

Traffic Impact Study

Palmer Pointe
Barrington, Rhode Island

March 2016

Town of Barrington Planning Commission



317 Iron Horse Way
Providence, RI 02908

Approved by _____ License No. 7875
Derek L. Hug, PE, PTOE

Prepared for:
East Bay Community Development Corporation
150 Franklin Street
Bristol, RI 02809

Table of Contents

Traffic Impact Study Palmer Pointe Development Barrington, Rhode Island

Summary Sheet.....	iii
1 Introduction	1
2 Existing Condition	1
2.1 Site of Development	1
2.2 Adjacent Roadway Network.....	2
2.3 Study Area Intersections	3
2.4 Traffic Volumes, Speeds and Counts	4
3 No-Build Traffic Conditions.....	5
3.1 Growth Rate.....	5
3.2 Other Developments	5
3.3 Planned Roadway Improvement Projects.....	5
4 Proposed Conditions	5
4.1 Development	5
4.2 Site Access and Circulation	6
4.3 Trip Generation	6
4.4 Trip Distribution	6
4.5 Build Volumes.....	7
5 Analyses	7
5.1 Crash Analysis	7
5.2 Intersection Sight Distance Analysis	7
5.3 Intersection Capacity Analysis	8
5.4 Queue Analysis.....	9
6 Conclusions & Recommendations.....	10

Table of Contents

(continued)

Traffic Impact Study Palmer Pointe Barrington, Rhode Island

Appendices

End of Report

Appendix A - Tables

1. Peak Hour Site Generated Traffic Volumes
2. Intersection Crash Data Summary
3. Unsignalized Intersection Level of Service Summary
4. AM Peak Hour Queue Length Summary
5. PM Peak Hour Queue Length Summary

Appendix B - Figures

1. Site Location Map
2. 2015 Existing Conditions
3. Other Traffic Generators
4. 2020 No-Build Conditions
5. Site Generated Traffic Arrival/Departure Distribution
6. Site Generated Traffic Volumes
7. 2020 Build Conditions

Appendix C

Intersection Capacity Analysis Worksheets – AM Peak Hour

Appendix D

Intersection Capacity Analysis Worksheets – PM Peak Hour

Appendix E

Traffic Count Data

Summary Sheet

As an aid to reviewers, this Summary Sheet has been included to outline the various study parameters utilized in this report. Although a full explanation of the study methodologies is included in the text of the report, this summary can serve as a useful reference for reviewers.

Applicant:
East Bay Community Development Corporation

Site Acreage:
9.85

Development Size/Type:
Residential

Parking:
83 spaces

Applications:
Town of Barrington Planning Commission

Build Year:
2020

No-Build Traffic Growth Factor:
0.0%

Traffic Counts:
Connecticut Counts LLC – December 22, 2015 (Turning Movement Counts)
Connecticut Counts LLC – December 21-23, 2015 (Automatic Traffic Recorders)

Peak Hours Analyzed:
AM Peak Hour – 7:30-8:30
PM Peak Hour – 4:15-5:15

Expected Trip Generation:
AM Peak Hour – 29 trips (10 entering 19 exiting)
PM Peak Hour – 30 trips (19 entering 11 exiting)

Capacity Analysis:
Technique – 2000 Highway Capacity Manual
Execution – Synchro Professional Software, Version 9.0

1 Introduction

East Bay Community Development Corporation proposes to develop a residential neighborhood development consisting of forty low- to moderate-income and two market rate homes. The Palmer Pointe property extends eastward from Sowams Road to the Palmer River, on the site of the existing Sowams Nursery, as shown in *Figure No.1 of Appendix B*. The low- to moderate-income homes will be comprised of thirteen multi-family units, made up of ten one-bedroom, sixteen two-bedroom and fourteen three-bedroom units. The expected full build-out year of the development, for the purposes of this study, is 2020.

Fuss & O'Neill has been retained to study the impact of the proposed development on traffic conditions throughout the adjacent roadway network. This report has been prepared to document the findings of the study and is being submitted to the Town of Barrington Planning and Commission.

2 Existing Condition

2.1 Site of Development

The proposed Palmer Pointe neighborhood will be a redevelopment of the existing Sowams Nursery on the east side of Sowams Road in Barrington, RI. The property is identified as Lots 72, 72, 246, 248, 249 and 263 on Barrington Assessor's Plat 28 and extends eastward from Sowams Road to the Palmer River, with a total area of approximately 9.85 acres. Currently, the property is zoned Residential 25 (R-25). Existing site access is via a driveway between two existing residences on Sowams Road. The proposed Red Maple Road (internal site circulation) will approximately follow the existing gravel road within the property. There is a single existing permanent structure on the property, and a number of seasonal greenhouses have traditionally been erected by the Nursery. The predominant surrounding land use is residential properties.



Existing Site Driveway

2.2 Adjacent Roadway Network

The adjacent roadway network consists of the following roadways:

- Sowams Road
- Kent Street
- Route 114 (County Road)

Sowams Road is classified by RIDOT as a major/urban collector, and stretches from New Meadow Road at its north end to Route 114 (County Road) at its south end, for a total length of approximately 2.2 miles. This roadway provides one, 12-foot lane of travel in each direction, with 4-foot paved shoulders, through a primarily residential area. Sowams School is located approximately a mile to the north of the proposed development. The posted speed limit on Sowams Road is 30 miles per hour for most of its length, except in the vicinity of the school, where the speed limit is 20 miles per hour.

The closest available mass transit consists of the RIPTA 60 Line, which includes a bus stop near the south end of Sowams Road on County Road. There are no pedestrian facilities provided on Sowams Road in the study area. Sowams Road does intersect with the East Bay Bike Path located approximately 150 feet north of County Road.

Kent Street is classified by RIDOT as a major/urban collector, and stretches from Sowams Road at its east end to New Meadow Road to the west. This roadway provides one, 10-foot lane of travel in each direction, with 6-foot paved bike lanes along both shoulders. Land uses on Kent Street are primarily residential, with some commercial lots located at its east end and the Hampden Meadows School located at its west end. The posted speed limit on Kent Street is 25 miles per hour, and 20 miles per hour in the vicinity of the school.

There is no mass transit available on Kent Street. A concrete sidewalk is provided along the southern side of the street, from end to end.

Route 114 (County Road) is classified by RIDOT as a principal arterial, and stretches from Route 195 at its northern end to the City of Newport at the southern end. In the vicinity of the study area, this roadway provides one, 12-foot lane of travel in each direction, with 8-foot paved shoulders. Land uses on County Road within the study area are primarily residential, with commercial buildings located at the bridges at either end of the study area. The posted speed limit on County Road is 35 miles per hour to the west and 30 miles per hour to the east.

There is a regular RIPTA bus line on County Road through the study area (60 Line – Providence to Newport). Concrete sidewalks are provided on both the north and south sides of County Road within the study area.

2.3 Study Area Intersections

The following study area intersections were reviewed:

- Sowams Road at Site Drive
- Sowams Road at Kent Street
- Sowams Road at Route 114 (County Road)

Sowams Road at the Site Drive is a three-way tee intersection, with Sowams Road comprising the north and south legs and the site drive comprising the eastern leg. The site drive is STOP controlled, while the two Sowams Road approaches are free. The eastern leg of this intersection is a single, shared left/right turn lane westbound and a single lane eastbound. Sowams Road provides a single lane of traffic in each direction, with paved shoulders.

No pedestrian facilities are provided at this intersection.

Sowams Road at Kent Street is an offset, four-way intersection, with Oak Grove Avenue providing the westbound leg, approximately fifteen feet offset to the north of Kent Street and controlled by a STOP sign, with a single lane of travel in each direction. The eastbound, STOP-controlled Kent Street approach to the intersection provides a single shared through/right-/left-turn lane for motorized vehicles along with a single, four-foot bike lane (in each direction). The northbound and southbound



Kent Street approaching Sowams Road

approaches to this intersection are uncontrolled and both consist of a single lane of travel in each direction with 2-foot shoulders. No designated bike lanes are provided on Sowams Road.

Pedestrian crossings are provided on the Kent Street leg and on the northern Sowams Road leg. There are no pedestrian facilities (sidewalks, ramps) located on the southern Sowams Road or Oak Grove Avenue legs of the intersection, though there is a sidewalk and pedestrian ramp located on the southwest corner of the intersection, along Kent Street.

Sowams Road at Route 114 (County Road) is a three-way, tee intersection with the southbound Sowams Road approach STOP-controlled and the two County Road approaches free. The Sowams Road leg of the intersection consists of a single lane of travel in each direction with two-foot shoulders. The lanes are separated by a teardrop-shaped, raised median island. The southbound lane is wide enough to function as two lanes, able to accommodate both right-and left-turning traffic side-by-side. Observations of the intersection operation indicate that this approach is currently used in this fashion.

County Road legs to this intersection both provide a single travel lane in each direction with narrow paved shoulders.

Sidewalks are provided on all approaches to this intersection, although the Sowams Road sidewalks terminate before reaching the East Bay Bike Path crossing, located approximately 100 feet north of the intersection. A crosswalk is provided across the western leg of County Road.



Sowams Road at the East Bay Bike Path approaching Route 114 (County Road)

2.4 Traffic Volumes, Speeds and Counts

The greatest potential for traffic impact on the roadway network by the proposed development will occur during the AM and PM peak hours, the periods when commuter and/or residential development related trips are at their highest levels. In order to determine the traffic impact of the proposed development on adjacent street traffic, representatives of Fuss & O'Neill, Inc. conducted AM and PM peak hour manual turning movement counts on December 22, 2015 at the three intersections in the study area. The traffic count data collected indicates that the AM peak hour of traffic is 7:30 to 8:30 and the PM peak hour is 4:15 to 5:15. These peak hours were subsequently analyzed for impacts. The existing traffic volumes for these peak hours are shown in *Figure No. 2 of Appendix B*.

In order to determine the existing traffic volumes and speeds on Sowams Road at the proposed development, Automatic Traffic Recorders (ATRs) were installed in the vicinity of the site drive, from December 21 to December 23, 2015. From the data collected by these ATRs, it was determined that existing traffic patterns are similar in both the northbound and southbound directions. The 85th percentile speed (the speed at which 85% of vehicles travel at or below) was determined to be 40 miles per hour in the northbound direction and 39 miles per hour in the southbound direction, with a mean speed of 35 mph and 34 mph, respectively.

The Rhode Island Department of Transportation has conducted traffic counts on Sowams Road to the north of the site, near Christine Drive, and determined the Average Annual Daily Traffic (AADT) to be approximately 2,700 vehicles per day. The ATR data obtained in the vicinity of the site drive shows an Average Daily Traffic (ADT) of 3,745 vehicles, based on the 48 hours of data collection. This data also shows that the directional distribution of daily traffic on Sowams Road is approximately equal. Copies of the ATR traffic data have been included in *Appendix E* of this report.

3 No-Build Traffic Conditions

3.1 Background Growth Rate

Upon consultation with the Town of Barrington Planning Department, and the Rhode Island Statewide Planning Program's (RISPP) Technical Paper 162, the 2015 existing traffic volumes were not expanded the 2020 design year to account for normal traffic growth in the study area. Note that both the Town's Planning Department and the RISPP technical paper suggested a growth rate of -0.8% for Barrington over this period. For the purpose of this study we are conservatively proposing maintaining trips at a steady rate.

3.2 Other Developments

Fuss & O'Neill contacted both the Towns of Barrington and Warren Planning offices to identify any other significant pending or approved developments having site related traffic in the study area. While there are no significant pending developments in the Town of Barrington, there is a proposed redevelopment of the former American Tourister complex located just across the Palmer River in the Town of Warren. This development will be phased, with a proposed 190 residential units and 76,339 square feet commercial space constructed during the first phase and an additional 100 residential units and 17,500 square feet of commercial space constructed during the second. For the purpose of this study it will be assumed that the full buildout of the American Tourister complex will occur prior to the 2020 study design year.

Traffic volumes from these developments were added to the 2015 traffic volumes to obtain the 2020 No-Build traffic volumes which are defined as design year traffic without the proposed development. These projected No-Build traffic volumes are shown in *Figure No. 3 of Appendix B*.

3.3 Planned Roadway Improvement Projects

There are currently no planned roadway improvement projects within the study area.

4 Proposed Conditions

4.1 Development

The proposed Palmer Pointe neighborhood will consist of 40 low- to moderate-income and two market rate homes. The forty low- to moderate-income homes will be provided in eleven multi-residence buildings, with a mix of ten one bedroom units, sixteen two bedroom units and fourteen three bedroom units.

Off-street parking will provide seventy-one spaces in six separate parking lots, with an additional twelve on-street parking spaces provided along Red Maple Road in recessed bays, for a total of eighty-three

spaces, of which two spaces will be handicapped-accessible. An additional two buildings will be included in the development. One of these buildings will contain laundry and maintenance facilities and the other will contain the development office/personnel.

4.2 Site Access and Circulation

Site access is proposed to be provided on the east side of Sowams Road at the location of the current greenhouse driveway, and would consist of a single eleven-foot lane of travel in each direction. This access roadway continues into the development as a loop, providing access to individual apartments and to the parking lots throughout the development. A total of six parking lots are provided within the development, in addition to recessed, on-street parking. All parking lot exits, as well as the site drive at Sowams Road, are proposed to be STOP-sign controlled.

4.3 Trip Generation

Trip generation estimates were determined using the Ninth Edition of the Institute of Transportation Engineers' publication *Trip Generation*. This publication is an industry-accepted resource for determining trip generation. The most appropriate land use code for the proposed development is "Rental Townhouse" (Land Use Code 224) since the proposed units are rentals with four or fewer units per building. However, there is very little data for this land use code. Closely-related codes 220 (Apartment) and 230 (Residential Condominium/Townhouse) were also researched as potential sources for determining the trip generation for this development. The Rental Townhouse code, which had the highest trip generation characteristics of the three codes, was used to produce a conservatively high trip generation estimate.

Based on this data, the proposed development is expected to generate approximately 29 trips during the weekday morning peak hour, with approximately 10 vehicles entering and 19 vehicles exiting. The development can also be expected to generate approximately 30 trips during the weekday afternoon peak hour, with approximately 19 vehicles entering and 11 vehicles exiting. A summary of the peak hour trip generation information for the proposed facility is provided in *Table 1 of Appendix A*.

4.4 Trip Distribution

The distribution of traffic entering and exiting the proposed site was applied to the road network based on the existing regional traffic distributions and the layout of the adjacent roadway network. During the peak hours, the following arrival distributions of traffic are anticipated:

- 55% to/from the north on Sowams Road; 10% to/from Kent Street and 45% to/from Sowams Road north of Kent Street
- 45% to/from the south on Sowams Road; 10% to/from County Road from the west and 35% to/from County Road from the east

A study area arrival/departure distribution for the new site-generated traffic traveling to and from the project site is shown in *Figure No. 4 of Appendix B*.

