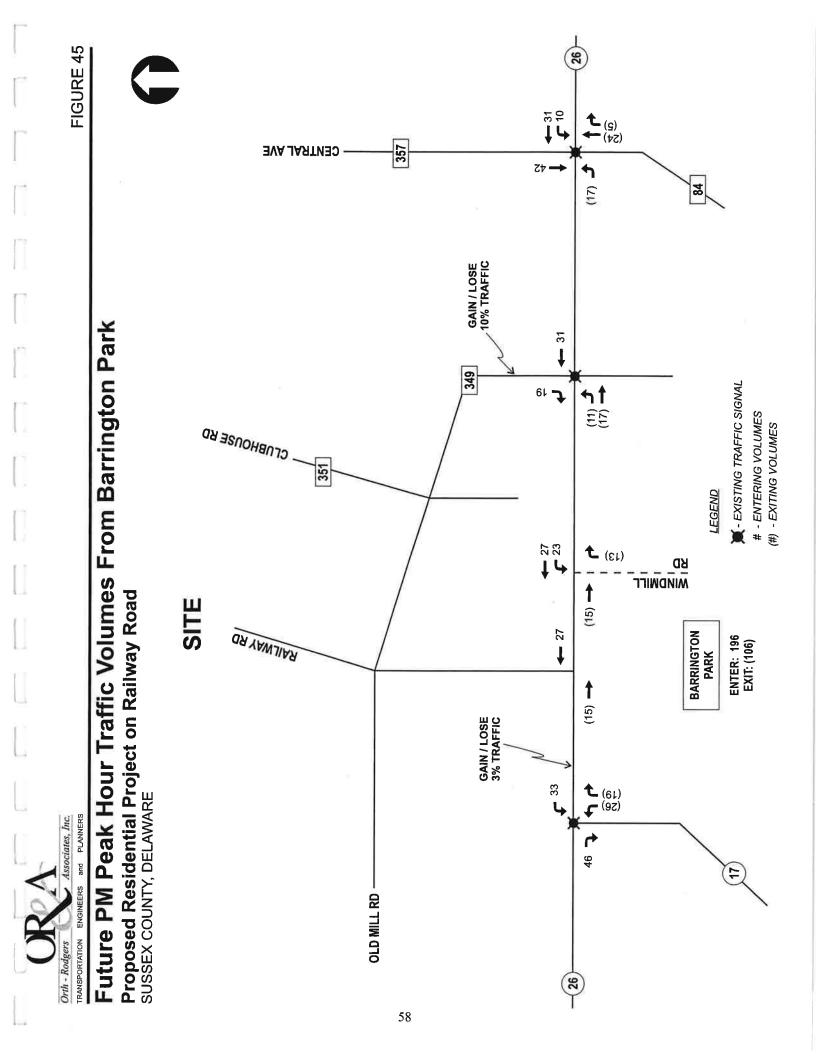


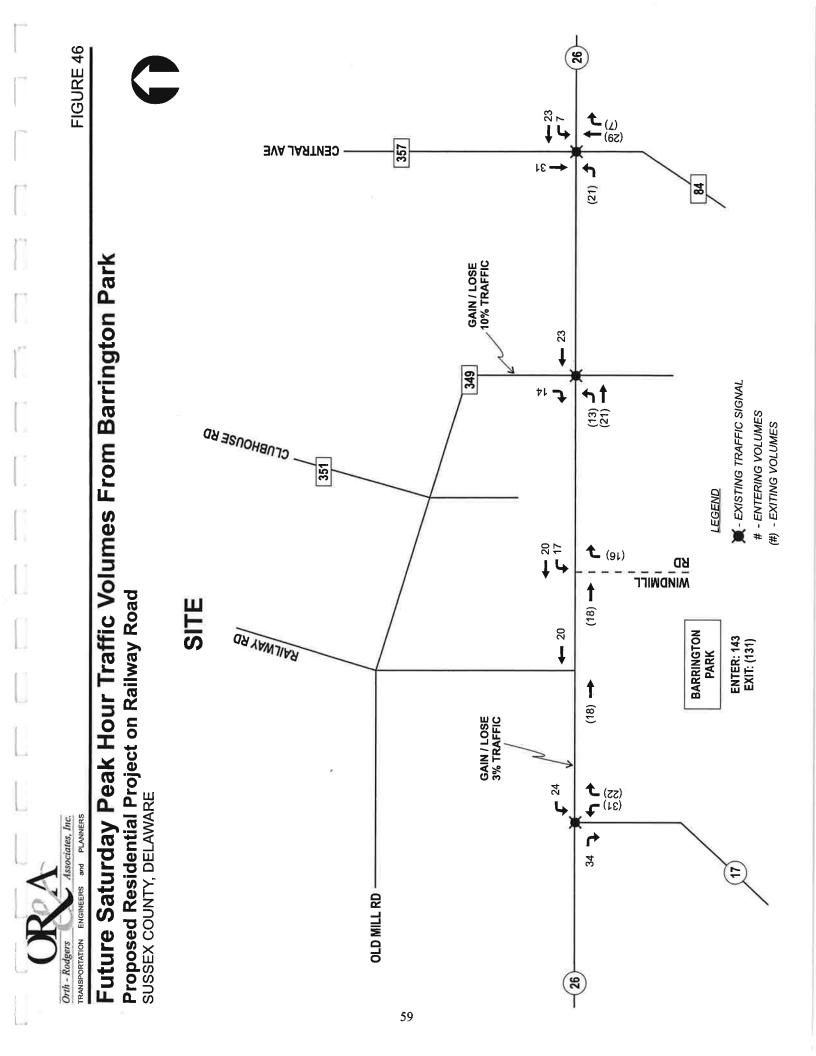


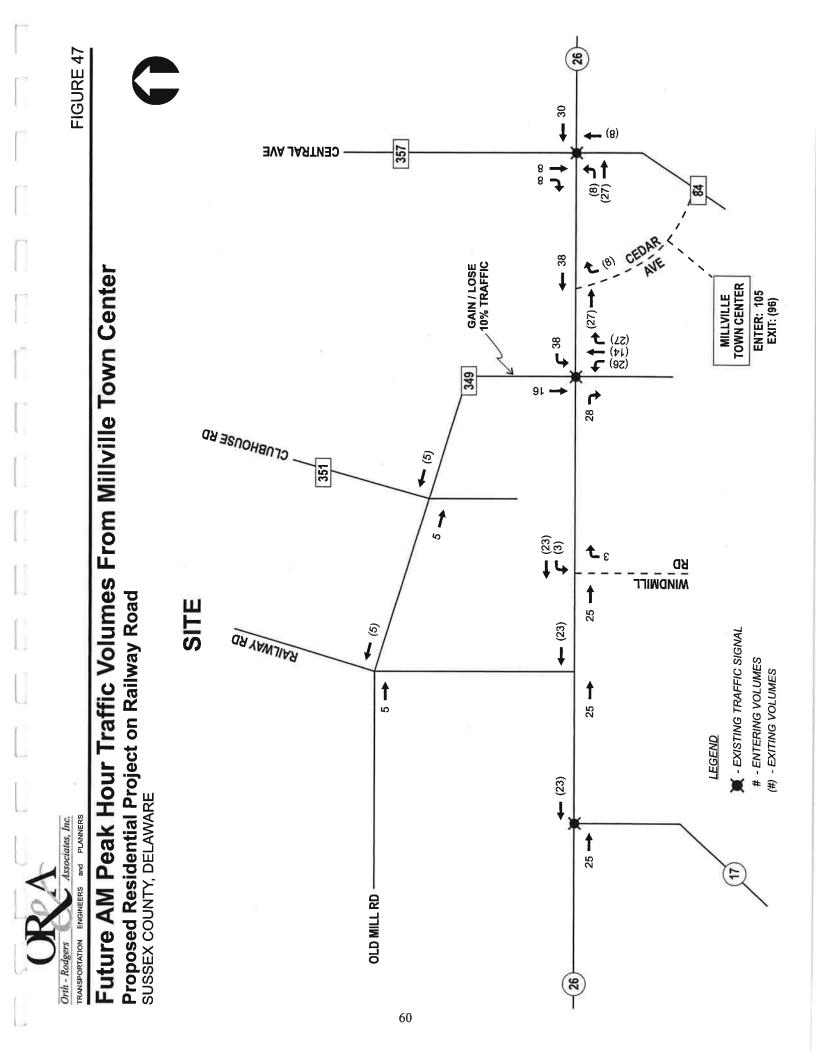


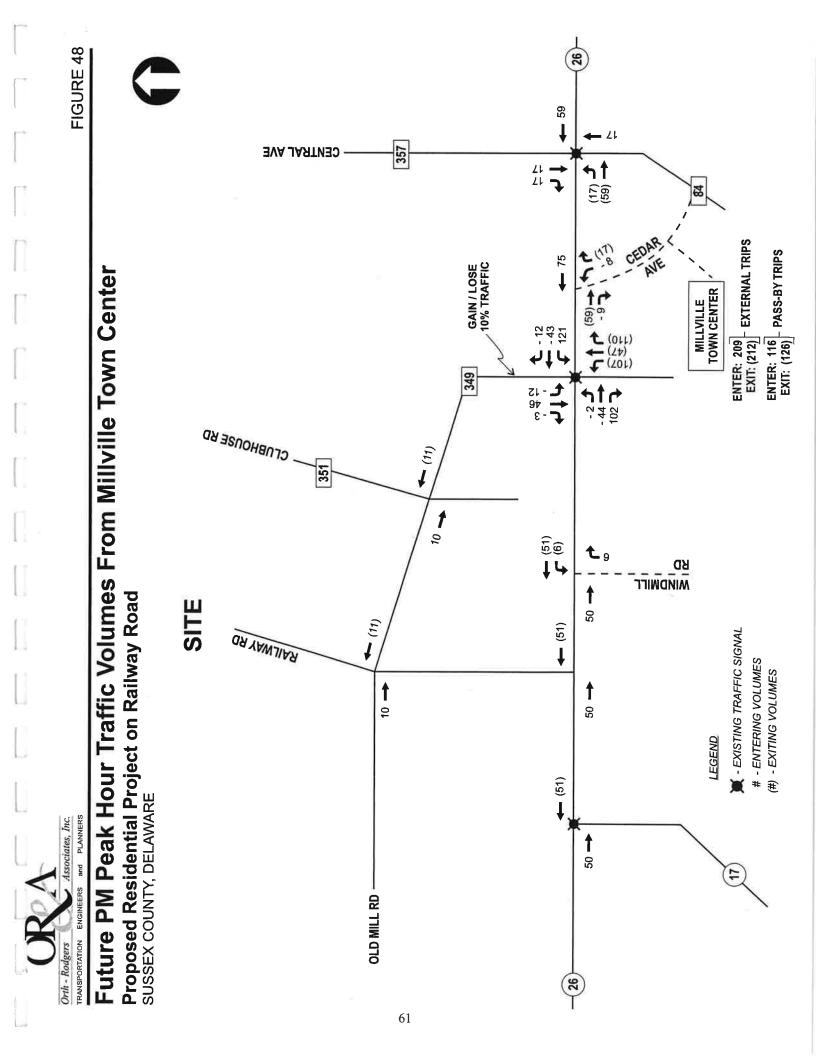


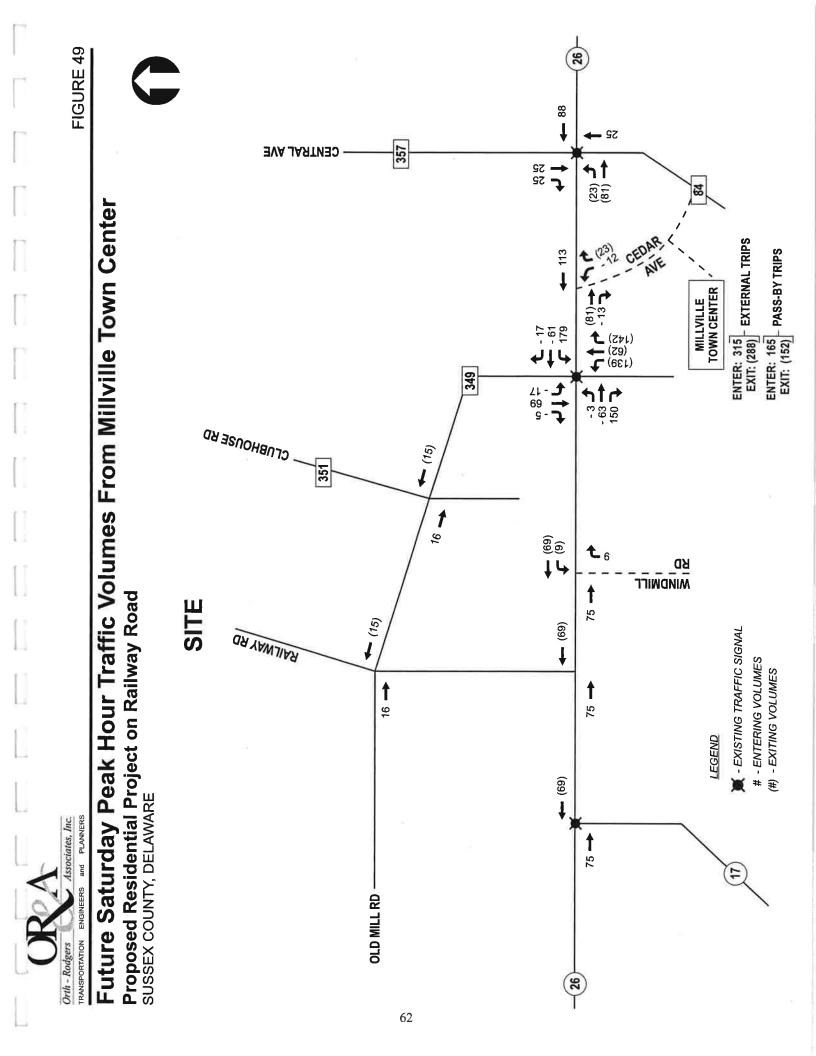


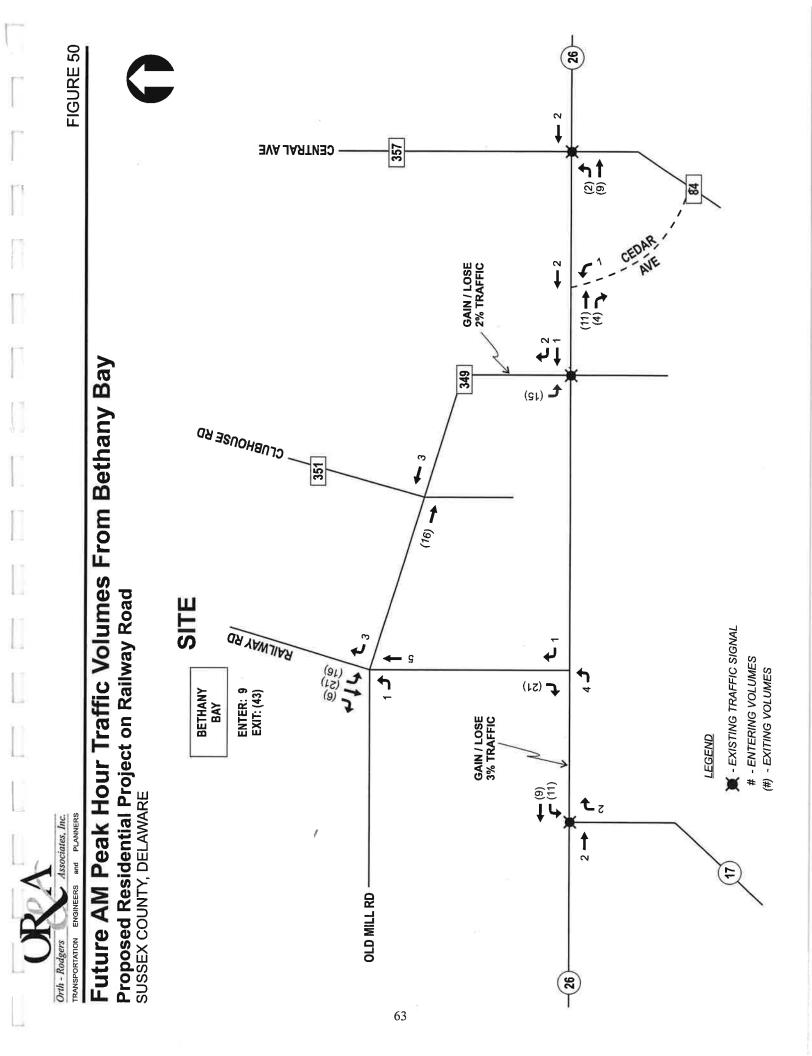


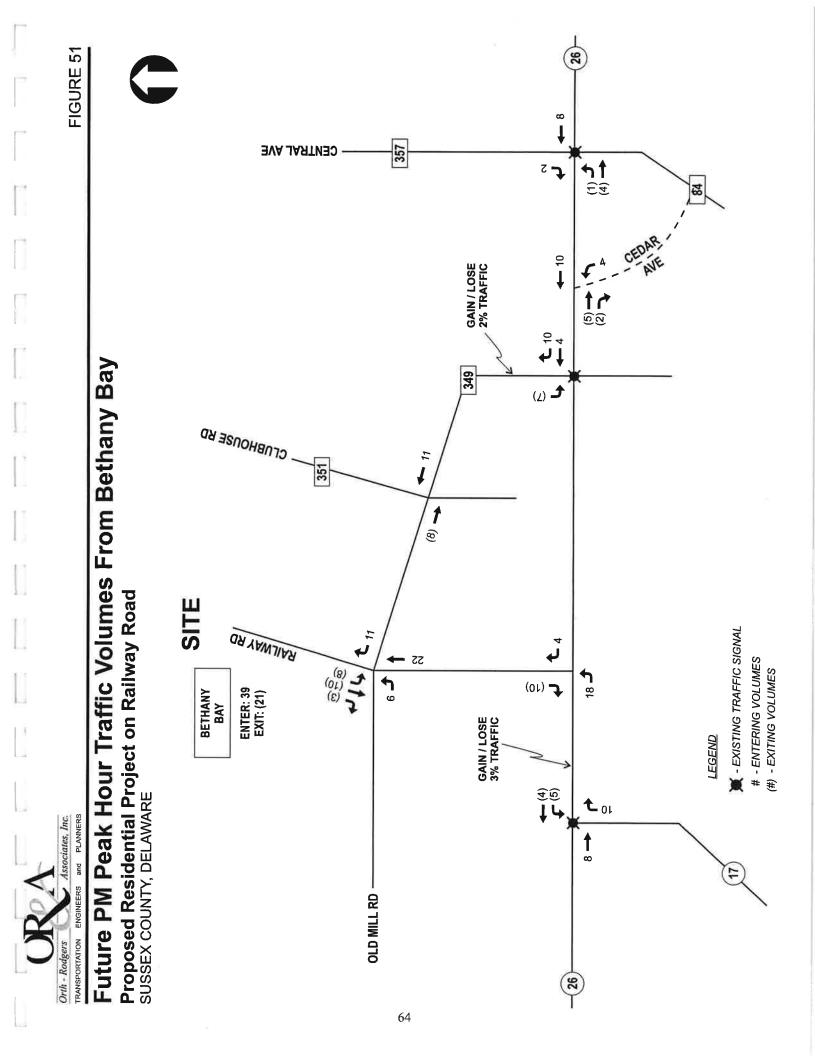


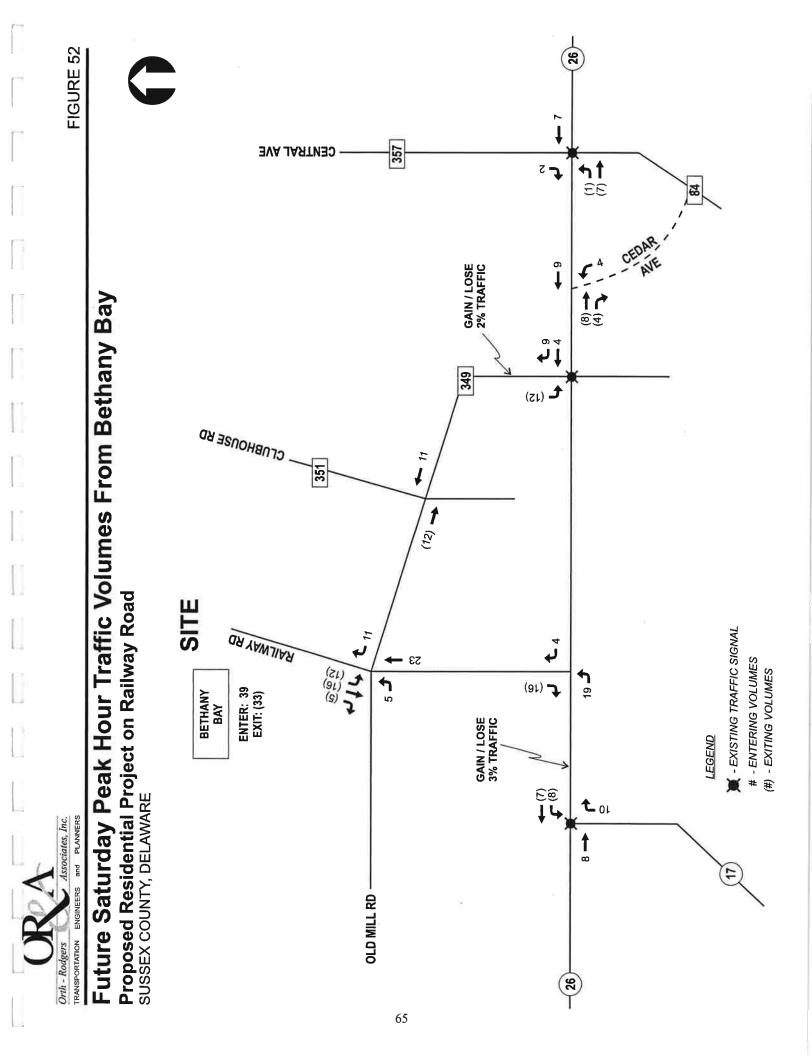


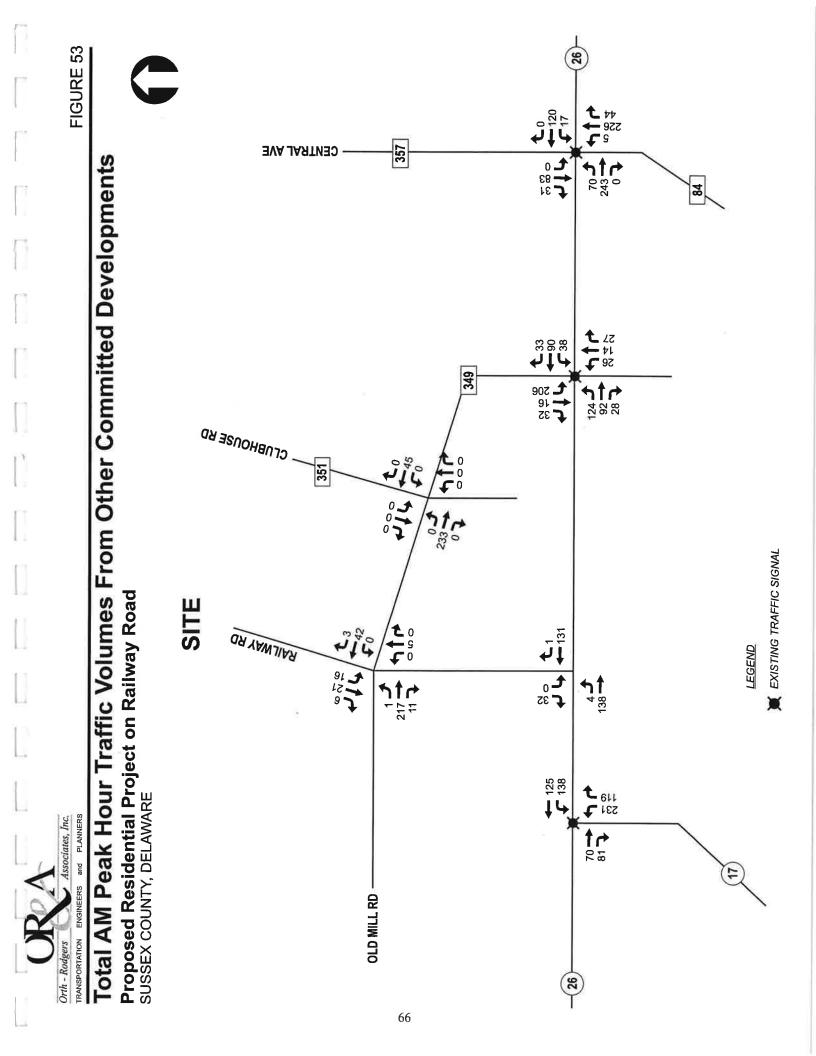


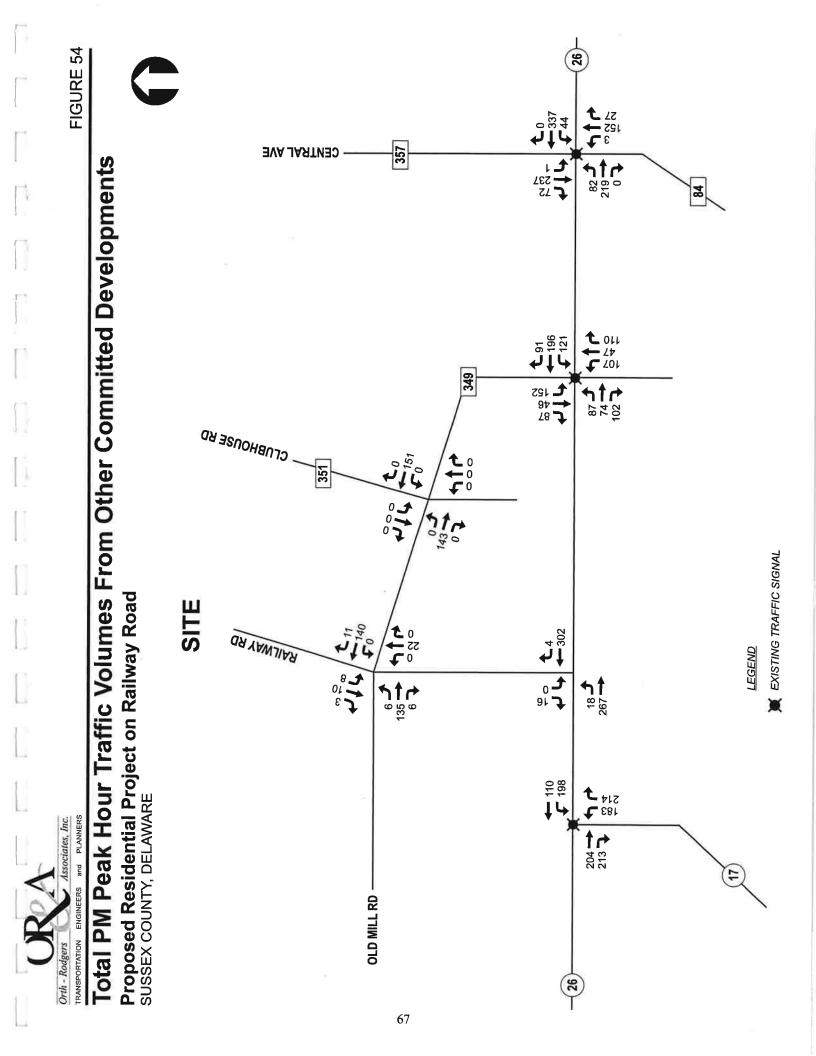


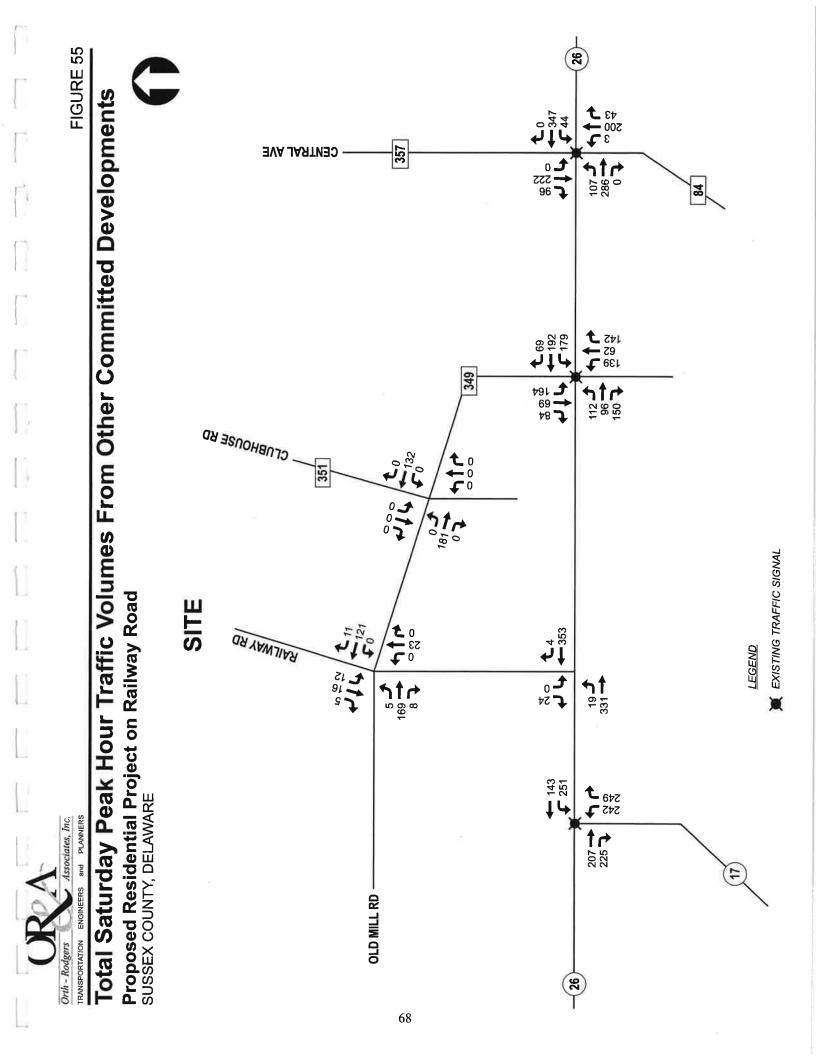


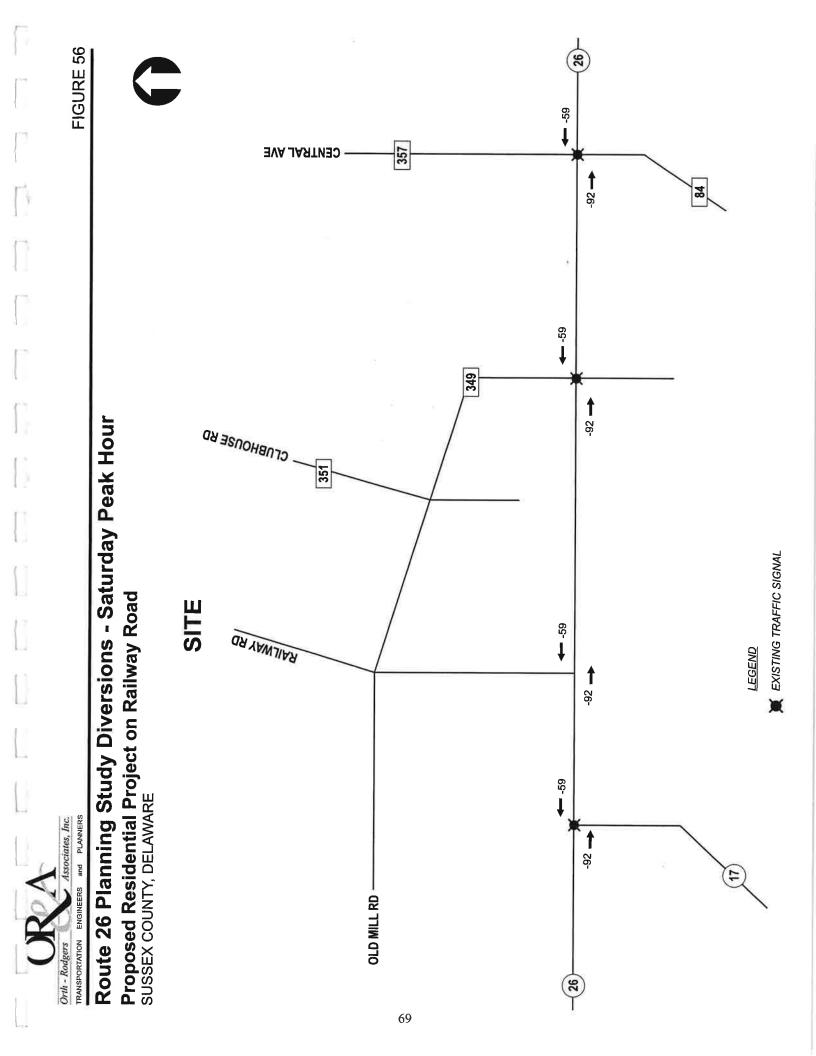


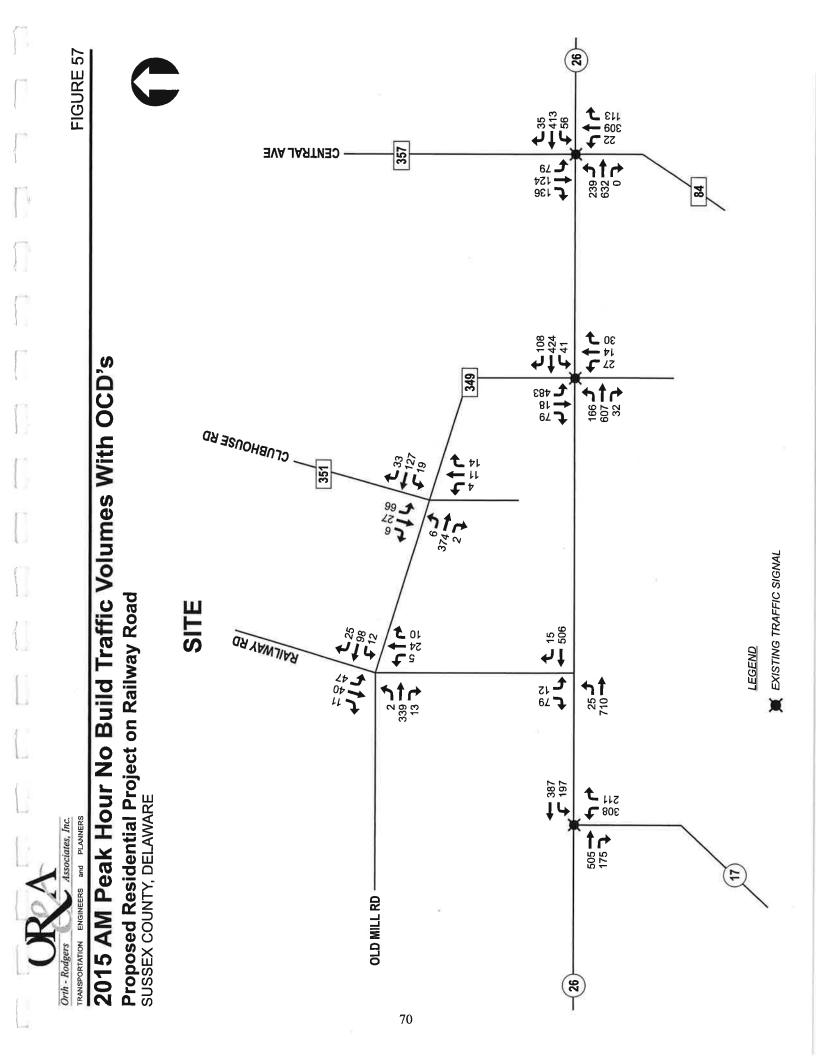


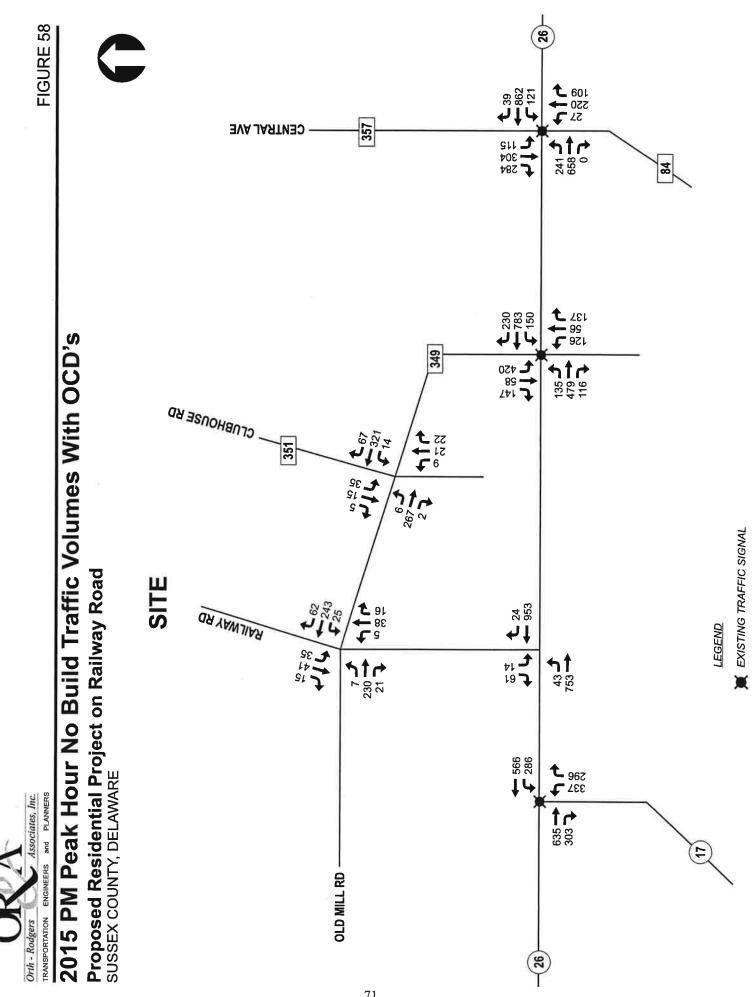


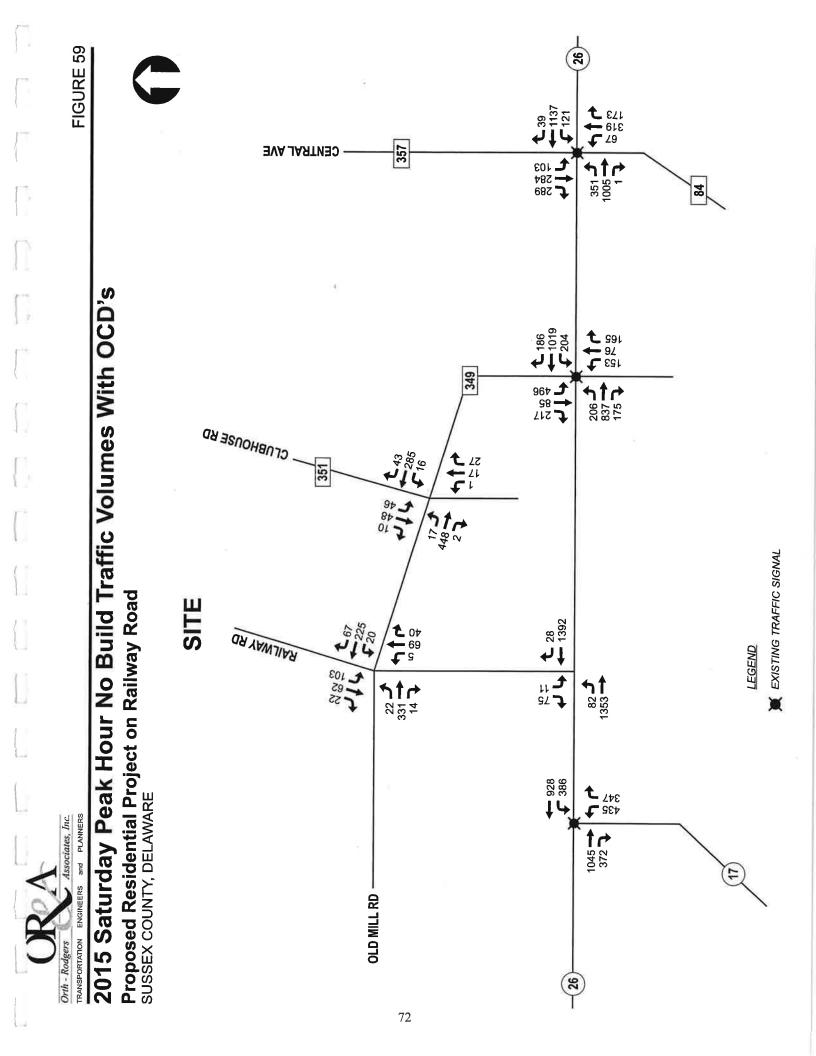












TRIP GENERATION and DISTRIBUTION

Trip Generation

Trip generation rates for the site were obtained directly from the data found in the Institute of Transportation Engineers' Trip Generation, 7^{th} *Edition*. Specifically, data for residential condominium/townhouse (land use 230) was used.

The traffic volumes projected to be generated for each portion of the development are outlined in Table VI for the a.m., p.m., and Saturday peaks. Due to the nature of the site, items such as passby trips and internal trip capture do not apply. The trip generation calculations can be found in Appendix C.

Table VI.

Pettinaro Project - Peak Hour Trip Generation

	ITE	A.M. Peak Hour			P.N	P.M. Peak Hour			Saturday Peak Hour		
Proposed Land Use	Code	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	
480 Condominiums	230	31	150	181	146	72	218	98	84	182	
TOTALS		31	150	181	146	72	218	98	84	182	

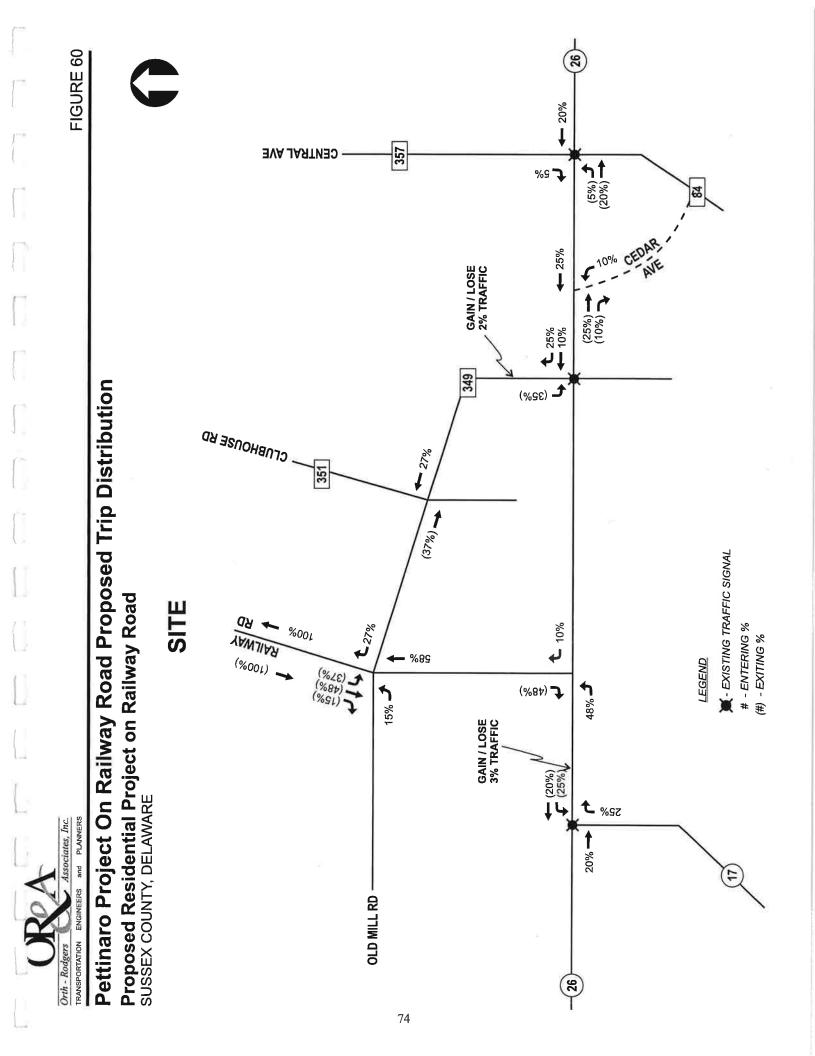
Trip Distribution

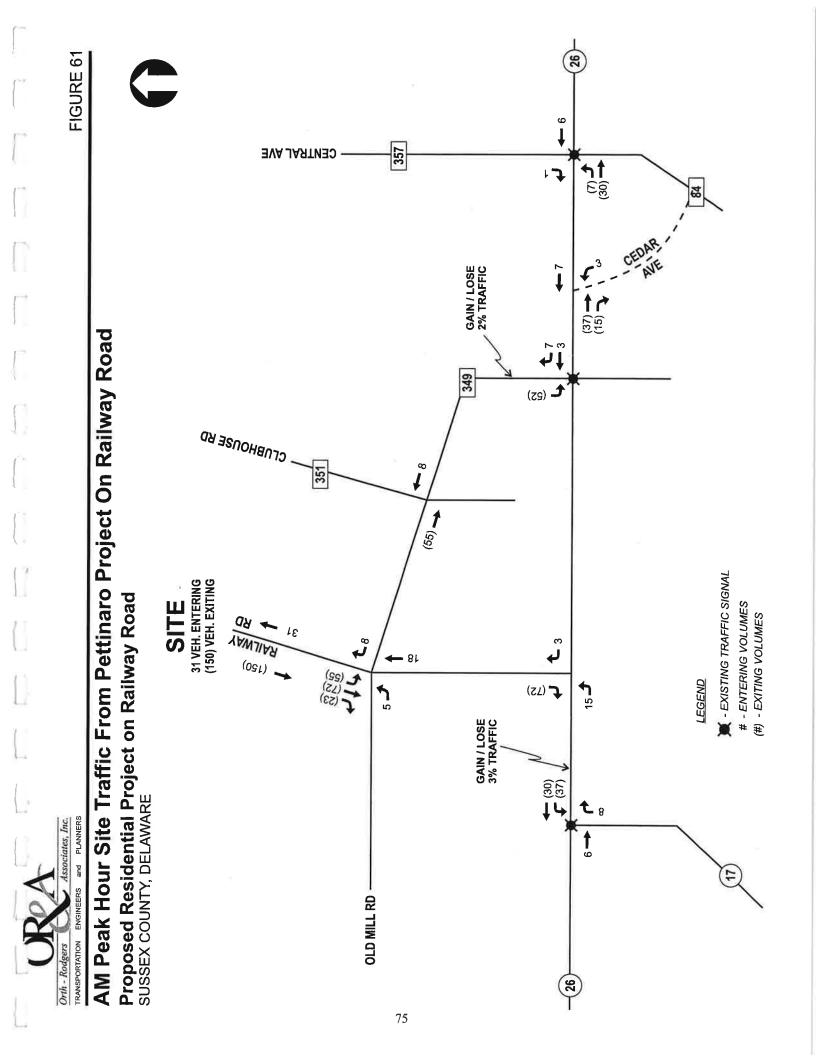
The distribution of the site-generated traffic was based on the type of land use and the existing traffic patterns in the study area in relation to the proposed site access points. This distribution was used to assign the site-generated traffic to the roadway network for the a.m., p.m., and Saturday peaks. In general, this report assumes:

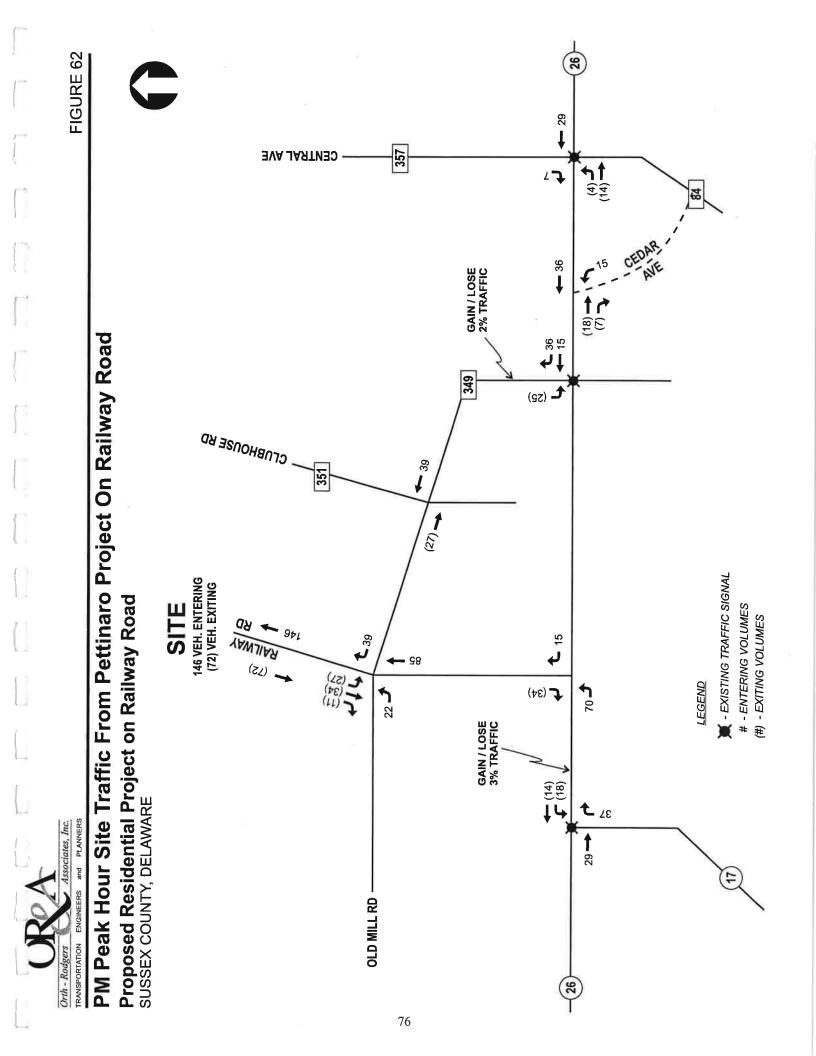
- 15 percent of the site traffic will enter/exit westbound on Old Mill Road,
- 20 percent will enter/exit westbound via Delaware Route 26,
- 25 percent will enter/exit via Delaware Route 17,
- 20 percent will enter/exit eastbound via Delaware route 26,
- 10 percent will enter/exit via Cedar Avenue,
- 5 percent will enter/exit northbound via Central Avenue,
- 5 percent will be gained/lost to Food Lion/Casapulla's shopping center.

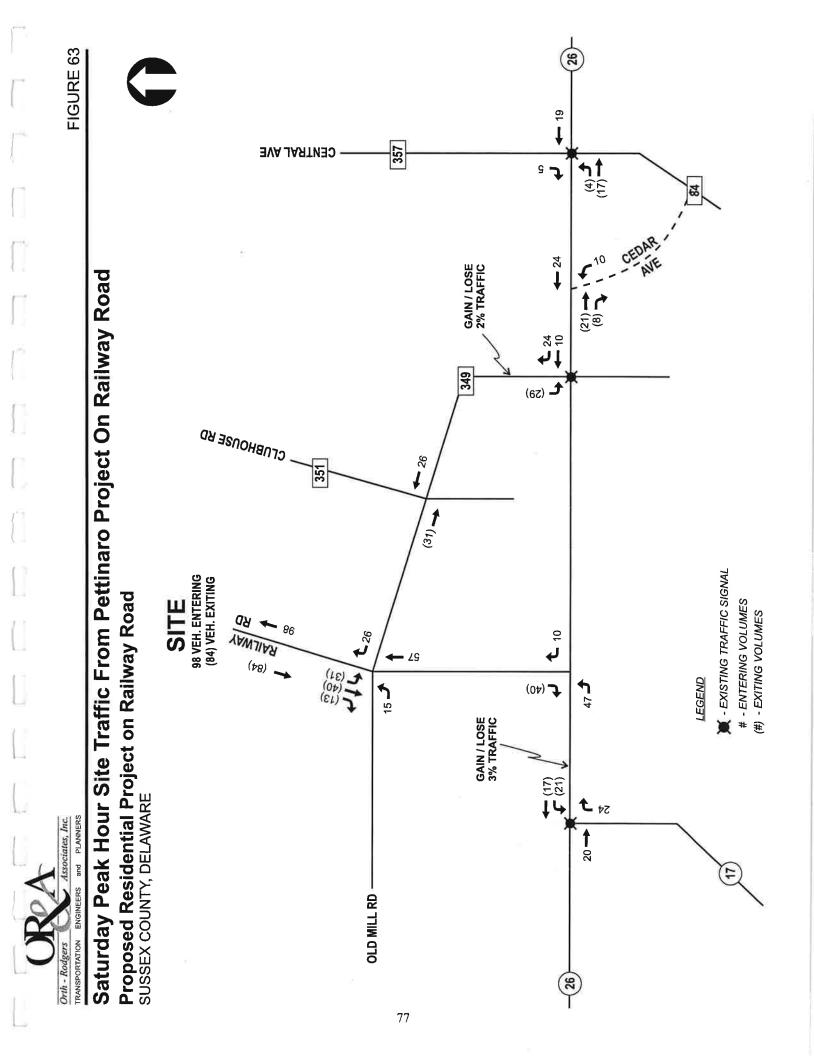
The proposed trip distribution for this site is shown in Figure 60.

By applying the proposed trip distribution percentages to the trip generation data, we developed the peak hour traffic volumes for the site. The projected site traffic for the a.m., p.m., and Saturday peak hours are shown in Figures 61, 62, and 63.





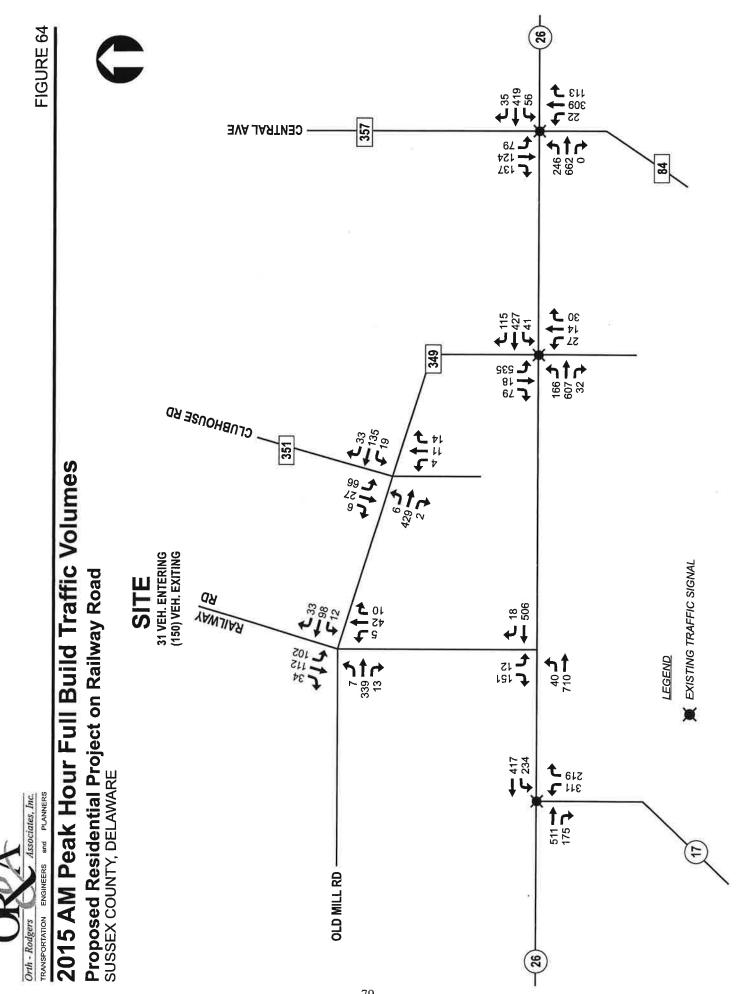


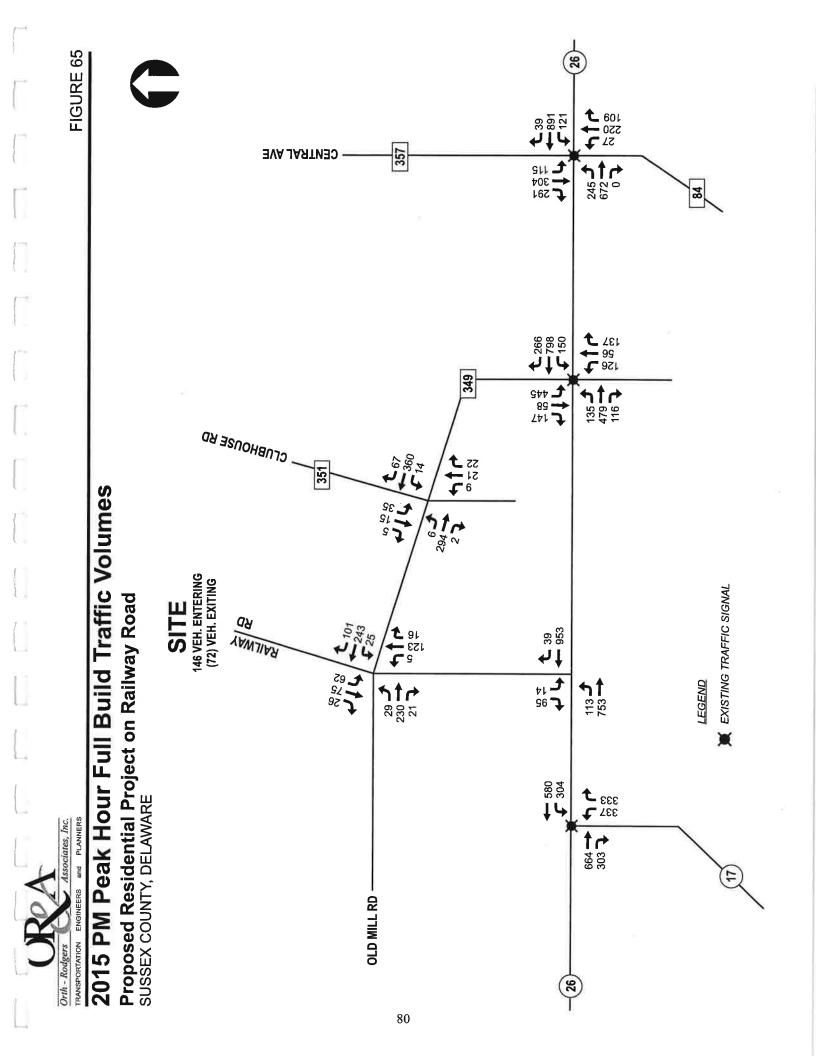


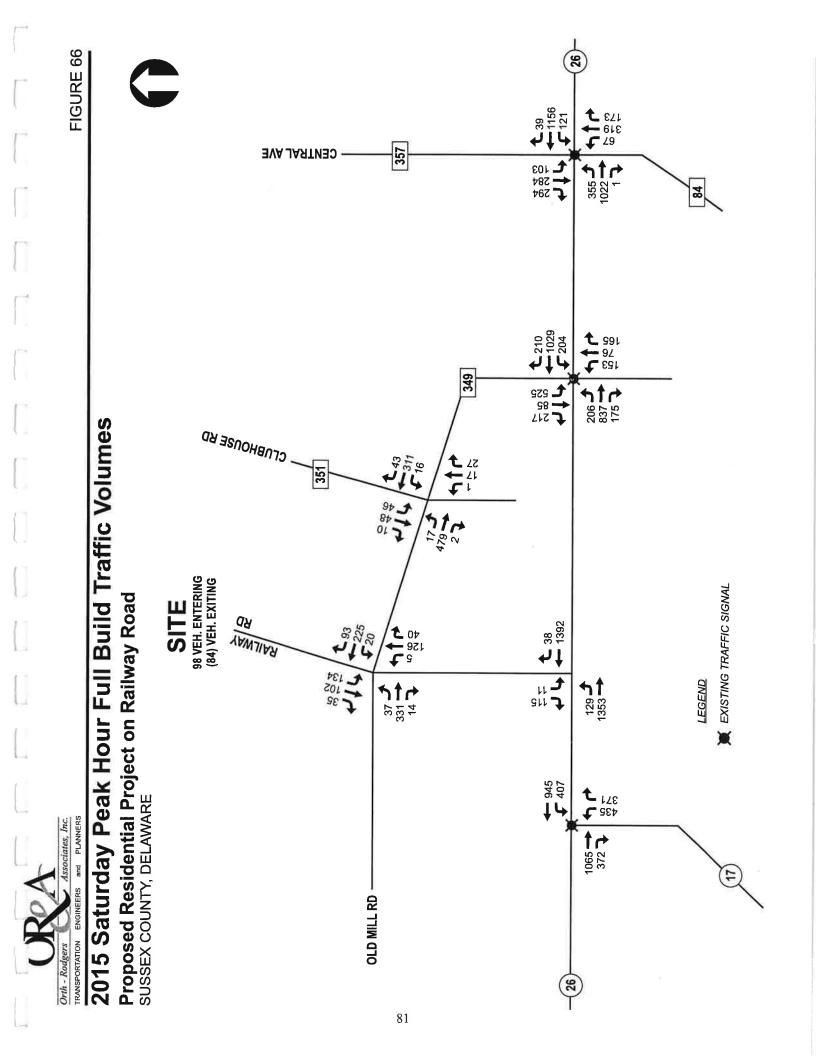
FUTURE TRAFFIC WITH THE PROPOSED SITE

With the anticipated site generated traffic identified, the full build traffic volumes were developed by adding the site traffic to the projected no build traffic volumes. The results are shown in the following figures:

Figure 64	2015 AM peak hour full build traffic volumes
Figure 65	2015 PM peak hour full build traffic volumes
Figure 66	2015 Saturday peak hour full build traffic volumes







CAPACITY ANALYSIS

A volume/capacity analysis has been done for each of the study intersections and the proposed driveway locations for the site. The analysis was conducted using Highway Capacity Software, Release 4.1e. As part of the that analysis the following scenarios were reviewed:

- Existing 2004 a.m., p.m., and Saturday peak hours
- Future 2015 no build a.m., p.m., and Saturday peak hours
- Future 2015 full build a.m., p.m., and Saturday peak hours

At the request of the Department, peak hour factors and heavy vehicles were defined by lane group. The existing signals along Delaware Route 26 are fully actuated traffic signals. The signal timing and phasing used in this analysis were based on the actual operation of the signals as noted in the field. For future conditions, certain intersection timing plans were modified to accommodate planned improvements while others were optimized within the parameters of the existing timing plans.

The results of this analysis are defined in terms of average delay. This delay is used as a measure of the driver's expectation for given conditions. Because operating at or near capacity is usually tolerable to most drivers, a descriptive concept has been developed for intersections called level of service. Levels of service range from 'A' to 'F' and are based on delay in seconds for each movement. A more detailed level of service description is summarized in Table VII for unsignalized intersections and Table VIII for signalized intersections. The existing and future levels of service for the report are summarized for comparison purposes in Table IX. The HCS computer CD is included in Appendix G.

Existing Conditions

The results of the capacity analysis of existing conditions show that all six intersections operate at level of service 'D' or better for all three peak periods (weekday a.m., p.m., and summer Saturday peak periods). The existing levels of service for the a.m., p.m., and Saturday peak hours are shown in Figures 67, 68, and 69, respectively.

2015 No Build Analysis

Under the 2015 pre-development scenario, there are numerous projects planned along Delaware Route 26 to improve both unsignalized and signalized intersections. These projects are:

- > DelDOT's Delaware Route 26 roadway improvements:
 - Delaware Route 26 & Railway Road a by-pass lane will be installed for the eastbound approach of Delaware Route 26 as well as Railway Road being slightly realigned. Railway Road will still have a shared left/right turn lane and one receiving lane,
 - Delaware Route 26 and Old Mill Road separate left-turn lane will be added for the westbound approach of Delaware Route 26 while a right-turn lane will be installed for the eastbound approach.
 - Delaware Route 26 and Central Avenue the northbound and southbound approaches of Central Avenue will have separate left-turn lanes, through lanes, and right-turn lanes.

- Millville Town Center improvements:
 - Delaware Route 26 and Old Mill Road The northbound approach from the Millville Town Center will have a separate left-turn lane, through lane, and right-turn lane. The southbound approach of Old Landing Road will change from a shared left/through lane and separate right-turn lane to a separate left-turn lane and shared through/right lane.
- Bay Forest improvements:
 - Delaware Route 26 and Central Avenue The westbound approach of Delaware Route 26 will have an additional right-turn lane installed.

If the currently planned projects listed above are in place, the a.m. peak hour shows all six intersections operating at acceptable levels of service. The p.m. peak hour shows two intersections, Delaware Route 26/Railway Road and Delaware Route 26/Old Mill Road, operating at unacceptable levels of service while the summer Saturday peak hour shows four of the six intersections with unacceptable levels of service, with all intersections along Delaware Route 26 having levels of service of 'E' or worse. The unacceptable levels of service for the summer Saturday peak hour along Delaware Route 26 is due to the high beach season traffic volumes. It should be noted that the Route 26 improvements planned by DelDOT would be needed even without the development of this proposed residential project along Railway Road. The 2015 No Build levels of service with the planned roadway improvements are shown in Figures 70, 71, and 72.

2015 Full Build Analysis

Due to anticipated growth, it is expected that traffic will increase over time and in general vehicular delays will increase from what they are today. As part of this analysis, proposed improvements were developed for intersections that showed levels of service of 'E' or worse, with an overall goal of achieve levels of service 'D' or better. Assuming upgrades are implemented, as stated in the 2015 no build scenario (DelDOT's Route 26 improvements, Millville Town Center improvements, and Bay Forest improvements), certain intersections will still operate with poor levels of service when the development is completed. The weekday a.m. peak hour shows that all six intersections continue to have acceptable levels of service while the weekday p.m. peak hour shows that three of the six intersections have unacceptable levels of service. The intersections that fail during the p.m. peak are:

- ✓ Delaware Route 26 and Delaware Route 17 Although this intersection has acceptable levels of service for the no build scenario, the overall (x-critical) v/c ratio is 0.94. DelDOT's definition of acceptable levels of service for signalized intersections must meet the criteria of overall level of service 'D' or better with an x-critical of 0.95 or lower. Since the no build scenario shows an x-critical of 0.94, any additional traffic added to this intersection in the full build analysis will push the x-critical over the acceptable 0.95. So even though the full build analysis shows an acceptable levels of service with its 0.97 x-critical.
- ✓ Delaware Route 26 and Railway Road continues to have unacceptable levels of service as found in the no build analysis,
- ✓ Delaware Route 26 and Old Mill Road continues to have unacceptable levels of service as found in the no build analysis.

The summer Saturday peak hour shows that the same intersections that fail during the no build scenario (all intersections along Delaware Route 26) continue to do so in the full build analysis. Those intersections are:

- ✓ Delaware Route 26 and Delaware Route 17,
- ✓ Delaware Route 26 and Railway Road,
- ✓ Delaware Route 26 and Old Mill Road, and
- ✓ Delaware Route 26 and Central Avenue

In order to reduce the impact of the proposed site, the following recommendations were identified for locations needing improvements or found to have poor or potentially poor levels of service:

Delaware Route 26 and Delaware Route 17 - Under existing conditions, this intersection has acceptable levels of service for all three-peak periods. In the future no build and full build scenarios, this intersection has unacceptable levels of service. DelDOT's Delaware Route 26 Improvement Project has recognized the need to improve intersections along this route, which was already incorporated at this intersection. However, specifically the Saturday peak hour shows significant delays for both the no build and full build scenario due to high volume caused by beach traffic. The need for improvement at this location is mainly related to regional traffic patterns. Any improvement at this intersection would go well beyond the scope of the proposed residential project on Railway Road, therefore no improvements are recommended.

Delaware Route 26 and Railway Road – Under existing conditions, this intersection has acceptable levels of service for all three-peak periods. For the future scenarios (2015 no build and full build), this intersection has unacceptable levels of service for both the weekday p.m. peak and summer Saturday peak periods. These delays are due to unacceptable gaps in traffic for side-street movements to enter onto Delaware Route 26. DelDOT's Delaware Route 26 Improvement Project shows that this intersection will have installed an eastbound Delaware Route 26 by-pass lane with Railway Road being slightly re-aligned with Delaware Route 26. As a result of this proposed development, improvements should also include widening the southbound approach of Railway Road so it will have a separate left and right-turn lane. Even though this improvement will not gain acceptable levels of service, the delays are significantly decreased.

Delaware Route 26 and Old Mill Road (Rd 349) - Under existing conditions, this intersection has acceptable levels of service for all three-peak periods. For the future scenarios (2015 no build and full build), this intersection has unacceptable levels of service for both the weekday p.m. peak and summer Saturday peak periods. Between DelDOT's Delaware Route 26 Improvement Project and the Millville Town Center improvements this intersection will have an additional eastbound Delaware Route 26 right-turn lane, westbound Delaware Route 26 left-turn lane, northbound Millville Town Center driveway separate left-turn lane, through lane, and right turn lane, while southbound Old Mill Road will change lane assignments to have a separate left-turn lane and a shared through/right lane. With these improvement at this intersection would go beyond the scope of the proposed residential project on Railway Road, therefore no improvements are recommended as part of this project.

Delaware Route 26 and Central Avenue (Rd 84/Rd 357) - Under existing conditions, this intersection has acceptable levels of service for all three-peak periods. For the future scenarios (2015 no build and full build), this intersection has unacceptable levels of service for the summer Saturday peak periods. Between DelDOT's Delaware Route 26 Improvement Project and the Bay Forest improvements this intersection will have a westbound Delaware Route 26 separate left-

turn lane, through lane, and right-turn lane and a northbound/southbound Central Avenue separate left, through, and right turn lanes. With these improvements, this intersection will continue to have unacceptable levels of service for the Saturday peak hour. Any additional improvement at this intersection would go beyond the scope of the Proposed Residential Project on Railway Road, therefore no improvements are recommended.

Since this proposed project is located at the end point of Railway Road, there is technically no access driveway to analyze since trips originating and ending are not intersecting with Railway Road.

The 2015 Full Build levels of service with the DelDOT roadway improvements are shown in Figures 73, 74, and 75.

TABLE VII

LEVEL OF SERVICE AND EXPECTED DELAY FOR UNSIGNALIZED INTERSECTIONS (TWO-WAY STOP CONTROLLED)

LEVEL OF SERVICE	EXPECTED TRAFFIC DELAY	AVERAGE TOTAL DELAY PER VEHICLE (sec)
а	Little or no delay	0 to 10.0
b	Short traffic delays	10.1 to 15.0
с	Average traffic delays	15.1 to 25.0
d	Long traffic delays	25.1 to 35.0
e	Very long traffic delays	35.1 to 50.0
f	Volumes exceed capacity	Over 50.0

Source: Transportation Research Board, 2000 Highway Capacity Manual, published by the Transportation Research Board, Washington, D.C.

TABLE VIII

LEVEL OF SERVICE FOR SIGNALIZED INTERSECTIONS

LEVEL OF SERVICE	DESCRIPTION	AVERAGE CONTROL DELAY PER VEHICLE (sec/veh)
А	Very short delay, good progression, most vehicles do not stop at intersection.	0 to 10.0
В	Generally good signal progression and/or short cycle length, more vehicles stop at intersection than Level of Service A.	10.1 to 20.0
С	Fair progression and/or longer cycle length, significant number of vehicles stop at intersection.	20.1 to 35.0
D	Congestion becomes noticeable, individual cycle failures, longer delays from unfavorable progression, long cycle length, or high volume/ capacity ratio, most vehicles stop at intersection.	35.1 to 55.0
E	Usually considered <u>limit of acceptable</u> <u>delay</u> indication of poor progression, long cycle length, or high volume/ capacity ratio, frequent individual cycle failures.	55.1 to 80.0
F	Could be considered excessive delay in some areas, frequently and indication of saturation, or very long cycle lengths with minimal side street green time. Capacity is not necessarily exceeded under this level of service.	Over 80.0

Source: Transportation Research Board, 2000 <u>Highway Capacity Manual</u>, published by the Transportation Research Board, Washington, D.C.

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Table IX Level of Service Comparisons

Old Mill Road (Road 349) & Railway Road - Unsignalized

Movement/	2004	Existing	2015	No Build	2015 F	ull Build
Approach	LOS	DELAY	LOS	DELAY	LOS	DELA
				1/1000000001		
EB Left						
EB Thru	a	8.0	Ъ	12.1	C	15.2
EB Right	_					
EB Overall	a	8.0	b	12.1	c	15.2
WB Left						
WB Thru	a	7.7	a	8,9	b	10,1
WB Right						
WB Overall	a	7.7	a	8.9	b	10.1
				r		
NB Left		7,8		8,8	9211	9,8
NB Thru	a	7,0	а	0.0	a	2.0
NB Right NB Overall		7.8		8,8		9.8
IND OVERAIL	a	7,0	a	0,0	a	9.0
SB Left	1	1		1	_	-
SB Thru	a	7.8	a	9.3	b	12,4
SB Right				5.0	U	
SB Overall	a	7.8	а	9.3	b	12.4
0.0000		1 1.0 1.		1 210 1		1.011
Overall	a	7.9	b	10.8	b	13.1
						- 24/2
PM PEAK						
Movement/	2004 1	Existing	20151	No Build	2015 F	Ill Build
Approach	LOS	DELAY	LOS	DELAY	LOS	DELA
		·				
EB Left						
EB Thru	a	7.8	ь	10.6	b	13.9
EB Right						
EB Overall	a	7.8	b	10.6	b	13,9
			_			
WB Left	-					
WB Thru	a	8.1	Ь	11,9	c	17.1
WB Right						
WB Overall	a	8,1	b	11.9	С	17.1
ND L G		· · · · ·		rr		
NB Left	-	7.6		9.1	b	11.0
NB Thru	*	/.0	a	9.1	D	11.8
NB Right NB Overall	a	7.6		9.1	b	11.8
IND OVERAIL	a	7,0	a	7,1	D	11.0
SB Left	1	<u>г г</u>		[]		
SB Thru	a	8.0	а	9,6	b	12.2
SB Right			-	510	U	
SB Overall	1	8.0	a	9.6	b	12.2
OD O WILL		0.0			-	1.0.20
Overall	а	7.9	b	10.9	b	14.5
				•		
ATURDAY PEAK						
Movement/	2004 1	xisting	2015	lo Build	2015 Fi	ill Build
Approach	LOS	DELAY	LOS	DELAY	LOS	DELAY
EB Left						
EB Thru	a	9.4	C	18.6	d	33.8
and the second s						
EB Right		9.4	с	18.6	d	33.8
EB Right EB Overall	a					
EB Overall	A	· · · · · ·				
EB Overall WB Left			-	16.5	,	05.5
EB Overall WB Left WB Thru		9.1	c	15.5	d	25.7
EB Overall WB Left WB Thru WB Right	a	9.1				
EB Overall WB Left WB Thru			c	15.5 15.5	d d	25.7 25.7
EB Overall WB Left WB Thru WB Right WB Overall	a	9.1				
EB Overall WB Left WB Thru WB Right WB Overall NB Left	a	9.1	С	15.5	d	25.7
EB Overall WB Left WB Thru WB Right WB Overall NB Left NB Thru	a	9.1				
EB Overall WB Left WB Thru WB Right WB Overall NB Left NB Thru NB Right	a <u>a</u> a	9.1 9.1 8.5	c b	15.5	d c	25.7 15.9
EB Overall WB Left WB Thru WB Right WB Overall NB Left NB Thru	a	9.1	С	15.5	d	25.7
EB Overall WB Left WB Thru WB Right WB Overall NB Left NB Thru NB Right NB Overall	a <u>a</u> a	9.1 9.1 8.5	c b	15.5	d c	25.7 15.9
EB Overall WB Left WB Thru WB Right WB Overall NB Left NB Thru NB Right NB Overall SB Left	a a a a	9.1 9.1 8.5 8.5	c b b	15.5 11.4 11.4	d c c	25.7 15.9 15.9
EB Overall WB Left WB Thru WB Right WB Overall NB Left NB Thru NB Right NB Overall SB Left SB Thru	a <u>a</u> a	9.1 9.1 8.5	c b	15.5	d c	25.7 15.9
EB Overall WB Left WB Thru WB Right WB Overall NB Left NB Right NB Overall SB Left SB Thru SB Right	a a a a a	9.1 9.1 8.5 8.5 9.2	c b b	15.5 11.4 11.4 13.2	d c c	25.7 15.9 15.9 21.3
EB Overall WB Left WB Thru WB Right WB Overall NB Left NB Thru NB Right NB Overall SB Left SB Thru	a a a a	9.1 9.1 8.5 8.5	c b b	15.5 11.4 11.4	d c c	25.7 15.9 15.9

Table IX (continued) Level of Service Comparisons

Old Mill Road (Road 349) & Clubhouse Road (Road 351) - Unsignalized

Movement/	2004	Existing	20151	No Build	2015 Full Build		
Approach	LOS	DELAY	LOS	DELAY	LOS	DELA	
EB Left	1	1 1		T T		15.6	
EB Thru	a	8.7	b	13,3	c		
EB Right							
EB Overall	8	8.7	b	13.3	c	15.6	
WB Left						1	
WB Thru	a	8.3	а	9,5	n	9.8	
WB Right							
WB Overall	a	8.3	8	9.5	a	9.8	
NB Left	-					1	
NB Thru	а	7.7	8	8.6	a	8,8	
NB Right	-						
NB Overall	а	7.7	a	8.6	a	8.8	
	-r						
SB Left	-						
SB Thru	а	8.7	a	9.7	a	10.0	
SB Right							
SB Overall	a	8.7	a	9.7	а	10.0	

<u>PM PEAK</u>

Movement/	2004	Existing	20151	No Build	2015 F	ull Build	
Approach	LOS	DELAY	LOS	DELAY	LOS	DELAY	
EB Left		1					
EB Thru	8	8,1	b	11.0	b	11,8	
EB Right							
EB Overall	a	8,1	b	11.0	b	11.8	
WB Left	1	1				r	
WB Thru	в	8.5	b	12.6	Ь	14.1	
WB Right	-	010	U		U		
WB Overall	a	8.5	b	12.6	b	14.1	
NB Left	1 1		a		a		
NB Thru	a	7_8		9_0		9,3	
NB Right						~ ~ ~	
NB Overall	a	7.8	8	9.0	ä	9,3	
SB Left	1	1				ľ –	
SB Thru	a	8_1	а	9.4	а	9.7	
SB Right						(
SB Overall	а	8.1	Ð	9.4	a	9,7	

<u>SATURDAY PEAK</u>

Movement/	2004	Existing	20151	No Build	2015 F	ull Build	
Approach	LOS	DELAY	LOS	DELAY	LOS	DELAY	
EB Left		1 1		1 1		1	
EB Thru	а	9.9	с	20.3	С	24.2	
EB Right	1						
EB Overall	а	9.9	с	20,3	C	24.2	
WB Left	1	1 1		1 T		1	
WB Thru	- a	9.0	ь	13.8	с	15.1	
WB Right		10	Ū	15,0	Ŭ	13.1	
WB Overall	а	9.0	b	13.8	c	15.1	
	×	ř – – – – –	_				
NB Left		1		1 1			
NB Thru	a	8,2	а	9.7	а	9,9	
NB Right				-			
NB Overall	a	8.2	а	9,7	a	9,9	
SB Left	1	1 1	_	1 1		1	
SB Thru	a	9.0	b	10.9	Ь	11.2	
SB Right	1 .						
SB Overall	a	9.0	b	10.9	b	11.2	
Overall	a	9.3	c	16.5	c	19.0	

Table IX (continued)Level of Service Comparisons

Delaware Route 26 & Delaware Route 17 (Roxana Road) - Signalized

AM PEAK

Movement/	2	2004 Existing	g	2	2015 No Buil	d	2	015 Full Bui	ld
Approach	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C
						_			_
EB Thru	В	10.3	0.49	D	38.8	0.92	D	40.0	0.93
EB Right	D	10.5	0.49	D	50.0	0.92		40.0	0.95
EB Overall	В	10.3	Ħ	D	38.8		D	40.0	190
WB Left	Α	3.2	0.09	В	13.7	0.58	В	17.6	0.69
WB Thru	А	2.4	0.16	A	8.1	0.36	A	8.3	0.39
WB Overall	A	2.6	2	А	10.0		В	11.6	
		L (0.0 T	0.60		1 an c 1	0.00		T	
NB Left	D	42.2	0.63	D	53.6	0.88	D	54.9	0.89
NB Right	В	18.4	0.14	В	19.1	0.40	В	19.3	0.41
NB Overall	C	29.9	:(•:	D	39.6		D	40.2	
verall (X critical)	В	11.3	0.46	С	29.6	0.93	С	30.2	0.94

<u>PM PEAK</u>

Movement/		2004 Existing	g		2015 No Buil	d	2	015 Full Bui	ld
Approach	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C
				r					
EB Thru	В	11.9	0.48	D	45.7	0.95	D	52.2	0.98
EB Right	D	11.5	0.40		43.7	0.95	D	54.2	0.90
EB Overall	В	11.9		D	45.7		D	52.2	14
WB Left	А	4.2	0.13	E	75.8	0.95	Е	56.6	0.96
WB Thru	А	3.8	0.30	В	10.5	0.48	А	9.7	0.48
WB Overall	А	3.8		С	32.4	9	С	25.8	
		T							
NB Left	D	49.2	0.78	F	105.5	1.00	F	127.0	1.07
NB Right	В	16.2	0.17	D	48.7	0.70	D	54.4	0.79
NB Overall	D	37.6		Е	78.9	•	F	90.9	¥
overall (X critical)	В	13.7	0.50	D	49.7	0.94	D	53.3	0.97

SATURDAY PEAK

Movement/	2	2004 Existing	g		2015 No Buil	d	2	015 Full Bui	ld
Approach	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C
EB Thru	D	44.2	0.98	F	199.8	1.37	F	208.0	1.38
EB Right	D	TT.2	0.90	Г	199.0	1.57	1	208.0	1.30
EB Overall	D	44.2	36 5	F	199.8	÷	F	208.0	×
		_		1					
WB Left	А	7.9	0.34	F	222.3	1.37	F	261.6	1.46
WB Thru	А	5.4	0.53	B	11.3	0.70	В	11.7	0.72
WB Overall	А	5.8	8	Е	73.8		F	87.5	1.5
NB Left	D	48.8	0.80	F	382.3	1.68	F	382.3	1.68
NB Right	В	15.8	0.20	E	68.3	0.88	F	80.5	0.95
NB Overall	D	37.1		F	243.1	-	F	243.5	sin.
Overall (X critical)	С	27.0	0.89	F	161.0	1.75	E	170.2	1.02
Sveran (A critical)	L	27.0	0.89	F	161.9	1.75	F	170.2	1.92

Table IX (continued)Level of Service Comparisons

Delaware Route 26 & Railway Road - Unsignalized

AM PEAK

						16	2015 F	ull Build	
Movement/	vement/ 2004 E		20151	No Build	2015 F	ull Build	with improvements*		
Approach	LOS	LOS DELAY		DELAY	LOS	DELAY	LOS	DELAY	
EB Left	a	8.0	а	8.6	а	8.7	а	8.7	
EB Thru	a	8.0	. <u> </u>	-	-	(4)	-		
SB Left	b	11.9	0	16.7	с	18.3	d	31.5	
SB Right		11.9	c	10.7		10.5	С	15.1	
SB Overall	b	11.9	с	16.7	с	18.3	С	16.3	

PM PEAK

							2015 Fi	ull Build
Movement/	2004	2004 Existing		2015 No Build		2015 Full Build		ovements*
Approach	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY
EB Left	0	8.7	b	10.8	b	11.7	b	11.7
EB Thru	a	0.7		(internet)	a :	-	-	14
SB Left		15.3	0	42.5	f	65.6	f	117.3
SB Right	- c	15.5	e	42.3	1	03.0	d	26.8
SB Overall	с	15.3	е	42.5	f	65.6	e	38.3

SATURDAY PEAK

.

							2015 F	ull Build
Movement/	2004	2004 Existing		2015 No Build		ull Build	with improvements*	
Approach	LOS	DELAY	LOS	DELAY	LOS	DELAY	LOS	DELAY
	ular							X
EB Left	- a	10.0	b	14.6	с	16.3	С	16.3
EB Thru	a	10.0	-	4	4	•	194	(a)
SB Left	- d	27.8	f	454.0	f	650.0	f	*
SB Right	u	27.0	27.0 1	454.0	1	050.0	f	72.5
SB Overall	d	27.8	f	454.0	f	650.0	f	170.3

Notes: f(*) denotes delay > 999 sec.

^ - Improvements include installation of additional southbound lane on Railway Road to have a separate left and right turn lanes.

