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MEMORANDUM

To: Beth Rudolph, P.E., Town of Winchester Town Engineer

From: Heather Georgallas, EIT, Toole Design Group

Date: October 16, 2018

Project: 60138 – Transportation Safety Assessment

Subject: St. Thomas More Drive – Winchester, Massachusetts

Toole Design Group (Toole Design), on behalf of the Town of Winchester (referred to herein as the "Town"), has conducted a transportation safety assessment and developed associated conceptual improvements for the roadway of St. Thomas More Drive, between Aristotle Drive and Socrates Way/Wainwright Road. This memorandum provides a summary of existing traffic conditions along St. Thomas More Drive and quantified conceptual countermeasures to address neighborhood resident concerns.

Traffic Safety and pedestrian comfort issues along St. Thomas More Drive have been raised by neighborhood residents. In response to these concerns, the Town has initiated this traffic calming assessment of St. Thomas More Drive to identify potential traffic calming roadway improvements. A desire for an all-way stop control at the intersections was expressed by the residents of the neighborhood. Toole Design analyzed the feasibility of a multi-way stop sign control along with other traffic calming measures in the following study.

EXECUTIVE OVERVIEW

Based on our investigation, roadway improvements are justified along the St. Thomas More Drive corridor to address the concerns of residents. The primary concerns of the residents are excessive vehicular speeds, cut-through vehicular traffic, and confusion between vehicles knowing who has the right-of-way at the uncontrolled intersections along the corridor. The traffic data documented herein indicates that vehicles are using the study area roadways as a commuting cut-through corridor to access Route 3 and to avoid Route 3 at Wildwood Street intersection.

Traffic calming measures to address roadway safety vary from signage and pavement markings to the potential construction of vertical elements and realignment of roadway curbing. It is important to note that certain aspects of the design for traffic calming measures suggested in this study for the intersection of St. Thomas More Drive at Aristotle Drive as part of the conceptual traffic calming plan will require additional engineering study to establish final design and details.

STUDY AREA

The study area encompasses St. Thomas More Drive from Aristotle Drive to the west and Socrates Way to the east. (**Figure 1).** Detailed discussion of the various physical elements of the study area are presented below.

Figure 1 – Study Location Map

St. Thomas More Drive Corridor

St. Thomas More Drive is 0.2-mile two-way roadway and curves in the general eastbound-westbound direction. The western end forms an intersection with Aristotle Drive and Socrates Way which intersects at the eastern end of the corridor. Aquinas Path intersecting from the south in the middle of the corridor.

The corridor is in a suburban neighborhood lined with single-family residential homes on both sides of the street. The residential homes within the neighborhood have multi-vehicle garages and individual driveways that intersect the corridor. Parking is unrestricted along both sides of the street; however, it was noted that no vehicles were parking on-street during the site visit. Each residential home has its own driveway that intersect the corridor. The paved travel way varies from 26 to 30 feet in width and consists of one unmarked travel lane in each direction. The speed limit for this roadway is 30 mph. There are no sidewalks, crosswalks, or curb ramps located along the study area. No bicycle accommodations provided along the study area corridor.

Figure 2 – St. Thomas More Drive at Aristotle Drive

St. Thomas More Drive at Aristotle Drive

The intersection of St. Thomas More Drive at Aristotle Drive is a three-legged uncontrolled T-intersection located at the western end of the study area (**Figure 2**). Aristotle Drive runs in the general northbound-southbound direction while St. Thomas More Drive intersects from the east.

All approaches consist of one unmarked general-purpose travel lane in each direction. There are no sidewalks, crosswalks, and accessibility ramps provided at the intersection. Granite curbs line the radii of the corners of the intersection.

Figure 3 – St. Thomas More Drive at Aquinas Path

St. Thomas More Drive at Aquinas Path

The intersection of St. Thomas More Drive at Aquinas Path is a three-legged uncontrolled T-intersection located in the center of the study area (**Figure 3**). St. Thomas More Drive runs in the general eastbound-westbound direction with Aquinas Path intersecting from the south. Opposite Aquinas Path is a private residential driveway.

All approaches consist of one unmarked general-purpose travel lane in each direction. There is no stop control at the intersection. There are no sidewalks, crosswalks, wheelchair ramps, or bicycle facilities in the intersection.