4.5 Build Volumes

The site-generated traffic was distributed to the roadway system based on the arrival/departure distributions with the results shown in *Figure No. 5 of Appendix B*. These volumes were then added to the No-Build volumes to yield the year 2020 peak hour Build traffic volumes shown in *Figure No. 6 of Appendix B*.

5 Analyses

5.1 Crash Analysis

Crash data was gathered from Town of Barrington Police Department for Sowams Road within the study area.

The records were gathered for the most recent 3 years of available data, 2013 through 2015. A summary of the crash data per intersection and roadway segment is provided in *Table 2 of Appendix A*. Copies of the crash data records can be provided upon request. There were no recorded crashes at the intersection of Sowams Road and Kent Street, or between that intersection and County Road, on Sowams Road. The intersection of Sowams Road and County Road averaged three crashes per year, with the majority of the crashes involving rear end crashes on County Road (4), and angle-right angle crashes (3) due to vehicles on Sowams Road pulling into traffic on County Road. Three other crashes involved a single motorcycle (1) and a rear-to-side crash (1) due to snowy conditions on County Road. Of all of the above crashes, only one resulted in bodily injury (driver of the single motorcycle). Due to the existing traffic volumes and geometry at this intersection, the frequency and severity of these crashes are not considered to be abnormal.

5.2 Intersection Sight Distance Analysis

Fuss & O'Neill also looked at the available intersection sight distance at the proposed site access location in accordance with standards set forth by the American Association of State Highway and Transportation Officials (AASHTO). When discussing sight distance at an intersection, the available sight distance will be compared to two sets of sight distance standards: stopping sight distance (SSD) and intersection sight distance (ISD).

The purpose of providing sight distance at an intersection is to allow drivers of stopped vehicles to view oncoming vehicles and decide when to enter or cross the traffic stream. If the available sight distance is at least equal to the appropriate SSD for the intersecting road, then drivers can anticipate and avoid collisions. However, to enhance traffic operation, additional sight distance is desirable. The ISD standard provides enough sight distance for a vehicle to enter the traffic stream without forcing major road drivers to slow to less than 70 percent of their initial speed.



Site Drive looking south

Looking to the right (north) from the site driveway the available sight distance was observed to be approximately 840 feet, with utility pole #21-1 being the limiting factor. Looking to the left (south), sight distance is limited to 315 feet by the trunk of a large maple tree in front of house #91.

The speed limit on Sowams Road is 30 miles per hour, with observed speeds of approximately 35 miles per hour. Based on a design speed of 35 miles per hour, the distance required to meet the SSD standard is 250 feet.

Therefore the minimum sight distance

required to avoid collisions is met in both directions. The sight distance looking to the north is ample to meet the more stringent ISD standard of 390 feet, but the sight distance to the south is just shy of the ISD standard of 335 feet.

Removal of the maple tree in front of #91 Sowams Road would allow the sight distance looking to the south to meet both SSD and ISD standards, as the resulting sight distance would be extended to approximately 520 feet. However, East Bay Community Development Corporation does not control this property. Removal of the tree would require an easement or purchase of part or all of the property. Since Sowams Road is typically not congested, we believe safe operations can be maintained along Sowams Road with the current sight distance.

5.3 Intersection Capacity Analysis

Capacity analyses for unsignalized intersections were conducted using Synchro Professional Software, version 9.0.

In discussing intersection capacity analyses results, the terms are used to describe the operating condition of the road or intersection. These two terms are volume to capacity ratio (v/c) and level of service (LOS).

The v/c ratio is a ratio of the volume of traffic using an intersection to the total capacity of the intersection (the maximum number of vehicles that can utilize the intersection during an hour). At unsignalized intersections, the v/c ratio is typically used to describe the percentage of capacity utilized by per approach lane where one or more legal movements must yield or stop for oncoming traffic.

LOS is a measure of the delay experienced by vehicles at an intersection. LOS is rated on a scale from A to F, with A describing a condition of very low delay (less than 10 seconds per vehicle), and F describing a condition where delays will exceed 50 seconds per vehicle for unsignalized intersections. Delay is

described as a measure of driver discomfort, frustration, fuel consumption, and lost travel time. Therefore, intersections with longer delay times are less acceptable to most drivers.

These definitions for v/c ratio and LOS, as well as the methodology for conducting signalized and unsignalized intersection capacity analyses, are taken from the "2000 Highway Capacity Manual" published by the Transportation Research Board.

In discussing two-way stop controlled unsignalized intersection capacity analyses, LOS is used to provide a description of the delay and operational characteristics of individual lanes or lane groups where one or more legal movements require stopping or yielding to oncoming traffic. Vehicles in lanes or lane groups where no legal movement requires stopping or yielding to oncoming traffic do not experience delay, therefore they are not rated with a level of service.

Using the above referenced methodologies, AM and PM peak hour capacity analyses were conducted at the following unsignalized intersections:

- Sowams Road at the Site Drive
- Sowams Road at Kent Street
- Sowams Road at Route 114 (County Road)

Table No. 3 of Appendix A presents a summary of the levels of service at the unsignalized intersections, for both No-Build and Build Conditions traffic volumes. Copies of the analysis worksheets can be found in *Appendices C and D*, for the AM and PM peak hours respectively.

The determination of the traffic impact from the proposed development is made through a comparison of the No-Build condition LOS (without the proposed development) versus the Build condition LOS (with the proposed development).

At all three intersections, levels of service remained unchanged between the 2020 No-Build and Build conditions. The intersections at Kent Street and the Site Drive are anticipated to operate at LOS B and LOS A, respectively. However, the intersection of Sowams Road and County Road exhibit LOS F conditions for the southbound, left turning traffic. The much higher traffic volumes on County Road cause a significant delay for this approach, as left-turning vehicles must wait for a break in the traffic on County Road in both directions before continuing eastbound. The analyses show that this left turn movement is currently over capacity, and significantly so during the afternoon peak hour. However, the capacity analysis does indicate that this development will have very little impact on the extent to which this movement is over capacity.

5.4 Queue Analysis

No-Build and Build Condition 95th percentile (design) queue lengths were reviewed at each intersection in the study area. The 95th percentile (design) vehicle queue lengths represent the maximum queue lengths that can be expected at each of the critical approach lanes of the study area intersections. The queue lengths are provided in the Synchro capacity analysis worksheets, which are located in *Appendices*

C and D, Tables 5 and 6 of Appendix A provide a summary of the queue lengths for the critical lanes at each intersection.

The Synchro analyses indicate that none of the study intersection approaches will exhibit substantially increased queue lengths. The No-Build queues at the southbound left turn approach on Sowams Road are approximately 155 feet during the morning peak hour and 260 feet during the afternoon peak hour. The addition of the proposed site-generated traffic is expected to increase these queues by approximately 15 feet, or less than one car length, during the peak hours.

6 Conclusions & Recommendations

The purpose of preparing a traffic impact study is to identify the impact of the proposed development's site generated traffic. The study efforts have indicated that the proposed development will generate 29 new entering and exiting trips in the AM peak hour, and 30 new entering and exiting trips in the PM peak hour.

The levels of service at the three study area intersections are expected to remain the same with the addition of site-generated traffic through the neighboring roadway network. A slight increase in delays associated with this traffic can be expected at the Sowams Road intersection with County Road, which intersection already exhibits considerable delays in the existing condition. While full-day counts were not conducted for this intersection, based on the peak hour traffic volumes, it seems unlikely that this intersection would meet the eight-hour traffic volume warrants for a signal to be approved by RIDOT and installed at the intersection.

Both the number and severity of crashes within the study area are not abnormal for the existing traffic volumes and intersection geometry on the neighboring roadway network.

Adequate sight distance is available from the site driveway in both directions on Sowams Road, though it is slightly constrained by an existing tree to the south of the site. Since Sowams Road is typically not congested, we believe safe operations can be maintained along Sowams Road with the current sight distance.

Based on the results of the foregoing analysis, it is the professional opinion of Fuss & O'Neill, Inc. that the proposed development, along with the recommendations outlined above, (if any) will not have a significant impact to traffic operations within the study area.

Appendix A

Tables

Table 1

Peak Hour Site Generated Traffic Volumes
Palmer Pointe
Barrington, RI

42 Unit Residential Development	Total Trips	Trips Entering	Trips Exiting
AM Peak Hour	29	10	19
PM Peak Hour	30	19	11

Note: Trip generation based on Rate per Land use Code 224 (Rental Townhouse), as published in *Trip Generation*, 9th Edition, 2012.

Table 2

Intersection Crash Data Summary
Palmer Pointe
Barrington, RI

Intersections/Road Segments	Crashes Per Year			
	2013	2014	2015	Average/Year
Sowams Road at Route 114 (County Road)*	0	5	4	3
Sowams Road Between County Road and Kent Street	0	0	0	0
Sowams Road at Kent Street*	0	0	0	0

*Values indicated are number of crashes within 200 feet of each intersection during time period shown.
Data provided by the Town of Barrington Police Department.

Table 3

Unsignalized Intersection Level of Service Summary
 Palmer Pointe
 Barrington, RI

Two-Way Stop Controlled Intersections (Critical Movements)	2020 AM Peak Hour		2020 PM Peak Hour	
	No-Build	Build	No-Build	Build
Sowams Road at Kent Street				
Eastbound Left Turn	B/0.28	B/0.29	B/0.06	B/0.07
Westbound Left Turn	B/0.07	B/0.07	B/0.04	B/0.04
Sowams Road at Site Drive				
Westbound Left Turn	N/A	A/0.03	N/A	A/0.02
Southbound Left Turn	N/A	A/0.00	N/A	A/0.01
Sowams Road at County Road				
Southbound Left Turn	F/1.04	F/1.11	F/1.67	F/1.75
Southbound Right Turn	C/0.14	C/0.15	C/0.10	C/0.11
Eastbound Left Turn	A/0.07	A/0.07	A/0.05	A/0.05

*Values indicated are critical movement Level of Service (LOS)/v/c Ratio

Table 4

AM Peak Hour Queue Length Summary
Palmer Pointe
Barrington, RI

Intersection	Approach Lane	2020 No-Build Queue	2020 Build Queue	Available Storage
Sowams Road at Kent Street	Eastbound	30 Feet	30 Feet	250 Feet
	Westbound	5 Feet	5 Feet	100 Feet
	Northbound	5 Feet	5 Feet	250 Feet
	Southbound	5 Feet	5 Feet	250 Feet
Sowams Road at Site Drive	Westbound	N/A	5 Feet	100 Feet
	Northbound	N/A	0 Feet	250 Feet
	Southbound	N/A	0 Feet	250 Feet
Sowams Road at County Road	Eastbound	5 Feet	5 Feet	250 Feet
	Westbound	0 Feet	0 Feet	250 Feet
	Southbound Left	155 Feet	170 Feet	500 Feet
	Southbound Right	10 Feet	15 Feet	50 Feet

NOTE: Values indicated represent 95th percentile (design) vehicle queue lengths. Values are rounded to the nearest 5 feet.

Table 5

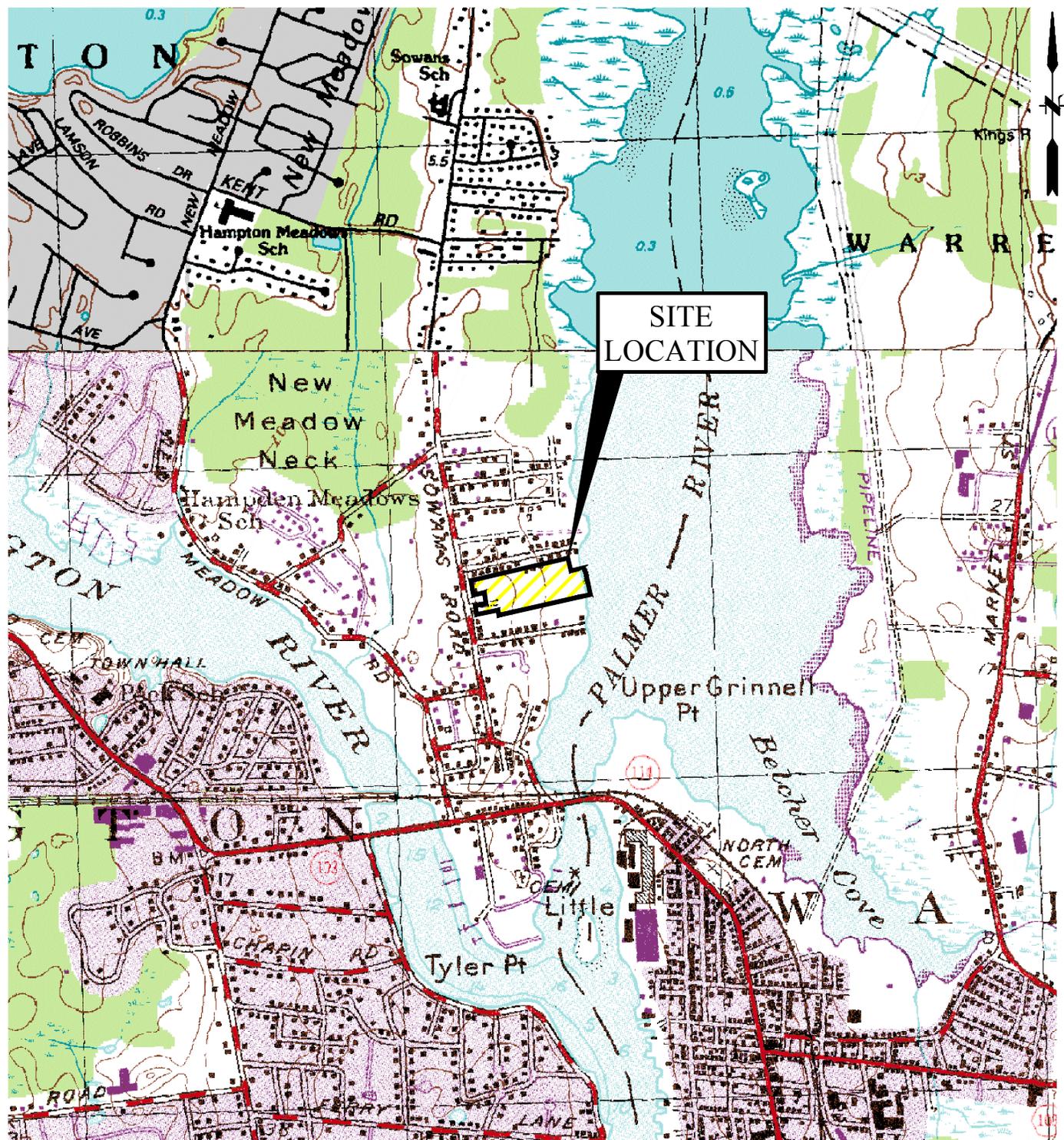
PM Peak Hour Queue Length Summary
Palmer Pointe
Barrington, RI

Intersection	Approach Lane	2020 No-Build Queue	2020 Build Queue	Available Storage
Sowams Road at Kent Street	Eastbound	5 Feet	5 Feet	250 Feet
	Westbound	5 Feet	5 Feet	100 Feet
	Northbound	0 Feet	0 Feet	250 Feet
	Southbound	0 Feet	0 Feet	250 Feet
Sowams Road at Site Drive	Westbound	N/A	0 Feet	100 Feet
	Northbound	N/A	0 Feet	250 Feet
	Southbound	N/A	0 Feet	250 Feet
Sowams Road at County Road	Eastbound	5 Feet	5 Feet	250 Feet
	Westbound	0 Feet	0 Feet	250 Feet
	Southbound Left	260 Feet	275 Feet	500 Feet
	Southbound Right	10 Feet	10 Feet	50 Feet

NOTE: Values indicated represent 95th percentile (design) vehicle queue lengths. Values are rounded to the nearest 5 feet.