Delaware Route 26 & Old Mill Road (Road 349) - Signalized

AM PEAK

		2004 Existin	g	2	2015 No Bui	ld	2	015 Full Bui	ld
Approach	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C
ED L O	D	1 11 0 1	0.10		60.0	0.80		1 70 4 1	0.00
EB Left	В	11.2	0.10	D	52.7	0.78	E	73.6	0.88
EB Thru	В	14.2	0.48	D	44.3	0,89	D	53.7	0.94
EB Right EB Overall	В	13,9		B	12.5	0.04	B	13.6 56.2	0.04
ED Overall		1.13.7			44,0			50.2	-
WB Left	В	15.7	0.01	С	29.6	0,34	C	33.2	0.42
WB Thru	В	19.0	0.40	D	39.3	0,76	D	44.7	0.81
WB Right	A	4.2	0_06	A	3_8	0,10	A	3.9	0.11
WB Overall	В	16.3		С	31.9	•	D	35.8	- 240
NB Left		1 1		E	55.6	0.28	E	55.6	0.28
NB Thru	D	40,6	0,08	D	54.2	0.14	D	54.2	0.14
NB Right				E	56.8	0.36	E	56.8	0.36
NB Overall	D	40.6	525	E	55.9		E	55.9	
SB Left SB Thru	D	37,3	0.69	D	54.4	0,90	E	60.1	0.94
SB Right	С	24.3	0.11	С	27.4	0,19	С	25.6	0,18
SB Overall	D	35.1	0.11	D	49.8	12	D	54.7	2
Overall (X critical)	С	20.9	0_51	D	43,0	0.86	D	50.1	0.90
Movement/		2004 Existing	3	2	015 No Buil	d	20	015 Full Bui	ld
Approach	LOS	DELAY	V/C	LOS	015 No Buil DELAY	d V/C	LOS	015 Full Bui DELAY	
		DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C
Approach	LOS B	DELAY	V/C 0_14						
Approach EB Left	LOS	DELAY	V/C	LOS F	DELAY	V/C 0.97	LOS F	DELAY	V/C
Approach EB Left EB Thru	LOS B	DELAY	V/C 0_14	LOS F C	DELAY 110.8 34.4	V/C 0.97 0.65	F C	DELAY 110.8 34.4	V/C 0.97 0.65
Approach EB Left EB Thru EB Right EB Overall	LOS B B B	DELAY 11.4 18.5 17.7	V/C 0.14 0.51	F C B D	DELAY 110.8 34.4 17.4 45.8	V/C 0.97 0.65 0.15	LOS F C B D	DELAY 110.8 34.4 17.4 45.8	V/C 0.97 0.65 0.15
Approach EB Left EB Thru EB Right EB Overall WB Left	LOS B B B B	DELAY 11.4 18.5 17.7 10.3	V/C 0.14 0.51	LOS F C B D C	DELAY 110.8 34.4 17.4 45.8 23.4	V/C 0.97 0.65 0.15 - 0.50	LOS F C B D C	DELAY 110.8 34.4 17.4 45.8 23.4	V/C 0.97 0.65 0.15
Approach EB Left EB Thru EB Right EB Overall WB Left WB Thru	LOS B B B B C	DELAY 11.4 18.5 17.7 10.3 20.3	V/C 0.14 0.51 • 0.09 0.61	LOS F C B D C F	DELAY 110.8 34.4 17.4 45.8 23.4 93.0	V/C 0.97 0.65 0.15 - 0.50 1.07	LOS F C B D C F	DELAY 110.8 34.4 17.4 45.8 23.4 100.0	V/C 0.97 0.65 0.15
Approach EB Left EB Thru EB Right EB Overall WB Left	LOS B B B B	DELAY 11.4 18.5 17.7 10.3	V/C 0.14 0.51	LOS F C B D C	DELAY 110.8 34.4 17.4 45.8 23.4	V/C 0.97 0.65 0.15 - 0.50	LOS F C B D C	DELAY 110.8 34.4 17.4 45.8 23.4	V/C 0.97 0.65 0.15
Approach EB Left EB Thru EB Right EB Overall WB Left WB Thru WB Right WB Overall	LOS B B B C A	DELAY 11.4 18.5 17.7 10.3 20.3 4.4	V/C 0.14 0.51 • 0.09 0.61 0.10	LOS F C B D C F A E	DELAY 110.8 34.4 17.4 45.8 23.4 93.0 6.4 67.0	V/C 0.97 0.65 0.15 - 0.50 1.07 0.22	LOS F C B D C F A E	DELAY 110.8 34.4 17.4 45.8 23.4 100.0 6.6 70.1	V/C 0.97 0.65 0.15
Approach EB Left EB Thru EB Right EB Overall WB Left WB Nerall WB Overall NB Left	LOS B B B C A B	DELAY 11.4 18.5 17.7 10.3 20.3 4.4 16.9	V/C 0.14 0.51 - 0.09 0.61 0.10	LOS F C B D C F A E F	DELAY 110.8 34.4 17.4 45.8 23.4 93.0 6.4 67.0 97.5	V/C 0.97 0.65 0.15 - 0.50 1.07 0.22 - 0.84	LOS F C B D C F A E F	DELAY 110.8 34.4 17.4 45.8 23.4 100.0 6.6 70.1 97.5	V/C 0.97 0.65 0.15
Approach EB Left EB Thru EB Right EB Overall WB Left WB Thru WB Right WB Overall NB Left NB Thru	LOS B B B C A	DELAY 11.4 18.5 17.7 10.3 20.3 4.4	V/C 0.14 0.51 • 0.09 0.61 0.10	LOS F C B D C F A E F E	DELAY 110.8 34.4 17.4 45.8 23.4 93.0 6.4 67.0 97.5 65.1	V/C 0.97 0.65 0.15 - 0.50 1.07 0.22 - 0.84 0.36	LOS F C B D C F A E F E	DELAY 110.8 34.4 17.4 45.8 23.4 100.0 6.6 70.1 97.5 65.1	V/C 0.97 0.65 0.15 - - - - - - - - - - - - - - - - - - -
Approach EB Left EB Thru EB Right EB Overalf WB Left WB Thru WB Right WB Overalf NB Left NB Thru NB Right	LOS B B B C A B D	DELAY 11.4 18.5 17.7 10.3 20.3 4.4 16.9 48.0	V/C 0.14 0.51 0.09 0.61 0.10 0.56	LOS F C B D C F A E F E F	DELAY 110.8 34.4 17.4 45.8 23.4 93.0 6.4 67.0 97.5 65.1 148.0	V/C 0.97 0.65 0.15 	LOS F C B D C F A E F E F	DELAY 110.8 34.4 17.4 45.8 23.4 100.0 6.6 70.1 97.5 65.1 148.0	V/C 0.97 0.65 0.15 - - - - - - - - - - - - - - - - - - -
Approach EB Left EB Thru EB Right EB Overall WB Left WB Thru WB Right WB Overall NB Left NB Thru	LOS B B B C A B	DELAY 11.4 18.5 17.7 10.3 20.3 4.4 16.9	V/C 0.14 0.51 - 0.09 0.61 0.10	LOS F C B D C F A E F E	DELAY 110.8 34.4 17.4 45.8 23.4 93.0 6.4 67.0 97.5 65.1	V/C 0.97 0.65 0.15 - 0.50 1.07 0.22 - 0.84 0.36	LOS F C B D C F A E F E	DELAY 110.8 34.4 17.4 45.8 23.4 100.0 6.6 70.1 97.5 65.1	V/C 0.97 0.65 0.15 - - - - - - - - - - - - - - - - - - -
Approach EB Left EB Thru EB Right EB Overalf WB Left WB Thru WB Right WB Overalf NB Left NB Thru NB Right	LOS B B B C A A B D D	DELAY 11.4 18.5 17.7 10.3 20.3 4.4 16.9 48.0 48.0 48.0	V/C 0.14 0.51 - 0.09 0.61 0.10 - 0.56 -	LOS F C B D C F A E F E F	DELAY 110.8 34.4 17.4 45.8 23.4 93.0 6.4 67.0 97.5 65.1 148.0	V/C 0.97 0.65 0.15 	LOS F C B D C F A E F E F	DELAY 110.8 34.4 17.4 45.8 23.4 100.0 6.6 70.1 97.5 65.1 148.0	V/C 0.97 0.65 0.15 - - - - - - - - - - - - - - - - - - -
Approach EB Left EB Thru EB Right EB Overall WB Left WB Thru WB Right WB Overall NB Left NB Thru NB Right NB Overall	LOS B B B C A B D	DELAY 11.4 18.5 17.7 10.3 20.3 4.4 16.9 48.0	V/C 0.14 0.51 0.09 0.61 0.10 0.56	LOS F C B D C F A E F E F F F	DELAY 110.8 34.4 17.4 45.8 23.4 93.0 6.4 67.0 97.5 65.1 148.0 113.5 124.4	V/C 0.97 0.65 0.15 - 0.50 1.07 0.22 - 0.84 0.36 1.02 - 1.08	LOS F C B D C F A E F E F F F F	DELAY 110.8 34.4 17.4 45.8 23.4 100.0 6.6 70.1 97.5 65.1 148.0 113.5 147.0	V/C 0.97 0.65 0.15 - 0.50 1.09 0.25 - - - - - - - - - - - - - - - - - - -
Approach EB Left EB Thru EB Right EB Overalf WB Left WB Thru WB Right WB Overalf NB Left NB Thru NB Right NB Overalf SB Left SB Left SB Thru SB Right	LOS B B B C C A B D D D C	DELAY 11.4 18.5 17.7 10.3 20.3 4.4 16.9 48.0 48.0 48.0 44.4 26.7	V/C 0.14 0.51 - 0.09 0.61 0.10 - 0.56 -	LOS F C B D C F F A E F E F F F F D	DELAY 110,8 34,4 17,4 45,8 23,4 93,0 6,4 67,0 97,5 65,1 148,0 113,5 124,4 \$1,0	V/C 0.97 0.15 0.15 - 0.50 1.07 0.22 - 0.84 0.36 1.02 -	LOS F C B D C F A E E F F F F F D	DELAY 110.8 34.4 17.4 45.8 23.4 100.0 6.6 70.1 97.5 65.1 148.0 113.5	V/C 0.97 0.65 0.15 1.09 0.25 - 0.84 0.36 1.02
Approach EB Left EB Thru EB Right EB Overalf WB Left WB Thru WB Right WB Overalf NB Left NB Thru NB Right NB Overalf SB Left SB Thru	LOS B B B C A B D D D	DELAY 11.4 18.5 17.7 10.3 20.3 4.4 16.9 48.0 48.0 48.0 44.4	V/C 0.14 0.51 - 0.61 0.10 - 0.56 - 0.76	LOS F C B D C F A E F E F F F	DELAY 110.8 34.4 17.4 45.8 23.4 93.0 6.4 67.0 97.5 65.1 148.0 113.5 124.4	V/C 0.97 0.65 0.15 - 0.50 1.07 0.22 - 0.84 0.36 1.02 - 1.08	LOS F C B D C F A E F E F F F F	DELAY 110.8 34.4 17.4 45.8 23.4 100.0 6.6 70.1 97.5 65.1 148.0 113.5 147.0	V/C 0.97 0.65 0.15 - 0.50 1.09 0.25 - - - - - - - - - - - - - - - - - - -
Approach EB Left EB Thru EB Right EB Overalf WB Left WB Thru WB Right WB Overalf NB Left NB Thru NB Right NB Overalf SB Left SB Left SB Thru SB Right	LOS B B B C C A B D D D C	DELAY 11.4 18.5 17.7 10.3 20.3 4.4 16.9 48.0 48.0 48.0 44.4 26.7	V/C 0.14 0.51 - 0.61 0.10 - 0.56 - 0.76 0.13	LOS F C B D C F F A E F E F F F F D	DELAY 110,8 34,4 17,4 45,8 23,4 93,0 6,4 67,0 97,5 65,1 148,0 113,5 124,4 \$1,0	V/C 0.97 0.65 0.15 - 0.22 - 0.84 0.36 1.02 - 1.08 0.55	LOS F C B D C F A E E F F F F F D	DELAY 110.8 34.4 17.4 45.8 23.4 100.0 6.6 70.1 97.5 65.1 148.0 113.5 147.0 51.0	V/C 0.97 0.65 0.15 - - - - - - - - - - - - - - - - - - -
Approach EB Left EB Thru EB Right EB Overall WB Left WB Thru WB Right WB Overall NB Left NB Thru NB Right NB Overall SB Left SB Thru SB Right SB Overall Overall	LOS B B B C A B B D D D D C D	DELAY 11.4 18.5 17.7 10.3 20.3 4.4 16.9 48.0 48.0 48.0 44.4 26.7 41.1	V/C 0.14 0.51 - - 0.09 0.61 0.10 - - 0.56 - 0.76 0.13 -	LOS F C B D C F A A E F F F F F F D F	DELAY 110.8 34.4 17.4 45.8 23.4 93.0 6.4 67.0 97.5 65.1 148.0 113.5 124.4 51.0 100.3	V/C 0.97 0.65 0.15 - 0.50 1.07 0.22 - 0.84 0.36 1.02 - 1.08 0.55 -	LOS F C B D C F A E F F F F F D F F F F F F F F F F F F F	DELAY 110.8 34.4 17.4 45.8 23.4 100.0 6.6 70.1 97.5 65.1 148.0 113.5 147.0 51.0 116.7	V/C 0.97 0.65 0.15
Approach EB Left EB Thru EB Right EB Overall WB Left WB Thru WB Right WB Overall NB Left NB Thru NB Right NB Overall SB Left SB Thru SB Right SB Overall	LOS B B C A B D D D D C D D C	DELAY 11.4 18.5 17.7 10.3 20.3 4.4 16.9 48.0 48.0 48.0 44.4 26.7 41.1	V/C 0.14 0.51 0.09 0.61 0.10 - 0.56 - 0.76 0.13 - 0.64	LOS F C B D C F A E F F F F D F F	DELAY 110.8 34.4 17.4 45.8 23.4 93.0 6.4 67.0 97.5 65.1 148.0 113.5 124.4 51.0 100.3	V/C 0.97 0.65 0.15 - 0.50 1.07 0.22 - 0.84 0.36 1.02 - 1.08 0.55 - 1.08	LOS F C B D C F A A E F F F F F F D F F	DELAY 110.8 34.4 17.4 45.8 23.4 100.0 6.6 70.1 97.5 65.1 148.0 113.5 147.0 51.0 116.7	V/C 0.97 0.65 0.15 - - 0.84 0.36 1.02 - - 1.15 0.85 - - 1.05

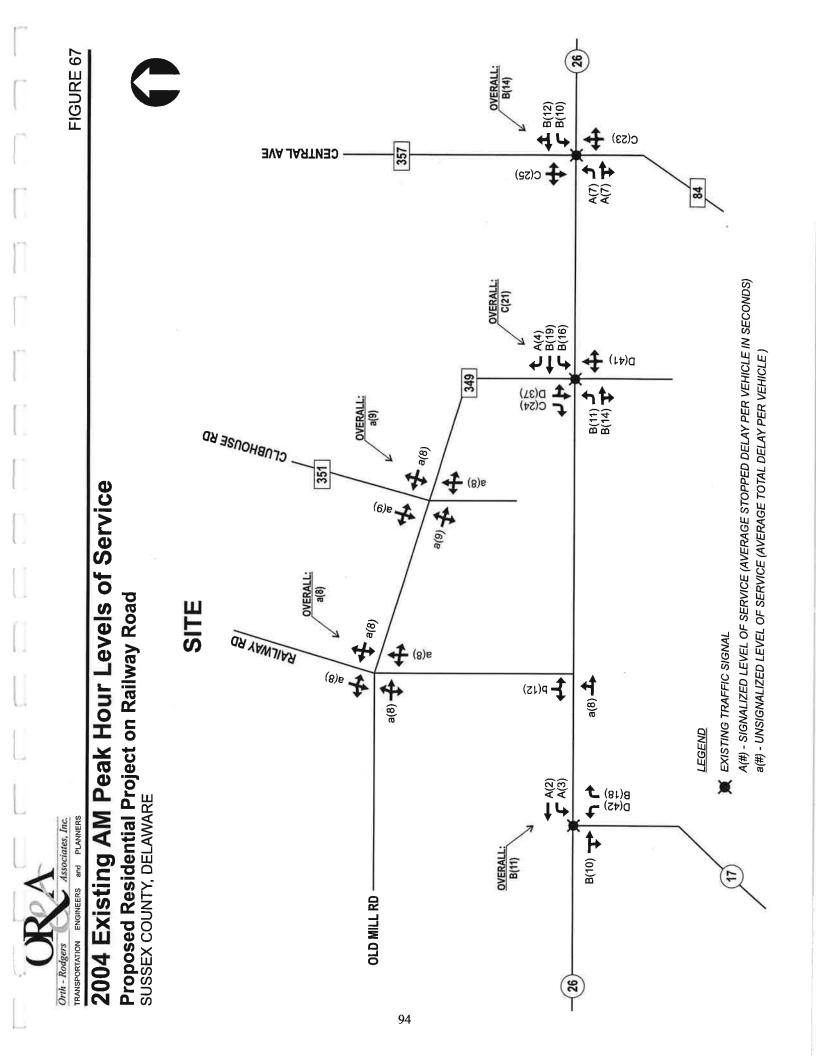
Approach	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C	
EB Left	В	19.6	0.44	F	106.9	0.98	F	106.9	0.98	
EB Thru	C	С	20.0	0.74	F	80.2	1.03	F	80.2	1.03
EB Right	C	20_0	0,74	B	18.2	0.23	В	18.2	0.23	
EB Overall	В	20_0	- ¥	E	75.8	_ ā	E	75.8		
WB Left	В	17.1	0.17	F	109.4	0.99	F	109.4	0.99	
WB Lett WB Thru	D	39.9	0.91	F			F			
				-	182,8	1.30		188.5	1,31	
WB Right	A	4.8	0.11	A	7.5	0.18	A	7.7	0.21	
WB Overall	С	33,9	-	F	148.5		F	150.4	5	
NB Left	D		- 1	F	203.6	1.19	F	203.6	1.19	
NB Thru		49.7	0.62	E	71.5	0.56	E	71.5	0,56	
NB Right				F	303.0	1.43	F	303.0	1.43	
NB Overall	D	49.7	-	F	219,5	•	F	219.5	•	
SB Left	D	61.0	0.95	F	303.0	1.51	F	342.1	1.60	
SB Thru	D	51,0	0.85	F	100.0	1.00				
SB Right	С	26.4	0.27	F	108.2	1.00	F	108.2	1.00	
SB Overall	D	44.0		F	229.3	3 4	P	256.8		
Overall (X critical)	C	31.7	0.87	F	150.6	1.14	F	157.4	1.16	

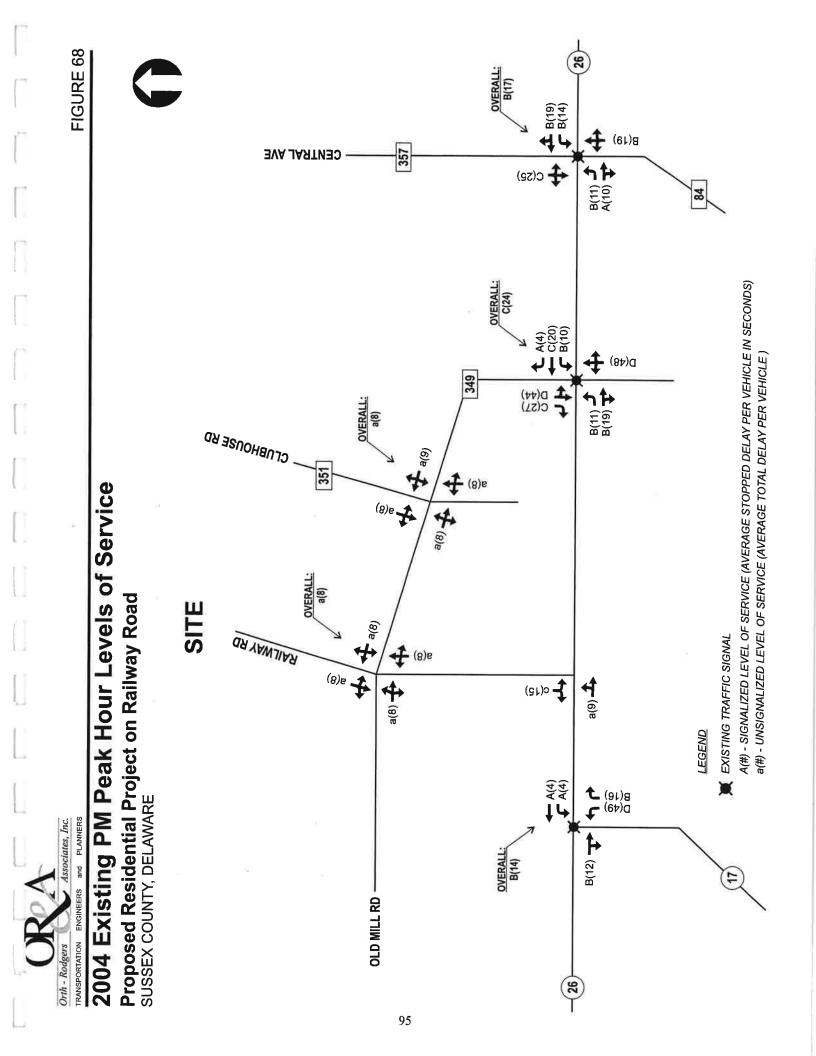
Delaware Route 26 & Central Avenue (Road 84) - Signalized

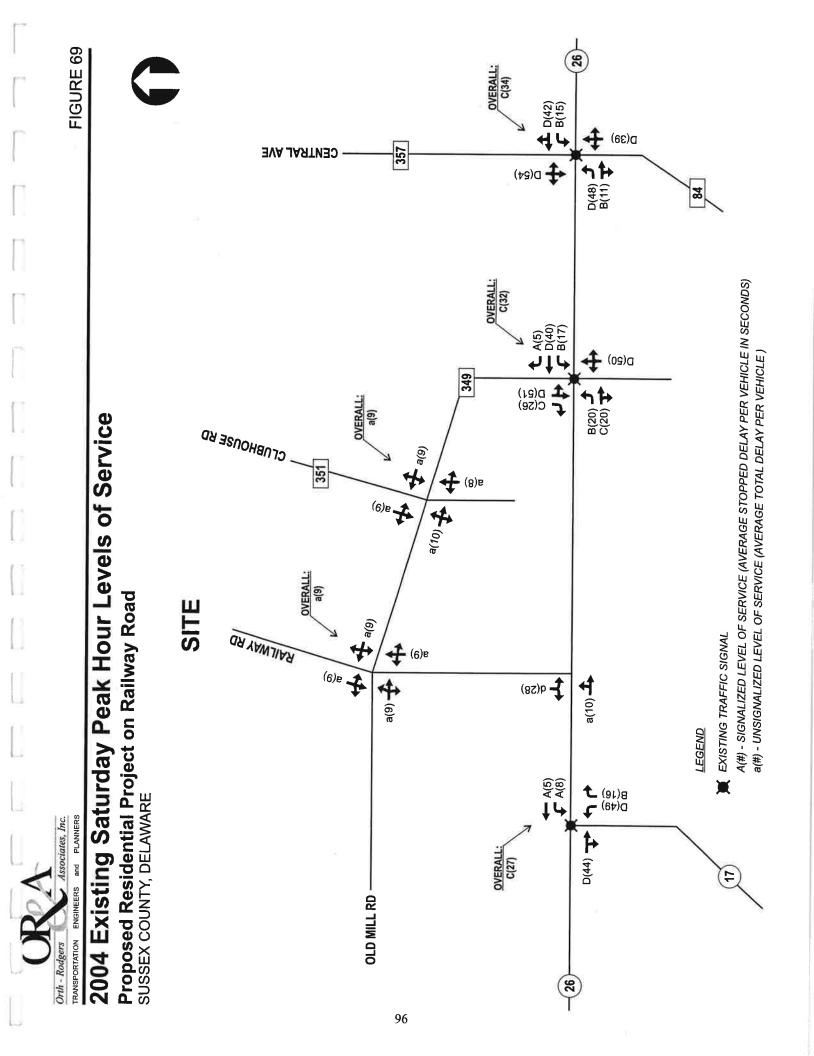
AM PEAK

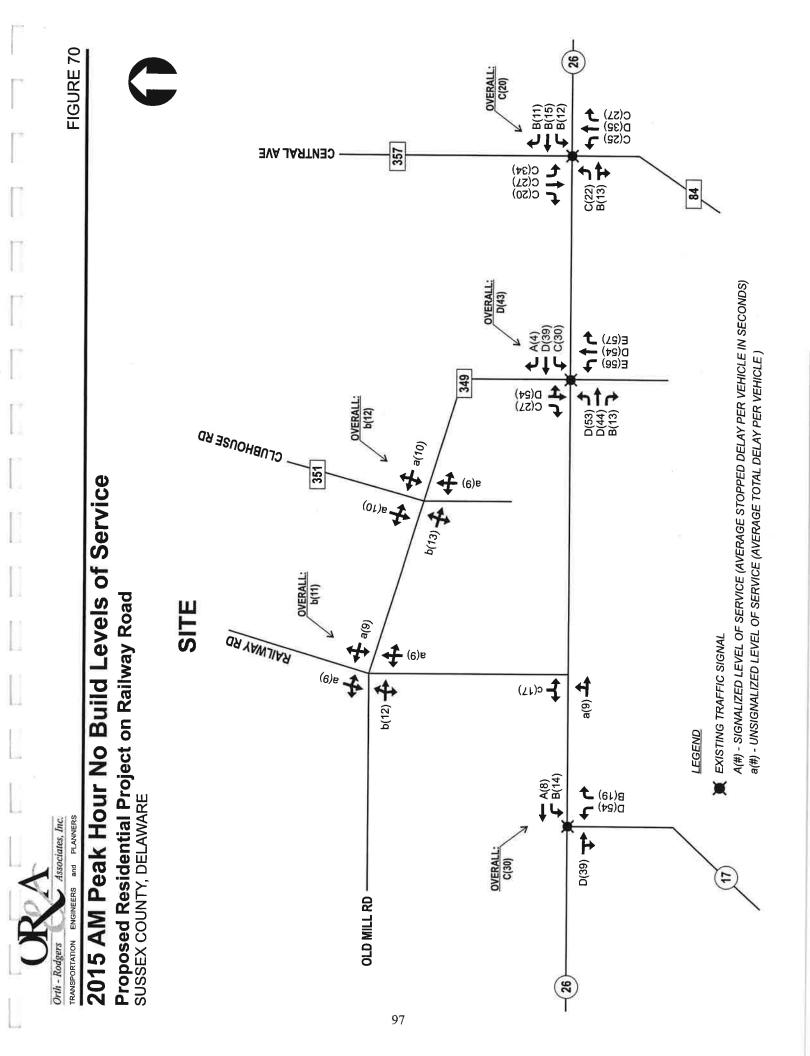
Movement/		2004 Existin	g	2	2015 No Bui	ld	2	015 Full Bui	ld
Approach	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C
		1 60 1					-		
EB Left	A	6,9	0.29	C	22.0	0.68	C	23.6	0.70
EB Thru EB Right	А	7,2	0.33	В	12.7	0.65	В	13,4	0,68
EB Overall	A	7.1	2.97	В	15.2		В	16,2	
WB Left	B	10.2	0.08	B	12.4	0,20	В	12.5	0.22
WB Thru	в	12.1	0,36	B	14.9	0.50	B	15.0	0.51
WB Right WB Overall	В	11.9		B	11.1	0,05	B	11.1	0.05
WB Overall		1 110			1 14.4	-		1 14.5	
NB Left	С			C	24.9	0,08	С	24.9	0.08
NB Thru		23,3	0.44	D	35.4	0.72	D	35.4	0.72
NB Right				С	26.7	0,30	C	26.7	0.30
NB Overall	С	23.3	1992 - 19	С	32.6	÷	С	32,6	
SB Left				С	34.1	0.58	С	34.1	0,58
SB Thru	С	25.3	0_56	С	26.8	0.31	С	26.8	0.31
SB Right				С	20.3	0.27	C	20.3	0.27
SB Overall	С	25.3	- <u>7</u>	С	25,9		С	25.9	
Overall (X critical)	В	13.8	0.48	С	20.3	0.67	Ċ	20.6	0.69
3									
Movement/ Approach	LOS	2004 Existin	g V/C	LOS	015 No Buil DELAY	d V/C	LOS 24	DI5 Full Buil	d V/C
Approach	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C
Approach EB Left	LOS B	DELAY	V/C 0,39	LOS E	68.1	V/C 0,90	LOS F	93.6	V/C 0.97
Approach EB Left EB Thru	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	
Approach EB Left	LOS B	DELAY	V/C 0,39	LOS E	68.1	V/C 0,90	LOS F	93.6	V/C 0.97
Approach EB Left EB Thru EB Right EB Overall	LOS B A B	DELAY 10.7 9.8 10.1	V/C 0.39 0.36	LOS E A C	DELAY 68.1 9.8 25.8	V/C 0,90 0,52	LOS F A C	93.6 10.0 32.8	V/C 0.97 0.53
Approach EB Left EB Thru EB Right EB Overall WB Left	LOS B A B B	DELAY	V/C 0:39 0:36 * 0.19	E A	DELAY 68.1 9.8 25.8 17.2	V/C 0.90 0.52	F A	DELAY 93.6 10.0 32.8 17.3	V/C 0.97 0.53
Approach EB Left EB Thru EB Right EB Overall	LOS B A B	DELAY 10.7 9.8 10.1	V/C 0.39 0.36	LOS E A C B	DELAY 68.1 9.8 25.8	V/C 0.90 0.52 	LOS F A C B	93.6 10.0 32.8	V/C 0.97 0.53 -
Approach EB Left EB Thru EB Right EB Overall WB Left WB Thru	LOS B A B B	DELAY	V/C 0:39 0:36 * 0.19	LOS E A C B C	DELAY 68,1 9,8 25.8 17.2 34,5	V/C 0,90 0,52 - 0,32 0,86	LOS F A C B D	DELAY 93.6 10.0 32.8 17.3 37.6	V/C 0.97 0.53 - 0.33 0.89
Approach EB Left EB Thru EB Right EB Overall WB Left WB Thru WB Right WB Overall	LOS B A B B B	DELAY 10.7 9.8 10.1 13.9 18.5	V/C 0,39 0,36 • 0,19 0,62	E A C B C B C	DELAY 68.1 9,8 25.8 17.2 34.5 14.1 31.6	V/C 0.90 0.52 	LOS F A C B D B C	DELAY 93.6 10.0 32.8 17.3 37.6 14.1 34.3	V/C 0.97 0.53 0.33 0.89 0.05
Approach EB Left EB Thru EB Right EB Overall WB Left WB Thru WB Right WB Overall NB Left	LOS B A B B B	DELAY 10.7 9.8 10.1 13.9 18.5	V/C 0,39 0,36 • 0,19 0,62	E A C B C B C E	DELAY 68.1 9,8 25.8 17.2 34,5 14,1 31.6 57.7	V/C 0,90 0,52 - 0,32 0,86 0,05	LOS F A C B D B	DELAY 93.6 10.0 32.8 17.3 37.6 14.1 34.3 57.7	V/C 0.97 0.53 0.33 0.89 0.05 -
Approach EB Left EB Thru EB Right EB Overall WB Left WB Thru WB Right WB Overall	LOS B A B B B B	DELAY 10.7 9.8 10.1 13.9 18.5 17.8	V/C 0,39 0,36 - 0,19 0,62	E A C B C B C	DELAY 68.1 9,8 25.8 17.2 34.5 14.1 31.6	V/C 0,90 0,52 - 0,32 0,86 0,05 - 0,47	LOS F A C B D B C C E	DELAY 93.6 10.0 32.8 17.3 37.6 14.1 34.3	V/C 0.97 0.53 0.33 0.89 0.05
Approach EB Left EB Thru EB Right EB Overall WB Left WB Thru WB Right WB Overall NB Left NB Left NB Thru	LOS B A B B B B	DELAY 10.7 9.8 10.1 13.9 18.5 17.8	V/C 0,39 0,36 - 0,19 0,62	E A C B C B C E E	DELAY 68.1 9.8 25.8 17.2 34.5 14.1 31.6 57.7 58.8	V/C 0,90 0,52 - 0.32 0.86 0.05 - 0.47 0.65	LOS F A C B D B C C E E	DELAY 93.6 10.0 32.8 17.3 37.6 14.1 34.3 57.7 58.8	V/C 0.97 0.53 0.33 0.89 0.05 - - 0.47 0.65
Approach EB Left EB Thru EB Right EB Overall WB Left WB Thru WB Right WB Overall NB Left NB Thru NB Thru NB Right NB Overall	LOS B A B B B B B B	DELAY 10.7 9.8 10.1 13.9 18.5 17.8 18.5	V/C 0.39 0.36 - 0.19 0.62 - 0.30	LOS E A C B C B C E E E D E E	DELAY 68.1 9,8 25.8 17.2 34.5 14,1 31.6 57.7 58.8 52.0 56.6	V/C 0.90 0.52 - 0.32 0.86 0.05 - 0.47 0.65 0.38 -	LOS F A C B B C C E E E D E E	DELAY 93.6 10.0 32.8 17.3 37.6 14.1 34.3 57.7 58.8 52.0 56.6	V/C 0.97 0.53 0.33 0.89 0.05 - - - - - - - - - - - - - - - - - - -
Approach EB Left EB Thru EB Right EB Overall WB Left WB Thru WB Right WB Overall NB Left NB Thru NB Right NB Overall SB Left	LOS B A B B B B B B	DELAY 10.7 9.8 10.1 13.9 18.5 17.8 18.5 18.5	V/C 0.39 0.36 - 0.19 0.62 - 0.30	LOS E A C B C B C E E D E F	DELAY 68.1 9,8 25.8 17.2 34.5 14,1 31.6 57.7 58.8 52.0 56.6 120.9	V/C 0.90 0.52 - 0.32 0.86 0.05 - 0.47 0.65 0.38 - 0.95	LOS F A C B D B C C E E E D E F	DELAY 93.6 10.0 32.8 17.3 37.6 14.1 34.3 57.7 58.8 52.0 56.6 120.9	V/C 0.97 0.53 0.33 0.89 0.05
Approach EB Left EB Thru EB Right EB Overall WB Left WB Thru WB Right WB Overall NB Left NB Thru NB Right NB Chru SB Left SB Left SB Thru	LOS B A B B B B B B	DELAY 10.7 9.8 10.1 13.9 18.5 17.8 18.5	V/C 0.39 0.36 - 0.19 0.62 - 0.30	LOS E A C B C B C E E E D E E	DELAY 68,1 9,8 25.8 17.2 34.5 14,1 31.6 57.7 58.8 52.0 56.6 120.9 81.6	V/C 0.90 0.52 - 0.32 0.86 0.05 - 0.47 0.65 0.38 - 0.95 0.90	LOS F A C B B C C E E E D E E	DELAY 93.6 10.0 32.8 17.3 37.6 14.1 34.3 57.7 58.8 52.0 56.6 120.9 81.6	V/C 0.97 0.53 0.33 0.89 0.05 - - - - - - - - - - - - - - - - - - -
Approach EB Left EB Thru EB Right EB Overall WB Left WB Thru WB Right WB Overall NB Left NB Thru NB Right NB Overall SB Left	LOS B A B B B B B B	DELAY 10.7 9.8 10.1 13.9 18.5 17.8 18.5 18.5	V/C 0.39 0.36 - 0.19 0.62 - 0.30	LOS E A C B C B C B C E E D E F F	DELAY 68.1 9,8 25.8 17.2 34.5 14,1 31.6 57.7 58.8 52.0 56.6 120.9	V/C 0.90 0.52 - 0.32 0.86 0.05 - 0.47 0.65 0.38 - 0.95	LOS F A C B D B C C E E E D E F F	DELAY 93.6 10.0 32.8 17.3 37.6 14.1 34.3 57.7 58.8 52.0 56.6 120.9	V/C 0.97 0.53 0.33 0.89 0.05 - - - - - - - - - - - - - - - - - - -
Approach EB Left EB Thru EB Right EB Overall WB Left WB Thru WB Right WB Overall NB Left NB Thru NB Right NB Overall SB Left SB Thru SB Right SB Overall	LOS B A B B B B B B C C C	DELAY 10.7 9.8 10.1 13.9 18,5 17.8 18,5 24.5 24.5	V/C 0.39 0.36 - 0.19 0.62 - 0.30 - 0.30 -	LOS E A C B C B C E E D E F F F F	DELAY 68.1 9,8 25.8 17.2 34.5 14,1 31.6 57.7 58.8 52.0 56.6 120.9 81.6 92.8	V/C 0.90 0.52 - 0.32 0.86 0.05 - 0.47 0.65 0.38 - 0.95 0.90 0.94 -	LOS F A C B D B C C E E E D E F F F F	DELAY 93.6 10.0 32.8 17.3 37.6 14.1 34.3 57.7 58.8 52.0 56.6 120.9 81.6 99.9 95.4	V/C 0.97 0.53 0.89 0.05 - - - 0.47 0.65 0.38 - - 0.95 0.90 0.97
Approach EB Left EB Thru EB Right EB Overall WB Left WB Thru WB Right WB Overall NB Left NB Thru NB Right NB Overall SB Left SB Thru SB Right SB Overall Overall	LOS B A B B B B B B C	DELAY 10.7 9.8 10.1 13.9 18.5 17.8 18.5 18.5 24.5	V/C 0.39 0.36 0.19 0.62 - 0.30 -	LOS E A C B C B C B C E E D E F F F	DELAY 68.1 9.8 25.8 17.2 34.5 14.1 31.6 57.7 58.8 52.0 56.6 120.9 81.6 93.6	V/C 0.90 0.52 - 0.32 0.86 0.05 - 0.47 0.65 0.38 - 0.95 0.95 0.90 0.94	LOS F A C B B C B B C C E E E D E F F F	DELAY 93.6 10.0 32.8 17.3 37.6 14.1 34,3 57.7 58.8 52.0 56.6 120.9 81.6 99.9	V/C 0.97 0.53 0.33 0.89 0.05
Approach EB Left EB Thru EB Right EB Overall WB Left WB Thru WB Right WB Overall NB Left NB Thru NB Right NB Overall SB Left SB Thru SB Right	LOS B A B B B B B C C C C B	DELAY 10.7 9.8 10.1 13.9 18,5 17.8 18,5 24.5 24.5	V/C 0.39 0.36 - - 0.62 - - 0.62 - - 0.67 - - 0.68	LOS E A C B C B C B C E E D E F F F F F F F	DELAY 68.1 9,8 25.8 17.2 34.5 14,1 31.6 57.7 58.8 52.0 56.6 120.9 81.6 92.8	V/C 0.90 0.52 - 0.32 0.86 0.05 - 0.47 0.65 0.38 - 0.95 0.90 0.90	LOS F A C B D B C C E E E E F F F F F F D	DELAY 93.6 10.0 32.8 17.3 37.6 14.1 34.3 57.7 58.8 52.0 56.6 120.9 81.6 99.9 95.4	V/C 0.97 0.53 0.89 0.05 - 0.47 0.47 0.47 0.47 0.38 - - 0.95 0.90 0.97 - 0.94

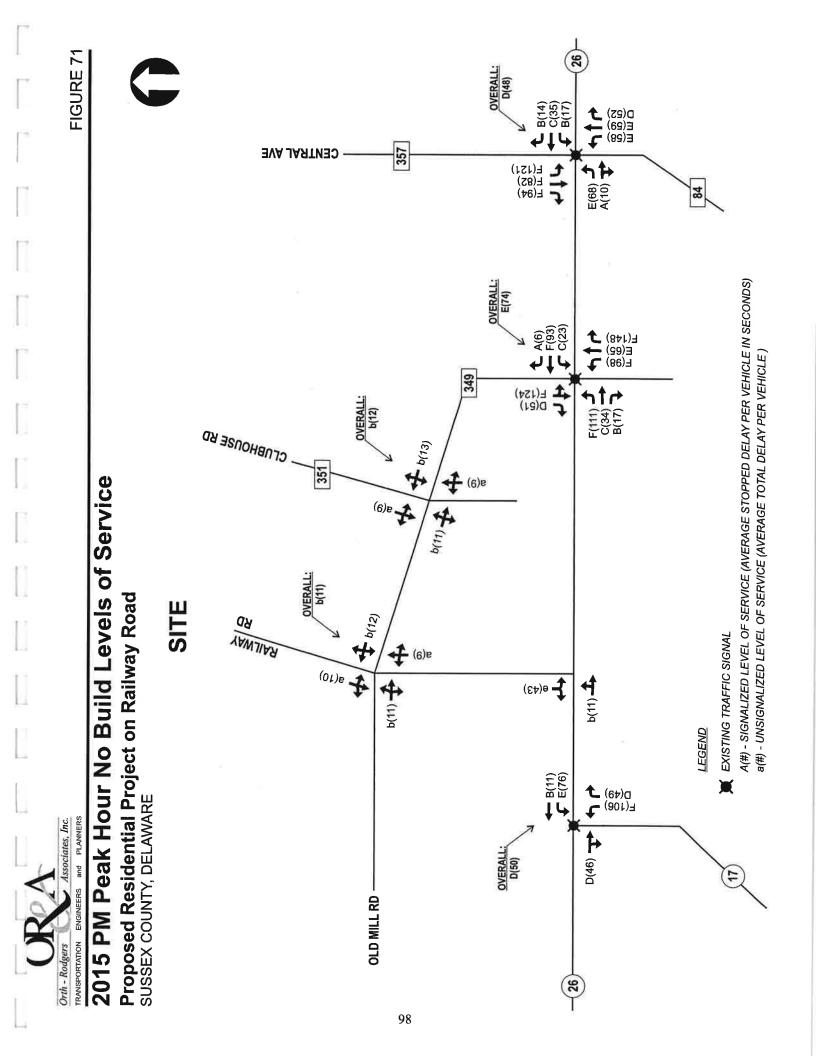
Approach	LOS	DELAY	V/C	LOS	DELAY	V/C	LOS	DELAY	V/C
		1			1			r	
EB Left	D	48.0	0.86	F	127_1	1,09	F	130.9	1.10
EB Thru	в	11.2	0.57	С	20.5	0.82	с	21.4	0.84
EB Right		17.54	0.01		20.5	0,02	Ú.	21.4	0.04
EB Overall	С	20_4		D	48.7	340	D	50.3	24
WB Left	В	15.3	0.23	Е	65.0	0.84	F	82.5	0.90
WB Thru	D			F	204.3	1.35	F	214.2	1.37
WB Right		42.2	0,94	c	20.4	0.06	C	20.4	0.06
WB Overall	D	39.6	55	F	185.0		F		
WB Overall	<u>U</u>	39.0	•		1 103.0		Г	195.7	
NB Left		1 1	0.76	E	77.9	0.73	E	77.9	0,73
NB Thru	D	38.9		E	74.4	0.87	E	74.4	0.87
NB Right				D	53.7	0.55	D	53.7	0.55
NB Overall	D	38.9	•	E	68.4		E	68.4	
SB Left		1 1		F	338.2	1.49	F	338.2	1.49
SB Thru	D	54.4	0.89	Е	63.4	0.76	E	63.4	0.76
SB Right				C	30.0	0.46	С	30.1	0.47
SB Overall	D	54.4	•	F	91.0	- 202	F	90.5	
Overall (X critical)	C	34.3	0.94	F	103.8	1.50	F	107.9	1.54

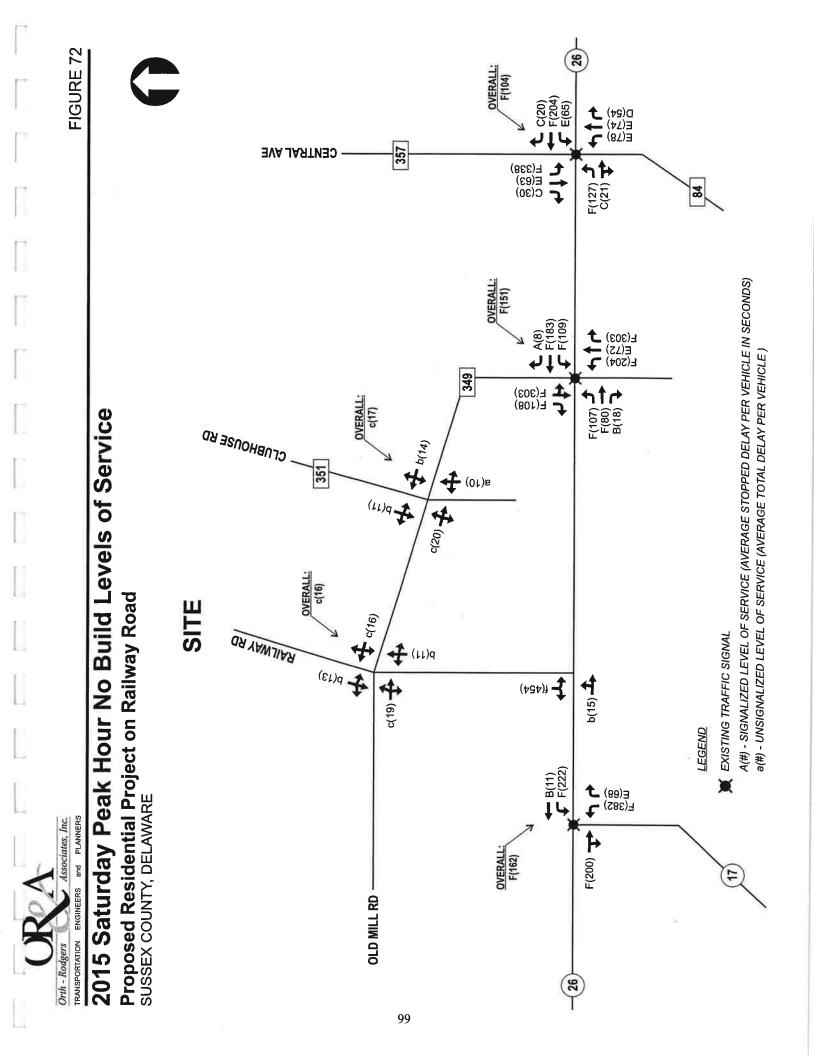


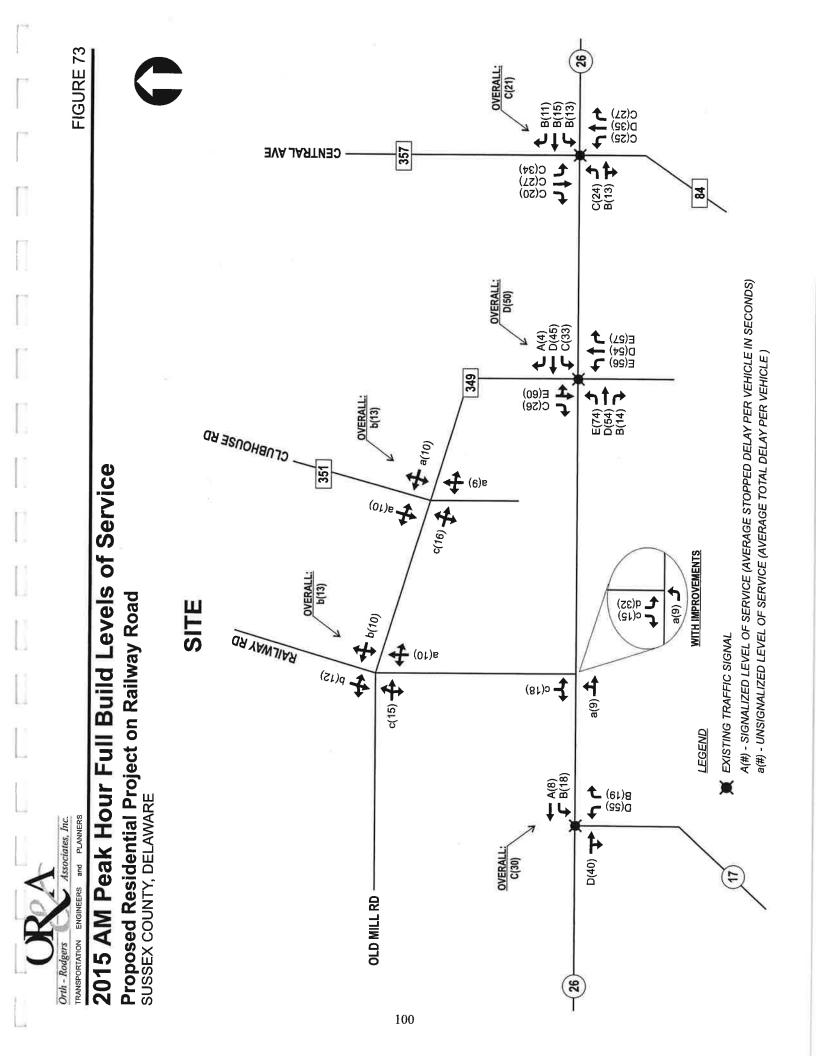


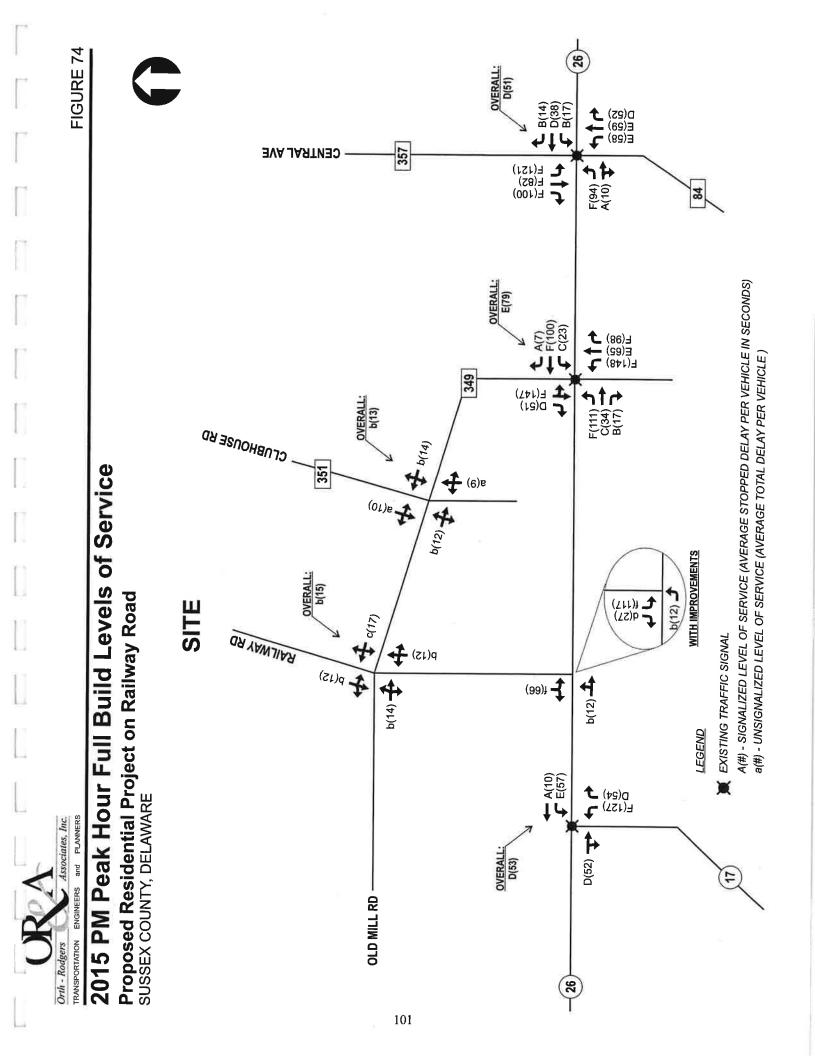


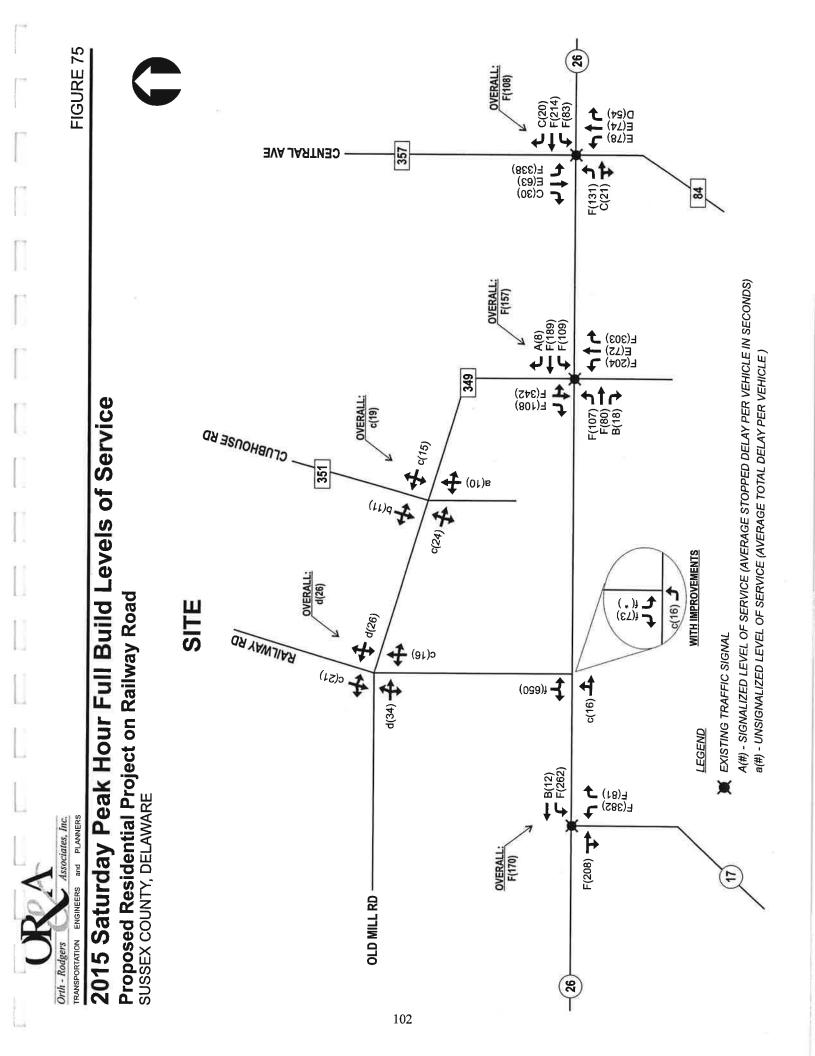












TRANSIT, PEDESTRIAN, and BICYCLE FACILITIES

David Dooley of the Delaware Transit Corporation was contacted by email on February 16, 2005 regarding transit facilities within the study area. As of the date of this report, no response has been received by Mr. Dooley.

ORA contacted Joe Cantalupo of DelDOT regarding pedestrian and bicycle facilities on February 16, 2005. Anthony J. Aglio, II from DelDOT responded via a letter dated February 23, 2005 (Appendix H). In summary, Mr. Aglio stated DelDOT has begun coordination with Sussex County to provide shoulders along the southern section of Railway Road from Delaware Route 26 to Old Mill Road. This development location would provide an opportunity to extend the shoulders along Railway Road.

Should any additional comments or input regarding transit issues be received, we will forward them to DelDOT's County Coordinator so that they may be included as part of DelDOT's review.

RESULTS and RECOMMENDATIONS

Based on the analysis previously presented in this report and observations of existing conditions, the following improvements are recommended to accommodate the additional traffic that the proposed residential project on Railway Road will bring to the area.

Old Mill Road (Rd 349) and Railway Road - No improvements anticipated.

Old Mill Road (Rd 349) and Clubhouse Road - No improvements anticipated.

Delaware Route 26 and Delaware Route 17 - Under existing conditions, this intersection has acceptable levels of service. In the future (2015 scenarios), specifically for the Saturday peak hour, this intersection has unacceptable levels of service with or without this proposed development. DelDOT's Delaware Route 26 Improvement Project has already enhanced this intersection, therefore no improvements are recommended.

Delaware Route 26 and Railway Road - Under existing conditions, this intersection has acceptable levels of service. Enhancements from the Delaware Route 26 Improvements Project include a by-pass lane for eastbound Delaware Route 26 traffic and the realignment of Railway Road intersecting with Delaware Route 26. Even with these improvements, the future p.m. and Saturday peak periods (2015 scenarios) have unacceptable levels of service with or without this proposed development. Additional recommendations include widening Railway Road so that the southbound approach can have a separate left and right turn lane. Although this improvement does not improve the intersection to acceptable levels of service, it does significantly decrease the delay. Due to the high number of committed developments and the fact that this intersection fails with or without the site, this improvement should be shared with other developers and should not be the sole responsibility of this project.

Delaware Route 26 and Old Mill Road (Rd 349) - Under existing conditions, this intersection has acceptable levels of service. In the 2015 future scenarios this intersection has numerous improvements from two different projects. From DelDOT's Delaware Route 26 Improvement Project, improvements include separate left, through, and right-turn lanes on both approaches of Delaware Route 26. From the Millville Town Center development the northbound approach will have a separate left, through, and right-turn lane while the southbound approach of Old Mill Road (Rd 349) will change lane assignments to have a separate left turn lane and shared through/right lane. With these improvements from both proposed projects, this intersection will have unacceptable levels of service for both the 2015 no build and 2015 full build scenarios. No additional improvements have been identified.

Delaware Route 26 and Central Avenue (Rd 84/Rd 357) - Under existing conditions, this intersection has acceptable levels of service. In the 2015 future scenarios this intersection has numerous improvements from two different projects. In order to increase capacity of the intersection, DelDOT as part of the Delaware Route 26 Improvement Project is proposing several improvements. The improvements include the corridor wide upgrade of 11-foot lanes and 5-foot shoulders on Route 26 along with some additional improvements at this intersection. The following upgrades are planned:

- The northbound approach of Central Avenue will be widened to provide separate lanes for each movement.
- The southbound approach of Central Avenue will be widened to provide separate lanes for each movement.

- Both the eastbound and westbound approaches of Route 26 will include an exclusive left-turn lane and a shared straight/right-turn lane
- A redesigned traffic signal and timing plan will also be needed to accommodate these physical improvements.

The other project with proposed improvements is from the Bay Forest development. According to plans submitted to DelDOT (Appendix B), a channelized westbound right-turn lane on Delaware Route 26 is proposed.

It should be noted that even with these planned improvements, this intersection will have unacceptable levels of service for the Saturday peak period only for both the 2015 no build and 2015 full build scenarios. No additional improvements have been identified.

<u>Railway Road and Site Entrance</u> - Since this proposed development is located at the end point of Railway Road, there is technically no access driveway to analyze since trips originating and ending are not intersecting with Railway Road. Therefore no site access improvements are recommended.

CONCLUSIONS

Orth-Rodgers & Associates, Inc. has conducted a traffic impact study for the proposed residential project on Railway Road. The purpose of the study was to determine the impact of developing a residential planned community near the town of Millville in the existing Bethany Bay development located on the north side of Railway Road (Rd 350), in Sussex County, Delaware. The development would consist of 480 condominiums.

Analysis of existing a.m., p.m., and Saturday summer conditions shows that all intersections within the study area are operating at acceptable levels of service.

Under the future conditions (2015), with the numerous approved committed developments, the volumes increase along with the delay at these locations. The major problem in this area is the high traffic volumes along Delaware Route 26, especially during the summer Saturday peak period, which is demonstrated by all of the intersections along Delaware Route 26 failing for both the 2015 no build and 2015 full build scenarios. DelDOT in their Delaware Route 26 Improvement Project has identified this traffic problem. Improvements have been recommended for all of the study intersections along Delaware Route 26, with some improvements completed while other improvements are yet to be done. Along with the Delaware Route 26 Improvement (Delaware Route 26 and Old Mill Road) and from the Bay Forest development (Delaware Route 26 and Central Avenue). Unfortunately with all of these proposed improvements, intersections along Delaware Route 26 will have unacceptable levels of service for both the 2015 no build and 2015 full build scenarios.

In addition to the regional improvements being pursued by DelDOT, this report identifies other upgrades at certain intersections to improve future traffic conditions within the study area. It should be noted that this report shows a need for improvement even without the Proposed Residential Project on Railway Road. The additional improvements recommended as part of the Proposed Residential Project on Railway Road project are as follows:

Delaware Route 26 and Railway Road - Recommendations include widening Railway Road to include a separate left and right turn lane on its approach to Delaware Route 26. Although this improvement does not improve the intersection to acceptable levels of service, it does significantly decrease the delay. Due to the high number of committed developments and the fact that this intersection fails with or without the proposed site, this improvement should be shared with other developers and should not be the sole responsibility of this project.

<u>Railway Road and Site Entrance</u> - Since this proposed development is located at the end point of Railway Road, there is technically no access driveway to analyze since trips originating and ending are not intersecting with Railway Road. Therefore no improvements are recommended.

A more detailed listing of improvements for each intersection is noted in the Results and Recommendations section of this report.

Appendix A

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Existing Traffic Counts

Delaware Route 26 & Central Avenue Date: Tuesday, July 27, 2004 Time: 6:30 - 9:00 AM

File Name : rte 26 & central AM Site Code : 00000000 Start Date : 07/27/2004 Page No : 1

			RAL AV	/ENUE				Gro OUTE rom Ea	26	nted- Un:	shifted	CENT		VENUE uth		-		OUTE			
Start Time	Left	Thr	Rig	Ped	App. Total	Left	Thr	Rig ht		App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Int Tota
Factor	1.0	u 1.0	ht 1.0	s 1.0	TOtal	1.0	u 1.0	1.0	1.0	Total	1.0	1.0	1.0	1.0	Total	1.0	1.0	1.0	1.0		_
06:30 AM	6	6	12	0	24	6	31	4	0	41	0	6	8	0	14	30	47	0	0	77	15
06:45 AM	9	7	17	0	33	10	38	11	0	59	0	12	8	0	20	45 75	55	0	0	100	212
Total	15	13	29	0	57	16	69	15	0	100	0	18	16	0	34	75	102	0	0	177	36
07:00 AM	8	10	19	0	37	15	36	9	0	60	0 3	8 12	10 14	0 0	18 29	51 39	70 71	0 0	0 0	121 110	23 22
07:15 AM	9 12	8	24	0 0	41 49	8 14	31 54	6 7	0 0	45 75	4	12	16	0	35	38	73	Ő	Ő	111	27
07:30 AM 07:45 AM	12	10 13	27 21	0	49 47	16	74	7	0	97	2	19	14	ŏ	35	53	112	2	ŏ	167	34
Total	42	41	91	0	174	53	195	29	0	277	9	54	54	0	117	181	326	2	0	509	107
08:00 AM	20	8	32	0	60	10	90	9	0	109	6	19	18	0	43	50	89	0	0	139	35
08:15 AM	22	12	24	õ	- 58	12	68	11	0	91	2	17	14	0	33	39	111	0	0	150	33
08:30 AM	15	10	23	0	48	12	60	11	0	83	1	. 10	10	0	21	43	92	0	0	135	28
08:45 AM	20	10	24	0	54	8	94	7	0	109	5	20	14	0	39	47	121	0	0	168	37
Total	77	40	103	0	220	42	312	38	0	392	14	66	56	0	136	179	413	U	U	592	134
Grand	134	94	223	0	451	111	576	82	0	769	23	138	126	0	287	435	841	2	0	1278	278
Total Apprch %	29.7	20.8	49.4	0.0		14.4	74.9	10.7	0.0		8.0	48.1	43.9	0.0		34.0	65.8	0.2	0.0		
Total %	4.8	3.4	8.0	0.0	16.2		20.7	2.9	0.0	27.6	0.8	5.0	4.5	0.0	10.3	15.6	30.2	0.1	0.0	45.9	
			81				.£(61. 4 65 204 19 223 Right	1 3 5 45 86 8 94	4 1 127 7 134	031 75 106 0 0 0 eds			,						
			SOL	773 1193 1966 49 85 134 822 1278 2100	0 2 788 403 0 53 32	Right Thru L	•		7/27	North /2004 6:30 /2004 8:45 hifted k 1	:00 AM			1 ~ ↓	5 29 3 0 82 576 111 0 Right Thru Left Peds	547 108	Out Initial 1038 732 1770 63 37 100 1101 769 1870	ROUTE 26			
									Left 22 1 23 19 19 20 0ut	134 4 138 16 1 77 28	123 3 126 9 8 77 To	Veds 0 0 0 475 19 494 ttal									

Delaware Route 26 & Central Avenue Date: Tuesday, July 27, 2004 Time: 6:30 - 9:00 AM

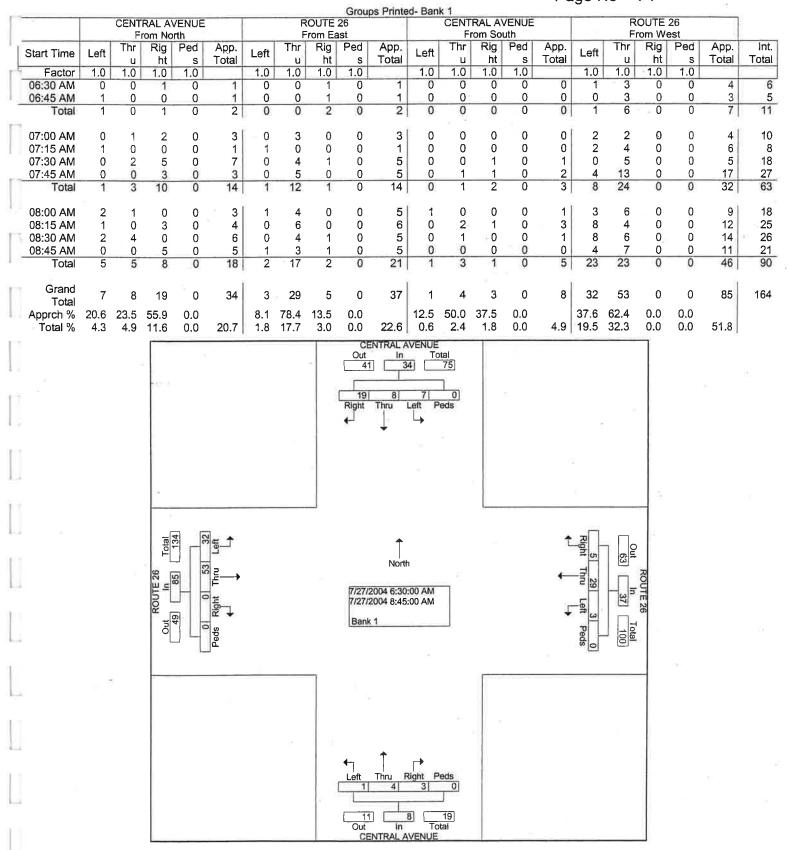
File Name : rte 26 & central AN. Site Code : 00000000 Start Date : 07/27/2004 Page No : 2

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			RAL A					OUTE rom Ea					RAL AV								
Start Time	Left	Thr	rom No Rig ht	Ped	App. Totai	Left	Thr		Ped	App. Total	Left	Thr u		Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Int. Total
Peak Hour F Intersectio	rom 06 08:00	:30 AN				1 of 1															10.10
Volume Percent	77 35.0	40 18.2	103 46.8	0 0.0	220	42 10.7	312 79.6	38 9.7	0 0.0	392	14 10.3	66 48.5	56 41.2	0 0.0	136	179 30.2	413 69.8	0 0.0	0 0.0	592	1340
08:45 Volume Peak Factor	20	10	24	0	54	8	94	7	0	109	5	20	14	0	39	47	121	0	0	168	370 0.905
High Int. Volume Peak Factor	20	AM 8	32	0	60 0.917	08:00 10	AM 90	9	0	109 0.899	08:00 6	AM 19	18	0	43 0.791	08:45 47	121	0	0	168 0.881	
×									CE	NTRAL /											
	я	÷							Out 283 103 Right	3 22 40	77	otal 503 0 veds				5) 7					9
			ROUTE 26 Out In Total	592	Peds Right Thru Left				7/27/	Norr 2004 8:00 2004 8:49 hifted k 1	0:00 AM			1	+ +	Right Thru Left Peds		ROUTE 26	28		
									Out	2 1		0 218 otal					v				

Delaware Route 26 & Central Avenue Date: Tuesday, July 27, 2004 Fime: 6:30 - 9:00 AM

File Name : rte 26 & central AM Site Code : 00000000 Start Date : 07/27/2004 Page No : 1



Delaware Rte 26 & Central Avenue Date: Wednesday, July 14, 2004 Time: 4:00 - 6:00 PM

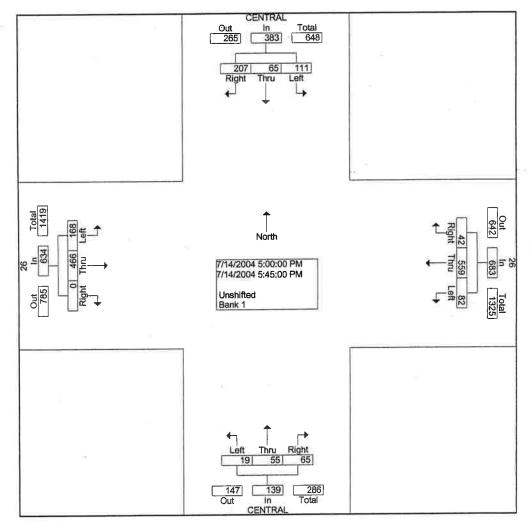
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Site Code	: 0000000
Start Date	: 07/14/2004
Page No	: 1

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Start Time	Left	u	ht	S	Total		u	ht	S	Total		U 4 O	ht	S	Total		1.0	ht 1.0	s 1.0	Total	Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	170	1.0	1.0 19	1.0 24	1.0	49	1.0 33	116	0	0	149	467
04:00 PM	22	24	53	0	99	16	140	14	0	170 162	6	23	22	ŏ	51	39	127	ŏ	õ	166	479
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04:30 PM 04:45 PM	27 16	14 16	61 60	Ő	92	23	114	13	ŏ	150	5	16	11	Ō	32	38	95	1	0	134	408
Total	89	73	231	0	393	69	518	52	0	639	28	68	74	0	170	-150	468	1	0	619	1821
05:00 PM	23	23	55	0	101	22	145	8	0	175	4	20	13	1	38	45	103	0	0	148	462
05:15 PM	30	15	48	ŏ	93	10	143	11	0	164	7	-15	10	0	32	32	120	0	0	152	441
05:30 PM	28	13	52	Ō	93	26	137	11	0	174	3	9	25	0	37	46	123	0	0	169	473
05:45 PM	30	14	52	0	96	24	134	12	0	170	5	11	17	0	33	45	120	0	0	165	464
Total	111	65	207	0	383	82	559	42	0	683	19	55	65	1	140	168	466	0	0	634	1840
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Apprch % Total %	25.8 5.5	17.8 3.8	56.4 12.0	0.0 0.0	21.2	11.4 4.1	81.5 29.4	7.1 2.6	0.0	36.1	1.3	3.4	3.8	0.0	8.5		25.5	0.0	0.0	34.2	
			1			1			53 425 13 438 Right ↓	134 4 138	198 2 200	311 0 0 0 eds									-1
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Delaware Rte 26 & Central Avenue Date: Wednesday, July 14, 2004 Fime: 4:00 - 6:00 PM

File Name	: 26 and central PM
Site Code	: 0000000
Start Date	: 07/14/2004
Page No	: 2

			ITRAL North				26 n East				ITRAL South				26 n West		
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 From	n 04:00	PM to 0	5:45 PM	- Peak 1	of 1												
Intersection Volume Percent	05:00 F 111 29.0	PM 65 17.0	207 54.0	383	82 12.0	559 81.8	42 6.1	683	19 13.7	55 39.6	65 46.8	139	168 26.5	466 73.5	0 0.0	634	1839
05:30 Volume	28	13	52	93	26	137	11	174	3	9	25	37	46	123	0	169	473
Peak Factor High Int. Volume Peak Factor	05:00 F 23	РМ 23	55	101 0.948	05:00 F 22	PM 145	8	175 0.976	05:00 F 4	PM 20	13	37 0.939	05:30 F 46	PM 123	0	169 0.938	0.972



Delaware Rte 26 & Central Avenue Date: Wednesday, July 14, 2004 Time: 4:00 - 6:00 PM

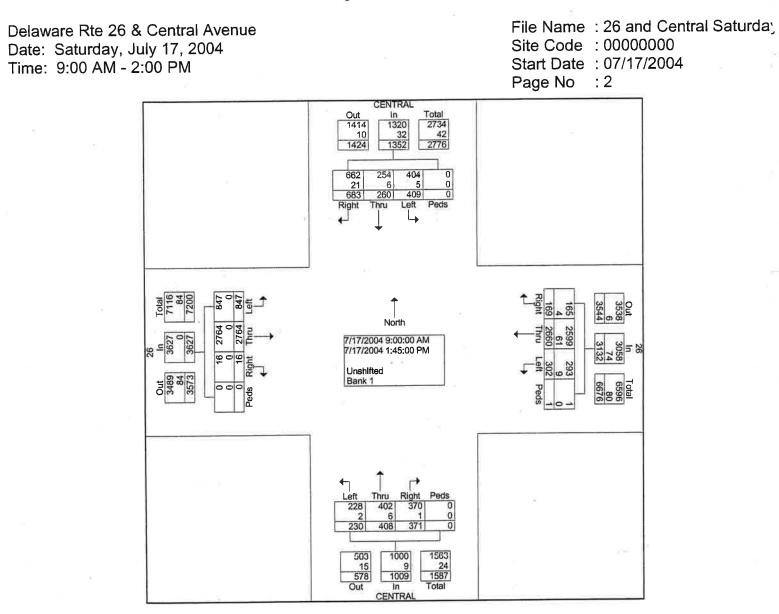
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		C	ENTR/	AL.			F	26 rom Ea	st				ENTRA om Sou				Fr	26 om We	est		
Start Time	Left	Thr	Rig	Ped	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Int. Total
Factor 04:00 PM	1.0 0	1.0 1	1.0 2	1.0 0	3	1.0 1	1.0	1.0	1.0	3	1.0	1.0	1.0	1.0	0 3	1.0 1 0	1.0 3 2	1.0 0 0	1.0 0 0	4	10 8
04:15 PM 04:30 PM 04:45 PM	0 0 1	1 0 0	0 2 0	0 0 0	1 2 1	0 0 1	2 6 0	0 0 0	0 0 0	2 6 1	1 2 0	2 0 0	0 0 2	0 0 0	2 2	1 1	2 2 2	0	0	3 3	13 7
Total	1	2	4	0	7	2	10	0	0	12	3	2	2	0	7	3	9	0	0	12	38
05:00 PM 05:15 PM 05:30 PM 05:45 PM	0 0 0 1	1 0 1 0	2 2 3 2	0 0 0 0	3 2 4 3	0 0 0	1 3 2 1	0 0 0	0 0 0 0	1 3 2 1	0 0 0 0	1 1 0 0	0 0 1 1 2	0 0 0 0	1 1 1 1 4	1 0 1 1 3	0 1 1 0 2	0 0 0 0	0 0 0 0	1 1 2 1 5	6 7 9 6 28
Total	1	2	9	0	12	0	7	0	0	7	U	2	2	U	4	5	2	U	v	5	20
Grand Total ■ Apprch %	2 10.5	4 21.1	13 68.4	0 0.0	19	2 10.5	17 89.5	0 0.0	0 0.0	19	3 27.3	4 36.4	4 36.4	0 0.0	11	6 35.3	11 64.7	0 0.0	0 0.0	17	66
Total %	3.0	6.1	19.7	0.0	28.8		25.8	0.0	0.0	28.8		6.1	6.1	0.0	16.7	9.1	16.7	0.0	0.0	25.8	
а 									T13 Right ↓			0 eds									
			26 In	8	Peds Right Thru Left				7/14. 7/14. Ban	/2004 4:00 /2004 5:45 k 1	:00 PM				1 + J	Right Thru Left Peds		26			
				6			ł		Left Out		Right F 4	Peds 0]] 17] otal			й ц						

Delaware Rte 26 & Central Avenue Date: Saturday, July 17, 2004 Time: 9:00 AM - 2:00 PM

File Name : 26 and Central Saturday Site Code : 00000000 Start Date : 07/17/2004 Page No : 1

								Gro	ups Prin	nted- Un	shifted				-						
		C	ENTR	AL.				26					ENTR				_	26			
			om No					rom Ea					om So					rom We			
Start Time	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. 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		
09:00 AM	11	9	29	0	49	14	159	7	0	180	9	25	25	0	59	24	144	0	0	168	456
09:15 AM	24	12	24	0	60	11	161	8	0	180	14	20	17	0	51	36	161	0	0	197	488
09:30 AM	21	19	29	0	69	11	149	9	0	169	13	19	24	0	56	49	153	1	0	203	497
09:45 AM	23	19	36	0	78	16	161	6	0	183	13	21	30	0	64	38	163	0	0	201	526
Total	79	59	118	0	256	52	630	30	0	712	49	85	96	0	230	147	621	1	0	769	1967
10:00 AM	8	ີ 11	50	0	69	14	169	9	0	192	9	29	16	0	54	45	144	0	0	189	504
10:15 AM	18	12	34	ŏ	64	20	152	4	Ō	176	13	25	36	0	74	48	157	1	0	206	520
10:30 AM	34	8	36	õ	78	9	166	11	0	186	17	21	23	0	61	55	155	0	0	210	535
10:45 AM	20	15	30	ō	65	13	149	10	1	173	17	21	26	0	64	53	149	0	0	202	504
Total	80	46	150	0	276	56	636	34	1	727	56	96	101	0	253	201	605	1	0	807	2063
11:00 AM	18	21	47	° 0	86	20	138	0	0	158	20	17	19	0	56	52	123	0	0	175	475
11:15 AM	29	14	41	ŏ	84	7	139	22	ō	168	16	24	13	0	53	60	126	0	0	186	491
11:30 AM	27	13	26	Ő	66	17	161	14	õ	192	16	27	15	Ō	58	42	141	3	0	186	502
11:45 AM	26	20	37	õ	83	14	132	1	õ	147	13	13	16	Ō	42	30	157	2	0	189	461
Total	100	68	151	Ő	319	58	570	37	Ő	665	65	81	63	0	209	184	547	5	0	736	1929
12:00 PM	23	17	32	0	72	35	128	11	0	174	5	23	13	0	41	50	148	0	0	198	485
12:15 PM	23	10	31	0	65	23	92	15	ŏ	130	10	24	18	ŏ	52	43	126	Ő	ŏ	169	416
12:13 PM	16	10	34	Ő	60	10	102	7	ŏ	119	5	11	13	õ	29	42	130	2	ŏ	174	382
12:45 PM	17	10	26	ŏ	53	13	96	14	ŏ	123	7	22	11	Ő	40	46	123	0	0	169	385
Total	80	47	123	Ő	250	81	418	47	0	546	27	80	55	0	162	181	527	2	0	710	1668
01:00 PM	12	8	38	0	58	14	89	7	0	110	6	17	10	0	33	36	97	3	0	136	337
01:15 PM	21	7	37	ŏ	65	14	90	5	ŏ	109	5	8	17	ŏ	30	32	109	3	Ō	144	348
01:30 PM	16	15	30	ŏ	61	10	103	4	ŏ	117	14	21	13	Ő.	48	34	119	1	0	154	380
01:45 PM	21	10	36	ŏ	67	17	124	5	ŏ	146	8	20	16	Ō	44	32	139	0	Ō	171	428
Total	70	40	141	ŏ	251	55	406	21	Ő	482	33	66	56	0	155	134	464	7	0	605	1493
1			• • •	5	22010										14	i.	070			1	
Grand Total	409	260	683	0	1352	302	266 0	169	1	3132	230	408	371	0	1009	847	276 4	16	0	3627	9120
Apprch %	30.3	19.2	50.5	0.0		9.6	84.9	5.4	0.0		22.8	40.4	36.8	0.0		23.4	76.2	0.4	0.0		
Total %	4.5	2.9	7.5	0.0	14.8	3.3	29.2	1.9	0.0	34.3	2.5	4.5	4.1	0.0	11.1	9.3	30.3	0.2	0.0	39.8	



i - 101 - 1

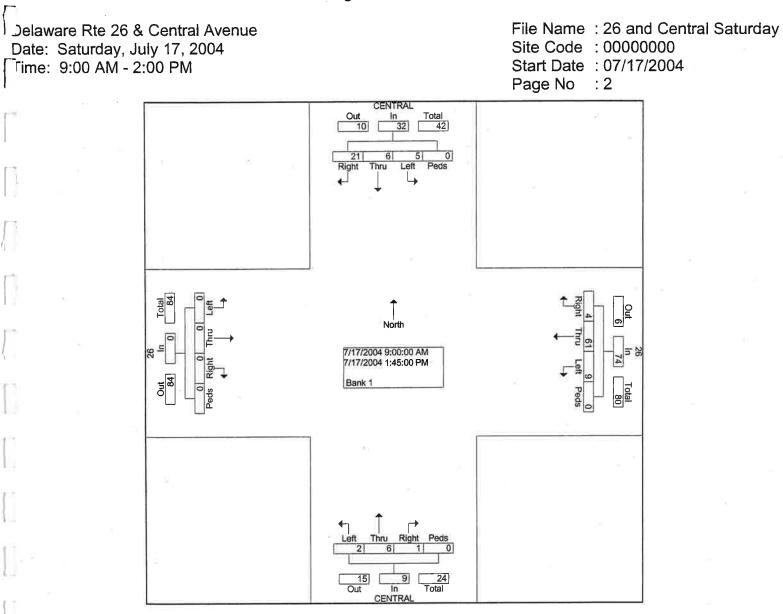
Delaware Rte 26 & Central Avenue Date: Saturday, July 17, 2004 Fime: 9:00 AM - 2:00 PM

File Name : 26 and Central Saturday Site Code : 00000000 Start Date : 07/17/2004 Page No : 3

				ITRAL North				26 n East			-	TRAL South				26 n West		
	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
eد	ak Hour Fror	n 09:00	AM to C	1:45 PN	- Peak 1	of 1							10					
0.0	Intersection	09:45 /	AM,						Ĩ		10 C							
	Volume	83	50	156	289	59	648	30	737	52	96	105	253	186	619	1	806	2085
	Percent	28.7	17.3	54.0		8.0	87.9	4.1		20.6	37.9	41.5		23.1	76.8	0.1		
	10:30 Volume	34	8	36	78	9	166	11	186	17	21	23	61	55	155	0	210	535
I	Peak Factor																	0.974
1.1	High Int.	09:45 /	٩M			10:00 A	١M		1	10:15 A	٨M			10:30 A	١M			
1	Volume Peak Factor	23	19	36	78 0.926	14	169	9	192 0.960	13	25	36	74 0.855	55	155	0	210 0.960	

Delaware Rte 26 & Central Avenue Date: Saturday, July 17, 2004 Time: 9:00 AM - 2:00 PM File Name : 26 and Central Saturday Site Code : 00000000 Start Date : 07/17/2004 Page No : 1

									22	1223	w _			ГС	ige in	J .	1				
		C	ENTR	A I			_	26	Grou	os Printe	d- Ban	K 1 C	ENTR/	AL	1			26			
			om No				F	rom Ea	ast				rom Sor				Fi	rom We	est		
Start Time	Left	Thr	Rig ht	Ped	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. 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		
09:00 AM	0	0	0	0	0	1	2	0	0	3	0	2	0	0	2	0	0	0	0	0	5
09:15 AM	0	0	0	0	0	1	3	1	0	5	0	1	0	0	1	0	0	0	0	0	6
09:30 AM	1	2	0	0	3	0	6	1	0	7	0	0	0	0	0	0	0	0	0	0	10
09:45 AM	0	0	3	0	3	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	6
Total	1	2	3	0	6	2	14	2	0	18	0	3	0	0	3	0	0	0	0	0	27
10:00 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3
10:15 AM	0	0	2	0	2	0	4	0	0	4	0	1	0	0	1	0	0	0	0	0	7
10:30 AM	0	0	1	0	1	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	3
10:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	2
Total	0	0	3	0	3	0	10	1	0	11	0	1	0	0	1	0	0	0	0	0	15
11:00 AM	0	1	2	0	3	2	4	0	0	6	0	0	0	0	0	0	0	0	0	0	9
11:15 AM	1	1	2	0	4	0	6	0	0	6	0	0	0	0	0	0	0	0	0	0	10
11:30 AM	0	0	0	0	0	0	5	0	0	5	0	1	0	0	1	0	0	0	0	0	6
11:45 AM	0	1	5	0	6	1	2	0	0	3	0	0	0	0	0	0	0	0	0	0	9
Total	1	3	9	0	13	3	17	0	0	20	0	1	0	0	1	0	0	0	0	0	34
12:00 PM	2	0	1	0	3	0	5	0	0	5	1	- 0	1	0	2	0	0	0	0	0	10
12:15 PM	0	0	3	0	3	1	3	0	0	4	1	1	0	0	2	0	0	0	0	0	9
12:30 PM	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	4
12:45 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	2	0	5	0	7	2	11	0	0	13	2	1	1	0	4	0	0	0	0	0	24
01:00 PM	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:30 PM	1	1	1	0	3	0	4	1	0	5	0	0	0	0	0	0	0	0	-0	0	8
01:45 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	0	0	0	0	5
Total	1	1	1	0	3	2	9	1	0	12	0	0	0	0	0	0	0	0	0	0	15
Grand Total	5	6	21	0	32	9	61	4	0	74	2	6	1	0	9	0	0	0	0	0	115
Apprch %	15.6	18.8	65.6	0.0	07.0	12.2	82.4	5.4 3.5	0.0 0.0	64.3	22.2 1.7	66.7 5.2	11.1 0.9	0.0 0.0	7.8	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0	
Total %	4.3	5.2	18.3	0.0	27.8	7.8	53.0	3.0	0.0	04.3	1.7	0. Z	0.9	0.0	1.0	0.0	0.0	0.0	0.0	0.0	



Delaware Rte 26 & Old Mill Rd Date: Thursday, July 15, 2004 Time: 6:30 - 9:00 AM

File Name : 26 & old mill AM Site Code : 00000000 Start Date : 07/15/2004 Page No : 1

			MILL R	D 349					VE 26	nted- Un	shifted	OLD		RD 349 outh				NTIC A	VE 26 est		
Start Time	Left	Thro	Righ	Peds	App.	Left	Thro	Righ	Peds	App.	Left	Thro	Righ		App. Total	Left		Righ	Peds	App. Total	lnt. Total
Factor	1.0	ug h 1.0	t 1.0	1.0	Total	1.0	ug h 1.0	t 1.0	1.0	Total	1.0	ug h 1.0	t 1.0	1.0	Total	1.0	1.0	1.0	1.0	Total	10121
06:30 AM	14	1.0	7	0	22	0	34	2	0	36	0	0	0	0	0	6	77	0	0	83	141
06:45 AM	25	0	4	0	29	0	56 90	4	1	61 97	0	0	0	0	0	7	125	0	0	132 215	222 363
Total	39	1	11	0	51	0	90	0	1	97	U	0	U	U	0	13	202	0		615	505
07:00 AM	25	0	7	0	32	0	67	7	0	74	0	0	0	0	0	7	119	1	0	127	233
07:15 AM	31	0	9	1	41	0	83	11	2	96	0	0 0	0	2 0	2 0	8 12	$\begin{array}{c} 107 \\ 124 \end{array}$	0 0	0 0	115 136	254 268
07:30 AM 07:45 AM	26 59	0	5 1	0	31 60	0	87 77	13 12	1 0	101 89	0	0	0	1	1	5	174	1	0	180	330
Total	141	0	22	1	164	0	314	43	3	360	0	0	0	3	3	32	524	2	0	558	1085
00 00 00	60	0	e"	0	67	2	07	10	0	108	1	0	1	1	3	7	126	0	0	133	311
08:00 AM 08:15 AM	62 46	0	≍ 9	0	67 55	2 0	87 68	19 22	1	91		0	0	0	0 0	15	147	Ő	0	162	308
08:30 AM	48	1	10	1	60	0	101	21	2	124	0	0	0	0	0	12	137	1	0	150	334
08:45 AM	65	1	14	0	80	1	99	17	5	122 445	0	0	2	0	2	10	138 548	3	1	152 597	356
Total	221	2	38	1	262	3	355	79	8	440	ंग	U	2	1	2			-		557	1303
Grand Total	401	3	71	2	477	- 3	759	128	12	902	1	0	3	4	8	89	127 4	6	1	1370	2757
Apprch %	84. 1	0.6	14. 9	0.4		0.3	84. 1	14. 2	1.3		12. 5	0.0	37. 5	50. 0		6.5	93. 0	0.4	0.1		
Total %	14. 5	0.1	2.6	0.1	17.3	0.1	27. 5	4.6	0.4	32.7	0.0	0.0	0.1	0.1	0.3	3.2	46. 2	0.2	0.0	49.7	
			[Out	LD MILL I		otal									
20 L _{ar}					× 1				21	1 46		673 21									
								-	21			694									
									69	3	388	2									
									2	0	13 401	0									
										Throug		Peds									
							β.		4	_ h	L,										
										¥							21				
						-										-					
			otal	171	85	8 5 _1	ία.			Ť				t	2 128 Right		1545 1878	2			
			1 26		40	4 5				Nort	h						335	ATLANTIC			
			AVE	246 124 370	1154 120	121 110 1-			7/15/	2004 6:30	:00 AM			← =	45 759	74		NTIC			
			DITIC	784 12 47 831 13	60	pt 1				2004 8:45	:00 AM				Left	1	47	CAVE			
			TAN	4 1- 1-		Rig	6		Unsl	hifted				Ŧ	ື [#] ωο	ωΓ		110			
			0ut	83	-0	r sp			Dan	<u> </u>					0 12 Peds	-	180	6			
						&									3120 i	12					
													Ē				-	_	3 ^{- 2}		
														5				-			
										Î											
									Left	Throug h I	Right F	Peds									
						μ.			1	0	30	4 0									
											3	4									
			2						1	2	8	20									
									1	2	8	0 20									
									Out	In LD MILL I	RD 349	otal									

Delaware Rte 26 & Old Mill Rd Date: Thursday, July 15, 2004 Time: 6:30 - 9:00 AM

File Name : 26 & old mill AM Site Code : 00000000 Start Date : 07/15/2004 Page No : 2

			L RD 34	49	ŀ		C AVE	26	(L RD 34 South	19	,	From	CAVE 2 West	26	
Start Time	Left	Throu g h	Right	App. Total	Left	Throu g h	Right	App. Total	Left	Throu g h	Right	App. Total	Left	Throu g h	Right	App. Total	lnt. Total
eak Hour From	06:30 A	M to 08:	45 AM -	Peak 1 of	1												
Intersecti on	08:00	AM									з					8	
Volume Percent	221 84.7	2 0.8	38 14.6	261	3 0.7	355 81.2	79 18.1	437	1 25.0	0 0.0	3 75.0	4	44 7.4	548 91.9	4 0.7	596	1298
08:45 Volume		1	1,4	80	1	99	17	117	0	0	2	2	10	138	3	151	350 0.927
Peak Factor								2					00.15	7.74			0.947
High Int. Volume	08:45 65	AM 1	14	80	08:30	AM 101	21	122	08:00 1	AM 0	1	2	08:15 15	AM 147	0	162	
Peak Factor			1	0.816				0.895		527		0.500				0.920	

Delaware Rte 26 & Old Mill Rd Date: Thursday, July 15, 2004 Time: 6:30 - 9:00 AM

File Name : 26 & old mill AM Site Code : 00000000 Start Date : 07/15/2004 Page No : 1

									Crow	oc Drinte	d Ran	61				Pag					
		OLD		D 349				NTIC A	VE 26	ps Printe	o- ban	OLD	MILL R	D 349 uth				NTIC A rom W	VE 26 est		
Start Time	Left	Thro		Peds	App. Total	Left		Righ t	Peds	App Total	Left		Righ t	Peds	App. Total	Left		Righ t		App. Total	lnt. Total
Factor	1.0	ug h 1.0	t 1.0	1.0	TOTAL	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0		6	
06:30 AM	0	0	0	0	0	0	0	0	0	0 3	0	0	0 0	0	0	1	5 8	0 0	0	6 8	6 11
06:45 AM Total	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	1	13	0	0	14	17
07:00 AM	2	0	0	0	2	0	3	0	0	3	0	0	0	0	0	0	6	0	0	6	11
07:00 AM 07:15 AM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0	8	0	0	8 18	13 22
07:30 AM	0	0	1	0	1 1	0	2 4	1 0	0	3 4	0	0	0	0	0 0	2 0	16 19	0	0 0	19	24
07:45 AM Total	1	0	0	0	4	0	14	1	0	15	Ö	0	0	0	0	2	49	0	0	51	70
08:00 AM	0	0	0	0	0	0	8	0	0	8	0	0	0	0	0	0	10	0	0	10	18
08:00 AM 08:15 AM	2	0	Ő	0	2	:0	7	1	0	8	0	0	0	0	0	1	18 12	0 0	0 0	19 12	29 21
08:30 AM	4	0	1 0	0	5 4	0	4 9	0 0	0 0	4 9	0	0	0	0 0	0 0	0	18	0	0	18	31
08:45 AM Total	10	0	1	0	11	0	28	1	0	29	0	0	0	0	0	1	58	0	0	59	99
Grand	13	0	2	0	15	0	45	2	0	47	0	0	0	0	0	4	120	0	0	124	186
Total	86.	0.0	12	0.0	10	0.0	95. 7	4.3	0.0		0.0	0.0	0.0	0.0		3.2	96. 8	0.0	0.0		
Apprch %	7				8.1		7 24. 2	1.1		25.3					0.0		64. 5	0.0	0.0	66.7	
Total %	7.0	0.0	1.1	0.0	0.1	0.0	2			ED MILL	Ł				_		5		<i>,</i> _	ļ	
			ATLANTIC AVE 26 Dut In Total	124 171	1 1201 41	20 00 →			Right ↓	6	13 Left F				٩ ٩	Right Throug L		ATLANTIC AVE			
	21		ATLAN		Peds Rig				Ban Left		Right	Peds 0 otal				0 0 fin Peds					

Delaware Rte 26 & Old Mill Rd Date: Wednesday, July 14, 2004 ime: 4:00 - 6:00 PM

File Name : 26 & old mill PM Site Code : 00000000 Start Date : 07/14/2004 Page No : 1

12										nted- Un	shifted										5
			MILL F	RD 349 orth				TIC A\	/E RT 2 ast	6			MILL F	RD 349 outh			F	rom W	/E RT 2 est	6	
Start Time	Left	Thro ug h	Righ t	Peds	App. Total	Left	Thro ug h		Peds	App. Total	Left	Thro ug h	Righ t	Peds	App. Total	Left	Thro ug h	Righ t	Peds	App. 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	110	
04:15 PM	63 48	1 5	13 9	3 1	80 63	8 14	163 149	35 36	0	206 199	5 5	2 2	6 8	0	13 15	10 16	97 115	3 2	0	110 133	409 410
04:30 PM	55	2	11	0	68	6	168	37	0	211	6 3	1 4	7 6	0	14 13	13 13	126 93	8 3	0	147 109	440 374
04:45 PM Total	48	2 10	15 48	1	66 277	3 31	144 624	39 147	0	186 802	19	9	27	0	55	52	431	16	0	499	1633
05:00 PM	46	6	17	0	69	6	127	54	2	189	5	2	8	1	16	8	117	5	2	132	406
05:15 PM	60	4	17	1	82	3	144	38 45	0 1	185 189	3 5	0 4	9 17	1 0	13 26	12 10	105 100	6 6	0 1	123 117	403 410
05:30 PM 05:45 PM	51 55	8 5	19 9	0	78 69	2 7	141 110	23	8	148	1	6	9	8	24	9	103	9	0	121	362
Total	212	23	62	1	298	18	522	160	11	711	14	12	43	10	79	39	425	26	3	493	1581
Grand Total	426	33	110	6	575	49	114 6	307	11	1513	33	21	70	10	134	91	856	42	3	992	3214
Apprch %	74. 1	5.7	19. 1	1.0		3.2	75.	20.	0.7		24. 6	15. 7	52. 2	7.5	~	9.2	86. 3	4.2	0.3		
. Total %	13.	1.0	3.4	0.2	17.9	1.5	35. 7	9.6	0.3	47.1				0.3	4.2	2.8	26. 6	1.3	0.1	30.9	
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Delaware Rte 26 & Old Mill Rd Date: Wednesday, July 14, 2004 Time: 4:00 - 6:00 PM File Name : 26 & old mill PM. Site Code : 00000000 Start Date : 07/14/2004 Page No : 2

	(LRD 34 North	9	AT		AVE RT	26	C		L RD 34 South	.9	AT		AVE RT West	26	
Start Time	Left	Throu g h	Right	App. Total	Left	Throu g h	Right	App. Total	Left	Throu g h	Right	App. Total	Left	Throu g h	Right	App. Total	Int. Total
ak Hour From	04:00 PM		5 PM - 1	Peak 1 of 1								1					
ntersecti on	04:00																4.604
Volume Percent	214 78.7	10 3.7	48 17.6	272	31 3.9	624 77.8	147 18.3	802	19 34.5	9 16.4	27 49.1	55	52 10.4	431 86.4	16 3.2	499	162
04:30 Volume	55	2	11	68	6	168	37	211	6	1	7	14	13	126	8	147	44
Peak Factor					04 00	DM			04:15	DM			04:30	PM			
High Int. Volume	04:00 63	PM 1	13	77	04:30 6	PM 168	37	211	5	2	8	15	13	126	8	147	
Peak Factor				0.883				0.950				0.917				0.849	

Delaware Rte 26 & Old Mill Rd Date: Wednesday, July 14, 2004 Fime: 4:00 - 6:00 PM

File Name : 26 & old mill PM Site Code : 00000000 Start Date : 07/14/2004 Page No : 1

P-12									Grou	ps Printe	d- Banl										
			MILL F	D 349				TIC AV	/E RT 2 ast	6			MILL R	D 349 uth		,		ITIC AV	/E RT 2 est	6	
Start Time	Left		Righ t	Peds	App. Total	Left		Righ t	Peds	App. Total	Left			Peds	App. Total	Left		Righ t	Peds	App. 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 04:15 PM	2 0	0	0	0	2 0	0	8	0 1	0	8 9	0	0	0	0	0 0	0	6 3	0	0	6 3	16 12
04:30 PM	1	0	0	0	1	0	8	1	0	9	0	0	0	0	0	1	4	0	0	5	15
04:45 PM Total	1 4	0	0	0	1	0	4 28	0	0	<u>4</u> 30	0	0	0	0	0	0	2 15	0	0	2	50
05:00 PM	0	0	0	0	0	0	4	2	0	6	0	0	0	0	0	0	2	0	0	2	8
05:15 PM 05:30 PM	0 0	0 0	0 0	0 0	0 0	0	7 6	0 3	0 0	7 9	0	0 0	0 0	0 0	0 0	0 0	2 1	0 0	0	2 1	9 10
05:45 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	3
Total	0	0	0	0	0	0	20	5	0	25	0	0	0	0	0	0	5	0	0	5	30
Grand Total	4	0	0	0	4	0	48	7	0	55	0	0	0	0	0	1	20	0	0	21	80
Apprch %	100 .0	0.0	0.0	0.0		0.0	87. 3	12. 7	0.0		0.0	0.0	0.0	0.0		4.8	95. 2	0.0	0.0		
Total %	5.0	0.0	0.0	0.0	5.0	0.0	60. 0	8.8	0.0	68.8	0.0	0.0	0.0	0.0	0.0	1.3	25. 0	0.0	0.0	26.3	
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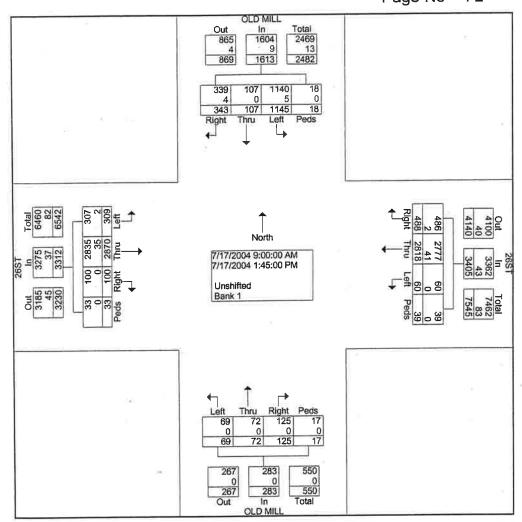
Delaware Rte 26 & Old Mill Rd Date: Saturday, July 17, 2004 Time: 9:00 AM - 2:00 PM

File Name: 26 and old mill SaturdaySite Code: 00000000Start Date: 07/17/2004Page No: 1

									ups Prir	nted- Un	shifted -	- Bank	1					0007			
		С	LD MI	L				26ST					DLD MIL					26ST			
		Fr	om No	rth			F	rom Ea					om Sou					rom We		A	l = t
Start Time	Left	Thr	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. 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		
09:00 AM	63	0	13	0	76	1	161	20	1	183	1	4	3	1	9	12	131	4	1	148	416
09:15 AM	65	Ő	15	ŏ	80	2	159	18	2	181	2	2	1	0	5	13	137	2	0	152	418
09:30 AM	69	2	11	ŏ	82	3	184	27	8	222	2	5	4	2	13	23	143	3	8	177	494
09:45 AM	78	6	23	2	109	1	160	21	5	187	5	3	2	0	10	14	138	6	0	158	464
Total	275	8	62	2	347	7	664	86	16	773	10	14	10	3	37	62	549	15	9	635	1792
10:00 AM	61	10	19	0	90	2	179	20	1	202	2	2	9	2	15	15	136	6	0	157	464
10:15 AM	65	1	29	1	96	2	160	18	1	181	6	6	8	0	20	19	151	5	1	176	473
10:30 AM	64	7	22	3	96	2	179	13	2	196	0	1	3	0	4	18	160	4	1	183	479
10:45 AM	80	1	24	ŏ	105	6	168	27	1	202	5	5	6	0	16	17 .	161	5	6	189	512
Total	270	19	94	4	387	12	686	78	5	781	13	14	26	2	55	69	608	20	8	705	1928
11:00 AM	59	4	32	0	95	9	169	31	1	210	3	2	6	1	12	18	164	5	1	188	505
11:15 AM	47	8	20	2	77	1	151	30	1	183	3	1	8	0	12	15	124	12	1	152	424
11:30 AM	61	11	15	ō	87	5	165	33	0	203	3	4	13	2	22	13	144	7	0	164	- 476
11:45 AM	65	5	14	1	85	6	144	26	2	178	7	5	9	0	21	11	148	4	1	164	448
Total	232	28	81	3	344	21	629	120	4	774	16	12	36	3	67	57	580	28	3	668	1853
12:00 PM	60	2	13	0	75	3	114	27	0	144	2	5	7	1	15	10	157	4	4	175	409
12:15 PM	50	12	18	1	81	1	99	26	3	129	4	7	7	1	19	20	121	5	1	147	376
12:30 PM	57	3	12	2	74	3	94	21	3	121	5	3	2	0	10	13	135	6	2	156	361
12:45 PM	55	5	11	ō	71	5	108	27	0	140	6	1	11	3	21	24	164	7	1	196	428
Total	222	22	54	3	301	12	415	101	6	534	17	16	27	5	65	67	577	22	8	674	1574
01:00 PM	30	3	13	1	47	3	112	24	0	139	1	2	5	1	9	11	125	4	5	145	340
01:15 PM	37	5	20	1	63	2	118	29	2	151	2	4	9	0	15	15	163	2	0	180	409
01:30 PM	45	8	- 8	3	64	Ō	115	18	4	137	5	3	6	3	17	16	154	4	0	174	392
01:45 PM	34	14	11	1	60	3	79	32	2	116	5	7	6	0	18	12	114	5	0	131	325
Total	146	30	52	6	234	8	424	103	8	543	13	16	26	4	59	54	556	15	5	630	1466
Grand	114	107	343	18	1613	60	281	488	39	3405	69	72	125	17	283	309	287 0	100	33	3312	8613
Total	5						8	44.0	4.4		24.4	25.4	44.2	6.0		9.3	86.7	3.0	1.0		
Apprch %	71.0	6.6	21.3	1.1	40.7	1.8	82.8	14.3 5.7	1.1 0.5	39.5	0.8	25.4	1.5	0.0	3.3	3.6	33.3	1.2	0.4	38.5	
Total %	13.3	1.2	4.0	0.2	18.7	0.7	32.7	J./	0.0	39.5	0.0	0.0	1.0	0.2	0.0	0.0	50.0		0.1	00.0	5

Delaware Rte 26 & Old Mill Rd Date: Saturday, July 17, 2004 ime: 9:00 AM - 2:00 PM

File Name : 26 and old mill Saturday Site Code : 0000000 Start Date : 07/17/2004 Page No : 2



Delaware Rte 26 & Old Mill Rd Date: Saturday, July 17, 2004 Time: 9:00 AM - 2:00 PM

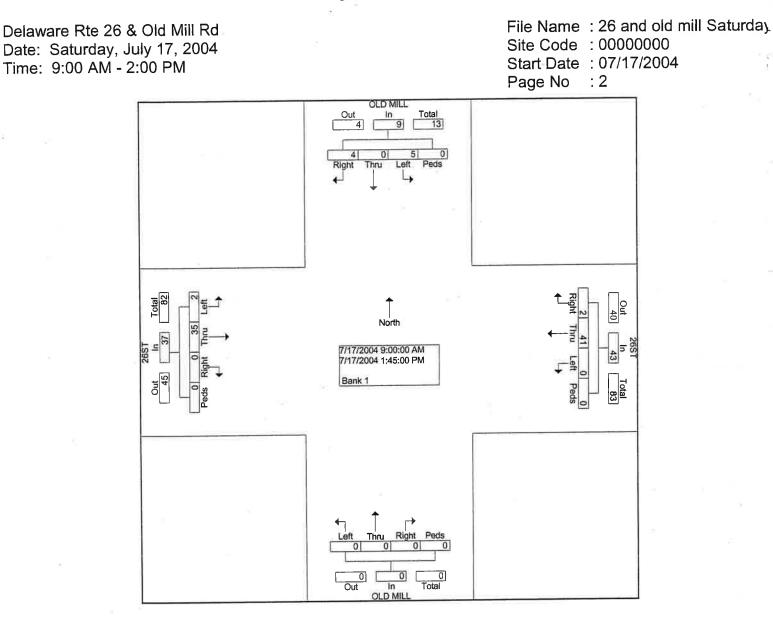
File Name : 26 and old mill Saturday Site Code : 00000000 Start Date : 07/17/2004 Page No : 3

			MILL North				SST n East				0 MILL a South				6S⊤ n West		
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 From	n 09:00	AM to C	1:45 PM	- Peak 1	of 1												i.
Intersection Volume Percent	10:15 A 268 69.1	AM 13 3.4	107 27.6	388	19 2.4	676 86.2	89 11.4	784	14 27.5	14 27.5	23 45.1	51	72 9.9	636 87.5	19 2.6	727	1950
10:45 Volume	80	1	24	105	- 6	168	27	201	5	5	6	16	17	161	5	183	505 0.965
Peak Factor High Int. Volume Peak Factor	10:45 A 80	АМ 1	24	105 0.924	11:00 / 9	AM 169	31	209 0.938	10:15 / 6	AM 6	8	20 0.638	11:00 A 18	ъм 164	5	187 0.972	0.800

Delaware Rte 26 & Old Mill Rd Date: Saturday, July 17, 2004 Fime: 9:00 AM - 2:00 PM

File Name : 26 and old mill Saturday Site Code : 00000000 Start Date : 07/17/2004 Page No : 1

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-			6	DLD MIL	1				26ST	Grou	ps Printe	u- Bank		DD MI	1				26ST			
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Star	t Time	Left	Thr	Rig	Ped	App. Total	Left	Thr	Rig	Ped s	App. Total	Left	Thr	Rig ht	Peds	App. Total	Left	Thr	Rig ht	Ped s	App. Total	Int Tota
-	Factor	1.0	1.0	1.0	1.0	Total	1.0	1.0	1.0	1.0	10101	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
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				-	-																	
	Grand Total	5	0	4	0	9	0	41	2	0	43	0	0	0	0	0	2	35	0	0	37	8
Δρι	prch %	55.6	0.0	44.4	0.0		0.0	95.3	4.7	0.0		0.0	0.0	0.0	0.0		5.4	94.6	0.0	0.0		
	Total %	5.6	0.0	4.5	0.0	10.1	0.0	46.1	2.2	0.0	48.3	0.0	0.0	0.0	0.0	0.0	2.2	39.3	0.0	0.0	41.6	



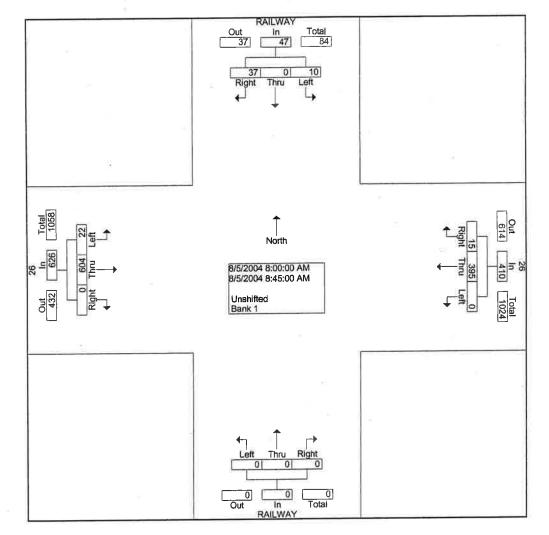
Delaware Route 26 & Railway Road Date: Thursday, August 5, 2004 ime: 6:30 - 9:00 AM