Figure 4 – St. Thomas More Drive at Socrates Way and Wainwright Road

St. Thomas More Drive at Socrates Way and Wainwright Road

The intersection of St. Thomas More Drive at Socrates Way and Wainwright Road is a three-legged uncontrolled T-intersection at the eastern extent of the study area. St. Thomas More Drive runs in the general northbound-southbound direction and turns into Wainwright Road at the intersection with Socrates Way, which intersects from the south (**Figure 4**).

All approaches consist of one general purpose travel lane in each direction. St. Thomas More Drive and Socrates Way are both unmarked roadways while Wainwright Road has a double yellow centerline separating the travel directions. There is no stop control at the intersection. There are no sidewalks, crosswalks, accessibility ramps provided at the intersection. Granite curbs line the radii of the corners of the intersection.

EXISTING TRAFFIC CONDITIONS

A summary of the existing conditions for the St. Thomas More Drive corridor is provided below. A site visit was conducted on September 10, 2018 to collect site photos and measurements. Traffic volume, speed, and crash history data were collected and used in evaluating the necessity for all-way stop-controlled intersections and other traffic calming measures potentially essential for the study area.

2017 Vehicular Traffic Volume and Speed Data

Traffic volume and speed data previously collected in 2017 along St. Thomas More Drive was provided by the Town. Data was collected between December 5 and December 8, 2017 and provided in the form of a bar chart and two summary tables, one for each travel direction. The table and bar graph are provided as **Attachments to this document**.

A summary table of the data provided by the Town is shown in **Table 1**. The weekday average daily traffic (ADT) along St. Thomas More Drive is approximately 530 vehicles per day (vpd) with approximately 57% of the traffic traveling westbound and approximately 43% traveling eastbound. The speed limit for the corridor is 30 mph, however, there is no speed limit signage currently provided. The 85th percentile speeds (speed at, or below which 85 percent of all observed vehicles travel) along St. Thomas More Drive are 32 mph and 30 mph in the westbound and eastbound directions, respectively.

Table 1 – Existing Traffic Data Summary for St. Thomas More Drive

	Daily Volume [a]	Morning Peak Hour Volume [b]	Evening Peak Hour Volume [b]	Speed Limit (mph)	85th Percentile Speed (mph) [c]
Eastbound	230	22	28	30	30
Westbound	306	28	31	30	32
Total	536	30	22	-	-

[a] Average vehicles per day
[b] Average vehicles per hour
[c] Speed at which 85% of vehicles are at or below.

Vehicle speeds are particularly concerning given the curved geometry of the roadway and the residential character of the neighborhood. Given the data provided, there is a weekday average of about 46 vehicles traveling above 32 mph, above the speed limit of 30 mph. The corridor has two curves that hinder sight line distances and hides numerous residential driveways from drivers. This combination is concerning for vehicles that back out of driveways into the roadway where oncoming vehicles may not have clear or adequate stopping sight distance.

2018 Vehicular Traffic Volume Data

Vehicular, pedestrian, and bicycle traffic volumes within the study area were obtained through peak hour manual turning movement counts (TMCs). Counts were performed on a typical weekday in September from 7:00 AM to 10:00 AM and 2:00 PM and 7:00 PM at the following two locations:

- St. Thomas More Drive at Aristotle Drive
- St. Thomas More Drive at Socrates Way

Based on the traffic counts collected, the weekday morning peak hour period for the intersections of St. Thomas More Drive at Aristotle Drive and St. Thomas More Drive at Socrates Way occurred between 7:45 AM to 8:45 AM and 7:15 AM to 8:15 AM, respectively. The weekday evening peak hour period for both intersections occurred between 5:00 PM and 6:00 PM.

All raw count data are provided within the **Attachments**. **Figures 5 and 6** graphically present the collected 2018 vehicular volumes for the weekday morning and evening peak hours, respectively.