Appendix B

Figures



SITE
LOCATION

MAP REFERENCE:

THIS MAP WAS PREPARED FROM THE RHODE ISLAND GEOGRAPHIC INFORMATION SYSTEM (RIGIS WEBSITE).
 SCANNED 7.5 MINUTE USGS TOPOGRAPHIC MAPS:
 PROVIDENCE QUADRANGLE, RHODE ISLAND-MASSACHUSETTS DATED 1987 AND BRISTOL QUADRANGLE, RHODE ISLAND-MASSACHUSETTS DATED 1955, PHOTOREVISED 1970 AND 1975.



SITE LOCATION

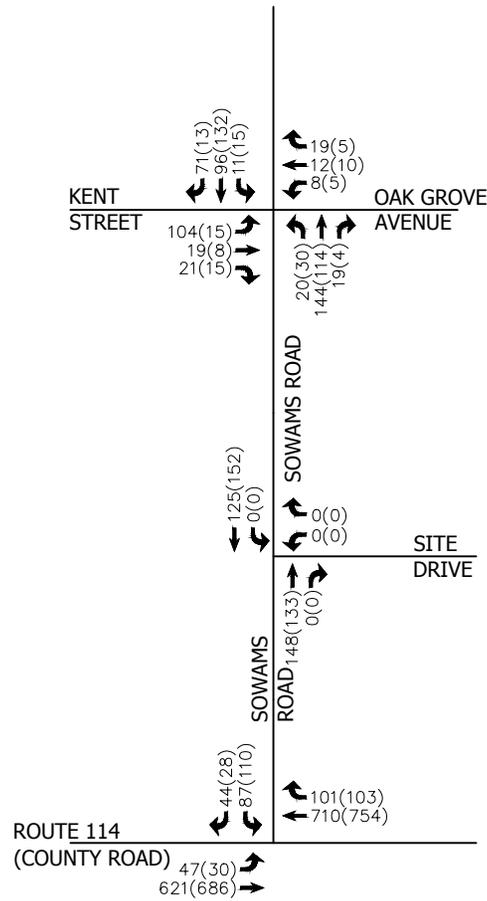
File Path: J:\DWG\IP\2012\1033\A20\Civil\Plan\20121033A20_LOC01_USGS.dwg Layer State: LAYER STATE: Plotter: DWG TO PDF (MERGE) PC3 CTB File: FO.STB User: kpariseau
 Date: February 26, 2016 2:09 PM

SCALE:	
HORZ.:	1" = 1500'
VERT.:	
DATUM:	
HORZ.:	
VERT.:	
GRAPHIC SCALE	

FUSS & O'NEILL
 317 IRON HORSE WAY, SUITE 204
 PROVIDENCE, RI 02908
 401.861.3070
 www.fando.com

EAST BAY COMMUNITY DEVELOPMENT CORPORATION
 CORPORATION
 SITE LOCATION MAP
 PALMER POINTE NEIGHBORHOOD
 BARRINGTON RHODE ISLAND

PROJ. No.: 20121033.A20
 DATE: MARCH 2016
FIGURE 1



XX(XX) = WEEKDAY MORNING PEAK HOUR (WEEKDAY PM PEAK HOUR)



FUSS & O'NEILL

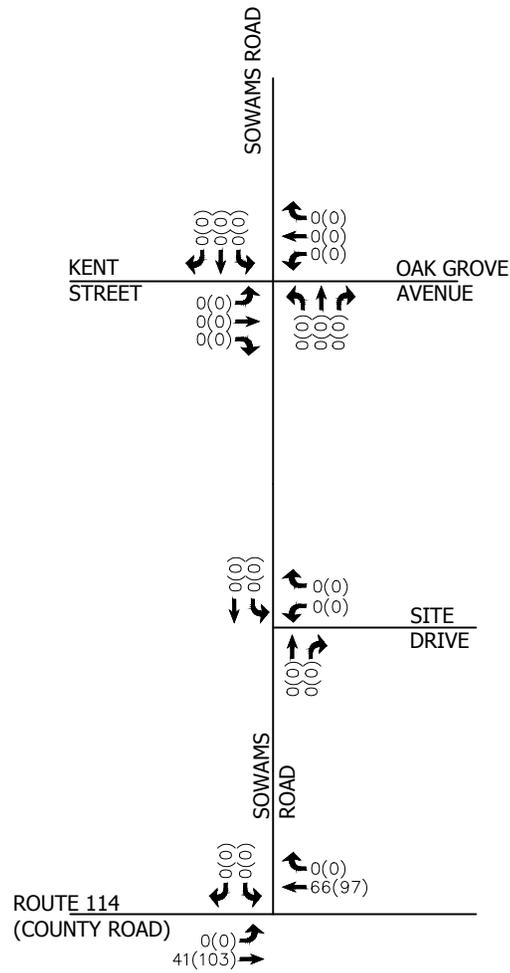
146 HARTFORD ROAD
 MANCHESTER, CONNECTICUT 06040
 860.646.2469
 www.fando.com

FIGURE 2: 2016 EXISTING TRAFFIC VOLUMES

PROJ. NO: 20121033.A20

PALMERS POINTE

FEBRUARY 2016



XX(XX) = WEEKDAY MORNING PEAK HOUR (WEEKDAY PM PEAK HOUR)



FUSS & O'NEILL

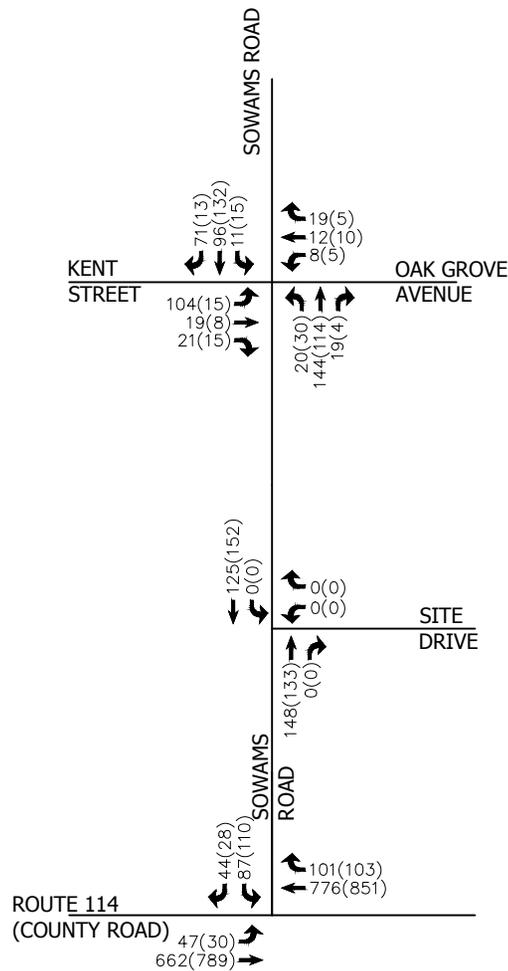
146 HARTFORD ROAD
MANCHESTER, CONNECTICUT 06040
860.646.2469
www.fando.com

FIGURE 3: OTHER TRAFFIC GENERATORS

PROJ. NO: 20121033.A20

PALMERS POINTE

FEBRUARY 2016



XX(XX) = WEEKDAY MORNING PEAK HOUR (WEEKDAY PM PEAK HOUR)



FUSS & O'NEILL

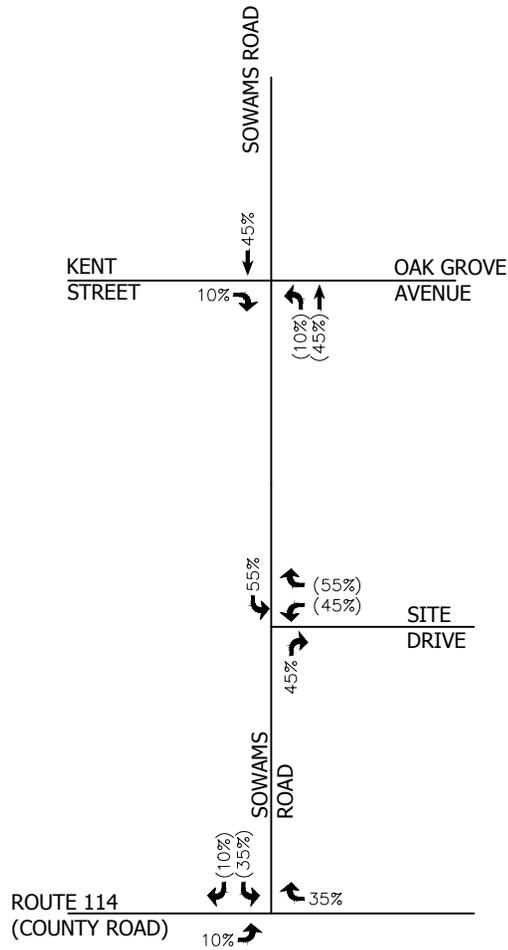
146 HARTFORD ROAD
 MANCHESTER, CONNECTICUT 06040
 860.646.2469
 www.fando.com

FIGURE 4: 2020 NO-BUILD TRAFFIC VOLUMES

PROJ. NO: 20121033.A20

PALMERS POINTE

FEBRUARY 2016



XX(XX) = ENTERING TRAFFIC (EXITING TRAFFIC)



FUSS & O'NEILL

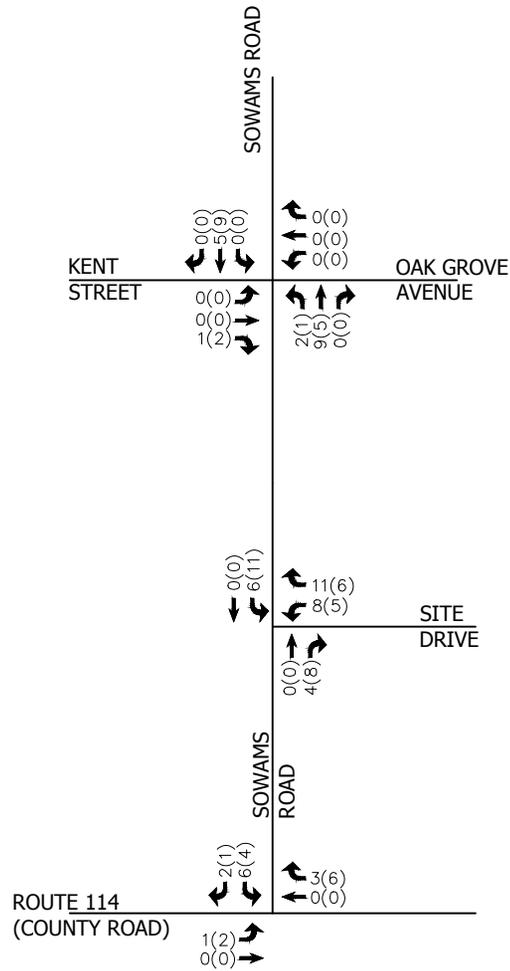
146 HARTFORD ROAD
MANCHESTER, CONNECTICUT 06040
860.646.2469
www.fando.com

FIGURE 5: NEW TRIP DISTRIBUTION

PROJ. NO: 20121033.A20

PALMERS POINTE

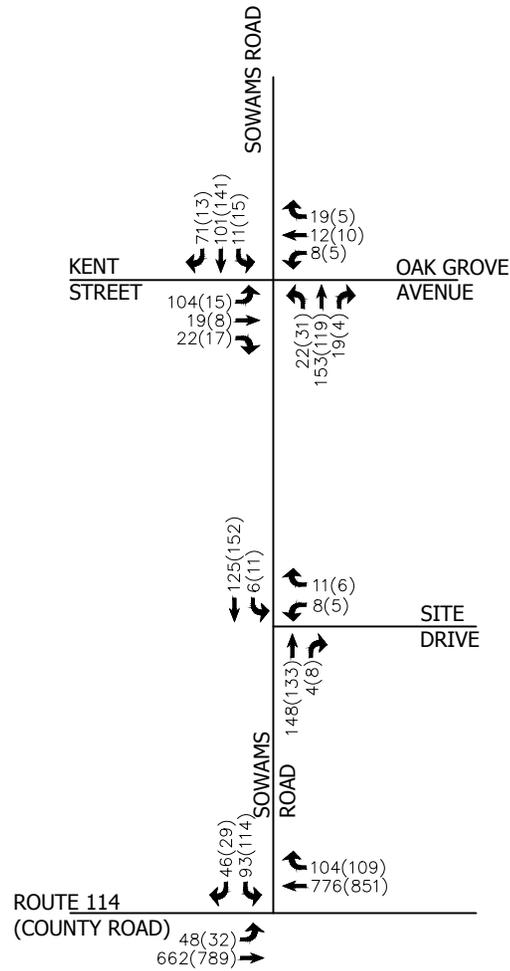
FEBRUARY 2016



SITE GENERATED TRAFFIC VOLUMES

	ENTER	EXIT	TOTAL
MORNING	10	19	29
AFTERNOON	19	11	30

XX(XX) = WEEKDAY MORNING PEAK HOUR (WEEKDAY PM PEAK HOUR)



XX(XX) = WEEKDAY MORNING PEAK HOUR (WEEKDAY PM PEAK HOUR)



FUSS & O'NEILL

146 HARTFORD ROAD
 MANCHESTER, CONNECTICUT 06040
 860.646.2469
 www.fando.com

FIGURE 7: 2020 BUILD TRAFFIC VOLUMES

PROJ. NO: 20121033.A20

PALMERS POINTE

FEBRUARY 2016

Appendix C

Intersection Capacity Analysis Worksheets AM Peak Hour

HCM Unsignalized Intersection Capacity Analysis

1: Sowams Road & Kent Street/Oak Grove Avenue

Palmer Pointe
AM No-Build



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	104	19	21	8	12	19	20	144	19	11	96	71
Future Volume (Veh/h)	104	19	21	8	12	19	20	144	19	11	96	71
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	113	21	23	9	13	21	22	157	21	12	104	77
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	406	388	142	412	416	168	181			178		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	406	388	142	412	416	168	181			178		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	78	96	97	98	97	98	98			99		
cM capacity (veh/h)	522	533	905	511	514	877	1394			1398		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	157	43	200	193								
Volume Left	113	9	22	12								
Volume Right	23	21	21	77								
cSH	558	643	1394	1398								
Volume to Capacity	0.28	0.07	0.02	0.01								
Queue Length 95th (ft)	29	5	1	1								
Control Delay (s)	14.0	11.0	1.0	0.5								
Lane LOS	B	B	A	A								
Approach Delay (s)	14.0	11.0	1.0	0.5								
Approach LOS	B	B										
Intersection Summary												
Average Delay			5.0									
Intersection Capacity Utilization			36.5%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
 2: Sowams Road & Site Drive