File Name : 26 and Railway AM Site Code : 00000000 Start Date : 08/05/2004 Page No : 1

									ups Prin	nted- Un	shifted ·	Bank	1			ye r		. 1			
4			RAILWA					26 rom Ea				Fr	AILWA	uth				26 rom We			
Start Time	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. 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 84	1.0	1.0	85	118
06:30 AM	1	0	2	0	3	0	30	0	0 0	30 61	0	0 0	0 0	0 0	0	1	84 98	0 0	0	- 99	164
06:45 AM Total	1	0	3	0	4	0	60 90	1	0	91	0	0	0	0	0	2	182	0	0	184	282
	0		~	0	e l	0	67	1	0	68	0	0	0	0	0	1	[°] 134	0	0	135	208
07:00 AM 07:15 AM	0 1	0 0	5 6	0 0	5 7	0	67 103	1	0	108	0	0	Ő	ŏ	ő	2	118	Õ	õ	120	235
07:30 AM	3	0	9	~ Õ	12	ŏ	90	3	ŏ	93	õ	Ő	0	Ō	0	5	109	0	0	114	= 219
07:45 AM	4	Ő	9	ŏ	13	0	89	2	0	91	0	0	0	0	0	10	150	0	0	160	264
Total	8	0	29	0	37	0	349	11	0	360	0	0	0	0	0	18	511	0	0	529	926
08:00 AM	4	0	9	0	13	0	91	4	0	95	0	0	0	0	0	2	148	0	0	150	258
08:15 AM	2	0	9	0	11	0	101	3	Q	104	0	0	0	0	0	8	143	0	0	151	266
08:30 AM	2	0	9	0	11	0	91	3	0	94	0	0	0	0	0	10	161	0	0	171 154	276 283
08:45 AM Total	2 10	0	10 37	0	<u>12</u> 47	0	112 395	5 15	0	117 410	0	0	0	0	0	22	152 604	0	0	626	1083
	10	Ŭ	57	0		Ŭ	000		5	12050	2									í	
Grand Total	20	0	71	0	91	0	834	27	0	861	0	0	0	0	0	42	129 7	0	0	1339	2291
Apprch %	22.0	0.0	78.0	0.0		0.0	96.9	3.1	0.0		0.0	0.0	0.0	0.0		3.1	96.9	0.0	0.0	50 4	
Total %	0.9	0.0	3.1	0.0	4.0	0.0	36.4	1.2	0.0	37.6	0.0	0.0	0.0	0.0	0.0	1.8	56.6	0.0	0.0	58.4	
									Out		Τσ										
										3	2	155 5									
x									69	9 9	1	160									
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Delaware Route 26 & Railway Road Date: Thursday, August 5, 2004 Time: 6:30 - 9:00 AM File Name : 26 and Railway AM Site Code : 00000000 Start Date : 08/05/2004 Page No : 2

			LWAY n North				26 n East				LWAY 1 South				26 1 West		
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 Fron	n 06:30	AM to C	8:45 AM	- Peak 1	of 1			1									
Intersection	08:00 A	M											2	004	0	000	4000
 Volume 	= 10	0	37	47	0	395	15	410	0	0	0	0	22	604	0	626	1083
Percent	21.3	0.0	78.7		0.0	96.3	3.7		0.0	0.0	0.0		3.5	96.5	0.0		
08:45	2	0	10	12	0	112	5	117	0	0	0	0	2	152	0	154	283
Volume	2	0	10	12		112	5		Ū	0	Ŭ	-	_				0.057
Peak Factor												5					0.957
High Int.	08:00 A	M			08:45 /	١M			6:15:00) AM			08:30 A				
Volume	4	0	9	13	0	112	5	117	0	0	0	0	10	161	0	171	
Peak Factor		-		0.904				0.876								0.915	



Delaware Route 26 & Railway Road Date: Thursday, August 5, 2004 Time: 6:30 - 9:00 AM

File Name : 26 and Railway AM Site Code : 00000000 Start Date : 08/05/2004 Page No : 1

										Grou	ps Printe	d- Bank	(1			Гd	ye n	10	; I			
ŗ			F	AILWA	Y rth			F	26 from Ea				R	AILWA				F	26 rom We	est		
1	Start Time	Left	Thr	Rig ht	Ped	App. Total	Left	Thr u	Rig ht	Ped	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Int. Total
r	Factor	1.0	u 1.0	1.0	s 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		
Į,	06:30 AM 06:45 AM	0	0	0	0	0	0	4 2	0 0	0 0	4 2	0	0 0	0 0	0 0	0	0 0	7 2	0 0	0 0	7	11 4
	Total	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	9	0	0	9	15
Γ	07:00 AM	0	0	0	0	0	0	4	1	0	5	0	0	0	0	0	0	8	0	0	8	13
Ę,	07:15 AM 07:30 AM	0 0	0 0	1 0	0 0	1 0	0 0	6 0	1 0	0 0	7 0	0	0 0	0 0	0 0	0	0 0	8 8	0 0	0 0	8 8	16 8
F	07:45 AM Total	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	1	8 32	0	0	9 33	<u>13</u> 50
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	08:00 AM 08:15 AM	0 0	0 0	0 1	0 0	0 1	0 0	2 10	0 0	0	2 10	0 0	0 0	0 0	0 0	0	0 0	7 11	0 0	0 0	7 11	9 22
1	08:30 AM 08:45 AM	0	0	0 0	0	0	0 0	3 5	0 0	0	3 5	0 0	0 0	0 0	0	0	0 0	10 8	0	0 0	10 8	13 13
Ę.	Total-	0	0	1	0	1	0	20	0	Ő	20	Ő	0	0	0	Ő	0	36	Ő	0	36	57
r	Grand	0	0	2	* 0	2	0	40	2	0	42	0	0	0	0	0	1	77-	0	0	78	122
L	Total		0.0	100.	0.0			95.2	4.8	0.0		0.0	0.0	0.0	0.0	0.50	1.3	98.7	0.0	0.0		
	Apprch % Total %	0.0 0.0	0.0	0 1.6	0.0	1.6	0.0 0.0	95.2 32.8	4.0 1.6	0.0	34.4	0.0	0.0	0.0	0.0	0.0		63.1	0.0	0.0	63.9	
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Delaware Route 26 & Railway Road Date: Wednesday, August 4, 2004 Time: 4:00 - 6:00 PM

File Name	: 26 and Railway PN.
Site Code	: 0000000
Start Date	: 08/04/2004
Page No	:1

								2		- 325	- 112 V		2		Ра	ige N	10	:1			
		F	AILWA	AY				Gro 26	ups Pri	nted- Un	shifted		1 AILWA	Y				26			
	<u> </u>	Fi	rom No	orth				rom Ea		0.7.7			om So		Ann		F Thr	rom W Rig	Ped	App.	Int.
Start Time	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	u	ht	S	Total	Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	000	1.0	1.0	1.0	1.0	0	1.0	1.0	1.0	1.0	127	345
04:00 PM 04:15 PM	0 3	0 0	12 5	0	12 8	0	203 154	3 7	0 0	206 161	0	0 0	0 0	0	0	5 7	122 138	0	0	145	345
04:30 PM	4	0	6	ŏ	10	Ő	171	6	õ	177	Ō	0	Õ	0	0	5	132	0	0	137	324
04:45 PM	4	0	12	0	16	0	159	5	0	<u>164</u> 708	0	0	0	0	0	9 26	121 513	0	0	130 539	310 1293
Total	11	0	35	0	46	0	687	21	0	100	0	0	U	U	U.				U		
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05:45 PM	1	0	9	0	10	0	139	1	0	140	0	0	0	0	0	6	130	0	0	136	286
Total	12	0	25	0	37	0	640	12	0	652	0	0	0	0	0	39	529	0	0	568	1257
Grand	23	0	60	0	83	0	132	33	0	1360	0	0	0	0	0	65	104	0	0	1107	2550
Total Apprch %	27.7	0.0	72.3	0.0		0.0	7 97.6	2.4	0.0		0.0	0.0	0.0	0.0		5.9	2 94.1	0.0	0.0		
Total %	0.9	0.0	2.4	0.0	3.3	0.0	52.0	1.3	0.0	53.3	0.0	0.0	0.0	0.0	0.0		40.9	0.0	0.0	43.4	
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Delaware Route 26 & Railway Road Date: Wednesday, August 4, 2004 ime: 4:00 - 6:00 PM

File Name : 26 and Railway PM Site Code : 00000000 Start Date : 08/04/2004 Page No : 2

Į.				_WAY				26 n East				LWAY South						
4	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
'ea	k Hour Fron	n 04:00	PM to 0	5:45 PM	- Peak 1	of 1											=	- C
1	ntersection Volume	04:00 F 11	M 0	35	46	0	687	21	708	0	0	0	0	26	513	0	539	1293
111	Percent	23.9	0.0	76.1		0.0	97.0	3.0		0.0	0.0	0.0		4.8	95.2	0.0		
	04:00 Volume	0	0	12	12	0	203	3	206	0	÷ 0	0	0	5	122	0	127	345
P	eak Factor High Int.					04:00 PM					PM			04:15 F	0.937			
P	Volume eak Factor	4	0	12	16 0.719	0	203	3	206 0.859	0	0	0	0	7	138	0	145 0.929	

Delaware Route 26 & Railway Road Date: Wednesday, August 4, 2004 Time: 4:00 - 6:00 PM

File Name : 26 and Railway PM Site Code : 00000000 Start Date : 08/04/2004 Page No : 1

						_			Group	os Printe	d- Bank	(1										
			AILWA			26 From East						RAILWAY From South					26 From West					
Start Time	Left	Thr	Rig	Ped	App. Total	Left	Thr	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht		App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Int. Total	
Factor	1.0	1.0	1.0	1.0	TOTAL	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	5	0	0	5	0	0	- 0 0	0	0	0	2 5	0	0	2 5	7 9	
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Total	0	0	1	0	1	0	18	2	0	20	0	0	0	0	0	0	8	0	0	8	29	
05:00 PM	0	0	1	0	1	0	6	1	0	7	0	0	0	0	0	1	4	0	0	5	13	
05:15 PM	0	0	1	0	1	= 0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	4	
05:30 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0 0	1 2	0 0	0 0	1	3	
05:45 PM Total	0	0	0	0	2	0	2 12	0	0	2 13	0	0	0	0	0	1	8	0	0	9	24	
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Total	0	0	3	0	3	0	30	3	0	33	0	0	0	0	0	1	16	0		11	55	
Apprch %	0.0	0.0	100. 0	0.0		0.0	90.9	9.1	0.0		0.0	0.0	0.0	0.0		5.9	94.1	0.0	0.0			
Total %	0.0	0.0	5.7	0.0	5.7	0.0	56.6	5.7	0.0	62.3	0.0	0.0	0.0	0.0	0.0	1.9	30.2	0.0	0.0	32.1		
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Delaware Rte 26 & Railway Rd Date: Saturday, July 17, 2004 Time: 9:00 AM - 2:00 PM

File Name : 26 and railway saturday Site Code : 00000000 Start Date : 07/17/2004 Page No : 1

					5				Gro	ups Prii	nted- Uns	shifted -	Bank	1		3		G.					
T			F	AILWA	Y		26 RAILWAY 26																
1		From North					From East					From South						From West					
1	Start Time	Left	Thr	Rig ht	Ped s	App. Total	Left	Thr	Rig ht	Ped s	App. Total	Left	Thr	Rig ht	Ped	App. Total	Left	Thr	Rig ht	Ped s	App. Total	Int. Total	
, h	Factor	1.0	1.0	1.0	1.0	Total	1.0	1.0	1.0	1.0	, oral	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	1 6 161		
P	09:00 AM	2	0	10	0	12	0	141	0	0	141	0	0	0	0	0	5	179	0	0	184	337	
1.	09:15 AM	1	ŏ	9	ŏ	10	ŏ	165	õ	õ	165	õ	õ	Ō	Ō	õ	7	177	Ō	0	184	359	
	09:30 AM	5	ŏ	12	ŏ	17	õ	202	4	ŏ	206	ŏ	õ	ō	ŏ	ō	9	190	1	0	200	423	
	09:45 AM	1	0	11	0	12	ŏ	207	5	ŏ	212	ŏ	õ	ŏ	ŏ	õ	8	240	Ó	Ō	248	472	
	Total	9	0	42	0	51	0	715	9	0	724	0	0	0	0	0	29	786	1	0	816	1591	
	1 Ottai			14	v	0.1		110	Ũ	Ũ	- 1	1. T			0000	3701			-		1		
	10:00 AM	3	0	10	0	13	- 0	216	3	1	220	0	0	0	0	0	13	191	0	0	204	437	
	10:15 AM	1	õ	11	õ	12	Ō	209	7	Ó	216	0	0	0	0	0	10	209	0	0	219	447	
ſ	10:30 AM	4	0°	9	Ō	13	Ō	206	3	0	209	0	0	0	0	0	17	210	0	0	227	449	
1	10:45 AM	2	Ō	12	Ō	14	0	207	1	0	208	0	0	0	0	0	10	204	0	0	214	436	
10 2	Total	10	0	42	0	52	0	838	14	1	853	0	0	0	0	0	50	814	0	0	864	1769	
						8																	
12	11:00 AM	1	0	21	0	22	0	206	3	-0	209	0	0	0	0	0	10	201	0	0	211	442	
1	11:15 AM	1	0	8	0	9	0	184	5	0	189	0	0	0	0	0	11	195	0	0	206	404	
1	11:30 AM	6	0	14	0	20	- 0	193	9	0	202	0	0	0	0	0	5	182	0	0	187	409	
	11:45 AM	5	0	14	0	19	0	170	2	0	172	0	0	0	0	0	12	203	0	0	215	406	
r	Total	13	0	57	0	70	0	753	19	. 0	772	0	0	0	0	0	38	781	0	0	819	1661	
1.	12:00 PM	2	0	7	0	9	0	126	3	0	129	0	0	0	0	0	4	199	1	0	204	342	
	12:15 PM	3	0	11	0	14	0	134	3	0	137	0	0	0	0	0	9	185	0	0	194	345	
7	12:30 PM	3	0	24	0	27	0	133	3	0	136	0	- 0	0	0	0	9	194	7	0	210	373	
	12:45 PM	1	0	9	0	10	0	141	4	0	145	0	0	0	0	0	9	209	1	0	219	374	
U	Total	9	0	51	0	60	0	534	13	0	547	0	0	0	0	0	31	787	9	0	827	1434	
	01:00 PM	1	0	12	0	13	0	139	3	0	142	0	0	0	0	0	18	200	0	0	218	373	
	01:15 PM	5	0	9	0	14	0	140	5	0	145	0	0	0	0	0	7	208	0	0	215	374	
1	01:30 PM	4	0	2	0	6	0	136	2	0	138	0	0	0	0	0	18	214	0	0	232	376	
2	01:45 PM	1	0	6	0	7	0	137	4	0	141	0	0	0	0	0	13	216	0	0	229	377	
	Total	11	0	29	0	40	0	552	14	0	566	0	0	0	0	0	56	838	0	0	894	1500	
[Queud							220			1							400			Î		
l.	Grand Total	52	0	221	0	273	0	339 2	69	1	3462	0	0	0	0	0	204	400	10	0	4220	7955	
	Apprch %	19.0	0.0	81.0	0.0		0.0	98.0	2.0	0.0		0.0	0.0	0.0	0.0		4.8	94.9	0.2	0.0			
\hat{t}	Total %	0.7	0.0	2.8	0.0	3.4	0.0	42.6	0.9	0.0	43.5	0.0	0.0	0.0	0.0	0.0	2.6	50.4	0.1	0.0	53.0		
)																							

File Name : 26 and railway saturda Delaware Rte 26 & Railway Rd Site Code : 0000000 Date: Saturday, July 17, 2004 Time: 9:00 AM - 2:00 PM Start Date : 07/17/2004 : 2 Page No RAILWAY Out 267 6 273 Total 537 In 270 3 9 546 219 2 221 51 0 ŏ 0 52 0 0 Right Left Peds Thru L North 7/17/2004 9:00:00 AM 7/17/2004 1:45:00 PM Unshifted Bank 1 000 peds Right Thru Peds 0 0000 1 10 Out 10 Total IN

Delaware Rte 26 & Railway Rd Date: Saturday, July 17, 2004 Time: 9:00 AM - 2:00 PM

File Name : 26 and railway saturday Site Code : 00000000 Start Date : 07/17/2004 Page No : 3

1				WAY				26 n East				LWAY South				26 n West		
r)	Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
'e	ak Hour From	n 09:00 /	AM to 0	1:45 PM	- Peak 1	of 1	2										6	
	Intersection Volume	09:45 A 9	M 0	41	50	0	838	18	856	0	0	0	0	48	850	0	898	1804
<u> </u>	Percent	18.0	0.0	82.0		0.0	97.9	2.1		0.0	0.0	0.0		5.3	94.7	0.0		
L,	09:45 Volume	1	0	11	12	0	207	5	212	0	0	0	0	8	240	0	248	472
- ¹	Peak Factor High Int.	10:00 A	M			10:00	٨M			8:45:00) AM			09:45		_		0.956
	Volume Peak Factor	3	0	10	13 0.962	0	216	3	219 0.977	0	0	0	0	8	240	0	248 0.905	

Delaware Rte 26 & Railway Rd Date: Saturday, July 17, 2004 Time: 9:00 AM - 2:00 PM File Name : 26 and railway saturday Site Code : 00000000 Start Date : 07/17/2004 Page No : 1

Groups Printed- Bank 1

		F	AILWA	Y		_		26	Gibu	os Pinte	u Durin	R	AILWA	Y				26			
			om No				F	rom Ea	st			Fre	om Sol					om We			
		Thr	Rig	Ped	App.	Left	Thr	Rig	Ped	App.	Left	Thr	Rig	Ped	App.	Left	Thr	Rig	Ped	App.	Int.
Start Time	Left	u	ht	s	Total		u	ht	S	Total		u	ht	S	Total		u 10	ht	S	Total	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	0	0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Ő	ő	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ő	0	1	ő	Ő	1	5
09:30 AM	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	0	3	Ő	ŏ	3	4
09:45 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	9
Total	1	0	0	0	1	0	3	1	0	4	U	U	0	U	U I	U		Ŭ	U		
10:00 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	2	4	0	0	6	9 5
10:15 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	2 3	0	0	2	9
10:30 AM	0	0	0	0	0	0	6	0	0	6	0	0	0	0	0	0	3	0	0	3	5
10:45 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2	12	0	0	14	28
Total	0	0	0	0	0	0	14	0	0	14	0	0	0	U	U	2	12	0	U	14	20
11:00 AM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	1	0	0	1	4
11:15 AM	0	0	_ 1	0	1	0	4	1	0	5	0	0	0	0	0	0	1	0	0	1	1
11:30 AM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	0	0 4	4
11:45 AM	0	0	0	0	0	0	2	1	0	3	0	0	0	0	0	0	6	0	0	6	22
Total	0	0	1	0	1	0	13	2	0	15	0	0	0	0	υĮ	U	0	U	0	U.	66
12:00 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	1	0	0 0	1 3	5 9
12:15 PM	0	0	1	0	1	0	4	1	0	5	0	0	0	0	0	0	3	0 1	0	2	97
12:30 PM	0	0	0	0	0	0	5	0	0	5	0	0	0	0	0	0 0	1	0	0	1	3
12:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	6	1	0	7	24
Total	0	0	1	0	1	0	15	1	0	16	0	U	U	0	U	0	0	1	U	25	
01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2 3	0	0 0	2 3	2 3
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	0	0	-4	3
01:30 PM	0	0	0	0	0	0	3	0	0	3	0	0	0	0	0	0	0	0	ŏ	0	4
01:45 PM	0	0	0	0	0	0	4	0	0	4	0	0	0	0	0	0	9	0	0	9	16
Total	0	0	0	0	0	0	7	0	0	7	U	U	U	0	U I	U	3	v	Ŭ	Ŭ	10
Grand	1	0	2	0	3	0	52	4	0	56	o	0	0	0	0	2	37	= 1	0	40	99
Total	<i>.</i>				U			-			00	0.0	0.0	0.0		5.0	92.5	2.5	0.0		
Apprch %	33.3	0.0	66.7	0.0		0.0	92.9	7.1	0.0	56 C	0.0	0.0 0.0	0.0 0.0	0.0	0.0	2.0	92.5 37.4	1.0	0.0	40.4	
Total %	- 1.0	0.0	2.0	0.0	3.0	0.0	52.5	4.0	0.0	56.6	0.0	0.0	0.0	0.0	0.0	2.0	J1. 4	1.0	0.0	-0.4	

Delaware Rte 26 & Delaware Rte 17 Date: Thursday, July 15, 2004 Fime: 6:30 - 9:00 AM File Name : 26 and 17 am Site Code : 00000000 Start Date : 07/15/2004 Page No : 1

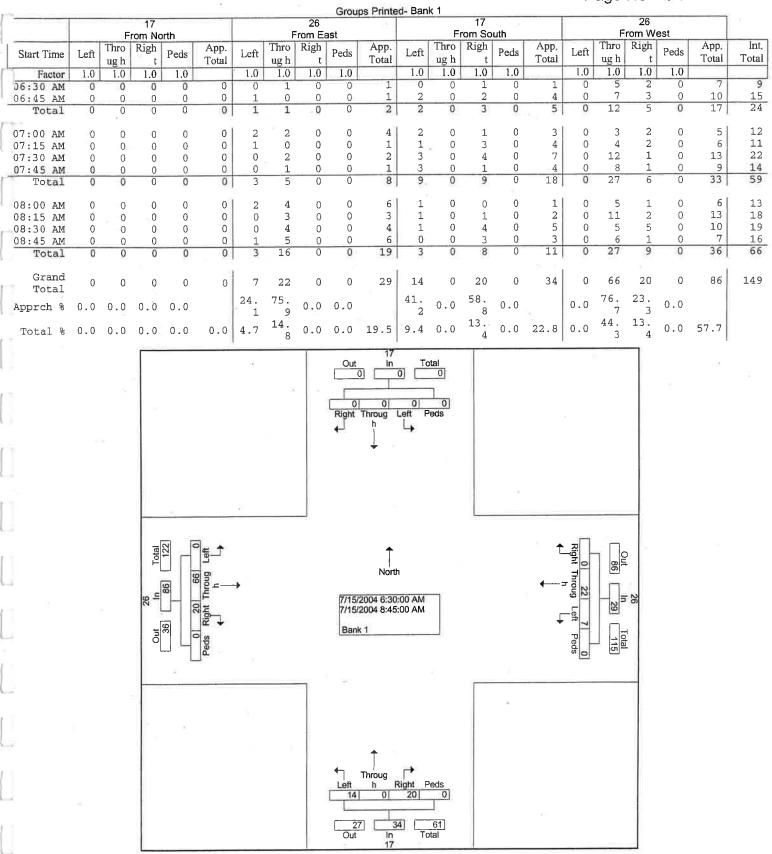
Delaware Rte 26 & Delaware Rte 17 Date: Thursday, July 15, 2004 Time: 6:30 - 9:00 AM

File Name : 26 and 17 arr Site Code : 0000000 Start Date : 07/15/2004 Page No : 2

			17				_	26				Er	17 om So	uth			F	26 rom We	est		
			om No	orth				rom Ea	ISL					441	4.00		Thro		1	Ann	Int.
Start Time	Len	Thro ug h	t	Peds	App. Total	Left	Thro ug h	Righ t	Peds	App. Total	Left	Thro ug h	Righ t	Peds	App. Total	Left	ug h	Righ t	Peds	App. Total	Total
eak Hour Fro	m 06:30	AM t	o 08:4.	5 AM -	Peak 1 o	f1									1					31	
Intersec tion Volume	07:45 0	AM 0	0	0	0	63	279	0	0	342	87	0	103	0	190	0	462	100	0	562	1094
Percent	0.0	0.0	0.0	0.0		18. 4	81. 6	0.0	0.0		45. 8	0.0	54. 2	0.0		0.0	82. 2	17. 8	0.0		
07:45 Volume Peak	0	0	0	0	0	14	69	0	0	83	24	0	28	0	52	0	131	28	0	159	294 0.930
Factor High Int.	6:15:	00 A	М			08:3	0 AM				07:4	5 AM				07:4					
Volume Peak Factor	0	0	0	0	0	17	77	0	0	94 0.91 0	24	0	28	0	52 0.91 3	0	131	28	0	159 0.88 4	

Delaware Rte 26 & Delaware Rte 17 Date: Thursday, July 15, 2004 Time: 6:30 - 9:00 AM

File Name : 26 and 17 am Site Code : 00000000 Start Date : 07/15/2004 Page No : 1



Delaware Rte 26 & Delaware Rte 17 Date: Wednesday, August 4, 2004 Time: 4:00 - 6:00 PM

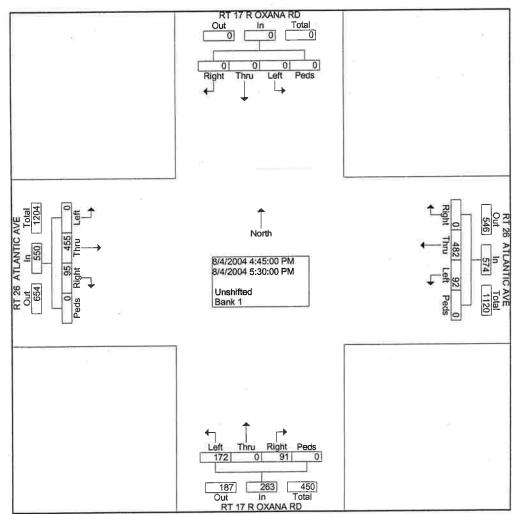
File Name	: 26 and 17 Plv
Site Code	: 00000000
Start Date	: 08/04/2004
Page No	:1

								•			shifted	Ponk	1				uge				
		RT 17	ROXA	NA RD		F	RT 26 /		TIC AV	nted- Un E	shinted	RT 17	R OXA	NA RD		1		ATLAN		Έ	
		Fr	rom No	rth			F	rom Ea	ist				om Sou		A.00			rom We		A.00	Int
Start Time	Left	Thru	Rig ht	Ped s	App. Total	Left	Thr	Rig ht	Ped	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0	TOLAT	1.0	1.0	1.0	1.0	/ Otda	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
04:00 PM	0	0	0.	0	0	31	134	0	0	165	32	0	20	0	52	0	89	23	0	112	329
04:15 PM	0	0	0	0	0	25	107	0	0	132	52	0 0	21 27	0 0	73 68	0	115 111	19 15	0	134 126	339 347
04:30 PM 04:45 PM	0	0 0	0	0	0	26 27	127 117	0	0	153 144	41 52	0	16	ő	68	0	105	26	Ő	131	343
Total	0	0	0	0	0	109	485	0	Ő	594	177	Ő	84	0	261	0	420	83	0	503	1358
		0490		-				•	0	405	20	0	26	0	64	0	125	21	0	146	345
05:00 PM 05:15 PM	0	0 0	0	0	0 0	24 26	111 137	0 0	0	135 163	38 36	0	20	õ	57	Ő	99	26	ŏ	125	345
05:30 PM	ŏ	ŏ	ŏ	ŏ	ŏ	15	117	ŏ	ŏ	132	46	Ō	28	0	74	0	126	22	0	148	354
05:45 PM	Ō	0	0	0	0	31	107	0	0	138	24	0	21	0	45	0	102	25	0	127	310
Total	0	、0	0	0	0	96	472	0	0	568	144	0	96	0	240	0	452	94	0	546	1354
Grand	0	0	0	0	0	205	957	0	0	1162	321	0	180	0	501	0	872	177	0	1049	2712
Total Apprch %	0.0	0.0	0.0	0.0		17.6	82.4	0.0	0.0		64.1	0.0	35.9	0.0		0.0	83.1	16.9	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	7.6	35.3	0.0	0.0	42.8		0.0	6.6	0.0	18.5	0.0		6.5	0.0	38.7	
4 13	X				2			e -	0			0 0 0 0 0 0 0 0 0 0	in a second seco								
с. ,			ATLANTIC A	1222 1016 2238 56 33 89 1278 1049 2327	0 168 848 0 0 9 24 0	Right Thru Left	•		8/4/2	Nort 2004 4:00 2004 5:45 hifted k 1	:00 PM		1	↑ ← ↓	0 43 12 0 0 957 205 0 Right Thru Left Peds		1019 1107 2126 33 55 88 1052 1162 2214	RT 26 ATLANTIC AVE			
				8			α C		Left 308 13 321 36 2 38 0 0 Ut	0 0 1 2 50	171 9 180 79 22 01 8 To										

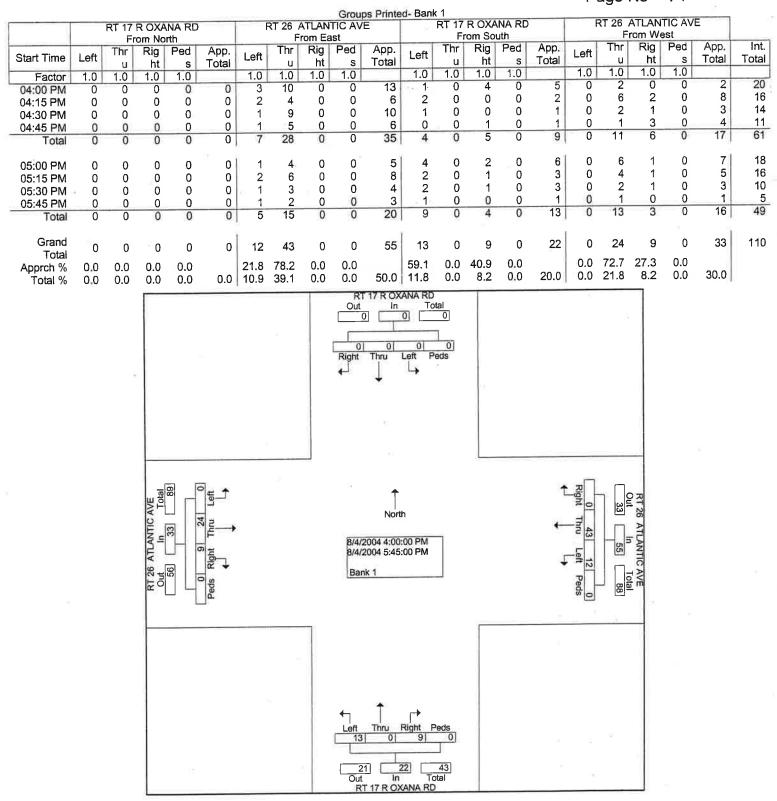
Delaware Rte 26 & Delaware Rte 17 Date: Wednesday, August 4, 2004 Time: 4:00 - 6:00 PM

File Name	: 26 and 17 PM
Site Code	: 00000000
Start Date	: 08/04/2004
Page No	: 2

	G-111-5		R OXA om No	NA RD rth		-	F		ATLAN		Έ		Fr	om So			F	F	ATLAN rom We	st		
Start Time	Left	Thr u	Rig ht	Ped s	App Tota		_eft	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Int Tota
eak Hour Fr	om 04:	00 PN	1 to 05	:45 PN	- Pe	ak 1	of 1					1										
Intersectio n	04:45	ΡM															_			•		
Volume Percent	0 0.0	0 0.0	0 0.0	0 0.0		0	92 6.0	482 84.0	0 0.0	0 0.0	574	172 65.4	0 0.0	91 34.6	0 0.0	263	0 0.0	455 82.7	95 17.3	0 0.0	550	138
05:30 Volume	0	0	0	0		0	15	117	0	0	132	46	0	28	0	74	0	126	22	0	148	35
Peak Factor																						0.98
High Int.	3:45:0	0 PM				0	5:15					05:30				-	05:30			~	440	
Volume	0	0	0	0		0	26	137	0	0	163	46	0	28	0	74	0	126	22	0	148	
Peak Factor											0.880					0.889	_				0.929	



Delaware Rte 26 & Delaware Rte 17 Date: Wednesday, August 4, 2004 Time: 4:00 - 6:00 PM File Name : 26 and 17 PM Site Code : 00000000 Start Date : 08/04/2004 Page No : 1

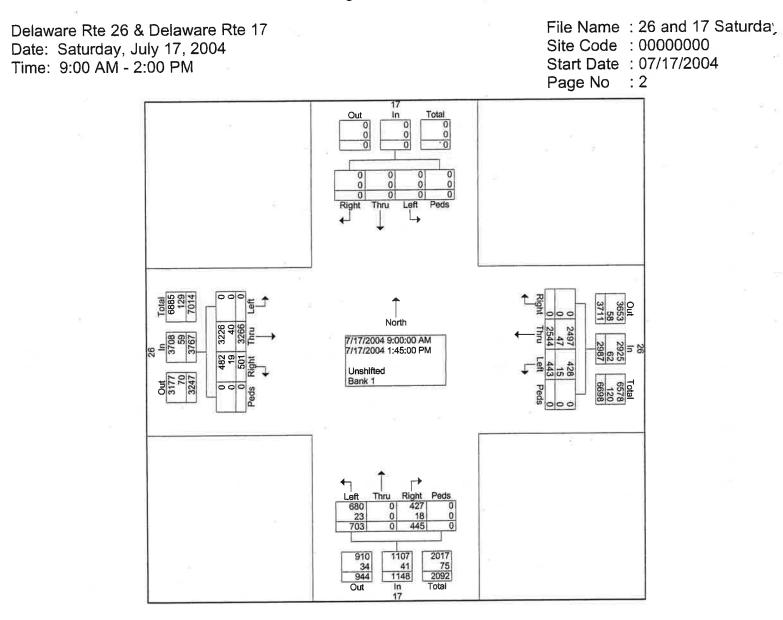


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Delaware Rte 26 & Delaware Rte 17 Date: Saturday, July 17, 2004 Time: 9:00 AM - 2:00 PM

File Name	: 26 and 17 Saturday
Site Code	: 00000000
Start Date	: 07/17/2004
Page No	:1

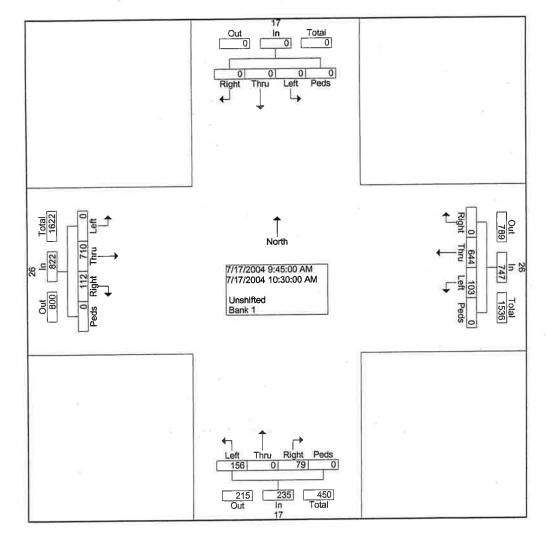
										ups Prin	nted- Un	shifted ·	Bank									
				17					26				_	17				-	26			
1				om No					rom Ea					om So					rom We		A	Lat
18	Start Time	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Int. Total
19	Factor	1.0	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		
10	09:00 AM	0	0	0	0	0	20	150	0	0	170	30	0	29	0	59	0	138	27	0	165	394
	09:15 AM	0	0	0	0	0	12	146	0	0	158	25	0	20	0	45	0	162	29	0	191	394
	09:30 AM	0	0	0	0	0	23	137	0	0	160	36	0	31	0	67	0	149	27	_0	176	403
	09:45 AM	0	0	0	0	0	17	157	0	0	174	40	0	23	0	63	0	181	34	0	215	452
	Total	0	0	0	0	0	72	590	0	0	662	131	0	103	0	234	0	630	117	0	747	1643
	10:00 AM	0	0	0	0	0	26	174	0	0	200	37	0	13	0	50	0	175	28	0	203	453
	10:15 AM	0	- 0	0	0	0	34	147	0	0	181	35	0	19	0	54	0	166	25	0	191	426
7	10:30 AM	0	0	0	0	0	26	166	0	0	192	44	0	- 24	0	68	0	188	25	0	213	473
	10:45 AM	0	0	0	0	0	33	160	0	0	193	38	0	21	0	59	0	170	21	0	191	443
-	Total	0	0	0	0	0	119	647	0	0	766	154	0	77	0	231	0	699	99	0	798	1795
2	11:00 AM	0	0	0	0	0	20	158	0	0	178	36	0	25	0	61	0	164	29	0	193	432
	11:15 AM	0	0	0	0	0	24	125	0	0	149	50	0	26	0	76	0	144	32	0	176	401
	11:30 AM	0	0	0	0	0	16	141	0	0	157	39	0	15	0	54	0	142	24	0	166	377
	11:45 AM	0	0	0	0	0	25	139	0	0	164	44	0	27	0	71	0	160	23	0	183	418
1	Total	0	0	0	0	0	85	563	0	0	648	169	0	93	0	262	0	610	108	0	718	1628
	12:00 PM	0	0	0	0	0	21	102	0	0	123	35	0	19	0	54	0	159	25	0	184	361
	12:15 PM	0	0	0	0	0	23	95	0	0	118	37	0	22	0	59	0	143	31	0	174	351
	12:30 PM	0	0	0	- 0	0	20	92	0	0	112	22	0	19	0	41	0	153	25	0	178	331
	12:45 PM	0	0	0	0	0	19	90	0	0	109	24	0	28	0	52	0	163	17	0	180	341
	Total	0	0	0	0	0	83	379	0	0	462	118	0	88	0	206	0	618	98	0	716	1384
	01:00 PM	0	0	0	0	0	22	77	0	0	99	33	0	26	0	59	0	175	18	0	193	351
	01:15 PM	0	0	0	0	0	22	94	0	0	116	34	0	24	- 0	58	0	184	22	0	206	380
	01:30 PM	0	0	0	0	0	18	97	0	0	115	31	0	19	0	50	0	175	23	0	198	363
4	01:45 PM	0	0	0	0	0	22	97	0	0	119	33	0	15	0	48	0	175	16	0	191	358
	Total	0	0	0	0	0	84	365	0	0	449	131	0	84	0	215	0	709	79	0	788	1452
	Grand Totai	0	0	0	0	0	443	254 4	0	0	2987	703	0	445	0	1148	0	326 6	501	0	3767	7902
	Apprch %	0.0	0.0	0.0	0.0		14.8	85.2	0.0	0.0		61.2	0.0	38.8	0.0		0.0	86.7	13.3	0.0		
	Total %	0.0	0.0	0.0	0.0	0.0	5.6	32.2	0.0	0.0	37.8	8.9	0.0	5.6	0.0	14.5	0.0	41.3	6.3	0.0	47.7	



Delaware Rte 26 & Delaware Rte 17 Date: Saturday, July 17, 2004 ime: 9:00 AM - 2:00 PM

File Name : 26 and 17 Saturday Site Code : 00000000 Start Date : 07/17/2004 Page No : 3

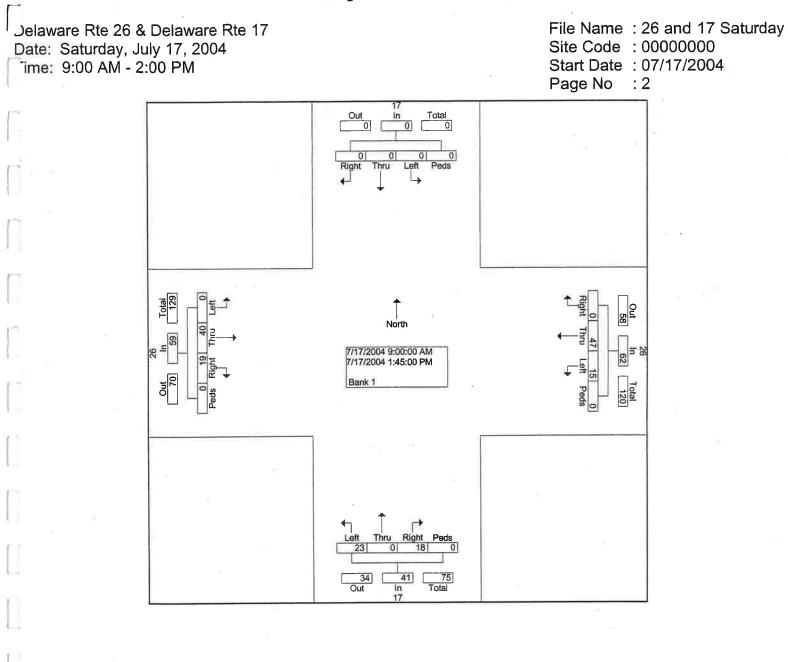
			17					26					17				-	26			
		Fr	om No	rth			F	rom Ea	ist		L	Fr	om So					rom We			
Start Time	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Totał	Left	Thr น	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Int. Tota
eak Hour Fi	rom 09	:00 AN	1 to 01	:45 PM	I - Peak	1 of 1														7	
Intersectio n	09:45	AM												0			740	440	~		1004
Volume	0	0	0	0	0	103	644	0	0	747	156	0	79	0	235		710	112	0	822	1804
Percent	0.0	0.0	0.0	0.0		13.8	86.2	0.0	0.0		66.4	0.0	33.6	0.0		0.0	86.4	13.6	0.0		
10:30	0	0	0	0	0	26	166	0	0	192	44	0	24	0	68	0	188	25	0	213	473
Volume	•	•	-																		0.953
Peak Factor											40.00					09:45				Î	
High Int.	8:45:0	MA 00				10:00					10:30	AM		0				24	0	215	2
Volume	0	0	0	0	0	26	174	0	0	200	44	0	24	0	68	0	181	34	0	215	
Peak										0.934					0.864	1				0.956	
Factor											1										



Delaware Rte 26 & Delaware Rte 17 Date: Saturday, July 17, 2004 Time: 9:00 AM - 2:00 PM File Name : 26 and 17 Saturday Site Code : 00000000 Start Date : 07/17/2004

Start Date : 07/17/2004 Page No : 1

									Grour	s Printe	d- Bank	1					-				
	_		17					26	Gioup	S FIIILE	u- Dann		17		r			26			
		Fi	rom No	rth			F	rom Ea					om So					rom We			
Start Time	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped	App. 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		44
09:00 AM	0	0	0	0	0	2	2	0	0	4	1	0	3	0	4	0	4	2	0	6	14
09:15 AM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	1	0	2	4
09:30 AM	0	0	0	0	0	1	2	0	0	3	3	0	1	0	4	0	1	1	0	2	9
09:45 AM	0	0	0	0	0	0	1	0	0	1	0	0	3	0	3	0	1	1	0	12	<u>6</u> 33
Total	0	0	0	0	0	3	7	0	0	10	4	0	7	0	11	0	1	5	0	12	33
10:00 AM	0	0	0	0	0	1	2	0	0	3	2	0	2	0	4	0	3	0	0	3	10
10:15 AM	0	0	0	0	0	2	1	0	0	3	3	0	1	0	4	0	0	1	0	1	8
10:30 AM	0	0	0	0	0	0	4	0	0	4	0	0	1	0	1	0	3	1	0 0	4	9 9
10:45 AM	0	0	0	0	0	0	2	0	0	2	1	0	3	0	4	0	7	2	0	11	36
Total	0	0	0	0	0	3	9	0	0	12	6	0	7	0	13	U	1	4	U	- 11	30
11:00 AM	0	0	0	0	0	0	4	0	0	4	1	0	0	0	1	0	0	1 0	0 0	1	6 6
11:15 AM	0	0	0	0	0	1	3	0	0	4		0	0	0	1	0	1	2	0	3	7
11:30 AM	0	0	0	0	0	1	2	0	0	3	1	0	0	0	4	0	7	1	0	8	13
11:45 AM	0	0	0	0	0	1	3	0	0	4		0	0	0	4	0	9	4	0	13	32
Total	0	0	0	0	0	3	12	0	0	15	4	0	U	U	(#)	U	9	H.	U	15	JL
12:00 PM	0-	0	0	0	0	1	5	0	0	6	0	0	0	0	0	0	4	1	0	5	11
12:15 PM	0	0	0	0	0	0	5	0	0	5	3	0	0	0	3	0	4	1	0	5	13
12:30 PM	0	0	0	0	0	1	5	0	0	6	1	0	0	0	1	0	2	1	0	3	10
12:45 PM	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	1	1	0	2	4
Total	0	0	0	0	0	2	17	0	0	19	4	0	0	0	4	0	11	4	0	15	38
01:00 PM	0	0	0	0	0	1	0	0	0	1	0	0	1	0	1	0	2	2	0	4	6
01:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	2	0	3	0	3	0	0	3	6
01:30 PM	0	0	0	0	0	1	2	0	0	3	1	0	1	0	2	0	1	0	0	1	6
01:45 PM	0	0	0	0	0	2	0	0	0	2	3	0	0	0	3	0	0	0	0	0	5 23
Total	0	0	0	0	0	4	2	0	0	6	5	0	4	0	9	0	6	2	0	8	23
Grand	0	0	0	0	0	15	47	0	0	62	23	0	18	0	41	0	40	19	0	59	162
Total					Ű			-				0.0	40.0	0.0		0.0	67 P	22.2	0.0		
Apprch % Total %	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0	24.2 9.3	75.8 29.0	0.0 0.0	0.0 0.0	38.3	56.1 14.2	0.0 0.0	43.9 11.1	0.0 0.0	25.3	0.0 0.0	67.8 24.7	32.2 11.7	0.0	36.4	



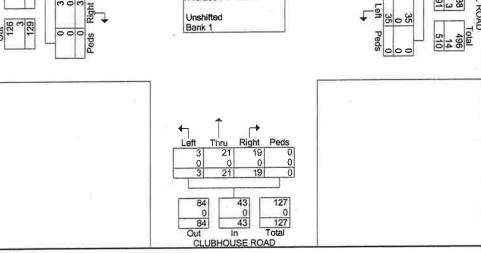
Old Mill Road & Clubhouse Road Date: Thursday, July 15, 2004 Time: 6:30 - 9:00 AM

File Name : Clubhouse and Old Mill AN. Site Code : 00000000

Start Date : 07/15/2004

Page No : 1

				ROAD)			MILL F	ROAD	nted- Un		CLUBI	HOUSE rom So		'			MILL F			
			om No		400			Rig	Ped	400		Thr	Rig	Ped	App.		Thr	Rig	Ped	App.	Int
Start Time	Left	Thr	Rig	Ped	App. Total	Left	Thr	ht	S	App. Total	Left	u u	ht	s	Total	Left	u	ht	s	Total	Tota
Footor	10	u 1.0	ht 1.0	s 1.0	TOtal	1.0	1.0	1.0	1.0	TOtal	1.0	1.0	1.0	1.0	Total	1.0	1.0	1.0	1.0		1010
Factor 06:30 AM	1.0	0	0	0	0	0	3	1.0	0	4	0	0	0	0	0	0	6	0	0	6	1(
06:30 AM		Ö	0	Ő	2	1	5	1	0	7	Ő	õ	ŏ	Õ	Ö	0	11	Ō	0	11	2
Total	2	0	0	0	2		- 8	2	0	11	0	0	0	0	0	0	17	Ō	0	17	3
Iotal	2	0	0	0	4	- P	0	2	0		v			0			6150	. æ.	1000	6114	
07:00 AM	6	13	1	0	20	9	16	2	0	27	0	4	2	0	6	0	15	0	0	15	6
07:15 AM	6	7	ò	Ő	13	3	8	ō	ŏ	11	Ō	2	1	Ō	3	2	24	1	0	27	5
07:30 AM	3	2	Ő	Ő	5	4	9	3	ŏ	16	ŏ	2	2	õ	4	ō	20	0	Ó	20	4
	-		-	0	15	3	13	3	0	19	Ő	4	3	0	7	2	29	Ō	Ō	31	7
07:45 AM Total	12 27	24	1	0	53	19	46	8	0	73	0	12	8	Ő	20	4	88	1	0	93	23
TOLAI	21	24	2	U	55	19	40	0	U	15	Ŭ	12	· ·	v				·	224	276511	
08:00 AM	17	14	1	0	32	2	16	8	0	26	0	1	3	0	4	0	30	1	0	31	9
08:00 AM	15	4	1	0	20	4	17	12	ŏ	33	2	2	2	ŏ	6	1	15	1	Ō	17	7
				0	12	6	19	4	0	29	ō	2	1	Ö	3	2	28	Ó	ō	30	7
08:30 AM	7	4	1	-		1.001	13	3	0	19	1	4	5	ŏ	10	2	40	0	Ő	42	8
08:45 AM	14	0	2	0	16 80	3 15	65	27	0	107	3	9	11	0	23	5	113	2	0	120	33
Total	53	22	5	0	80	15	60	21	0	107	5	9	808	U	20	J	110	1	U	.20	
Grand	82	46	7	0	135	35	119	37	0	191	3	21	19	0	43	9	218	3	0	230	59
Total	CO 7	24.4	= 0	0.0		18.3	62.3	19.4	0.0		7.0	48.8	44.2	0.0		3.9	94.8	1.3	0.0		
Apprch % Total %	60.7 13.7	34.1 7.7	5.2 1.2	0.0	22.5	5.8	19.9	6.2	0.0	31.9	0.5	3.5	3.2	0.0	7.2	1.5	36.4	0.5	0.0	38.4	
101.21 %	13.7	1.1	1.2	0.0	22.5	0.0	13.3	0.2		UBHOUS								7			
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			MILL ROAD		210 8									4	- =			D			
			ά, c	222 8 230		IF-				2004 6:30				1070	-119 3	5		MILL R			
					80				1115/	2004 8:45	MA UU				-6		191 3 In	-			



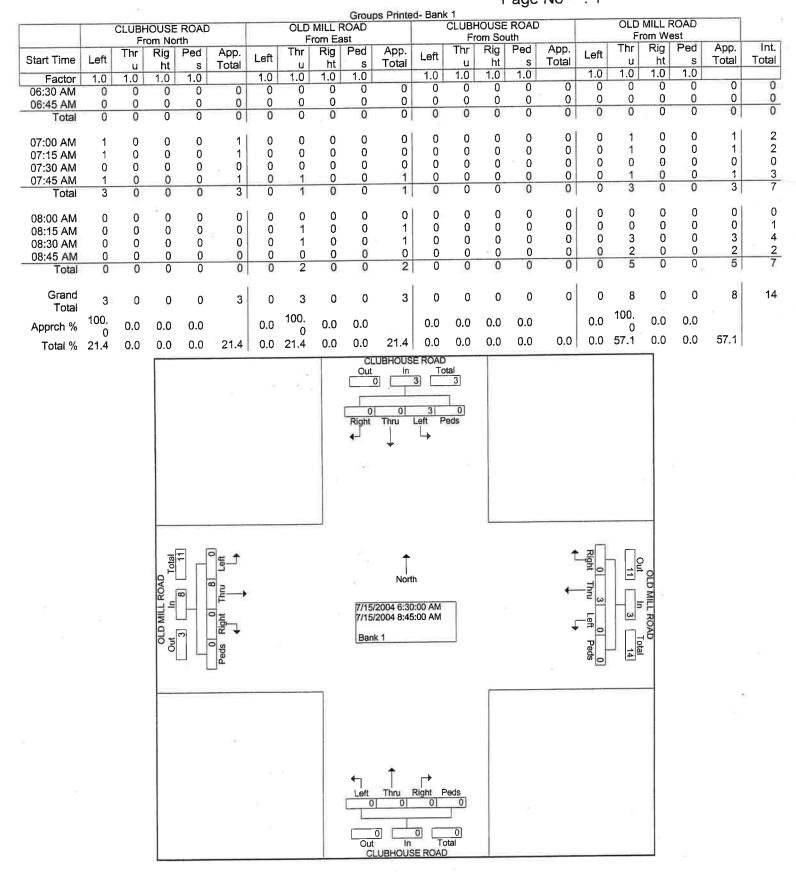
Jld Mill Road & Clubhouse Road Date: Thursday, July 15, 2004 ime: 6:30 - 9:00 AM File Name : Clubhouse and Old Mill AM Site Code : 0000000 Start Date : 07/15/2004 Page No : 2

<u>,</u>	С		USE ROA	AD			LL ROAD n East		С		USE ROA 1 South	D			LL ROAD West		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Yeak Hour From	n 06:30	AM to C	8:45 AM	- Peak 1	of 1												
Intersection Volume	08:00 A 53	AM 22	5	80	15	65	27	107	3	9	11	23	5	113	2	120	330
Percent	66.3	27.5	6.3		14.0	60.7	25.2		13.0	39.1	47.8		4.2	94.2	1.7		
08:00 Voiume	17	14	1	32	2	16	8	26	0	1	3	4	0	30	1	31	93
Peak Factor									00.45				00.45				0.887
High Int. Volume Peak Factor	08:00 A 17	AM 14	1	32 0.625	08:15 A 4	ъм 17	12	33 0.811	08:45 A 1	ам 4	5	10 0.575	08:45 / 2	40	0	42 0.714	

Sec. ye

Old Mill Road & Clubhouse Road Date: Thursday, July 15, 2004 Time: 6:30 - 9:00 AM

File Name : Clubhouse and Old Mill AM Site Code : 00000000 Start Date : 07/15/2004 Page No : 1



Old Mill Road & Clubhouse Road Date: Wednesday, July 14, 2004 ime: 4:00 - 6:00 PM

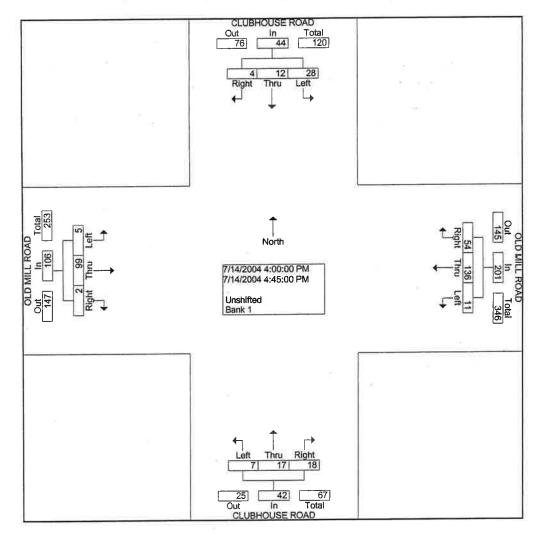
File Name : Clubhouse and Old Mill PM Site Code : 00000000 Start Date : 07/14/2004 Page No : 1

							S.	Gro	uno Driv	nted- Un	shifted	. Bank		'age	INO	. 1					
				ROAD)			MILL F	ROAD	Red- On	Sinted	CLUBH	IOUSE	ROAD				MILL F			18
Start Time	Left	F Thr	rom No Rig	Ped	App.	Left	۲ Thr	rom Ea Rig	Ped	App.	Left	Thr	om So Rig	Ped	App.	Left	Thr	Rig	Ped	App.	Int.
		10	ht	s 1.0	Total	1.0	u 1.0	ht 1.0	s 1.0	Total	1.0	<u>и</u> 1.0	ht 1.0	s 1.0	Total	1.0	u 1.0	ht 1.0	s 1.0	Total	Total
64:00 PM 04:15 PM	1.0 6 6	1.0 4 3	1.0 0 3	0	10 12	2	36 36	12 11	0	50 50	0	3	1	0	4 15	1	24 30	1	0	26 30	90 107
04:30 PM 04:45 PM	10 6	1 4	1 0	0 0	12 10	4	30 34	14 17	0 0	48 53	2	5 4	5 5	0	12 11	2	26 19	0	0	28 22	100
Total	28	12	4	0	44	11	136	54	0	201	7	17	18	0	42	5	99	2	0	106	393
05:00 PM 05:15 PM	1 6	3 1	4 2	0	8 9	3 6	31 27	14 16	0 0	48 49	0 3 0	6 4	5 5	0 0 0	11 12 10	2 1 0	20 18 23	1 0 0	0 0 0	23 19 23	90 89 102
05:30 PM 05:45 PM	11 13	7 4	2 0	0 0	20 17	2 7	26 16	21 12	0 0	49 35	0	5 2	5 6	õ	8	0	20	1	0	23	81
Total	31	15	8	0	54	18	100	63	0	181	3	17	21	0	41	3	81	2	0	86	362
Grand Total	59	27	12	0	98	29	236	117	0	382	10	34	39	0	83	8	180	4	0	192	755
Apprch % Total %	60.2 7.8	27.6 3.6	12.2 1.6	0.0 0.0	13.0	7.6 3.8	61.8 31.3	30.6 15.5	0.0 0.0	50.6	12.0 1.3	41.0 4.5	47.0 5.2	0.0 0.0	11.0	4.2 1.1	93.8 23.8	2.1 0.5	0.0 0.0	25.4	
	2								Out 155 155 0 12 Right	27 0 27	1 8 58 1 59	tal 2555 2557 0 0 0 0 0 eds	ā								
			MILL ROAD	254 190 444 258 192 6 258 192 450	0 4 179 7	_iss_↑	→		7/14/	Nort 2004 4:00 2004 5:45 hifted x 1	:00 PM		25	t ← ↓	0 3 1 0 117 236 29 0 Right Thru Left Peds		276 276 378 54 654 660	D MILL ROA			
									Out	34 0 34 9 1 0 8	39 0 39 2 1 3 39	eds 0 0 0 1411 2 1433 1433 1433									

Old Mill Road & Clubhouse Road Date: Wednesday, July 14, 2004 Time: 4:00 - 6:00 PM

File Name : Clubhouse and Old Mill PN Site Code : 00000000 Start Date : 07/14/2004 Page No : 2

	C		USE ROA	D	-		LL ROAD)	C		USE ROA South	ND			LL ROAD 1 West		
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 Fron	04:00	PM to 0	5:45 PM	- Peak	of 1	100000			<i>N</i>				0				1
Intersection	04:00 F	M											_		-		
Volume	28	12	4	44	11	136	54	201	7	17	18	42	5	99	2	106	393
Percent	63.6	27.3	9.1		5.5	67.7	26.9		16.7	40.5	42.9		4.7	93.4	1.9	1	
04:15 Volume	6	3	3	12	3	36	11	50	-3	5	7	15	0	30	0	30	107
Peak Factor									1								0.918
High Int.	04:15 F	M			04:45 F	РМ			04:15 F	PM			04:15 F				
Volume Peak Factor	6	3	3	12 0.917	2	34	17	53 0.948	3	5	7	15 0.700	0	30	0	30 0.883	



Old Mill Road & Clubhouse Road Date: Wednesday, July 14, 2004 ime: 4:00 - 6:00 PM

File Name	: Clubhouse and Old Mill PM
Site Code	: 0000000
Start Date	: 07/14/2004
Page No	: 1

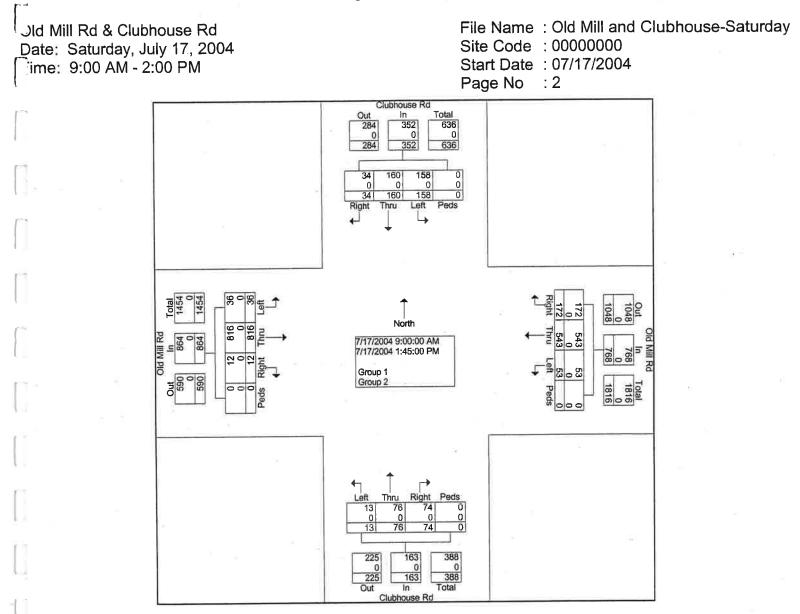
								MILL F	ROAD	os Printe	d- Bank	CLUBH		ROAD				MILL F			
Start Time	Left	Fi Thr u	rom No Rig ht	Ped s	App. Total	Left	Thr u	rom Ea Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	int. Totai
Factor 04:00 PM 04:15 PM 04:30 PM 04:45 PM Total	1.0 1 0 0 0	1.0 0 0 0 0	1.0 0 0 0 0	1.0 0 0 0 0	1 0 0 0 1	1.0 0 0 0 0	1.0 0 1 0 0	1.0 0 0 0 0	1.0 0 0 0 0	0 1 0 0	1.0 0 0 0 0	1.0 0 0 0 0	1.0 0 0 0 0	1.0 0 0 0 0	0 0 0 0	1.0 0 0 0 0	1.0 0 0 0 0	1.0 0 0 0 0	1.0 0 0 0 0	0 0 0 0	1 1 0 0 2
05:00 PM 05:15 PM 05:30 PM 05:45 PM Total	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 0 1 0	0 0 2 0 2	0 0 0 0	0 0 0 0	0 0 3 0 3	0 1 0 0	0 0 0 0	0 0 0 0	0 0 0 0	0 1 0 0	1 0 0 0	1 0 0 1	0 0 0 0	0 0 0 0	2 0 0 0 2	2 1 3 0 6
Grand Total Apprch % Total %	1 100. 0 12.5	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	1 12.5	1 25.0 12.5	3 75.0 37.5	0 0.0 0.0	0 0.0 0.0		1 100. 0 12.5	0 0.0 0.0	0 0.0 0.0	0 0.0 0.0	1 12.5	1 50.0 12.5	1 50.0 12.5	0 0.0 0.0	0 0.0 0.0	2 25.0	8
	ę							-	Out										18 17 10		
) 			OLD MILL ROAD	4 2 6	Peds Right Thru Left					/2004 4:0 /2004 5:4 /k 1	0:00 PM				† 	Right Thru Left Peds		Out In Total			
				1							1	0 2 otal				-					

Old Mill Rd & Clubhouse Rd Date: Saturday, July 17, 2004 Time: 9:00 AM - 2:00 PM

File Name : Old Mill and Clubhouse-Saturday Site Code : 00000000 Start Date : 07/17/2004

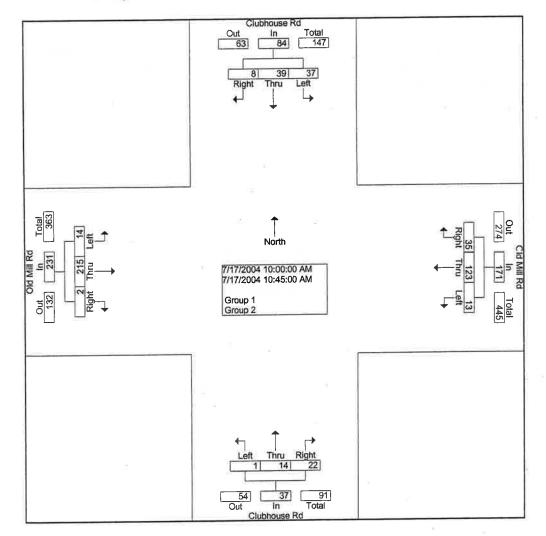
Page No : 1

										227	2.1		agei	NU							
										nted- Gro	oup 1 -		o 2 bhousi	Dd			0	d Mill	Rd		
			bhous					ld Mill rom Ea					om So				-	om W			
		Thr	om No Rig	Ped	App.		Thr	Rig	Ped	App.		Thr	Rig	Ped	App.		Thr	Rig	Ped	App.	Int.
Start Time	Left	u	ht	s	Total	Left	u	ht	S	Total	Left	u	ht	s	Total	Left	<u>u</u>	ht	s	Total	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	58	121
09:00 AM	10	10	2	0	22	1	25	8	.0	34	1	1	5	0	7	1	55	2	0	58 46	100
09:15 AM	12	8	1	0	21	5	19	5	0	29	0	2	2	0	4	3	42	1	0		
09:30 AM	12	11	3	0	26	3	24	6	0	33	1	2	4	0	7	1	38	0	0	39	105
09:45 AM	14	8	0	0	22	4	23	4	0	31	0	2	2	0	4	1	40	2	0	43	100
Total	48	37	6	0	91	13	91	23	0	127	2	7	13	0	22	6	175	5	0	186	426
10:00 AM	8	_4	1	0	13	3	33	11	0	47	0	2	4	0	6	7	61	0	0	68	134
10:15 AM	15	3	3	0	21	5	31	6	0	42	1	5	11	0	17	a 1	50	1	0	52	132
10:30 AM	6	17	1	0	24	4	25	8	0	37	0	5	4	0	9	4	53	1	0	58	128
10:45 AM	8	15	3	0	26	1	34	10	0	45	0	2	3	0	5	2	51	0	0	53	129
Total	37	39	8	0	84	13	123	35	0	171	1	14	22	0	37	14	215	2	0	231	523
11:00 AM	5	20	1	0	26	2	37	7	0	46	0	2	6	0	8	0	47	1	0	48	128
11:15 AM	2	12	1	0	15	2	34	15	0	51	1	4	4	0	9	0	53	0	0	53	128
11:30 AM	1	8	0	0	9	4	37	7	0	48	1	1	3	0	5	3	43	1	0	47	109
11:45 AM	2	10	2	0	14	1	29	8	0	38	0	1	3	0	4	4	36	1	0	41	97
Total	10	50	4	0	64	9	137	37	0	183	2	8	16	0	26	7	179	3	0	189	462
12:00 PM	7	6	1	0	14	3	32	8	0	43	0	4	6	0	10	0	37	0	0	37	104
12:15 PM	7	5	3	0	15	1	25	10	0	36	1	3	1	0	5	1	45	1	0	47	103
12:30 PM	2	4	1	0	7	0	29	9	0	38	2	6	2	0	10	2	30	0	0	32	87
12:45 PM	9	4	3	0	16	2	19	9	0	30	0	8	1	0	9	1	48	0	0	49	104
Total	25	19	8	0	52	6	105	36	0	147	3	21	10	0	34	4	160	1	0	165	398
01:00 PM	7	3	2	0	12	3	25	13	0	41	1	9	2	0	12	0	13	1	0	14	79
01:15 PM	7	2	1	0	10	4	25	13	0	42	0	8	5	0	13	2	24	0	0	26	91
01:30 PM	11	5	2	0	18	3	15	8	0	26	3	5	2	0	10	2	29	0	0	31	85
01:45 PM	13	5	3	0	21	2	22	7	0	31	1	4	4	0	9	1	21	0	0	22	83
Total	38	15	8	0	61	12	87	41	0	140	5	26	13	0	44	5	87	1	0	93	338
Grand Total	158	160	34	0	- 352	53	543	172	0	768	13	76	74	0	163	36	816	12	0	864	2147
Apprch %	44.9	45.5 7.5	9.7 1.6	0.0 0.0	16.4	6.9 2.5	70.7 25.3	22.4 8.0	0.0 0.0	35.8	8.0 0.6	46.6 3.5	45.4 3.4	0.0 0.0	7.6	4.2 1.7	94.4 38.0	1.4 0.6	0.0 0.0	40.2	
Total %	7.4	1.5	1.0	0.0	10.4	2.3	20.0	0.0	0.0	00.0	0.0	0.0	0.4	0.0			20.0	0.0	2.5		



Old Mill Rd & Clubhouse Rd Date: Saturday, July 17, 2004 Time: 9:00 AM - 2:00 PM File Name : Old Mill and Clubhouse-Saturda, Site Code : 00000000 Start Date : 07/17/2004 Page No : 3

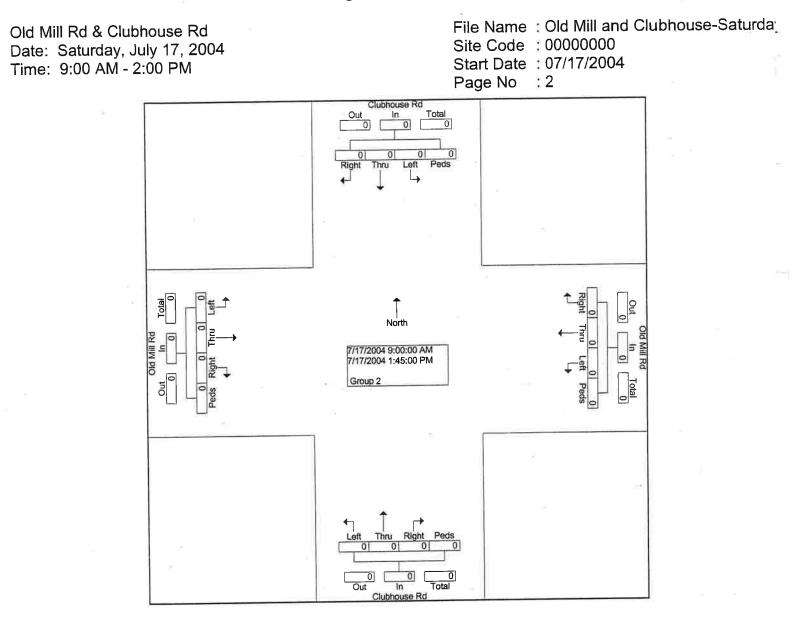
	***		ouse Rd				Mill Rd n East	1			ouse Rd South				Mill Rd n West		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour From	n 09:00	AM to C	1:45 PM	- Peak 1	of 1								6				1
Intersection Volume Percent	10:00 A 37 44.0	AM 39 46.4	8 9.5	84	13 7.6	123 71.9	35 20.5	171	1 2.7	14 37.8	22 59.5	37	14 6.1	215 93.1	2 0.9	231	523
10:00 Volume	44.0 8	40.4	1	13	3	33	11	47	0	2	4	6	7	61	0	68	134
Peak Factor High Int. Volume Peak Factor	10:45 / 8	AM 15	3	26 0.808	10:00 / 3	AM 33	11	47 0.910	10:15 A 1	AM 5	11	17 0.544	10:00 A 7	AM 61	0	68 0.849	0.976



Old Mill Rd & Clubhouse Rd Date: Saturday, July 17, 2004 Fime: 9:00 AM - 2:00 PM

File Name: Old Mill and Clubhouse-SaturdaySite Code: 0000000Start Date: 07/17/2004Page No: 1

									Group	s Printe	d- Gro	Jp 2	Ŭ								
			bhous					ld Mill	Rd		1	Clu	bhous					ld Mill			
			om No					rom Ea					om So					om W			
Start Time	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. 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		
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totai	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
01:00 PM	0	0	0	0	0	0	0	0	0	- 0	0	0	0	0	0	0	0	0	0	0	0
01:15 PM	Ő	Ō	Ō	Õ	Ō	0	Ō	0	0	Ó	0	0	0	0	0	0	0	0	0	0	0
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01:45 PM	0	0	Ő	Ō	Ō	Ō	Ō	Ō	Ō	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand	0	0	0	0	o	0	0	0	О	:≂ 0	0	୍	0	0	o	0	0	0	0	0	0
Total Apprch %	0.0	0.0	0.0	0.0	U	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	Ĩ	0.0	0.0	0.0	0.0	J	U
Total %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		



Old Mill Road & Railway Road Date: Thursday, July 15, 2004 Time: 6:30 - 9:00 AM

File Name : Old Mill and Railway AM Site Code : 00000000 Start Date : 07/15/2004 Page No : 1

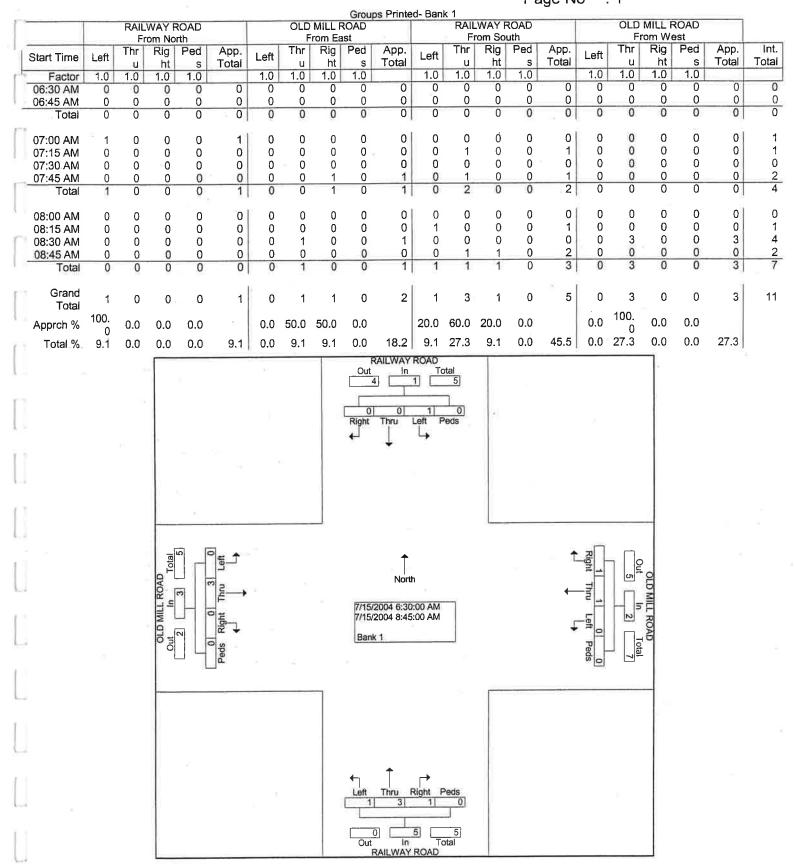
·			WAY F		-			MILL I	ROAD	nted- Un	shifted	RAIL	1 WAY F	OAD				MILL F			
Start Time	Left	Thr	rom No Rig ht	Ped s	App. Total	Left	Thr u	rom Ea Rig ht		App. Total	Left	Thr	Rig	Ped	App. Total	Left	Thr	Rig ht	Ped	App. Total	Int. Total
Factor	1.0	ц 1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0		
06:30 AM 06:45 AM	0	1	0	0	1 3	0	2 2	1 0	0 0	3 4	1 0	0 0	0 0	0 0	1	0 2	6 12	0	0 0	6 14	11 21
Total	1	3	0	0	4	2	4	1	0	7	1	0	0	0	1	2	18	0	0	20	32
07:00 AM	9	7	1	0	17	5	8	3	0	16	1	2	1	0	4	0	6	1	0	7	44
07:15 AM 07:30 AM	5 6	6 5	1 2	0 0	12 13	0 2	8 6	1 2	0 0	9 10	1	8 1	3 2	0 0	12 5	0 2	21 15	0	0 0	21 17	54 45
07:45 AM	5	7	3	0	15	2	8	2	0	- 12	1	3	4	0	8	2	18	0	0	20	55
Total	25	25	7	0	57	9	30	8	0	47	5	14	10	0	29	4	60	1	0	65	198
08:00 AM	6	3	1	0	10	0	9	4	0	13 24	0 2	3 7	1 2	0 0	4 11	1 0	24 14	1 0	0 0	26 14	53 60
08:15 AM 08:30 AM	8 4	1 7	2 1	0 0	11 12	2 3	17 11	5 6	0 0	24	1	1	1	ŏ	3	⇒ 0	26	1	0	27	62
08:45 AM Total	7 25	4 15	0	0	11 44	5 10	8 45	3 18	0	16 73	1	4 15	4	0	9 27	0	33 97	0	0	33 100	69 244
	20	15	4	U	-+-+	10	40	10	U	75	ା ଅଫ ଜ	10	U	0		Ċ.	0.	1 10	U.		
Grand Total	51	43	11	0	105	21	79	27	0	127	10	29	18	0	57	⊳ 7	175	3	0	185	474
Apprch %	48.6	41.0	10.5	0.0	00.0	16.5	62.2	21.3	0.0	26.0	17.5	50.9 6.1	31.6 3.8	0.0 0.0	12.0	3.8 1.5	94.6 36.9	1.6 0.6	0.0 0.0	39.0	
Total %	10.8	9.1	2.3	0.0	22.2	4.4	16.7	5.7	0.0	26.8 RAILWAY		0.1	3.0	0.0	12.0	1.5	30.5	-0.0	0.0	59.0 J	
									Out 59	łn	Το	tal 163									
			4						6	4	1	5 168									
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4			LL ROAD	182 3 185		Ĕ	*			2004 6:30 2004 8:45		7		•	1 1 1 1 1 1 1 1			3		*	
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Old Mill Road & Railway Road Date: Thursday, July 15, 2004 Time: 6:30 - 9:00 AM File Name: Old Mill and Railway AMSite Code: 00000000Start Date: 07/15/2004Page No: 2

			AY ROAD				LL ROAD)			AY ROAD South				LL ROAD 1 West		
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 From	n 06:30	AM to C	8:45 AM	- Peak 1	of 1				1								ĥ
Intersection Volume Percent	08:00 / 25 56.8		4 9.1	44	- 10 13.7	45 61.6	18 24.7	73	4 14.8	15 55.6	8 29.6	27	1 1.0	97 97.0	2 2.0	100	244
08:45 Volume	7	4	0	11	5	8	3	16	1	4	4	9	0	33	0	33	69 0.884
Peak Factor High Int. Volume Peak Factor	08:30 / 4	۹M 7	1	12 0.917	08:15 2	AM 17	5	24 0.760	08:15 / 2	AM 7	2	11 0.614	08:45 A 0	AM 33	0	33 0.758	0.004

Old Mill Road & Railway Road Date: Thursday, July 15, 2004 Time: 6:30 - 9:00 AM

File Name : Old Mill and Railway AM Site Code : 00000000 Start Date : 07/15/2004 Page No : 1



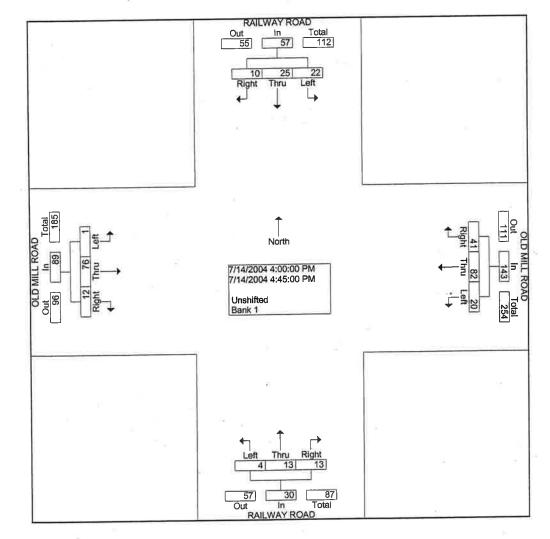
Old Mill Road & Railway Road Date: Wednesday, July 14, 2004 Time: 4:00 - 6:00 PM File Name : Old Mill and Railway PN Site Code : 00000000 Start Date : 07/14/2004 Page No : 1

		RAIL	WAY	ROAD			OLD	Gro MILL F		nted- Un	shifted	- Bank RAIL	1 WAY R		ige n			MILL F			
			rom No				F	rom Ea					om Sou					rom We		0	1-4
Start Time	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	S	App. Total	Left	Thr u	ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. 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		00
04:00 PM	8	8	3	0	19	2	21	10	0	33	1	2	4	0	7	0	20	3	0	23	82
04:15 PM	6	6	3	0	15	11	20	9	. O	- 40	2	6	3	0	11	1	19	1	0	21	87
04:30 PM	6	9	3	0	18	3	21	12	0	36	1	1	4	0	6	0	18	3	0	21	81
04:45 PM	2	2	1	0	5	4	20	10	0	34	0	4	2	0	6	0	19	5	0	24	69
Total	22	25	10	0	57	20	82	41	0	143	4	13	13	0	30	1	76	12	0	89	319
05:00 PM	9	3	0	0	12	5	17	11	0	33	3	5	0	0	8	2	15	0	0	17	70
05:15 PM	5	2	1	0	8	3	15	=11	0	29	0	1	5	0	6	1	13	1	0	15	58
05:30 PM	5	3	1	Ō	9	0	11	12	0	23	4	6	4	0	14	1	20	0	0	21	67
05:45 PM	õ	4	Ó	ŏ	10	2	11	- 5	0	18	2	5	3	0	10	0	13	3	0	16	54
Total	25	12	2	0	39	10	54	39	0	103	9	17	12	0	38	4	61	4	0	69	249
Grand	47	37	12	0	96	30	136	80	0	246	13	30	25	0	68	5	137	16	0	158	568
Total					50														0.0		
Apprch % Total %	49.0 8.3	38.5 6.5	12.5 2.1	0.0 0.0	16.9	12.2 5.3	55.3 23.9	32.5 14.1	0.0 0.0	43.3	19.1 2.3	44.1 5.3	36.8 4.4	0.0 0.0	12.0	3.2 0.9	86.7 24.1	10.1 2.8	0.0 0.0	27.8	
			MILL ROAD	161 157 318 0 1 1 158 319 161 158 319	<u>9</u> 0	Right Thru Left	•		7/14 7/14	5 9 9 9 9 9 9 9 9 9 9 9 9 9	1 6 46 1 47 Left P 5 00 PM	210 1 211 0 0 0 0 eds		1 • •	0 0 2 0 80 136 30 0 Right Thru Left Peds		207 244 451 207 244 451 209 246 455	LD MILL ROA			
									Out	30 0 30 2 3 3	25 0 25	eds 0 0 149 2 151 tal	×					2	ž		

∪ld Mill Road & Railway Road Date: Wednesday, July 14, 2004 ime: 4:00 - 6:00 PM

File Name : Old Mill and Railway PM Site Code : 00000000 Start Date : 07/14/2004 Page No : 2

			AY ROAD	1			LL ROAE)			AY ROAD South			-	LL ROAD West		
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
eak Hour Fror	n 04:00	PM to 0	5:45 PM	- Peak 1	of 1			0								1	
Intersection Volume Percent			10 17.5	57	20 14.0	82 57.3	41 28.7	143	4 13.3	.13 43.3	13 43.3	30	1 1.1	76 85.4	12 13.5	89	319
04:15 Volume	6	6	3	15	11	20	9	40	2	6	3	11	1	19	1	21	87 0.917
Peak Factor High Int. Volume Peak Factor	04:00 8	PM 8	3	19 0.750	04:15 I 11	PM 20	9	40 0.894	04:15 F 2	РМ 6	3	11 0.682	04:45 F 0	РМ 19	5	24 0.927	0.017



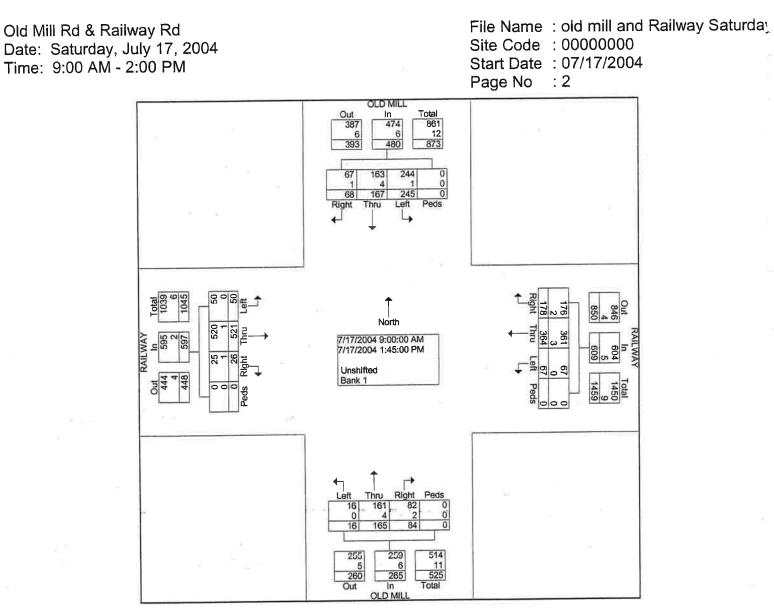
Old Mill Road & Railway Road Date: Wednesday, July 14, 2004 Time: 4:00 - 6:00 PM File Name : Old Mill and Railway PM Site Code : 00000000 Start Date : 07/14/2004 Page No : 1

		RAII	.WAY F					MILL F		ps Printe	d- Bank	1 RAIL	WAY F		ige n		OLD	MILL F	ROAD		
			rom No			A.	F	rom Ea	ist			Fr	om Soi	uth				rom We			
Start Time	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped	App. Total	Int. Total
Factor	1.0	1.0	1.0	1.0		1.0	1.0	1.0	1.0	0	1.0	1.0	1.0	1.0	0	1.0	1.0	1.0 0	1.0 0	0	0
04:00 PM 04:15 PM	0	0	0	0	0	0 1	0	0	0	1	0	Ő	0	ŏ	ŏ	Ő	ŏ	Ő	ŏ	ő	1
04:13 PM	0	0	ő	ő	0	, o	ŏ	ŏ	ŏ	ò	ŏ	õ	Õ	Ō	Ő	Ō	0	0	0	0	0
04:45 PM	Ō	Ō	õ	Ō	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Totai	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:00 PM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
05:15 PM	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	0 0	0 0
05:45 PM Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3
Grand			8			e e E	1									0			•	. 1	4
Total	1	0	0	0	1	2	0	0	0	2	0	0	0	0	0	0	1	0	0	1	4
Apprch %	100.	0.0	0.0	0.0		100.	0.0	0.0	0.0		0.0	0.0	0.0	0.0	- 1	0.0	100. 0	0.0	0.0		
⊤ Total %	0 25.0	0.0	0.0	0.0	25.0	0 50.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	0.0	25.0	
i otali 70		0.0					_	1		AILWAY	ROAD		1								
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			Total			8				t ↑				4	t	Right					
1			Out In Tc		Peds Right Thru L				7/14/ 7/14/ Banl) Norti 2004 4:00 2004 5:45 k 1	:00 PM			101	← ţ	0 0 2 0 N Thru Left Peds		OLD MILL ROA			
											Right Pr 01	eds 0		6							ы 8 Ф

Old Mill Rd & Railway Rd Date: Saturday, July 17, 2004 Time: 9:00 AM - 2:00 PM

File Name : old mill and Railway Saturday Site Code : 00000000 Start Date : 07/17/2004 Page No : 1

									Gro	ups Pri	nted- Uns	shifted	- Bank	1					AILWA			
			C	LD MI	L		RAILWAY						-	DLD MI								
		From North						F	rom Ea			_		om So					rom We		A	
1	Start Time	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Int. Total
1	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		
	09:00 AM	9	5	2	0	16	3	11	4	0	18	1	3	4	0	8	1	25	1	0	27	69
	09:15 AM	7	7	1	0	15	4	15	5	0	24	0	4	5	0	9	0	26	0	0	26	74
	09:30 AM	8	8	3	0	19	5	10	6	0	21	2	7	2	0	11	2	21	1	0	24	75
e is	09:45 AM	11	8	2	0	21	3	19	5	0	27	3	12	5	0	20	1	36	0	0	37	105
	Total	35	28	8	0	71	15	55	20	0	90	6	26	16	- 0	48	4	108	2	0	114	323
	10:00 AM	13	10	4	0	27	3	18	10	0	31	1	11	12	0	24	3	47	0	0	50	132
	10:15 AM	21	9	3	0	33	2	26	8	0	36	1	10	4	0	15	5	25	3	0	33	117
	10:30 AM	20	8	2	0	30	4	16	10	0	30	0	9	7	0	16	4	34	0	0	38	114
	10:45 AM	19	10	5	0	34	7	24	17	0	48	2	7	9	0	18	2	25	2	0	29	129
	Total	73	37	14	0	124	16	84	45	0	145	4	37	32	0	73	14	131	5	0	150	492
q	11:00 AM	16	14	4	0	34	5	20	13	0	38	0	5	4	0	9	4	26	1	0	31	112
	11:15 AM	13	7	6	0	26	5	25	8	0	38	1	12	3	0	16	3	31	4	0	38	118
	11:30 AM	22	12	2	0	36	4	33	8	0	45	1	10	2	0	13	4	29	0	0	33	127
	11:45 AM	9	8	6	0	23	3	16	17	0	36	1	7	4	0	12	3	27	2	0	32	103
	Total	60	41	18	0	119	17	94	46	0	157	3	34	13	0	50	14	113	7	0	134	460
	12:00 PM	5	2	4	0	11	3	21	10	0	34	0	3	1	0	4	3	29	1	0	33	82
	12:15 PM	12	12	5	0	29	1	16	7	0	24	0	10	4	0	14	0	36	0	0	36	103
	12:30 PM	13	19	4	0	36	3	17	12	0	32	2	5	4	0	11	1	17	0	0	18	97
	12:45 PM	17	4	1	0	22	3	9	11	0	23	0	6	2	0	8	4	31	0	0	35	88
	Total	47	37	14	0	98	10	63	40	0	113	2	24	11	0	37	8	113	1	0	122	370
	01:00 PM	5	8	6	0	19	4	14	9	0	27	0	16	2	0	18	3	9	4	0	16	80
	01:15 PM	5	9	2	0	16	3	19	9	0	31	0	11	2	0	13	2	17	2	0	21	81
	01:30 PM	12	5	4	0	21	1	15	4	0	20	0	10	4	0	14	2	16	3	0	21	76
÷	01:45 PM	8	2	2	0	12	1	20	5	0	26	1	7	4	0	12	3	14	2	0	19	69
ĥ	Total	30	24	14	0	68	9	68	27	0	104	1	44	12	0	57	10	56	11	0	77	306
	Grand Total	245	167	68	0	480	67	364	178	0	609	16	165	84	0	265	50	521	26	0	597	1951
	- Apprch %	51.0	34.8	14.2	0.0		11.0	59.8	29.2	0.0		6.0	62.3	31.7	0.0		8.4	87.3	4.4	0.0		
	Total %	12.6	8.6	3.5	0.0	24.6	3.4	18.7	9.1	0.0	31.2	0.8	8.5	4.3	0.0	13.6	2.6	26.7	1.3	0.0	30.6	
	10101 70		0.0	0.0	0.0		8														1.5	



Old Mill Rd & Railway Rd Date: Saturday, July 17, 2004 Fime: 9:00 AM - 2:00 PM File Name : old mill and Railway Saturday Site Code : 0000000 Start Date : 07/17/2004 Page No : 3

) MILL n North				_WAY n East				MILL South						
tart Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Hour From	n 09:00	AM to C	1:45 PM	- Peak 1	of 1												
ersection Volume	10:00 A	37	14	124	16	84	45	145	4 5.5	37 50.7	32 43.8	73	14 9.3	131 87.3	5 3.3	150	492
Percent 10:00 Volume	58.9 13	29.8 10	11.3 4	27	11.0 3	57.9 18	31.0 10	31	1	11	43.0 12	24	3	47	0.0	50	132
ak Factor High Int. Volume	10:45 A 19	ам 10	5	34	10:45 / 7	AM 24	17	48	10:00 A 1	AM 11	12	24	10:00 A 3	M 47	0	50	0.932
Volum ak Facto High Ir	ne or nt.	ne 13 or ht. 10:45 / he 19	ie 13 10 or ht. 10:45 AM he 19 10	ne 13 10 4 or nt. 10:45 AM ne 19 10 5	ne 13 10 4 27 or nt. 10:45 AM ne 19 10 5 34	ne 13 10 4 27 3 or nt. 10:45 AM 10:45 A ne 19 10 5 34 7	ne 13 10 4 27 3 18 or nt 10:45 AM 10:45 AM ne 19 10 5 34 7 24	ne 13 10 4 27 3 18 10 or nt 10:45 AM 10:45 AM ne 19 10 5 34 7 24 17	ne 13 10 4 27 3 18 10 31 or nt. 10:45 AM 10:45 AM ne 19 10 5 34 7 24 17 48	ne 13 10 4 27 3 18 10 31 1 or nt 10:45 AM 10:00 A ne 19 10 5 34 7 24 17 48 1	ne 13 10 4 27 3 18 10 31 1 11 or nt 10:45 AM 10:45 AM 10:00 AM ne 19 10 5 34 7 24 17 48 1 11	ne 13 10 4 27 3 18 10 31 1 11 12 or nt 10:45 AM 10:00 AM ne 19 10 5 34 7 24 17 48 1 11 12	t. 10:45 AM 10:45 AM 10:	ne 13 10 4 27 3 18 10 31 1 11 12 24 3 or nt. 10:45 AM 10:00 AM 10:00 AM 10:00 A ne 19 10 5 34 7 24 17 48 1 11 12 24 3	13 10 4 27 3 18 10 31 1 11 12 24 3 47 or 10:45 AM 10:45 AM 10:00 AM 10:00 AM 10:00 AM 10:00 AM 10:00 AM ne 19 10 5 34 7 24 17 48 1 11 12 24 3 47	13 10 4 27 3 18 10 31 1 11 12 24 0 47 0 or 10:45 AM 10:45 AM 10:00 AM 10:00 AM 10:00 AM 10:00 AM ne 19 10 5 34 7 24 17 48 1 11 12 24 3 47 0	ne 13 10 4 27 3 18 10 31 1 11 12 24 3 47 0 50 or nt. 10:45 AM 10:00 AM 10:00 AM 10:00 AM ne 19 10 5 34 7 24 17 48 1 11 12 24 3 47 0 50

Old Mill Rd & Railway Rd Date: Saturday, July 17, 2004 Time: 9:00 AM - 2:00 PM

File Name : old mill and Railway Saturday Site Code : 00000000 Start Date : 07/17/2004 Page No : 1

									Group	s Printe	d- Bank	(1									
		0	LD MI	LL				AILWA					LD MIL					AILWA			
		Fr	om No	rth				rom Ea					om Sou		100		Thr	Rig	Ped	App.	Int,
Start Time	Left	Thr u	Rig ht	Ped	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	Thr u	Rig ht	Ped s	App. Total	Left	u	ht	s	Total	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		0
09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
09:30 AM	Ō	Ō	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	- 1	1
09:45 AM	Ō	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Total	0	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
10:00 AM	0	0	0	0	0	0	1	0	0	1	0	0	1	0	1	0	0	0	0 0	0	2 0
10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	0	0	o	1
10:30 AM	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0		0	0	0	Ó
10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	Ö	3
Total	1	0	0	0	1	0	1	0	0	1	0	0	1	0	1	0	U	U	0	U	5
11:00 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0 1	0	0 2	1
11:15 AM	0	0	0	0	0	0	1	1	< 0	2	0	1	0	0		0	ó	Ó	Ő	õ	1
11:30 AM	0	1	0	0	1	0	0	0	0	-0	0	0	0	0	0 1	ő	=0	ŏ	ŏ	0	1
11:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	1	1	0	2	8
Total	0	2	0	0	2	0	1	1	0	2	0	2	0	U	2	U	1	'	U		
12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0 0	0 1	0	0	0	0	0	03
12:15 PM	0	1	0	0	1	0	1	0	0	1	-0	1	0	0	Ó	Ő	Ő	Ő	ŏ	Ő	1
12:30 PM	0	0	0	0	0	0	0	1	0	1	0	0	- 0 0	0	0	0	ŏ	Ő	Ő	Ő	1
12:45 PM	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	5
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01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0 0	0	0	0	0	0	0	0	0
01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	ŏ	ŏ	ŏ	ŏ	ŏ	1
01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	Ó	0	Ó	ő	0	ŏ	Ő	Ő	0
01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	
Total	0	0	0	0	0	0	0	0	0	0	0	0	2	U	3	1 0	U	U		•	9. ° 7.
Grand	1	4	1	0	6	0	3	2	0	5	0	4	2	0	6	0	1	1	0	2	19
Total Apprch %	16.7	66.7	16.7	0.0		0.0	60.0	40.0	0.0		= 0.0	66.7	33.3	0.0	31.6	0.0	50.0 5.3	50.0 5.3	0.0 0.0	10.5	
Total %	5.3	21.1	5.3	0.0	31.6	0.0	15.8	10.5	0.0	26.3	0.0	21.1	10.5	0.0	31.0	0.0	0.5	0.0	0.0	10.0	£.