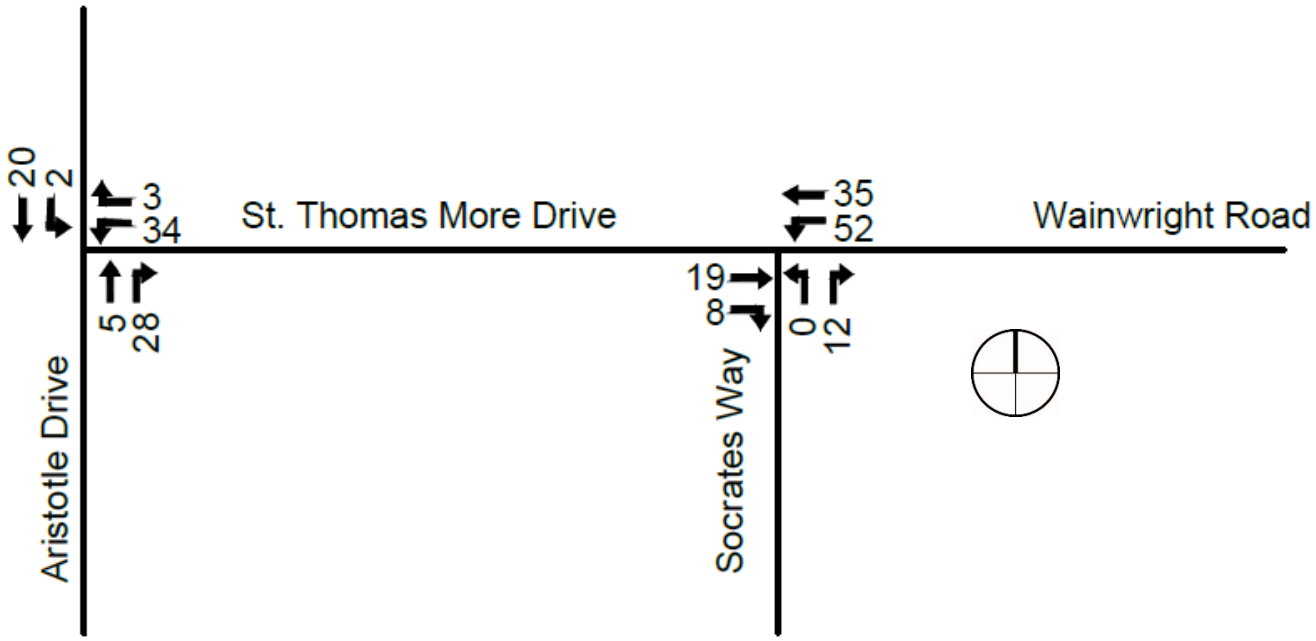


Figure 5 – 2018 Existing Vehicular Traffic Volumes – Weekday Morning Peak Hour

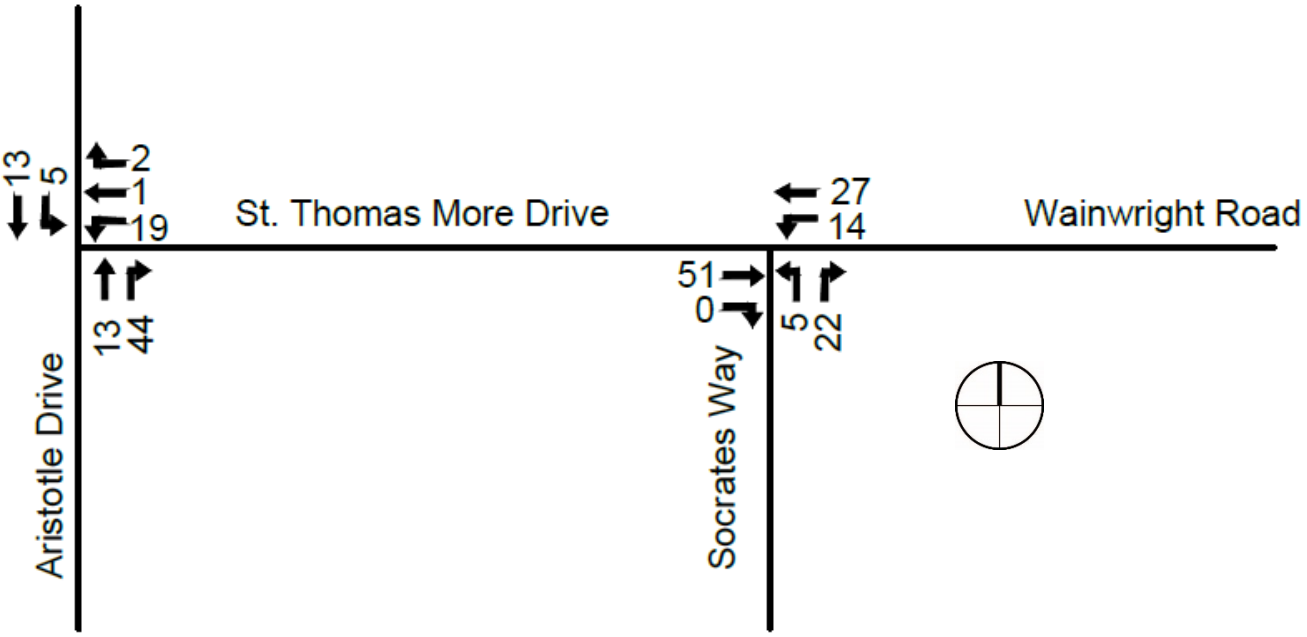


Figure 6 – 2018 Existing Vehicular Traffic Volumes – Weekday Evening Peak Hour

Cut-Through Traffic and Residential Comfort

One of the primary concerns neighborhood residents raised was the use of St. Thomas More Drive as a cut-through to access Route 3, avoiding the Route 3 at Wildwood Street intersection. Based on traffic volumes collected, the use of St. Thomas More Drive as a cut-through roadway is evident. The traffic volumes collected demonstrate that heaviest volumes occur in the following movements:

1. Right turn from Aristotle Drive to St. Thomas More Drive;
2. Through from St. Thomas More Drive into Wainwright Drive;
3. Right turn from Socrates Way to Wainwright Drive;
4. Left turn from Wainwright Drive to Socrates Way;
5. Through from Wainwright Drive into St. Thomas More Drive; and
6. Left turn from St. Thomas More Drive to Aristotle Drive.

Movements 1 through 3 show that St. Thomas More Drive and Wainwright Road are being used as a cut-through route to Route 3 for eastbound traffic, via Aristotle Drive and/or Socrates Way. Movements 4 through 6 show that the study area corridor is being used as a cut-through route for westbound traffic, via Aristotle Drive and Socrates Way. **Figures 7 and 8** weighs and visually depicts the volumes based on the heaviness of the turn movement.