Palmer Pointe
 AM No-Build

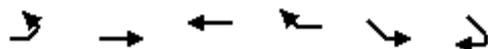


Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	148	0	0	125
Future Volume (Veh/h)	0	0	148	0	0	125
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	161	0	0	136
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	297	161			161	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	297	161			161	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	694	884			1418	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	0	161	136			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1700	1418			
Volume to Capacity	0.00	0.09	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS	A					
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			11.1%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

3: County Road (Rt 114) & Sowams Road

Palmer Pointe
AM No-Build



Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↔	↔		↔	↔
Traffic Volume (veh/h)	47	662	776	101	87	44
Future Volume (Veh/h)	47	662	776	101	87	44
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	51	720	843	110	95	48
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	953				1720	898
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	953				1720	898
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	93				0	86
cM capacity (veh/h)	721				91	338
Direction, Lane #	EB 1	WB 1	SE 1	SE 2		
Volume Total	771	953	95	48		
Volume Left	51	0	95	0		
Volume Right	0	110	0	48		
cSH	721	1700	91	338		
Volume to Capacity	0.07	0.56	1.04	0.14		
Queue Length 95th (ft)	6	0	155	12		
Control Delay (s)	1.9	0.0	189.2	17.4		
Lane LOS	A		F	C		
Approach Delay (s)	1.9	0.0	131.5			
Approach LOS			F			
Intersection Summary						
Average Delay			10.8			
Intersection Capacity Utilization			85.0%		ICU Level of Service	E
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

1: Sowams Road & Kent Street/Oak Grove Avenue

Palmer Pointe
AM Build



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	104	19	22	8	12	19	22	153	19	11	101	71
Future Volume (Veh/h)	104	19	22	8	12	19	22	153	19	11	101	71
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	113	21	24	9	13	21	24	166	21	12	110	77
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	424	408	148	432	436	176	187			187		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	424	408	148	432	436	176	187			187		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	78	96	97	98	97	98	98			99		
cM capacity (veh/h)	506	519	898	494	501	867	1387			1387		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	158	43	211	199								
Volume Left	113	9	24	12								
Volume Right	24	21	21	77								
cSH	544	629	1387	1387								
Volume to Capacity	0.29	0.07	0.02	0.01								
Queue Length 95th (ft)	30	5	1	1								
Control Delay (s)	14.3	11.1	1.0	0.5								
Lane LOS	B	B	A	A								
Approach Delay (s)	14.3	11.1	1.0	0.5								
Approach LOS	B	B										
Intersection Summary												
Average Delay			5.0									
Intersection Capacity Utilization			37.8%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
2: Sowams Road & Site Drive

Palmer Pointe
AM Build

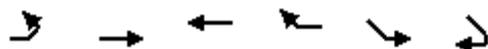


Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	8	11	148	4	6	125
Future Volume (Veh/h)	8	11	148	4	6	125
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	9	12	161	4	7	136
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	313	163			165	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	313	163			165	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	99			100	
cM capacity (veh/h)	676	882			1413	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	21	165	143			
Volume Left	9	0	7			
Volume Right	12	4	0			
cSH	780	1700	1413			
Volume to Capacity	0.03	0.10	0.00			
Queue Length 95th (ft)	2	0	0			
Control Delay (s)	9.7	0.0	0.4			
Lane LOS	A		A			
Approach Delay (s)	9.7	0.0	0.4			
Approach LOS	A					
Intersection Summary						
Average Delay			0.8			
Intersection Capacity Utilization		21.5%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

3: County Road (Rt 114) & Sowams Road

Palmer Pointe
AM Build



Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↶	↶		↶	↶
Traffic Volume (veh/h)	48	662	776	104	93	46
Future Volume (Veh/h)	48	662	776	104	93	46
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	52	720	843	113	101	50
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	956				1724	900
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	956				1724	900
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	93				0	85
cM capacity (veh/h)	719				91	337
Direction, Lane #	EB 1	WB 1	SE 1	SE 2		
Volume Total	772	956	101	50		
Volume Left	52	0	101	0		
Volume Right	0	113	0	50		
cSH	719	1700	91	337		
Volume to Capacity	0.07	0.56	1.11	0.15		
Queue Length 95th (ft)	6	0	171	13		
Control Delay (s)	1.9	0.0	213.0	17.5		
Lane LOS	A		F	C		
Approach Delay (s)	1.9	0.0	148.3			
Approach LOS			F			
Intersection Summary						
Average Delay			12.7			
Intersection Capacity Utilization			86.1%		ICU Level of Service	E
Analysis Period (min)			15			

Appendix D

Intersection Capacity Analysis Worksheets PM Peak Hour

HCM Unsignalized Intersection Capacity Analysis
 1: Sowams Road & Kent Street/Oak Grove Avenue

Palmer Pointe
 PM No-Build



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	15	8	15	5	10	5	30	114	4	15	132	13
Future Volume (Veh/h)	15	8	15	5	10	5	30	114	4	15	132	13
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	9	16	5	11	5	33	124	4	16	143	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type								None			None	
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	384	376	150	394	381	126	157			128		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	384	376	150	394	381	126	157			128		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	98	98	99	98	99	98			99		
cM capacity (veh/h)	547	536	896	534	533	924	1423			1458		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	41	21	161	173								
Volume Left	16	5	33	16								
Volume Right	16	5	4	14								
cSH	642	593	1423	1458								
Volume to Capacity	0.06	0.04	0.02	0.01								
Queue Length 95th (ft)	5	3	2	1								
Control Delay (s)	11.0	11.3	1.7	0.8								
Lane LOS	B	B	A	A								
Approach Delay (s)	11.0	11.3	1.7	0.8								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.8									
Intersection Capacity Utilization			24.3%		ICU Level of Service					A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

2: Sowams Road & Site Drive

Palmer Pointe
PM No-Build

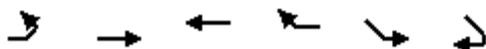


Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	0	0	133	0	0	152
Future Volume (Veh/h)	0	0	133	0	0	152
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	0	145	0	0	165
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type						
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	310	145			145	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	310	145			145	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	100	100			100	
cM capacity (veh/h)	682	902			1437	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	0	145	165			
Volume Left	0	0	0			
Volume Right	0	0	0			
cSH	1700	1700	1437			
Volume to Capacity	0.00	0.09	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	0.0			
Lane LOS	A					
Approach Delay (s)	0.0	0.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			0.0			
Intersection Capacity Utilization			11.3%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

3: County Road (Rt 114) & Sowams Road

Palmer Pointe
PM No-Build



Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↶	↷		↶	↷
Traffic Volume (veh/h)	30	789	851	103	110	28
Future Volume (Veh/h)	30	789	851	103	110	28
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	33	858	925	112	120	30
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1037				1905	981
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1037				1905	981
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				0	90
cM capacity (veh/h)	670				72	303
Direction, Lane #	EB 1	WB 1	SE 1	SE 2		
Volume Total	891	1037	120	30		
Volume Left	33	0	120	0		
Volume Right	0	112	0	30		
cSH	670	1700	72	303		
Volume to Capacity	0.05	0.61	1.67	0.10		
Queue Length 95th (ft)	4	0	259	8		
Control Delay (s)	1.4	0.0	452.6	18.2		
Lane LOS	A		F	C		
Approach Delay (s)	1.4	0.0	365.7			
Approach LOS			F			
Intersection Summary						
Average Delay			27.0			
Intersection Capacity Utilization			78.6%		ICU Level of Service	D
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis

1: Sowams Road & Kent Street/Oak Grove Avenue

Palmer Pointe
PM Build



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Volume (veh/h)	15	8	17	5	10	5	31	119	4	15	141	13
Future Volume (Veh/h)	15	8	17	5	10	5	31	119	4	15	141	13
Sign Control		Stop			Stop			Free			Free	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	16	9	18	5	11	5	34	129	4	16	153	14
Pedestrians												
Lane Width (ft)												
Walking Speed (ft/s)												
Percent Blockage												
Right turn flare (veh)												
Median type												
Median storage veh												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	402	393	160	414	398	131	167			133		
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	402	393	160	414	398	131	167			133		
tC, single (s)	7.1	6.5	6.2	7.1	6.5	6.2	4.1			4.1		
tC, 2 stage (s)												
tF (s)	3.5	4.0	3.3	3.5	4.0	3.3	2.2			2.2		
p0 queue free %	97	98	98	99	98	99	98			99		
cM capacity (veh/h)	533	524	885	517	521	919	1411			1452		
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	43	21	167	183								
Volume Left	16	5	34	16								
Volume Right	18	5	4	14								
cSH	637	580	1411	1452								
Volume to Capacity	0.07	0.04	0.02	0.01								
Queue Length 95th (ft)	5	3	2	1								
Control Delay (s)	11.1	11.4	1.7	0.7								
Lane LOS	B	B	A	A								
Approach Delay (s)	11.1	11.4	1.7	0.7								
Approach LOS	B	B										
Intersection Summary												
Average Delay			2.7									
Intersection Capacity Utilization			25.2%	ICU Level of Service						A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis

2: Sowams Road & Site Drive

Palmer Pointe
PM Build

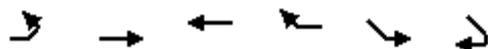


Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Volume (veh/h)	5	6	133	8	11	152
Future Volume (Veh/h)	5	6	133	8	11	152
Sign Control	Stop		Free		Free	
Grade	0%		0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	5	7	145	9	12	165
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None		None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	338	150			154	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	338	150			154	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	99	99			99	
cM capacity (veh/h)	652	897			1426	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	12	154	177			
Volume Left	5	0	12			
Volume Right	7	9	0			
cSH	775	1700	1426			
Volume to Capacity	0.02	0.09	0.01			
Queue Length 95th (ft)	1	0	1			
Control Delay (s)	9.7	0.0	0.6			
Lane LOS	A		A			
Approach Delay (s)	9.7	0.0	0.6			
Approach LOS	A					
Intersection Summary						
Average Delay			0.6			
Intersection Capacity Utilization		27.0%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

3: County Road (Rt 114) & Sowams Road

Palmer Pointe
PM Build



Movement	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations		↔	↔		↔	↔
Traffic Volume (veh/h)	32	789	851	109	114	29
Future Volume (Veh/h)	32	789	851	109	114	29
Sign Control		Free	Free		Stop	
Grade		0%	0%		0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	35	858	925	118	124	32
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type		None	None			
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	1043				1912	984
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1043				1912	984
tC, single (s)	4.1				6.4	6.2
tC, 2 stage (s)						
tF (s)	2.2				3.5	3.3
p0 queue free %	95				0	89
cM capacity (veh/h)	667				71	301
Direction, Lane #	EB 1	WB 1	SE 1	SE 2		
Volume Total	893	1043	124	32		
Volume Left	35	0	124	0		
Volume Right	0	118	0	32		
cSH	667	1700	71	301		
Volume to Capacity	0.05	0.61	1.75	0.11		
Queue Length 95th (ft)	4	0	273	9		
Control Delay (s)	1.5	0.0	486.9	18.4		
Lane LOS	A		F	C		
Approach Delay (s)	1.5	0.0	390.8			
Approach LOS			F			
Intersection Summary						
Average Delay			29.8			
Intersection Capacity Utilization			80.4%		ICU Level of Service	D
Analysis Period (min)			15			