File Name : old mill and Railway Saturday **JId Mill Rd & Railway Rd** Date: Saturday, July 17, 2004 Fime: 9:00 AM - 2:00 PM Site Code : 00000000 Start Date : 07/17/2004 Page No : 2 OLD MILL Total 12 Out In 6 0 Peds Left Total 6 C | North 7/17/2004 9:00:00 AM 7/17/2004 1:45:00 PM Bank 1 Tota) 9 Ont 11 Total Out in D MI

Appendix B

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Other Committed Development and DelDOT Project Data

able III. Other committed dev	rte /	ents –	AM Dea	k hour		Exter		nal triț	os	Pass	8	Internal	
	Code	Enter		_	otal	Enter		Exit	Total	9%	>	Trip %	$\frac{1}{2}$
and use						70		217	289	0	%	0%	1
l ver Woods Single-family homes (400 du)	210	-72	21	7	289	72	+	217		1	_		1,
ethany Meadows Single-family homes (2 du)	210	0		2	2	0	-	2	2	0)%	0%	+
Vaterside Single-family homes (13 du) Townhouses (8 du)	210 230	5 1		14 6	19 7	5		14 6	19 7		0% 0%	0%	-
Southampton - Single-family homes (2 du) - Townhouses (21 du) - Mini storage (132 units)	210 230 151	0 2 2 2		1 9 1	1 11 3	0 2 2		1 9 1	1 11 3		0% 0% 0%	0% 0% 0%	_
Bear Trap Dunes - Single-family homes (49 du) - Townhouses/condos (55 du)	210 230 820		9 3 14 25	25 428 17	341 1727 42		9 3 25	25 14 ₁₈ - 17	4	r 2	0% 0% 0%	0%	
 Retail (20,000 sf) Wedgefield/Avon Park Single-family homes (75 du) Single-family homes (25 du) 	210 210	1	3 18 7	40 46 20	53 62 27		3	46 20	· _6	7/	0%	0%	
Bay Forest Club - Single-family homes (475 du) - Townhouses/condos (326 du)	21		86 23	256 110	34 13	3	86 23	11	0 1	42 33	0% 0% 	0%	,
Forest Landing - Single-family homes (444 du)	21	0	80	240	32	20 -	80	24		320	-	09	
Fairway Village - Single-family homes (312 du)	2	10	57	171	_	28	57			228 V	0%	09	0
Windmill Property	2	.10	927	45		4	9			84	0%		%
 Townhouses (106 du) Doves Landing Single-family homes (140 du) Apartments (120 su) Townhouses (142 du) 		210 220 230 820	27 13 12 121	80 50 56 77		.07 63 68 198	27 13 12 12	1	80 50 56 77	107 V 63 V 68 V 198 V	0% 0% 0%	, 0	% %)%)%
 Retail (147,500 sf) Barrington Park Single-family homes (150 du) Condominiums (300 du) 		210 230	29 26 21	86 29 101		1 4 1 05 124	2 2 2	5	36 79- 103	114 105 124 V	0%	6 (0% 0% 0%
Millville Town Center - Townhouses (68 du) - Retail (106,500 sf)		230 820	- 6 99	3:		38 163	1	5 19	32 64	38√ 163 _√		%	0%
Bethany Bay - Condominiums (100 du) TOTAL AM Peak Hour Trips		230	9		.3	52 2543		9	43 1800	52 V 2543		-	0%

m 11- TV Other com	aitted developments -	– Weekday PM	peak hour trip	generation.
m = 11 - TV / () + bor comm	airren nevelophicilia	TOOM CONTINUES		

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Table IV. Other committed d	ITE	PM	I peak hou	u	Ex	ternal trij	DS		Internal
Land use	Code	Enter	Exit	Total	Enter	Exit	Total	%	Trip %
Silver Woods								2	0.07
- Single-family homes (400 du)	210	235	138	373	235	138	373	0%	0%
Bethany Meadows					×			0.01	0%
- Single-family homes (2 du)	210	2	0	2	2	0	2	0%	0.0
Waterside				17	11	6	17 V	0%	0%
- Single-family homes (13 du)	210	11	6	8	5	3	81	0%	0%
- Townhouses (8 du)	230	5	3	0		-			
Southampton			0	1	1	0	1	0%	0%
- Single-family homes (2 du)	210	1		12	7	5	12 1	0%	0%
- Townhouses (21 du)	230	7	5	5	3	2	51	0%	0%
- Mini storage (132 units)	151	3	2						
Bear Trap Dunes		28	16	44	20	Jell -	32	0%	25%
- Single-family homes (49 du)	210	26		252	1211	55	1816	0%	25%
- Townhouses/condos (55 du)	230	1814			\$92				10%
- Retail (20,000 sf)	820	78	86	164	2,002	29	5	b	
Wedgefield/Avon Park				74 √	47	27	74	0%	0%
- Single-family homes (75 du)	210	47	27			11	31	1	0%
- Single-family homes (25 du)	210	20	11	31 v	20				
Bay Forest Club				126	275	161	436	0%	0%
- Single-family homes (475 du)	210	275	161	436	106		158	0%	0%
- Townhouses/condos (326 du)	230	193/0	6 5552	158	100			1	
Forest Landing			150	410	258	152	410		0%
- Single-family homes (444 du)	210	258	152	410	200				
Fairway Village			110	298	188	110	298	0%	0%
- Single-family homes (312 du)	210	188	110		- 12	_			
Windmill Property		42	21	63			63	- 0%	0%
- Townhouses (106 du)	210	22	- 22-	113					
Doves Landing			EA	145	67	37	104	√ 0%	28%
- Single-family homes (140 du)	210	100	54	84	/ 41	20	61	0%	28%
- Apartments (120 su)	220	5	4 29 28 ²	6 ⁸⁴ 80	39		1 58		28%
- Townhouses (142 du)	230			80				/1	11%
- Retail (147,500 sf)	820	388	421	809	V 229				
Barrington Park	× .			154	V 97	57	154	0%	0%
- Single-family homes (150 du)	210		57						0%
- Condominiums (300 du)	230) 960	19 524	9 148	-96	79 -52			
Millville Town Center				44	J 20	7	27	V 0%	39%
- Townhouses (68 du)	230		15			1		4√ 38%√	3%
- Retail (106,500 sf)	820	0 313	340	653	103				
Bethany Bay				60	39	21	60	0%	0%
- Condominiums (100 du)	23								
TOTAL AM Peak Hour Trips	· ·	250	6 1840	434	6 213	143	6 357		

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Table V. Other committed developments - Weekday	y Saturday peak nour trip generation.	

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	ITE	Satur	eekday day peak	hour	Ex	ternal tri	ps	Pass-by	Internal
Land use	Code	Enter	Exit	Total	Enter	Exit	Total	%	Trip %
Silver Woods									
- Single-family homes (400 du)	210	198	169	367	198	169	367	0%	0%
Bethany Meadows									
- Single-family homes (2 du)	210	1	0	1	1	0	1	0%	0%
Waterside									
- Single-family homes (13 du)	210	7	6	13	7	6	13 V	0%	0%
- Townhouses (8 du)	230	2	2	4	2	2	4 🗸	0%	0%
Southampton	e							/	
- Single-family homes (2 du)	210	1	1	2	1	1	2 1	0%	0%
- Townhouses (21 du)	230	3	4	7	3	4	7 V	0%	0%
- Mini storage (132 units)	151	2	2	4	2	2	4 V	0%	0%
Bear Trap Dunes				./		16	34		
- Single-family homes (49 du)	210	24	20	44 🗸	18	17,	,25	0%	20%
- Townhouses/condos (55 du)	230	8	8	16 V	.6	76	1512	0%	20%
- Retail (20,000 sf)	820	119	110	229 🗸	70	64	134	38%	6%
Wedgefield/Avon Park		36	30	66	36	30	66		
- Single-family homes (75 du)	210	42-	-36	-78	-42-	,36	-78	0%	0%
- Single-family homes (25 du)	210	18	15 🗸	33	18	15	33√	0%	0%
Bay Forest Club				V					
- Single-family homes (475 du)	210	234	200	434	234	200	434	0%	0%
- Townhouses/condos (326 du)	230	575	6563	138	5975	98 B	138	0%	0%
Forest Landing							V		
- Single-family homes (444 du)	210	219	187	406	219	187	406	0%	0%
Fairway Village									
- Single-family homes (312 du)	210	- 156	133	289	156	133	289	0%	0%
Windmill Property	÷	39	34	73	39	34	73		
- Townhouses (106 du)	210	ST	48	-105	-57	48-	105	0%	0%
Doves Landing									
- Single-family homes (140 du)	210	73	63	136 🗸	55	50	105	0%	23%
- Apartments (120 su)	220	34	34	68	25	27	52	0%	23%
- Townhouses (142 du)	230	45.42	39,42	84	3235	2330	65	0%	23%
- Retail (147,500 sf)	820	579	535	1114	358	241 324	682	35%√	6%
Barrington Park				V	1				0
- Single-family homes (150 du)	210	78	66	1'44	78	66	144	0%	0%
- Condominiums (300 du)	230	_6570	\$560	130	£570		130	0%	0%
Millville Town Center		33	29 21		22	18			
- Townhouses (68 du)	230	181	31,	62	_20-	20	40	0%	35%
- Retail (106,500 sf)	820	469	433	902 √	293	270	5634	36% 🗸	2%
Bethany Bay		39	33		39	33			
- Condominiums (100 du)	230	,26	26	72	36-	36	72	0%	0%
TOTAL AM Peak Hour Trips		2567	2315	4882	1936	1768	3704		

÷	Av	erage V	ehicle T	rip Ends vs: On a:	Weekday Peak Ho	y, our of Adjac	cent Street 1 7 and 9 a.n	Fraffic , 1.
	Aver	age Nur E	nber of S	er of Studies: storage Units: I Distribution	564	ering, 33%	exiting	
Ger			Storage	Unit	ge of Rates	N	Standard	Deviation
ages.		ge Rate 02		0.01			0.1	
Plo	ot and	Equati	on			22		
	30							
	-		1. 1. 8.		1 1 1 1 1	-	6. 1. 1.	×
								-
Trip Ends	20					i i se ferre		
Vehic	-							
T = Average Vehicle							* [*] *	
T = Av	10 -				م منابع الم منابع			
						×	-	
					1	į	×	

Institute of Transportation Engineers

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Mini-Warehouse (151)

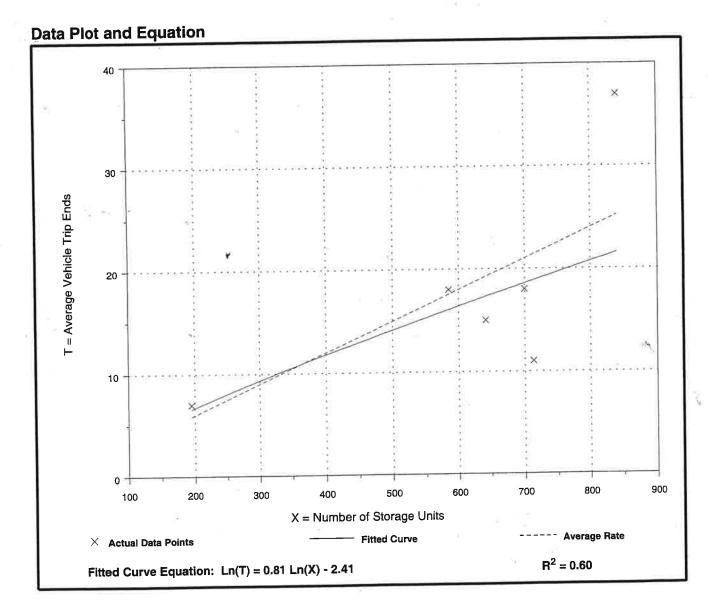
Average Vehicle Trip Ends vs:Storage UnitsOn a:Weekday,Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.

Number of Studies: 6 Average Number of Storage Units: 613 Directional Distribution: Not available

Directional Distribution: Not a

Trip Generation per Storage Unit

Average Rate	Range of Rates	Standard Deviation
0.03	0.02 - 0.04	0.17



Mini-Warehouse (151)

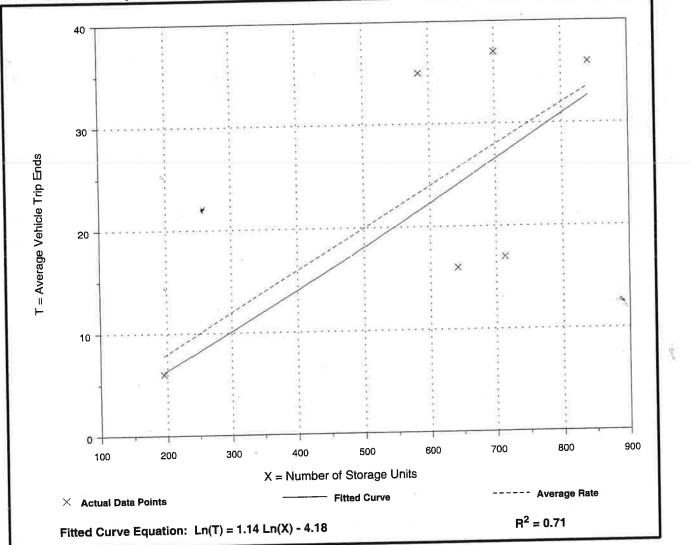
Average Vehicle Trip Ends vs: Storage Units On a: Saturday, Peak Hour of Generator

Number of Studies: 6 Average Number of Storage Units: 613 Directional Distribution: Not available

Trip Generation per Storage Unit

Average Rate	Range of Rates	Standard Deviation
0.04	0.02 - 0.06	0.20

Data Plot and Equation

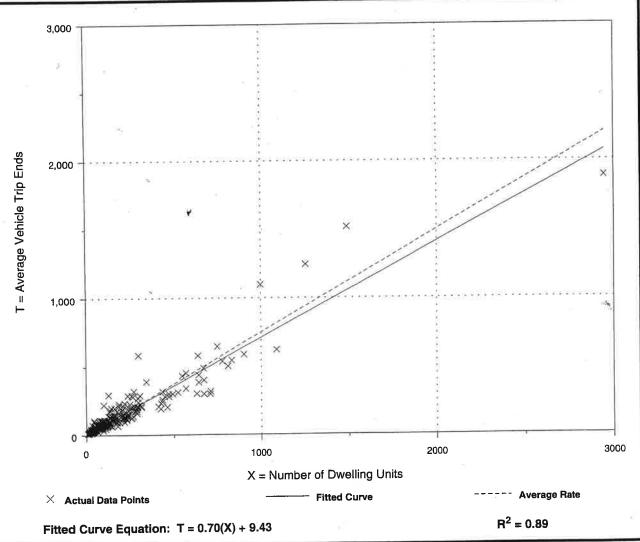


Single-Family Detached Housing
(210)Average Vehicle Trip Ends vs:Dwelling Units
On a:On a:Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.Number of Studies:274
201
Directional Distribution:25% entering, 75% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.75	0.33 - 2.27	0.90

Data Plot and Equation

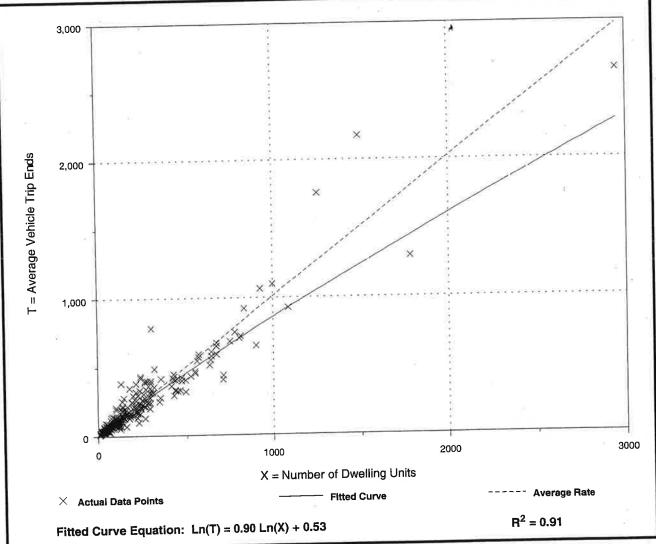


Single-Family Detached Housing (210)					
	Average Vehicle Trip Ends vs: On a:	Dwelling Units Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.			
	Number of Studies: Avg. Number of Dwelling Units: Directional Distribution:				

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
1.01	0.42 - 2.98	1.05
1.01	011-	

Data Plot and Equation



Single-Family Detached Housing (210)

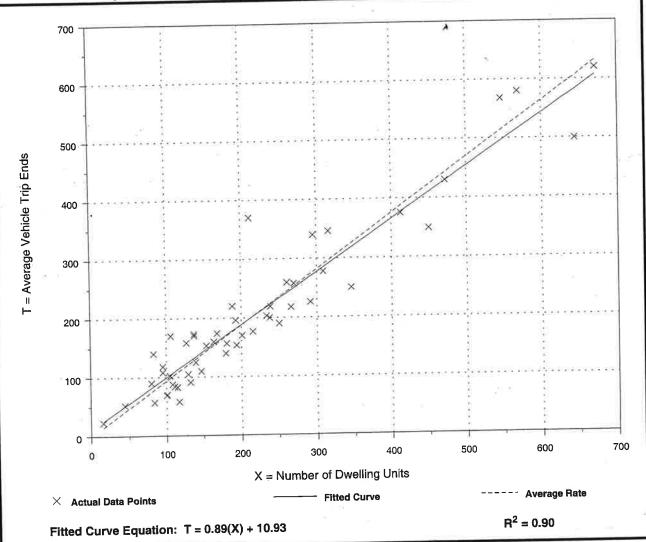
Average Vehicle Trip Ends vs: **Dweiling Units** Saturday, On a:

Peak Hour of Generator

Number of Studies: 52 Avg. Number of Dwelling Units: 220 54% entering, 46% exiting Directional Distribution:

Trip Generation per Dwelling Unit





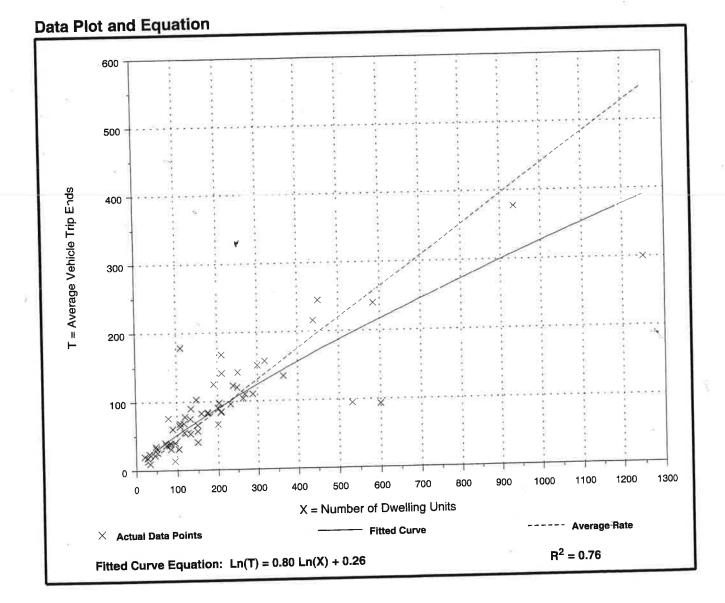
Residential Condominium/Townhouse (230)

Average Vehicle Trip Ends vs: On a:	Dwelling Units Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.
--	--

Number of Studies: 59 Avg. Number of Dwelling Units: 213 Directional Distribution: 17% entering, 83% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.44	0.15 - 1.61	0.69



Residential Condominium/Townhouse

(230)

Average Vehicle Trip Ends vs: On a:	Dwelling Units Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.
	•

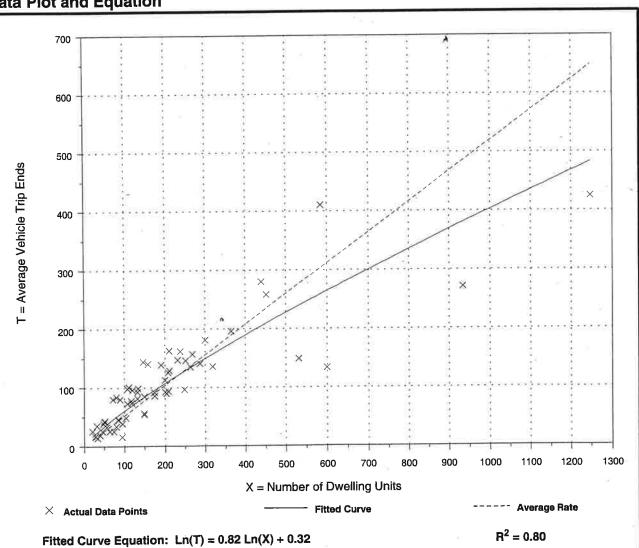
Number of Studies: 62

Avg. Number of Dwelling Units: 205

67% entering, 33% exiting Directional Distribution:

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.52	0.18 - 1.24	0.75



Data Plot and Equation

Trip Generation, 7th Edition

Residential Condominium/Townhouse (230)

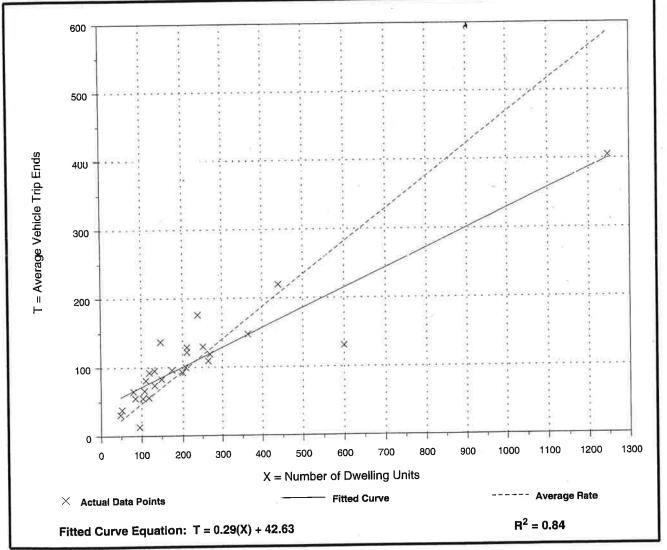
Average Vehicle Trip Ends vs: Dwelling Units On a: Saturday, Peak Hour of Generator

Number of Studies:27Avg. Number of Dwelling Units:228Directional Distribution:54% entering, 46% exiting

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.47	0.14 - 0.93	0.71

Data Plot and Equation



Trip Generation, 7th Edition

Shopping Center

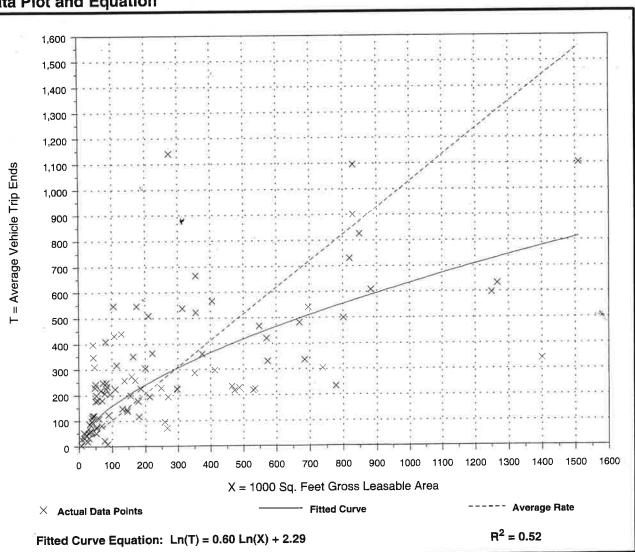
(820)

Average Vehicle Trip Ends vs:1000 Sq. Feet Gross Leasable AreaOn a:Weekday,Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.

Number of Studies: 98 Average 1000 Sg. Feet GLA: 287 Directional Distribution: 61% entering, 39% exiting

Trip Generation per 1000 Sq. Feet Gross Leasable Area

Average Rate	Range of Rates	Standard Deviation
1.03	0.10 - 9.05	1.40



Data Plot and Equation

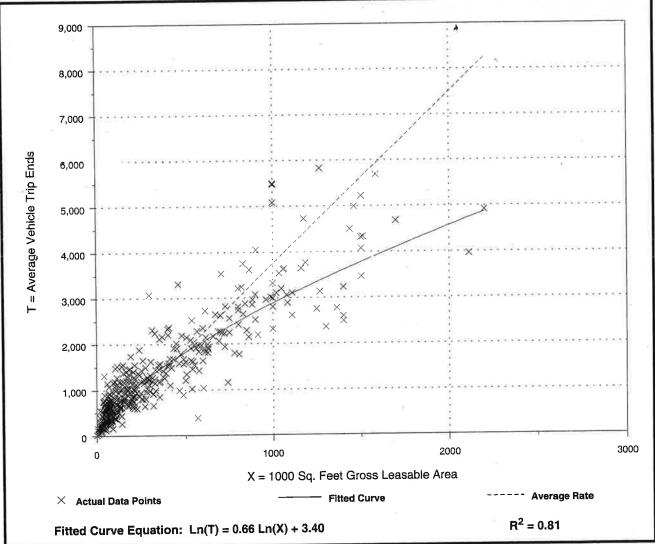
Trip Generation, 7th Edition

Shopping Center (820) Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Leasable Area On a: Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m. Number of Studies: 407 Average 1000 Sq. Feet GLA: 379 Directional Distribution: 48% entering, 52% exiting

Trip Generation per 1000 Sq. Feet Gross Leasable Area

Average Rate	Range of Rates	Standard Deviation
3.75	0.68 - 29.27	2.75

Data Plot and Equation

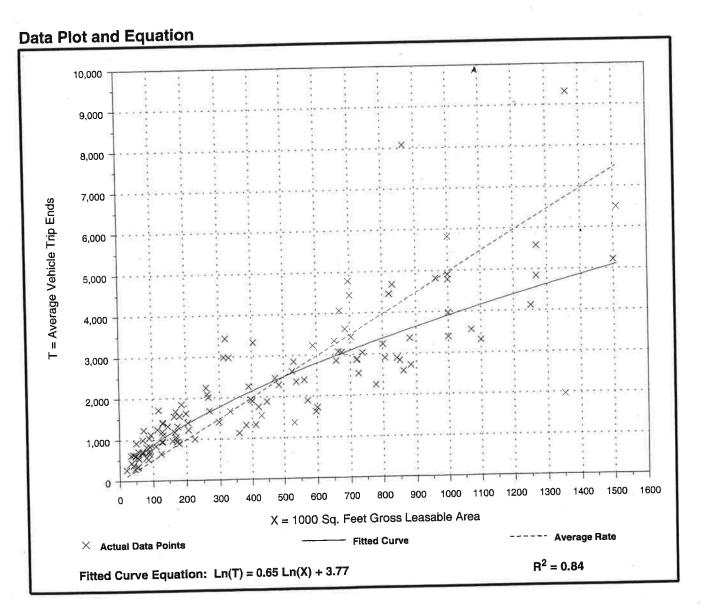


Shopping Center (820)

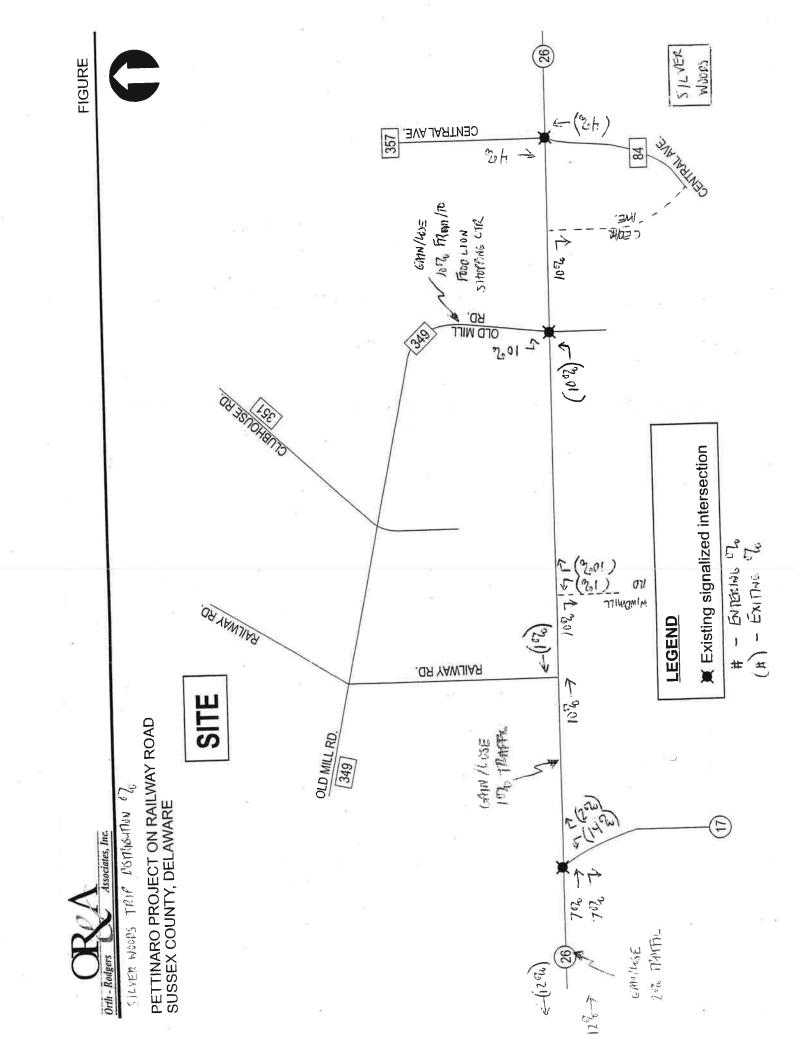
Average Vehicle Trip Ends vs: 1000 Sq. Feet Gross Leasable Area On a: Saturday, Peak Hour of Generator

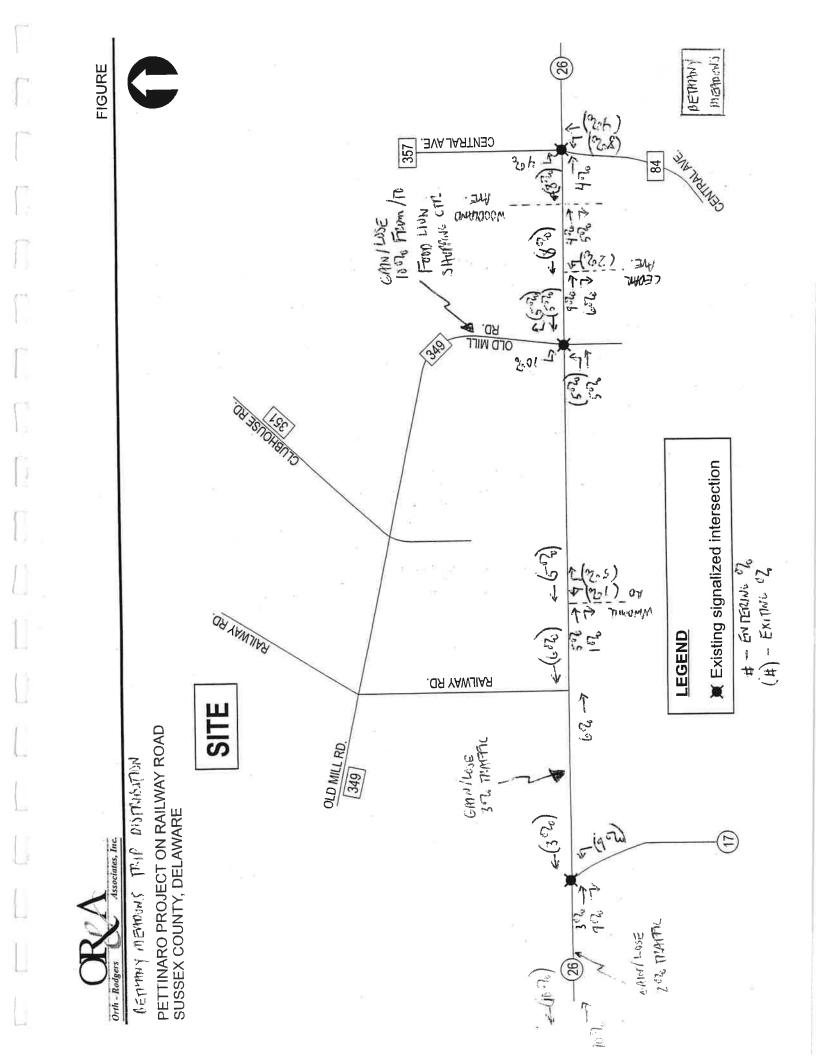
Number of Studies: 124 Average 1000 Sq. Feet GLA: 447 Directional Distribution: 52% entering, 48% exiting

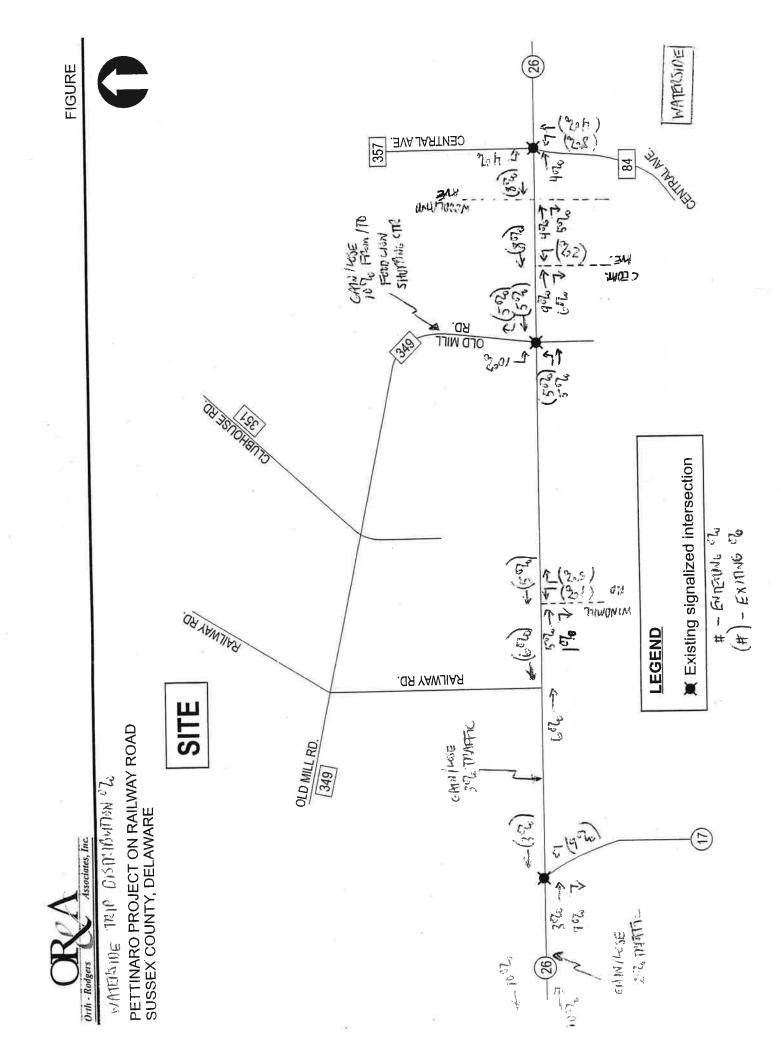
Trip Generation per 1000 Sq. Feet Gross Leasable AreaAverage RateRange of RatesStandard Deviation4.971.4618.323.11

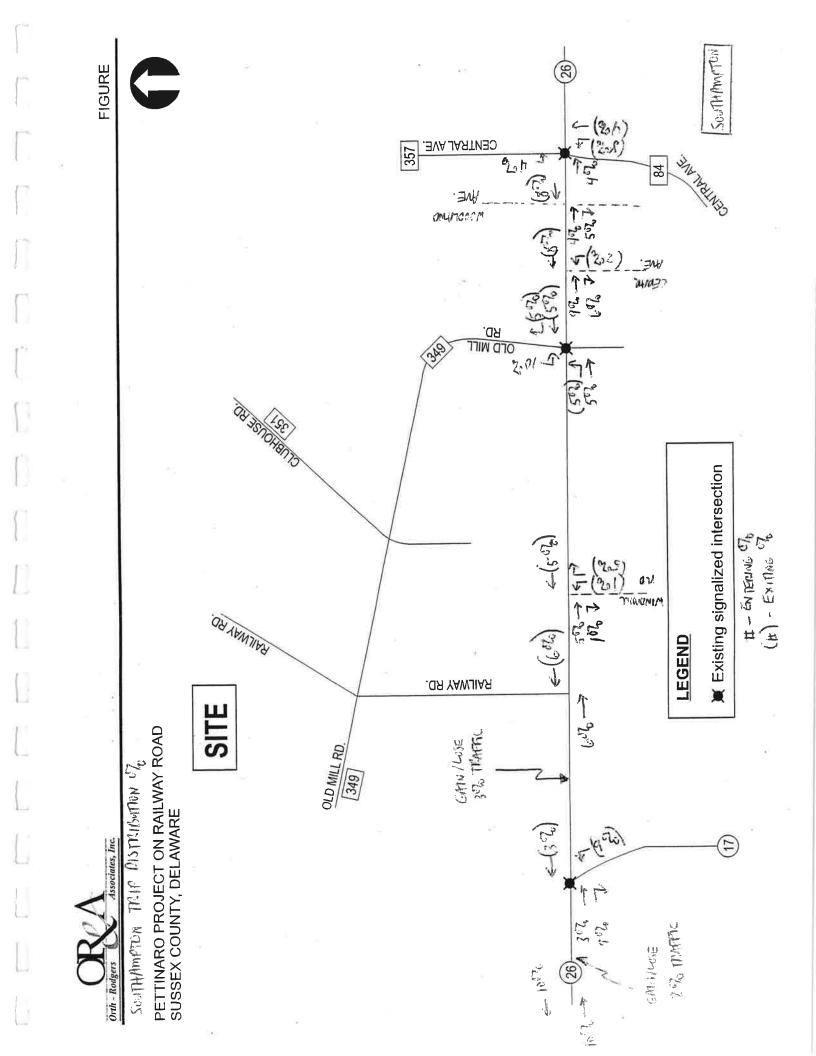


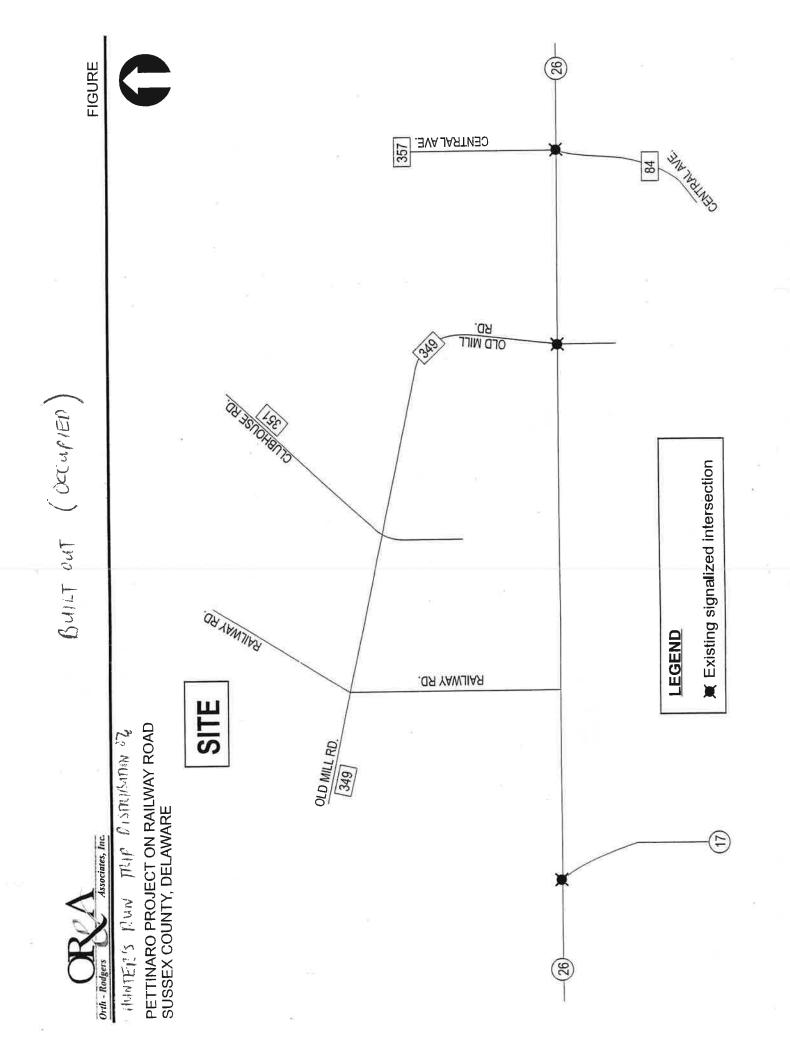
Trip Generation, 7th Edition

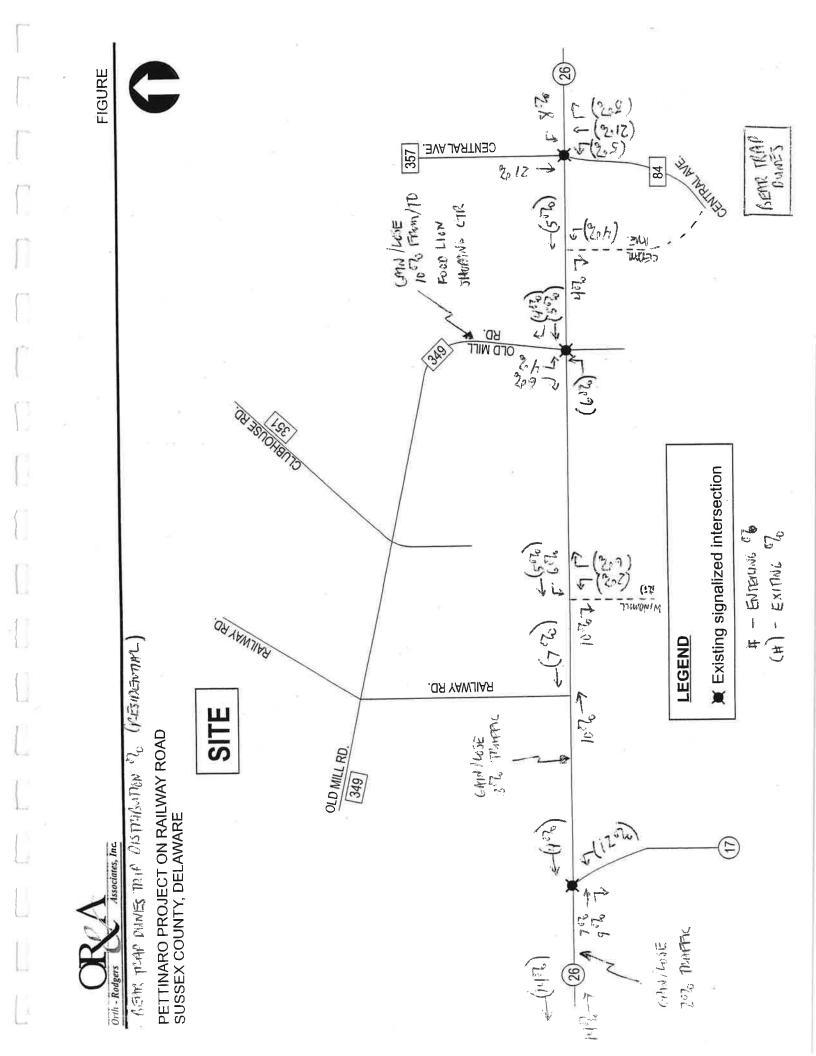


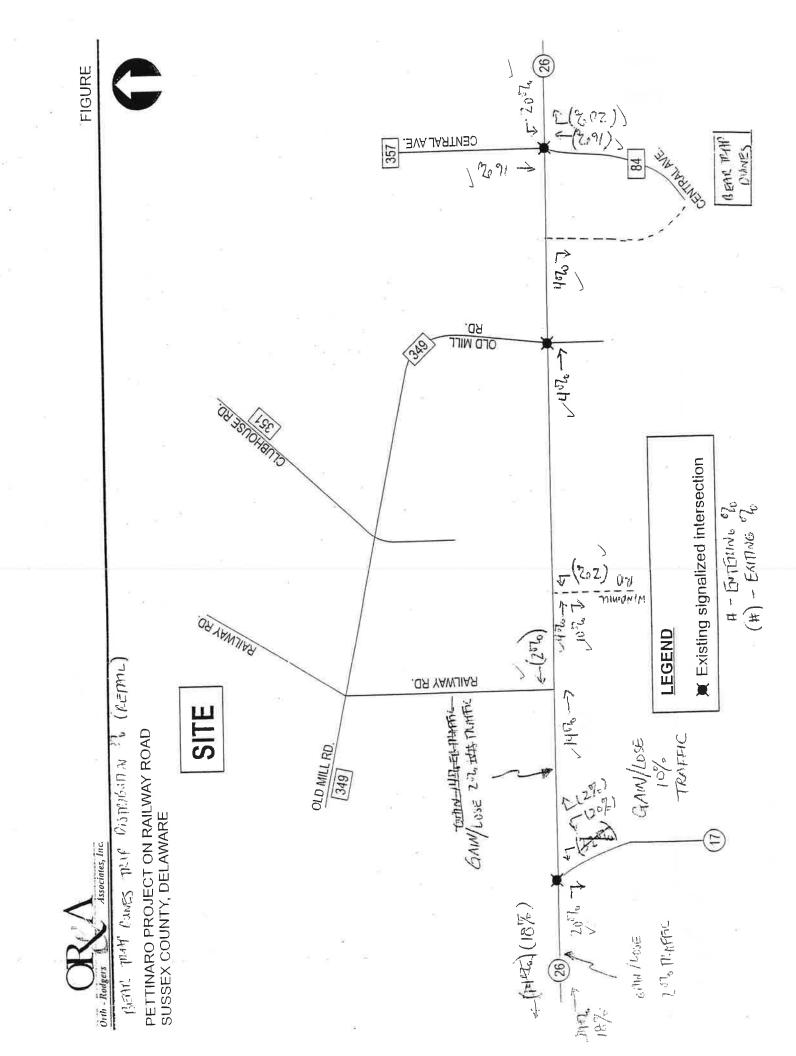


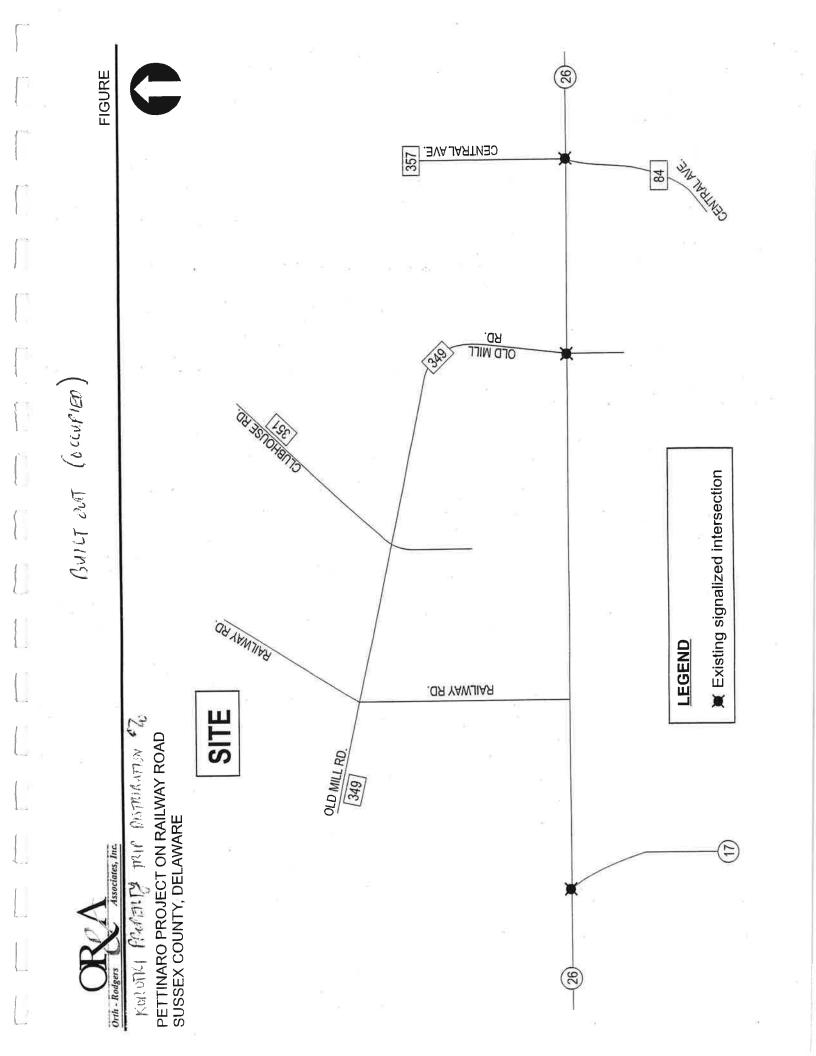


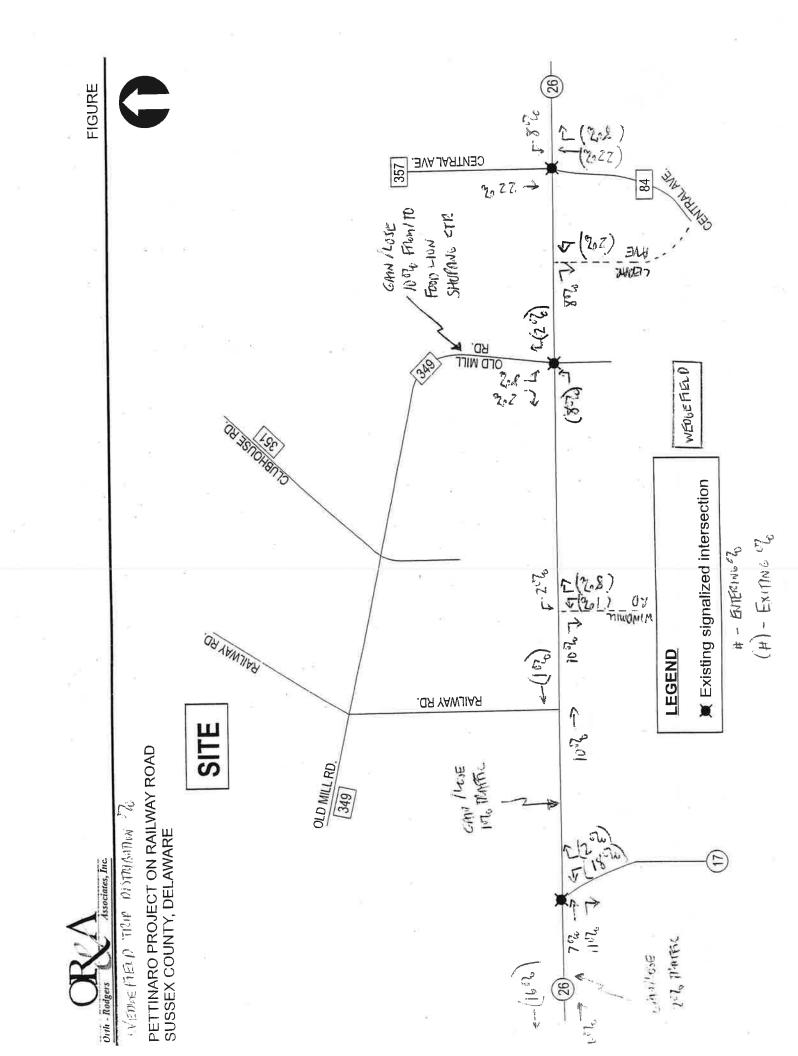


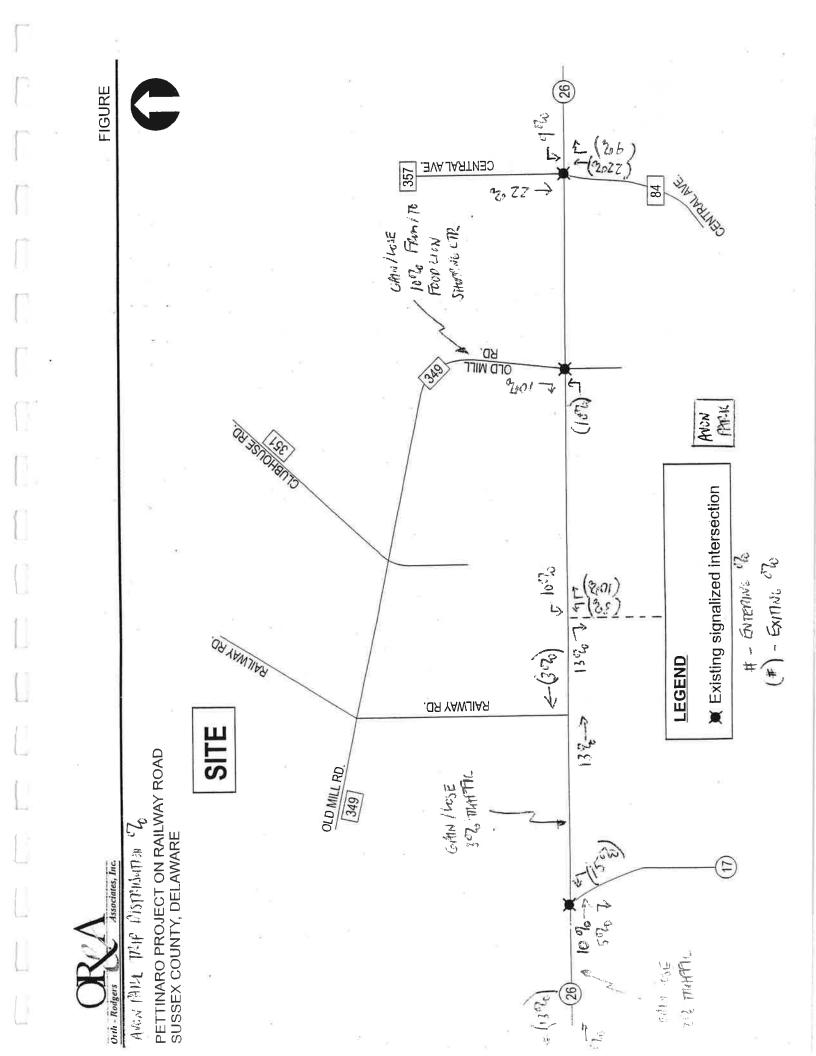


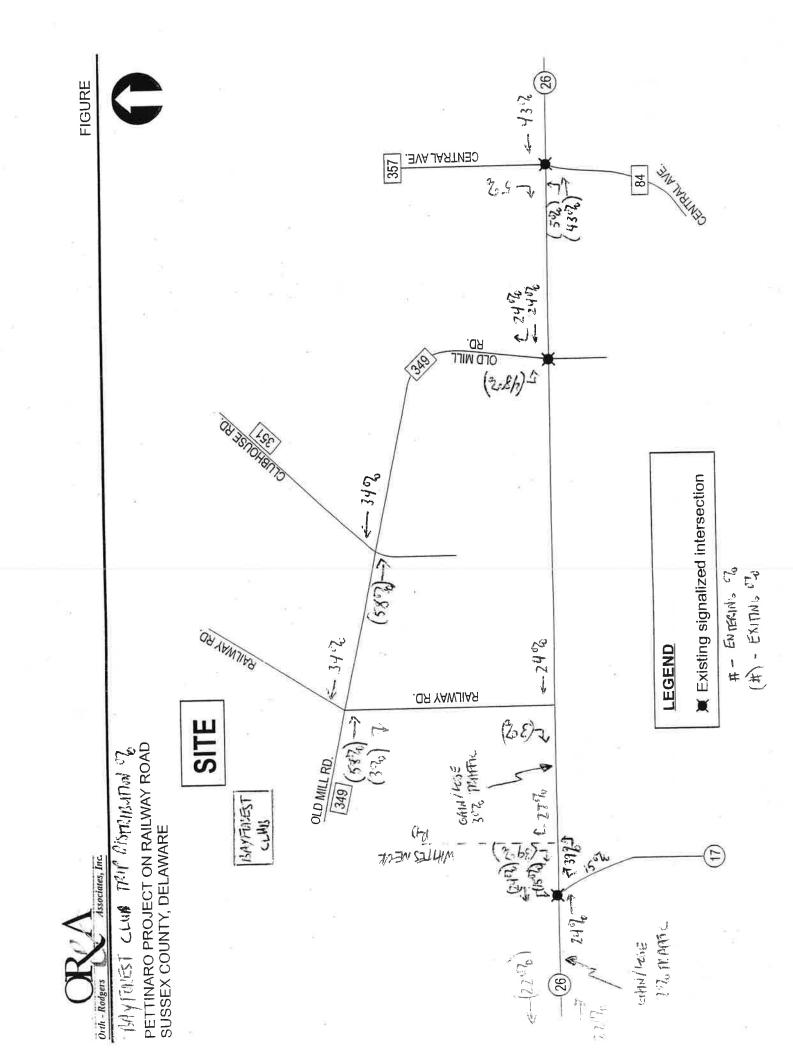


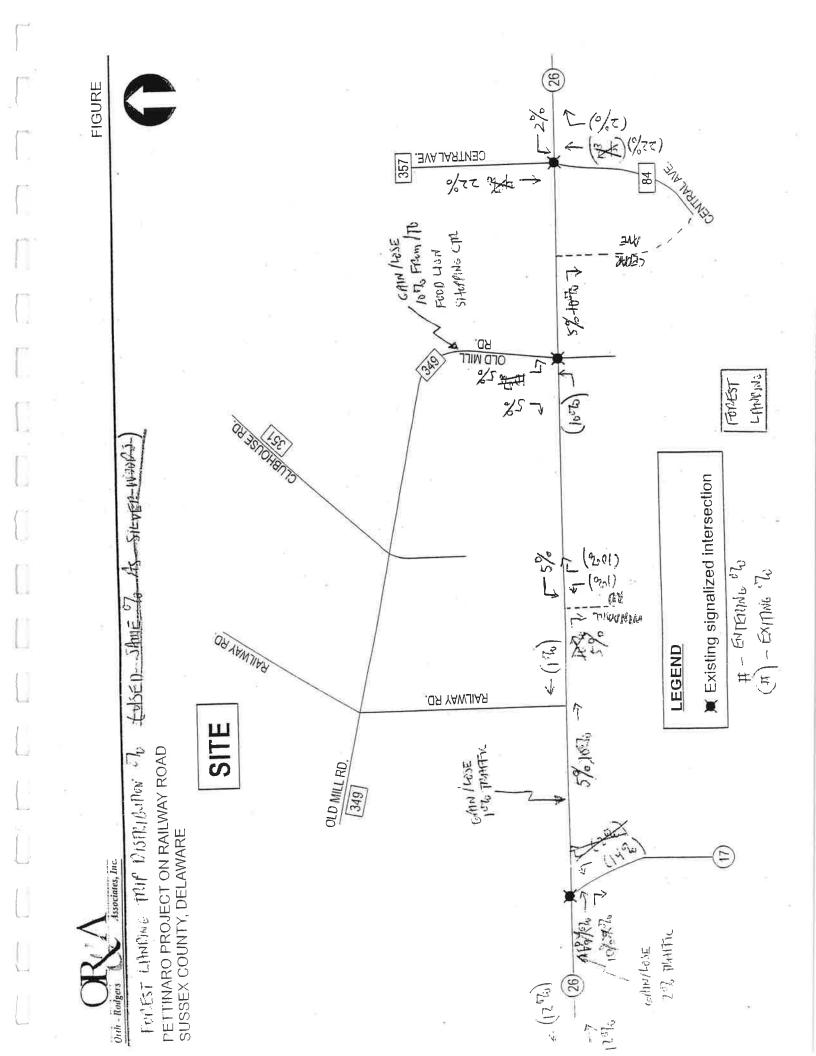


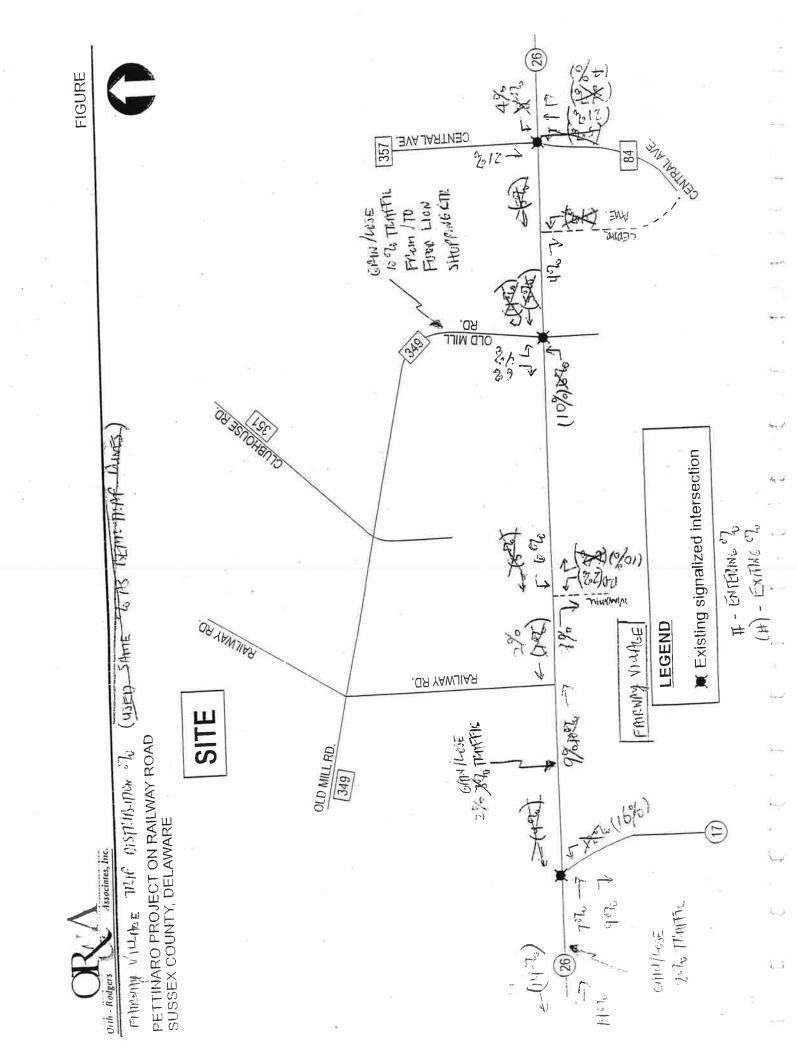


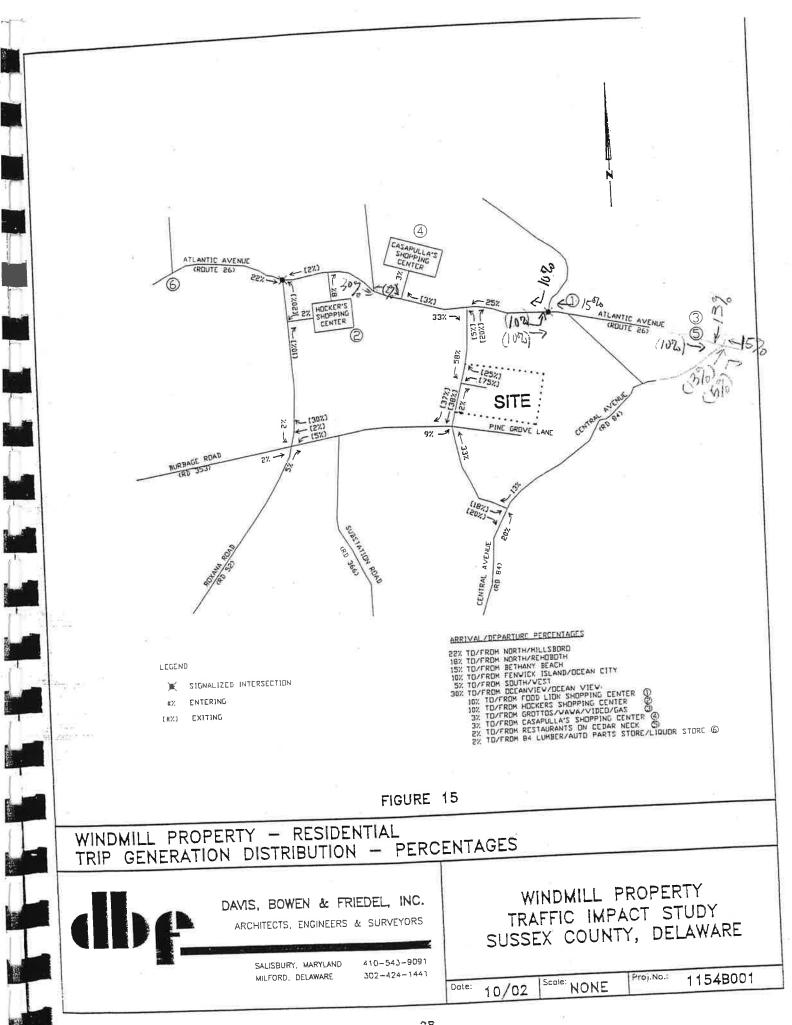


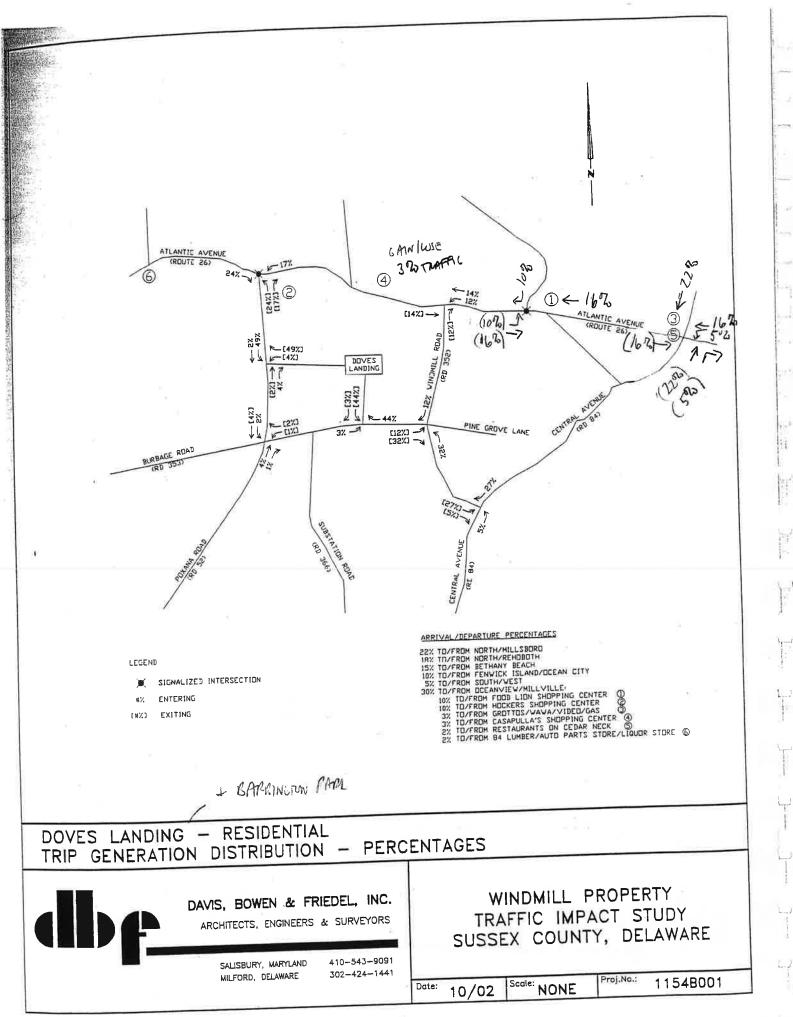




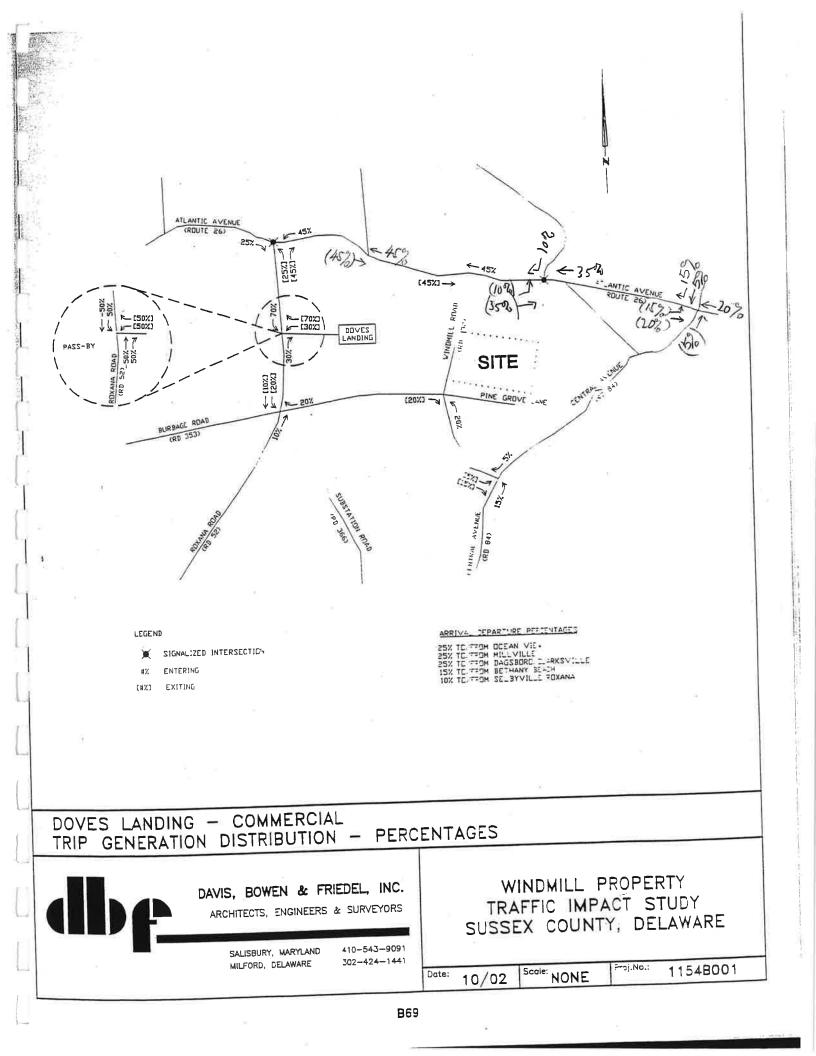


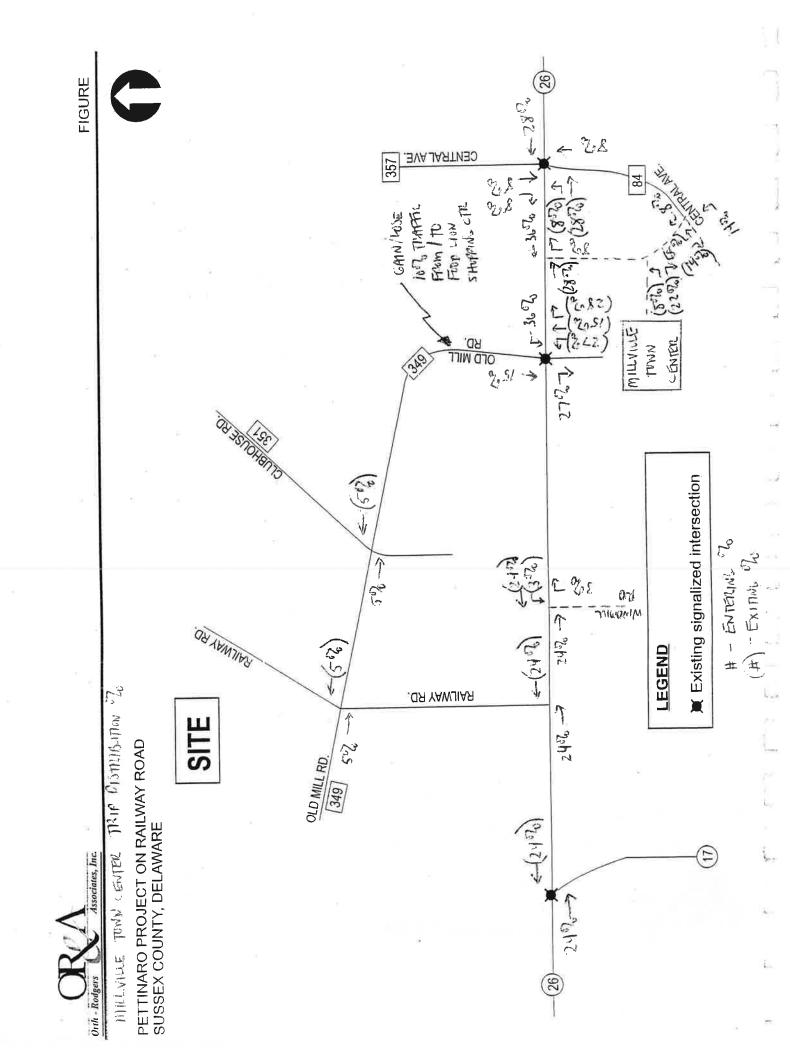


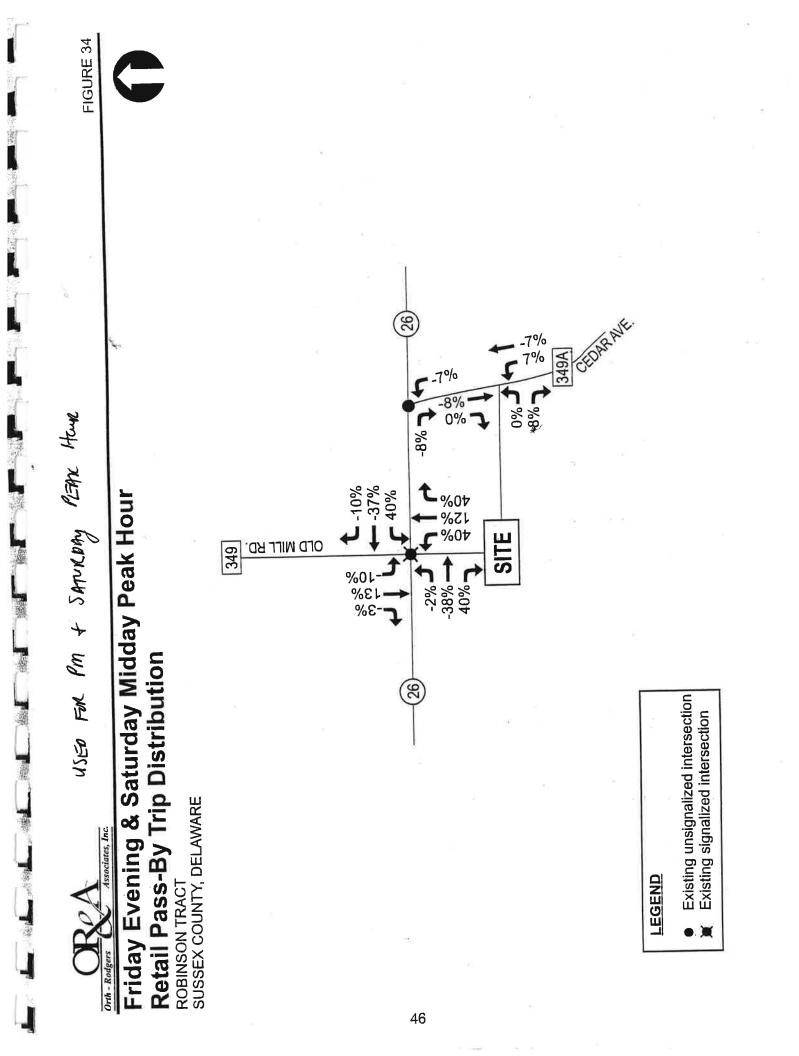


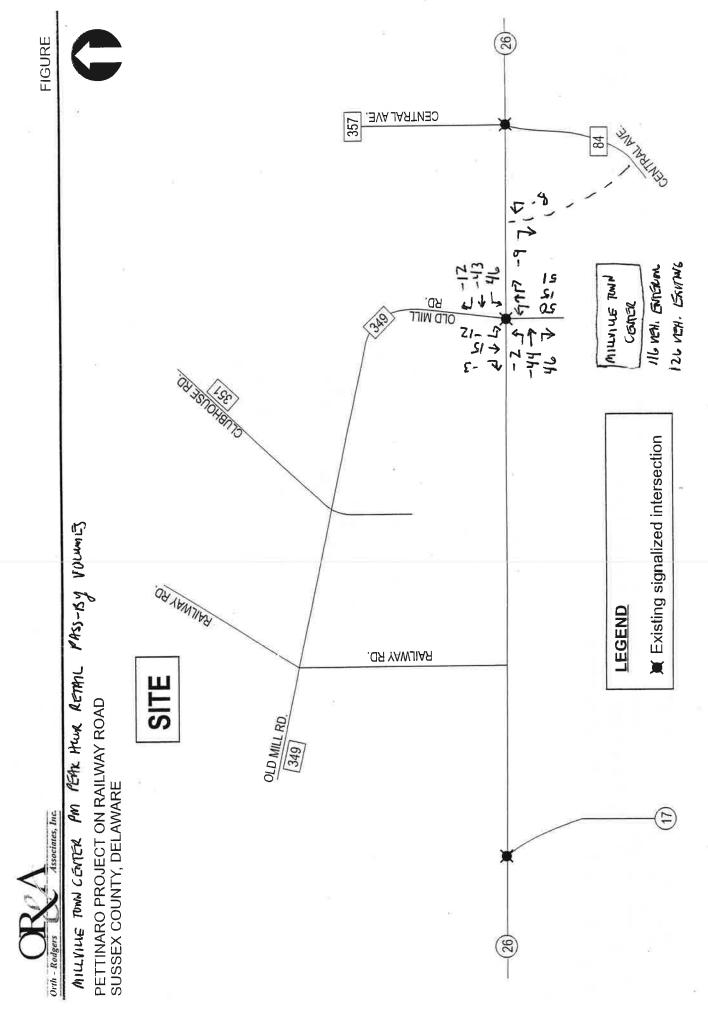


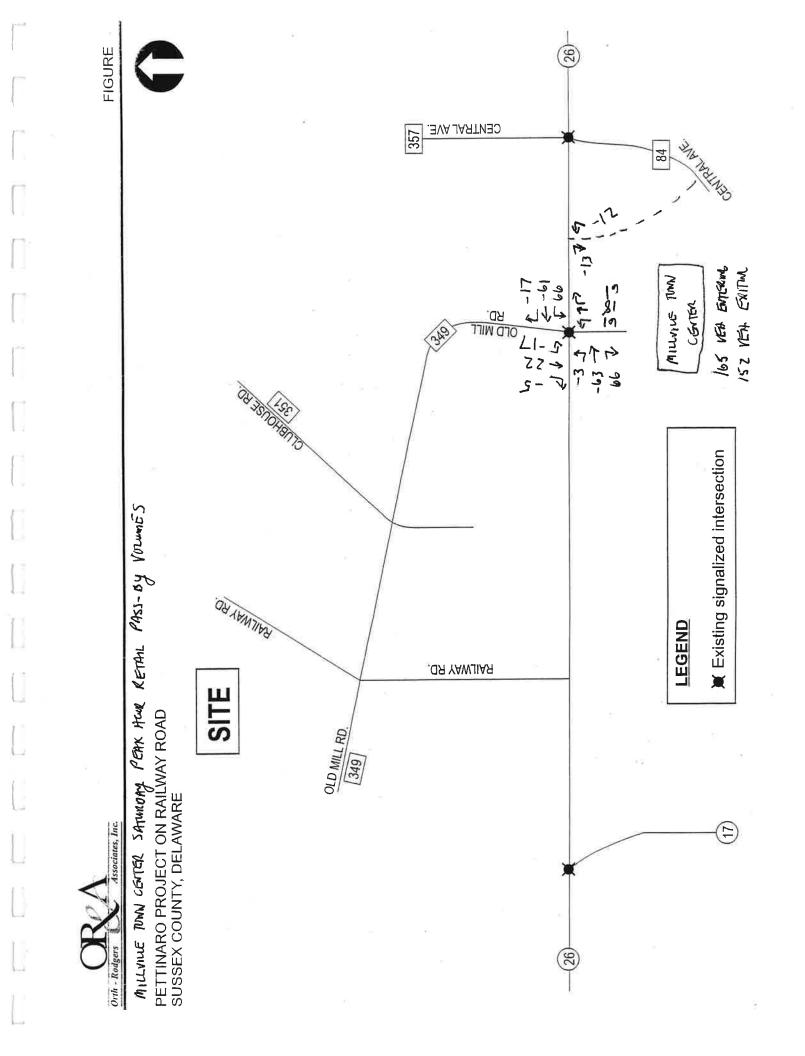
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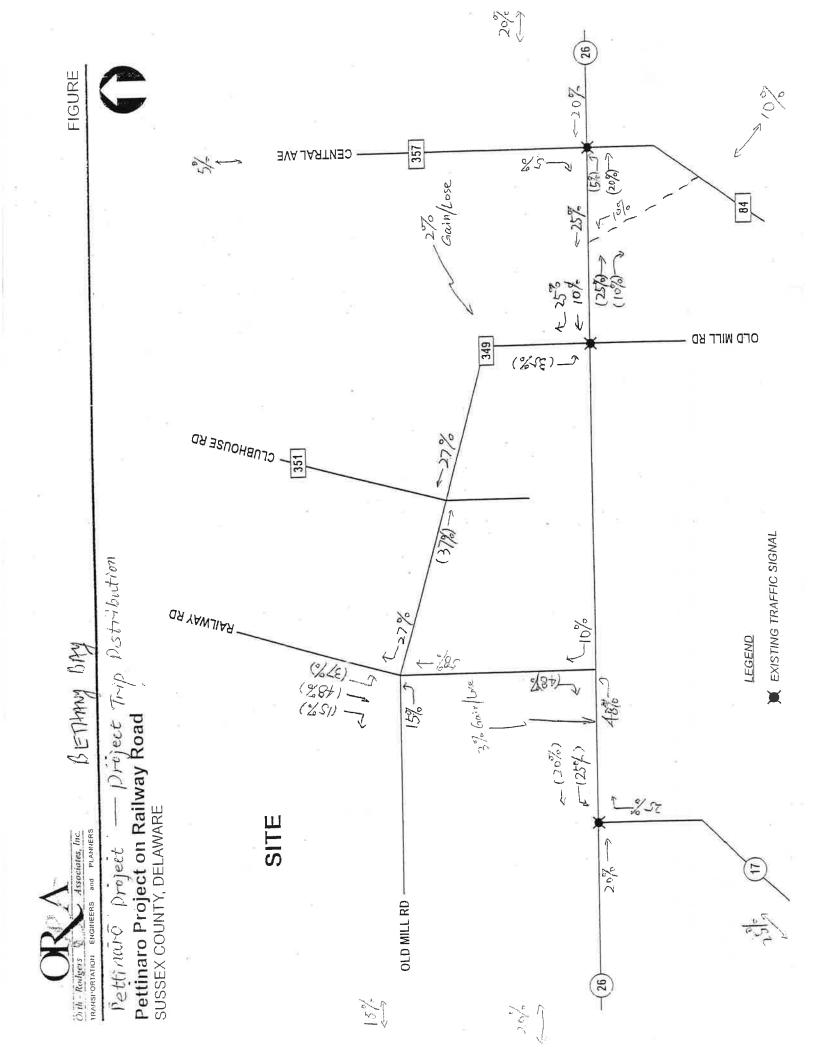












From: Sent: To: Subject:	mgrimes@beartrapvillage.co Wednesday, July 21, 2004 11 Rick Mishura RE: bear trap dunes develop	:09 AM	
4			
commercial buil	t. Country Club has been bui ldings will begin constructi	lt. The 2-10,000 sq.ft. on this fall and open for	
business next 1	May.	s 8 *	
Marc			
	"Rick Mishura"		
<mgrimes@beart< td=""><td><rmishura@orth-ro rapvillage.com></rmishura@orth-ro </td><td>То:</td><td></td></mgrimes@beart<>	<rmishura@orth-ro rapvillage.com></rmishura@orth-ro 	То:	
	dgers.com>	cc:	
	5	Subject: RE: bear trap	
dunes developm	ent 07/21/2004 11:04		
	AM	i i	
×			
thanks, and i commercial built at this	promise this is the last que	stion: is any of the	
Original From: mgrimes@ Sent: Wednesda To: Rick Mishu	beartrapvillage.com [mailto: Ly, July 21, 2004 10:54 AM	mgrimes@beartrapvillage.com]	
	bear trap dunes development		
49.			

Marc

"Rick Mishura"

dgers.com>

<rmishura@orth-ro
<mgrimes@beartrapvillage.com>

To:

cc:

Subject: RE: bear trap

dunes development

07/21/2004 10:42

ΜA

marc,

thank you very much for the info. just one other question: of the 104 romaining units, how many are single family homes? thanks again.

rick

----Original Message-----From: mgrimes@beartrapvillage.com [mailto:mgrimes@beartrapvillage.com] Sent: Wednesday, July 21, 2004 10:36 AM To: Rick Mishura Subject: Re: bear trap dunes development

Rick, The breakdown is as follows: 266 s/f homes, 226 townhomes, 208 condominiums. 596 of the 700 homes have been sold. Commercial & golf info. is correct.

Marc

"Rick Mishura"

<rmishura@orth-ro
<mgrimes@beartrapvillage.com>

dgers.com>

cc: "Derrick

Subject: bear trap dunes

To:

Kennedy" <dkennedy@orth-rodgers.com>

development

07/21/2004 10:04

AM

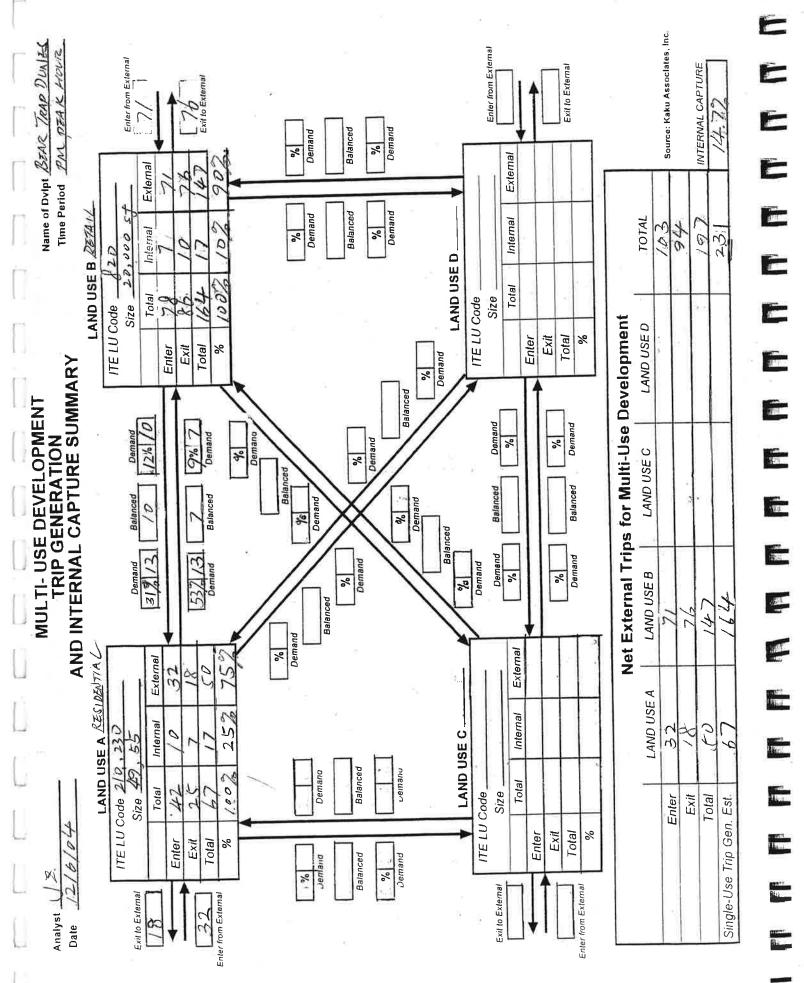
mr. grimes, we are currently working on a traffic impact study north of rte 26 and DelDOT requires us to verify other developments in the area. our scoping letter states that bear trap dunes has the following land uses: - 25,000 square feet retail commercial space - 336 single-family detached houses apartments/condominiums - 180 - 184 townhouses - 27-hole golf course I was wondering if you could tell me how much of this development is complete at this point (built & occupied) and also if any of the information above is wrong or has changed. This information is important because we use this to determine how much traffic must be added in future conditions. i remember asking you in the past (over 2 years ago) with you saying that the golf course and 270 homes were built and was hoping to get the latest information so we can be as accurate as we can in our report. thank you very much and if you have any questions please do not hesitate to call. Richard A. Mishura Orth-Rodgers & Associates, Inc.

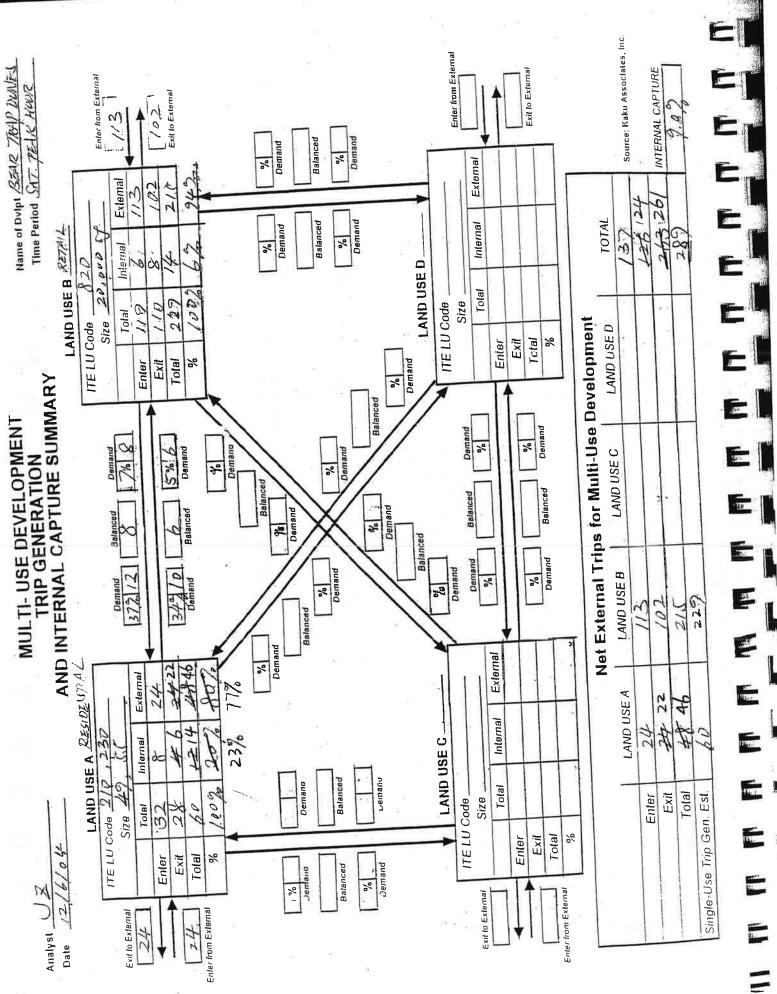
Orth-Rodgers & Associates, In 230 South Broad Street Philadelphia, PA 19102 (215) 735-1932 Telephone (215) 735-5954 Fax rmishura@orth-rodgers.com

OREA	BY (Z	DATE 12/6/04	SHEET OF
Orth - Rodgers Associates, Inc. TRANSPORTATION ENGINEERS and PLANNERS		DATE	PROJECT NO 2004-23
PROJECT PETTINARD PROJECT	The contract of the	PERCENTAGES.	
SUBJECT BEAR TRAP DUNES	1400-134 17-1P	1810000000	

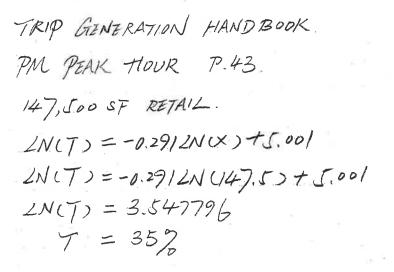
TRIP GENERATIONS HANDBOOK PM PEAK HOUR P.43 20,000 SF RETAL2 LNCT > = -0.2912N(X) + 5.001 2N(T) = -0.2912N(20) + 5.001 2N(T) = 4.12924 T = 629

SATURDAY DEAK HOUR P.46 20,000 SF RETAIL: T = -0.024(X) + 38.591 T = -0.024(20) + 38.591T = -38%

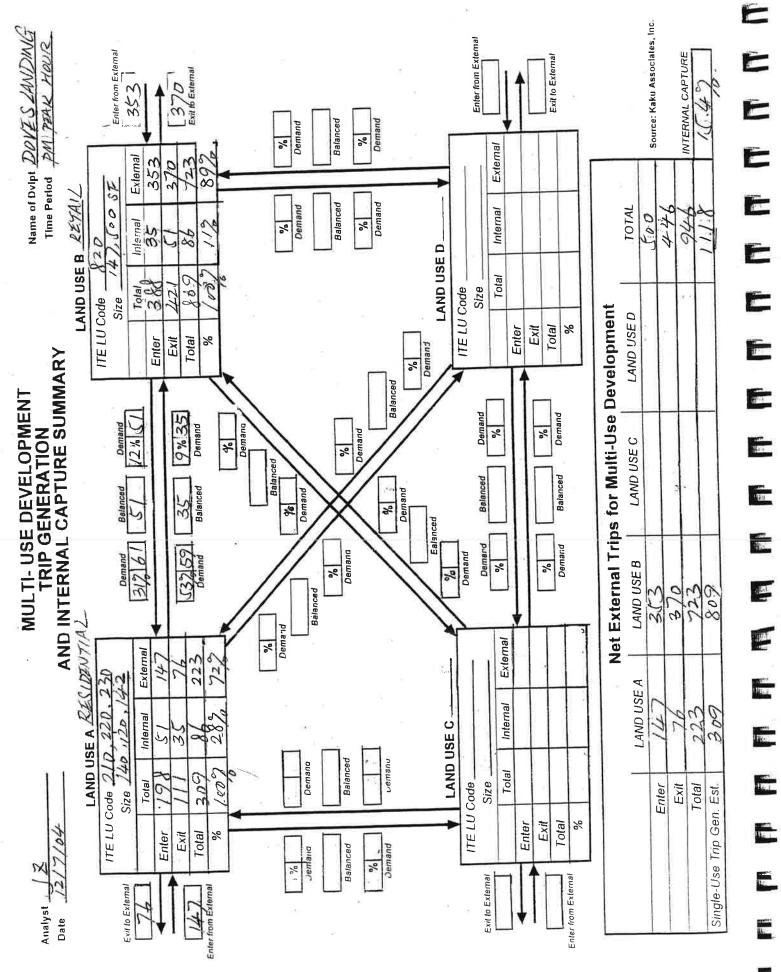


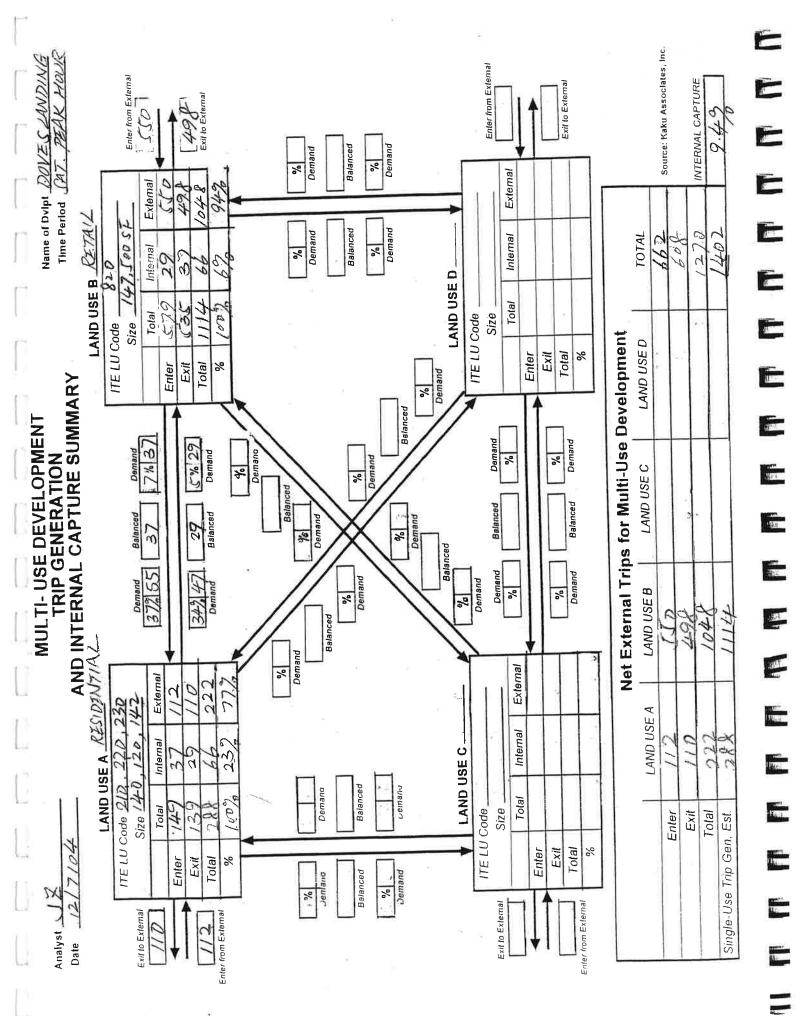


Orth - Rodgers Associates, Inc.	ву <u>JZ</u>	DATE 12/7/04	SHEET OF PROJECT NO 2004-238
TRANSPORTATION ENGINEERS and PLANNERS	CHECKED BY	DATE	PROJECT NO 2004 200
PROJECT PETTINARD PROJECT	PLAC PLISPID DT	TALTACE	
SUBJECT DOVES LANDING	PASS-BY TRIP PER	CENTAGE	and the second



SATURDAY PEAK HOUR P.46 147,500 SF RETAIL T = -0.024(X) + 38.591 T = -0.024(147.5) + 38.591T = 35%





O	Re/	F	
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RANSPORTATION	ENGINEERS	and	PLANNERS

DATE 12/8/04 SHEET

PROJECT NO 2004-238

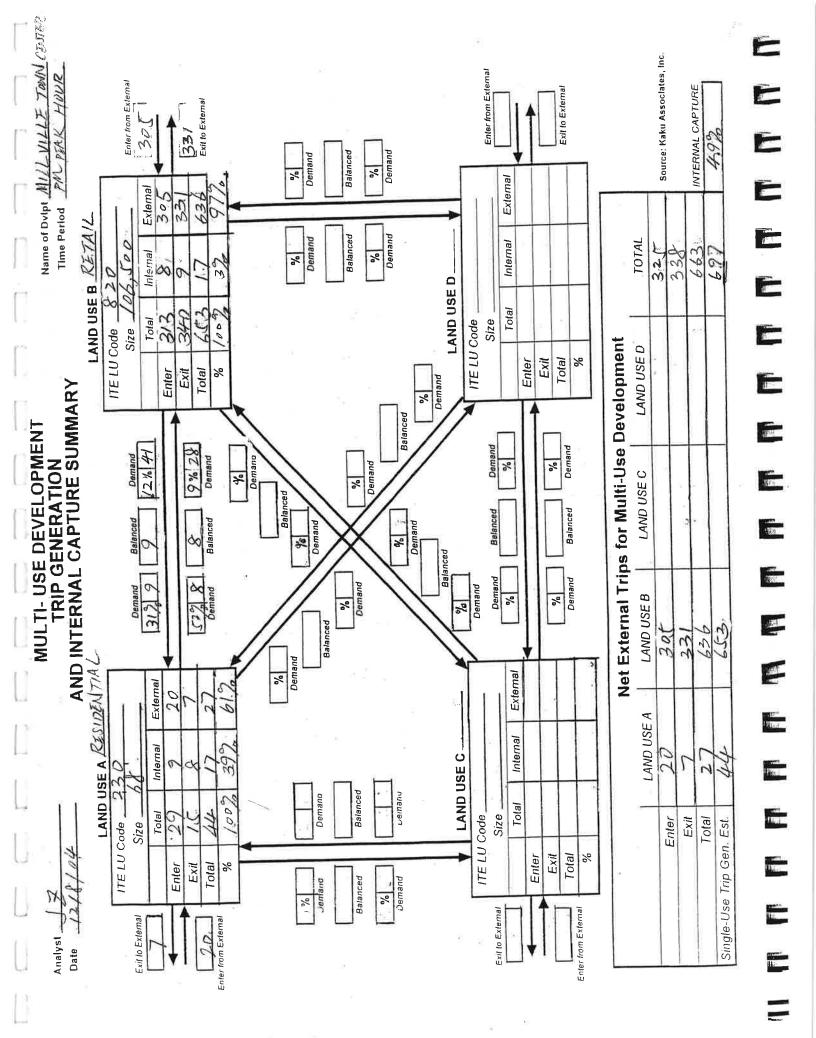
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CHECKED BY

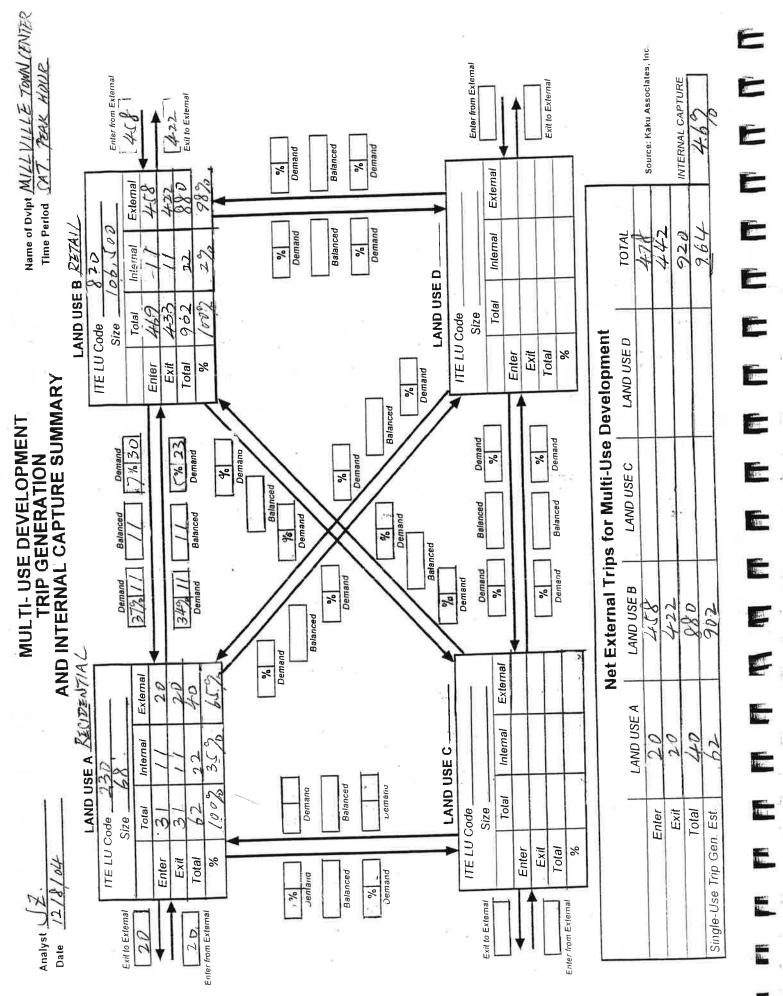
BY L

TRIP GENERATION MANDISODE, PM PEAK MOUR P43. 106, 500 SF RETAIL 2N(T) = -0.2912N(X) + 5.001 2N(T) = -0.2912N(106.5) + 5.001 2N(T) = 3.642570T = 389

SATURDAY PEAK HOUR P.46 106,500 SF RETAIL T = -0.024(X) + 38.591 T = -0.024(106.5) + 38.591T = 367



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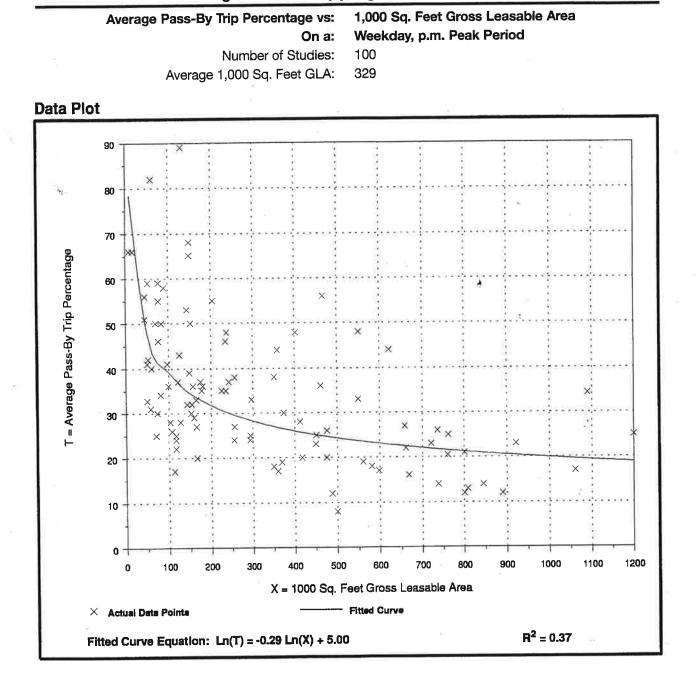


Figure 5.5 Shopping Center (820)

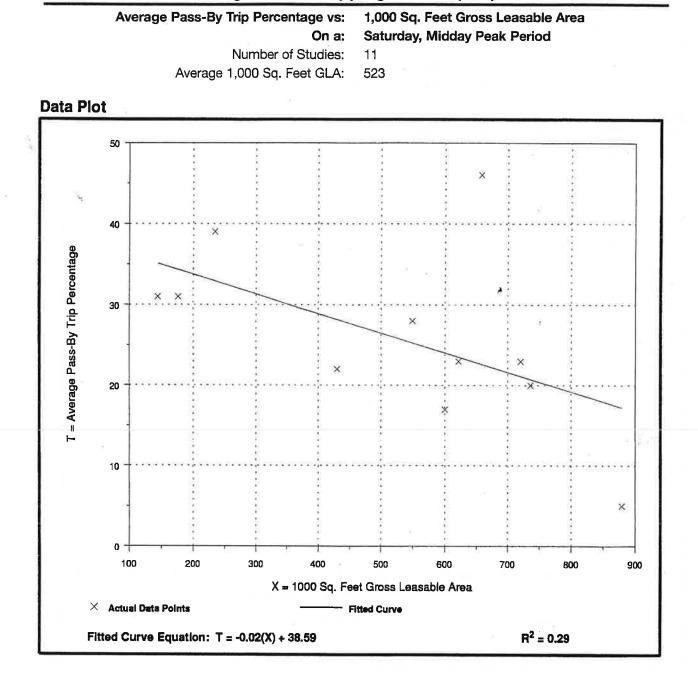


Figure 5.7 Shopping Center (820)

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			WEEKDAY	
		MIDDAY PEAK HOUR	p.m. PEAK HOUR OF ADJACENT STREET TRAFFIC	DAILY
rom OFFICE	to Office	2%	1%	2%
	to Retail	20%	23%	22%
	to Residential	0%	2%	2%
from RETAIL	to Office	3%	3%	3%
	to Retail	29%	20%	30%
	to Residential	7%	12%	11%
rom RESIDENTIAL	to Office	N/A	N/A	N/A
	to Retail	34%	53%	38%
	to Residential	N/A	N/A	N/A

Ľ.

Table 7.1 Unconstrained Internal Capture Rates for Trip Origins within a Multi-Use Development

Caution: The estimated typical internal capture rates presented in this table rely directly on data collected at a limited number of multi-use sites in Florida. While ITE recognizes the limitations of these data, they represent the only known credible data on multi-use internal capture rates and are provided as illustrative of typical rates. *If local data on internal capture rates by paired land uses can be obtained, the local data may be given preference.*

N/A-Not Available; logic indicates there is some interaction between these two land uses; however, the limited data sample on which this table is based did not record any interaction.

Table 7.2 Unconstrained Internal Capture Rates forTrip Destinations Within a Multi-Use Development

			WEEKDAY	
		MIDDAY PEAK HOUR	p.m. PEAK HOUR OF ADJACENT STREET TRAFFIC	DAILY
to OFFICE	from Office	6%	6%	2%
8	from Retail	38%	31%	15%
	from Residential	0%	0%	N/A
to RETAIL	from Office	4%	2%	4%
	from Retail	31%	20%	28%
	from Residential	5%	9%	9%
to RESIDENTIAL	from Office	0%	2%	3%
	from Retail	37%	31%	33%
	from Residential	N/A	N/A	N/A

Caution: The estimated typical internal capture rates presented in this table rely directly on data collected at a limited number of multi-use sites in Florida. While ITE recognizes the limitations of these data, they represent the only known credible data on multi-use internal capture rates and are provided as illustrative of typical rates. *If local data on internal capture rates by paired land uses can be obtained, the local data may be given preference.*

N/A-Not Available; logic indicates there is some interaction between these two land uses; however, the limited data sample on which this table is based did not record any interaction.

What are the improvements planned at each of the intersections along the proposed Alternate Route 26?

Phase I Improvements include the following roads - Road 353 (from DE 17 to Road 352), Road 352 (from DE 26 to Road 84), Road 84 (from Road 352 to Road 368), and Road 368 from Road 84 to Road 361

Phase II Improvements include the following roads - Road 365 (from DE 26 to Road 353) and Road 353 (from Road 365 to DE 17)

The alternate route improvements include widening to 11-foot travel lanes and adding 5-foot shoulders (32-foot pavement cross-section)

- 365/353 365 NB separate left-turn lane, shared thru and right-turn lane; 365 SB separate left-turn lane, shared thru and right-turn lane; 353 EB shared left-turn, thru, and right-turn lane; 353 WB shared thru and left-turn lane, separate right-turn lane
- 353/52 (DE 17) 353 EB separate left-turn lane, shared thru and right-turn lane; 353 WB separate left-turn lane, separate thru lane, separate right-turn lane; 52 NB separate left-turn lane, shared thru and right-turn lane; 52 SB separate left-turn lane, shared thru and right-turn lane; 52 SB separate left-turn lane, shared thru and right-turn lane; 52 SB separate left-turn lane, shared thru and right-turn lane; 52 SB separate left-turn lane, shared thru and right-turn lane; 52 SB separate left-turn lane, shared thru and right-turn lane; 52 SB separate left-turn lane, shared thru and right-turn lane; 52 SB separate left-turn lane, shared thru and right-turn lane; 52 SB separate left-turn lane; shared thru and right-turn lane; 52 SB separate left-turn lane; shared thru and right-turn lane; 52 SB separate left-turn lane; shared thru and right-turn lane; shared thru and right
- 353/366 shared left-turn, thru, and right-turn lane on all approaches
- **353/352** 353 EB separate left-turn lane, shared thru and right-turn lane; 353 WB shared left-turn, thru, and right-turn lane; 352 NB separate left-turn lane, shared thru and right-turn lane; 352 SB separate left-turn lane, shared thru and right-turn lane
- 352/84 352 NB separate left-turn lane, shared thru and right-turn lane; 84 NB shared thru and right-turn lane; 84 SB separate left-turn lane, separate thru lane
- 84/368 Two new T-intersections: 84 SB separate thru lane, separate right-turn lane; 368
 WB separate left-turn lane, separate thru lane; 368 EB separate left-turn lane, separate right-turn lane; 2nd intersection has all one lane approaches
- **368/362** 368 EB separate left-turn lane, separate right-turn lane; 362 SB separate thru lane, separate right-turn lane; 362 NB separate thru lane, separate right-turn lane; 362 SB shared left-turn and thru lane; 368 WB separate left-turn lane, separate right-turn lane
- 368/361 368 EB separate left-turn lane, separate right-turn lane; 361 NB separate rightturn lane, separate thru lane; 361 SB - shared thru and right-turn lane

Will both phases of the Alternate Route 26 project be completed by 2010?

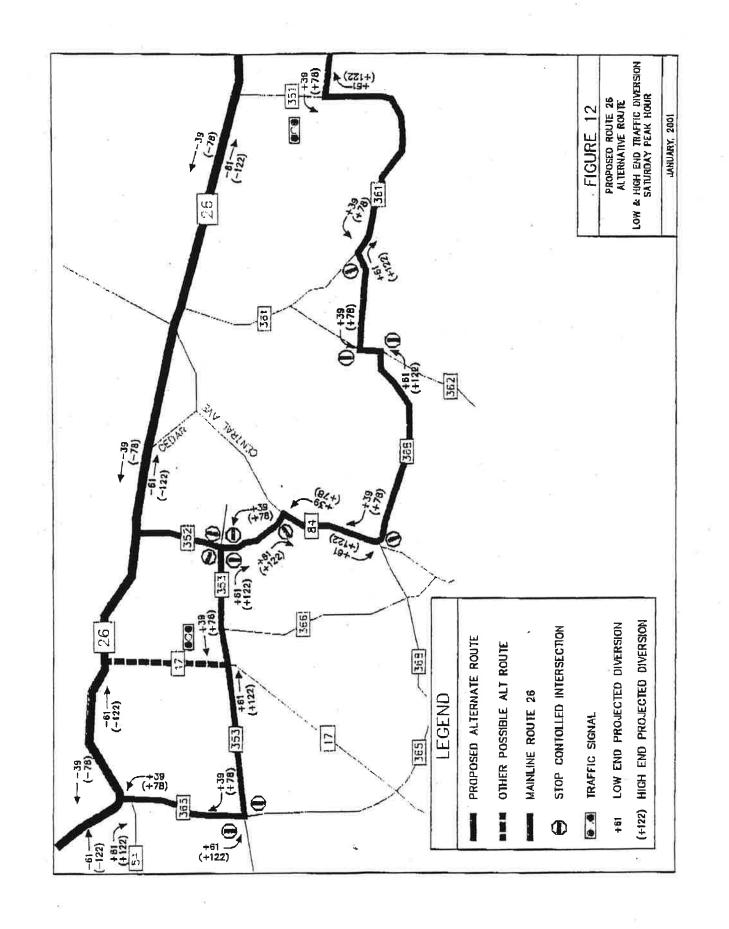
Phase I is funded for construction in FY 2003, but is scheduled to begin in the fall of 2004. Phase II could be funded as early as the FY 2003-2008 CTP. I believe both phases will be constructed by 2010, but I cannot give a definite answer since Phase II does not currently have funding.

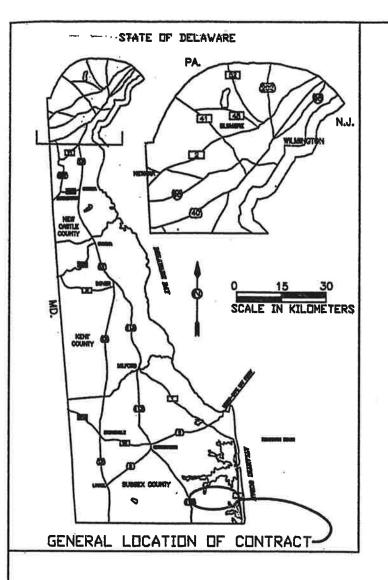
What are the proposed intersection improvements along Route 26 from Clarksville to the Canal?

- 26/52 (DE 17) 26 EB separate thru lane, separate right-turn lane (developer-funded);
 26 WB separate left-turn lane, separate thru lane
- 26/Holts Lane existing conditions will remain
- 26/Sawmill Rd. existing conditions will remain
- 26/347 (Whites Neck Rd.) 26 EB shared left-turn and thru lane, addition of a bypass lane; 26 WB shared thru and right-turn lane
- 26/350 (Railway Rd.) 26 EB shared left-turn and thru lane, addition of a bypass lane; 26 WB shared thru and right-turn lane
- 26/352 (Windmill Dr.) 26 EB shared thru and right-turn lane; 26 WB shared left-turn and thru lane, addition of bypass lane
- 26/351 (Clubhouse Rd.) 26 EB shared left-turn and thru lane, addition of bypass lane; 26 WB shared thru and right-turn lane
- 26/Dukes Dr. existing conditions will remain
- 26/349 (Old Mill Rd.) 26 EB separate left-turn lane, separate thru lane, separate right-turn lane; 26 WB separate left-turn lane, separate thru lane, separate right-turn lane; 349 SB shared left-turn and thru lane, separate right-turn lane; there will be a fourth leg to this intersection constructed by Banks Wine and Spirits

When will construction begin for the Route 26 project?

Detailed design will begin in fall 2002 and construction is anticipated to begin in fall 2004.





THE STATE OF DELAWARE



DEPARTMENT OF TRANSPORTATION

PRELIMINARY IMPROVEMENT PLANS FOR:

ROUTE 26 IMPROVEMENTS SUSSEX COUNTY

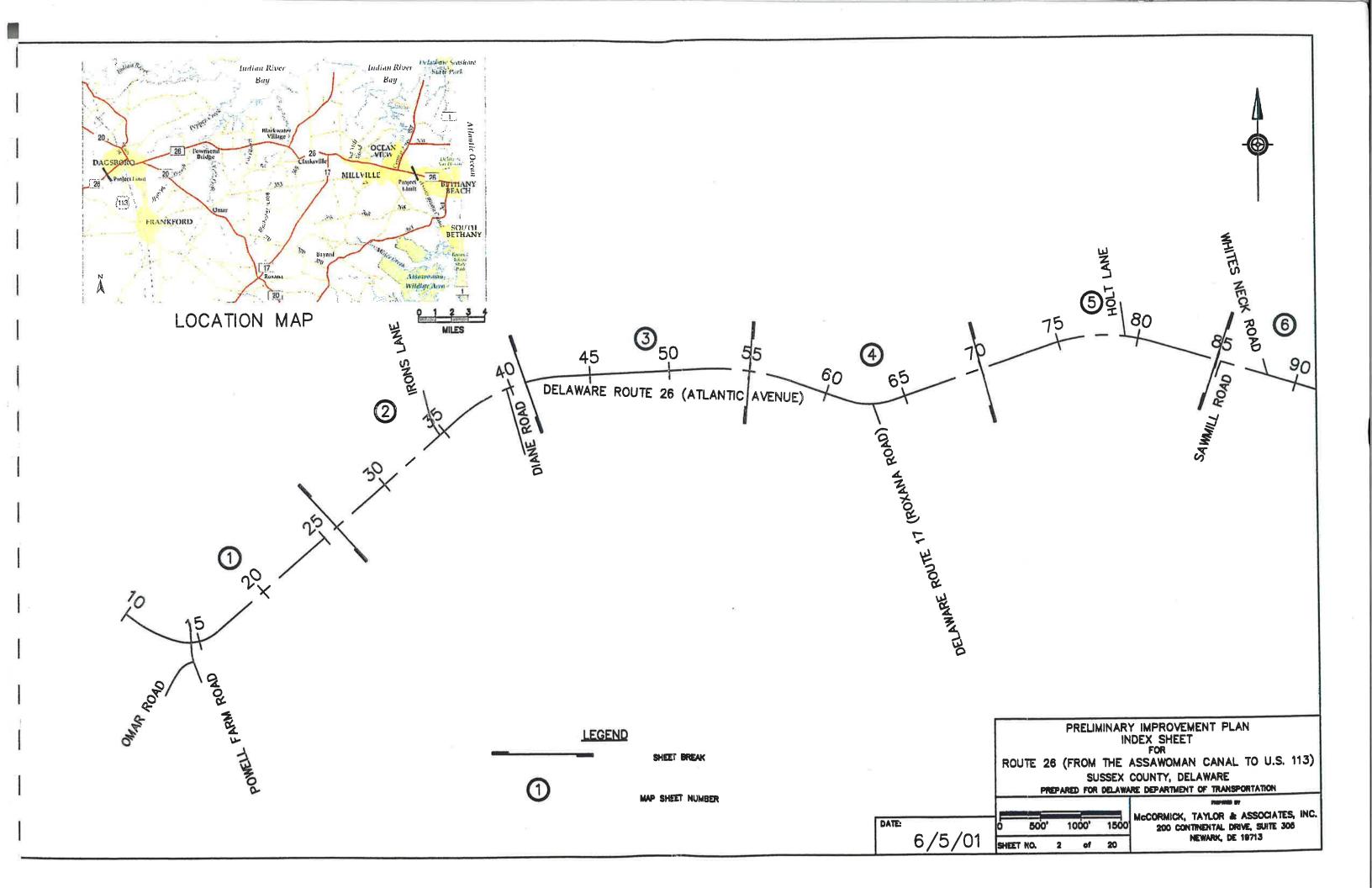
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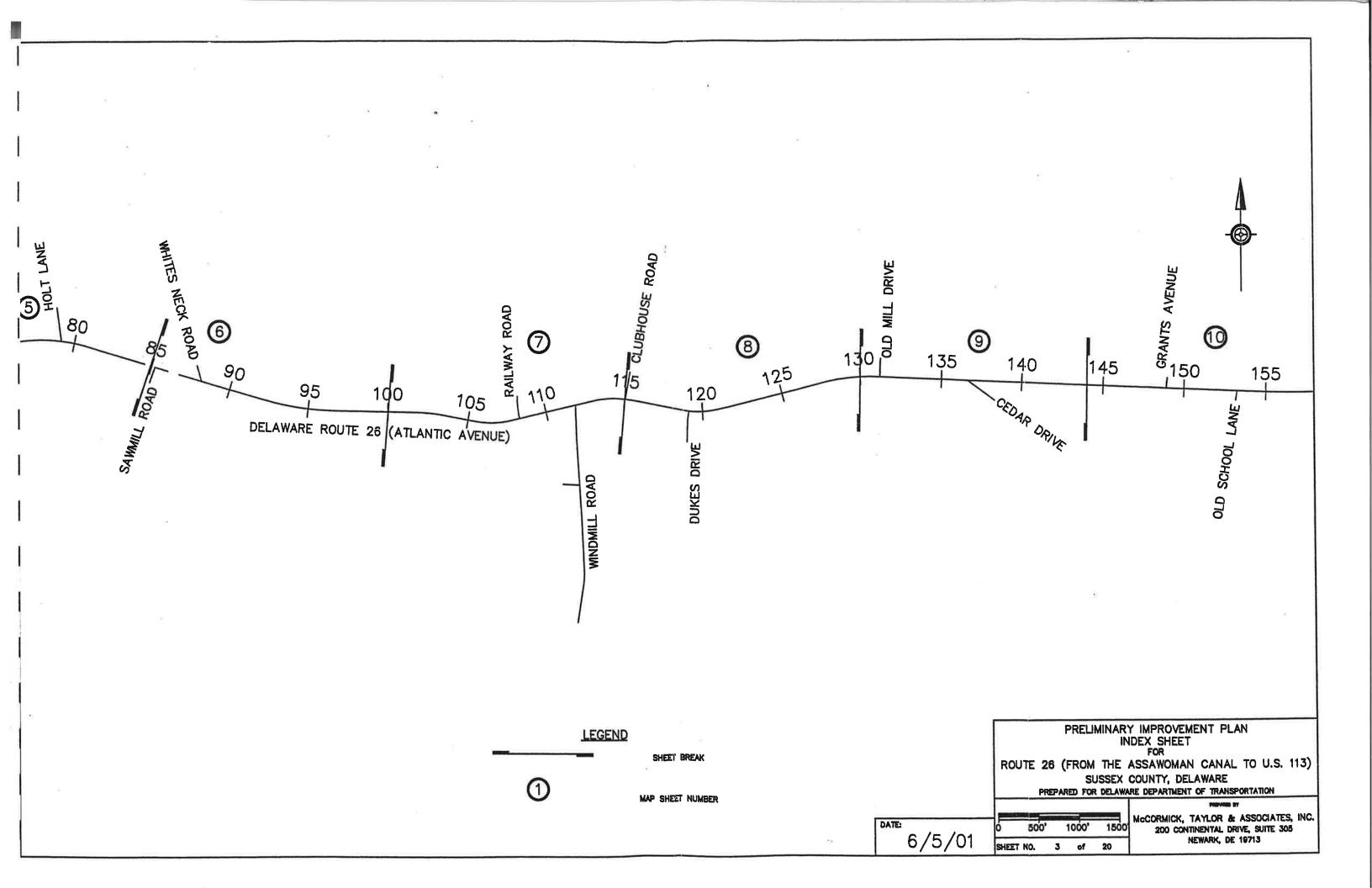
ROADWAY LENGTH XXXXXXX STA (x+xx) TO STA (xxxx) FROM CLARKSVILLE TO THE ASSAWOMAN CANAL

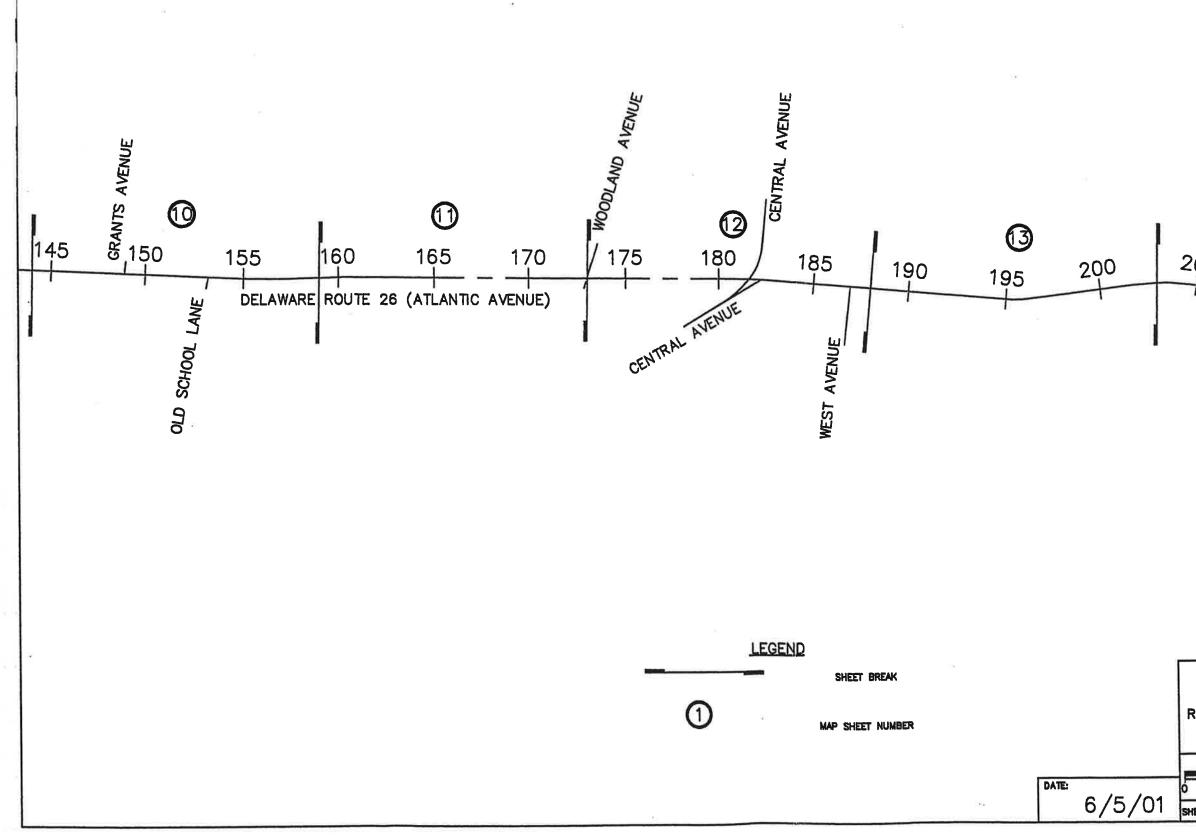
> STRUCTURE LENGTH N/A TOTAL LENGTH 41,483.14 FT

PLANS PRE		
McCORMICK, TAY	LOR & ASSOC.	
	ENGINEER	

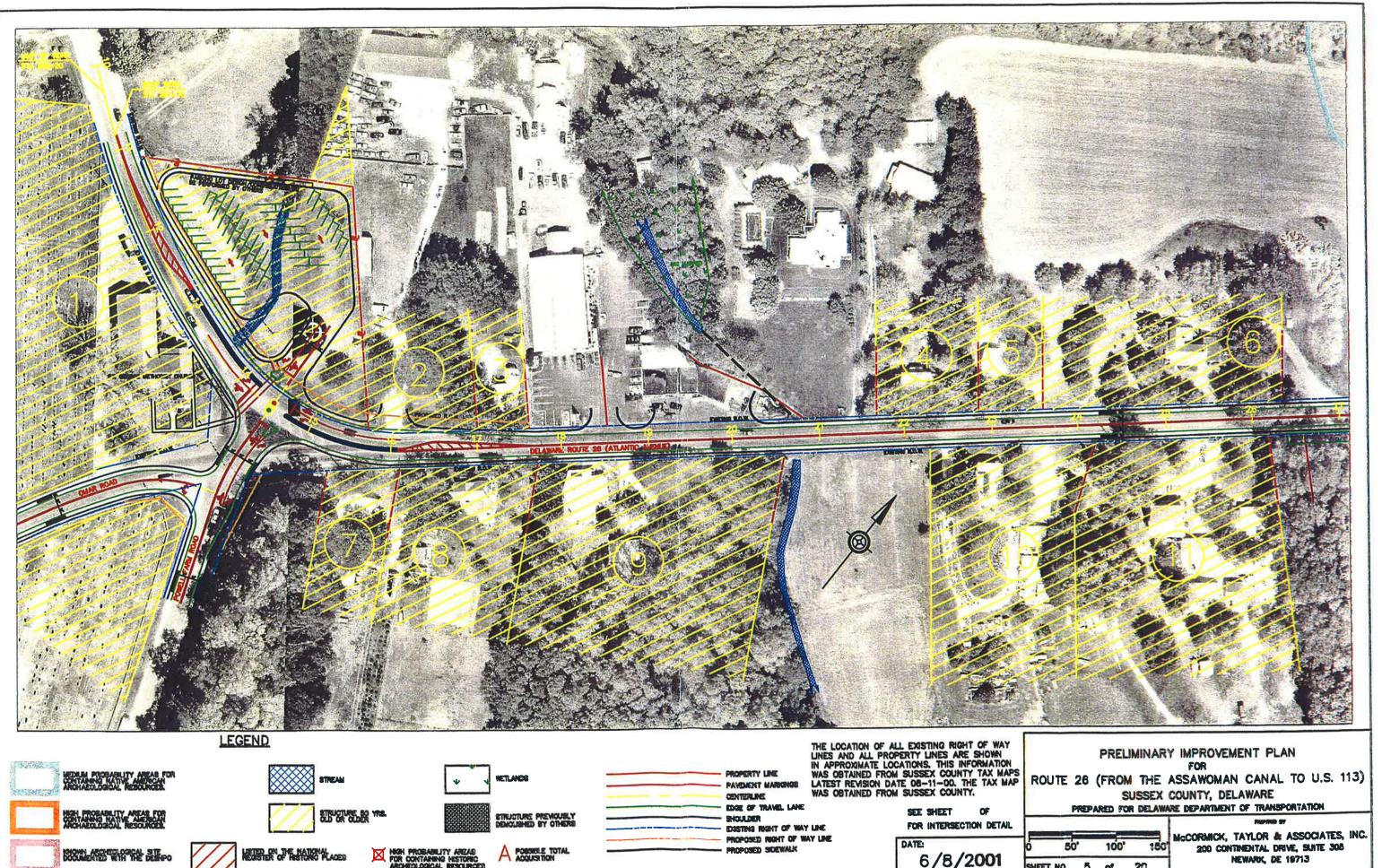
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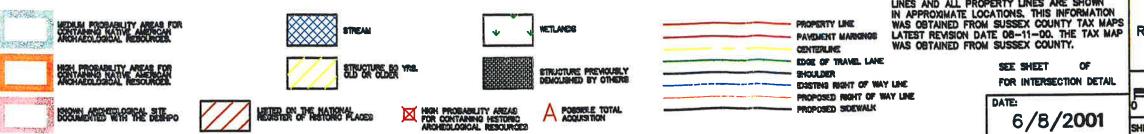


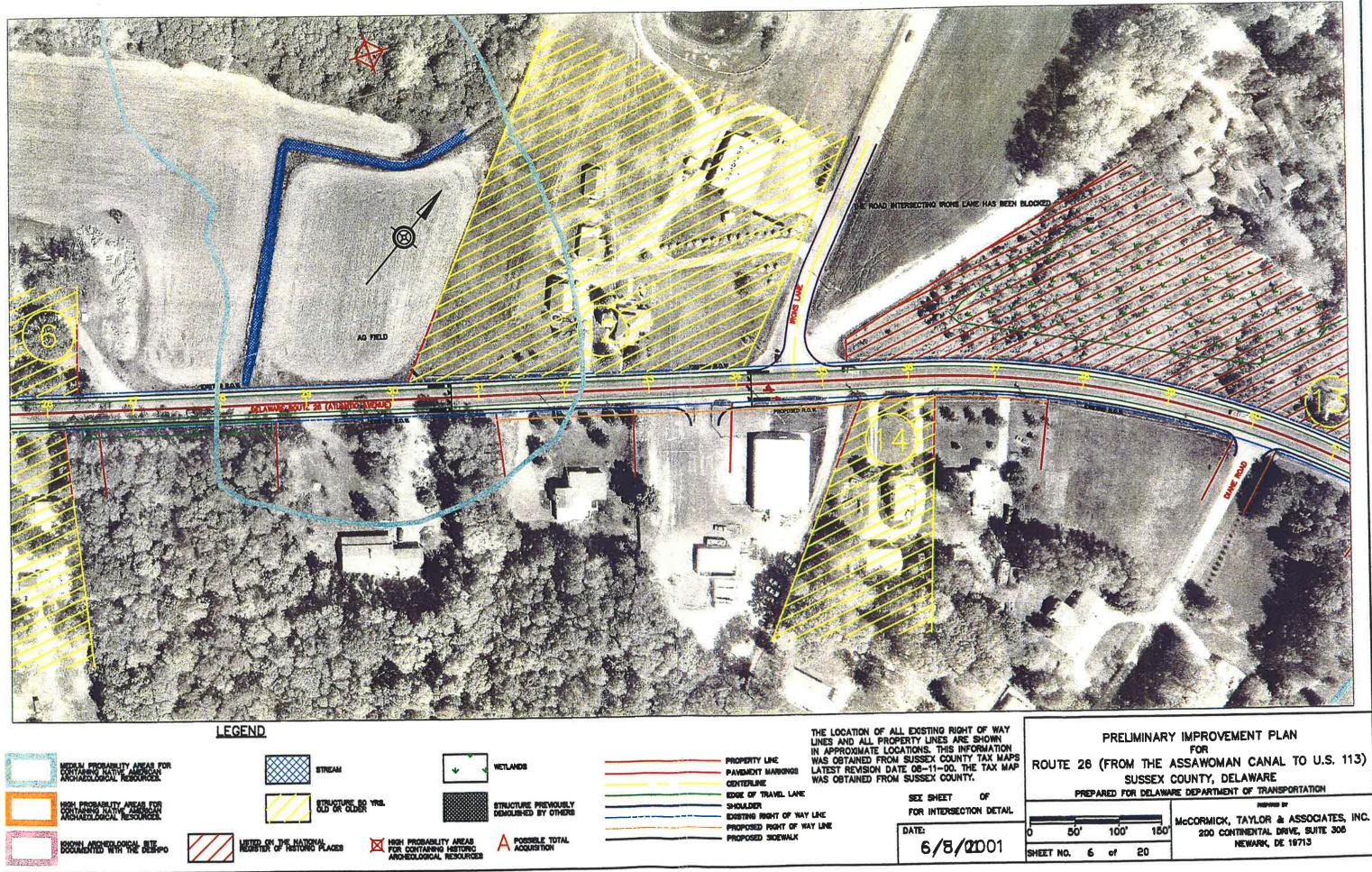




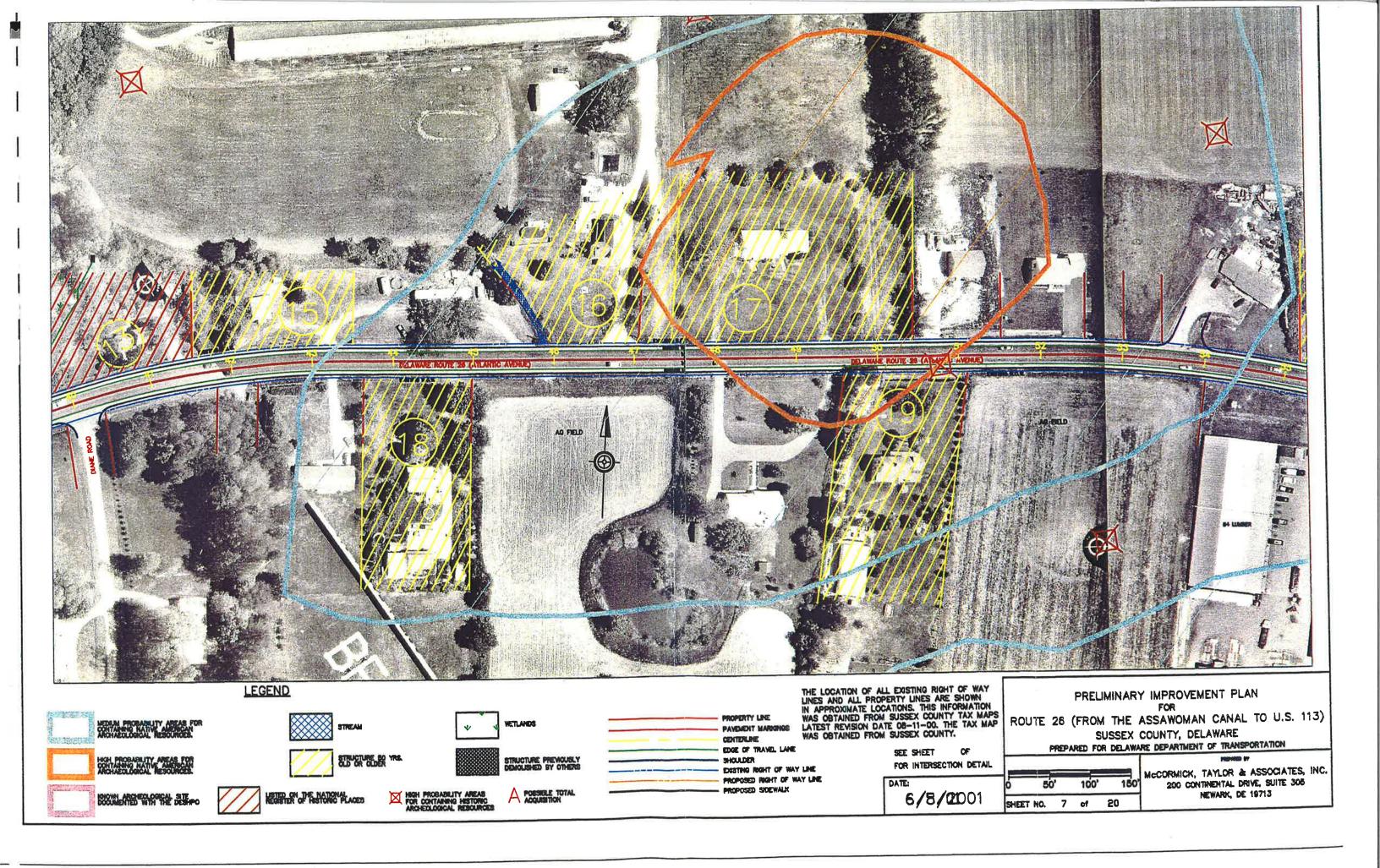
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PRELIMINAR' IN ROUTE 26 (FROM THE SUSSEX	Y IMPROVEMENT PLAN IDEX SHEET FOR ASSAWOMAN CANAL TO U.S. 113) COUNTY, DELAWARE WRE DEPARTMENT OF TRANSPORTATION MCCORMICK, TAYLOR & ASSOCIATES, INC. 200 CONTINENTAL DRIVE, SUITE 305 NEWARK, DE 19713

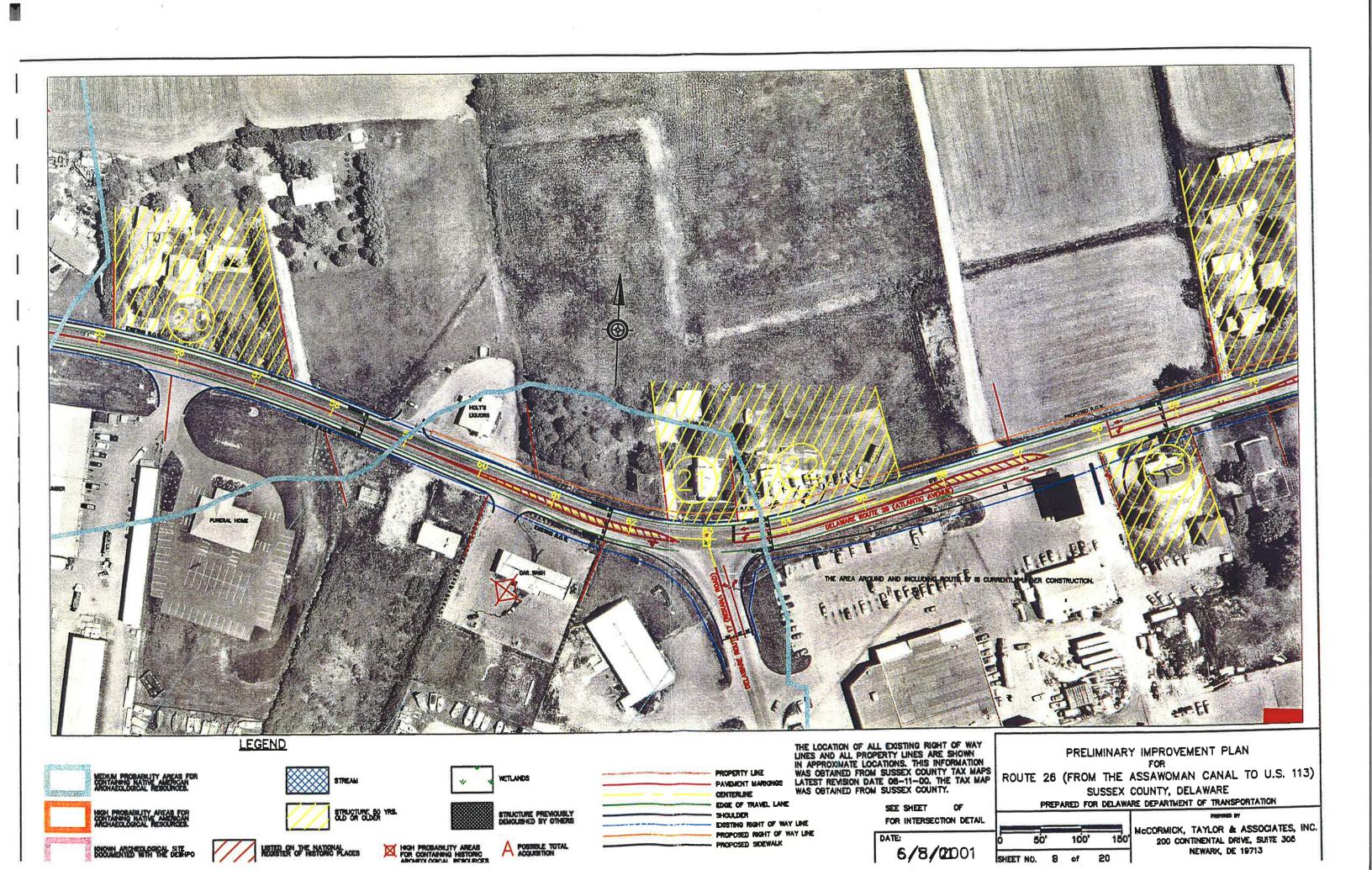


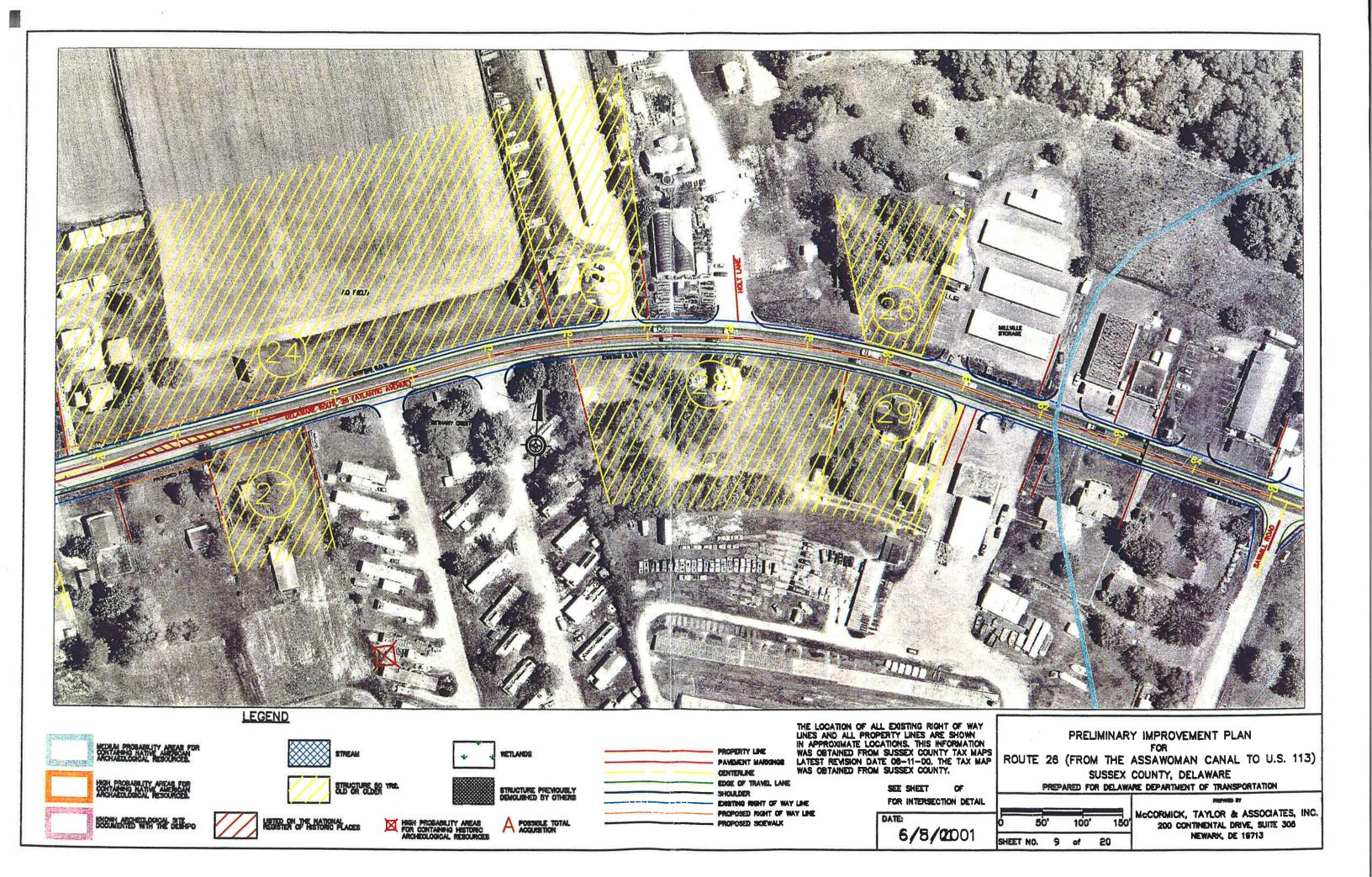


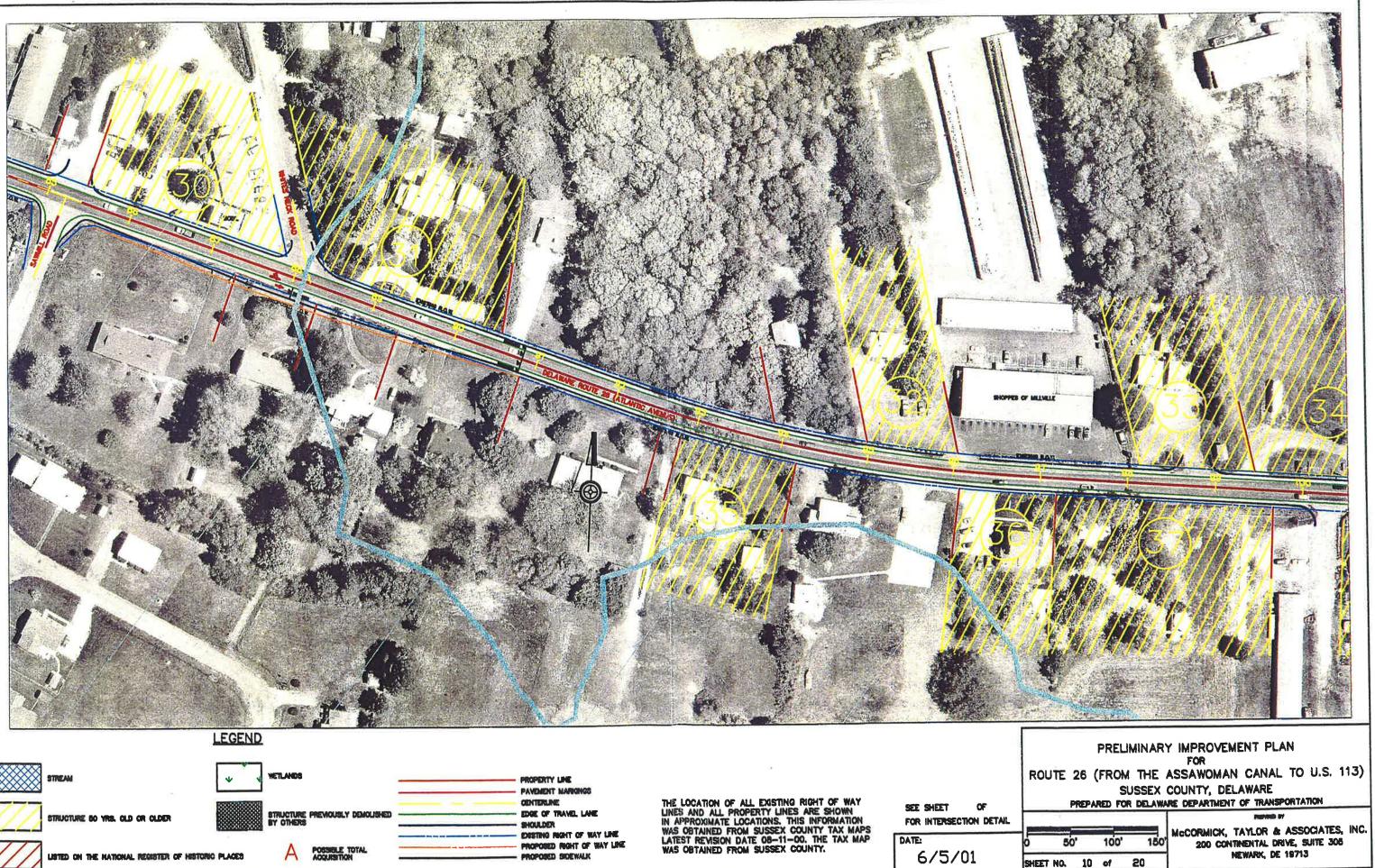


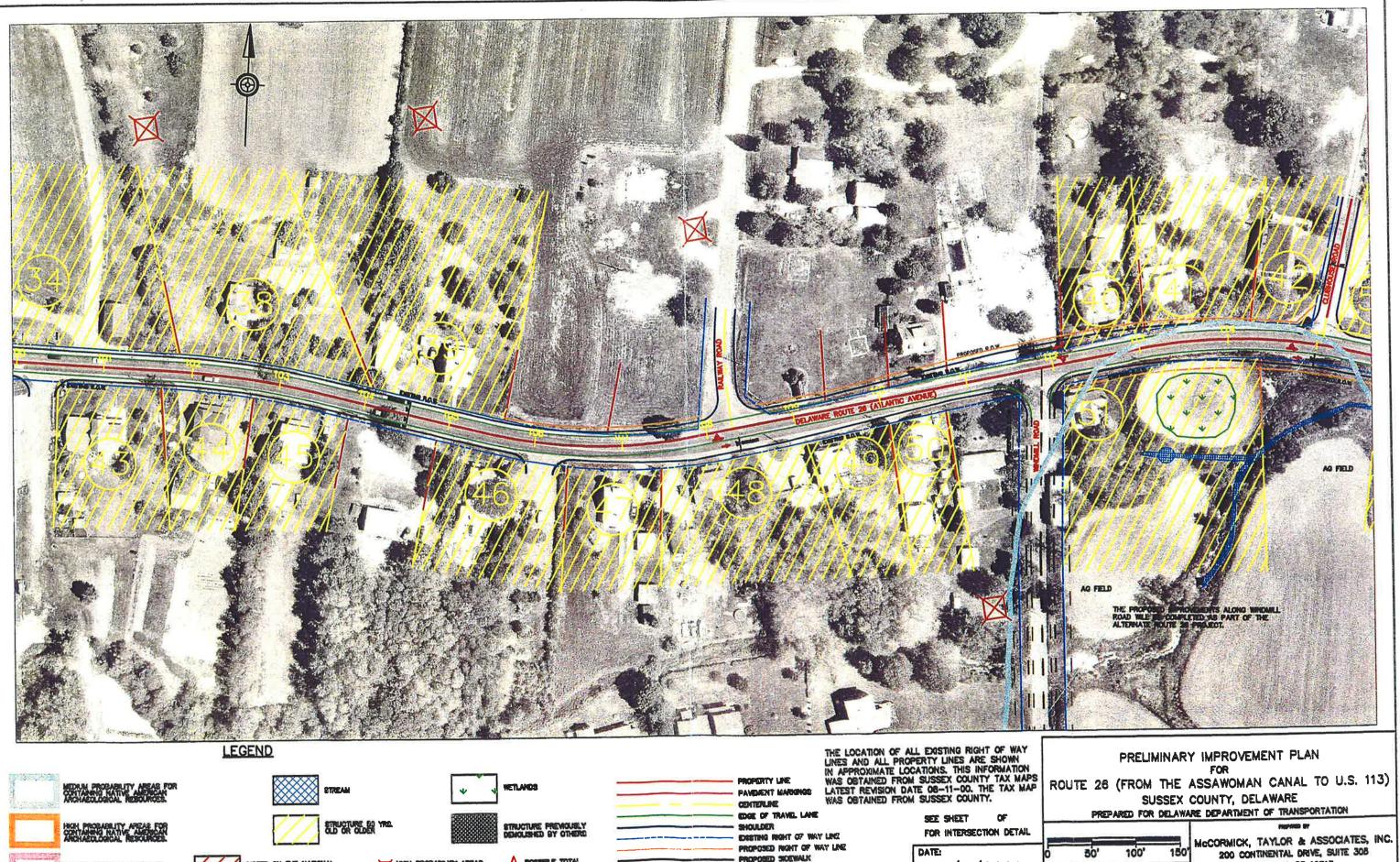
PRELIMINARY IMPROVEMENT PLAN FOR OUTE 26 (FROM THE ASSAWOMAN CANAL TO U.S. 113) SUSSEX COUNTY, DELAWARE PREPARED FOR DELAWARE DEPARTMENT OF TRANSPORTATION
50' 100' 150' 200 CONTINENTAL DRIVE SUITE 308

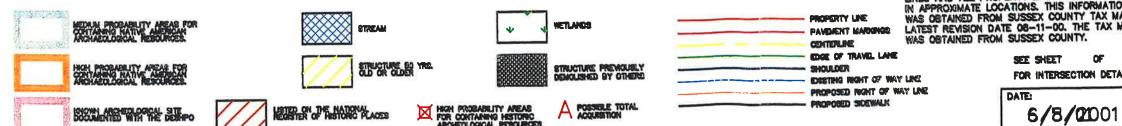




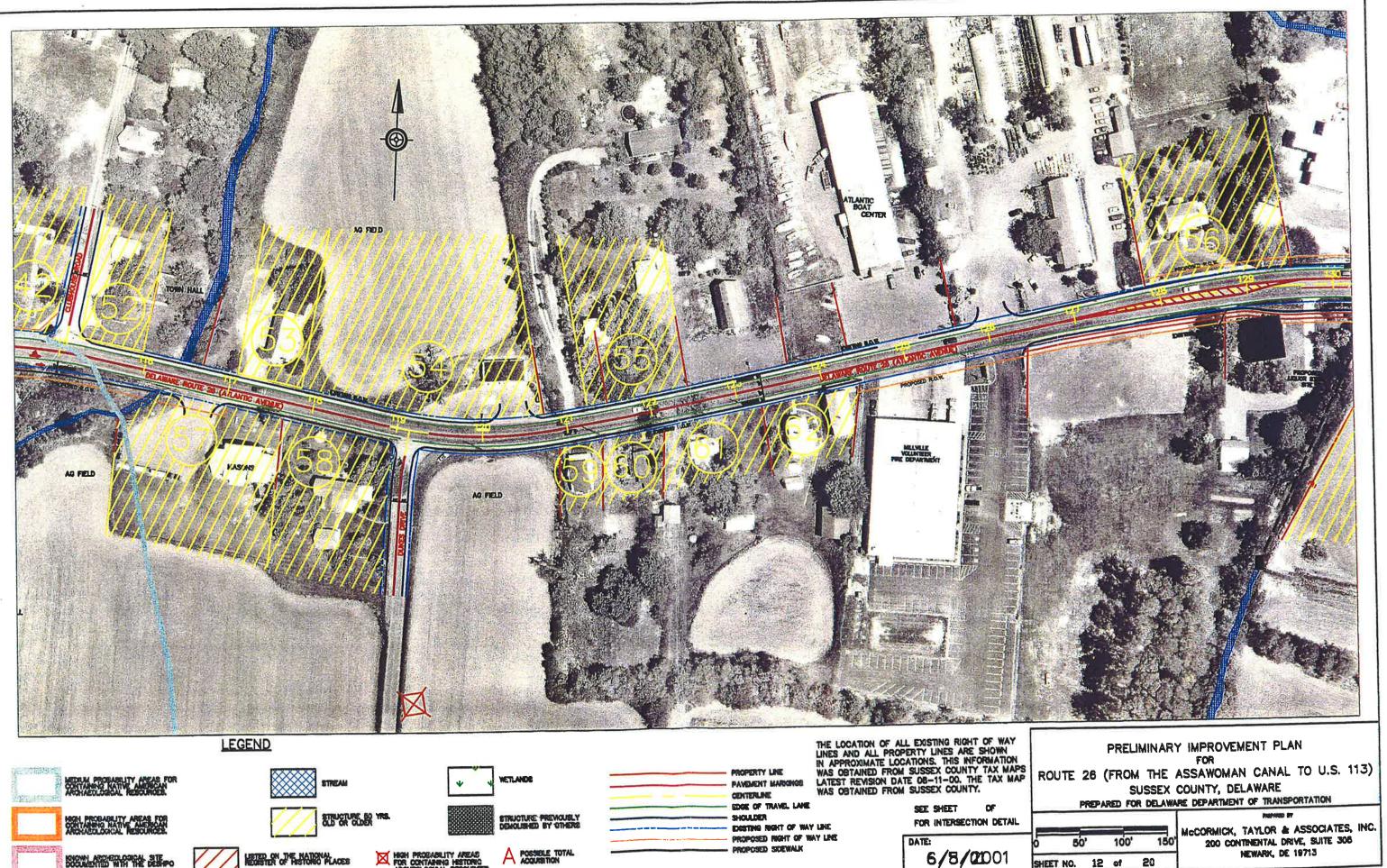


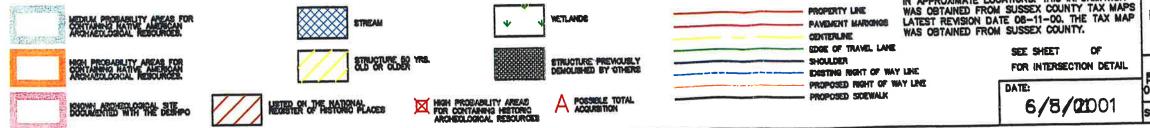


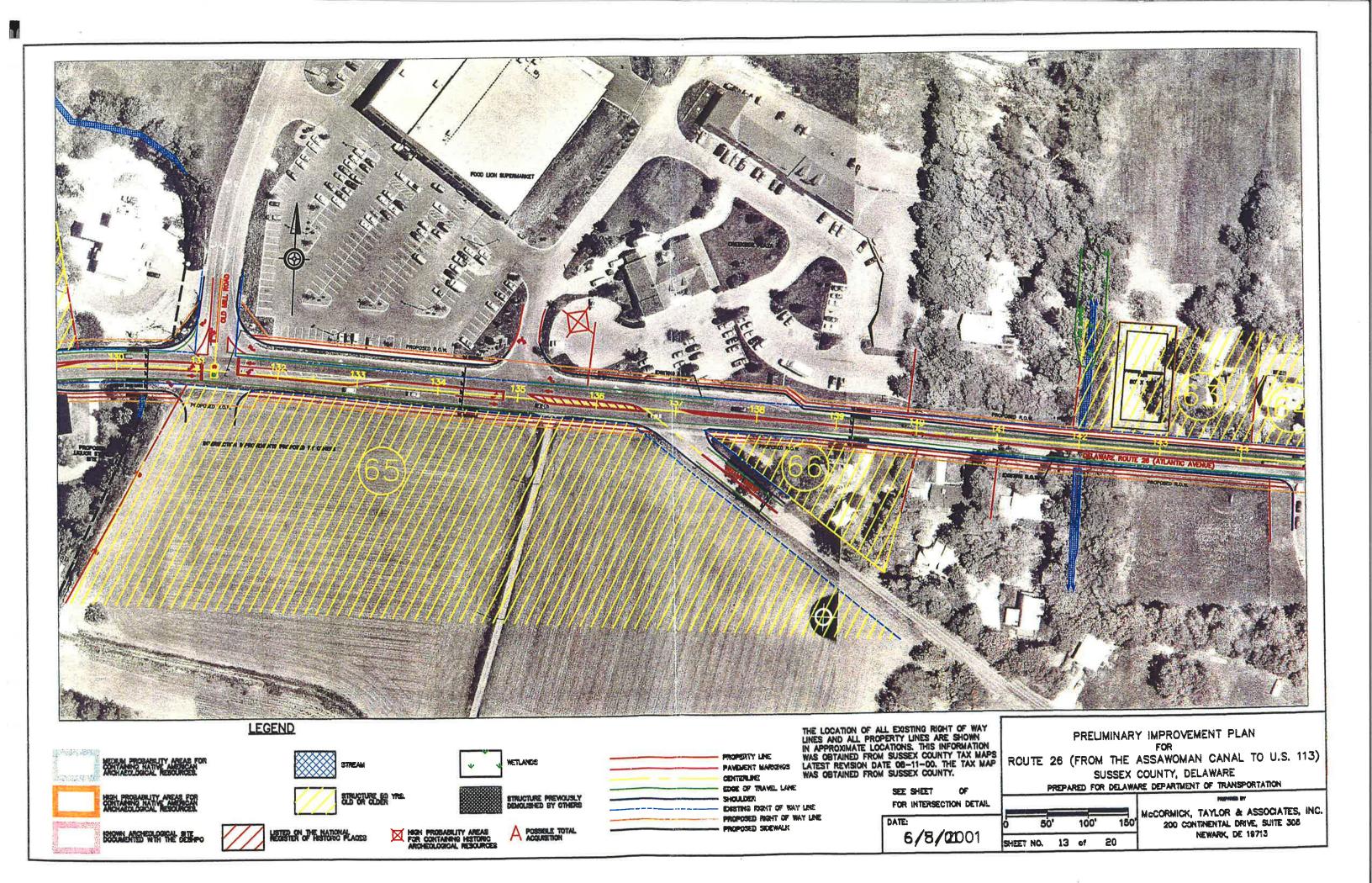


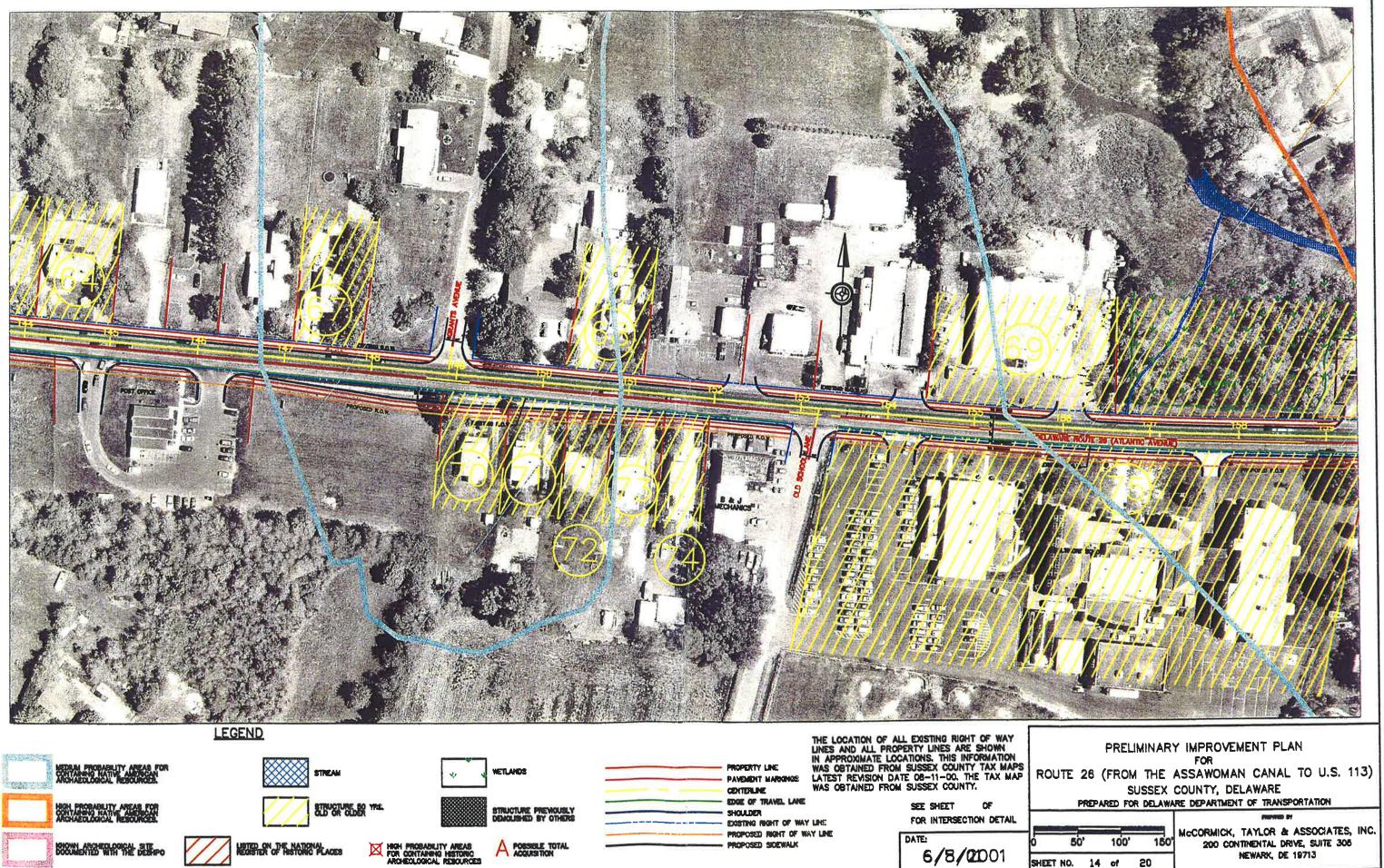


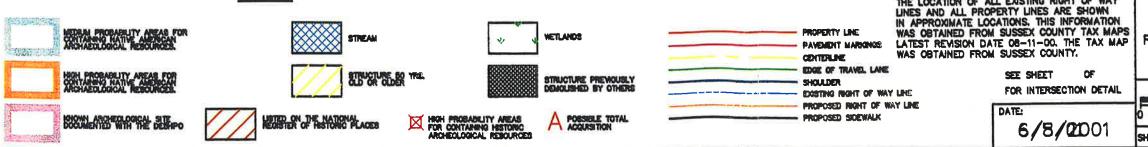
NEWARK, DE 19713 SHEET NO. 11 of 20

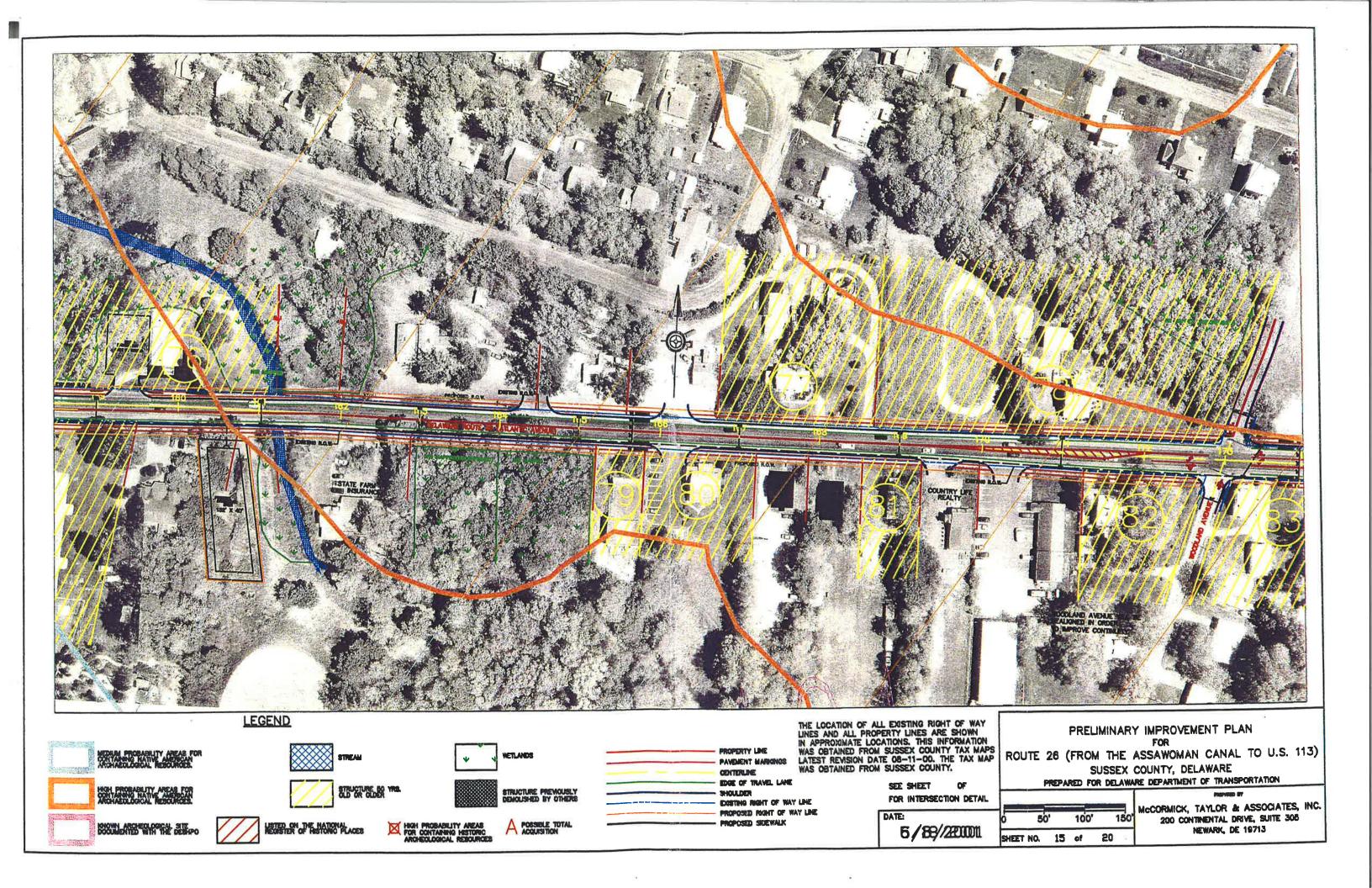


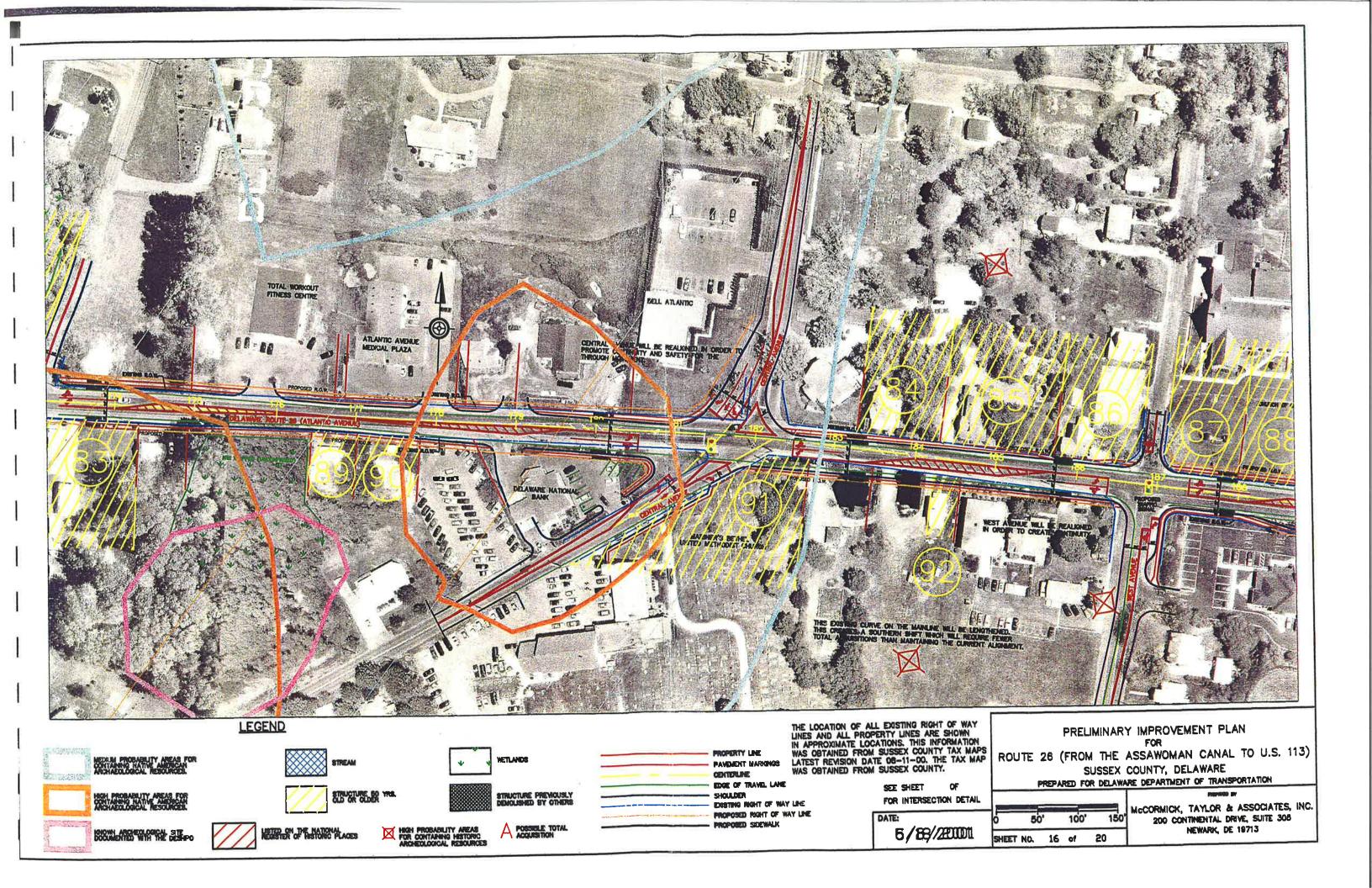


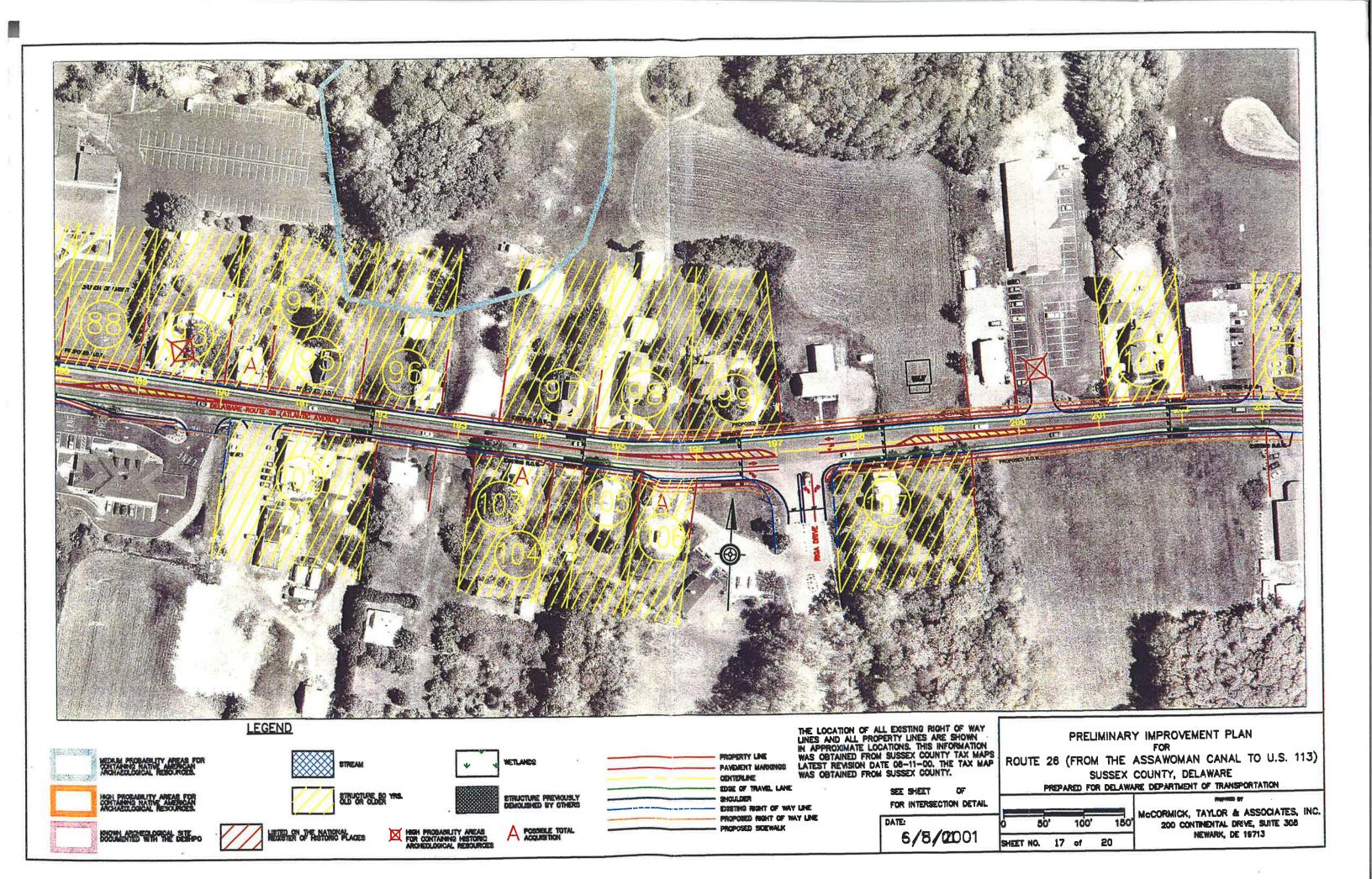


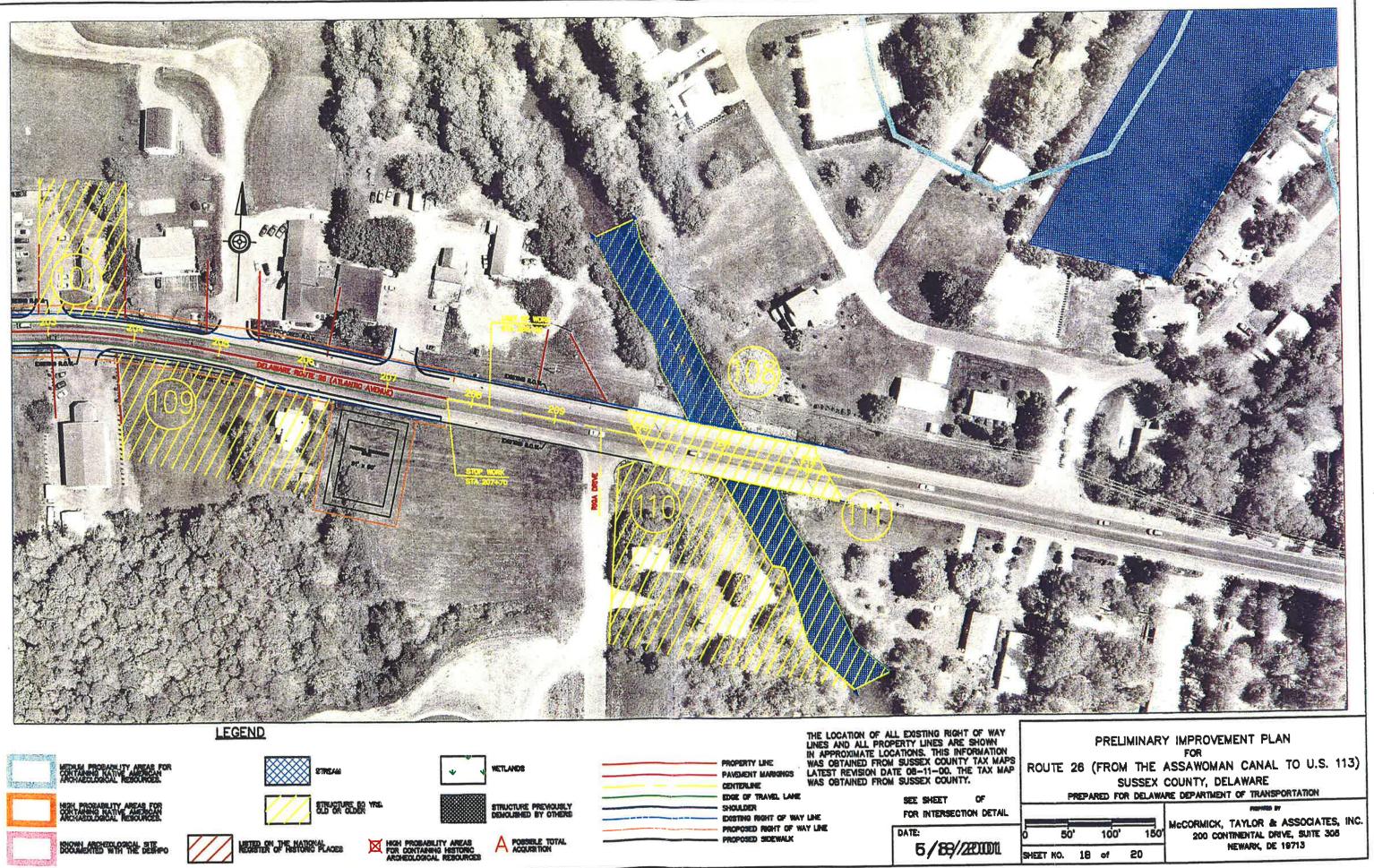




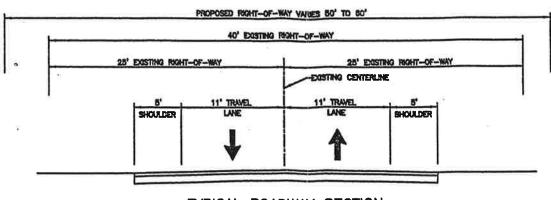




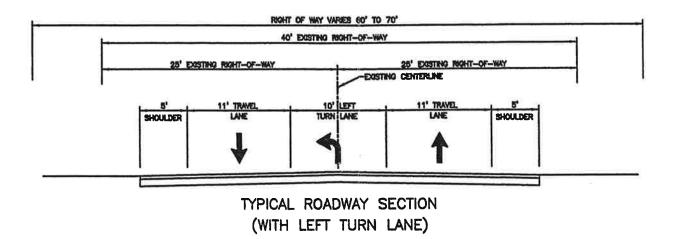


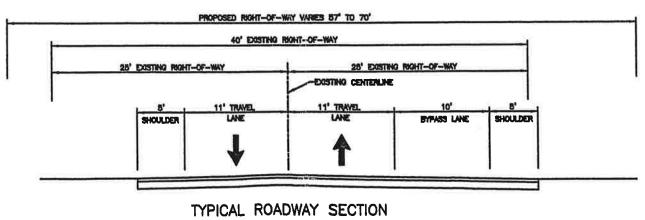


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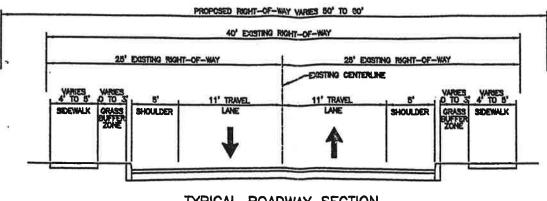




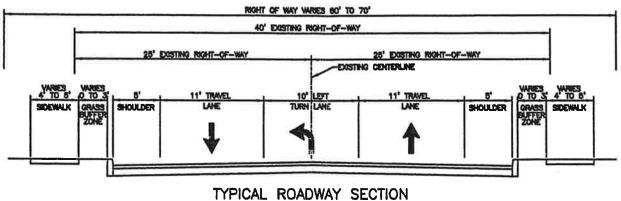
(WITH BYPASS LANE)

THE LOCATION OF ALL LEGAL RIGHT OF WAY LINES AND ALL PROPERTY LINES ARE SHOWN IN APPROXIMATE LOCATIONS. THIS INFORMATION WAS OBTAINED FROM SUSSEX COUNTY TAX MAPS LATEST REVISION DATE 12-2-1998. THE TAX MAP WAS OBTAINED FROM THE DELAWARE DEPARTMENT OF TRANSPORTATION.

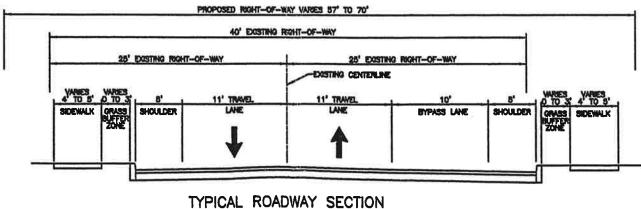
r	
PRELIMINAR	Y IMPROVEMENT PLAN
TYPICAL	VARE ROUTE 26 SECTION DETAILS
	COUNTY, DELAWARE RE DEPARTMENT OF TRANSPORTATION
SCALE : 1"= 10'	MCCORMICK, TAYLOR & ASSOCIATES, INC.
5' 10' 15'	TWO COMMERCE SQUARE 2001 MARKET ST. 10th Floor







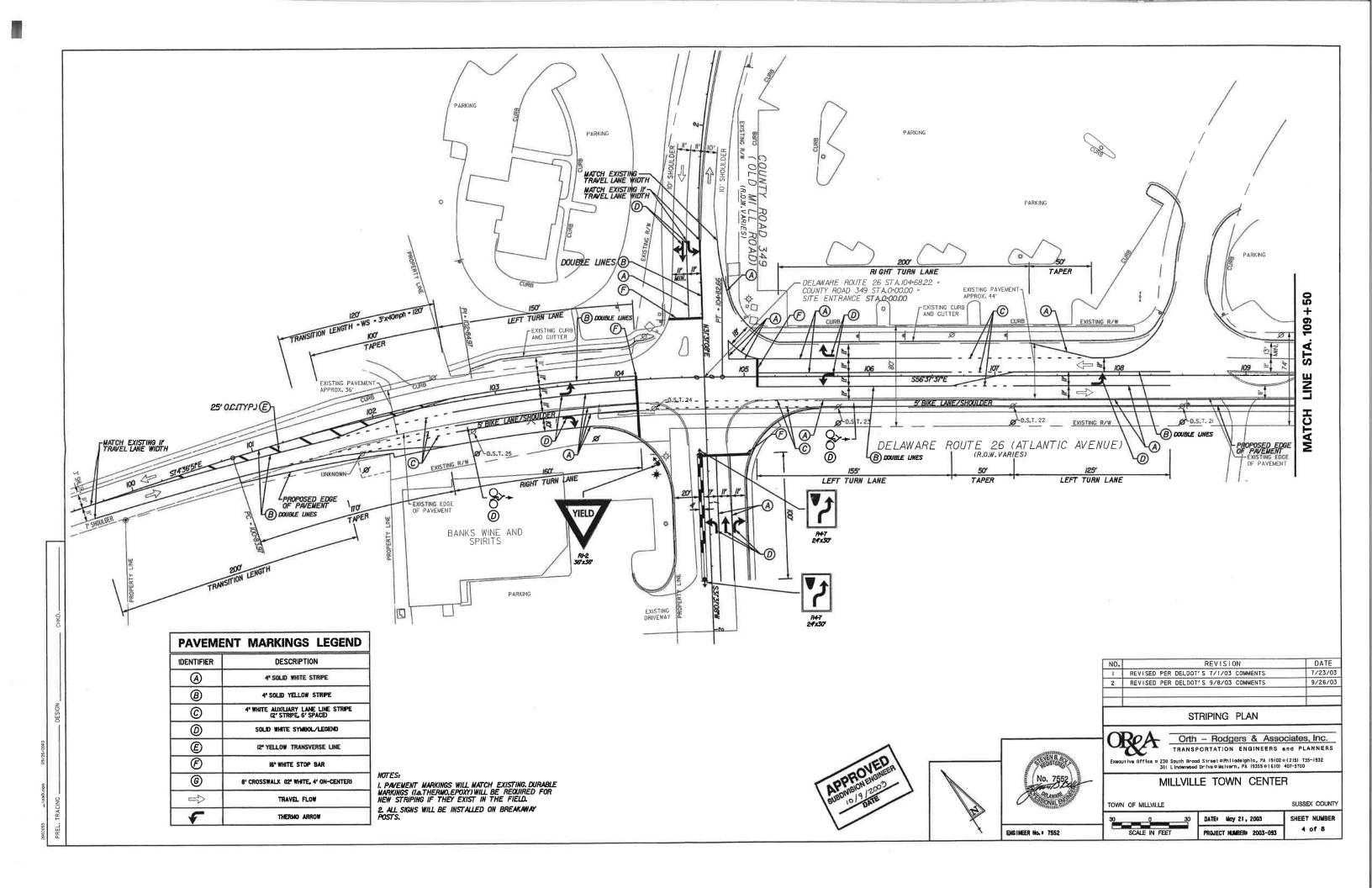
(WITH LEFT TURN LANE AND SIDEWALK)

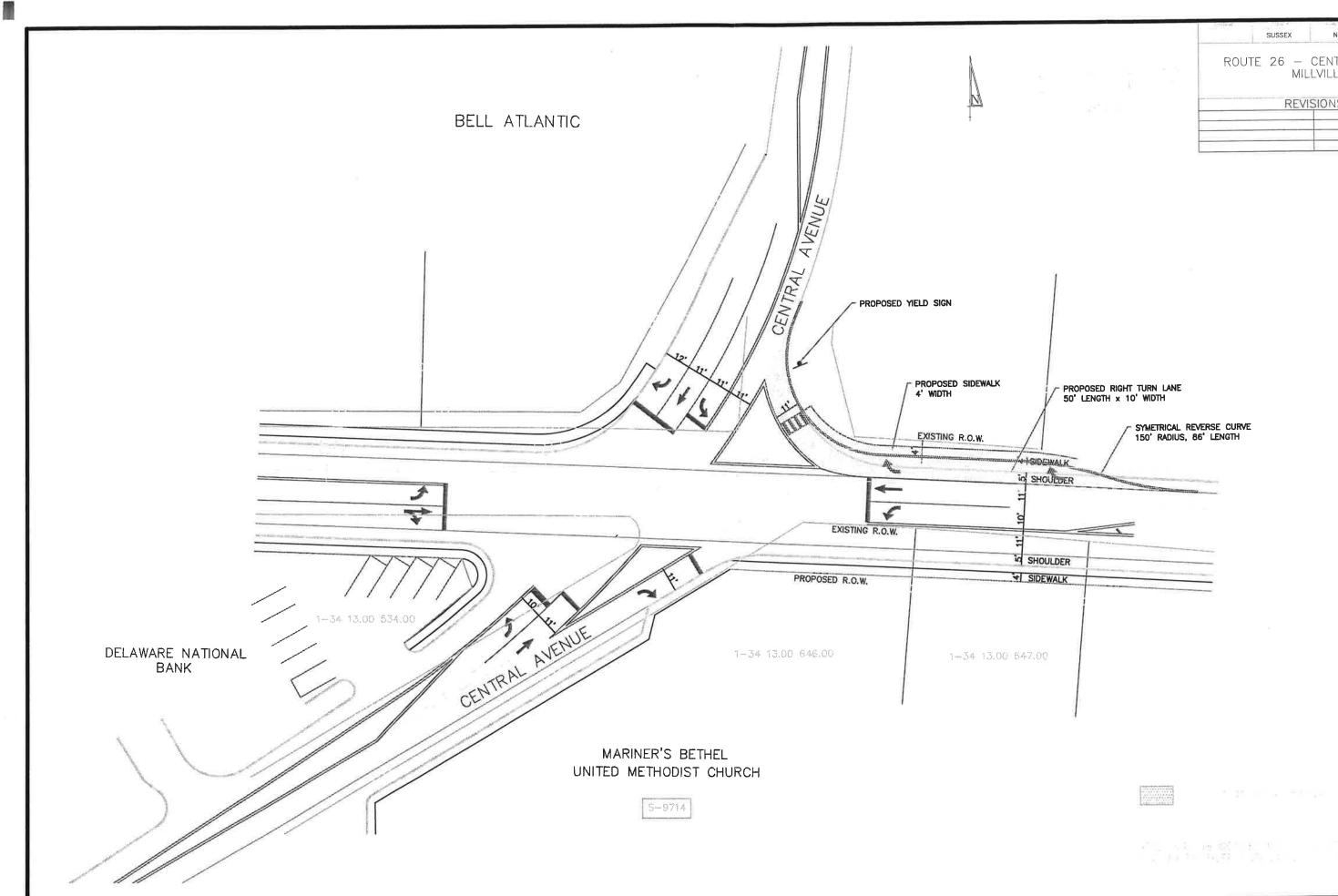


(WITH BYPASS LANE AND SIDEWALK)

THE LOCATION OF ALL LEGAL RIGHT OF WAY LINES AND ALL PROPERTY LINES ARE SHOWN IN APPROXIMATE LOCATIONS. THIS INFORMATION WAS OBTAINED FROM SUSSEX COUNTY TAX MAPS LATEST REVISION DATE 12-2-1998. THE TAX MAP WAS CETAINED FROM THE DELAWARE DEPARTMENT OF TRANSPORTATION.