Appendix E

Traffic Count Data

Connecticut Counts LLC

Kensington, Connecticut 06037

Sowams Road at Kent St/Oak Grove Ave (860) 828-1693
Barrington, Rhode Island

File Name : 13856
Site Code : 13856
Start Date : 12/22/2015
Page No : 1

Groups Printed- Unshifted - Bank 1 - Bank 2

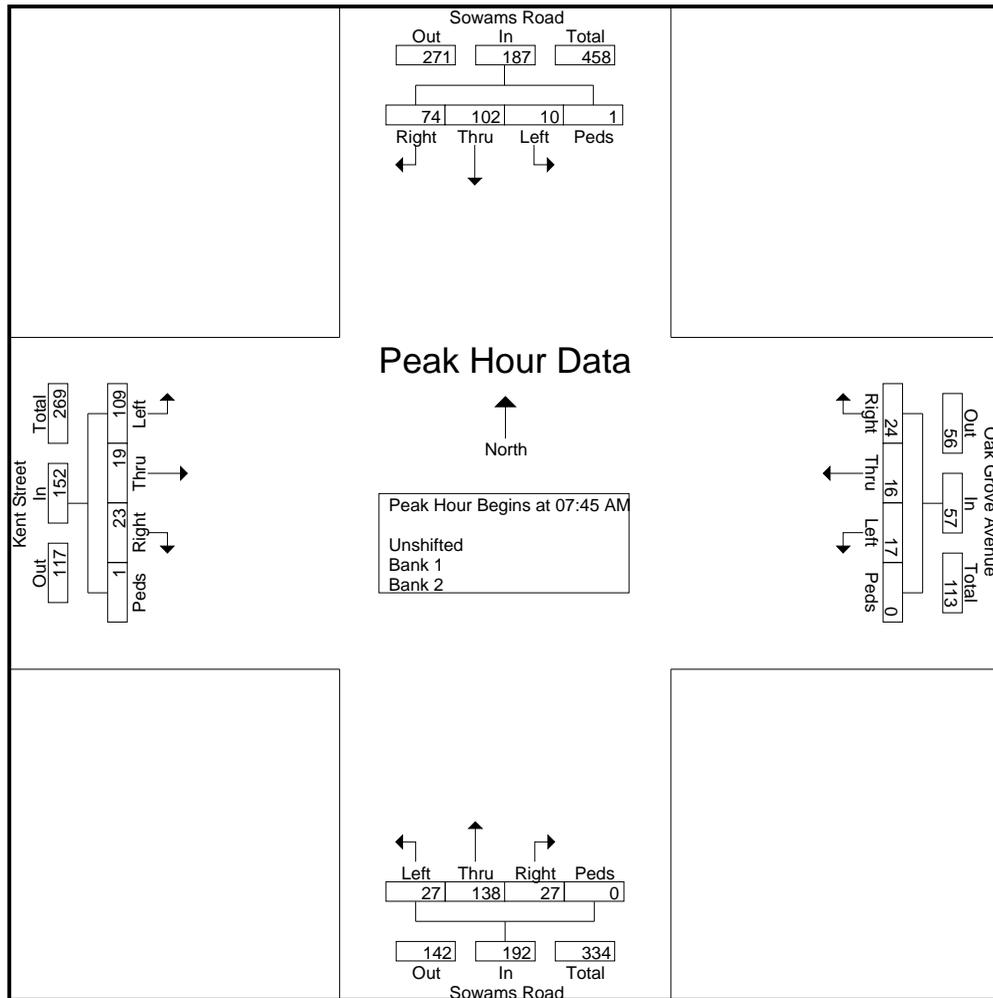
Start Time	Sowams Road From North					Oak Grove Avenue From East					Sowams Road From South					Kent Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:00 AM	9	9	0	0	18	2	1	0	0	3	0	21	1	0	22	3	0	1	0	4	47
07:15 AM	5	22	0	1	28	1	1	0	0	2	0	47	4	1	52	2	0	3	0	5	87
07:30 AM	4	14	2	0	20	3	0	0	0	3	4	37	3	0	44	6	2	10	0	18	85
07:45 AM	5	30	3	1	39	8	2	3	0	13	3	41	4	0	48	1	5	31	1	38	138
Total	23	75	5	2	105	14	4	3	0	21	7	146	12	1	166	12	7	45	1	65	357
08:00 AM	35	30	3	0	68	4	3	0	0	7	3	40	7	0	50	3	2	46	0	51	176
08:15 AM	27	22	3	0	52	4	7	5	0	16	9	26	6	0	41	11	10	17	0	38	147
08:30 AM	7	20	1	0	28	8	4	9	0	21	12	31	10	0	53	8	2	15	0	25	127
08:45 AM	6	16	0	0	22	3	1	5	0	9	7	17	6	0	30	7	1	8	0	16	77
Total	75	88	7	0	170	19	15	19	0	53	31	114	29	0	174	29	15	86	0	130	527
Grand Total	98	163	12	2	275	33	19	22	0	74	38	260	41	1	340	41	22	131	1	195	884
Apprch %	35.6	59.3	4.4	0.7		44.6	25.7	29.7	0		11.2	76.5	12.1	0.3		21	11.3	67.2	0.5		
Total %	11.1	18.4	1.4	0.2	31.1	3.7	2.1	2.5	0	8.4	4.3	29.4	4.6	0.1	38.5	4.6	2.5	14.8	0.1	22.1	
Unshifted	96	159	12	2	269	33	19	22	0	74	38	257	40	1	336	41	22	131	1	195	874
% Unshifted																					
Bank 1	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
% Bank 1	0	1.2	0	0	0.7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.2
Bank 2	2	2	0	0	4	0	0	0	0	0	0	3	1	0	4	0	0	0	0	0	8
% Bank 2	2	1.2	0	0	1.5	0	0	0	0	0	0	1.2	2.4	0	1.2	0	0	0	0	0	0.9

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 13856
Site Code : 13856
Start Date : 12/22/2015
Page No : 2

Start Time	Sowams Road From North					Oak Grove Avenue From East					Sowams Road From South					Kent Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	5	30	3	1	39	8	2	3	0	13	3	41	4	0	48	1	5	31	1	38	138
08:00 AM	35	30	3	0	68	4	3	0	0	7	3	40	7	0	50	3	2	46	0	51	176
08:15 AM	27	22	3	0	52	4	7	5	0	16	9	26	6	0	41	11	10	17	0	38	147
08:30 AM	7	20	1	0	28	8	4	9	0	21	12	31	10	0	53	8	2	15	0	25	127
Total Volume	74	102	10	1	187	24	16	17	0	57	27	138	27	0	192	23	19	109	1	152	588
% App. Total	39.6	54.5	5.3	0.5		42.1	28.1	29.8	0		14.1	71.9	14.1	0		15.1	12.5	71.7	0.7		
PHF	.529	.850	.833	.250	.688	.750	.571	.472	.000	.679	.563	.841	.675	.000	.906	.523	.475	.592	.250	.745	.835



Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

File Name : 13856

Site Code : 13856

Start Date : 12/22/2015

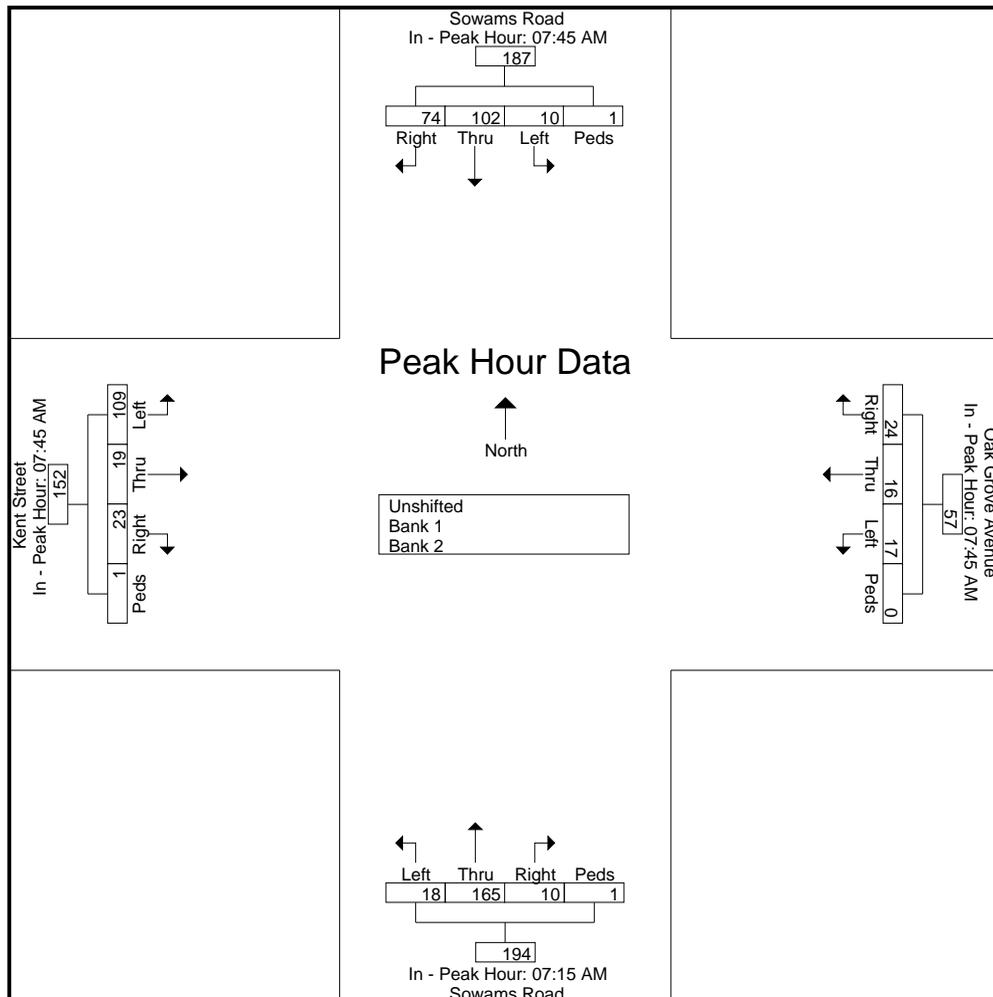
Page No : 3

Start Time	Sowams Road From North					Oak Grove Avenue From East					Sowams Road From South					Kent Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45 AM					07:45 AM					07:15 AM					07:45 AM				
+0 mins.	5	30	3	1	39	8	2	3	0	13	0	47	4	1	52	1	5	31	1	38
+15 mins.	35	30	3	0	68	4	3	0	0	7	4	37	3	0	44	3	2	46	0	51
+30 mins.	27	22	3	0	52	4	7	5	0	16	3	41	4	0	48	11	10	17	0	38
+45 mins.	7	20	1	0	28	8	4	9	0	21	3	40	7	0	50	8	2	15	0	25
Total Volume	74	102	10	1	187	24	16	17	0	57	10	165	18	1	194	23	19	109	1	152
% App. Total	39.6	54.5	5.3	0.5		42.1	28.1	29.8	0		5.2	85.1	9.3	0.5		15.1	12.5	71.7	0.7	
PHF	.529	.850	.833	.250	.688	.750	.571	.472	.000	.679	.625	.878	.643	.250	.933	.523	.475	.592	.250	.745



Connecticut Counts LLC

Kensington, Connecticut 06037

Sowams Road at Kent St/Oak Grove Ave (860) 828-1693
Barrington, Rhode Island

File Name : 13857
Site Code : 13857
Start Date : 12/22/2015
Page No : 1

Groups Printed- Unshifted - Bank 1 - Bank 2

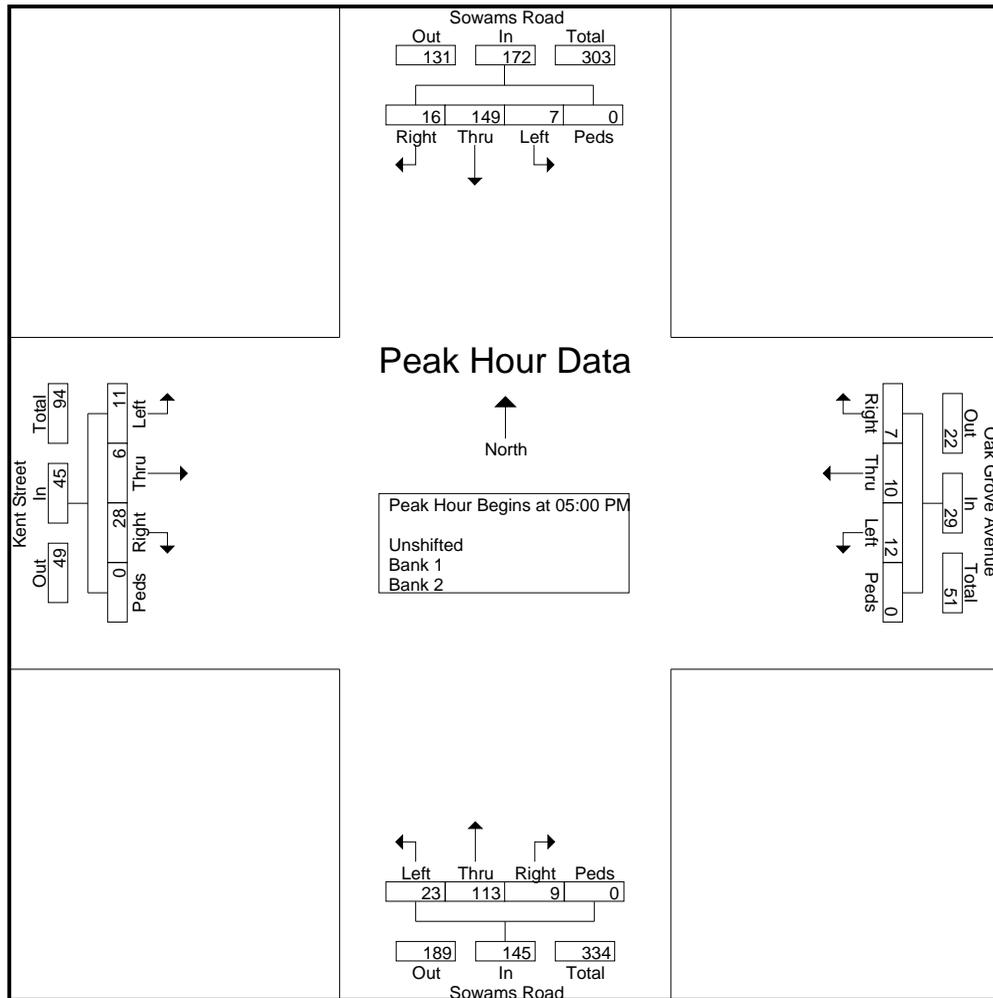
Start Time	Sowams Road From North					Oak Grove Avenue From East					Sowams Road From South					Kent Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
04:00 PM	0	31	0	0	31	1	1	1	0	3	4	28	7	0	39	3	2	3	0	8	81
04:15 PM	4	41	3	0	48	2	3	1	0	6	0	22	6	0	28	0	1	6	0	7	89
04:30 PM	2	26	3	0	31	1	1	0	0	2	0	28	7	0	35	4	3	5	0	12	80
04:45 PM	1	24	3	0	28	0	3	1	0	4	3	37	11	0	51	4	2	2	0	8	91
Total	7	122	9	0	138	4	8	3	0	15	7	115	31	0	153	11	8	16	0	35	341
05:00 PM	6	41	6	0	53	2	3	3	0	8	1	27	6	0	34	7	2	2	0	11	106
05:15 PM	3	33	1	0	37	3	3	2	0	8	5	25	1	0	31	7	2	2	0	11	87
05:30 PM	5	30	0	0	35	2	4	4	0	10	2	32	5	0	39	6	0	3	0	9	93
05:45 PM	2	45	0	0	47	0	0	3	0	3	1	29	11	0	41	8	2	4	0	14	105
Total	16	149	7	0	172	7	10	12	0	29	9	113	23	0	145	28	6	11	0	45	391
Grand Total	23	271	16	0	310	11	18	15	0	44	16	228	54	0	298	39	14	27	0	80	732
Apprch %	7.4	87.4	5.2	0		25	40.9	34.1	0		5.4	76.5	18.1	0		48.8	17.5	33.8	0		
Total %	3.1	37	2.2	0	42.3	1.5	2.5	2	0	6	2.2	31.1	7.4	0	40.7	5.3	1.9	3.7	0	10.9	
Unshifted	23	271	16	0	310	11	18	15	0	44	16	228	54	0	298	39	14	25	0	78	730
% Unshifted																					
Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Bank 1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	2	2
% Bank 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.4	0	2.5	0.3

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 13857
Site Code : 13857
Start Date : 12/22/2015
Page No : 2

Start Time	Sowams Road From North					Oak Grove Avenue From East					Sowams Road From South					Kent Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 05:00 PM																					
05:00 PM	6	41	6	0	53	2	3	3	0	8	1	27	6	0	34	7	2	2	0	11	106
05:15 PM	3	33	1	0	37	3	3	2	0	8	5	25	1	0	31	7	2	2	0	11	87
05:30 PM	5	30	0	0	35	2	4	4	0	10	2	32	5	0	39	6	0	3	0	9	93
05:45 PM	2	45	0	0	47	0	0	3	0	3	1	29	11	0	41	8	2	4	0	14	105
Total Volume	16	149	7	0	172	7	10	12	0	29	9	113	23	0	145	28	6	11	0	45	391
% App. Total	9.3	86.6	4.1	0		24.1	34.5	41.4	0		6.2	77.9	15.9	0		62.2	13.3	24.4	0		
PHF	.667	.828	.292	.000	.811	.583	.625	.750	.000	.725	.450	.883	.523	.000	.884	.875	.750	.688	.000	.804	.922