*	
PRELIMINAR	Y IMPROVEMENT PLAN
	WARE ROUTE 26
	SECTION DETAILS
	COUNTY, DELAWARE
SCALE : 1"= 10'	ARE DEPARTMENT OF TRANSPORTATION
SUMLE : = IV	
	MCCORMICK, TAYLOR & ASSOCIATES, INC.
5' 10' 15'	MCCORMICK, TAYLOR & ASSOCIATES, INC. TWO COMMERCE SQUARE 2001 MARKET ST. 10th Floor





ander.	SUSS	EX	N/A	5	6							
ROUT	FE 26		CENTRAL _LVILLE	AVEN	UE							
	REVISIONS											
		_										

Appendix C

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Trip Generation Calculations

Orth - Rougers Associates, Inc.	KED BY DAT	E PROJECT NO OF
480 Compominiums (ITE CODE	230)	
Am PEAR HUNR (p. 368)	PM PEAK HUML (p. 369)	SATURDAY REAK HELM (p. 373)
A CONTRACT A CONTRACT OF A		1
LN(T) = 0.80 LN(X) + 0.26	W(r)=0.82 LN(x)+0.32	T = 0.29(x) + 42.63
LN(T)= 0.80 LN(480)+ 0.24	LN(T)= 01822N(400)+0,32	T= 0.29(480)+42.63
W(T)= 5.1990 28883	W(T): 5.382504605	T= 182 MR1PS
T= 181 TRIPS	T= 218 TR/193	54 2 ENTERIA, 46 20 EXMUL 98 VEA. ENTERIA, 84 NOIL EXMUL
17% ENTERING 832 EXITING	67 To ENTER ING, 33 To EXITING	98 VEA. ENTERIN, 84 NET. ISKITUL
31 VEA-GATERING, 150 VEA-EXITING	146 NEAL EMERING, 72 NEAL D	KITWL
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	Average	e Vehi	cle Tr	ip En	ds vs: On a:	We	velling eekday eak Ho ne Hou	y, ur of /	Adiac	ent S 7 and	treet 7 19 a.m	Fraffic n.	,
	Avg. N	lumher	of D	velling	Studies g Units ibution	: 21		ering,	83% e	exiting]		
p Genei	ation pe	er Dwe	lling	Unit				-		St	andard	Deviati	on
	verage Ra				Ran		Rates			15.15		69	
1	500												/
Trip Er	400			• • • • • • •					,	, , , , , , , , , , , , , , , , , , ,	/		
= Average Vehicle	200				××		×	, . 	/				
F	100	×	× × × × × × ×	**		×	<u>×</u>						
	*	×××××					;	700	800	900	1000	1100	1200

Trip Generation, 7th Edition

368

Institute of Transportation Engineers

Residential Condominium/Townhouse (230)

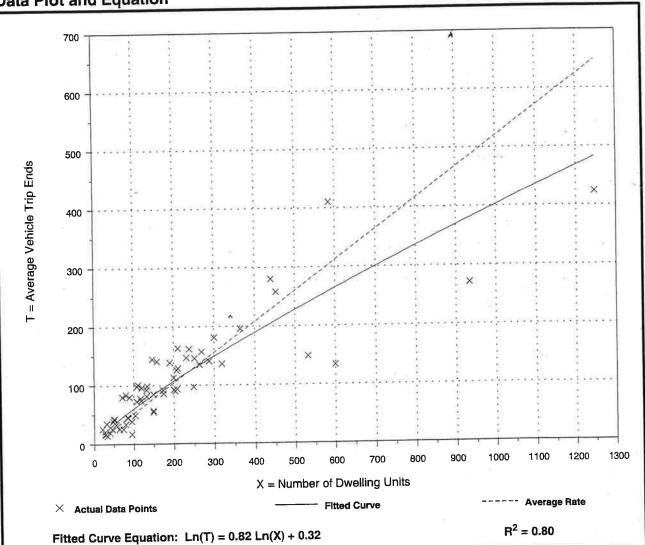
1	Number of Studies:	Dwelling Units Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.
	Number of Studies: Avg. Number of Dwelling Units:	

Directional Distribution: 67% entering, 33% exiting

205

Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.52	0.18 - 1.24	- 0.75
0.02		N



Data Plot and Equation

Trip Generation, 7th Edition

Residential Condominium/Townhouse

(230)

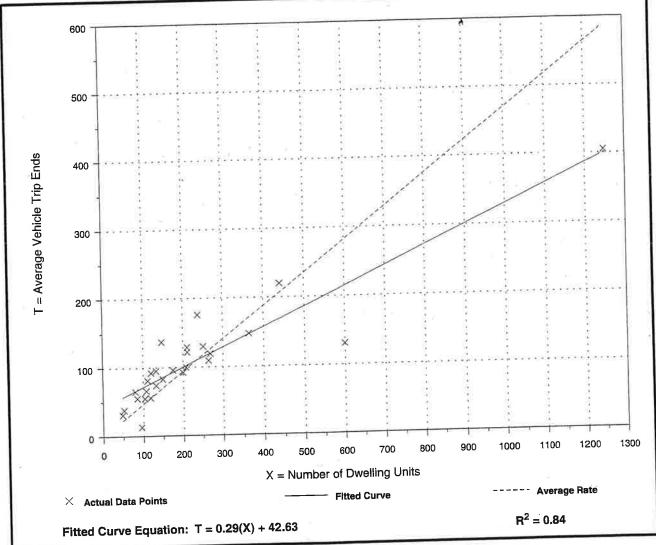
Average Vehicle Trip Ends vs: Dwelling Units On a: Saturday, Peak Hour of Generator

Number of Studies: 27 Avg. Number of Dwelling Units: 228 Directional Distribution: 54% entering, 46% exiting

Trip Generation per Dwelling Unit

Range of Rates	Standard Deviation
0.14 - 0.93	0.71





Appendix D

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Site Plan

UPDATED SITE PLAN CURRENTLY NOT AVAILABLE

Appendix E

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Signal Timing Plans

LOCATION OF SIGNAL: DE RT 26 & RD 349

DATE OF CHART : 3/4/2003 DATE INSTALLED: 10/11/1996 CONTROLLER TYPE: EPAC COORDINATION TYPE: NONE COORDINATION ADDRESS: 999

CHART REVISION: 1 CABINET TYPE: PCOM MONITOR TYPE: NEMA+

PHASE NUMBER	1	2	3	4	5	6	7	8
PHASE LOCATION	WBLT	EB RT 26	NB	SB RD 349	EBLT	WB RT 26	A State of the second	
MIN GRN	5	15	5	5	5	15		
PASS/10	30	50	40	40	30	50		
MAX #1	30	99	45	45	30	99		
MAX #2	30	99	45	45	30	99	和制度在自己的	计算机学生的注意 的出
YEL/10	30	40	40	40	30	40	Contraction of the local data	
RED/10	20	20	20	20	20	20	制作加加自然	
AINI/10	0	22	0	0	0	22		and the second second
MAX INI	0	30	0	0	0	30		
TIMBEF	0	0	0	0	0	0	Sec. Sector	Constant States
CAR BEF	0	0	0	0	0	0		States and the support of the second
TIME TO	inter O		0	0	<u>0</u>	0	THE MENT	Sales March
MGAP/10	0	0	0	0	0	0		
WALK	0	0	0	0	0	0		1.450年1月1日)
PED CLR	0	0	0	0	0	0		
EXTPCL	0	0	0	0)	0	0	To an and the second	「「家市政制品ない」
		English and an and a start and	A STATE		a a la companya da la	to the second second second	Contraction of Contraction	
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NA RESP	0	0	0	0	0	0		
V. RECALL	0	2	0	Interna Oraciana I	0	2		The second second
P. RECALL	0	0	0	0	0	0		
		I	0			, v		1
NL MEM.	1 Set	0	0	0	1	0		「「「「「「「」」」
2 ENTRY	0	1	0	0	0	1		
OVERLAP/ LOCATION		8 Fire Heads	Barner	中, 这个的最近年度了	C=	加速なる	D=	STRUCTURE STRUCTURE
PHASES		9						

** INTERSECTION NOTES **

NOTE: Program epac to run 'D' conn input Mode 2 (Menu 4:8, 'D' conn input = 2)

1 Phases 1 and 5 are permissive left turns

2 Pre-empt 1 is activated from the fire house radio reciever when the whistle blows and

times for 4 minutes holding EB & WB green and the fire heads red.

3 Preempt: EB & EBLT, or WB & WBLT, or NB, or SB

4 Priority: EB & WB, or, NB, or SB

LOCATION OF SIGNAL: DEL RT 26 & RD 357 (Central Ave.)

DATE OF CHART : 8/03/2004 DATE INSTALLED: 11/22/77 CONTROLLER TYPE: EPAC COORDINATION TYPE: none COORDINATION ADDRESS: 33

CHART REVISION: 2 CABINET TYPE: PCOM MONITOR TYPE: NEMA+

PHASE NUMBER	1	2	3	4	5	6	7	8
PHASE LOCATION	WBLT	EB RT 26	SB RD 357	NB RD 357	EBLT	WB RT 26		STREES IN
MIN GRN	4	10	4	4	4	10		
PASS/10	40	50	40	40	40	50	A REAL PROPERTY.	Man manualt
MAX #1	20	85	35	35	20	85		
MAX #2	20	85	35	35	20	85	读书》为古 行派	A Contraction of the
YEL/10	30	40	30	30	30	40	THE R Adapt 1 PLACE	A COLUMN TWO IS NOT THE OWNER.
RED/10	20	20	20	20	20	20		Parks 2
			A CONTRACTOR		A	25	Section Street, and	
AINI/10	0	25	0	0	0	30	The second second second	
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TIM BEF	0	0	0	0	0	0	ALL PROPERTY AND A	A Manager (and a state of the
CAR BEF	0	0	0	0	0	0	Second Second	
TIME TO	0	0	0	0	0	0	A DEPARTMENT	A GRANDER OF BESIEVE ALTER.
MGAP/10	0	0	0	0	0	0		
AND ALL	0	0	0	0	0	0	HONOR H	112 910 0
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OVERLAP/ LOCATION	A=	315 311 3	B=	STREET, STREET, STREET, ST	C=	AND DEPENDING	D#	LI CONTRACTORIO

OVERLAP/LOCATION A= B= C= D= PHASES

** INTERSECTION NOTES **

1 PHASES 1 & 5 ARE PERMISSIVE LEFT TURNS.

2 Pre-empt: EB & EBLT, WB & WBLT, or NB or SB

3 Priority: EB & WB or NB or SB

4 THIS REVISION 2 SPLIT SIDE STREETS.

- 5
- 6_____

PERMIT # S169

LOCATION OF SIGNAL: DEL RT 26 & DEL RT 17

18

DATE OF CHART: 7/19/1999 DATE INSTALLED: CONTROLLER TYPE: 318 NEMA COORDINATION TYPE: COORDINATION ADDRESS:

CHART REVISION: 1 CABINET TYPE: MONITOR TYPE:

•	PHASE NUMBER	1	2	3	4	5	6	7	8
Į.	PHASE LOCATION	WBLT	EB RT 26		NB RT 17		WB RT 26	5	
	MIN GRN	10	15		4		15		
1	PASS/10	30	40		40		40		
l,	MAX #1	10	99		40		99		
	MAX #2	10	99	A CONTRACTOR OF STREET	40	and the Second	99		
*	YEL/10	30	40		40	No. of Concession, Name	40		
	RED/10	20	20	and the second	20		20		and the series
	AINI/10	0	0		0		0		和影响的影响
	MAX INI	0	0		0		0		
1	TIM BEF	0	0	and the second	0		0		
	ÇAR BEF	0	0		0		0		
1	TIME TO	0	0		0		0	10.0%。30代的法	
2	MGAP/10	0	0		0		0		
	WALK	0	0		0		0		
ų į	PED CLR	0	- 0		0		0		
	EXT PCL	0	0		0		0		See and see
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	OVERLAP/ LOCATION PHASES	A=		B=		C=		D=	
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Appendix F

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Intersection Sketches & Photographs

Orth - Rodgers Associates	s, Inc. BY Kim	DATE	5143/02	SHEET OF OF 7 AN 2 - 1
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	HEALTER		Stor, Stor	19.5'
And			-u-way STER STON	19.5'
101			ST28" STON	
				10.5"
				10.5"
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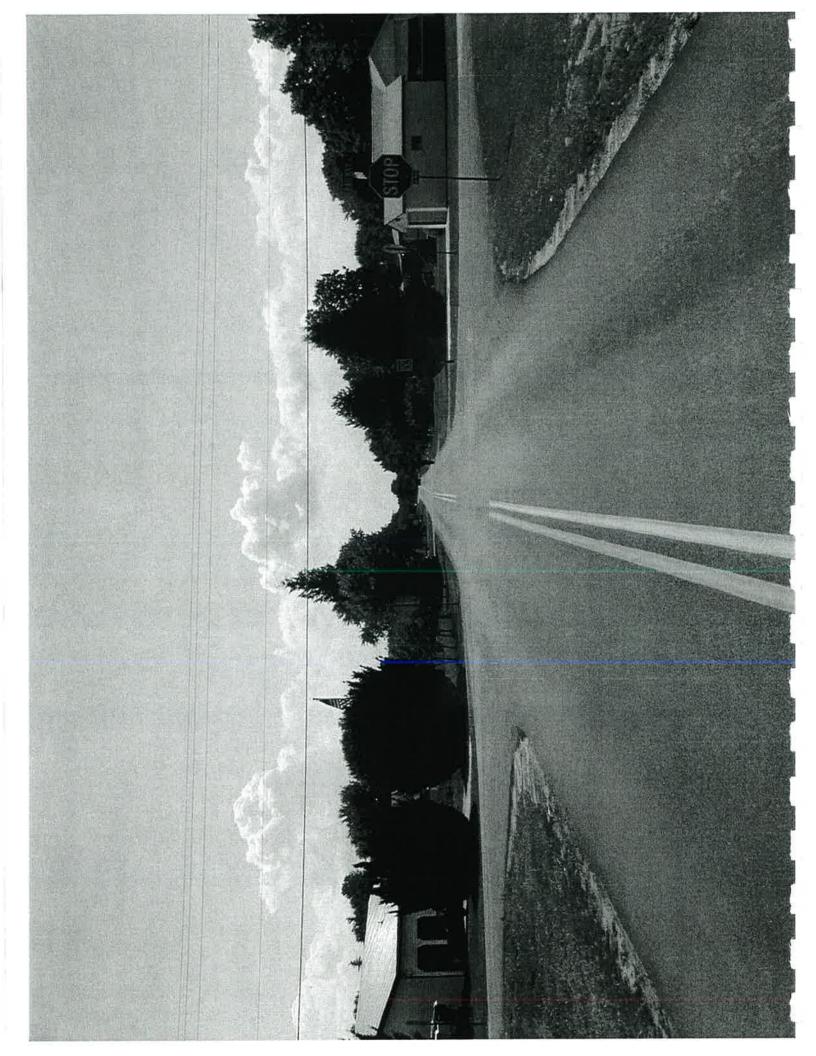
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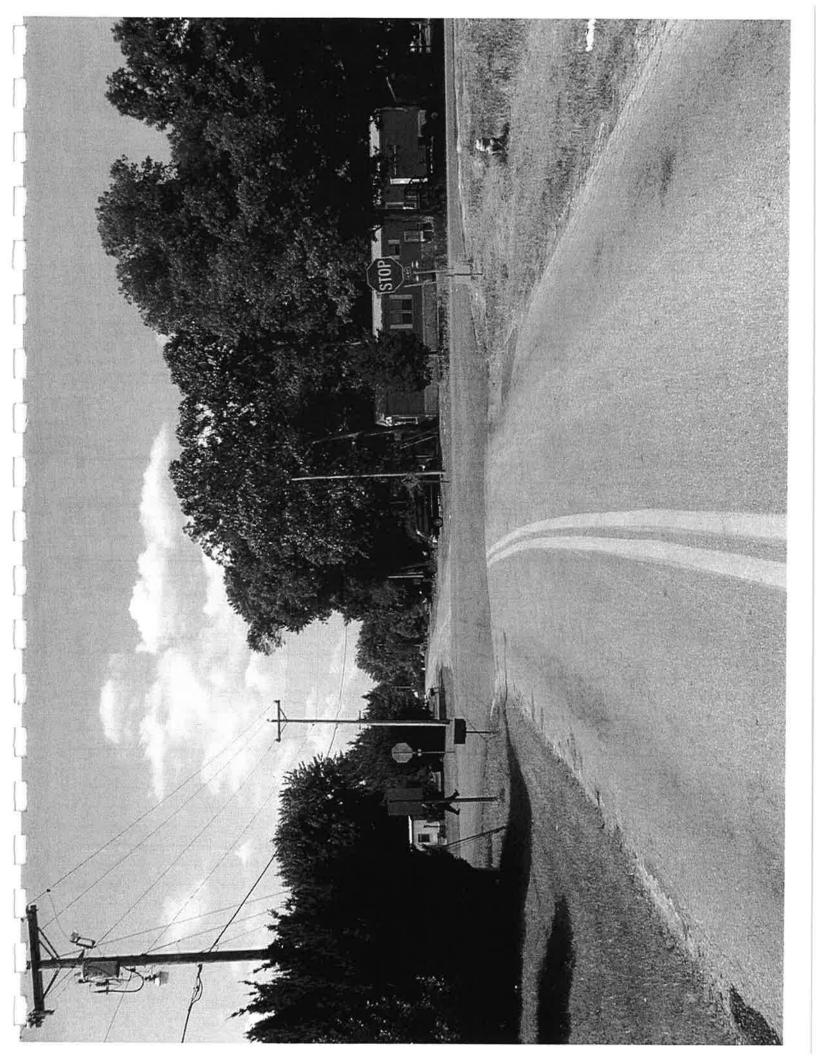
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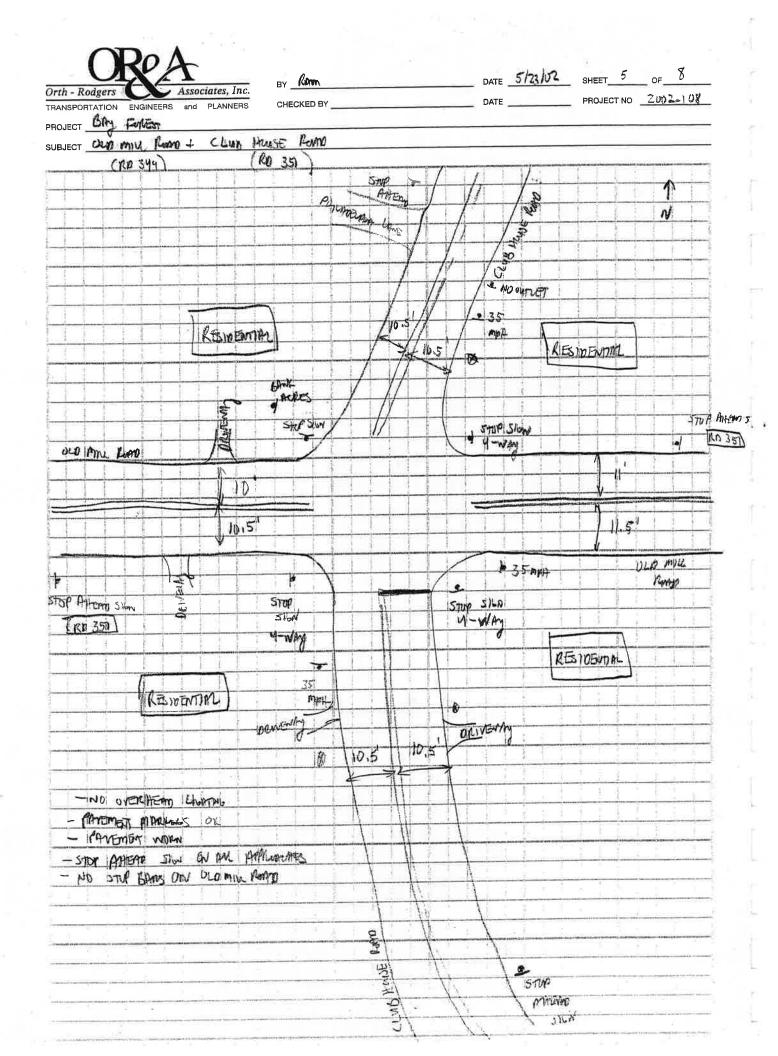
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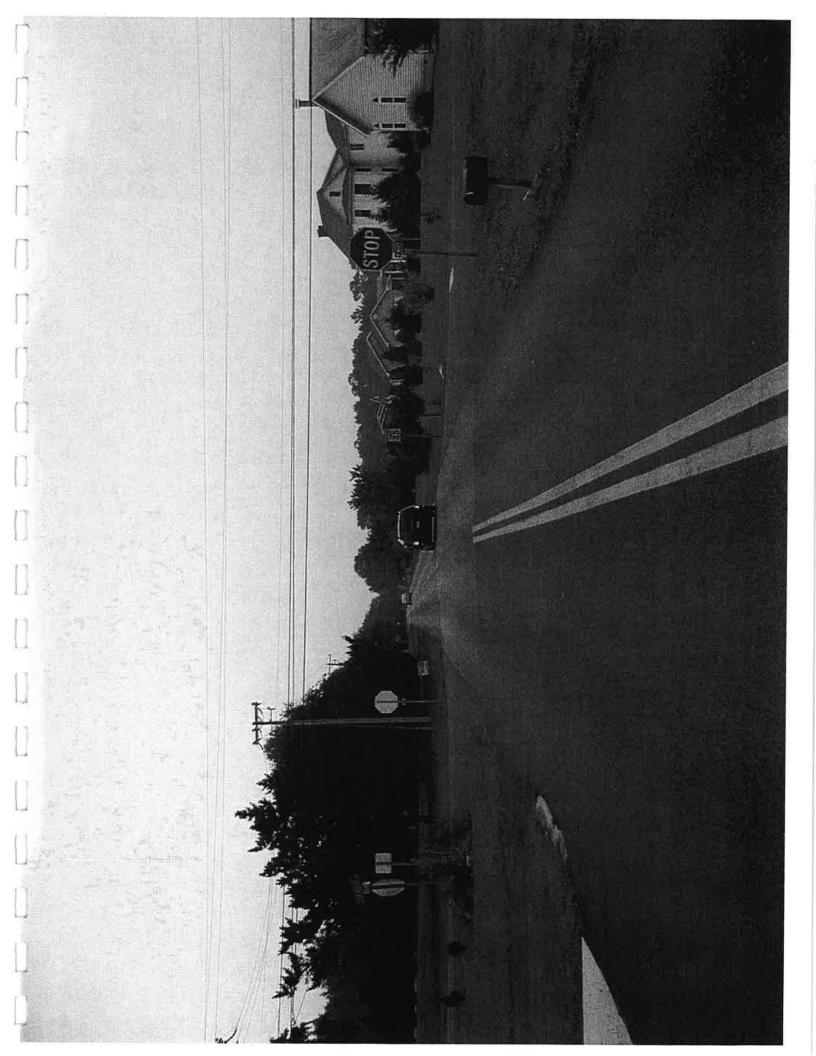


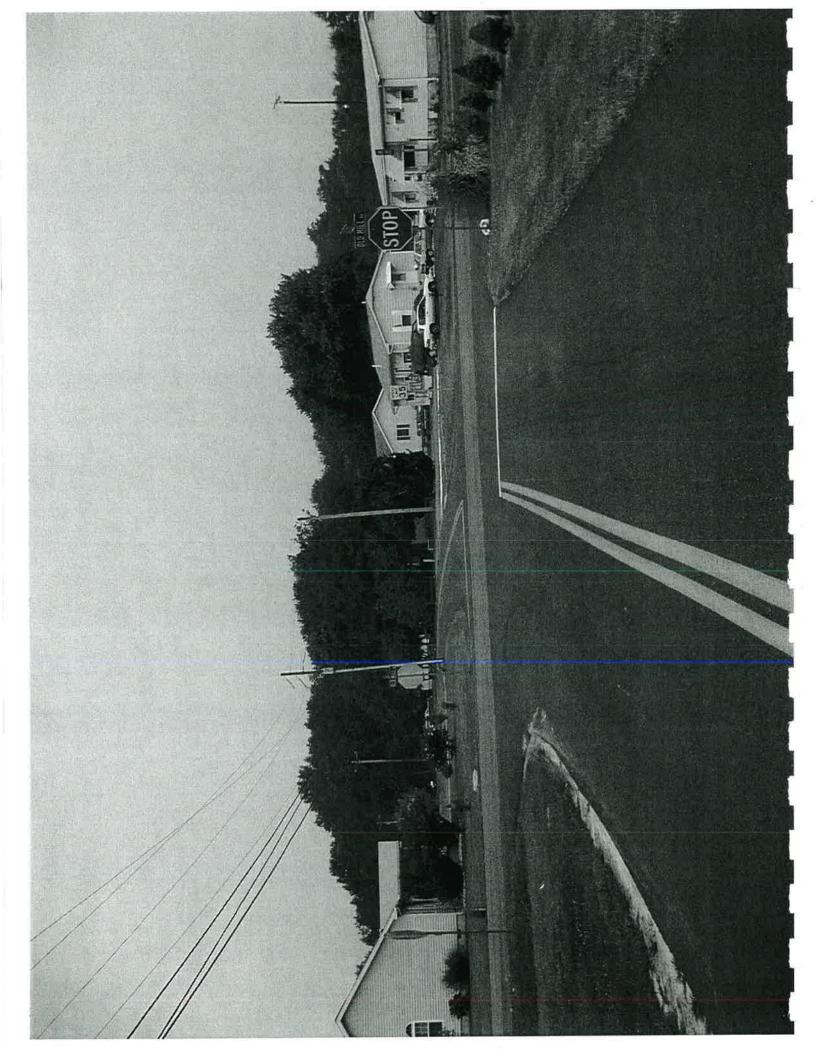






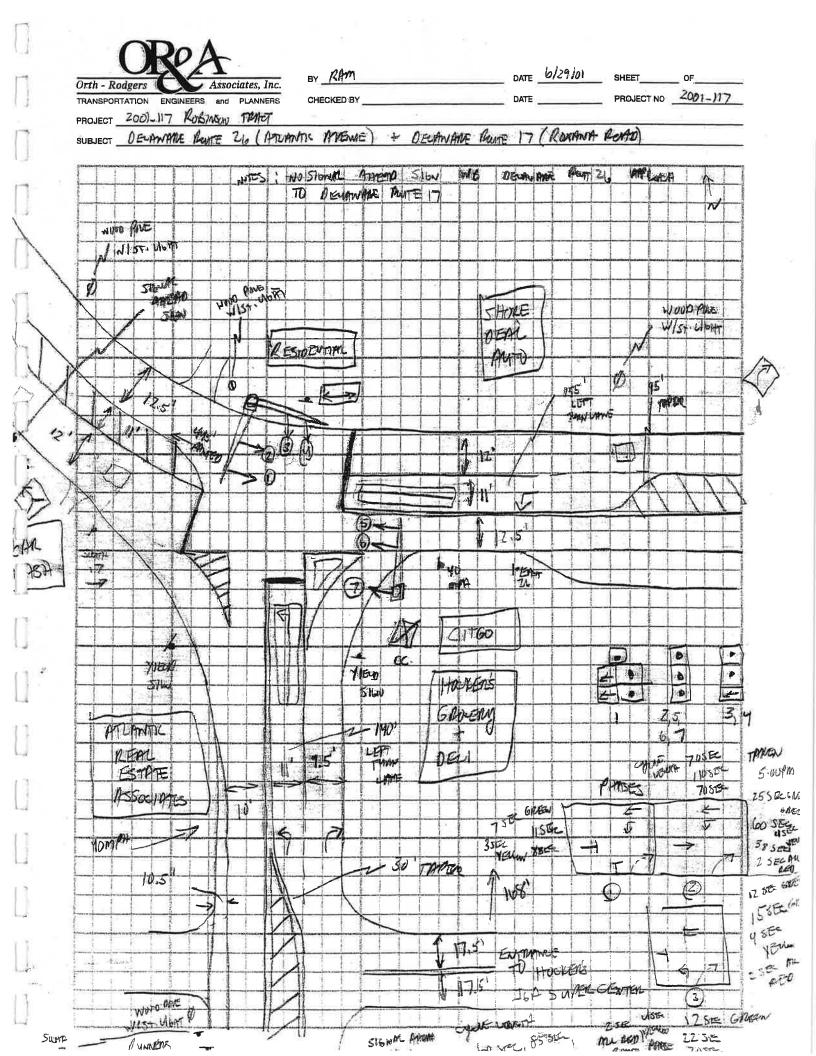


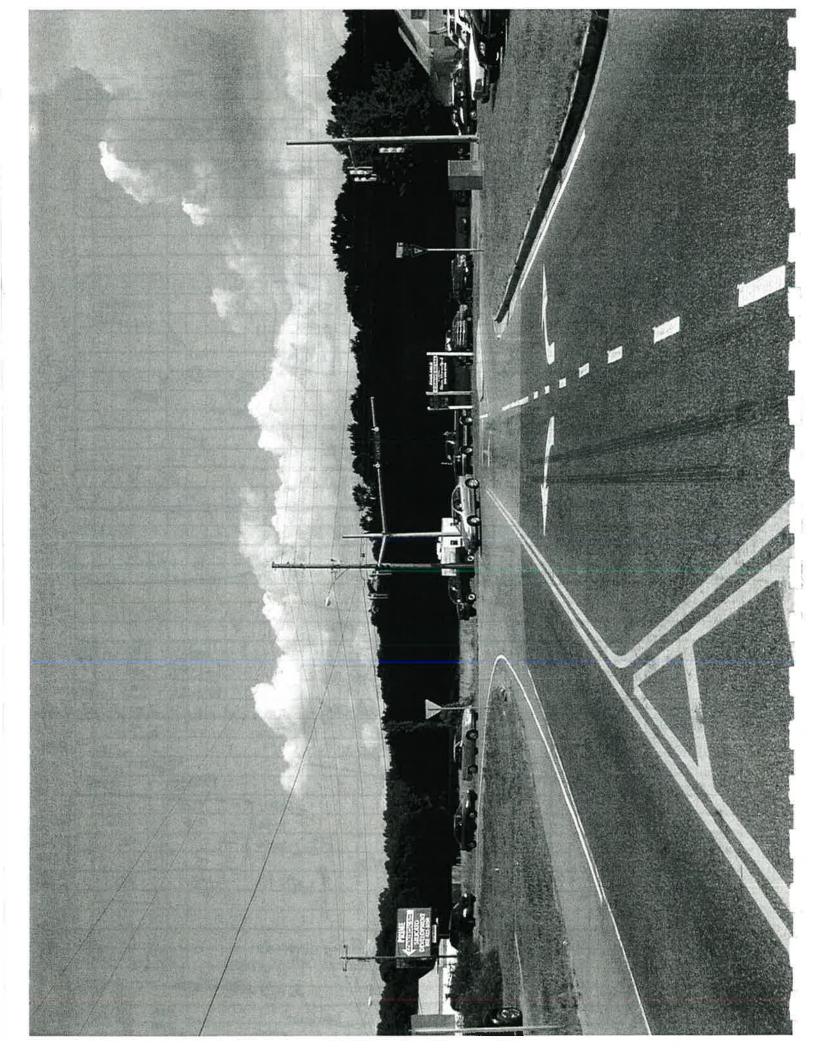


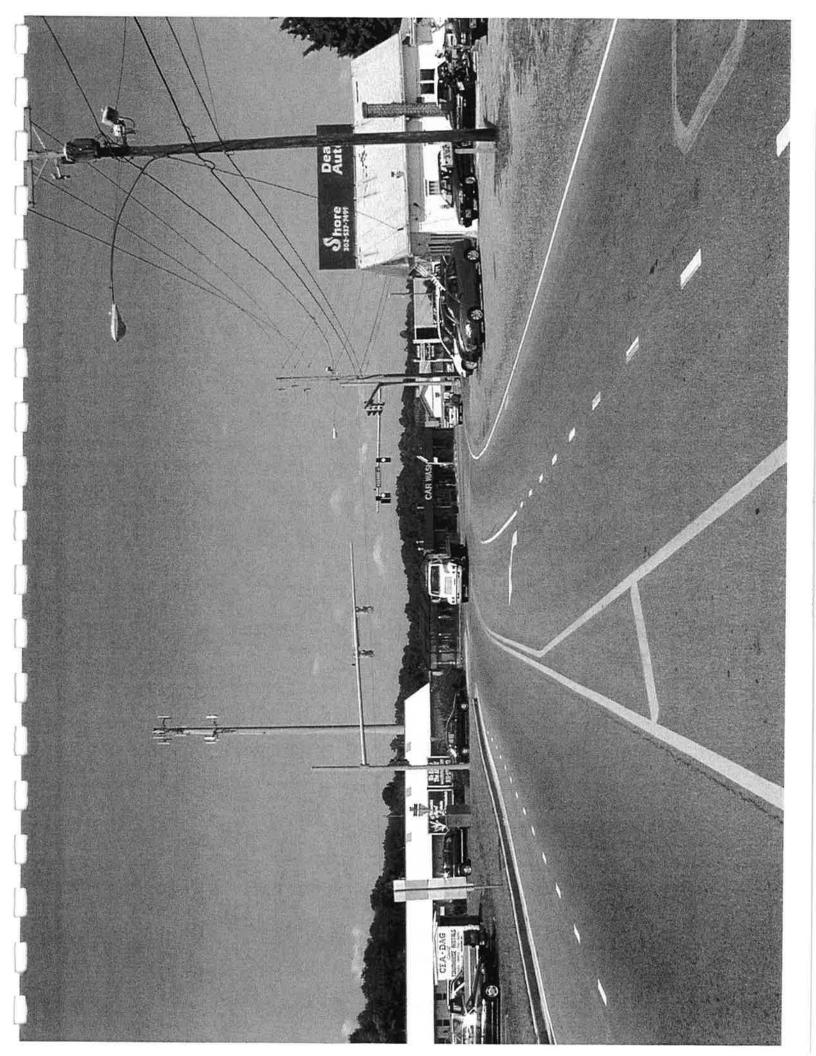














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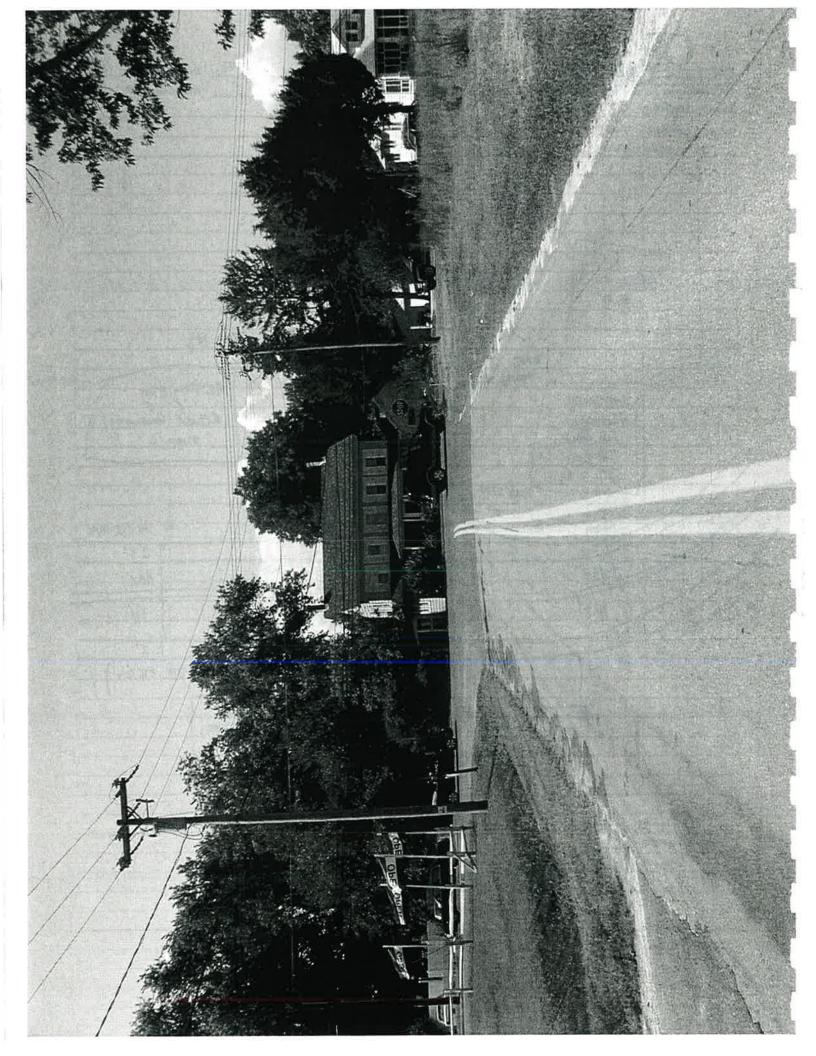
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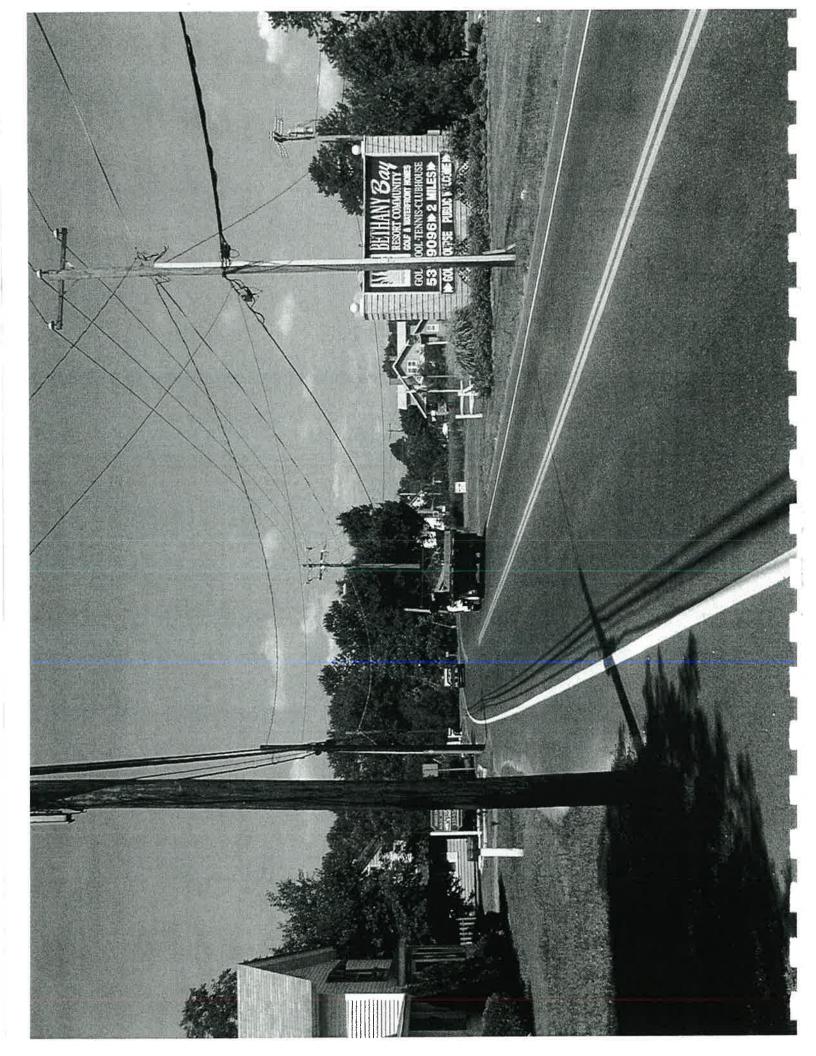
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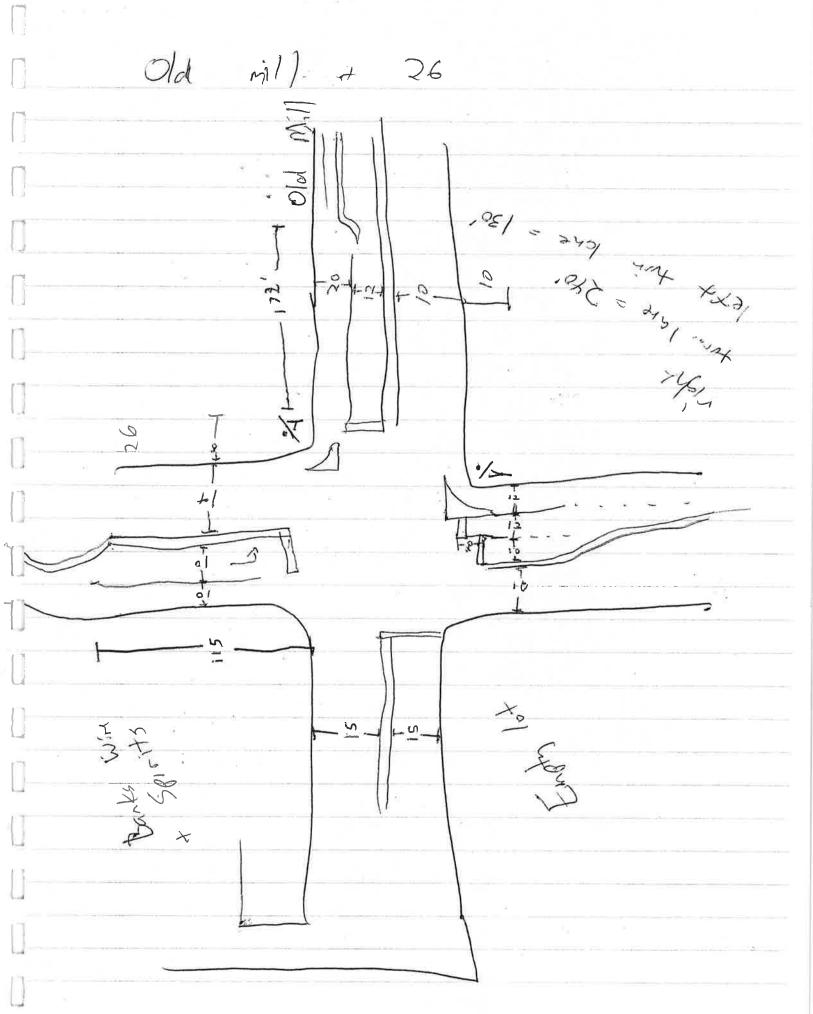
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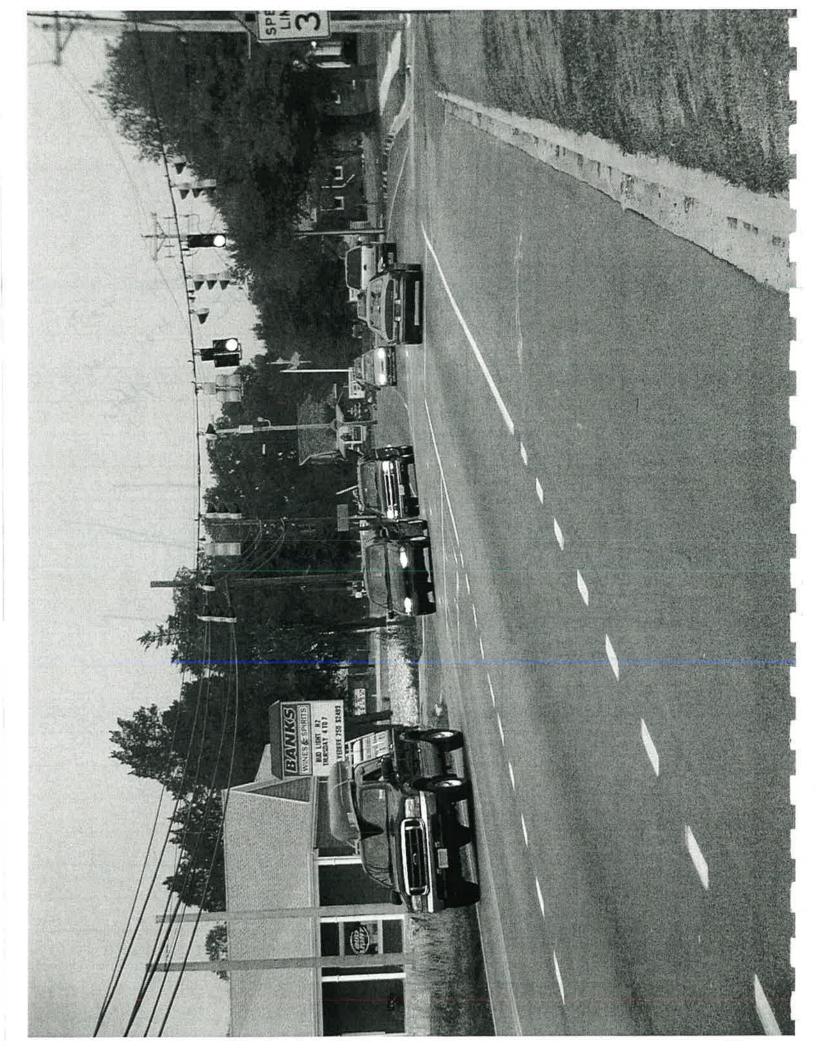
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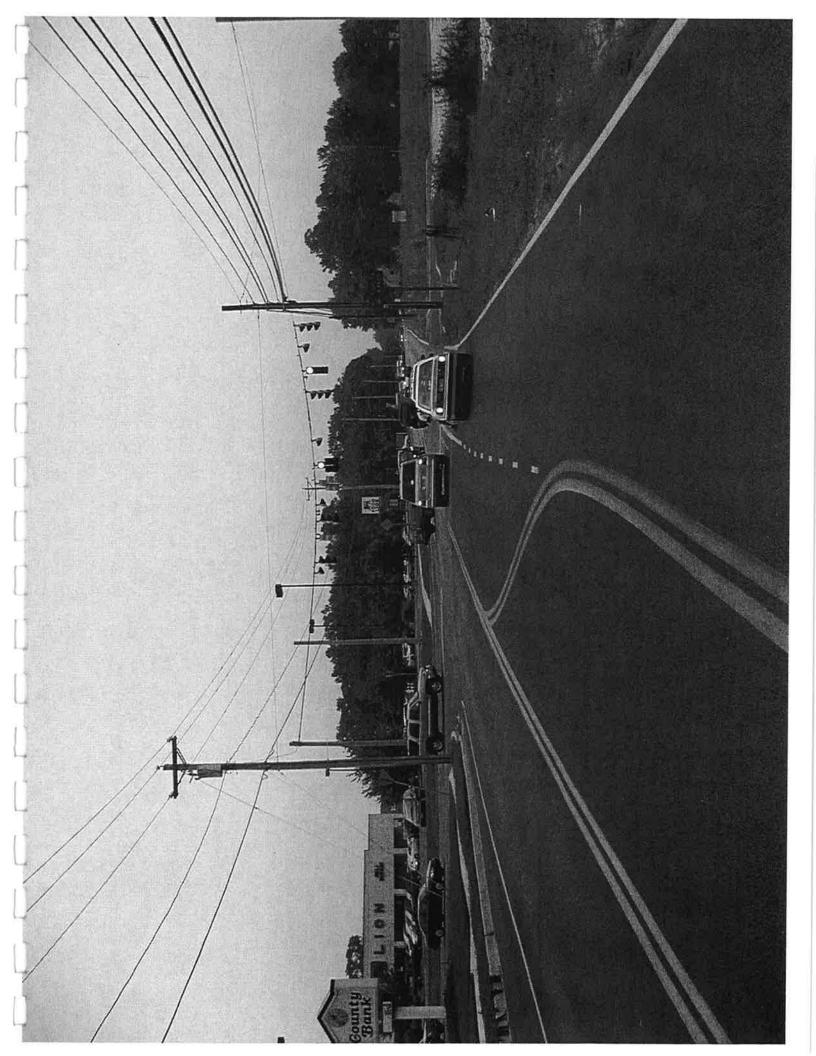


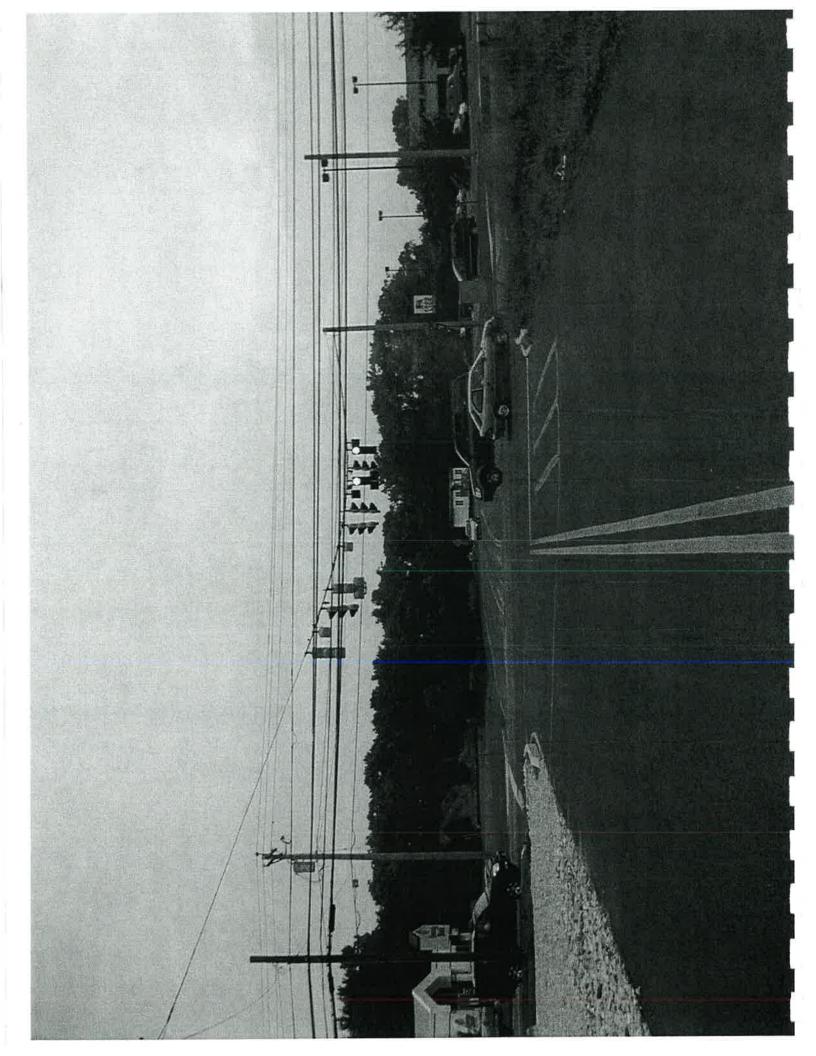


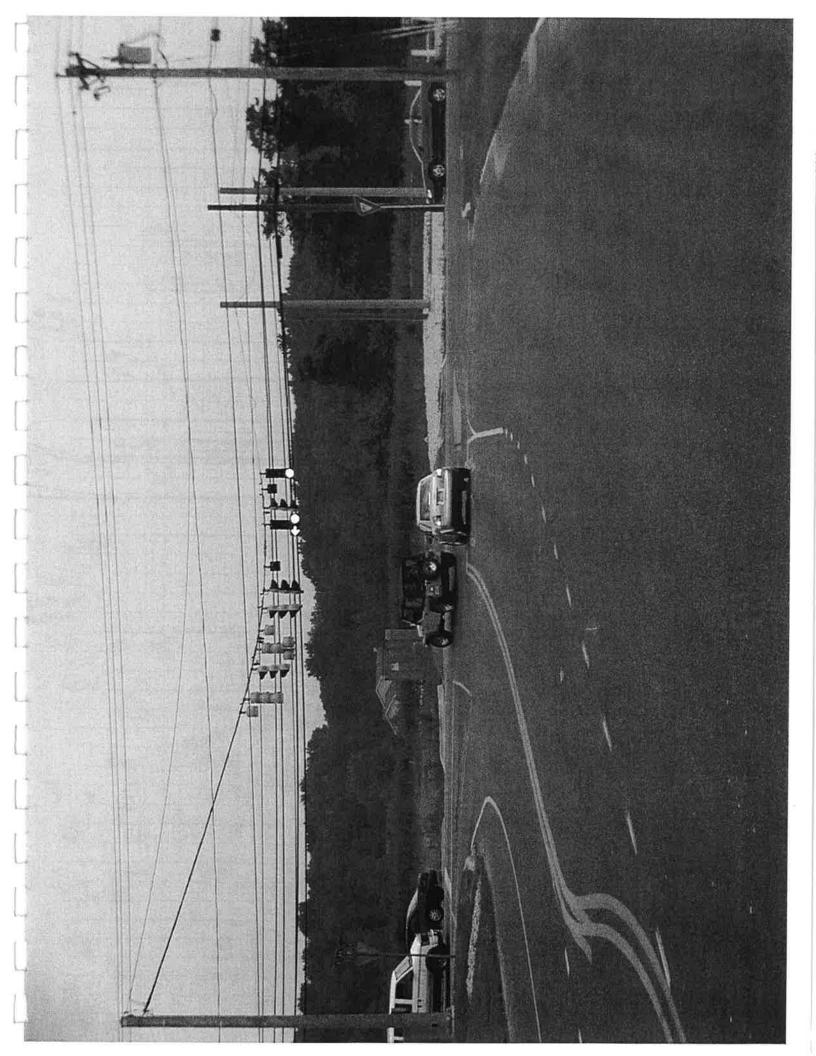




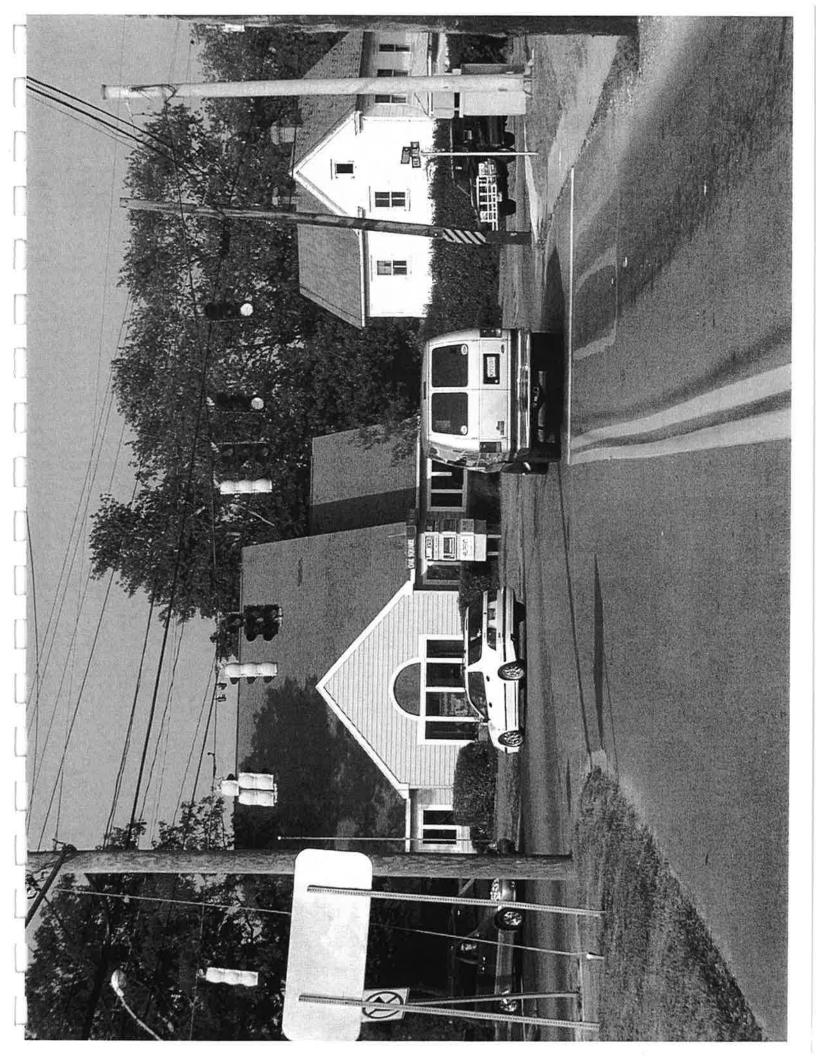


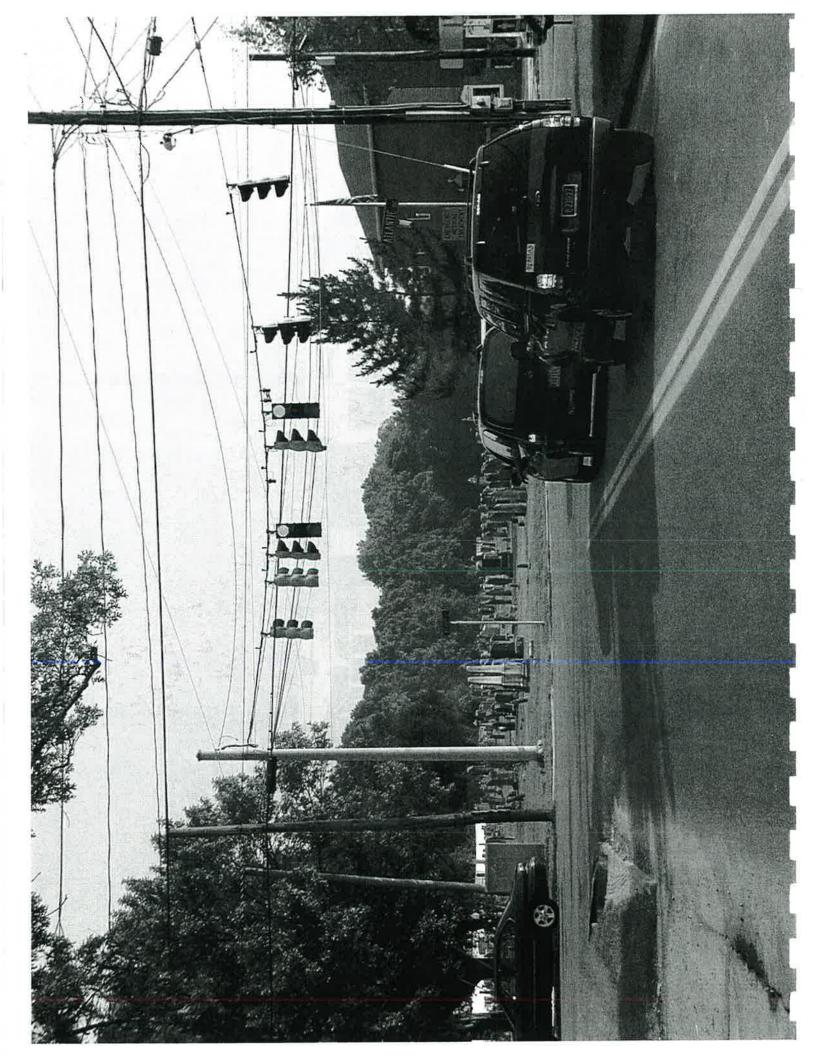


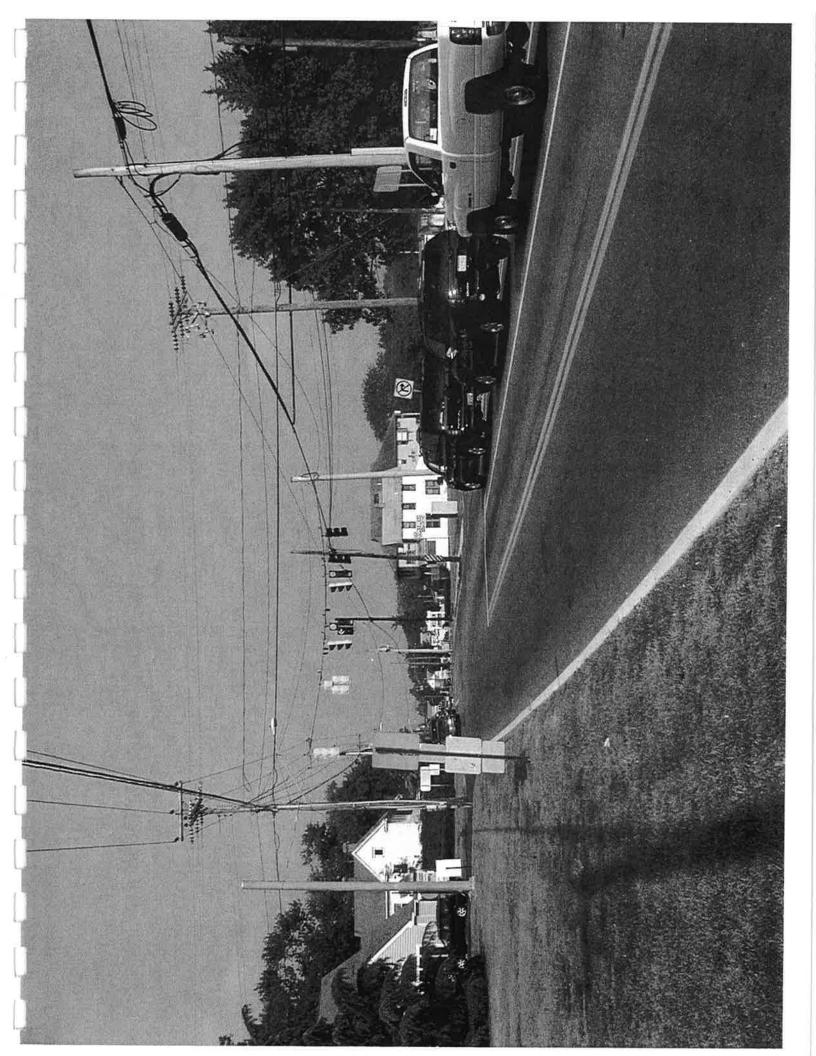


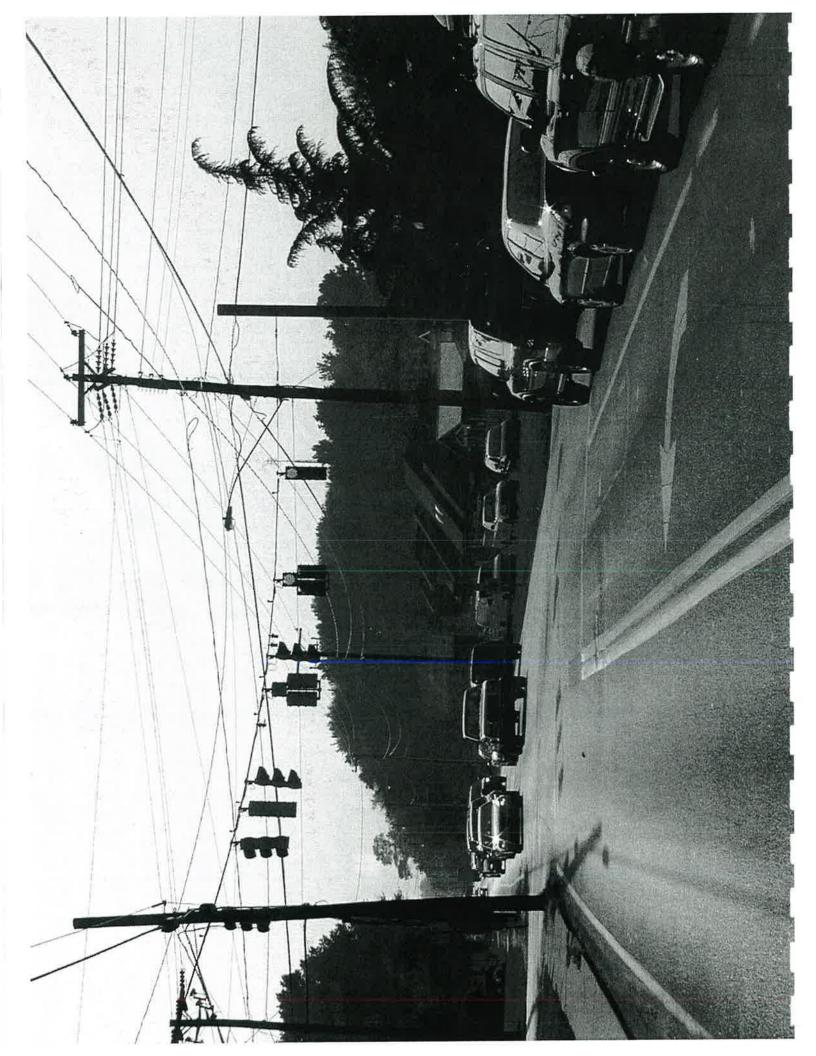


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Appendix G

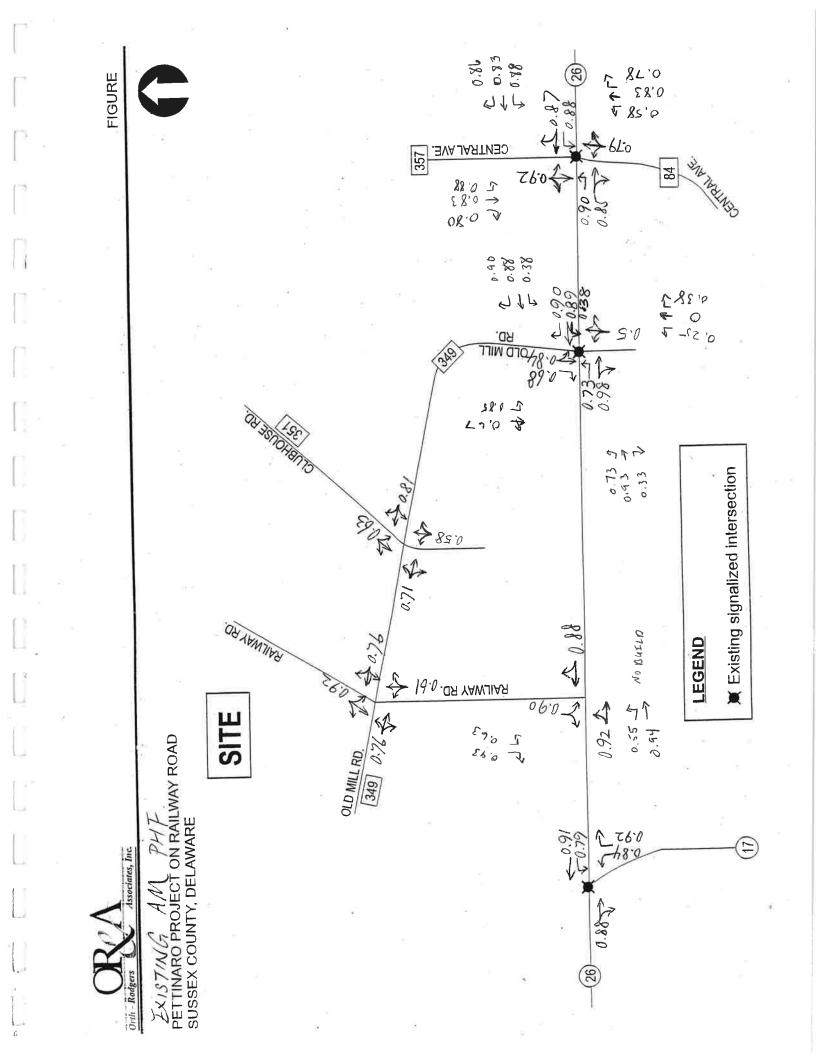
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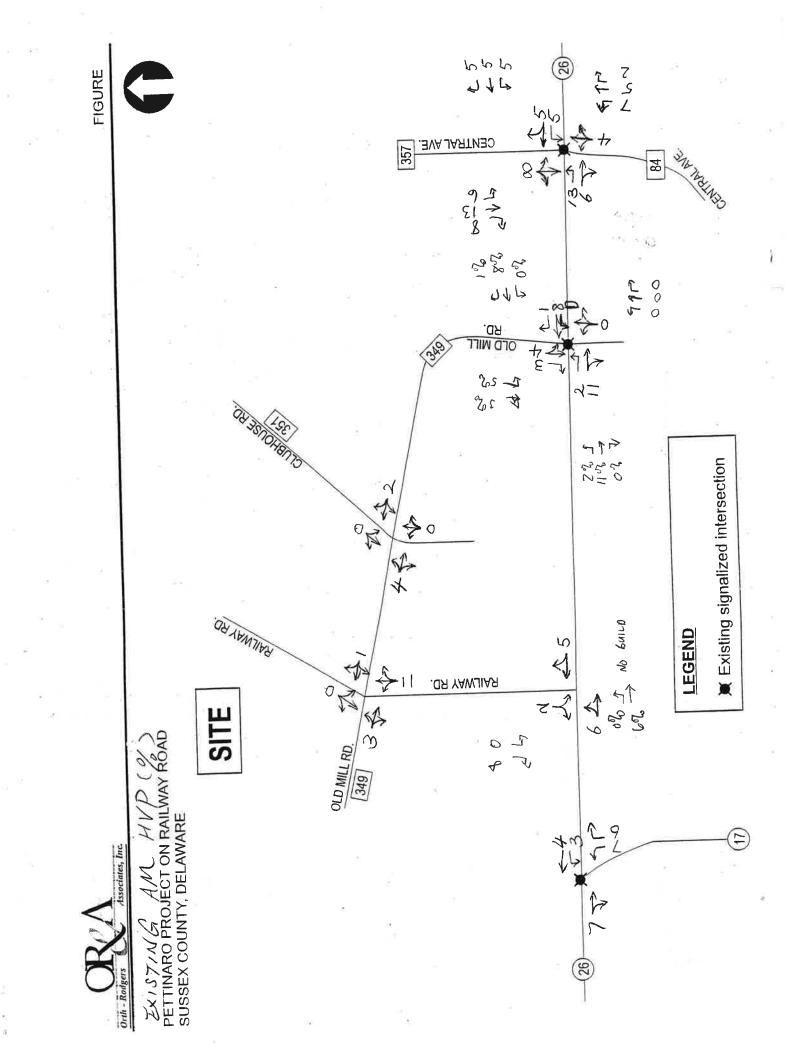
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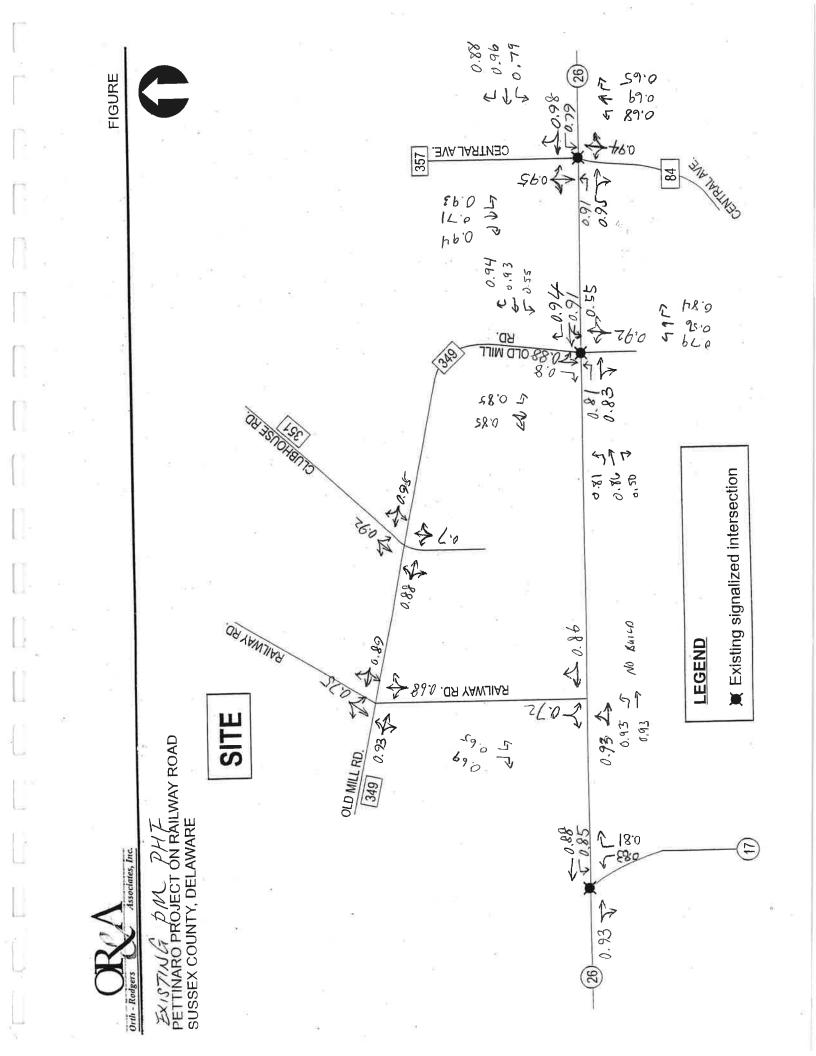
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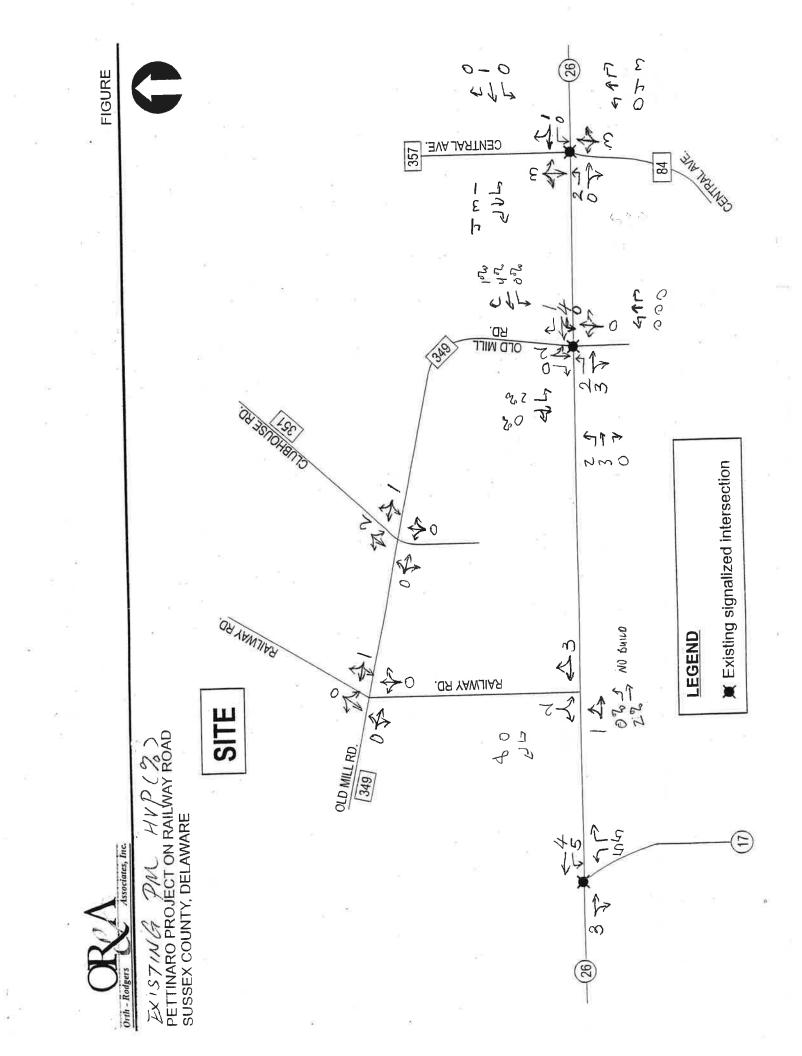
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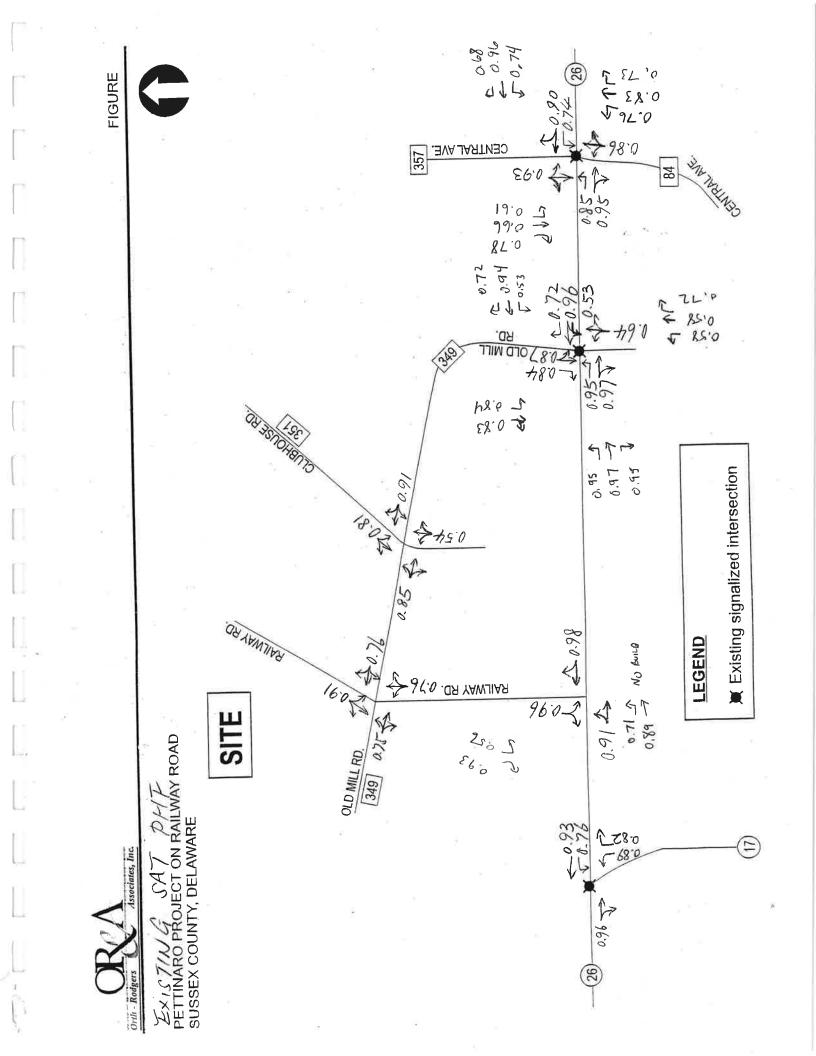
Highway Capacity Analysis (Computer CD)

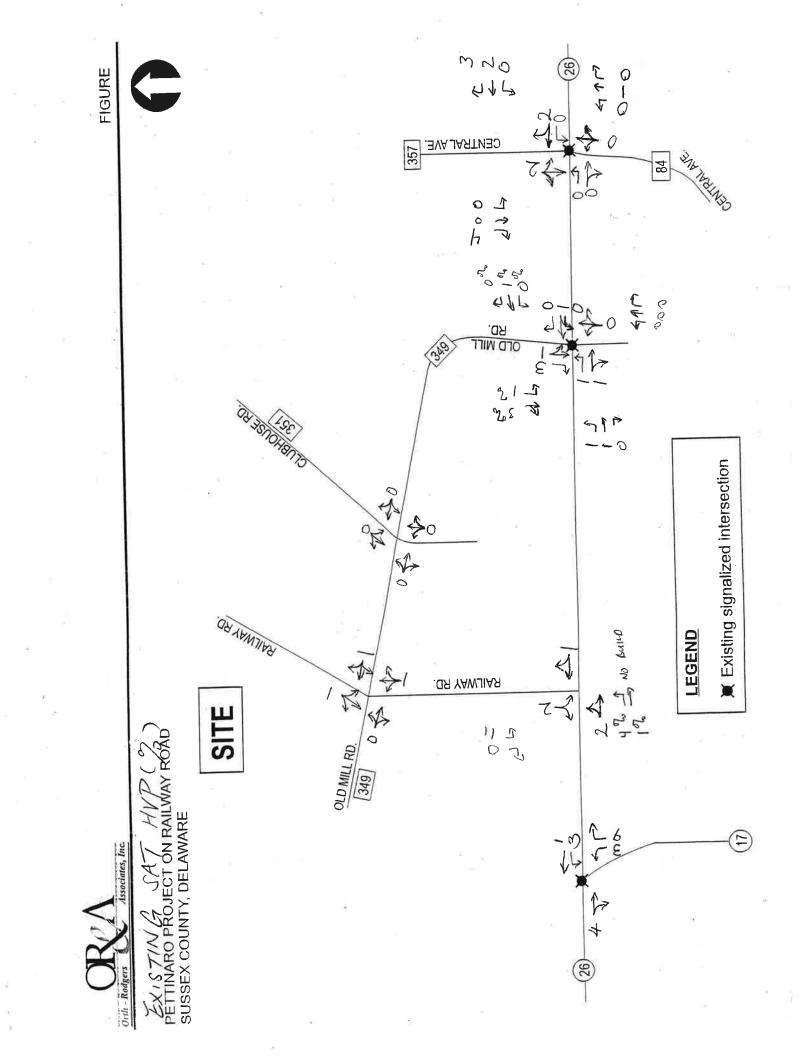












Appendix H

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Correspondence



STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION

800 BAY ROAD P.O. BOX 778 DOVER, DELAWARE 1990 WEMORANDUM

			DOVER, DELAWARE 19903
	HAYWARD III		MEMORANDUM
02			
	TO:	File	2.7
			iam Brockenbrough, Jr., County Coordinator
	FROM:	T. Will	iam Brockenbrough, Jr., County Coordinator
	DATE:	July 8,	2004
	-		
5	SUBJECT:		aro Project on Railway Road
		Minut	es of Traffic Impact Study (TIS) Scoping Meeting 07/01/04
0	ATTENDAN	CE.	Thomas Banez, DelDOT Transportation Solutions
	ATTENDAN	CE.	Dave Crowley, Linder & Company
			T. William Brockenbrough, Jr., DelDOT Planning
	177	- 19 a	John T. Fiori, DelDOT Planning
			Derrick S. Kennedy, Orth-Rodgers & Associates
			Richard A. Mishura, Orth-Rodgers & Associates
			Todd J. Sammons, DelDOT Planning

Background and Discussion

Linder & Company seeks to develop 480 condominiums on about 125 acres of the existing Bethany Bay development (Tax Parcel 1-34-8.00-42.00). The land is zoned MR-RPC and is located on the north side of Railway Road (Sussex Road 350). A rezoning to MR-2-RPC would be necessary for this project to proceed.

Cases to be Evaluated

The study shall evaluate the weekday morning and evening peak hours and summer Saturday mid-day peak hours for the following situations:

1) Existing (2004);

2) 2015 without development; and

3) 2015 with full development.



Memorandum to File July 8, 2004 Page 2 of 5

Facilities to be Evaluated

The TIS should evaluate conditions at the following intersections for capacity and level of service using the Highway Capacity Software (HCS). It should also evaluate the extent to which they meet the relevant DelDOT, AASHTO and MUTCD standards for geometry and traffic control devices.

- 1) Site Entrance / Railway Road
- 2) Old Mill Road (Sussex Road 349) / Railway Road
- 3) Old Mill Road / Clubhouse Road (Sussex Road 351)
- 4) Route 26 / Delaware Route 17 (Roxana Road)
- 5) Route 26 / Railway Road
- 6) Route 26 / Old Mill Road
- 7) Route 26 / Central Avenue (Sussex Roads 84 and 357)

Further, the Consultant shall evaluate Railway Road and Old Mill Road with regard to the relevant DelDOT, AASHTO and MUTCD standards for geometry and traffic control devices and shall make recommendations for their improvement.

Traffic Counts

The Consultant should count traffic from 6:30 to 9:00 a.m. and from 4:00 p.m. to 6:00 p.m. on a Tuesday, Wednesday, or Thursday and from 9:00 a.m. until 2:00 p.m. on Saturday to determine when the peaks occur. The counts should be conducted in June, July, or August, while public schools are closed for the summer.

Traffic counts should be submitted to DelDOT both electronically as PETRA files and as draft report figures showing peak hour volumes posted on diagrams of the road network.

The Consultant should be alert for events affecting the traffic counts, such as accidents or nearby construction and shall inform me of any such events when submitting the counts. As necessary, I reserve the right to reject the counts or require adjustments to them.

Trip Generation should be done using the 7th edition of the ITE <u>Trip Generation</u> report.

Trip Distributions

Trip distributions for the proposed and committed developments should be submitted with the traffic counts.

Growth Factors and Committed Developments

The Consultant should apply growth factors to the traffic counts. I will develop those factors on receipt of the traffic counts.

Memorandum to File July 8, 2004 Page 3 of 5

The Consultant should also determine what portions of the following developments were complete at the time of any traffic counts to be used in the study and shall add in projected traffic from any unbuilt portions. The following information on the amount and types of development associated with these projects is tentative and should be verified with Sussex County Planning and Zoning.

Some of these projects are a few years old and may be fully occupied.

- 1) Silver Woods (400 single-family detached houses)
- 2) Bethany Meadows (232 single-family detached houses, 188 condominiums)
- 3) Water Side (103 apartments, 4,000 square feet general office space, 6,000 square feet retail commercial space)
- 4) Southampton (154 single-family detached houses, 48 townhouses, 132 mini-storage units)
- 5) Hunter's Run (a.k.a. Consolidated Land Trust, L.L.C., 88 single-family detached houses)
- 6) Bear Trap Dunes (25,000 square feet retail commercial space, 336 single-family detached houses, 180 apartments/condominiums, 184 townhouses, 27-hole golf course)
- 7) Korotki Property (about 265 apartments and about 105 single-family detached houses)
- 8) Wedgefield / Avon Park (148 single-family detached houses, 25 accessed from Windmill Road, 123 accessed from Central Avenue)
- 9) Bay Forest Club (475 single-family detached houses, 326 townhouse/condominiums)
- 10) Bay Forest Club West (244 single-family detached houses)
- 11) Forest Landing f.k.a. Banks Property (444 single-family detached houses)
- 12) Fairway Village f.k.a. Skiber-Chandler Property (312 single-family detached houses)
- 13) Windmill Property (106 townhouses)
- 14) Doves Landing (140 single-family detached houses, 142 townhouses, 120 apartments, 147,500 square foot shopping center)
- 15) Barrington Park (150 single-family detached houses, 300 condominiums)
- 16) Millville Town Center (68 townhouses, 106,500 square foot shopping center)
- 17) Bethany Bay (100 condominiums)

Highway Capacity Software

The TIS should use the most recent version of the Highway Capacity Software (HCS) that implements the 2000 <u>Highway Capacity Manual</u> (HCM). Presently, that is Version 4.1d.

Seasonal Adjustment Factors should not be applied.

Memorandum to File July 8, 2004 Page 4 of 5

DelDOT Projects

The Consultant shall contact Mr. Banez, DelDOT's project engineer (760-2363) for our ongoing study of Delaware Route 26, US Route 113 to Assawoman Canal, shall become familiar with the study, and shall discuss it in the TIS. The study has generated two projects that are currently under design. The first project is the Route 26 Local Roads project, which will improve a series of existing local roads on the south side of Route 26 between Route 17 and Delaware Route 1. We expect to complete those improvements in 2007. We expect the local road project to draw some traffic from Route 26 and that effect should be accounted for in the TIS.

The second project will improve Route 26 from Clarksville to the Assawoman Canal. We expect to complete it sometime between 2009 and 2010. A third project, to improve another local roads between Clarksville and Route 17, is also contemplated. It is not scheduled yet but should be complete by 2020.

Transit, Bicycle, and Pedestrian Facilities

The study should describe the existing and proposed transit service in the project area and should also describe the existing and needed transit, bicycle, and pedestrian facilities on or near the project site. In determining these items, the Consultant shall contact Mr. David Dooley, a Service Development Planner at the Delaware Transit Corporation (DTC), and Mr. Joseph Cantalupo, Assistant Director for Statewide & Regional Planning. Mr. Dooley may be reached at (302) 577-3278, extension 3464. Mr. Cantalupo may be reached at (302) 760-2121.

General Notes

- 1) The Consultant should assume an ideal saturation flow rate of 1,900 pcphgpl for all signalized intersections.
- 2) The Consultant should calculate the peak hour factors for existing conditions. Where no increases in volumes are projected, the Consultant should use those observed peak hour factors for future conditions as well. Where increases in volumes are projected, the Consultant should use peak hour factors of 0.88 or 0.92, in accordance with the <u>Highway Capacity Manual</u>, except that higher values may be used where they are observed to already exist. <u>The Consultant should calculate all peak hour factors by lane group</u>.
- 3) The Consultant should use default lane utilization factors for all signalized intersections.
- 4) The Consultant should contact Mr. James Bunting or Mr. Randall Lewis, both of DelDOT's Transportation Management Center (TMC), to obtain advance approval for the use of any signal timings. Mr. Bunting may be reached at (302) 659-2403. Mr. Lewis may be reached at (302) 659-2404.

Memorandum to File July 8, 2004 Page 5 of 5

- 5) DelDOT reserves the right to change this scope of work if the study is not performed within a reasonable time.
- 6) By copy of this letter, I ask those copied to contact me by July 12, 2004, regarding any significant errors or omissions.

TWB:rr

cc: those in attendance

Lawrence B. Lank, Sussex County Planning & Zoning Commission

Jill Frey, Century Engineering

Ralph A. Reeb, Director of Planning

Michael H. Simmons, Assistant Director for Project Development South, Division of Transportation Solutions (DOTS)

Joseph Cantalupo, Assistant Director, Statewide & Regional Planning

Theodore G. Bishop, Assistant Director, Development Coordination

William J. Dryden, Transportation Planner, Project Development South, DOTS

Thomas E. Meyer, Special Projects Manager, Traffic, DOTS

James W. Bunting, TMC Supervisor, Traffic, DOTS

J. Randall Lewis, TMC Technician, Traffic, DOTS

David Dooley, Service Development Planner, Delaware Transit Corporation

Drew A. Boyce, Subdivision Engineer



September 9, 2004

Mr. T. William Brockenbrough, Jr., P.E., AICP Division of Planning Delaware Department of Transportation 800 Bay Road Dover, Delaware 19901

RE: Pettinaro Project on Railway Road ORA Job # 2004_238

Dear Mr. Brockenbrough:

As noted in your scoping memorandum dated July 8, 2004, Orth-Rodgers & Associates (ORA) is submitting the raw count data for the above-mentioned project. This included the AM and PM weekday and Saturday summer traffic counts completed by ORA. As such, ORA is seeking approval of this traffic data and requesting growth rates to be used for developing the future traffic projections at these count locations.

The weekday AM and PM traffic volumes were collected on a typical summer weekday (July & August 2004), on a Tuesday, Wednesday, or Thursday from 6:30 AM to 9:00 AM for the morning peak and between 4:00 PM and 6:00 PM for the evening peak. The Saturday summer traffic volumes were collected on Saturday July 17, 2004 from 9:00 AM to 2:00 PM.

The intersections and count dates are noted below.

a (t (manual counts)	Dates counted
Intersection (manual counts)	
Delaware Rte 26 & Central Avenue	AM Peak – Tues., July 27, 2004 PM Peak – Wed., July 14, 2004 Saturday, July 17, 2004
Delaware Rte 26 & Old Mill Road	AM Peak – Thurs., July 15, 2004 PM Peak – Wed., July 14, 2004 Saturday, July 17, 2004
Delaware Rte 26 & Railway Road	AM Peak – Thurs., August 5, 2004 PM Peak – Wed., August 4, 2004 Saturday, July 17, 2004
Delaware Rte. 26 & Delaware Rte 17	AM Peak – Thurs., July 15, 2004 PM Peak – Wed., August 4, 2004 Saturday, July 17, 2004

230 South Broad Street • Philadelphia, Pennsylvania 19102 Phone (215) 735-1932 • Fax (215) 735-5954 www.orth-rodgers.com Pettinaro Project on Railway Road September 9, 2004 Page 2

Intersection (manual counts)	Dates counted			
Old Mill Rd & Clubhouse Rd	AM Peak – Thurs., July 15, 2004 PM Peak – Wed., July 14, 2004 Saturday, July 17, 2004			
Old Mill Rd & Railway Rd	AM Peak – Thurs., July 15, 2004 PM Peak – Wed., July 14, 2004 Saturday, July 17, 2004			

The peak hour volumes are shown on the enclosed figures. These figures include the traffic data as counted, without balancing of volume. Please note that the volume between some adjacent intersections may appear disproportionate. As you are aware, items such as mid-block driveways or side streets, different count dates, slightly different peak periods, etc. often contribute to these unbalanced results. As such, ORA has not adjusted the data. If you feel that adjustments are needed, please advise us accordingly. The computer generated traffic count sheets are enclosed for your use. An email will also be sent to you containing the Petra count files.

Also attached for your review is the trip distribution for the other committed developments listed in your July 8, 2004 scope-meeting memorandum. From fieldwork conducted it was noted that Hunter's Run (#5) and Korotki Property (#7) have been completely built out while Bay Forest Club West (#10) was not approved; therefore no trip distribution is provided for those three developments. All 14 other committed development trip distributions have been included for your review. These trip distributions have been taken from the Bay Forest Club traffic impact study, which was submitted to DelDOT by ORA on March 31, 2003. The trip distribution for the proposed site is also included.

The preceding information has been submitted for your review and approval. Once your review is complete and we have received the associated growth factors for the study area, ORA will prepare the Preliminary TIS. Should you have any questions about the enclosed data, please do not hesitate to call.

Sincerely, ORTH-RODGERS & ASSOCIATES, INC.

(A.M.

Richard A. Mishura Assistant Project Manager

RAM:tbm Enclosures cc: Robert M. Rodgers Derrick S. Kennedy

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Site Location Map Pettinaro Project on Railway Road SUSSEX COUNTY, DELAWARE



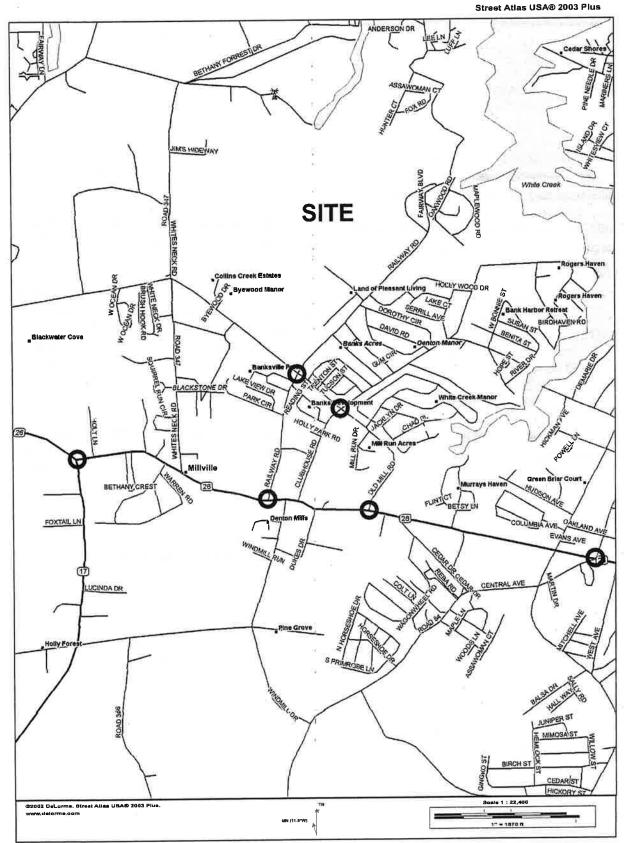
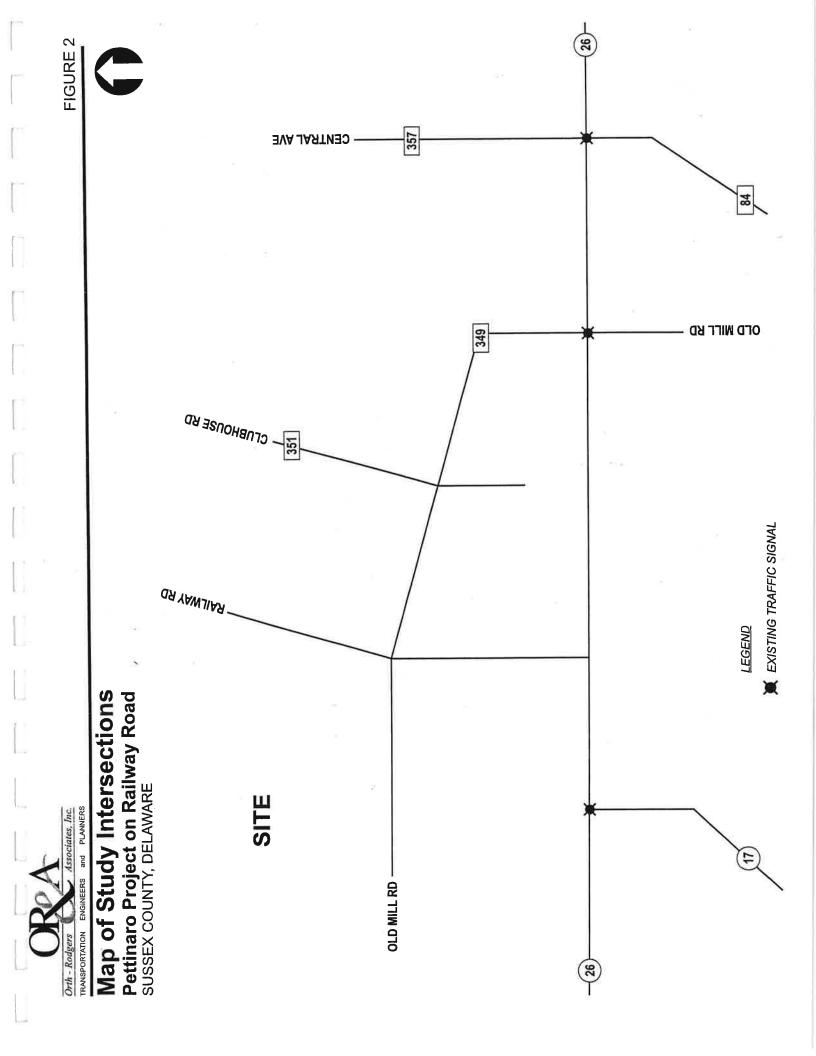
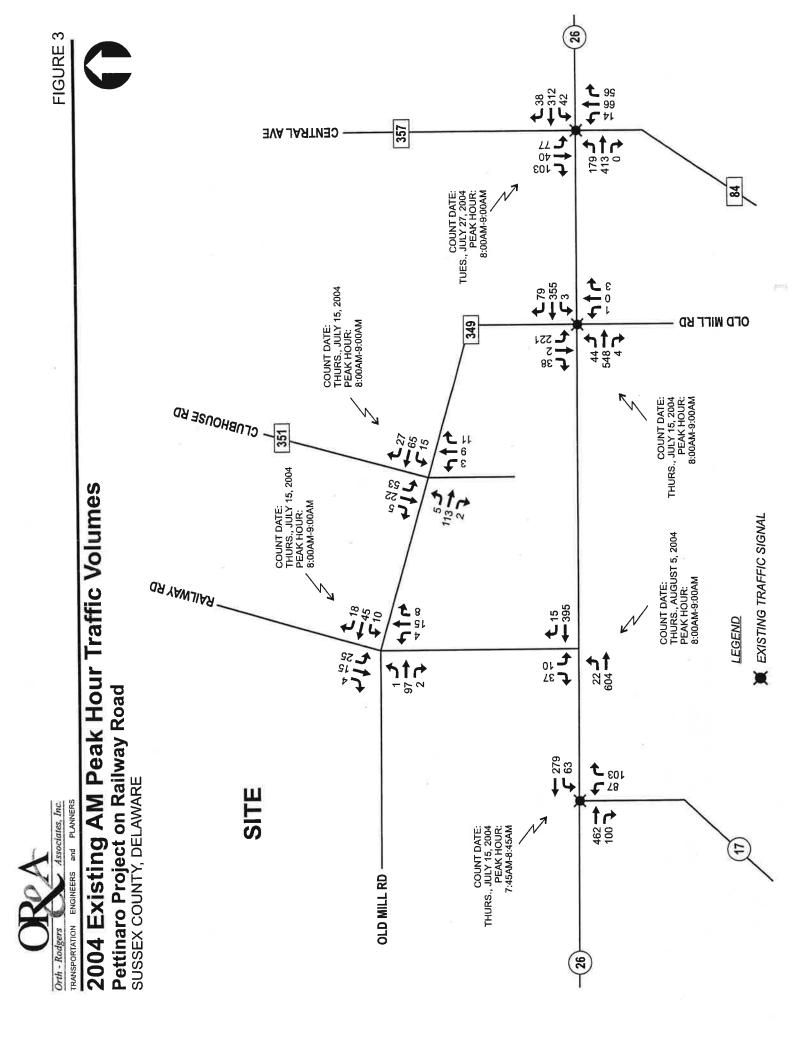
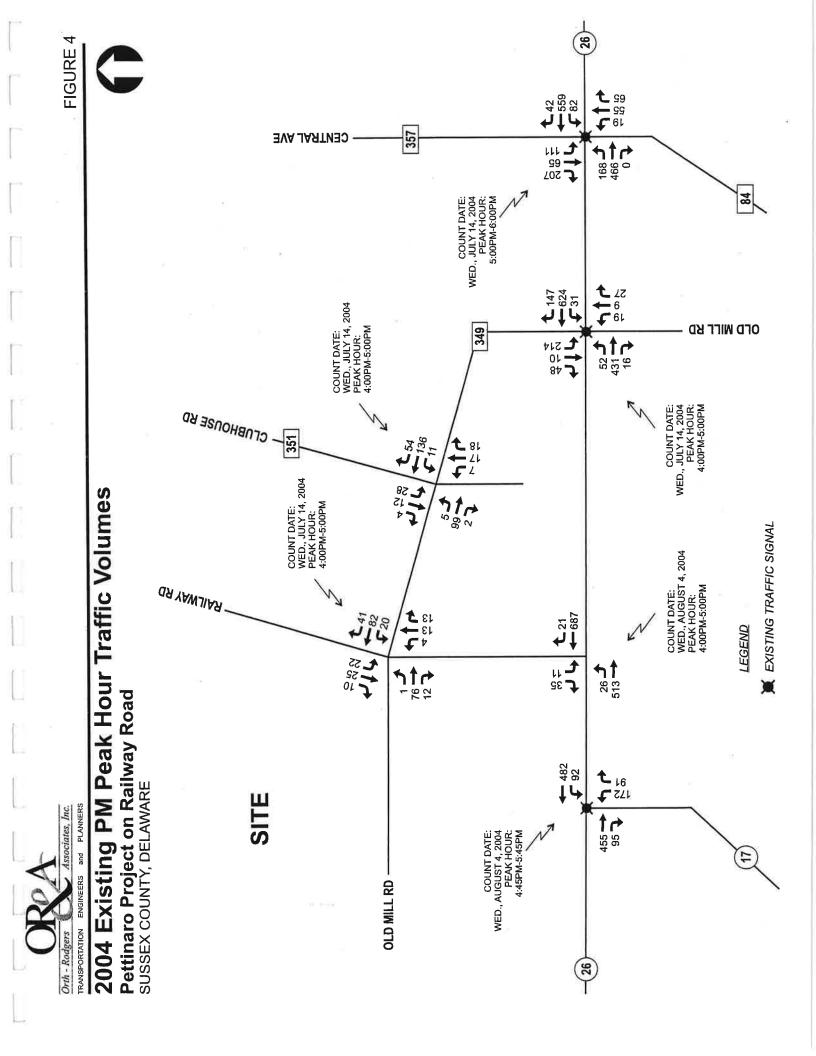
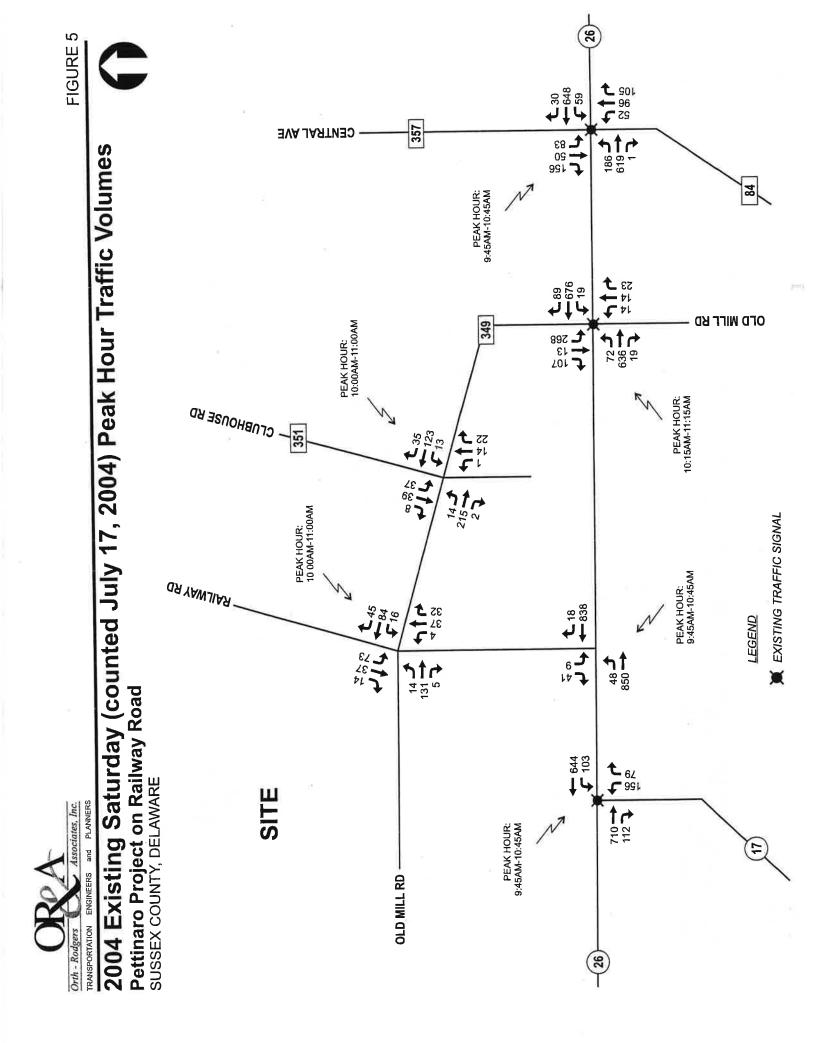


FIGURE 1











STATE OF DELAWARE DEPARTMENT OF TRANSPORTATION

800 BAY ROAD P.O. BOX 778 Dover, Delaware 19903

NATHAN HAYWARD III SECRETARY

October 20, 2004

Mr. Richard A. Mishura Orth - Rodgers & Associates, Inc. 230 South Broad Street Philadelphia, PA 19102

Dear Mr. Mishura:

We have reviewed the traffic counts and trip distributions that we received on September 13, 2004 for the **Pettinaro Project on Railway Road** traffic impact study (TIS). The counts are acceptable as submitted. However, we have several comments on the trip distributions for the site and some of the committed developments. Please address the comments below in your preliminary TIS:

- 1) Based on a test network developed by DelDOT Division of Planning for the Millville Township TIS, we changed the Pettinaro Project trip distribution percentages. I have enclosed an updated site trip distribution figure and the travel models for your reference. Also please assume that the trip distributions for the committed development of Bethany Bay are the same as those for the Pettinaro Project.
- 2) To keep the trip distribution consistent with the other TIS in that area, we have changed some of the trip distributions for the committed developments of Bear Trap Dunes, Forest Landing, Fairway Village, Windmill Property and Doves Landing. I have enclosed the corrected figures with this letter for your convenience.
- 3) We believe it would be more appropriate to assume that the trip distribution percentages for the Barrington Park development are the same as those for Doves Landing, rather than Avon Park. Please refer to the enclosed Doves Landing trip distribution figures to develop the trip distribution and assignment for Barrington Park.

The seasonal adjustment factors for the roads in the study area are as follows. Please use these factors to develop the seasonally adjusted weekday AM/PM peak hour traffic volumes as you proceed with the preliminary TIS. However, no adjustment is needed to the Saturday peak hour traffic volumes.



Mr. Richard A. Mishura Page 2 of 2 October 20, 2004

Road	June	<u>July</u>	August
Atlantic Avenue (State Route 26)	0.806	0.718	0.723
Roxana Road (State Route 17)	0.806	0.718	0.723
Old Mill Road (Sussex Road 349)	0.913	1.008	1.021
Railway Road (Sussex Road 350)	0.913	1.008	1.021
Clubhouse Road (Sussex Road 351)	0.913	1.008	1.021
Central Avenue (Sussex Road 84)	0.913	1.008	1.021
Central Avenue (Sussex Road 357)	0.869	0.826	0.852

Considering the background growth factors, please apply the following growth factors to the seasonally adjusted weekday peak hour traffic volumes and the existing Saturday peak hour traffic volumes in developing future traffic:

Road	Growth Factor	Total Growth from2004 to 2015
Atlantic Avenue (State Route 26)	1.025	1.31
Roxana Road (State Route 17)	1.02	1.24
Old Mill Road (Sussex Road 349)	1.02	1.24
Railway Road (Sussex Road 350)	+1.02	1.24
Clubhouse Road (Sussex Road 351)	1.02	1.24
Central Avenue (Sussex Road 84 and 357)	1.02	1.24

If you have any questions concerning this correspondence, you may contact either Ms. Hong Yuan at (302) 760-2151 or me at (302) 760-2109 as you find appropriate.

Sincerely,

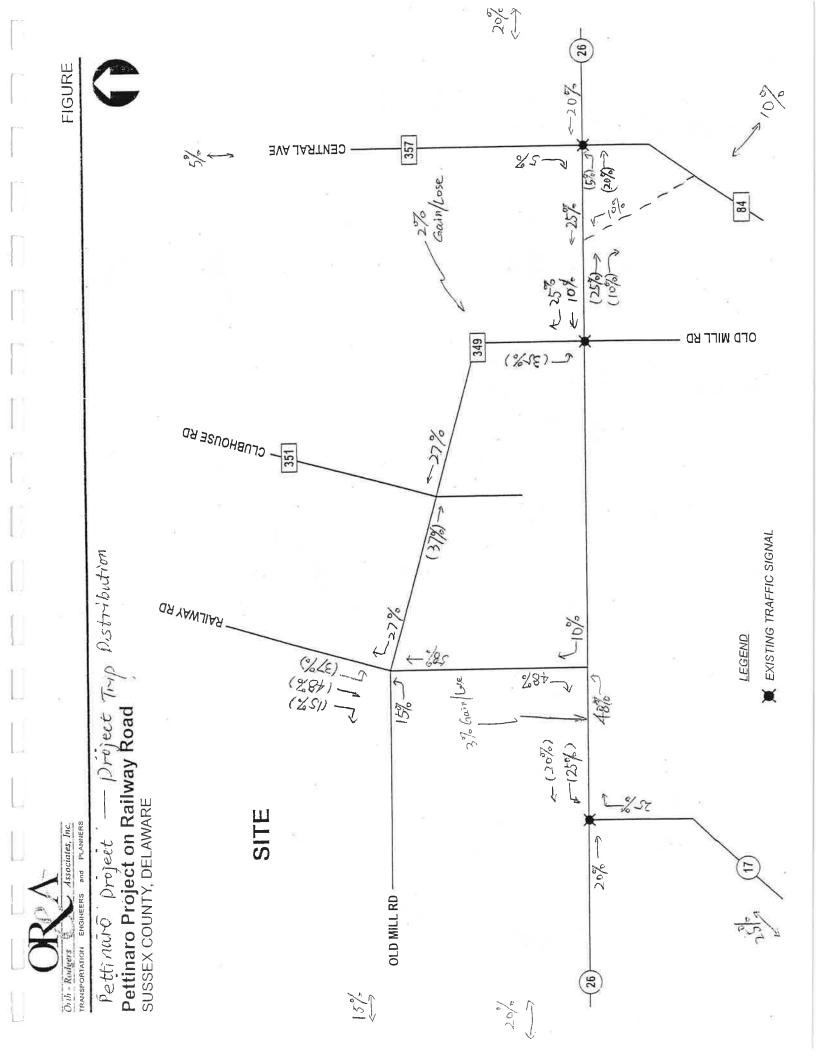
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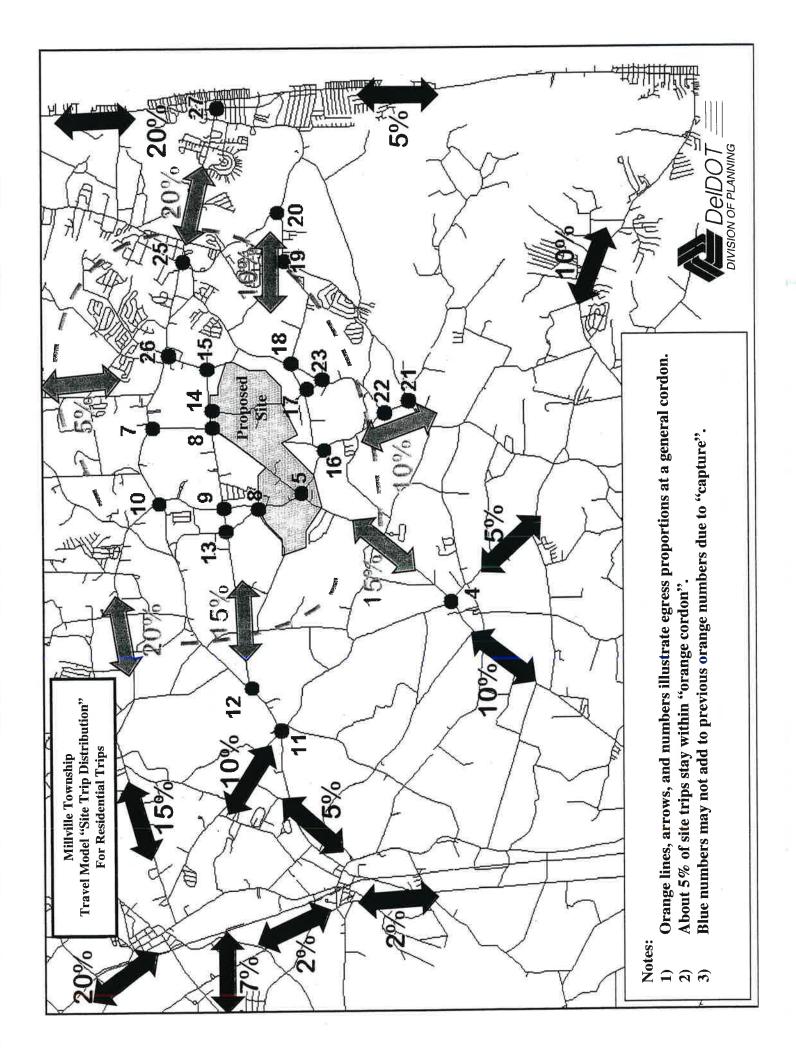
T. William Brockenbrough, Jr. County Coordinator

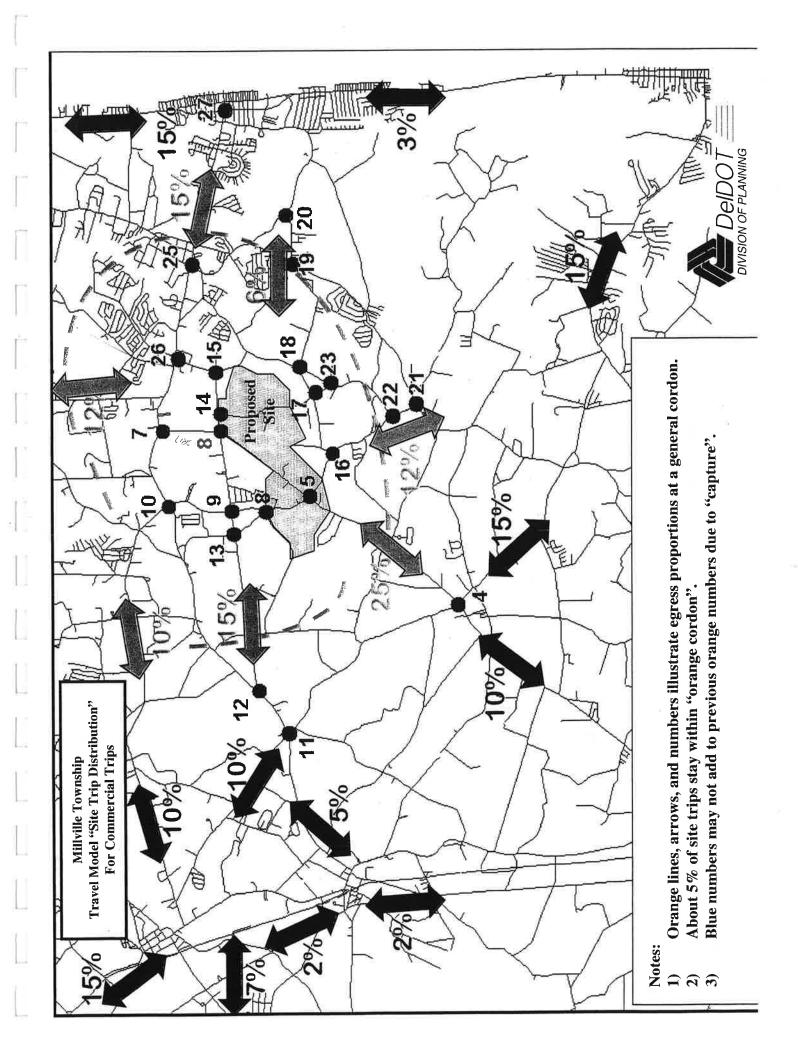
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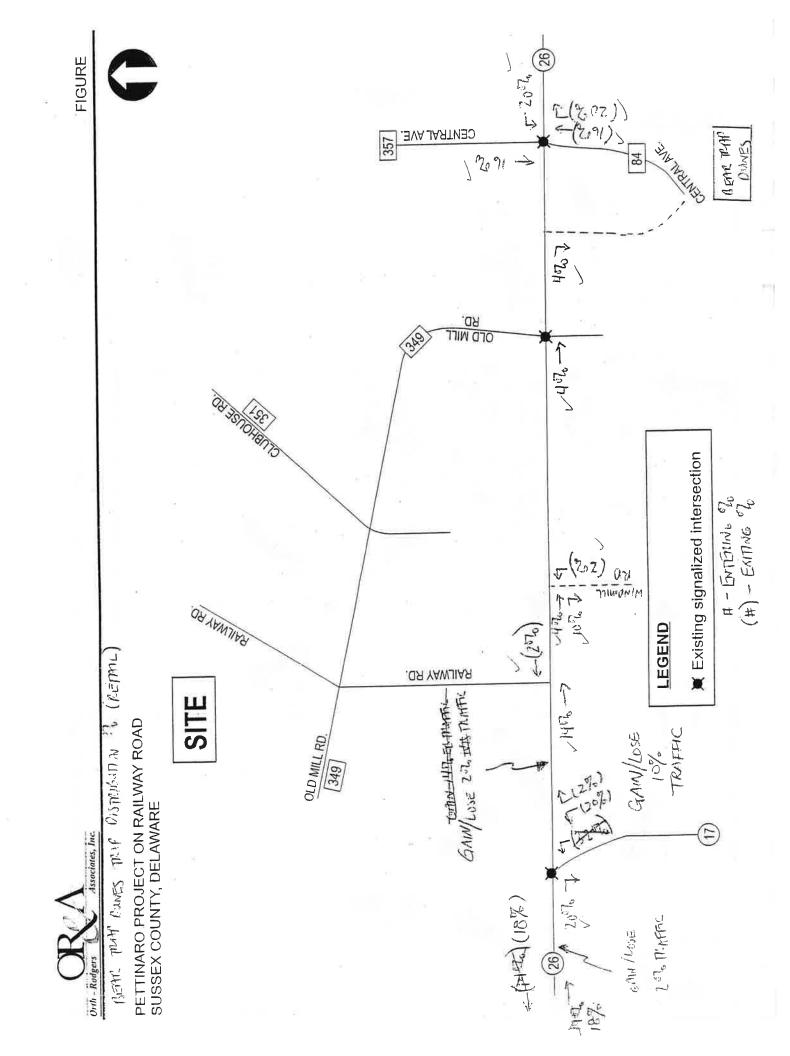
Enclosures

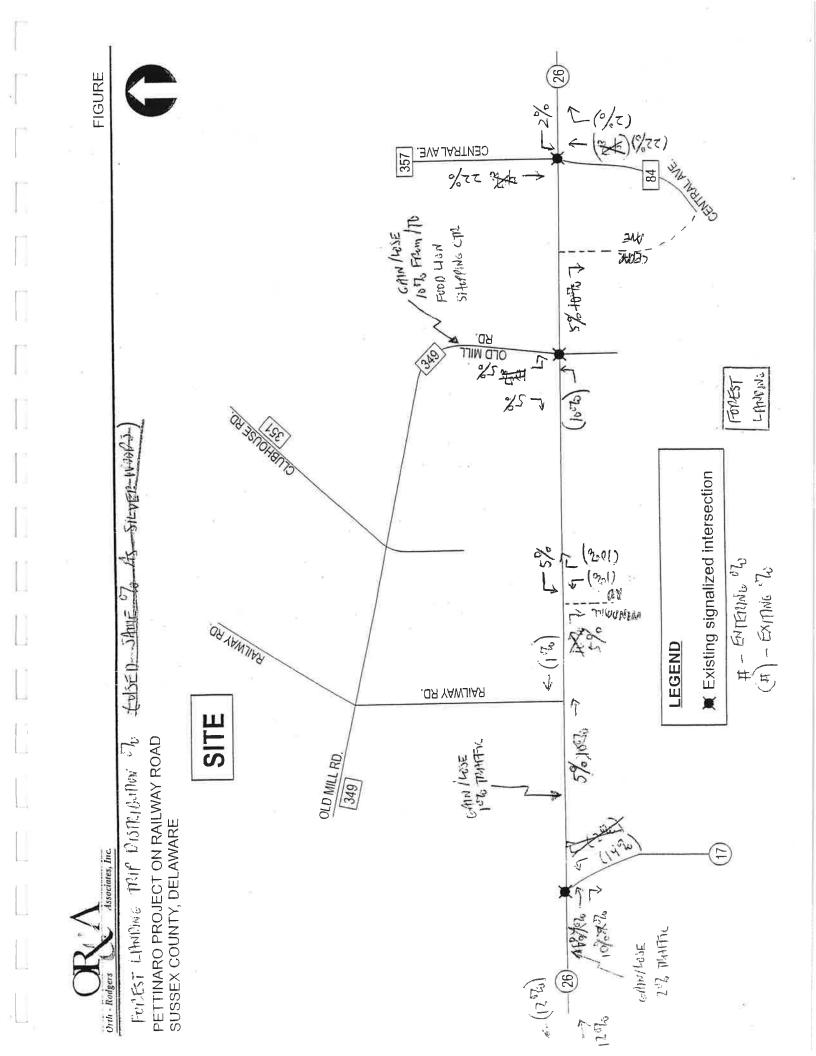
- cc: Theodore Bishop, Development Coordination
 - Todd J. Sammons, Project Engineer Hong Yuan, McCormick Taylor, Inc.

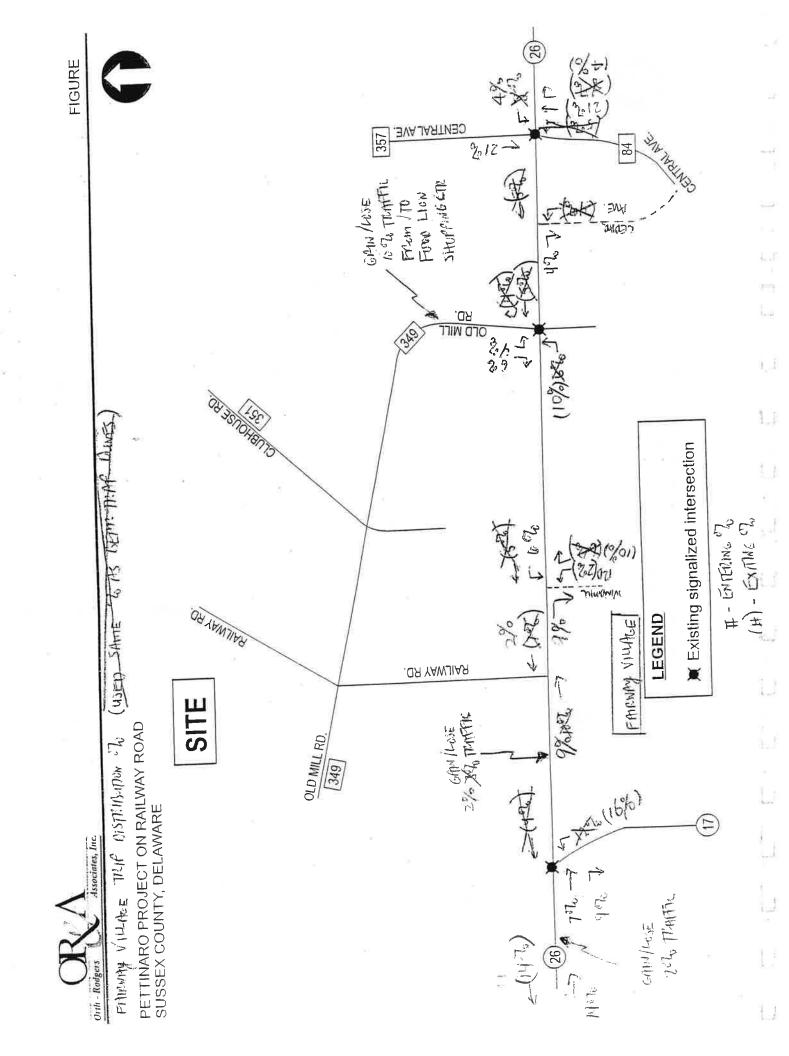


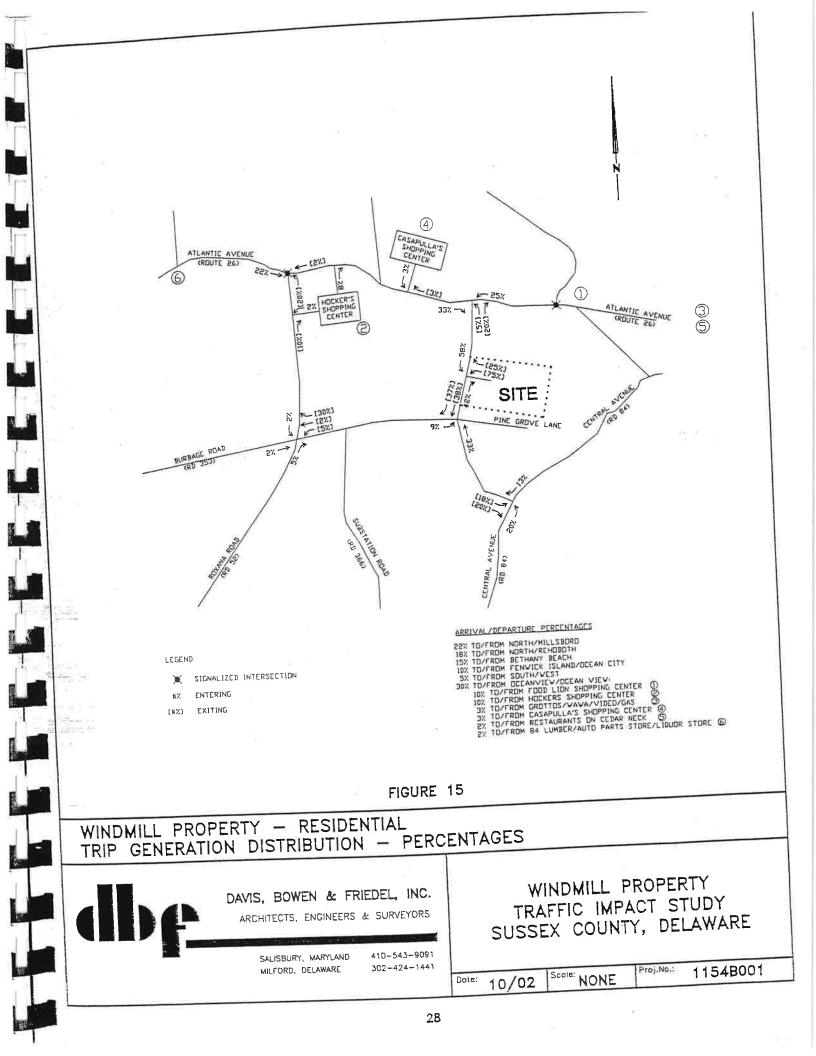


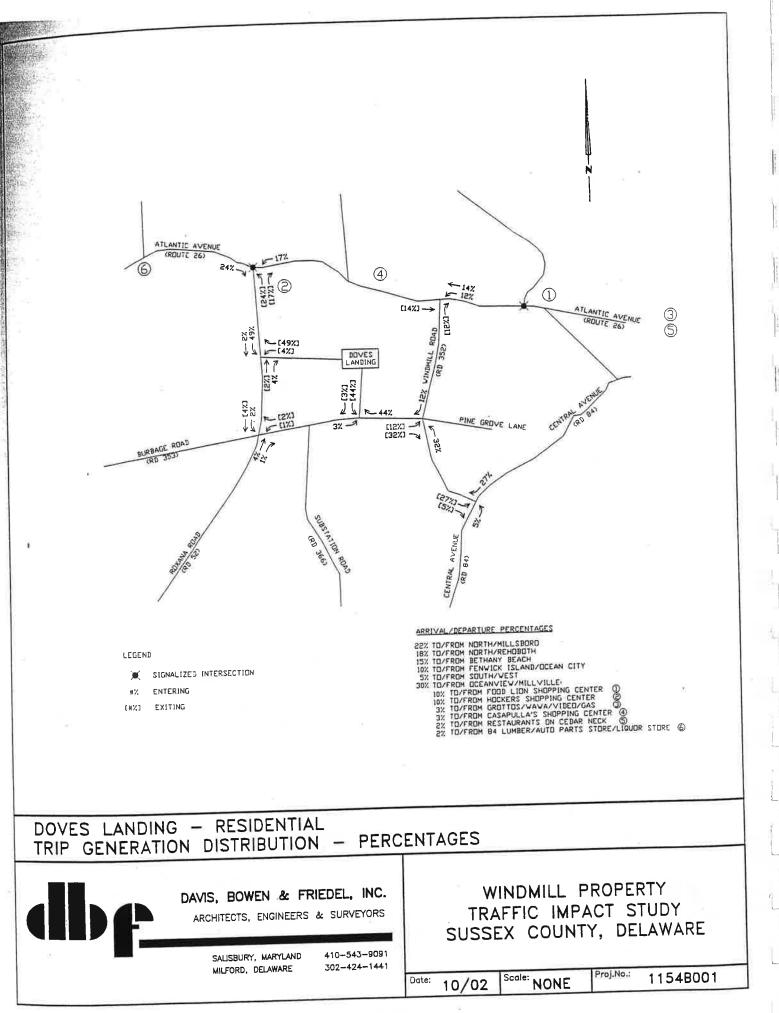


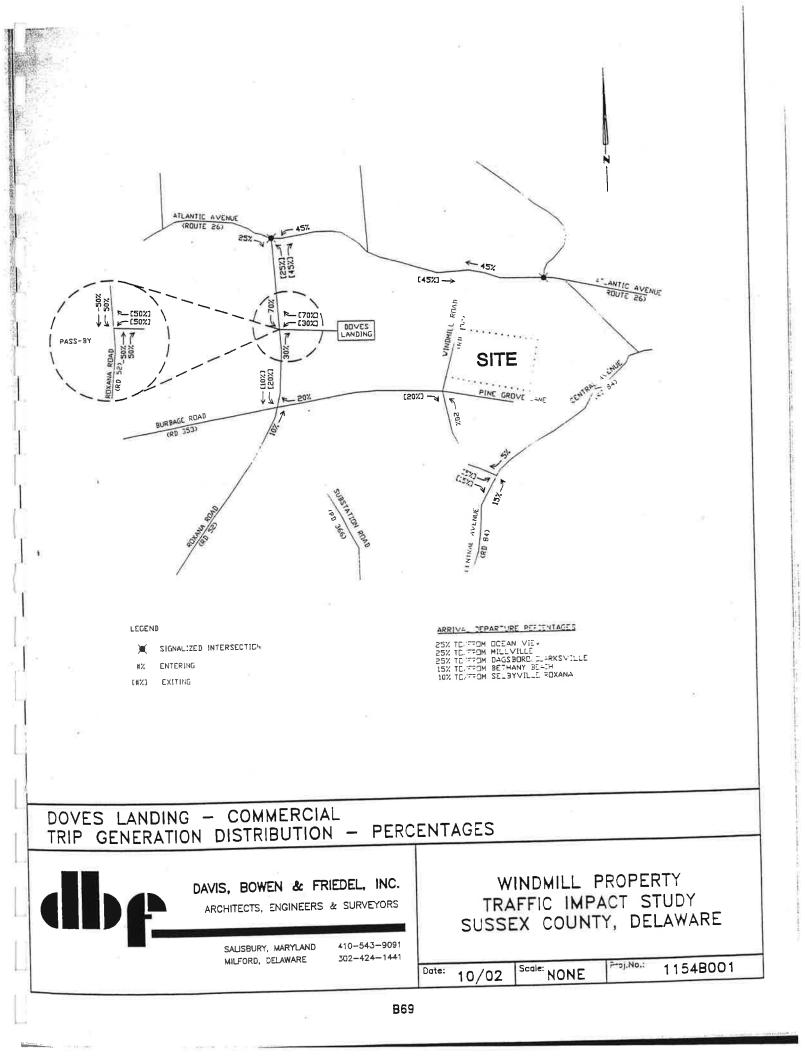












seasonal adjustment factors.txt From: Brockenbrough, Thomas W. Jr (DelDOT) [TBrockenbrough@mail.dot.state.de.us] Sent: Tuesday, November 16, 2004 11:59 AM To: Rick Mishura Cc: Derrick Kennedy; Yuan, Hong (DelDOT) Subject: RE: 2004_238 Pettinaro site

Rick,

I see the conflict that you describe. I don't know what I was thinking at the time of the scoping meeting. However, the minutes I prepared are not internally consistent and I presently believe you should seasonally adjust the weekday counts. Please proceed on that basis.

Bill

----Original Message----From: Rick Mishura [mailto:rmishura@orth-rodgers.com] Sent: Thursday, November 11, 2004 10:59 AM To: Bill Brockenbrough (E-mail) Cc: Derrick Kennedy Subject: 2004_238 pettinaro site

bill,

i have a question regarding your count approval letter dated october 20, 2004. it states in there seasonal adjustment factors to use for the AM & PM peaks. in our scoping letter it states to conduct the counts during the summer months, which we did, and to not seasonally adjust the volumes. could you give us a clarification on this? thanks.

Richard A. Mishura Orth-Rodgers & Associates, Inc. 230 South Broad Street Philadelphia, PA 19102 (215)735-1932 ext. 41Telephone (215)735-5954 Fax rmishura@orth-rodgers.com

Rick Mishura

From: Sent: To: Cc: Subject: Brockenbrough, Thomas W. Jr (DelDOT) [TBrockenbrough@mail.dot.state.de.us] Tuesday, January 04, 2005 2:51 PM Rick Mishura; Sammons, Todd (DelDOT) Derrick Kennedy RE: 2004_238 pettinaro project

Rick,

I just spoke with Jill Frey of Century Engineering. As you may know, they are the design consultant for our SR 26 project. The report you cited was prepared by McCormick Taylor, our planning consultant for that project. Jill has a copy of the McCormick Taylor report and says that it does not provide diversion volumes for the weekday a.m. and p.m. peak hours. Looking at the volumes expected in the Friday evening and Saturday midday peak hours, I don't think there will be any significant diversions during the weekday a.m. and p.m. peak hours. Bill

-----Original Message-----From: Rick Mishura [mailto:rmishura@orth-rodgers.com] Sent: Thursday, December 30, 2004 11:10 AM To: Brockenbrough, Thomas W. Jr (DelDOT); Sammons, Todd (DelDOT) Cc: Derrick Kennedy Subject: 2004_238 pettinaro project

bill,

we are currently preparing the ptis for this project and have a question regarding the the rte 26 diversion routes. in previous reports we did, especially the bayforest project, we incorporated figures for the friday evening and saturday peak hour showing traffic diverted from rte 26 under the proposed alternative rte 26 plans. we have figures 11 & 12 from a january 11, 2001 report showing the friday evening and saturday peak hour diversion volumes. is there figures from this report showing the am & pm peak hour traffic diversion routes? if not can we use the friday evening diversion volumes? thanks.

1

Richard A. Mishura Orth-Rodgers & Associates, Inc. 230 South Broad Street Philadelphia, PA 19102 (215)735-1932 ext. 41Telephone (215)735-5954 Fax rmishura@orth-rodgers.com



January 6, 2005

Mr. T. William Brockenbrough, Jr., P.E., AICP Division of Planning Delaware Department of Transportation 800 Bay Road Dover, Delaware 19901

RE: Proposed Residential Project on Railway Road ORA Job No. 2004_238

Dear Mr. Brockenbrough:

Orth-Rodgers & Associates is pleased to submit two copies of the preliminary traffic impact study for the above referenced project. All comments from your October 20, 2004 traffic count/trip distribution approval letter have been addressed. Please feel free to contact me if any questions or comments arise during your review.

Sincerely, ORTH-RODGERS & ASSOCIATES, INC.

RICHARD A. MISHURA Assistant Project Manager

RAM:tbm Enclosures cc: Robert M. Rodgers, P.E. Derrick S. Kennedy

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STATE OF DELAWARE DEPARTMENT OF TRANSPORTATION

800 BAY ROAD P.O. BOX 778 Dover, Delaware 19903

NATHAN HAYWARD III SECRETARY

February 23, 2005

Mr. Rick Mishura Orth-Rodgers & Associates 230 South Broad Street Philadelphia, PA 19102

Dear Mr. Mishura:

Thank you for requesting information relating to bicycle and pedestrian facilities at the Pettinaro Project located in Sussex County, DE. We appreciate your commitment to providing safe accommodations for bicyclists and pedestrians early in the planning process.

In recent months we have had several requests for bicycle facilities along Railway Road and we have begun coordination with Sussex County to provide shoulders along the southern section of Railway Road from SR 26 to Old Mill Rd. The development location provides an opportunity to extend the shoulders across the property's frontage on both Old Mill and Railroad. Therefore, when we have the opportunity to review this plan with our Development Coordination Section, we will be requesting the following:

• Five-foot shoulders across the Railroad Street frontage, with 5ft. reserved for cyclists through the turn lane

We look forward to reviewing the forthcoming plans for the Pettinaro Project development. Please contact me at (302) 760-2509 if you should have any questions or comments.

nthon Project Planner

aja

cc: Joseph Cantalupo, Assistant Director, Planning John Fiori, Road Technician, Planning





STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION

800 BAY ROAD P.O. BOX 778 Dover, Delaware 19903

NATHAN HAYWARD III SECRETARY

February 28, 2005

Mr. Richard A. Mishura Orth - Rodgers & Associates, Inc. 230 South Broad Street Philadelphia, PA 19102

Dear Mr. Mishura:

We have reviewed the preliminary traffic impact study (TIS) that we received on January 7, 2005 for the **Pettinaro Project on Railway Road**. While our comments, individually, are relatively minor, together they will affect a significant number of figures. Please revise and resubmit the affected figures for further review. For your convenience, I have enclosed the corrected copies with this letter.

- 1) On Figure 21, the traffic assignment for the southbound left-turn movement is missing.
- 2) According to the email correspondence between you and the developer of Bear Trap Dunes, there were a total of 434 townhouses/condominiums proposed and only 55 units were un-built or unoccupied. Also there were 266 single-family houses proposed and only 49 units were un-built or unoccupied. There are discrepancies between the trip generations that we calculated and those you have submitted. Below are our results:

			Bear]	frap I	Junes [Frip G	lenera	tion					
			In	Out	Total		Built-Out			U	lt		
LUC		Equation / Rate	%	%	Units	In	Out	Units	In	Out	Units	In	Out
	AM	0.7X+9.43	25%	75%		49	146		40	121		9	25
210	PM	Exp(0.9*Ln(X) + 0.53)	63%	37%	266	163	96	217	135	80	49	28	16
		0.89X+10.93	54%	46%		134	114		110	94		24	20
		Exp(0.8Ln(X)+0.26)	17%	83%		28	139		26	125		3	14
230		Exp(0.82Ln(X)+0.32)	67%	33%	434	134	66	379	120	59	55	14	7
		0.29X+42.63	54%	46%		91	78		83	70		8	8

Also there are errors on the internal capture summary sheet and the retail trip assignment figure for the Saturday peak hour. Therefore, please correct the trip generations and Saturday trip assignment figure for the Bear Trap Dunes. However, you may keep the trip assignments for the AM and PM peak hours, because the discrepancies are minimal (+/-1).



3) The committed development of Wedgefield has 123 single-family houses proposed and only 48 units were occupied. Our calculations below showed some discrepancies from your results in trips generated by the un-built portion of this development. However, the trip assignments may remain the same, as the discrepancies are minimal (+/-1).

			We	dgefie	eld Tri	p Gen	eratio	n					
				Out	Out Total			Built-Out			Un-Built		
LUC	E Equation / Rate		%	%	Units	In	Out	Units	In	Out	Units	In	Out
	AM	0.7X+9.43	25%	75%		24	72		11	32		13	40
210	PM	Exp(0.9*Ln(X) + 0.53)	63%	37%	123	81	48	48	35	20	75	47	27
	SAT	0.89X+10.93	54%	46%		65	55		29	25		36	30

4) The directional distribution percentages that you used to calculate the trips generated by the townhouses in Bay Forest Club were not correct. Please correct them and update the trip assignments on Figure 31. However, you may keep the numbers on Figure 30 because the discrepancies are minimal (+/-1).

- 5) On Figure 37, there is one typographical error at the intersection of Delaware Route 26 and Delaware Route 17.
- 6) You used the trip generation equations of single-family houses (ITE Land Use Code 210) to calculate the trips generated by the townhouse units (ITE Land Use Code 230) on the Windmill Property. Please correct the errors and update Figures 38 through 40.
- 7) The directional distribution percentages that you used to calculate the trips generated by the townhouses in Doves Landing were not correct. Also you have typographical errors with the net external retail trips for the Saturday peak hour. The trip assignment figures may remain. However, we found that you have one typographical error on Figure 42, at the intersection of Delaware Route 26 and Central Avenue.
- 8) The trip generations for Barrington Park were not calculated correctly. Please correct the errors and update the trip assignments on Figure 44. However, the assignment numbers on Figure 45 and 46 may remain, as the discrepancies are minimal (+/-1).
- 9) There are minor corrections to the residential trip generations of Millville Town Center and Bethany Bay, during the Saturday peak hour. However, the trip assignment figures can remain.
- 10) The above corrections are going to affect Figures 53 through 55, 57 through 59, and 64 through 66. Please update them and resubmit for further review.

Mr. Richard A. Mishura Page 3 of 3 February 28, 2005

Please contact Ms. Hong Yuan at (302) 760-2151, or me at (302) 760-2109, if you have any questions concerning this correspondence.

Sincerely,

J. Willi Brokh /

cana,

T. William Brockenbrough, Jr. County Coordinator

TWB:hyr

Enclosures

cc: Theodore Bishop, Development Coordination Todd J. Sammons, Project Engineer Hong Yuan, McCormick Taylor, Inc. Youcef Hamroun, McCormick Taylor, Inc.

able III. Other committed dev	AM peak hour					External trips				Pa	ss-by		
	ITE Code	Enter	_		otal	Ente		Exit	Tota		%	Trip %	4
and use			-								0%	0%	1
lver Woods Single-family homes (400 du)	210	72	21	7	289	72	+	217	289	-			
ethany Meadows Single-family homes (2 du)	210	0		2	2	0		2	2	_	0%	0%	-
Waterside Single-family homes (13 du) - Townhouses (8 du)	210 230	5		6	19 7	5		14 6	-	-	0% 0%	0%	_
Southampton - Single-family homes (2 du) - Townhouses (21 du) - Mini storage (132 units)	210 230 151	0 2 2		1 9 1	1 11 3		0 2 2	1 9 1	1		0% 0% 0%	0%	,
Bear Trap Dunes - Single-family homes (49 du) - Townhouses/condos (55 du)	210 230 820		9 3 // 25	25 428 17	34) 1727 42		9 3 25	25 14 <mark>18</mark> 17	- [1]	34 V 21 42	0% 0% 0%	09	То
 Retail (20,000 sf) Wedgefield/Avon Park Single-family homes (75 du) Single-family homes (25 du) 	210		3 16 7	40 46 ⁻ 20	53 -62 27		13 16 7	4 4 20	- -	53 62- 27 /	0% 0%	1	% %
- Single-family homes (475 du) - Townhouses/condos (326 du)	21		86 23	256 110	34 13	2	86 23	-25	66 10	342 133	0% 0%)%)%
Forest Landing - Single-family homes (444 du)	21	.0	80	240	32	20 -	80	2	40	320	0%		0%
Fairway Village - Single-family homes (312 du)	2	10	57	171	_	28	57		71	228 V	0%		0%
- Young the state of the state	2	.10	27	45 63		84	9		65	.84	0%	>	0%
Doves Landing - Single-family homes (140 du) - Apartments (120 su) - Townhouses (142 du)		210 220 230 820	27 13 12 121	80 50 56 77		107 63 68 198	27 13 12 12	3 2 21	80 50 56 77	107 63 v 68 198	09 09 09	10 10	0% 0% 0% 0%
 Retail (147,500 sf) Barrington Park Single-family homes (150 du) Condominiums (300 du) 		210 230	29 26 21	8(- 29 10		11 4 2 0 5 124	2	9	86 79- 103	114 105 124	- 0	%	0% 0%
Millville Town Center - Townhouses (68 du) - Retail (106,500 sf)	-	230 820	6 99	3:	2 4	38 163		6 99	32 64	38 16	3 0)%)%	0%
Bethany Bay - Condominiums (100 du) TOTAL AM Peak Hour Trips		230	9	_	3	52 2543		9	43 1800	52 254		-	0%

	Other committed	· · · · · · · · · · · · · · · · · · ·	Wookday PM	neak	hour trip	generation.
01 11. 137	Other committed	developments -	Weekday I IVI	poun	nour mp	0

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Table IV. Other committed d	ITE	PM	peak hou	ır	Ext	ternal trip	S		Internal	
and use	Code	Enter	Exit	Total	Enter	Exit	Total	%	Trip %	
ilver Woods Single-family homes (400 du)	210	235	138	373	235	138	373	0%	0%	
Bethany Meadows										
	210	2	0	2	2	0	2	0%	0%	
Single-family homes (2 du)										
Waterside	210	11	6	17	11	6	17 4	0%	0%	
Single-family homes (13 du)	230	5	3	8	5	3	8 1	0%	0%	
Townhouses (8 du)	250	-								
Southampton	210	1	0	1	1	0	1	0%	0%	
- Single-family homes (2 du)	230	7	5	12	7	5	12	0%	0%	
- Townhouses (21 du)	151	3	2	5	3	2	5 /	0%	0%	
- Mini storage (132 units)	151					a				
Bear Trap Dunes	210	28	16	44	20	1211	32	0%	25%	
- Single-family homes (49 du)	210	1014		282	1211	\$5	1816	0%	25%	
- Townhouses/condos (55 du)	230	78	86	164	5927		19556	62%	10%	
- Retail (20,000 sf)	820	10		1010		1 21	26			
Wedgefield/Avon Park		17	27	74 √	47	27	74 🗸	0%	0%	
- Single-family homes (75 du)	210	47		31 V		11	31 1	0%	0%	
- Single-family homes (25 du)	210	20	11	51 V	20					
Bay Forest Club			101	436~	275	161	436	0%	0%	
- Single-family homes (475 du)	210	275	161	1	196	52 55	158	0%	0%	
- Townhouses/condos (326 du)	230	103/0	6 5552	156	100					
Forest Landing				410	258	152	410	0%	0%	
- Single-family homes (444 du)	210	258	152	410	238	152				
Fairway Village	V.			000	188	110	298	0%	0%	
- Single-family homes (312 du)	210	188	110	298		-	-			
Windmill Property		42	21	63	42		63	0%	0%	
- Townhouses (106 du)	210	2	- AZ	113	71	42	-			
Doves Landing						07	104	0%	28%	
- Single-family homes (140 du)	210			145	1	37		0%	28%	
- Apartments (120 su)	220	55	4 29	6 84	41 .39	1 19	58	0%	28%	
- Townhouses (142 du)	230	525				19	470		11%	
- Retail (147,500 sf)	820	388	421	809	√ 229	241	4/0*	55700		
Barrington Park	1 A				Y an		154	0%	0%	
- Single-family homes (150 du)	210	97	57	154		57		0%	0%	
- Condominiums (300 du)	230	_960	19 524	9 148	-96-	19 -524				
Millville Town Center					1		27	0%	39%	
- Townhouses (68 du)	230) 29	15	44	/		27	38%	3%	
- Retail (106,500 sf)	820) 313	340	653	189	205	394	38%	012	
Bethany Bay									0%	
- Condominiums (100 du)	230	39	21	60	39		60	0%	-	
TOTAL AM Peak Hour Trips		2500	i 1840	4340	5 213	4 1436	3570		•	

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Table V. Other committed developments – Weekday Saturday peak	hour trip generation.
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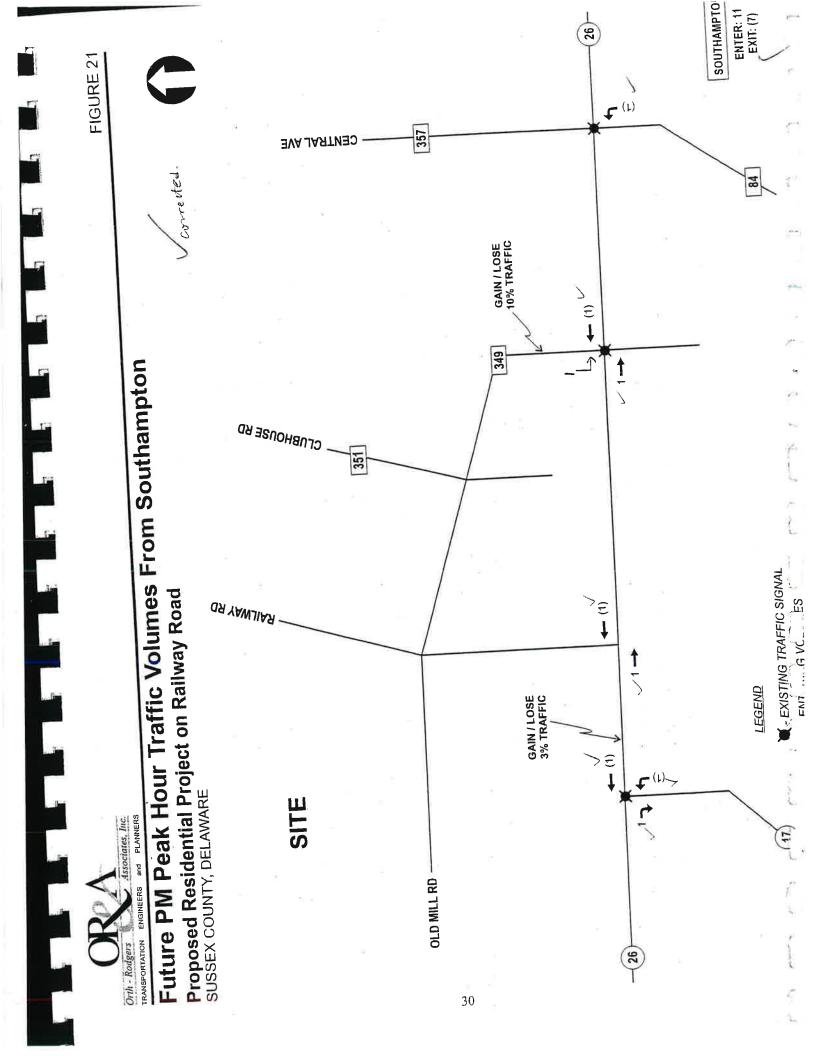
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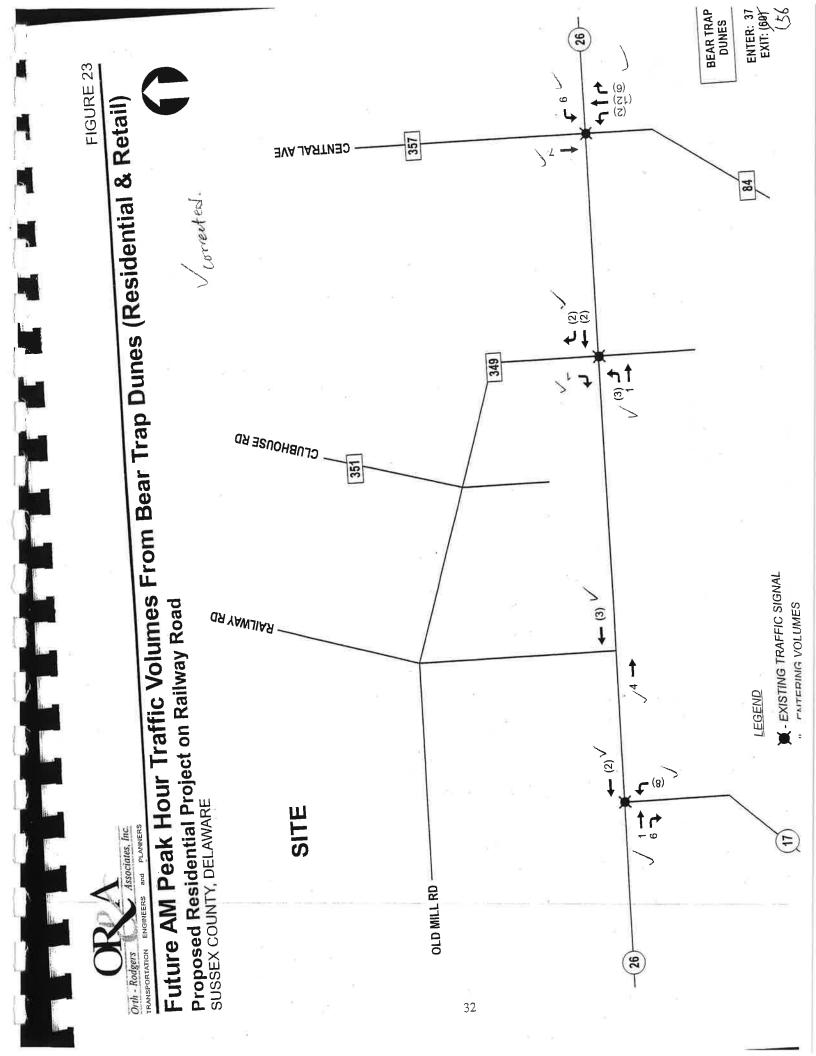
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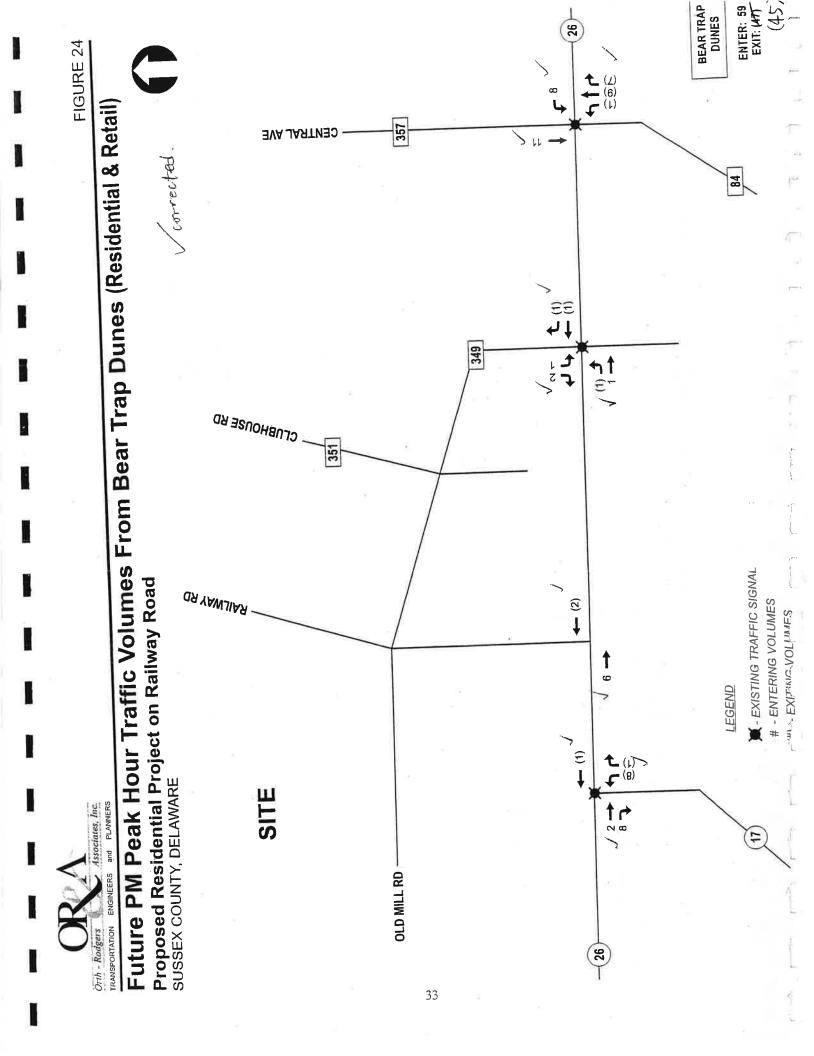
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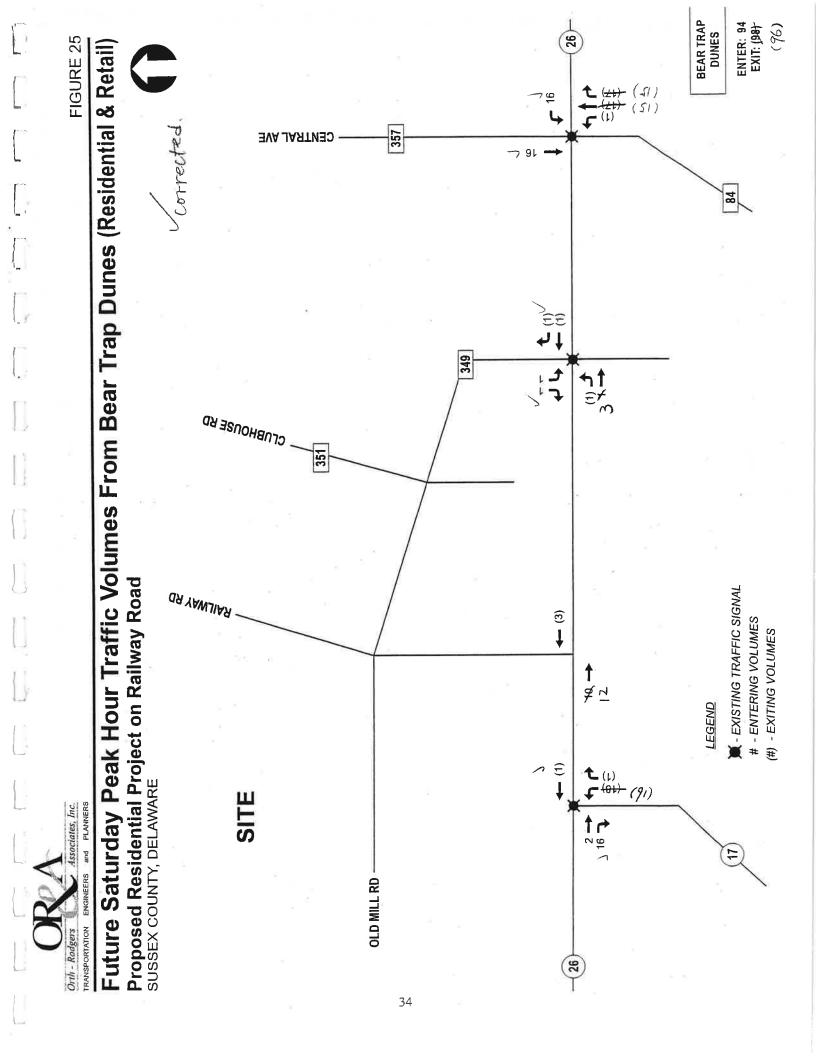
Table V. Other committed de	ITE	Satur	day peak	hour	External trips			Pass-by	Internal
Land use	Code	Enter	Exit	Total	Enter	Exit	Total	%	Trip %
Silver Woods	-								
- Single-family homes (400 du)	210	198	169	367	198	169	367	0%	0%
Bethany Meadows	-	,							
- Single-family homes (2 du)	210	1	0	1	1	0	1	0%	0%
Waterside									
- Single-family homes (13 du)	210	7	6	13	7	6	13 🗸	0%	0%
- Townhouses (8 du)	230	2	2	4	2	2	4 /	0%	0%
Southampton								-	
- Single-family homes (2 du)	210	1	1	2	1	1	2 10	0%	0%
- Townhouses (21 du)	230	3	4	7	3	4	7 1	0%	0%
- Mini storage (132 units)	151	2	2	4	2	2	4 1/	0%	0%
Bear Trap Dunes				1		16	34		
- Single-family homes (49 du)	210	24	20	44 🗸	18	⁴	,35	0%	20%
- Townhouses/condos (55 du)	230	8	8	16 V	.6	26	1312	0%	20%
- Retail (20,000 sf)	820	119	110	229 🗸	70	64	134	38%	6%
Wedgefield/Avon Park		36	30	66	36	30	66		
- Single-family homes (75 du)	210	42	-36	-78	42-	,36	-78	0%	0%
- Single-family homes (25 du)	210	18	15 🗸	33	18	15	33 🗸	0%	0%
Bay Forest Club				V					
- Single-family homes (475 du)	210	234	200	434	234	200	434	0%	0%
- Townhouses/condos (326 du)	230	£975	69 63	138	\$\$ 75	\$83	138	0%	0%
Forest Landing							V		1
- Single-family homes (444 du)	210	219	187	406	219	187	406 V	0%	0%
Fairway Village									
- Single-family homes (312 du)	210	- 156	133	289	156	133	289	0%	0%
Windmill Property		39	34	73	39	34	73		
- Townhouses (106 du)	210	ST	48	-1-05-	_57	48-	.105	0%	0%
Doves Landing				,					
- Single-family homes (140 du)	210	73	63	136 1		50	105	0%	23%
- Apartments (120 su)	220	34	34	68	25	27	52	0%	23%
- Townhouses (142 du)	230	4542	3942	84	-3235	2330	65	0%	23%
- Retail (147,500 sf)	820	579	535	1114	358	- 241 - 324	470 682	35%√	6%
Barrington Park				V					
- Single-family homes (150 du)	210	78	66	144	78	66	144	0%	0%
- Condominiums (300 du)	230	_6570	\$\$60	130	_68-70		130	0%	0%
Millville Town Center		33,	29		22	18			
- Townhouses (68 du)	230	81	.31 '	62	_20-	20	40	0%	35%
- Retail (106,500 sf)	820	469	433	902 √	293√	270 1	563 ⁴	36% 🗸	2%
Bethany Bay		39	33		39	33			
- Condominiums (100 du)	230	,36	26	72	36-	36	72	0%	0%
TOTAL AM Peak Hour Trips		2567	2315	4882	1936	1768	3704	•	

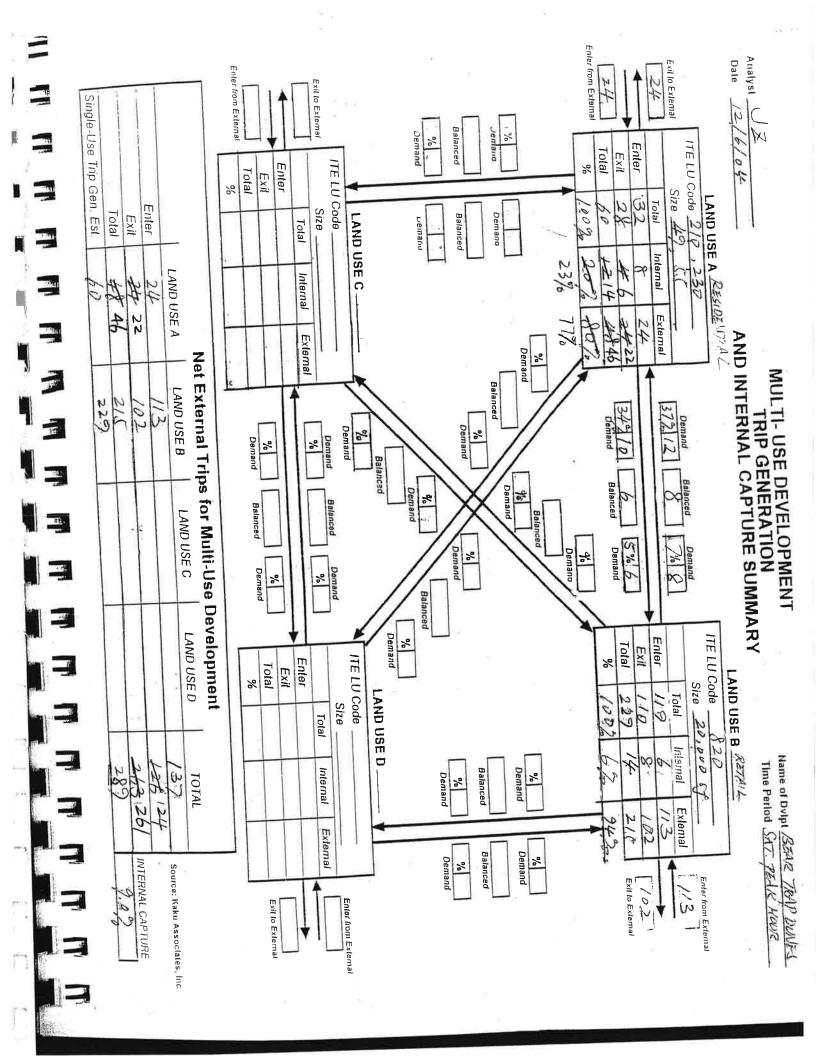
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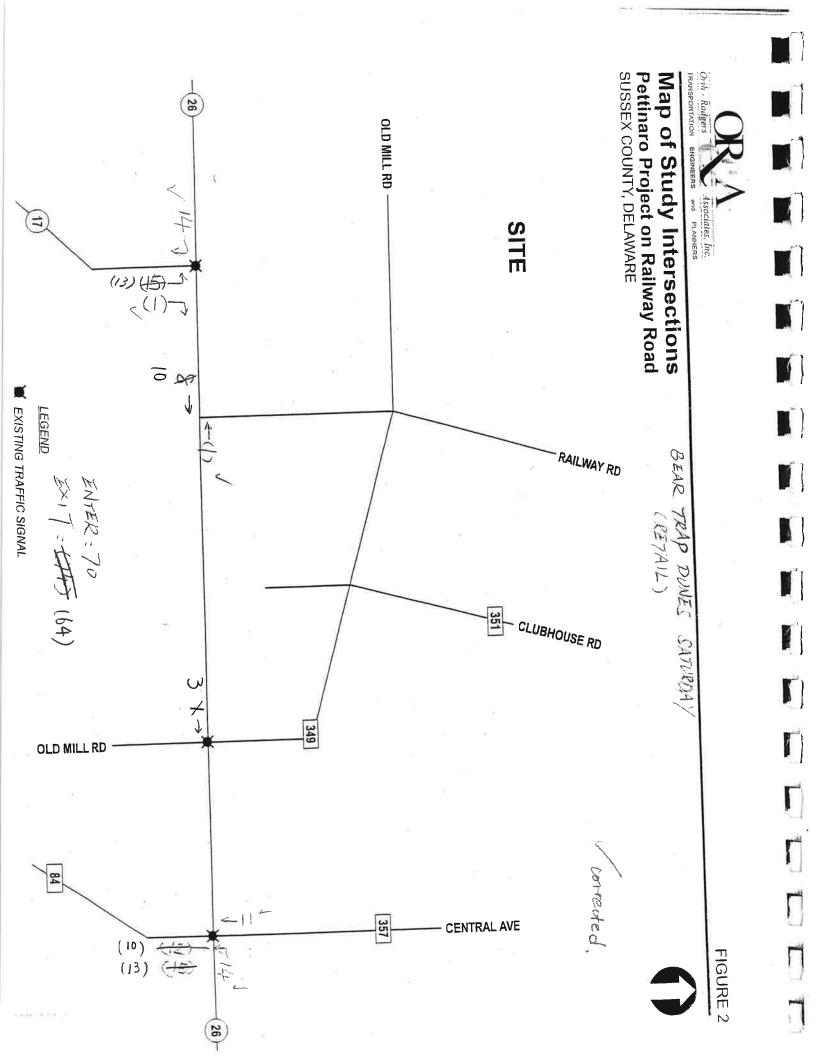