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

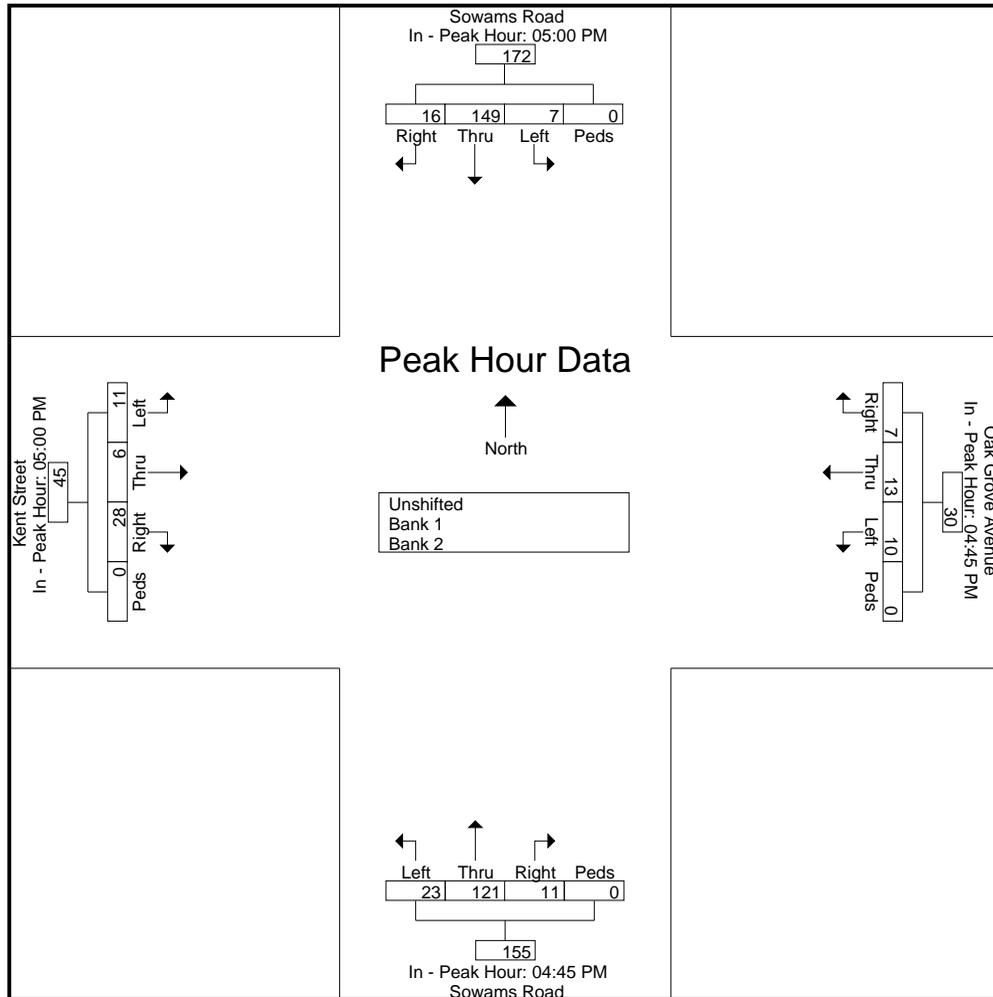
File Name : 13857
Site Code : 13857
Start Date : 12/22/2015
Page No : 3

Start Time	Sowams Road From North					Oak Grove Avenue From East					Sowams Road From South					Kent Street From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	05:00 PM					04:45 PM					04:45 PM					05:00 PM				
+0 mins.	6	41	6	0	53	0	3	1	0	4	3	37	11	0	51	7	2	2	0	11
+15 mins.	3	33	1	0	37	2	3	3	0	8	1	27	6	0	34	7	2	2	0	11
+30 mins.	5	30	0	0	35	3	3	2	0	8	5	25	1	0	31	6	0	3	0	9
+45 mins.	2	45	0	0	47	2	4	4	0	10	2	32	5	0	39	8	2	4	0	14
Total Volume	16	149	7	0	172	7	13	10	0	30	11	121	23	0	155	28	6	11	0	45
% App. Total	9.3	86.6	4.1	0		23.3	43.3	33.3	0		7.1	78.1	14.8	0		62.2	13.3	24.4	0	
PHF	.667	.828	.292	.000	.811	.583	.813	.625	.000	.750	.550	.818	.523	.000	.760	.875	.750	.688	.000	.804



Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Sowams Road at Country Road
Barrington, Rhode Island

File Name : 13858
Site Code : 13858
Start Date : 12/22/2015
Page No : 1

Groups Printed- Unshifted - Bank 1 - Bank 2

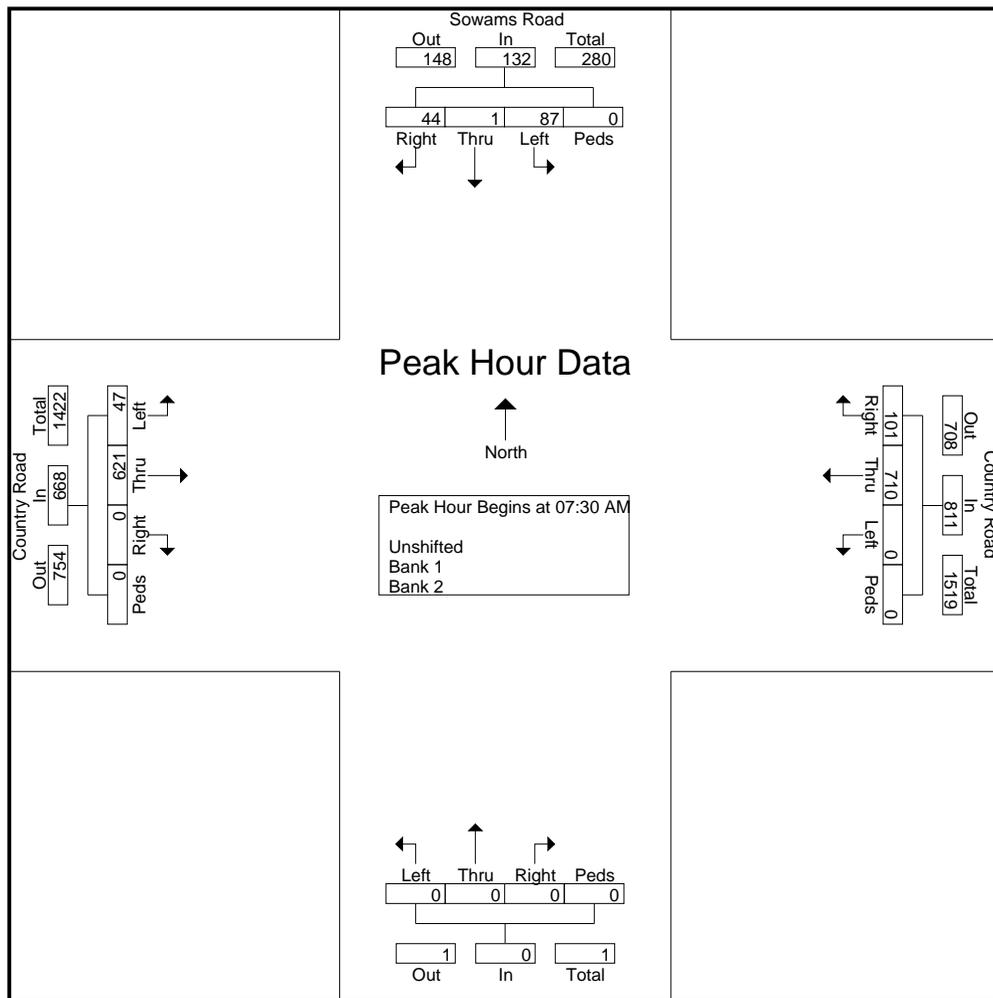
Start Time	Sowams Road From North					Country Road From East					From South					Country Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
07:00 AM	12	0	13	0	25	21	129	0	0	150	0	0	0	0	0	0	104	6	0	110	285
07:15 AM	17	0	19	0	36	35	164	0	0	199	0	0	0	0	0	0	111	6	1	118	353
07:30 AM	9	1	23	0	33	35	161	0	0	196	0	0	0	0	0	0	161	16	0	177	406
07:45 AM	17	0	17	0	34	25	231	0	0	256	0	0	0	0	0	0	176	11	0	187	477
Total	55	1	72	0	128	116	685	0	0	801	0	0	0	0	0	0	552	39	1	592	1521
08:00 AM	5	0	21	0	26	14	153	0	0	167	0	0	0	0	0	0	114	7	0	121	314
08:15 AM	13	0	26	0	39	27	165	0	0	192	0	0	0	0	0	0	170	13	0	183	414
08:30 AM	10	0	24	0	34	15	139	0	0	154	0	0	0	0	0	0	117	5	0	122	310
08:45 AM	15	0	14	0	29	13	165	0	0	178	0	0	0	0	0	0	104	3	0	107	314
Total	43	0	85	0	128	69	622	0	0	691	0	0	0	0	0	0	505	28	0	533	1352
Grand Total	98	1	157	0	256	185	1307	0	0	1492	0	0	0	0	0	0	1057	67	1	1125	2873
Apprch %	38.3	0.4	61.3	0		12.4	87.6	0	0		0	0	0	0	0	0	94	6	0.1		
Total %	3.4	0	5.5	0	8.9	6.4	45.5	0	0	51.9	0	0	0	0	0	0	36.8	2.3	0	39.2	
Unshifted	91	1	156	0	248	183	1276										1018				
% Unshifted	92.9	100	99.4	0	96.9	98.9	97.6	0	0	97.8	0	0	0	0	0	0	96.3	94	100	96.2	97.1
Bank 1	4	0	0	0	4	0	13	0	0	13	0	0	0	0	0	0	20	1	0	21	38
% Bank 1	4.1	0	0	0	1.6	0	1	0	0	0.9	0	0	0	0	0	0	1.9	1.5	0	1.9	1.3
Bank 2	3	0	1	0	4	2	18	0	0	20	0	0	0	0	0	0	19	3	0	22	46
% Bank 2	3.1	0	0.6	0	1.6	1.1	1.4	0	0	1.3	0	0	0	0	0	0	1.8	4.5	0	2	1.6

Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

File Name : 13858
Site Code : 13858
Start Date : 12/22/2015
Page No : 2

Start Time	Sowams Road From North					Country Road From East					From South					Country Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:30 AM																					
07:30 AM	9	1	23	0	33	35	161	0	0	196	0	0	0	0	0	0	161	16	0	177	406
07:45 AM	17	0	17	0	34	25	231	0	0	256	0	0	0	0	0	0	176	11	0	187	477
08:00 AM	5	0	21	0	26	14	153	0	0	167	0	0	0	0	0	0	114	7	0	121	314
08:15 AM	13	0	26	0	39	27	165	0	0	192	0	0	0	0	0	0	170	13	0	183	414
Total Volume	44	1	87	0	132	101	710	0	0	811	0	0	0	0	0	0	621	47	0	668	1611
% App. Total	33.3	0.8	65.9	0		12.5	87.5	0	0		0	0	0	0		0	93	7	0		
PHF	.647	.250	.837	.000	.846	.721	.768	.000	.000	.792	.000	.000	.000	.000	.000	.000	.882	.734	.000	.893	.844



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

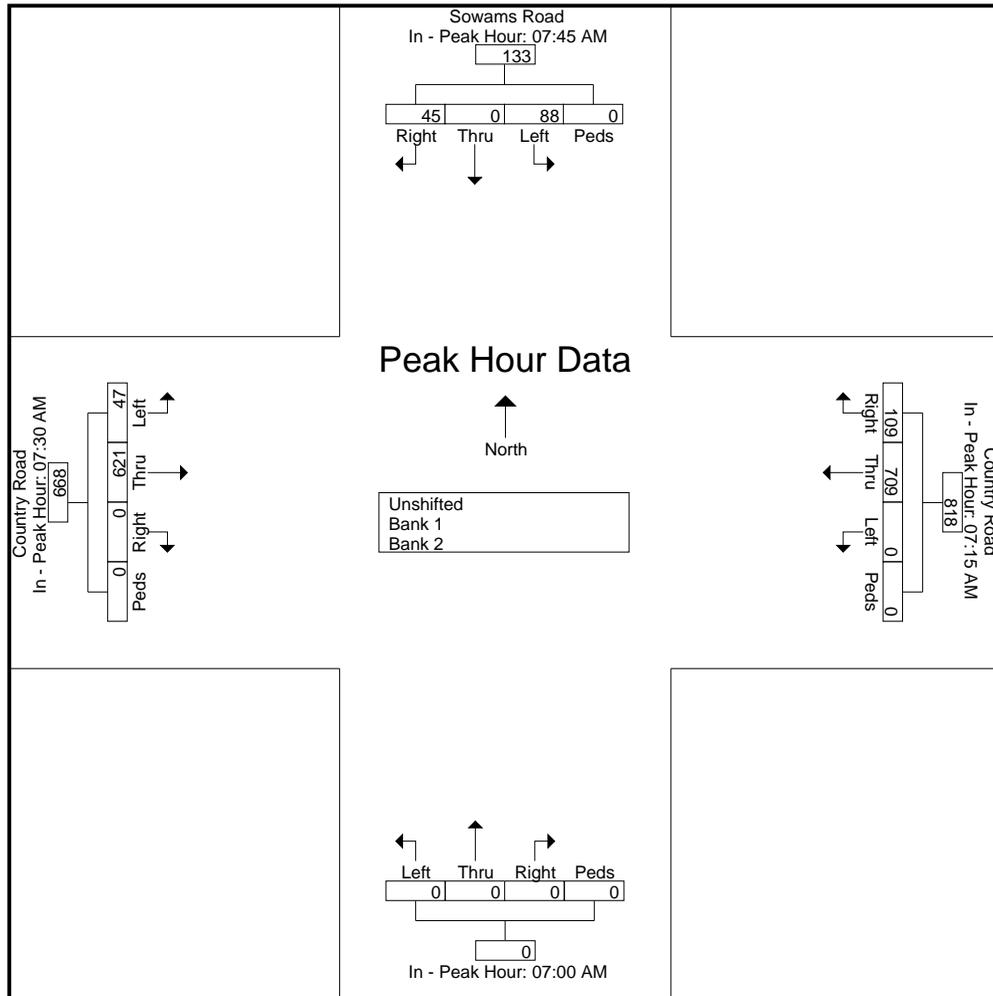
File Name : 13858
Site Code : 13858
Start Date : 12/22/2015
Page No : 3

Start Time	Sowams Road From North					Country Road From East					From South					Country Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	07:45 AM					07:15 AM					07:00 AM					07:30 AM				
+0 mins.	17	0	17	0	34	35	164	0	0	199	0	0	0	0	0	0	161	16	0	177
+15 mins.	5	0	21	0	26	35	161	0	0	196	0	0	0	0	0	0	176	11	0	187
+30 mins.	13	0	26	0	39	25	231	0	0	256	0	0	0	0	0	0	114	7	0	121
+45 mins.	10	0	24	0	34	14	153	0	0	167	0	0	0	0	0	0	170	13	0	183
Total Volume	45	0	88	0	133	109	709	0	0	818	0	0	0	0	0	0	621	47	0	668
% App. Total	33.8	0	66.2	0		13.3	86.7	0	0		0	0	0	0		0	93	7	0	
PHF	.662	.000	.846	.000	.853	.779	.767	.000	.000	.799	.000	.000	.000	.000	.000	.000	.882	.734	.000	.893



Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

Sowams Road at Country Road
Barrington, Rhode Island

File Name : 13859
Site Code : 13859
Start Date : 12/22/2015
Page No : 1

Groups Printed- Unshifted - Bank 1 - Bank 2

Start Time	Sowams Road From North					Country Road From East					From South					Country Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
04:00 PM	11	0	31	0	42	31	152	0	0	183	0	0	0	0	0	0	199	7	0	206	431
04:15 PM	5	0	30	0	35	21	190	0	0	211	0	0	0	0	0	0	156	7	0	163	409
04:30 PM	5	0	20	0	25	23	201	0	0	224	0	0	0	0	0	0	176	9	0	185	434
04:45 PM	8	0	19	0	27	33	187	0	0	220	0	0	0	0	0	0	161	5	0	166	413
Total	29	0	100	0	129	108	730	0	0	838	0	0	0	0	0	0	692	28	0	720	1687
05:00 PM	10	0	41	1	52	26	176	0	0	202	0	0	0	0	0	0	193	9	0	202	456
05:15 PM	13	0	21	0	34	20	163	0	0	183	0	0	0	0	0	0	159	5	0	164	381
05:30 PM	6	0	22	0	28	17	163	1	0	181	0	0	0	0	0	0	162	9	0	171	380
05:45 PM	10	0	29	0	39	19	156	0	0	175	0	0	0	0	0	0	169	8	0	177	391
Total	39	0	113	1	153	82	658	1	0	741	0	0	0	0	0	0	683	31	0	714	1608
Grand Total	68	0	213	1	282	190	1388	1	0	1579	0	0	0	0	0	0	1375	59	0	1434	3295
Apprch %	24.1	0	75.5	0.4		12	87.9	0.1	0		0	0	0	0	0	0	95.9	4.1	0		
Total %	2.1	0	6.5	0	8.6	5.8	42.1	0	0	47.9	0	0	0	0	0	0	41.7	1.8	0	43.5	
Unshifted	68	0	212	1	281	190	1373										1351				
% Unshifted	100	0	99.5	100	99.6	100	98.9	0	0	99	0	0	0	0	0	0	98.3	100	0	98.3	98.8
Bank 1	0	0	1	0	1	0	4	0	0	4	0	0	0	0	0	0	9	0	0	9	14
% Bank 1	0	0	0.5	0	0.4	0	0.3	0	0	0.3	0	0	0	0	0	0	0.7	0	0	0.6	0.4
Bank 2	0	0	0	0	0	0	11	1	0	12	0	0	0	0	0	0	15	0	0	15	27
% Bank 2	0	0	0	0	0	0	0.8	100	0	0.8	0	0	0	0	0	0	1.1	0	0	1	0.8

Connecticut Counts LLC

Kensington, Connecticut 06037

(860) 828-1693

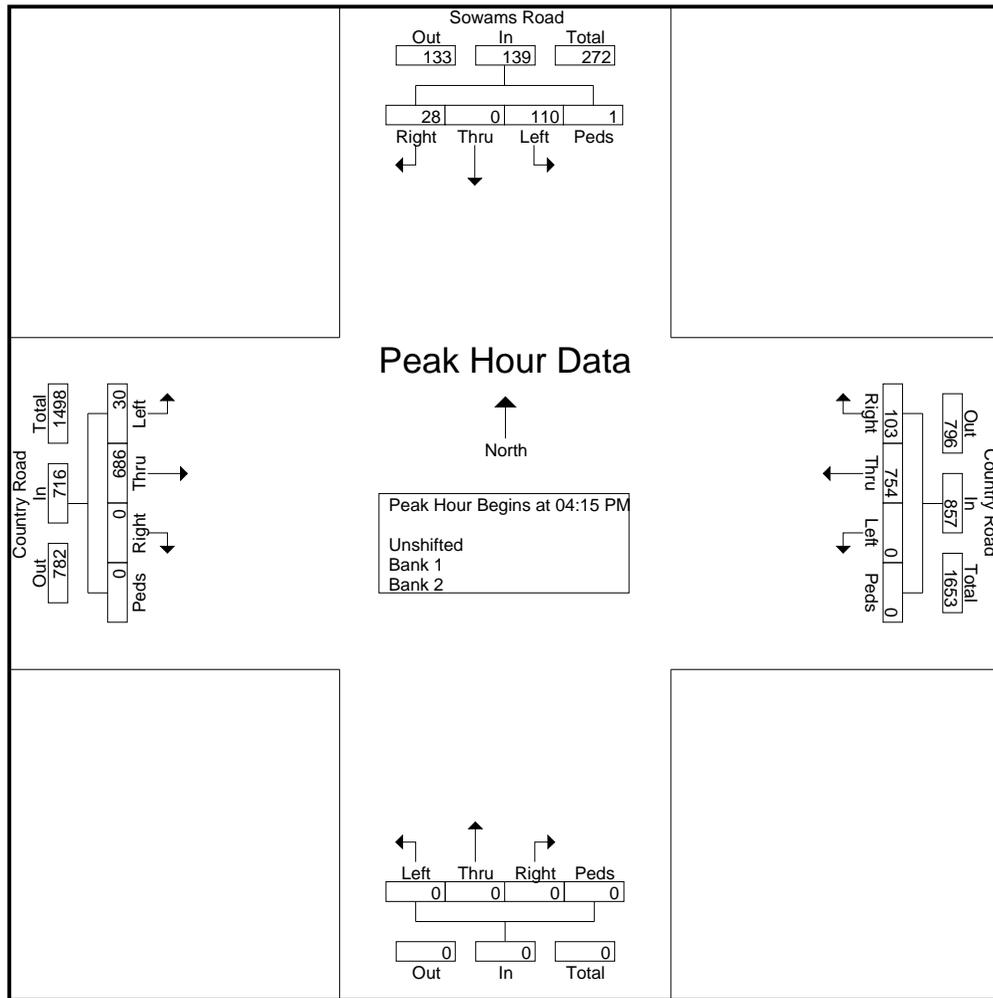
File Name : 13859

Site Code : 13859

Start Date : 12/22/2015

Page No : 2

Start Time	Sowams Road From North					Country Road From East					From South					Country Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	5	0	30	0	35	21	190	0	0	211	0	0	0	0	0	0	156	7	0	163	409
04:30 PM	5	0	20	0	25	23	201	0	0	224	0	0	0	0	0	0	176	9	0	185	434
04:45 PM	8	0	19	0	27	33	187	0	0	220	0	0	0	0	0	0	161	5	0	166	413
05:00 PM	10	0	41	1	52	26	176	0	0	202	0	0	0	0	0	0	193	9	0	202	456
Total Volume	28	0	110	1	139	103	754	0	0	857	0	0	0	0	0	0	686	30	0	716	1712
% App. Total	20.1	0	79.1	0.7		12	88	0	0		0	0	0	0			95.8	4.2	0		
PHF	.700	.000	.671	.250	.668	.780	.938	.000	.000	.956	.000	.000	.000	.000	.000	.000	.889	.833	.000	.886	.939



Connecticut Counts LLC

Kensington, Connecticut 06037
(860) 828-1693

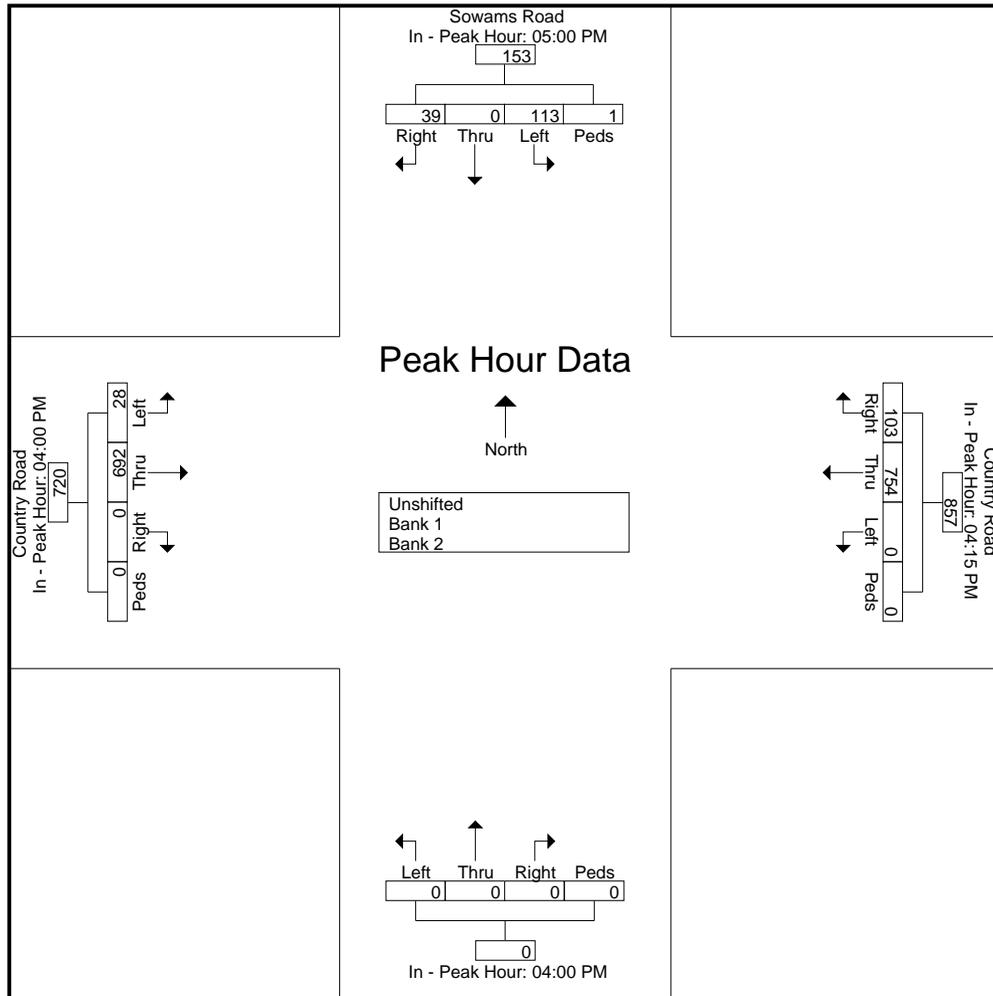
File Name : 13859
Site Code : 13859
Start Date : 12/22/2015
Page No : 3

Start Time	Sowams Road From North					Country Road From East					From South					Country Road From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	

Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1

Peak Hour for Each Approach Begins at:

	05:00 PM					04:15 PM					04:00 PM					04:00 PM				
+0 mins.	10	0	41	1	52	21	190	0	0	211	0	0	0	0	0	0	199	7	0	206
+15 mins.	13	0	21	0	34	23	201	0	0	224	0	0	0	0	0	0	156	7	0	163
+30 mins.	6	0	22	0	28	33	187	0	0	220	0	0	0	0	0	0	176	9	0	185
+45 mins.	10	0	29	0	39	26	176	0	0	202	0	0	0	0	0	0	161	5	0	166
Total Volume	39	0	113	1	153	103	754	0	0	857	0	0	0	0	0	0	692	28	0	720
% App. Total	25.5	0	73.9	0.7		12	88	0	0		0	0	0	0		0	96.1	3.9	0	
PHF	.750	.000	.689	.250	.736	.780	.938	.000	.000	.956	.000	.000	.000	.000	.000	.000	.869	.778	.000	.874



Sowans Road at Sowans Nursery Drive
Barrington, Rhode Island

Connecticut Counts LLC
63 Sugar Maple Lane
Kensington, Connecticut 06037
(860) 828-1693

Site Code: 3810
Station ID:

Northbound															Latitude: 0' 0.000 Undefined		
Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
12/21/15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	0	0	2	9	56	45	14	0	1	0	0	0	0	0	127	39	42
14:00	0	1	6	24	44	49	19	0	1	0	0	0	0	0	144	40	43
15:00	0	0	0	17	58	57	15	4	1	0	0	0	0	0	152	40	44
16:00	0	0	1	6	54	65	14	1	0	0	0	0	0	0	141	39	42
17:00	0	1	2	17	55	50	9	2	0	0	0	0	0	0	136	39	42
18:00	0	0	0	10	40	34	15	2	0	0	0	0	0	0	101	40	43
19:00	0	0	1	9	26	26	7	0	0	0	0	0	0	0	69	39	42
20:00	0	0	0	5	26	20	3	0	1	0	0	0	0	0	55	38	40
21:00	0	0	0	7	14	15	4	0	0	0	0	0	0	0	40	39	41
22:00	0	0	2	2	1	6	0	1	0	0	0	0	0	0	12	39	39
23:00	0	0	1	1	6	2	0	0	0	0	0	0	0	0	10	35	36
Total	0	2	15	107	380	369	100	10	4	0	0	0	0	0	987		
Percent	0.0%	0.2%	1.5%	10.8%	38.5%	37.4%	10.1%	1.0%	0.4%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.		14:00	14:00	14:00	15:00	16:00	14:00	15:00	13:00						15:00		
		1	6	24	58	65	19	4	1						152		

Sowans Road at Sowans Nursery Drive
Barrington, Rhode Island

Connecticut Counts LLC
63 Sugar Maple Lane
Kensington, Connecticut 06037
(860) 828-1693

Site Code: 3810
Station ID:

Northbound																Latitude: 0' 0.000 Undefined		
Start Time	1 15	16 20	21 25	26 30	31 35	36 40	41 45	46 50	51 55	56 60	61 65	66 70	71 75	76 999	Total	85th Percent	95th Percent	
12/22/15	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2	*	*	
01:00	0	0	1	0	2	3	2	0	0	0	0	0	0	0	8	39	39	
02:00	0	0	0	0	0	2	1	0	0	0	0	0	0	0	3	*	*	
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*	
04:00	0	0	0	0	2	1	1	0	0	0	0	0	0	0	4	*	*	
05:00	0	0	0	3	5	5	1	0	0	0	0	0	0	0	14	38	40	
06:00	0	0	2	3	12	10	2	0	0	0	0	0	0	0	29	38	40	
07:00	1	2	5	24	54	56	13	3	0	0	0	0	0	0	158	39	42	
08:00	0	0	2	9	42	51	9	1	0	0	0	0	0	0	114	39	42	
09:00	0	0	4	9	35	43	8	1	0	0	0	0	0	0	100	39	42	
10:00	0	0	6	12	45	51	13	3	0	0	0	0	0	0	130	40	43	
11:00	0	1	2	14	39	49	25	1	0	0	0	0	0	0	131	41	43	
12 PM	0	0	4	7	55	70	16	3	0	0	0	0	0	0	155	40	43	
13:00	0	0	0	9	66	43	8	0	0	0	0	0	0	0	126	38	41	
14:00	0	0	4	15	47	65	19	1	0	0	0	0	0	0	151	40	43	
15:00	1	3	4	20	60	41	12	1	0	0	0	0	0	0	142	39	41	
16:00	0	0	2	15	70	61	8	1	0	0	0	0	0	0	157	38	41	
17:00	0	0	2	16	69	41	6	0	0	0	0	0	0	0	134	38	40	
18:00	0	0	2	15	46	38	2	2	0	0	0	1	0	0	106	38	40	
19:00	0	3	4	12	30	26	6	0	0	0	0	0	0	0	81	39	41	
20:00	0	0	0	8	29	7	9	0	0	0	0	0	0	0	53	40	43	
21:00	0	0	0	7	13	14	3	0	0	0	0	0	0	0	37	38	41	
22:00	0	0	0	0	7	3	4	0	0	0	0	0	0	0	14	41	43	
23:00	0	0	2	1	1	4	1	0	1	0	0	0	0	0	10	39	39	
Total	2	9	46	199	729	686	169	17	1	0	0	1	0	0	1859			
Percent	0.1%	0.5%	2.5%	10.7%	39.2%	36.9%	9.1%	2.9%	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%				
AM Peak	07:00	07:00	10:00	07:00	07:00	07:00	11:00	07:00							07:00			
Vol.	1	2	6	24	54	56	25	3							158			
PM Peak	15:00	15:00	12:00	15:00	16:00	12:00	14:00	12:00	23:00			18:00			16:00			
Vol.	1	3	4	20	70	70	19	3	1			1			157			

Sowans Road at Sowans Nursery Drive
Barrington, Rhode Island

Connecticut Counts LLC
63 Sugar Maple Lane
Kensington, Connecticut 06037
(860) 828-1693

Site Code: 3810
Station ID:

Northbound Latitude: 0' 0.000 Undefined

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	85th Percent	95th Percent
12/23/15	0	0	0	2	3	2	1	0	0	0	0	0	0	0	8	34	34
01:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1	*	*
02:00	0	0	0	0	0	2	1	0	0	0	0	0	0	0	3	*	*
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	*
04:00	0	0	0	0	1	1	1	0	0	0	0	0	0	0	3	*	*
05:00	0	0	0	2	4	3	0	0	0	0	0	0	0	0	9	36	37
06:00	0	1	3	7	13	12	0	2	0	0	0	0	0	0	38	37	39
07:00	0	0	1	4	28	40	15	1	0	0	0	0	0	0	89	40	43
08:00	0	0	1	8	35	45	18	3	0	0	0	0	0	0	110	41	44
09:00	0	0	1	8	39	59	16	1	0	0	0	0	0	0	124	40	43
10:00	0	0	0	6	46	51	24	3	0	0	0	0	0	0	130	41	44
11:00	0	0	2	10	35	50	25	4	3	0	0	0	0	0	129	42	46
12 PM	0	0	0	7	61	56	28	1	0	0	0	0	0	0	153	41	43
13:00	1	1	2	7	22	42	6	3	0	0	0	0	0	0	84	40	44
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	1	2	10	61	287	364	135	18	3	0	0	0	0	0	881		
Percent	0.1%	0.2%	1.1%	6.9%	32.6%	41.3%	15.3%	2.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak		06:00	06:00	11:00	10:00	09:00	11:00	11:00	11:00						10:00		
Vol.		1	3	10	46	59	25	4	3						130		
PM Peak	13:00	13:00	13:00	12:00	12:00	12:00	12:00	13:00							12:00		
Vol.	1	1	2	7	61	56	28	3							153		
Total	3	13	71	367	1396	1419	404	45	8	0	0	1	0	0	3727		
Percent	0.1%	0.3%	1.9%	9.8%	37.5%	38.1%	10.8%	1.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 29 MPH
50th Percentile : 35 MPH
85th Percentile : 40 MPH
95th Percentile : 43 MPH

Stats
10 MPH Pace Speed : 31-40 MPH
Number in Pace : 2564
Percent in Pace : 68.8%
Number of Vehicles > 30 MPH : 3142
Percent of Vehicles > 30 MPH : 84.3%
Mean Speed(Average) : 35 MPH

Sowans Road at Sowans Nursery Drive
Barrington, Rhode Island

Connecticut Counts LLC
63 Sugar Maple Lane
Kensington, Connecticut 06037
(860) 828-1693

Site Code: 3810
Station ID:

Southbound															Latitude: 0' 0.000 Undefined		
Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total	85th Percent	95th Percent
	15	20	25	30	35	40	45	50	55	60	65	70	75	999			
12/21/15	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	0	0	1	12	43	48	12	2	0	0	0	0	0	0	118	39	43
14:00	3	1	8	21	63	54	2	1	0	0	0	0	0	0	153	37	39
15:00	2	1	5	19	74	58	10	2	0	0	0	0	0	0	171	38	41
16:00	0	0	2	24	53	55	11	1	0	0	0	0	0	0	146	39	41
17:00	0	2	3	17	53	51	6	0	0	0	0	0	0	0	132	38	40
18:00	0	1	2	11	61	44	6	2	0	0	0	0	0	0	127	38	41
19:00	0	0	0	10	36	32	8	1	0	0	0	0	0	0	87	39	42
20:00	0	0	0	7	25	24	6	2	0	0	0	0	0	0	64	40	43
21:00	0	0	1	4	13	23	4	1	0	0	0	0	0	0	46	40	42
22:00	0	1	0	7	6	9	2	0	0	0	0	0	0	0	25	38	40
23:00	0	0	1	1	3	5	1	0	0	0	0	0	0	0	11	39	40
Total	5	6	23	133	430	403	68	12	0	0	0	0	0	0	1080		
Percent	0.5%	0.6%	2.1%	12.3%	39.8%	37.3%	6.3%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak Vol.																	
PM Peak Vol.	14:00	17:00	14:00	16:00	15:00	15:00	13:00	13:00							15:00		
	3	2	8	24	74	58	12	2							171		

Sowans Road at Sowans Nursery Drive
Barrington, Rhode Island

Connecticut Counts LLC
63 Sugar Maple Lane
Kensington, Connecticut 06037
(860) 828-1693

Site Code: 3810
Station ID:

Southbound															Latitude: 0' 0.000 Undefined			
Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total	85th Percent	95th Percent
	15	20	25	30	35	40	45	50	55	60	65	70	75					
12/22/15	0	0	0	0	4	4	1	0	0	0	0	0	0	0	0	9	38	39
01:00	0	0	1	0	0	1	1	0	0	0	0	0	0	0	0	3	*	*
02:00	0	0	0	0	3	2	0	0	1	0	0	0	0	0	0	6	34	34
03:00	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	*	*
04:00	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	3	*	*
05:00	0	0	0	2	7	6	2	0	0	0	0	0	0	0	0	17	39	41
06:00	0	0	0	4	15	8	1	1	0	0	0	0	0	0	0	29	37	39
07:00	0	1	1	15	51	32	5	0	0	0	0	0	0	0	0	105	38	40
08:00	0	5	3	20	79	42	7	0	0	0	0	0	0	0	0	156	38	40
09:00	0	1	3	10	44	33	4	1	0	0	0	0	0	0	0	96	38	41
10:00	0	0	4	16	40	45	5	1	0	0	0	0	0	0	0	111	39	41
11:00	0	2	4	13	53	46	7	0	0	0	0	0	0	0	0	125	38	41
12 PM	0	1	1	14	45	46	11	2	0	0	0	0	0	0	0	120	39	42
13:00	1	1	1	17	56	51	11	0	0	0	0	0	0	0	0	138	39	41
14:00	0	0	6	21	66	49	5	0	0	0	0	0	0	0	0	147	38	40
15:00	10	17	13	24	57	34	7	1	0	0	0	0	0	0	0	163	36	40
16:00	0	1	2	16	61	46	8	0	0	0	0	0	0	0	0	134	38	41
17:00	0	0	2	36	81	26	2	0	0	0	0	0	0	0	0	147	36	38
18:00	0	0	3	13	47	41	10	0	0	0	0	0	0	0	0	114	39	42
19:00	0	1	0	11	44	28	3	1	0	0	0	0	0	0	0	88	38	40
20:00	0	0	0	7	25	19	5	0	1	0	0	0	0	0	0	57	39	42
21:00	0	0	1	6	36	19	2	0	0	0	0	0	0	0	0	64	37	39
22:00	0	0	0	3	15	17	1	0	0	0	0	0	0	0	0	36	38	40
23:00	0	0	2	2	7	5	1	0	0	0	0	0	0	0	0	17	39	40
Total	11	30	47	251	836	602	100	7	2	0	0	0	0	0	0	1886		
Percent	0.6%	1.6%	2.5%	13.3%	44.3%	31.9%	5.3%	0.4%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak		08:00	10:00	08:00	08:00	11:00	08:00	06:00	02:00							08:00		
Vol.		5	4	20	79	46	7	1	1							156		
PM Peak	15:00	15:00	15:00	17:00	17:00	13:00	12:00	12:00	20:00							15:00		
Vol.	10	17	13	36	81	51	11	2	1							163		

Connecticut Counts LLC
63 Sugar Maple Lane
Kensington, Connecticut 06037
(860) 828-1693

Sowans Road at Sowans Nursery Drive
 Barrington, Rhode Island

Site Code: 3810
 Station ID:

Southbound Latitude: 0' 0.000 Undefined

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total	85th Percent	95th Percent
12/23/15	0	0	0	1	4	2	2	0	0	0	0	0	0	0	9	35	35
01:00	0	0	0	2	2	1	0	0	1	0	0	0	0	0	6	*	*
02:00	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	*	*
03:00	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2	*	*
04:00	0	0	0	0	2	2	0	0	0	0	0	0	0	0	4	*	*
05:00	0	0	0	3	3	1	1	0	0	0	0	0	0	0	8	32	33
06:00	0	0	4	8	5	7	0	0	0	0	0	0	0	0	24	37	39
07:00	0	0	1	9	32	27	7	1	0	0	0	0	0	0	77	39	42
08:00	0	0	2	14	39	46	17	0	1	0	0	0	0	0	119	40	43
09:00	0	0	7	11	31	36	10	2	1	0	0	0	0	0	98	39	43
10:00	0	0	2	10	34	47	17	2	0	0	0	0	0	0	112	40	43
11:00	0	0	2	9	45	61	10	0	1	0	0	0	0	0	128	39	41
12 PM	0	0	1	5	55	68	18	0	0	0	0	0	0	0	147	40	42
13:00	0	0	3	8	33	33	3	1	0	0	0	0	0	0	81	38	40
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	0	0	22	80	288	331	85	6	4	0	0	0	0	0	816		
Percent	0.0%	0.0%	2.7%	9.8%	35.3%	40.6%	10.4%	0.7%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%			
AM Peak			09:00	08:00	11:00	11:00	08:00	09:00	01:00						11:00		
Vol.			7	14	45	61	17	2	1						128		
PM Peak			13:00	13:00	12:00	12:00	12:00	13:00							12:00		
Vol.			3	8	55	68	18	1							147		
Total	16	36	92	464	1554	1336	253	25	6	0	0	0	0	0	3782		
Percent	0.4%	1.0%	2.4%	12.3%	41.1%	35.3%	6.7%	0.7%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%			

15th Percentile : 28 MPH
 50th Percentile : 34 MPH
 85th Percentile : 39 MPH
 95th Percentile : 41 MPH

Stats
 10 MPH Pace Speed : 31-40 MPH
 Number in Pace : 2608
 Percent in Pace : 69.0%
 Number of Vehicles > 30 MPH : 3019
 Percent of Vehicles > 30 MPH : 79.8%
 Mean Speed(Average) : 34 MPH

Sowans Road at Sowans Nursery Drive
Barrington, Rhode Island

Connecticut Counts LLC
63 Sugar Maple Lane
Kensington, Connecticut 06037
(860) 828-1693

Site Code: 3810
Station ID:

Latitude: 0' 0.000 Undefined

Start Time	21-Dec-15		Tue		Wed		Thu		Fri		Sat		Sun		Week Average	
	Northbound	Southbo	Northbo	Southbo												
12:00 AM	*	*	2	9	8	9	*	*	*	*	*	*	*	*	5	9
01:00	*	*	8	3	1	6	*	*	*	*	*	*	*	*	4	4
02:00	*	*	3	6	3	1	*	*	*	*	*	*	*	*	3	4
03:00	*	*	0	1	0	2	*	*	*	*	*	*	*	*	0	2
04:00	*	*	4	3	3	4	*	*	*	*	*	*	*	*	4	4
05:00	*	*	14	17	9	8	*	*	*	*	*	*	*	*	12	12
06:00	*	*	29	29	38	24	*	*	*	*	*	*	*	*	34	26
07:00	*	*	158	105	89	77	*	*	*	*	*	*	*	*	124	91
08:00	*	*	114	156	110	119	*	*	*	*	*	*	*	*	112	138
09:00	*	*	100	96	124	98	*	*	*	*	*	*	*	*	112	97
10:00	*	*	130	111	130	112	*	*	*	*	*	*	*	*	130	112
11:00	*	*	131	125	129	128	*	*	*	*	*	*	*	*	130	126
12:00 PM	*	*	155	120	153	147	*	*	*	*	*	*	*	*	154	134
01:00	127	118	126	138	84	81	*	*	*	*	*	*	*	*	112	112
02:00	144	153	151	147	*	*	*	*	*	*	*	*	*	*	148	150
03:00	152	171	142	163	*	*	*	*	*	*	*	*	*	*	147	167
04:00	141	146	157	134	*	*	*	*	*	*	*	*	*	*	149	140
05:00	136	132	134	147	*	*	*	*	*	*	*	*	*	*	135	140
06:00	101	127	106	114	*	*	*	*	*	*	*	*	*	*	104	120
07:00	69	87	81	88	*	*	*	*	*	*	*	*	*	*	75	88
08:00	55	64	53	57	*	*	*	*	*	*	*	*	*	*	54	60
09:00	40	46	37	64	*	*	*	*	*	*	*	*	*	*	38	55
10:00	12	25	14	36	*	*	*	*	*	*	*	*	*	*	13	30
11:00	10	11	10	17	*	*	*	*	*	*	*	*	*	*	10	14
Lane	987	1080	1859	1886	881	816	0	0	0	0	0	0	0	0	1809	1835
Day	2067		3745		1697		0	0	0	0	0	0	0	0	3644	
AM Peak			07:00	08:00	10:00	11:00									10:00	08:00
Vol.			158	156	130	128									130	138
PM Peak	15:00	15:00	16:00	15:00	12:00	12:00									12:00	15:00
Vol.	152	171	157	163	153	147									154	167

Comb. Total 2067 3745 1697 0 0 0 0 3644

ADT ADT 3,745 AADT 3,745