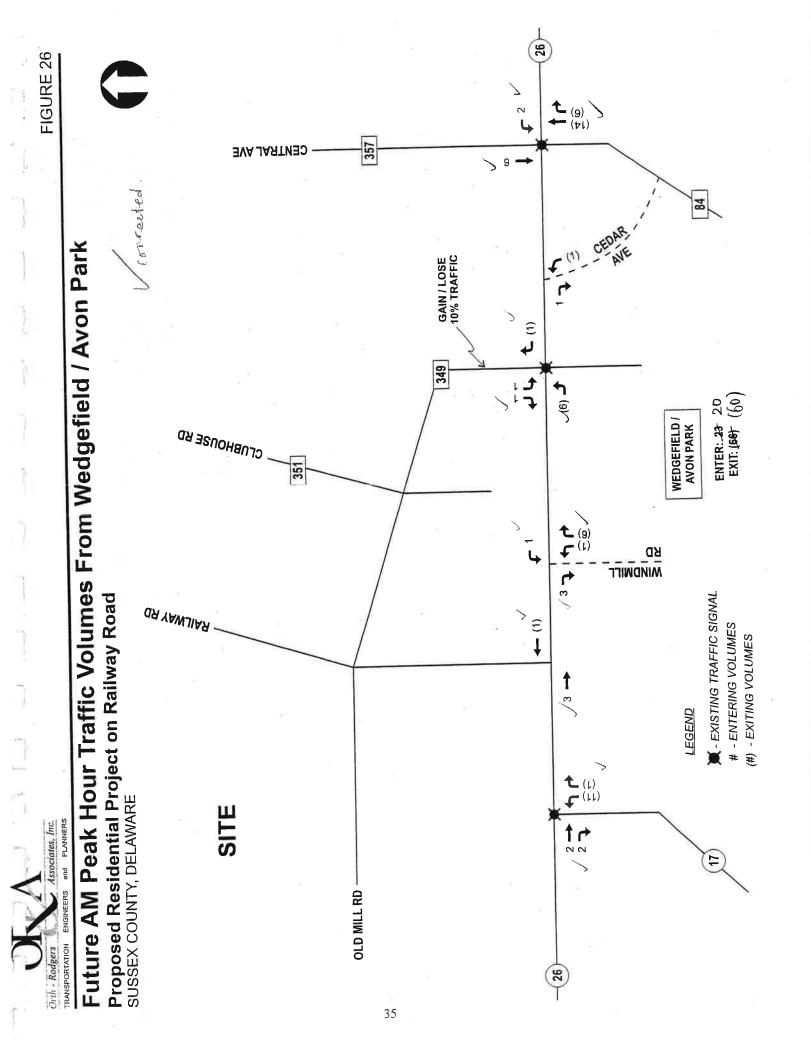


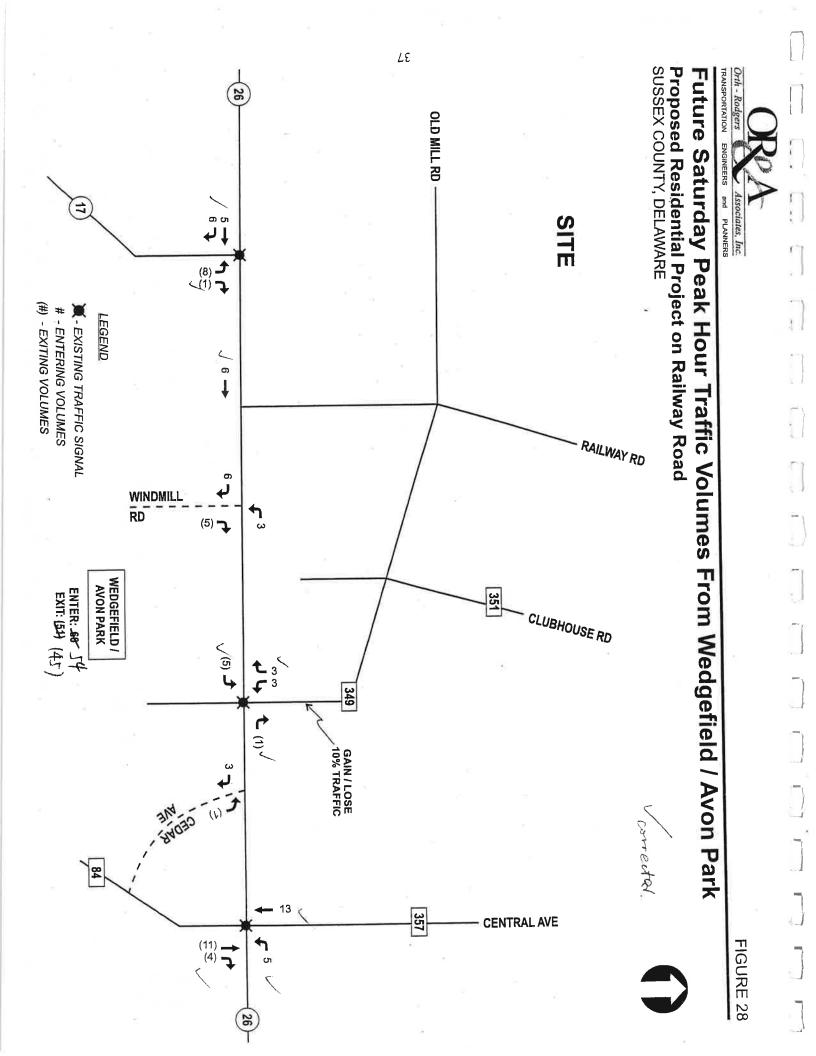


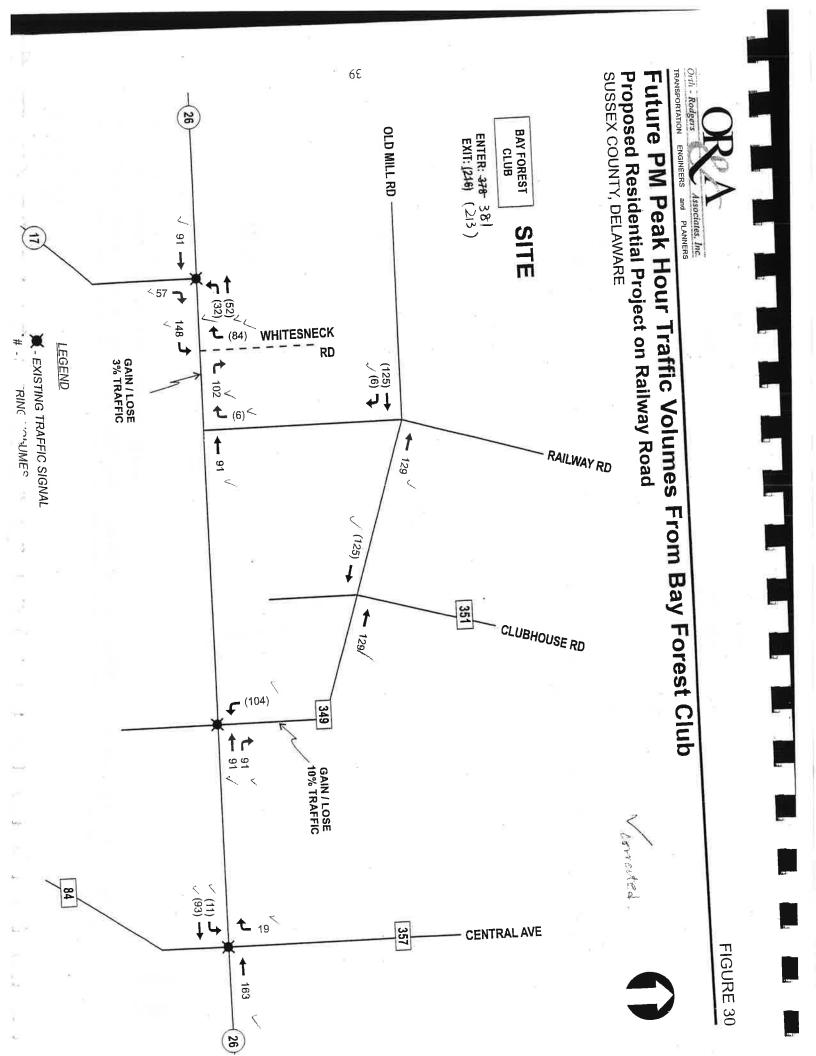


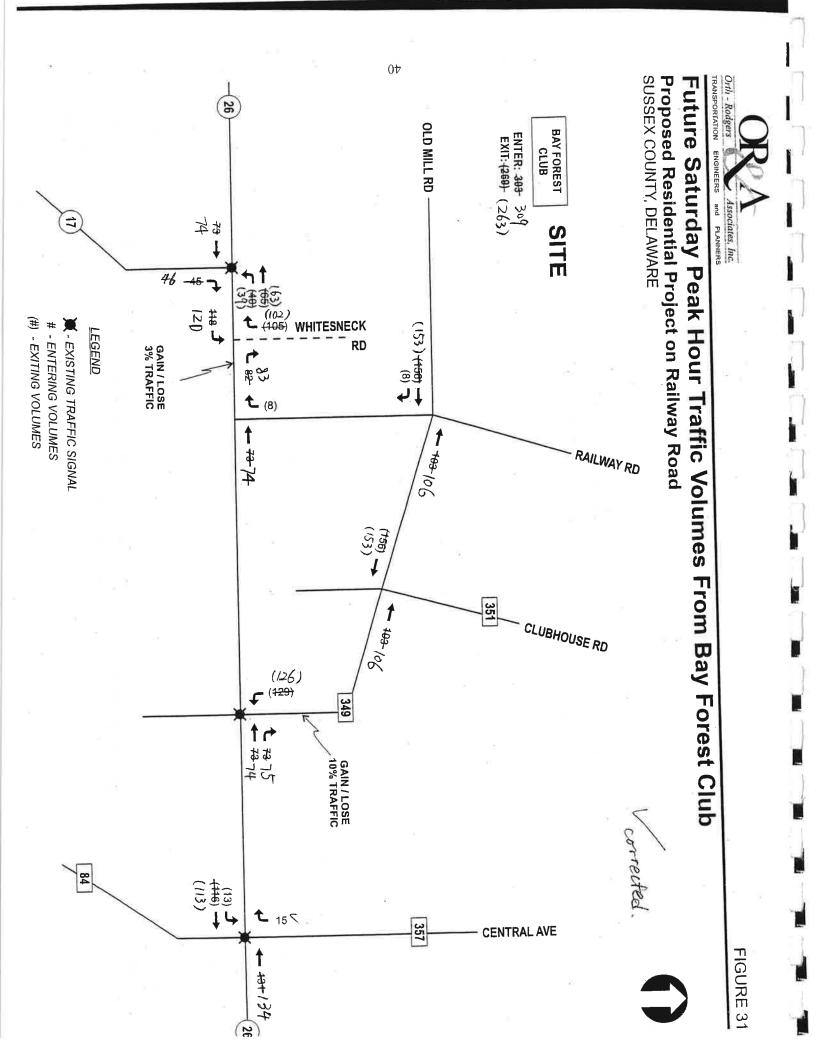


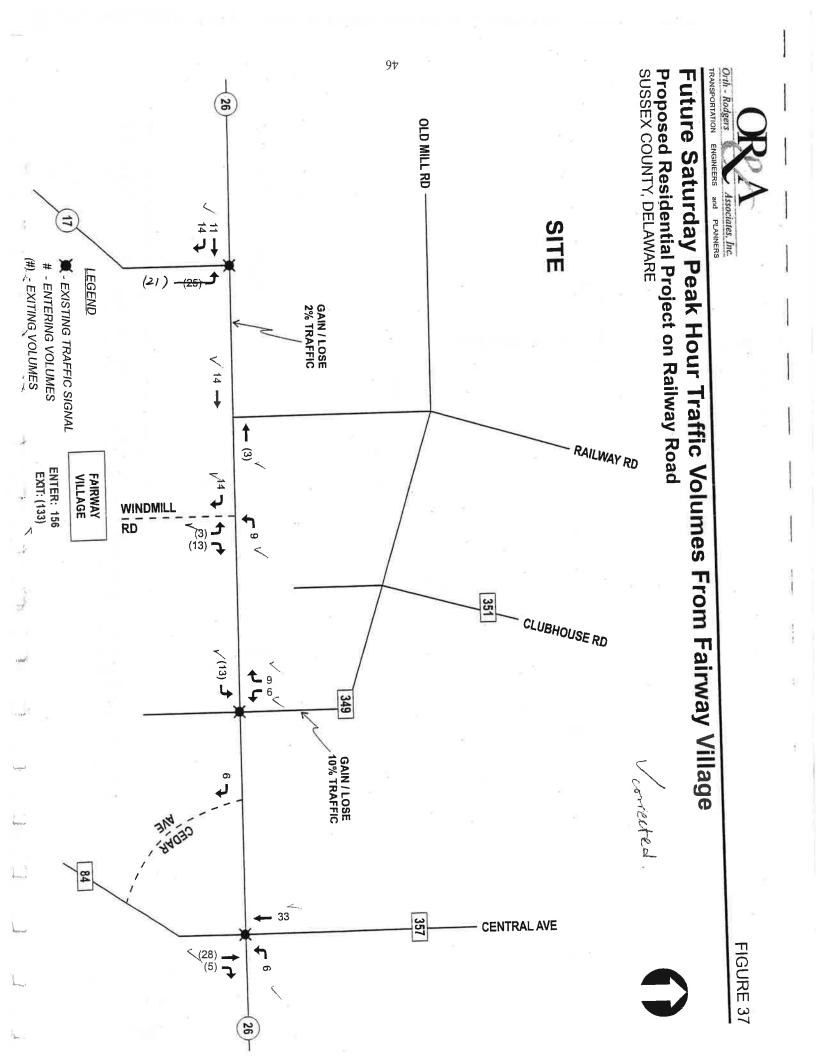


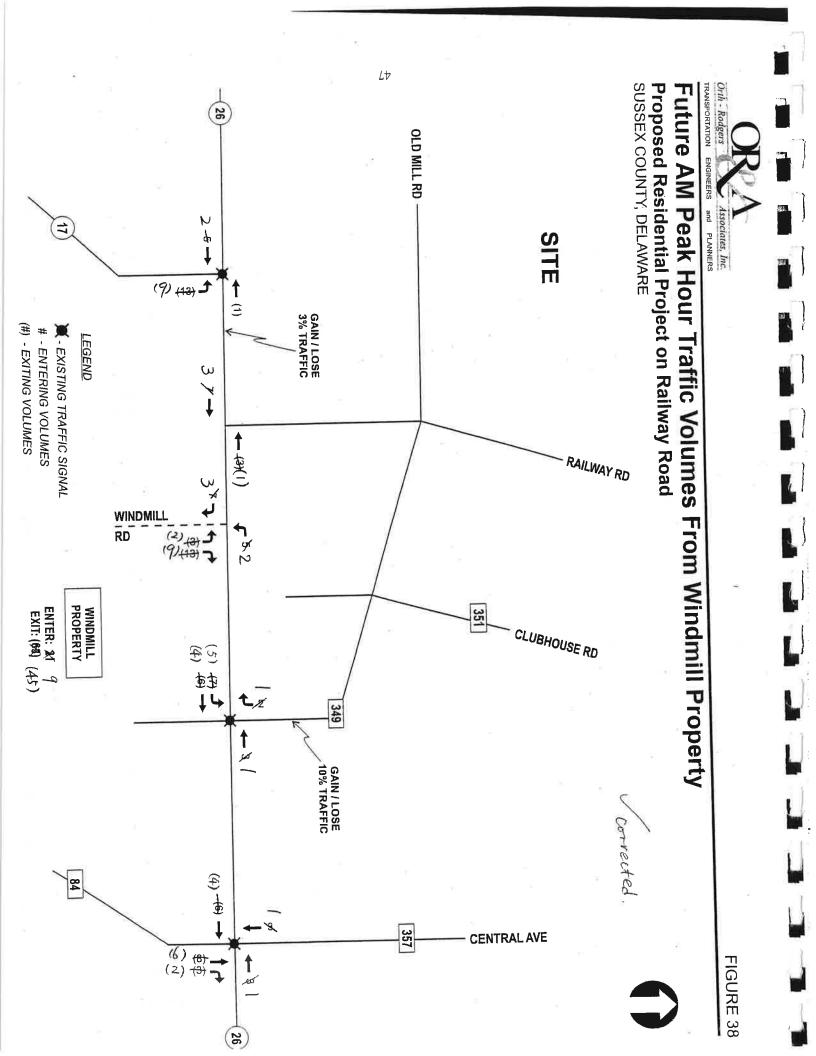


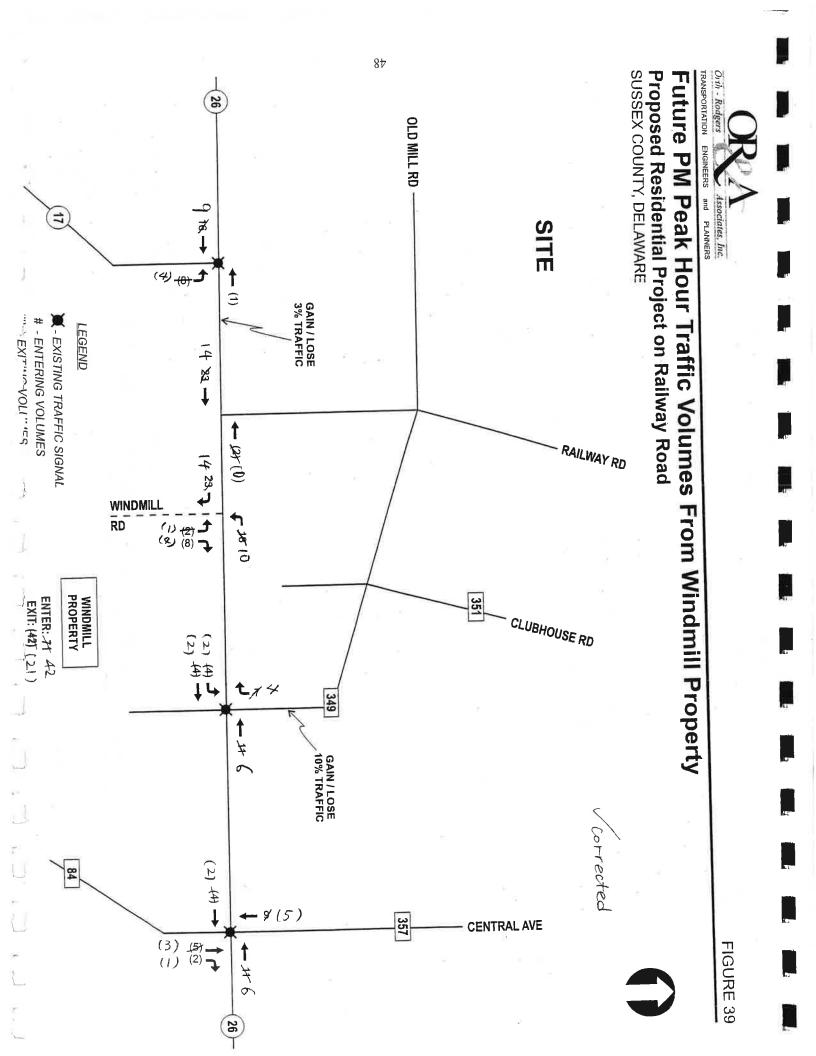


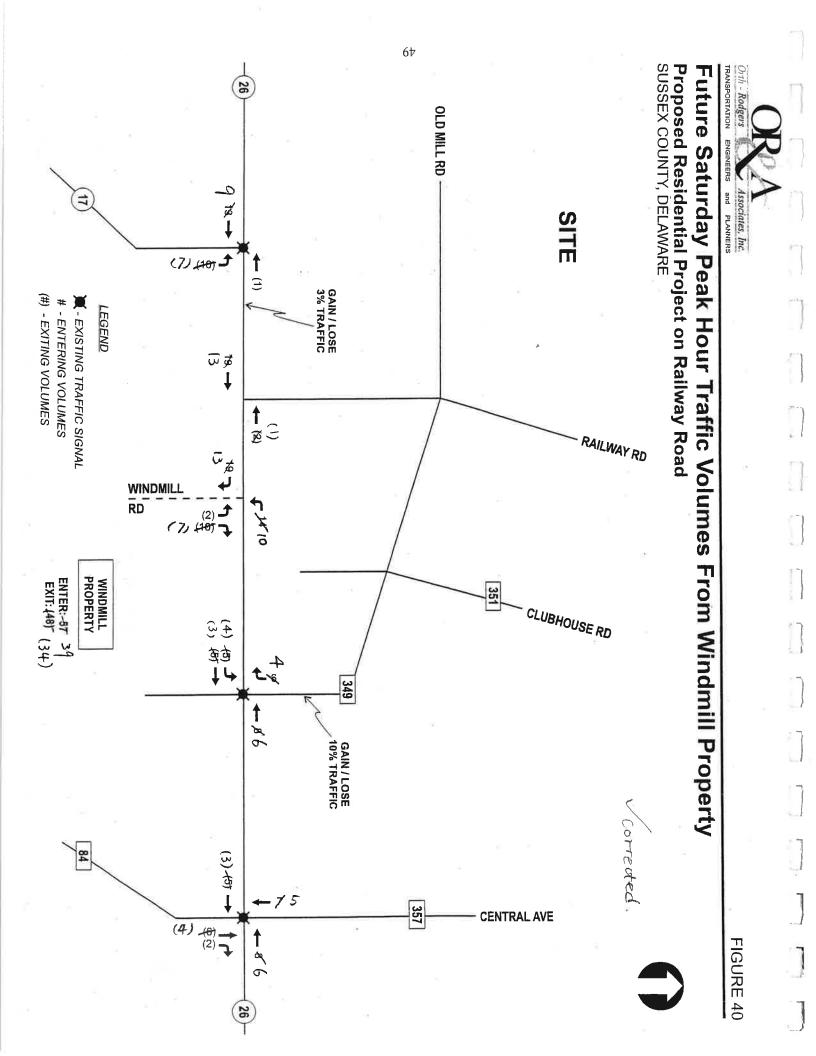


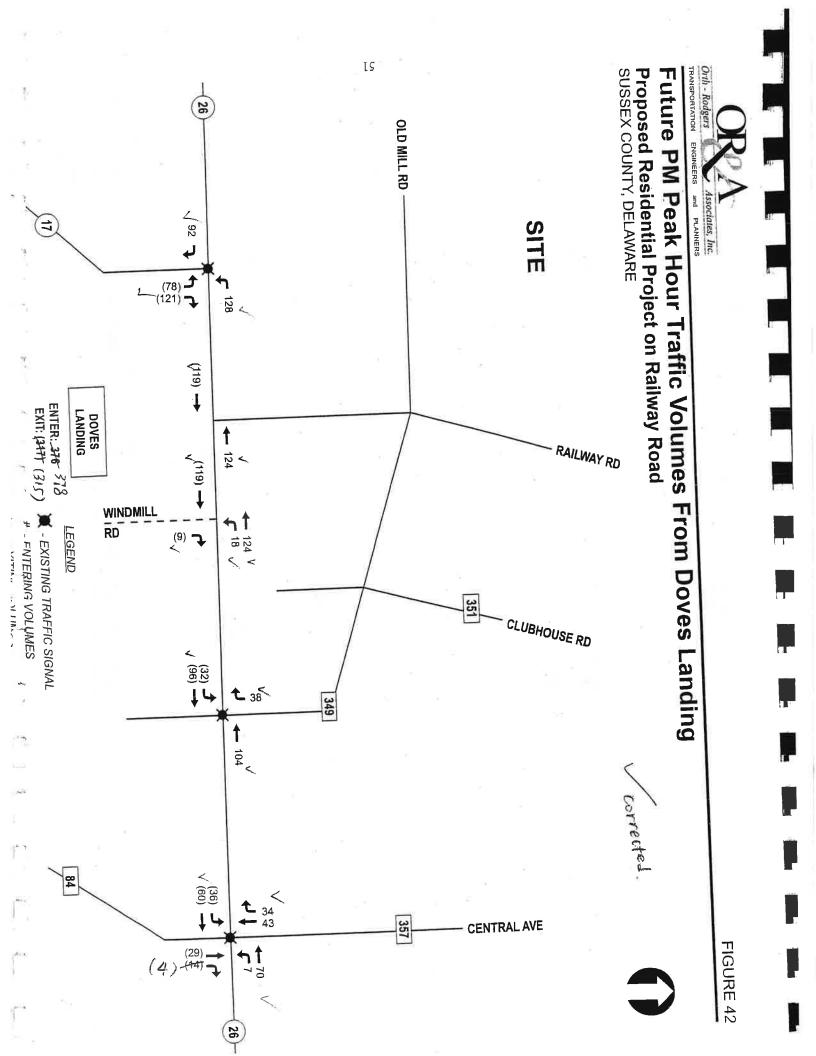


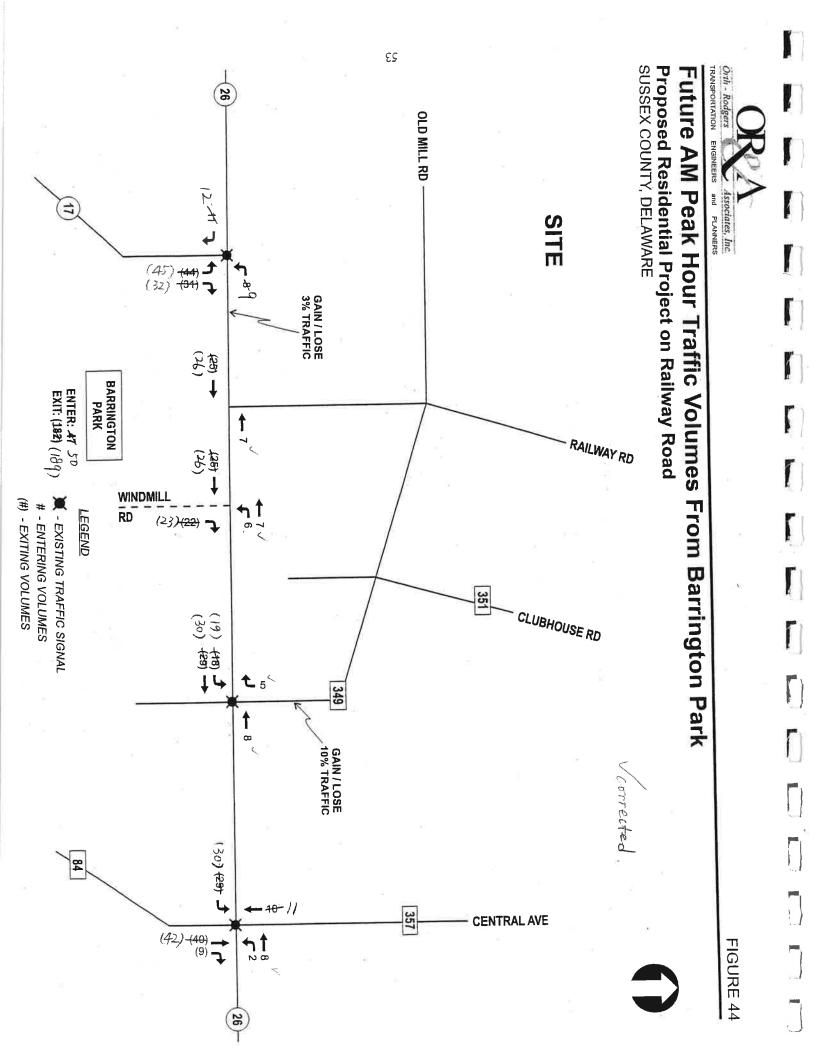


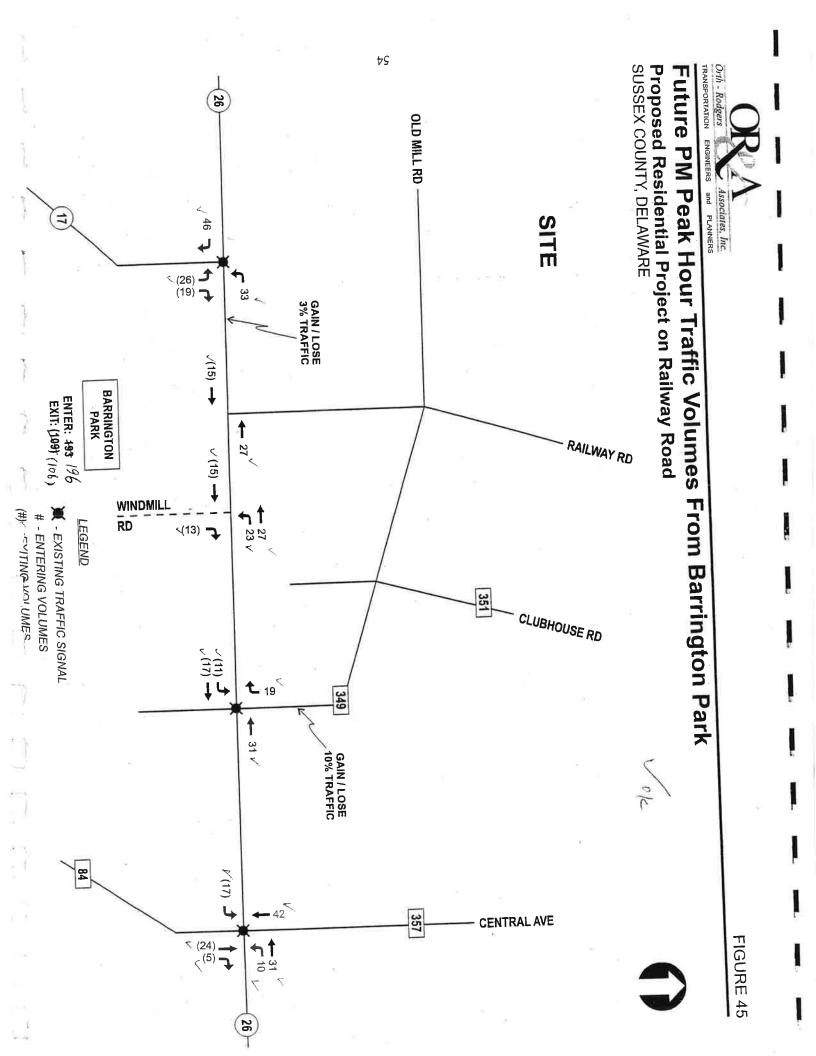


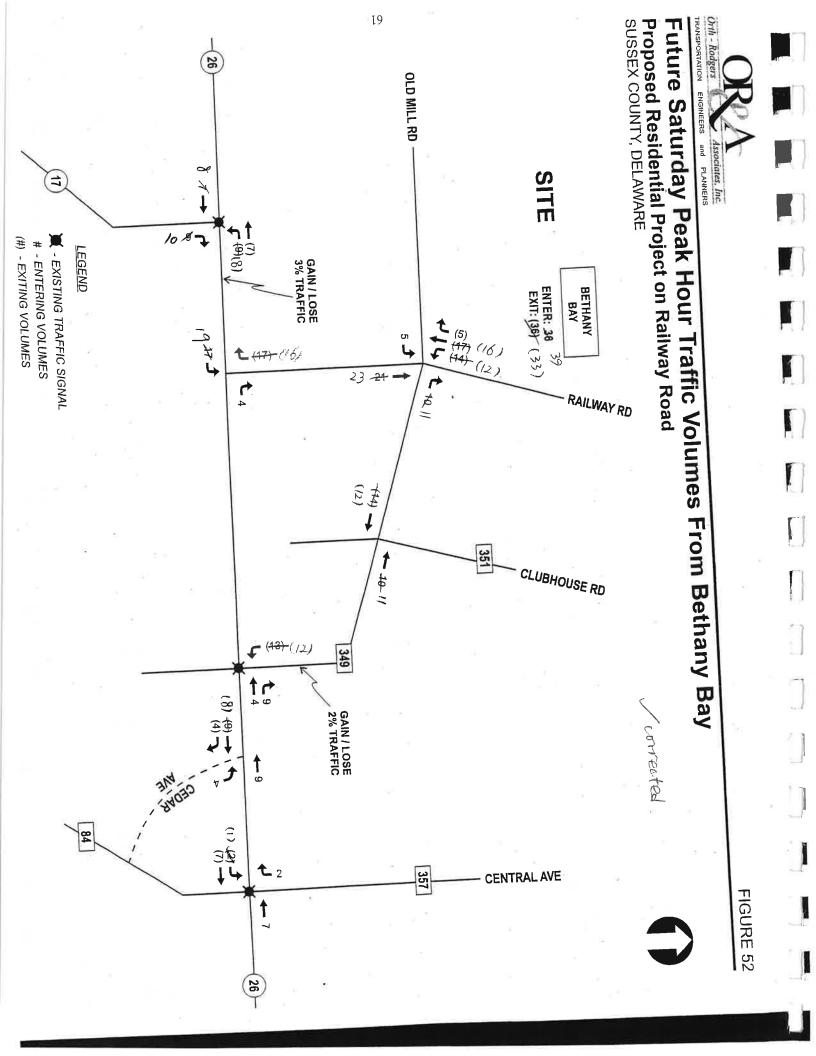


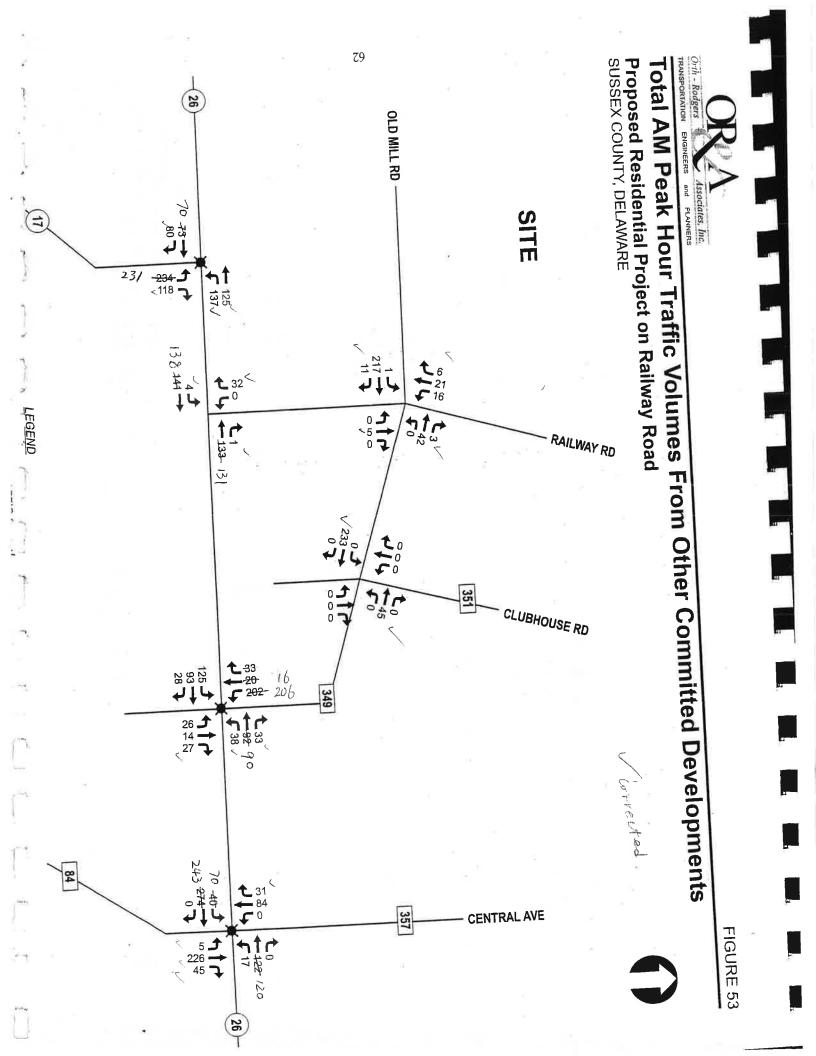


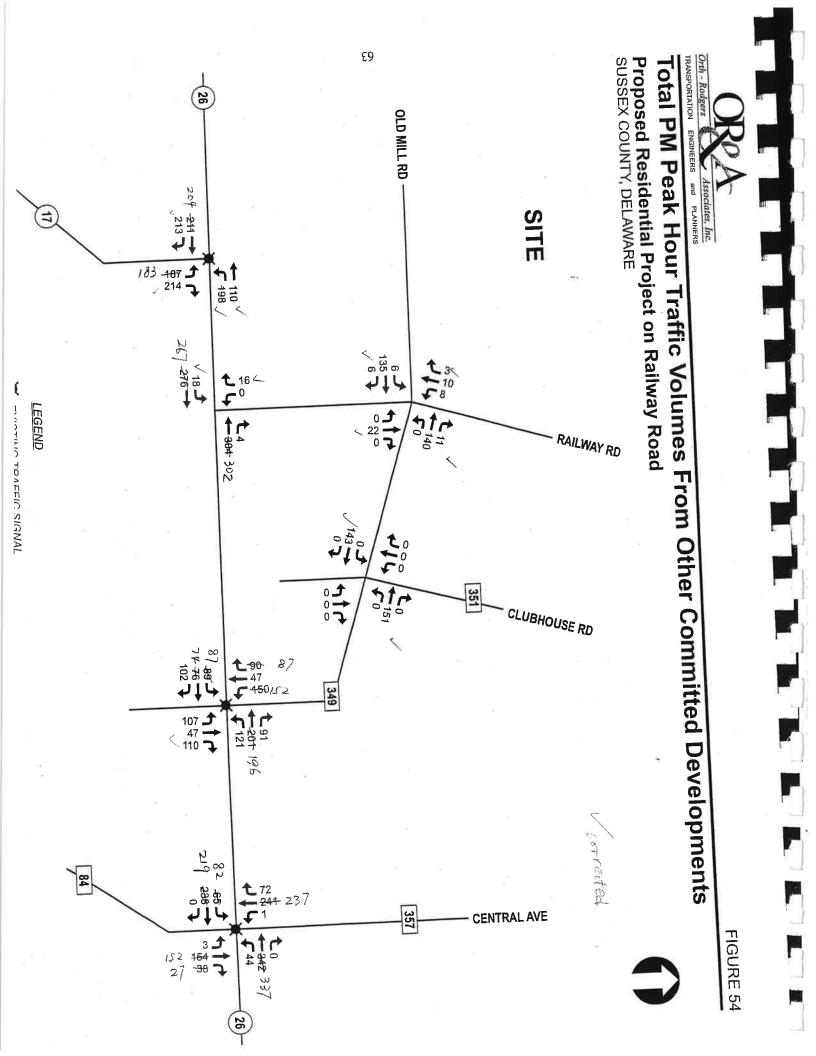


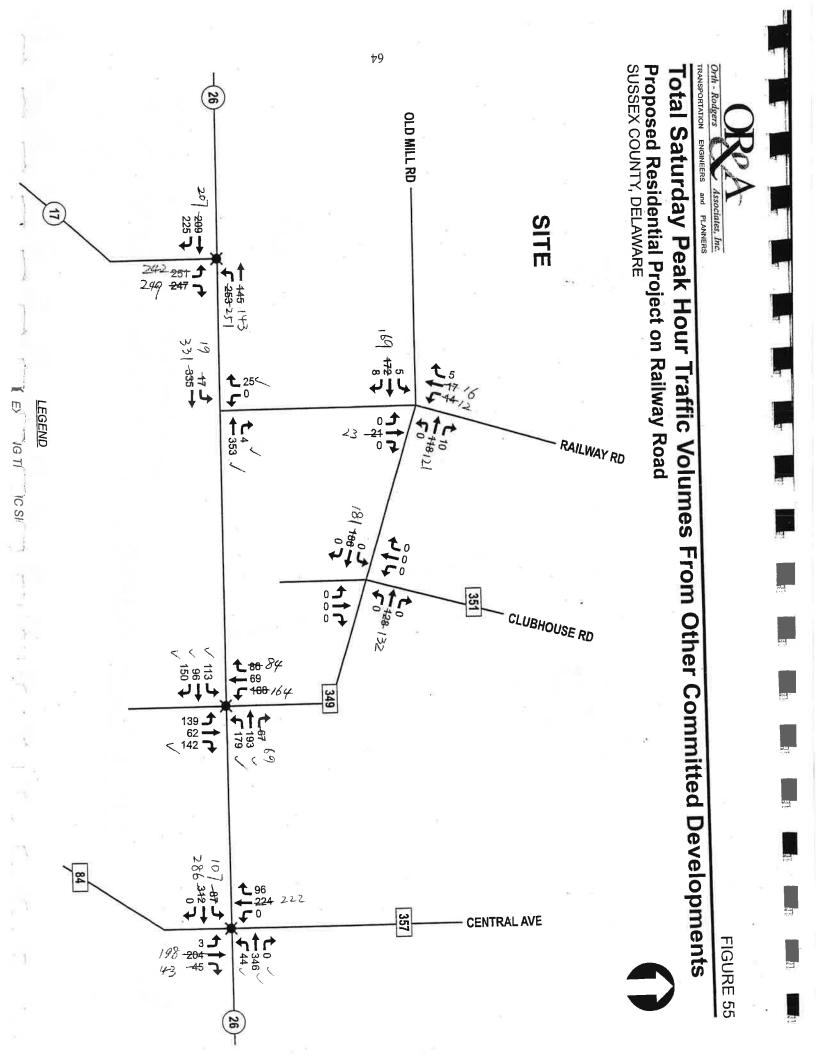


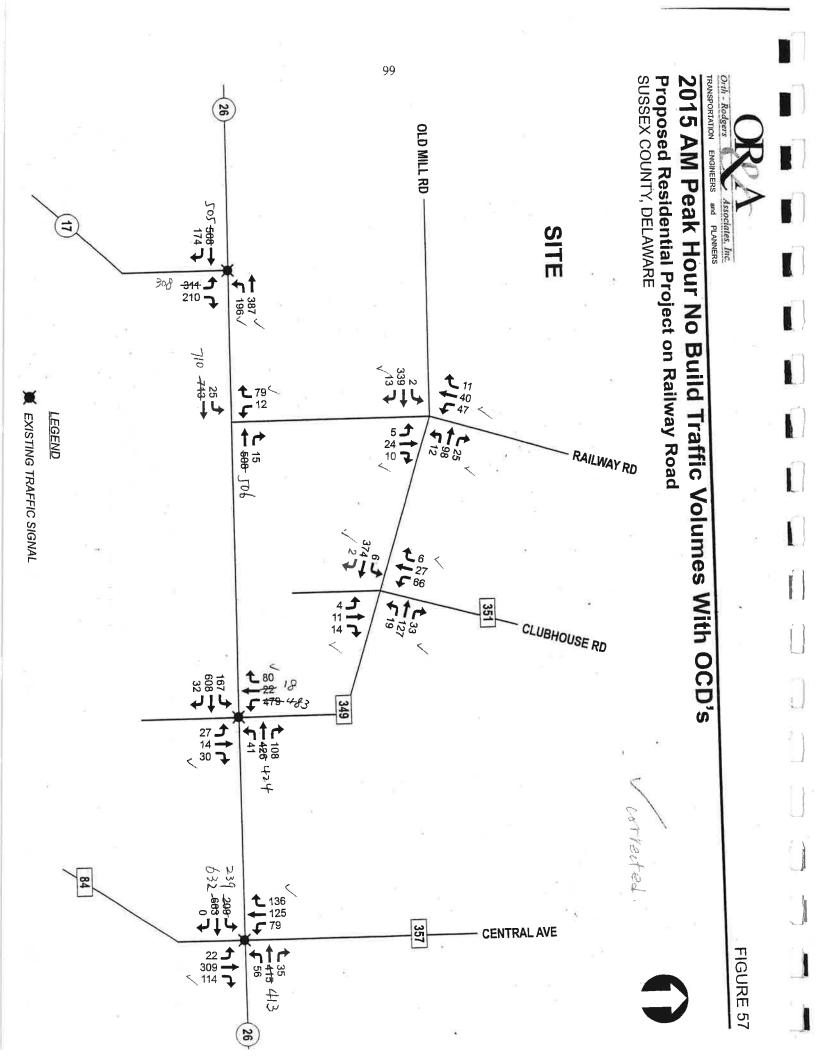


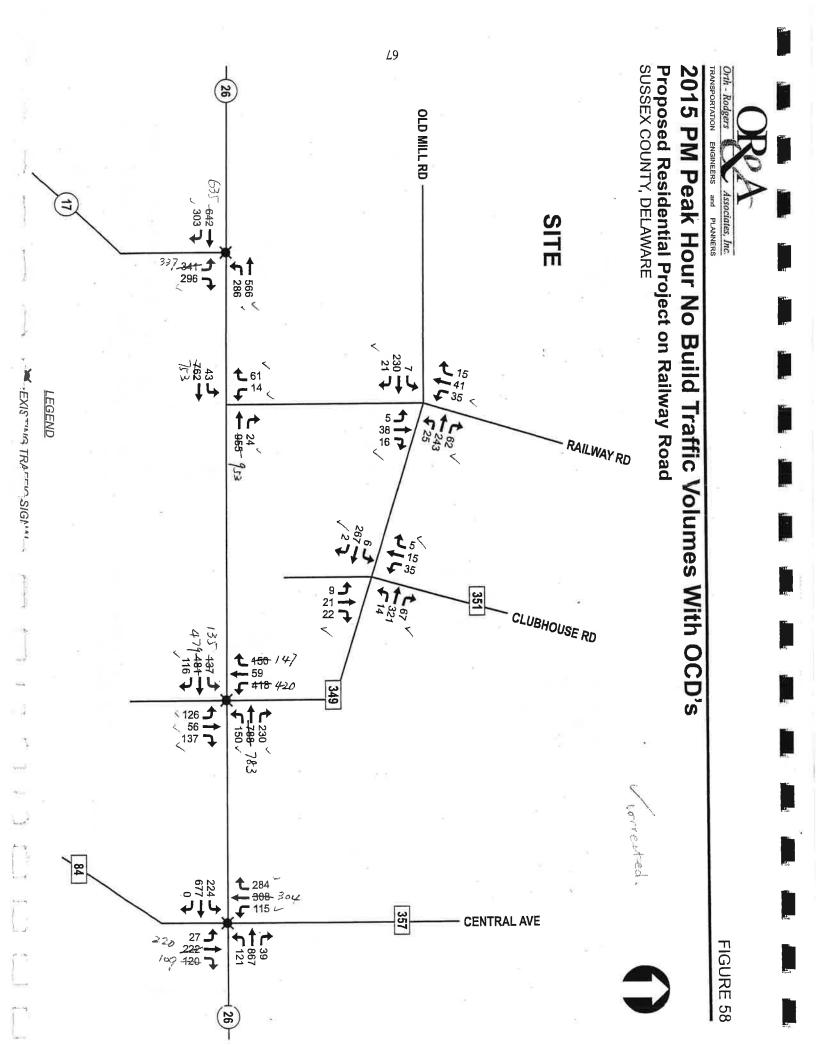


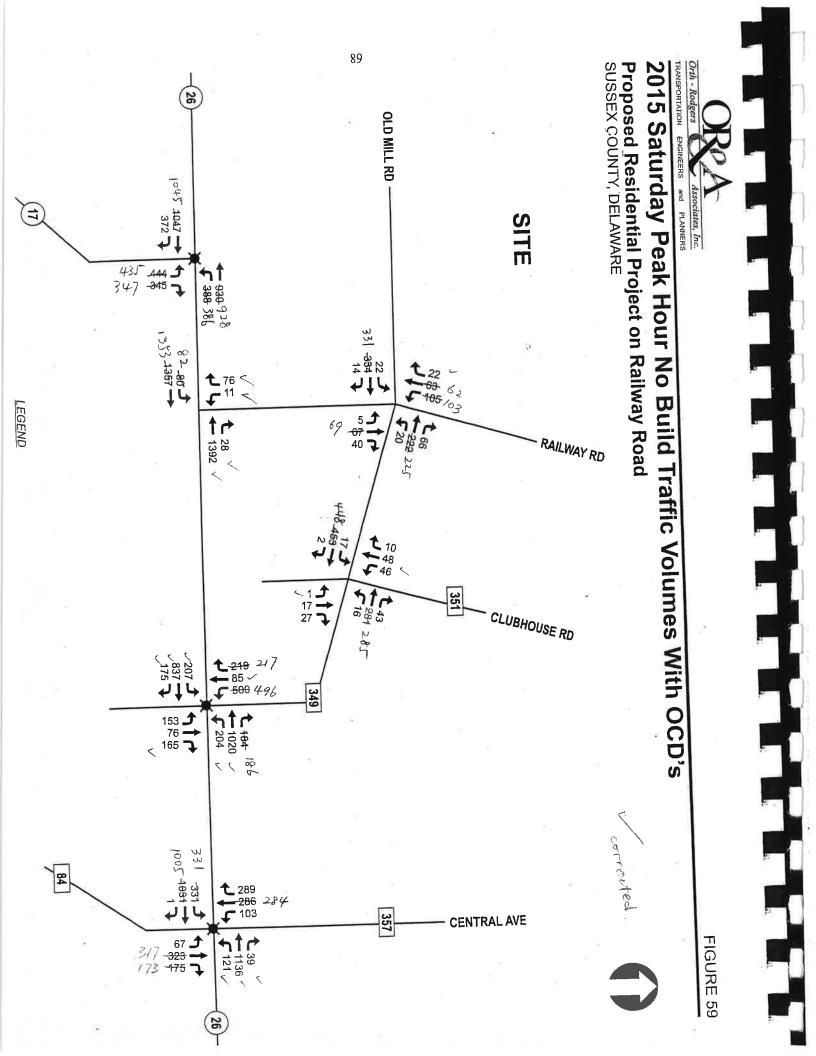


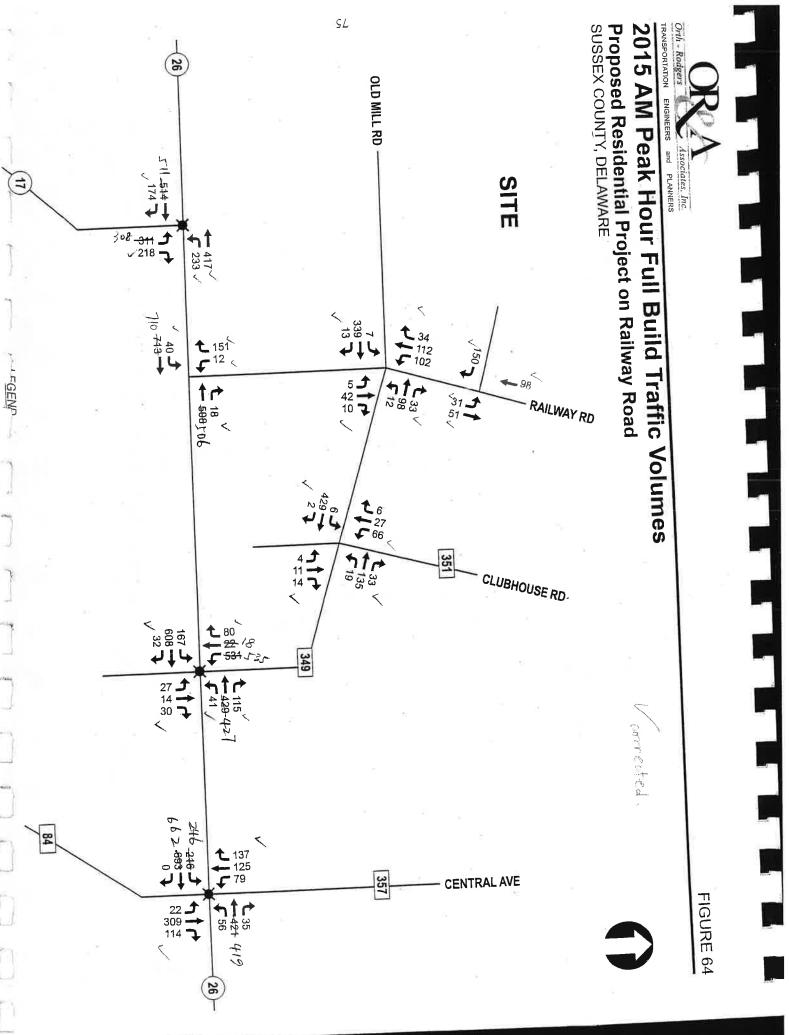


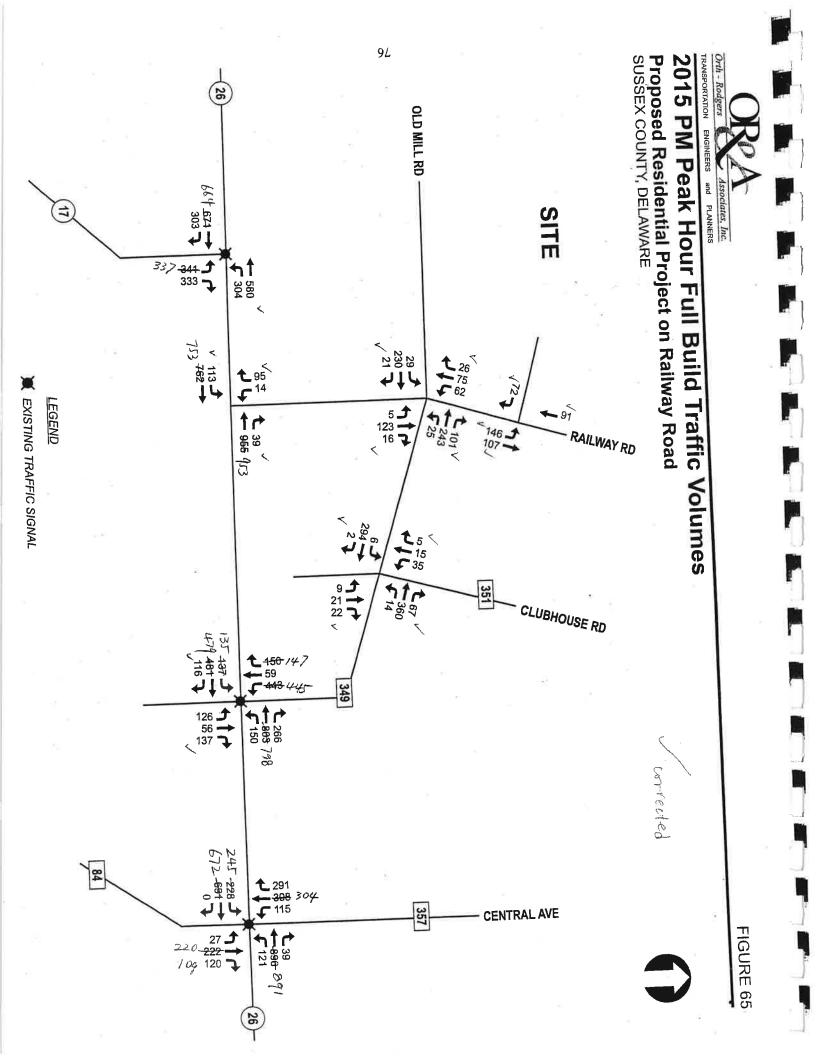


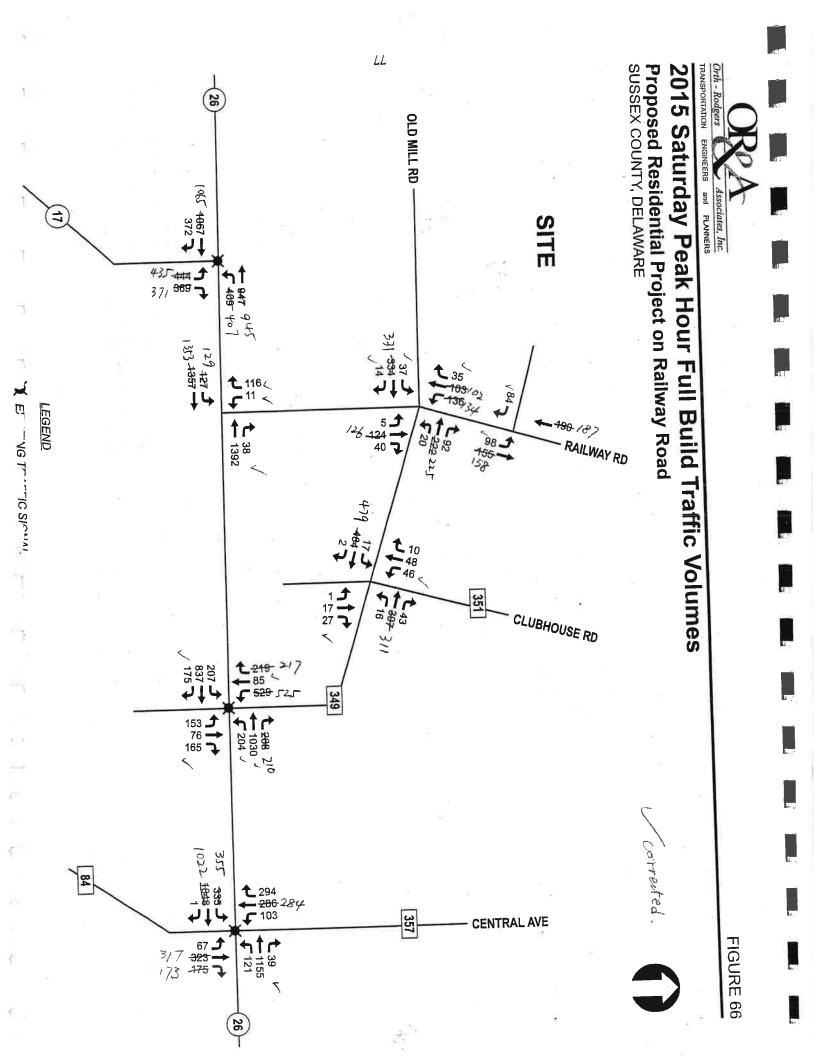














March 14, 2005

Mr. T. William Brockenbrough, Jr., P.E., AICP Division of Planning 800 Bay Road Dover, Delaware 19901

RE: Proposed Residential Project on Railway Rd ORA Job No. 2004_238 Dear Mr. Brockenbrough:

As requested in your February 28, 2005 preliminary traffic impact study review letter, Orth-Rodgers & Associates is re-submitting the following figures for further review: Figures 21, 23 to 26, 28, 30, 31, 37 to 40, 42, 44, 45, 49, 52 to 55, 57 to 59, and 64 to 66. All comments in this review letter have been addressed. It should be noted that some of the total a.m., p.m., and Saturday volumes from Figures 53 to 55 (total other committed developments), Figures 57 to 59 (2015 no build), and Figures 64 to 66 (2015 full build) differ slightly from the attached DeIDOT revisions due to an addition error.

With this resubmission of the following figures from the Preliminary TIS, we request that you perform a quick review of the changes made and inform us if we may proceed with our final report.

Thank you and please feel free to contact me if any questions or comments arise during your

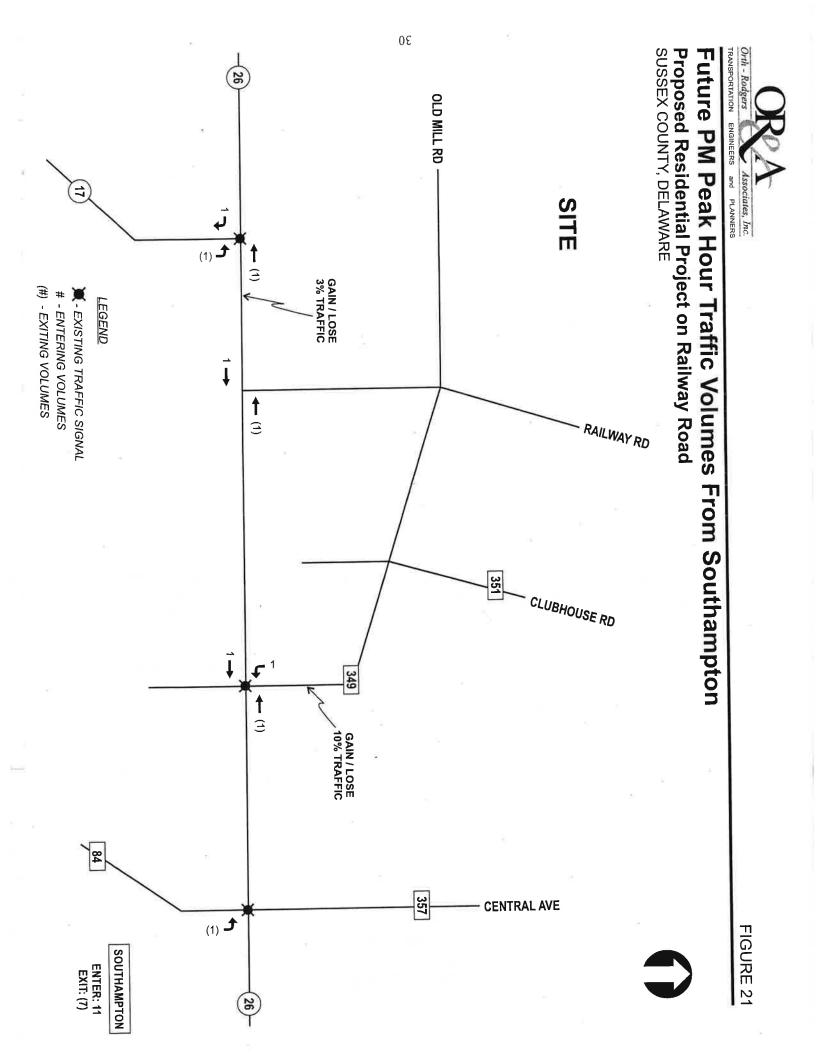
review.

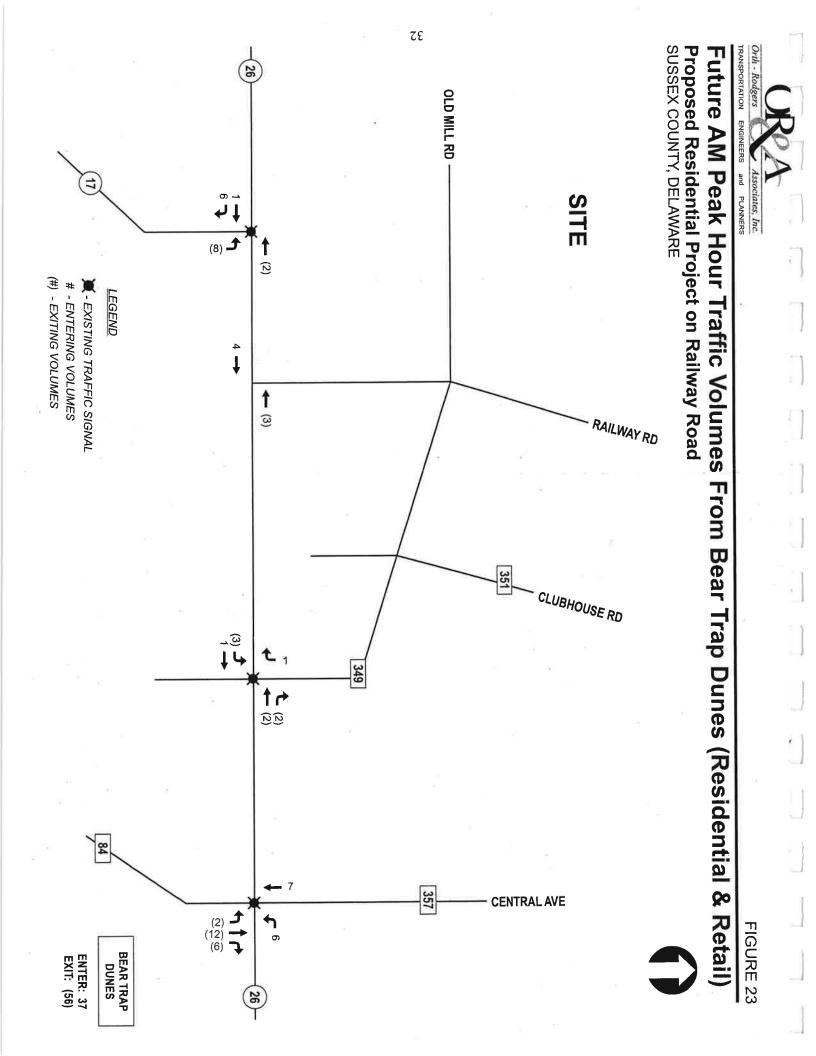
Sincerely, ORTH-RODGERS & ASSOCIATES, INC.

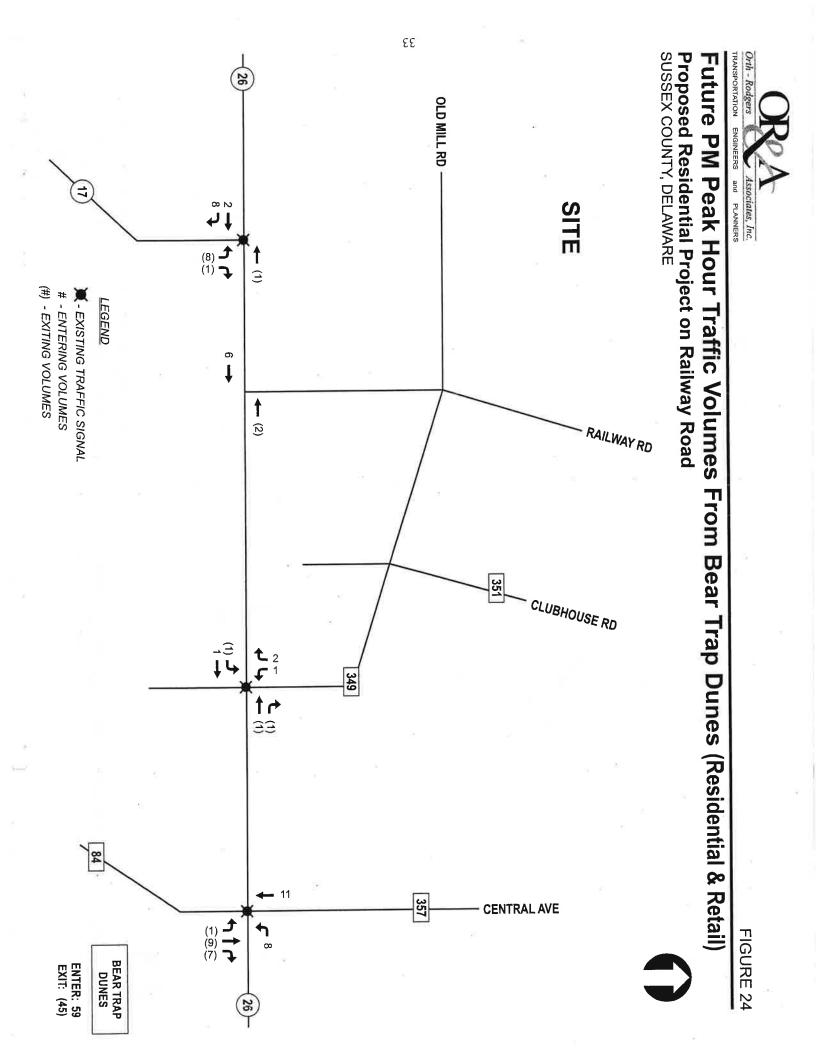
RICHARD A. MISHURA Assistant Project Manager RAM:thm Enclosures cc: Robert M. Rodgers, P.E. Derrick S. Kennedy

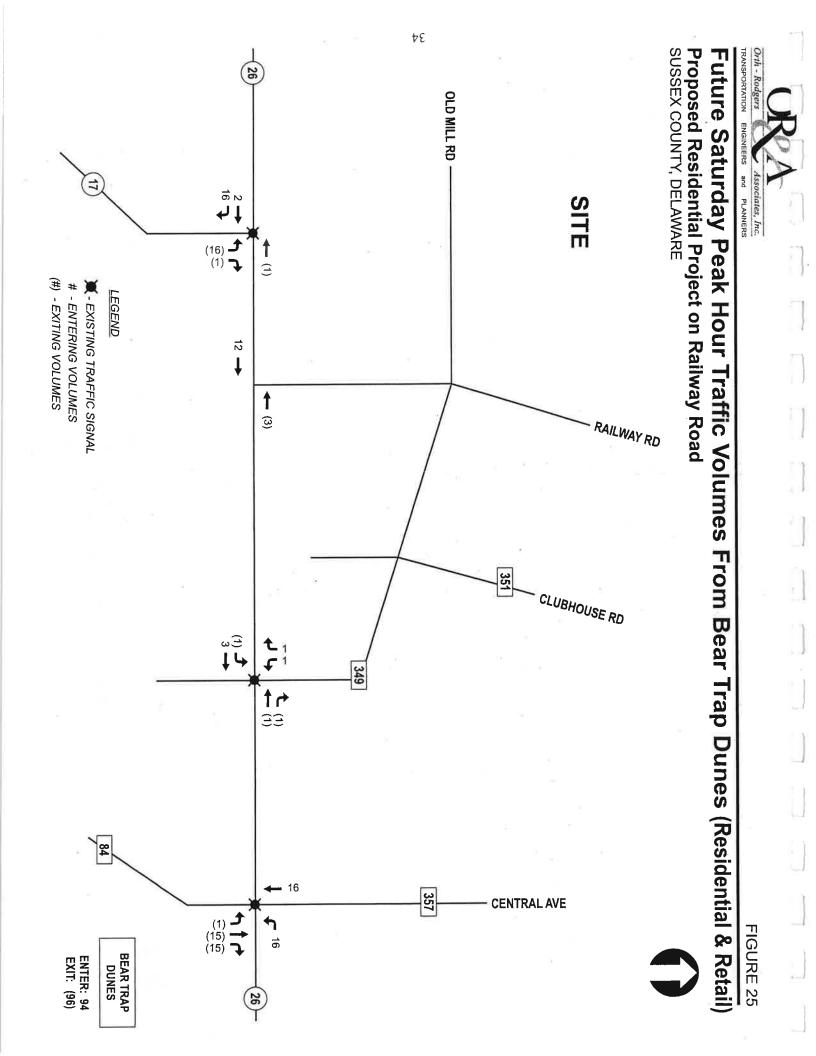
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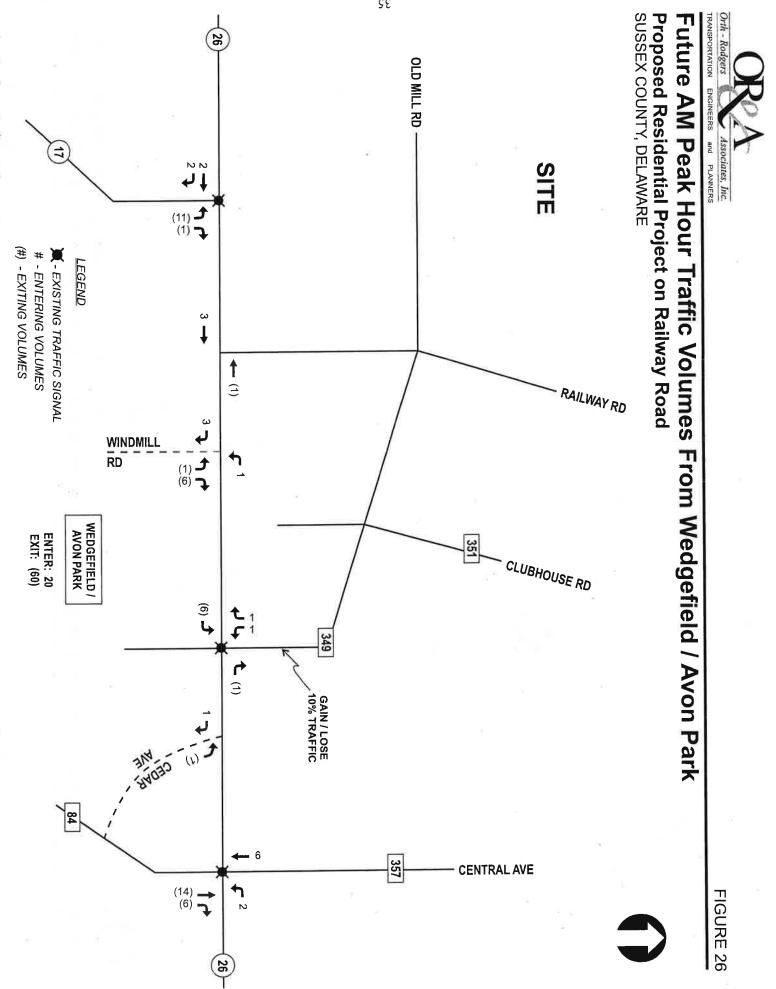
230 South Broad Street • Philadelphia, Pennsylvania 19102 Phone (215) 735-1932 • Fax (215) 735-5954 WWW.Orth-rodgers.com

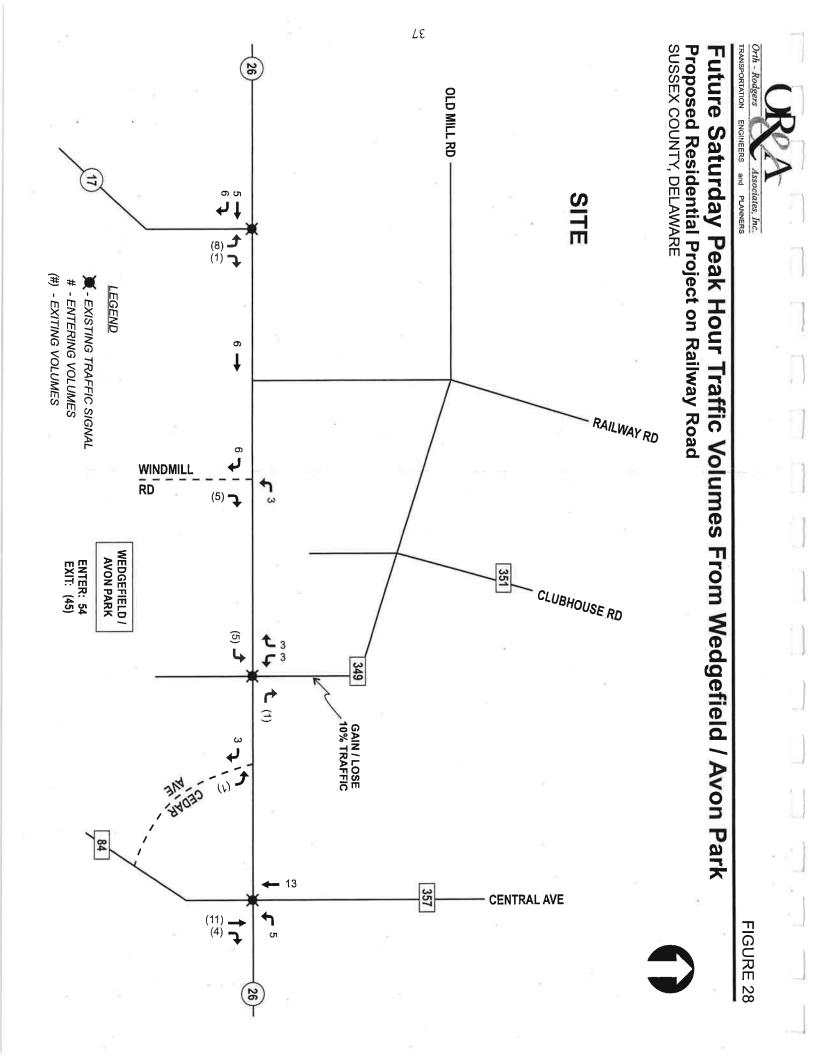


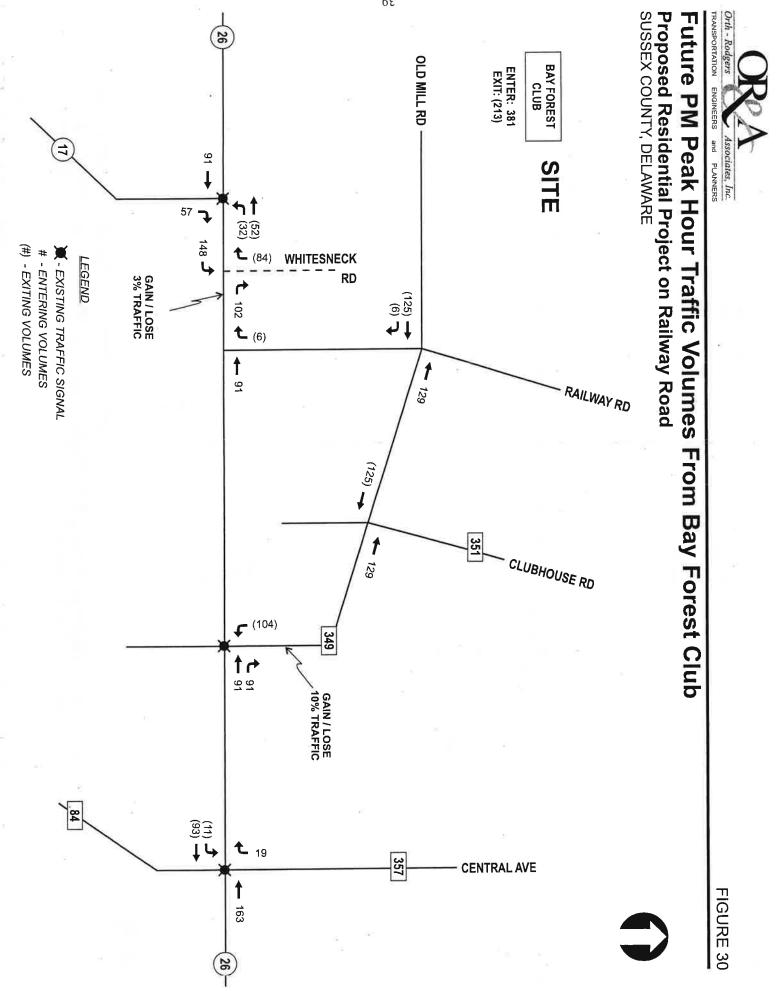


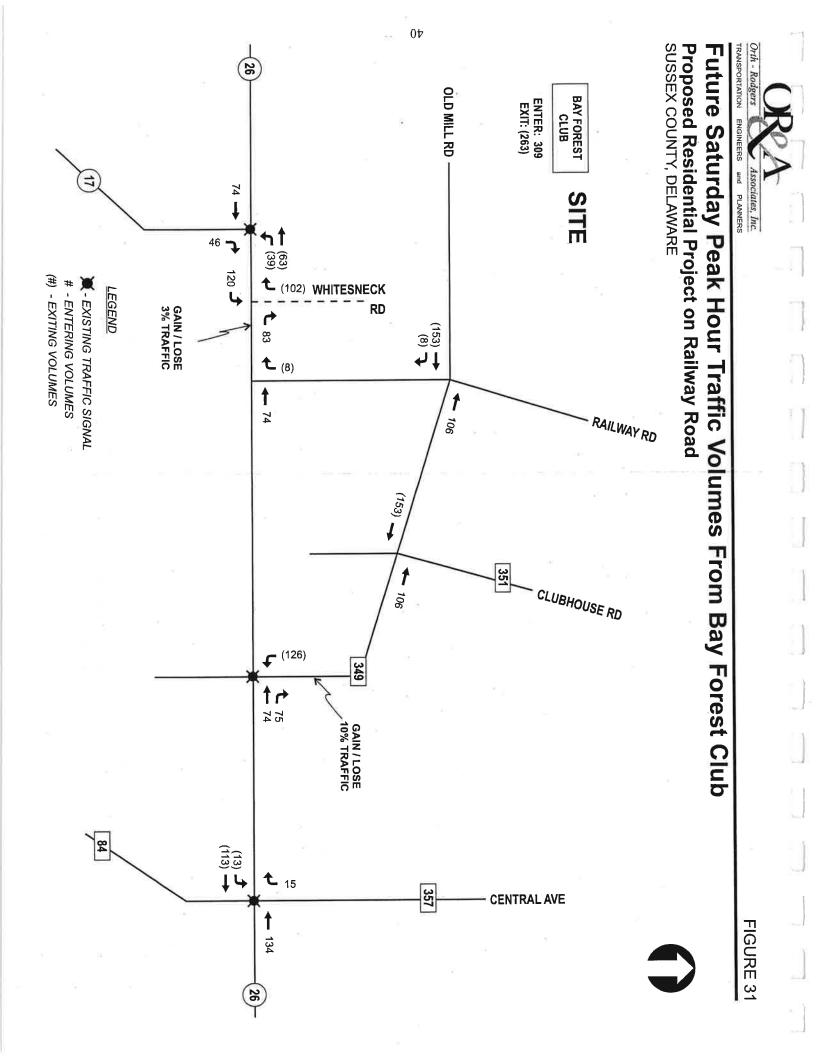


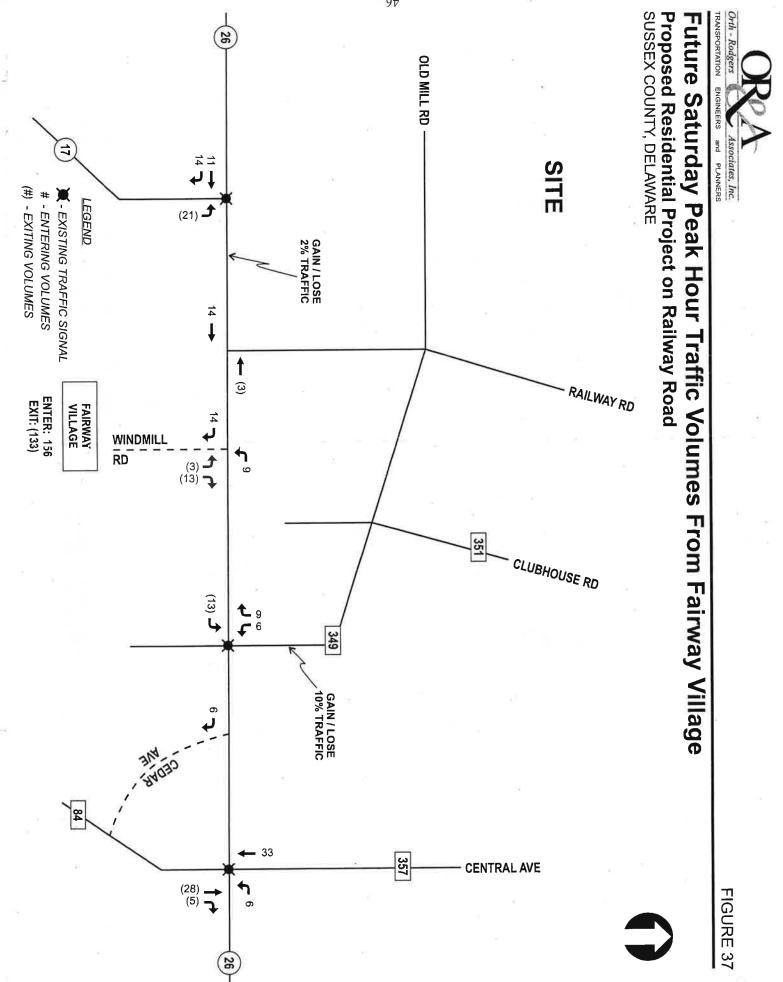


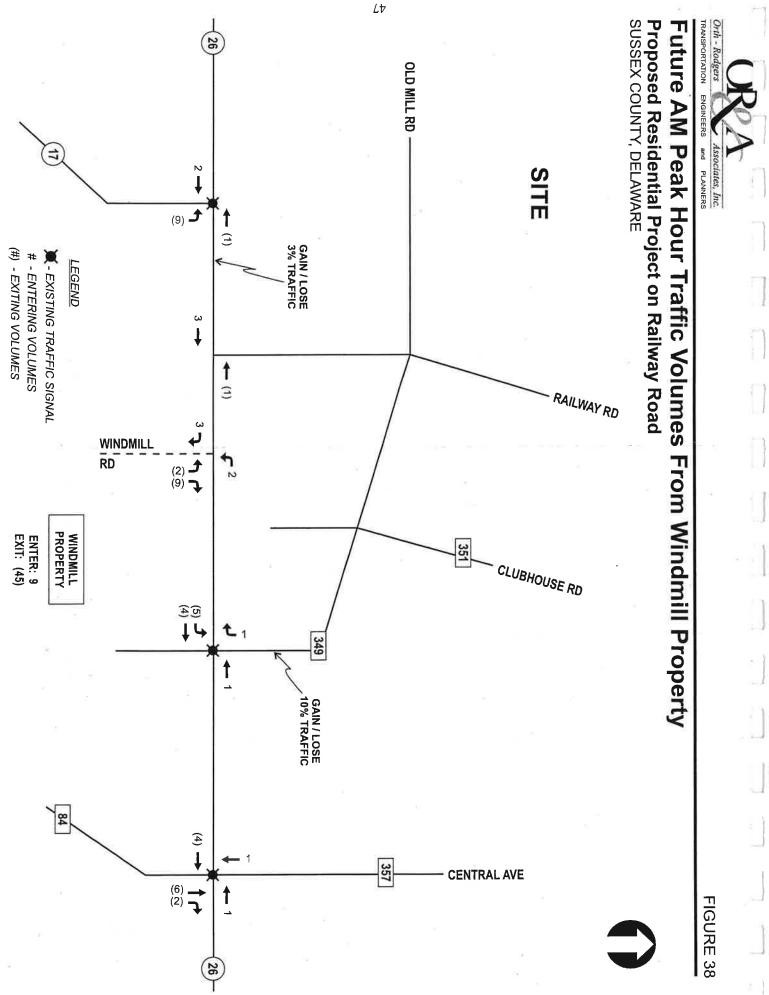


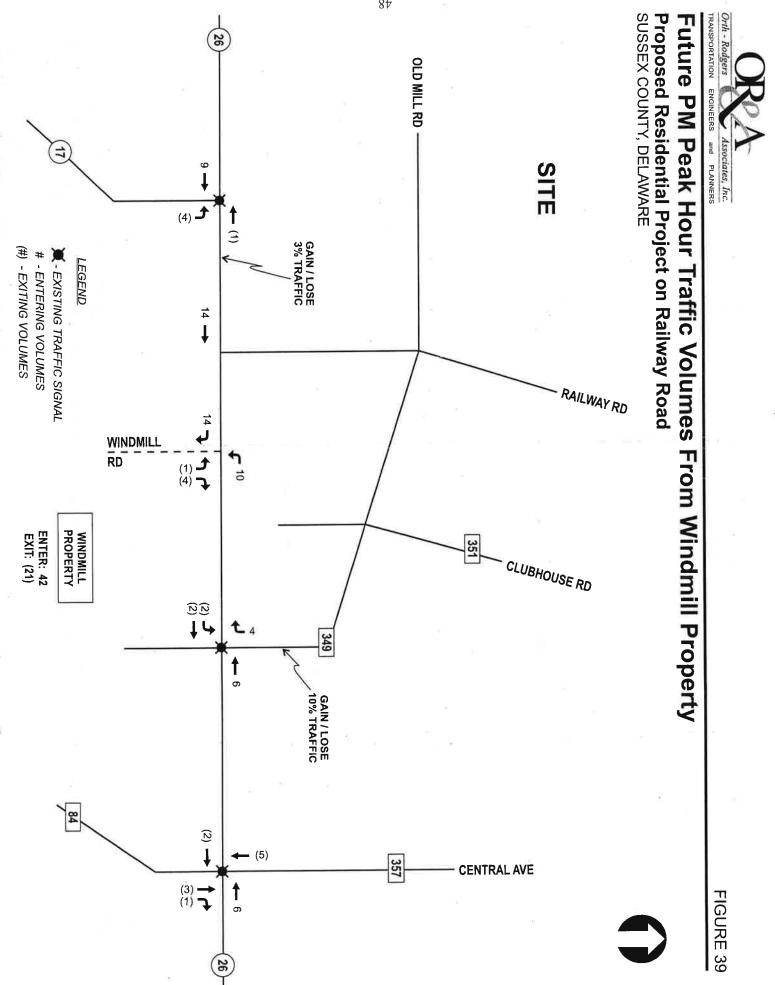


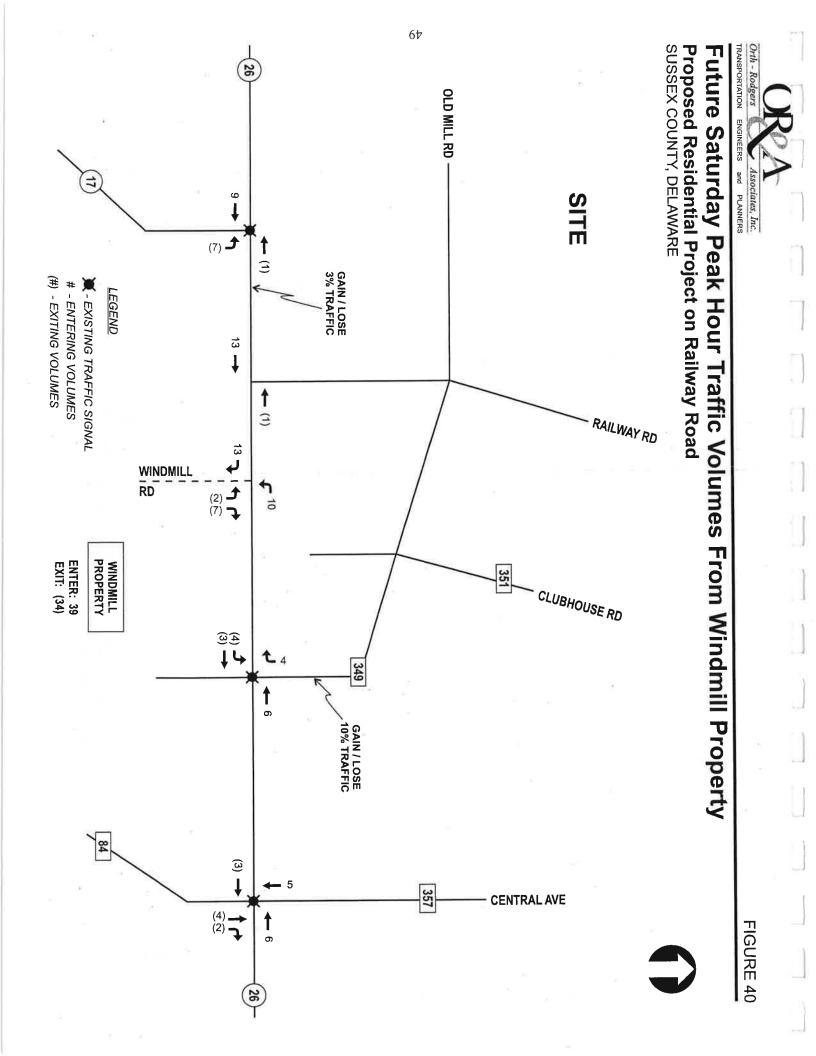


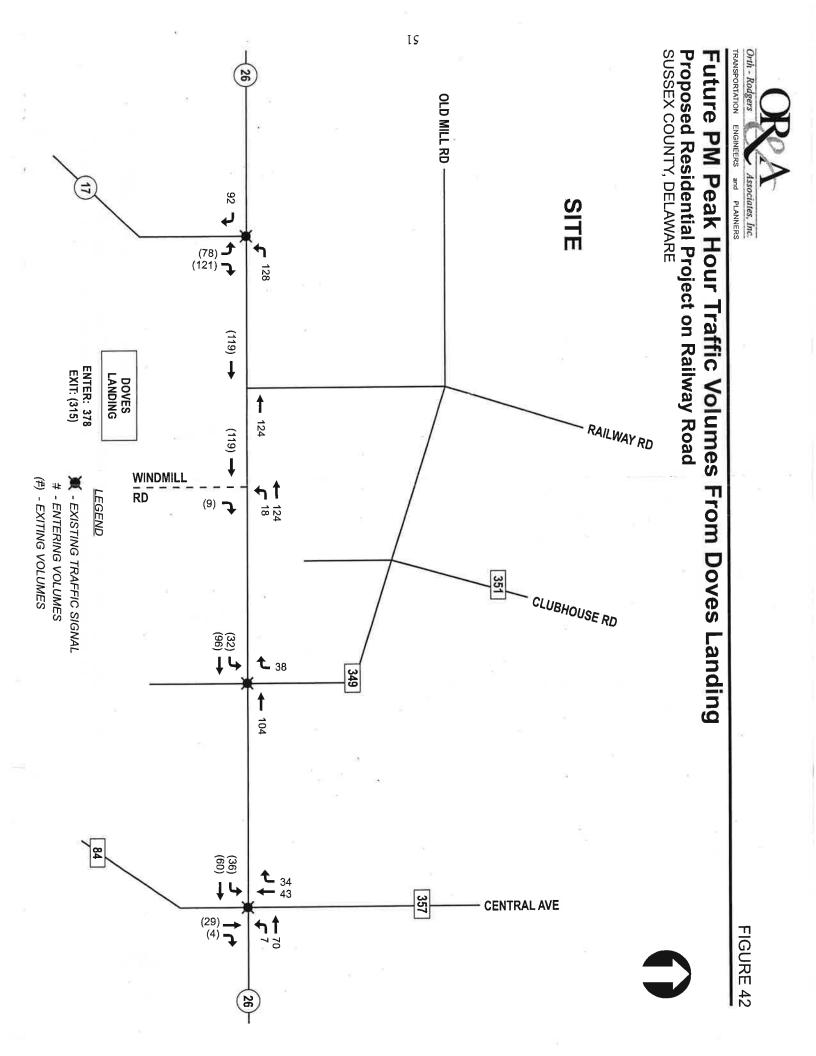


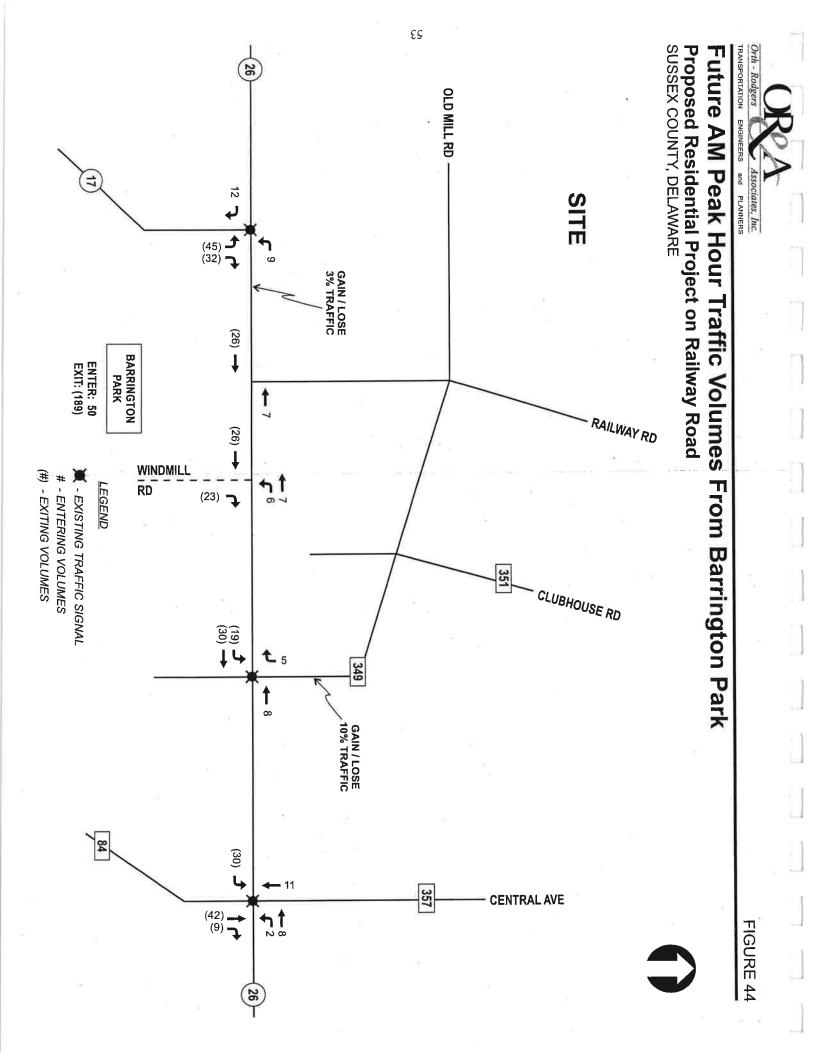


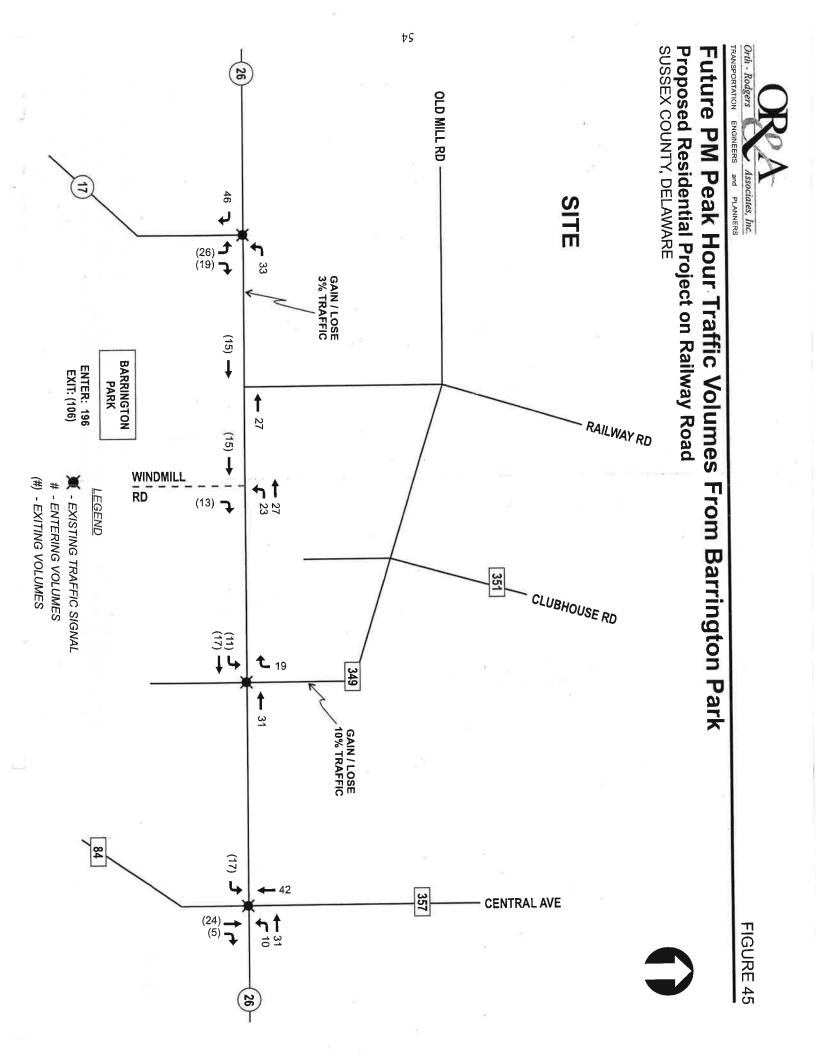


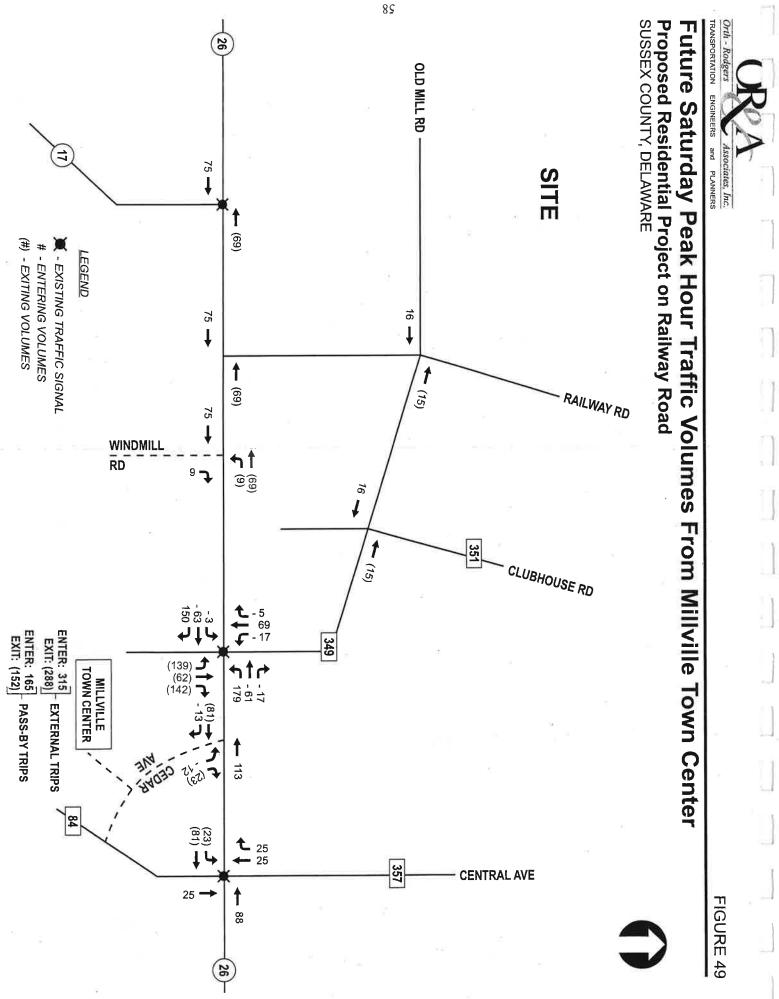


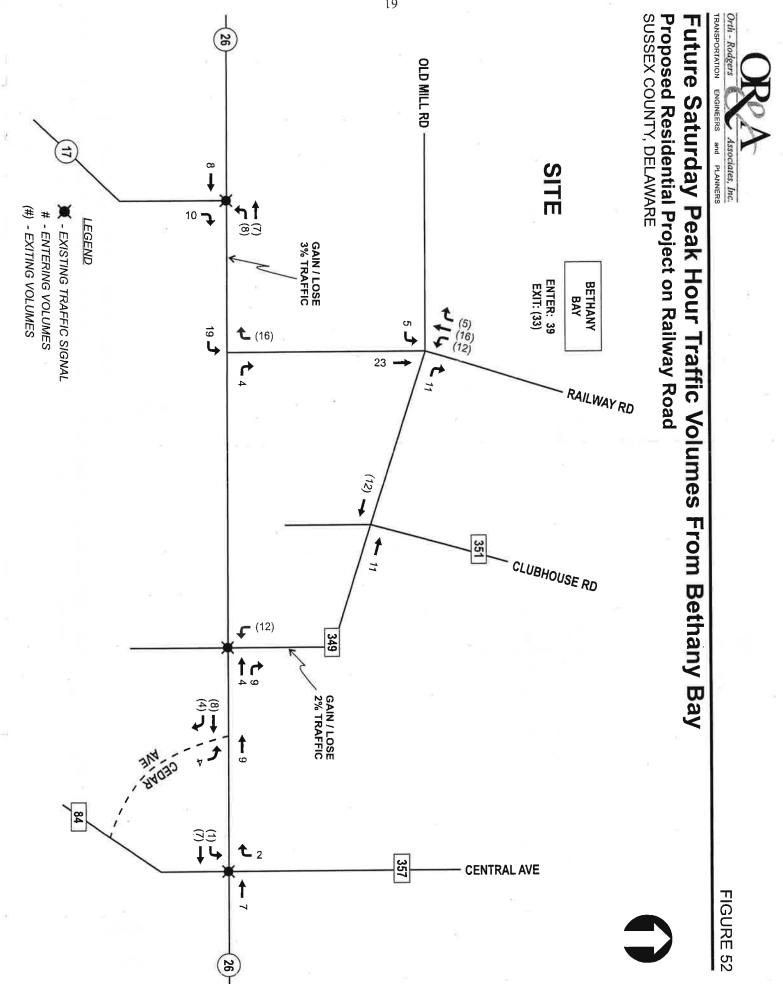


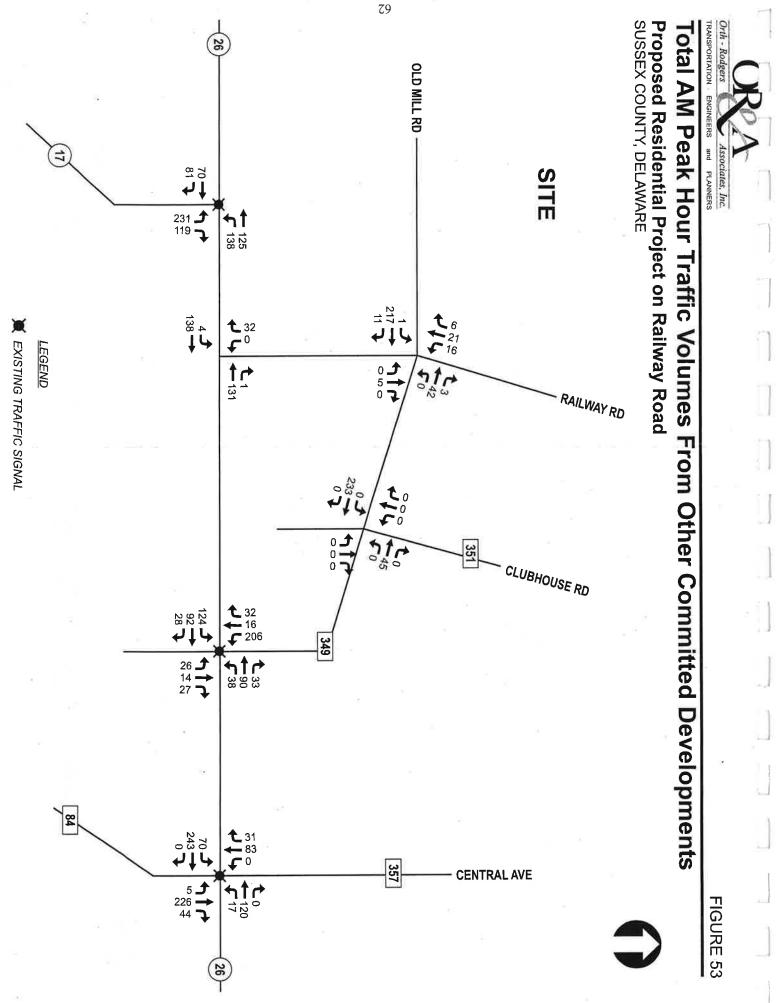


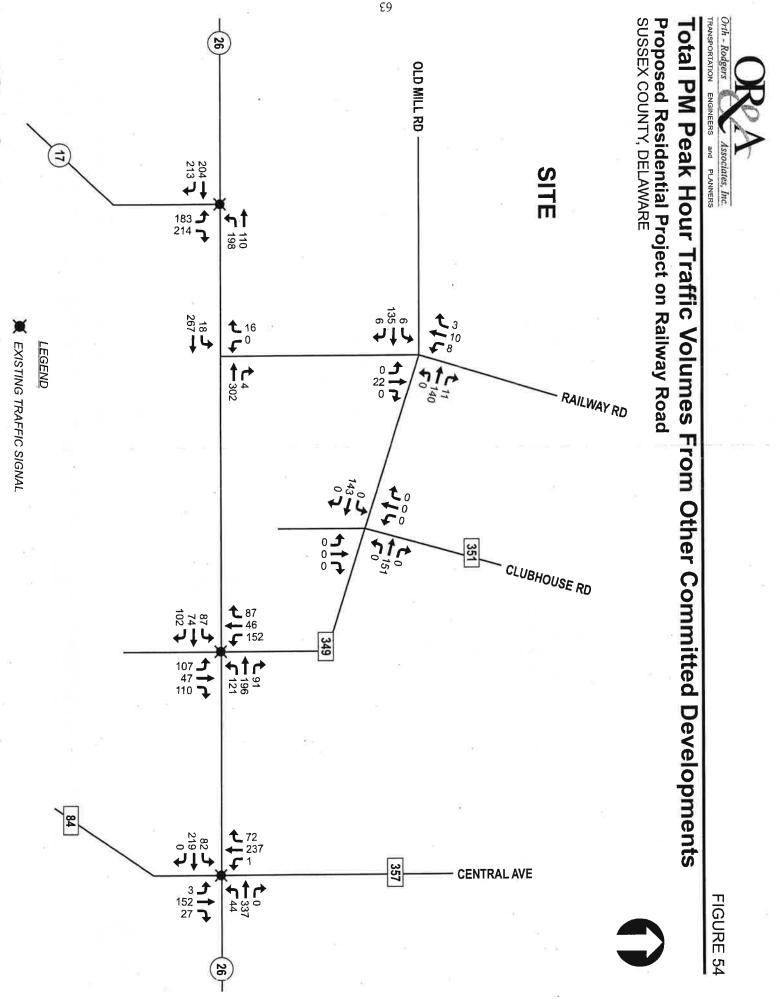


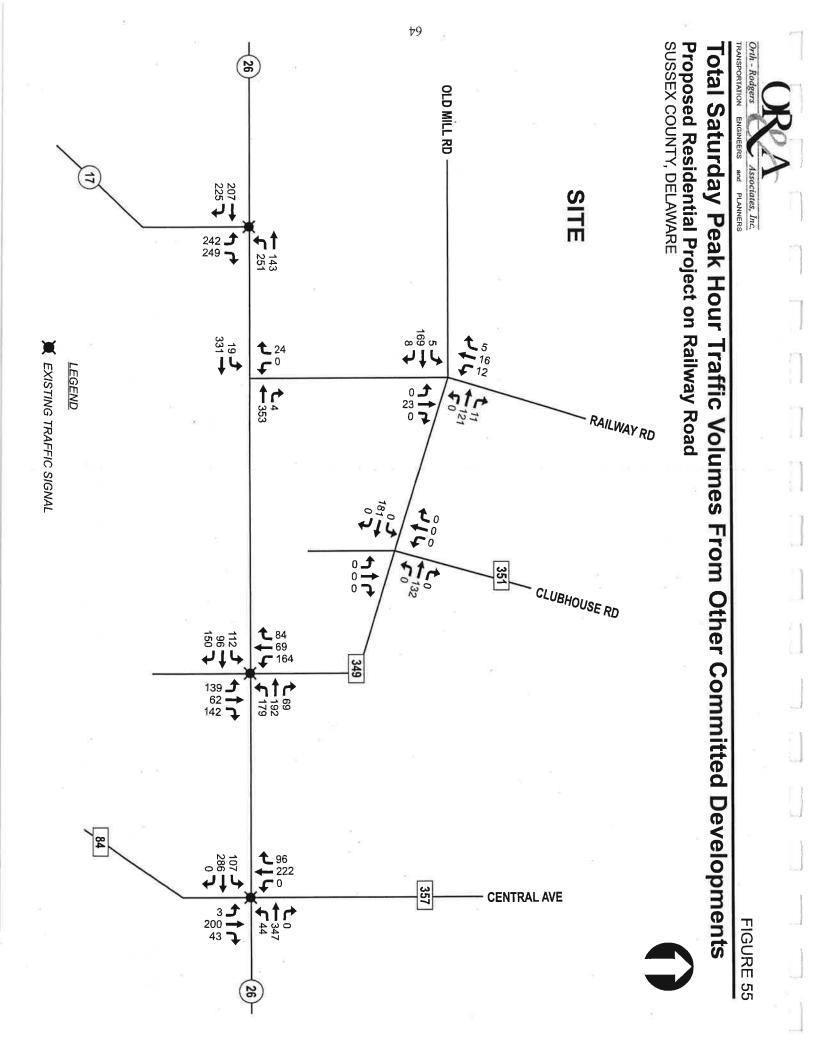


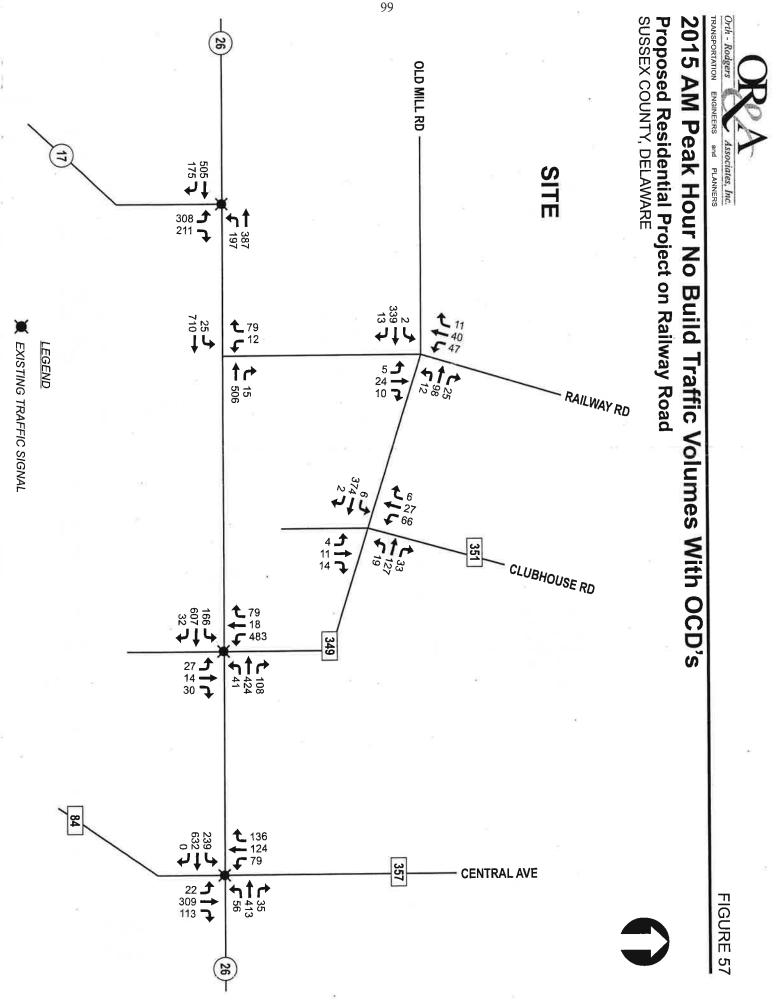


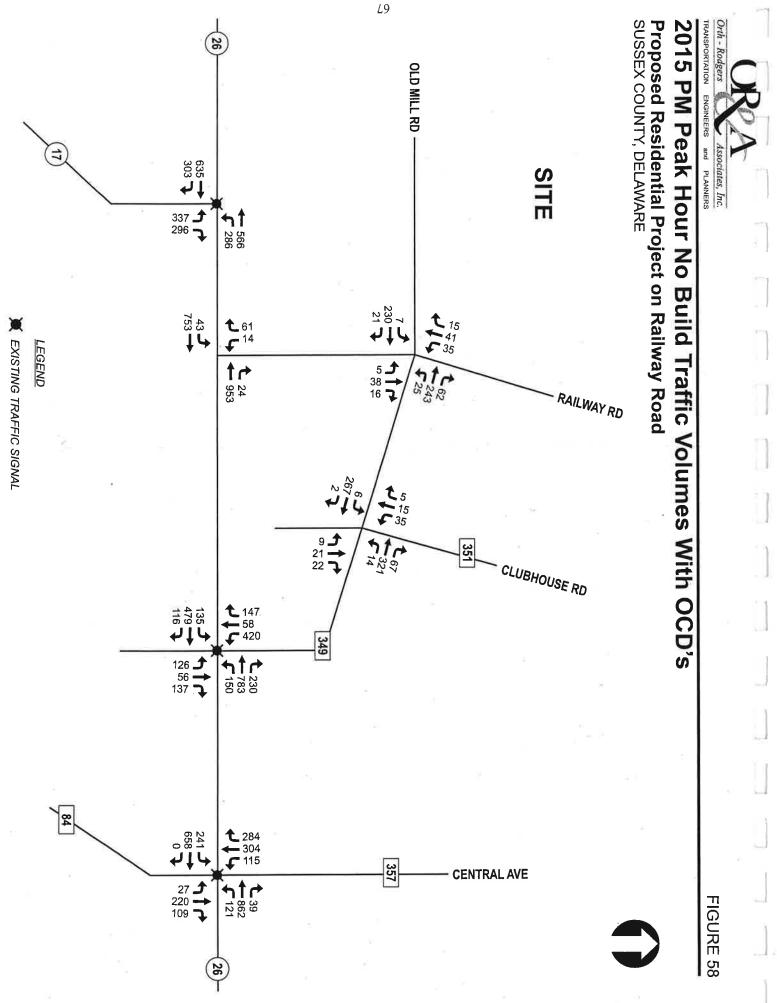


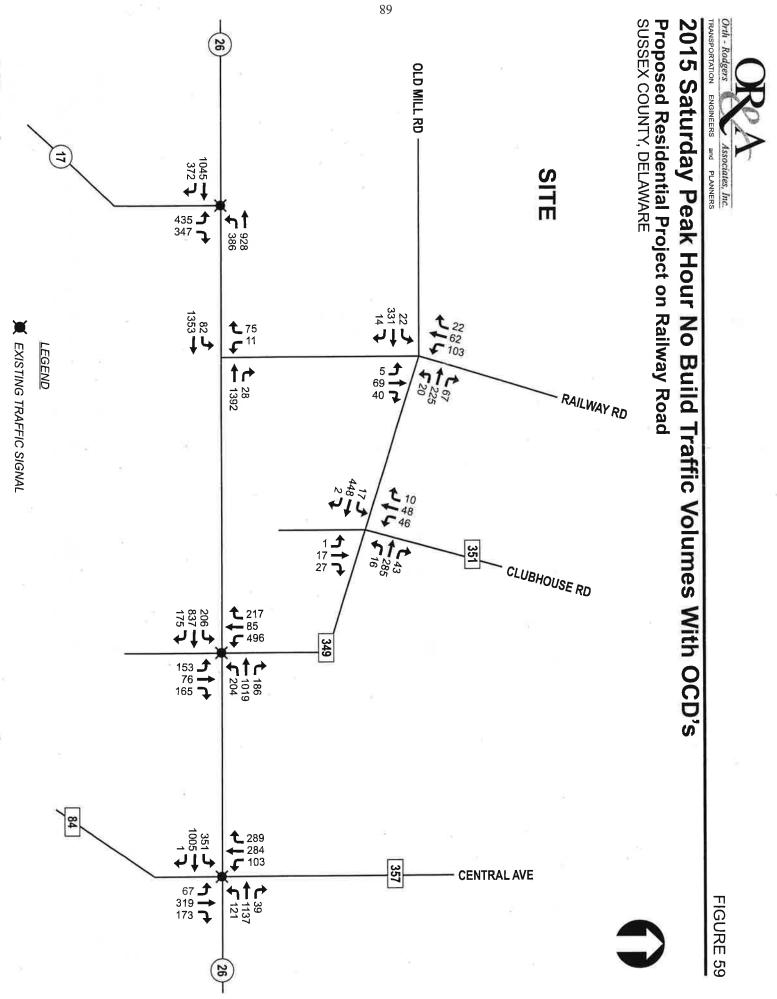


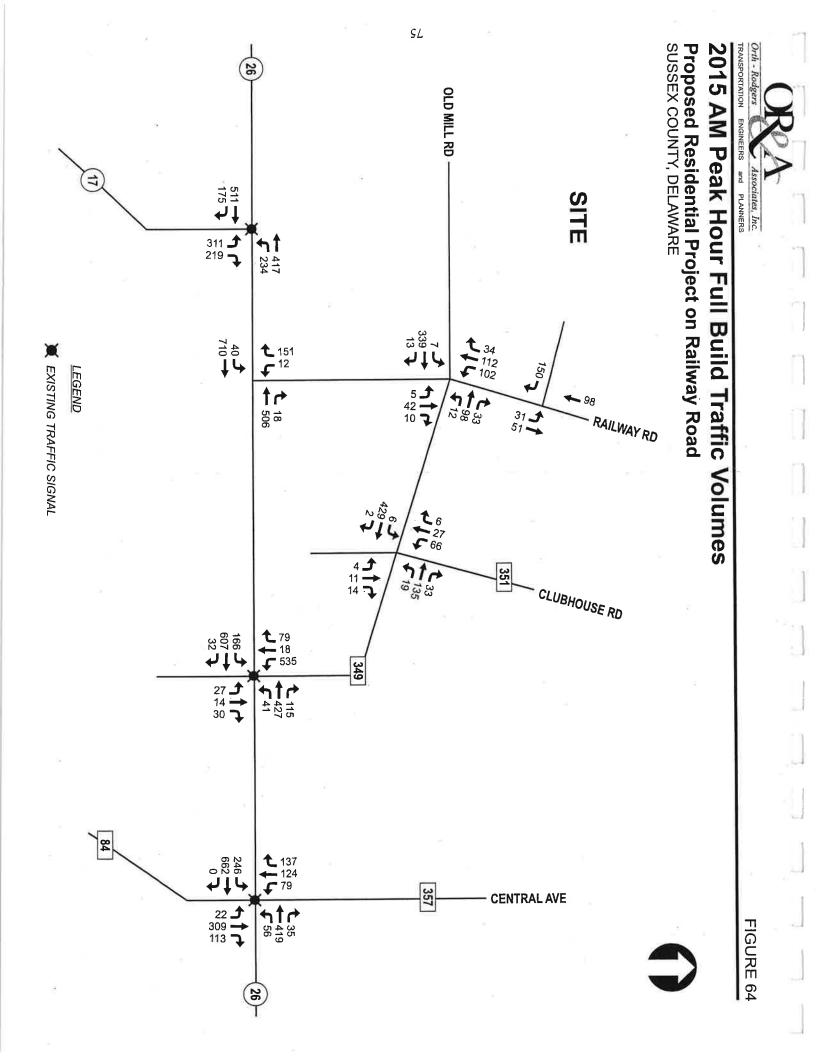


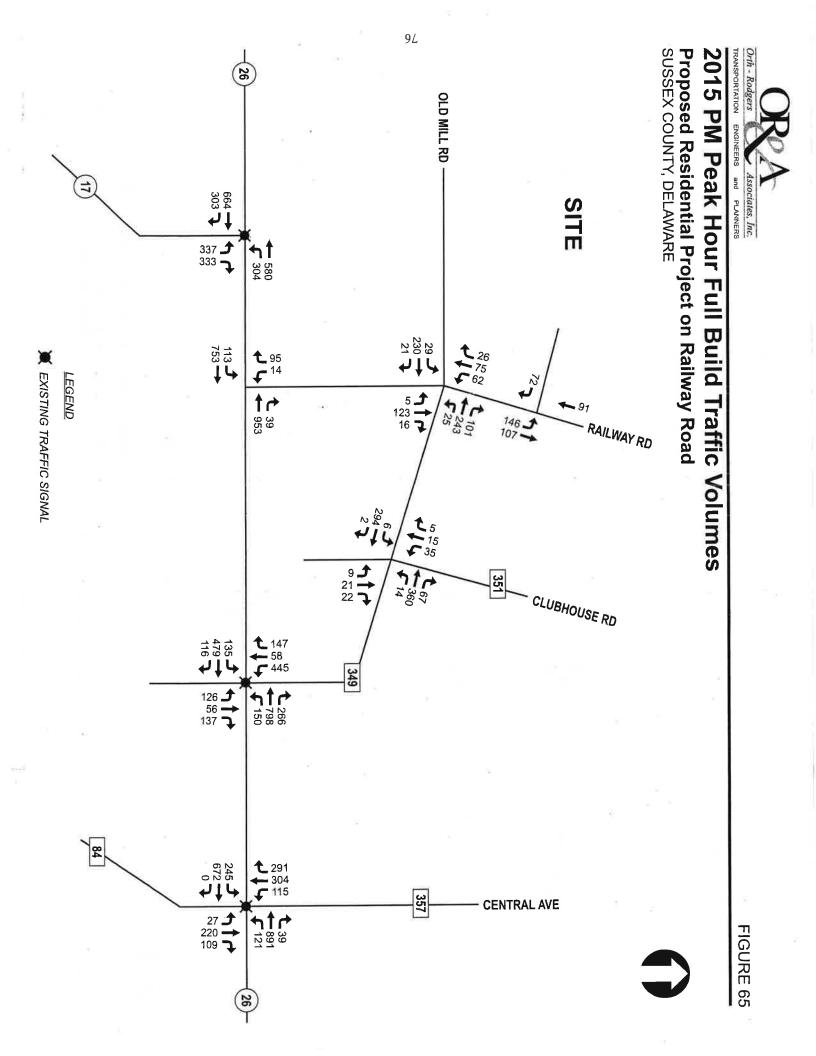


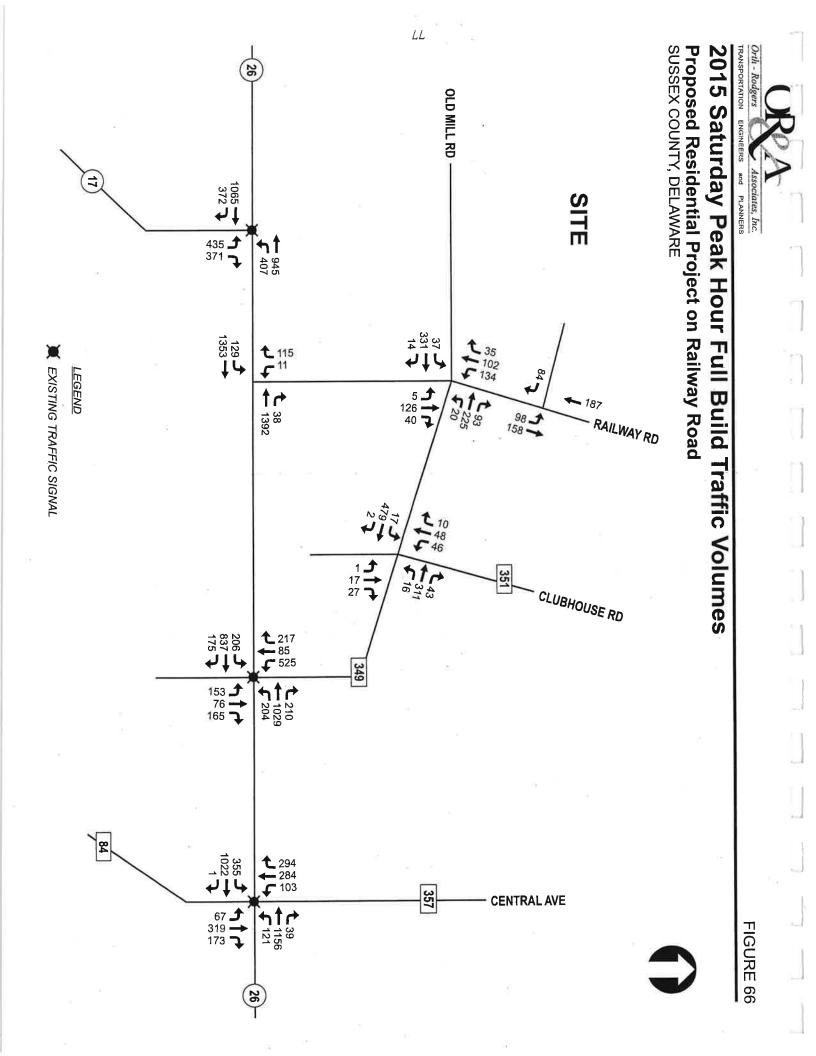














STATE OF DELAWARE

DEPARTMENT OF TRANSPORTATION

800 BAY ROAD P.O. BOX 778 Dover, Delaware 19903

NATHAN HAYWARD III SECRETARY

April 28, 2005

Mr. Richard A. Mishura Orth - Rodgers & Associates, Inc. 230 South Broad Street Philadelphia, PA 19102

Dear Mr. Mishura:

We have reviewed the revised figures that we received on March 18, 2005 for the **Pettinaro Project on Railway Road**. With these revisions, the preliminary traffic impact study (TIS) is approved. Please proceed with the final TIS.

Please contact Ms. Hong Yuan at (302) 760-2151, or me at (302) 760-2109, if you have any questions concerning this correspondence.

Sincerely,

for

T. William Brockenbrough, Jr. County Coordinator

TWB:hyr

cc: Theodore Bishop, Development Coordination Todd J. Sammons, Project Engineer Hong Yuan, McCormick Taylor, Inc. Youcef Hamroun, McCormick Taylor, Inc.