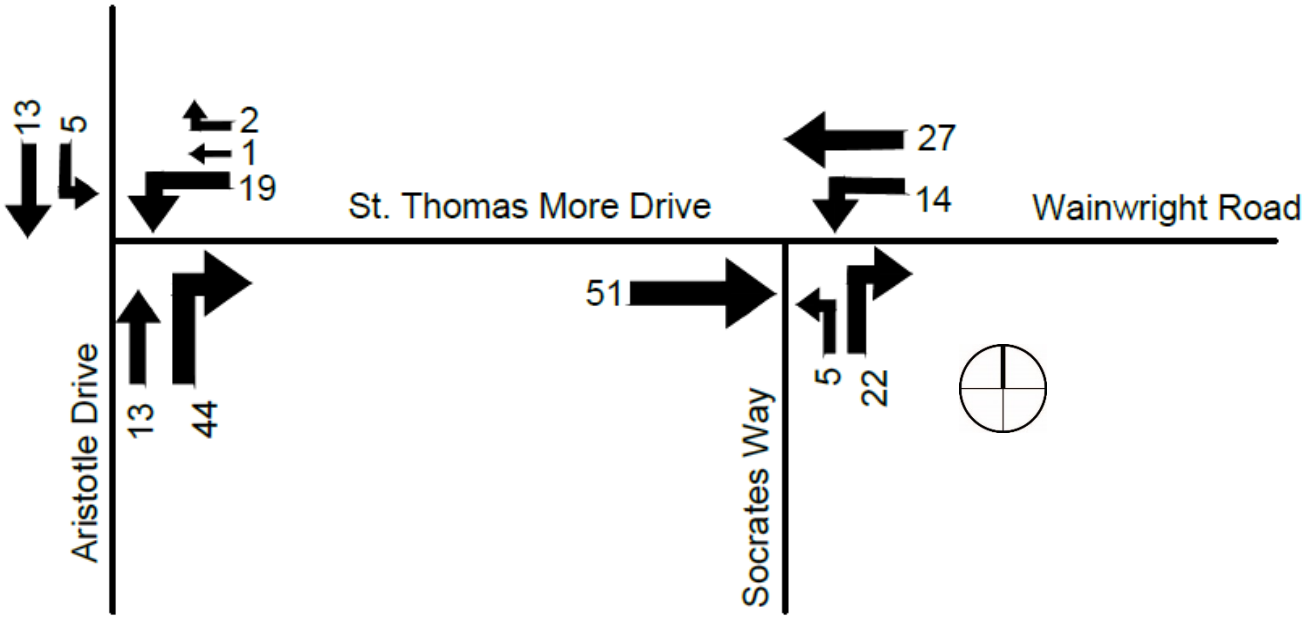


Figure 7 – 2018 Existing Vehicular Traffic Volumes Weighed – Weekday Morning Peak Hour

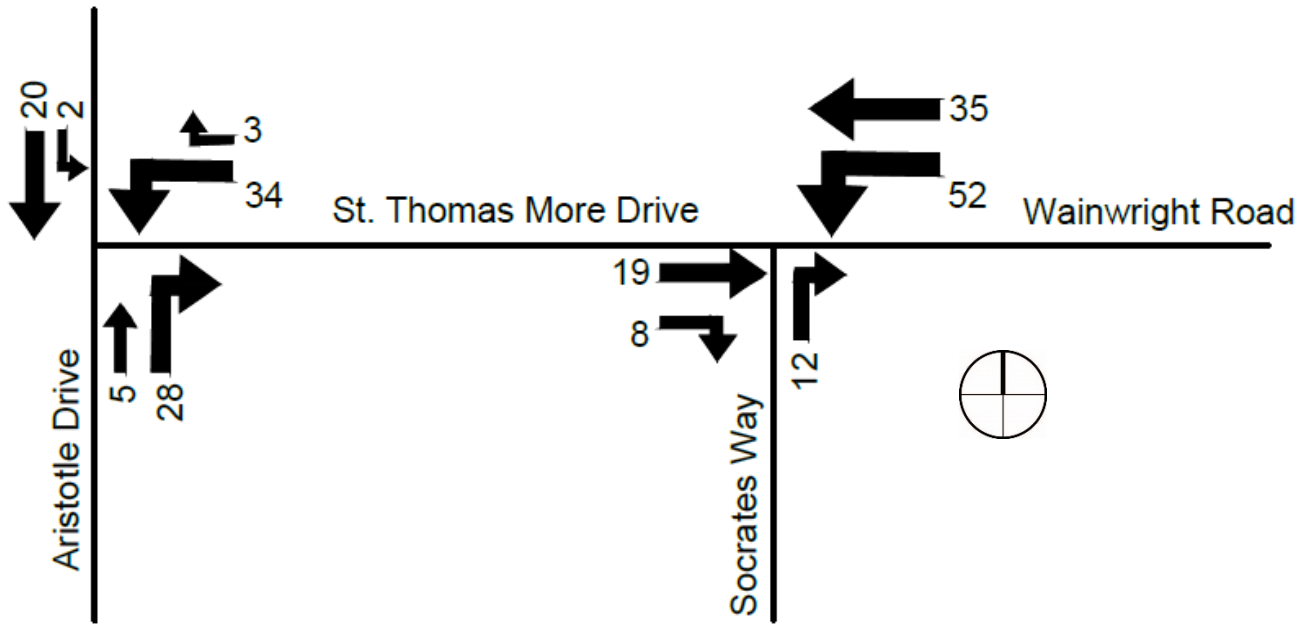


Figure 8 – 2018 Existing Vehicular Traffic Volumes Weighed – Weekday Evening Peak Hour

Large volumes of pass-through traffic that do not need to drive through a dense residential neighborhood is undesirable for the residents, vehicles, particularly those traveling at higher speed, can also be noisy and cause a nuisance. Given the absence of sidewalks in the neighborhood this condition also creates a potentially unsafe environment to vulnerable users such as pedestrians and bicyclists.

Cut-through traffic is recognized from the data when viewing the turning movement counts and overlapping the volumes over a larger regional area. It can be interpreted that vehicles are traveling from Johnson Street to Cambridge Street (Route 3), via the St. Thomas More Drive corridor, to drive a shorter distance and to avoid congestion at the signalized intersection of Wildwood Road at Cambridge Street. **Figure 9** demonstrates the described cut-through routes.

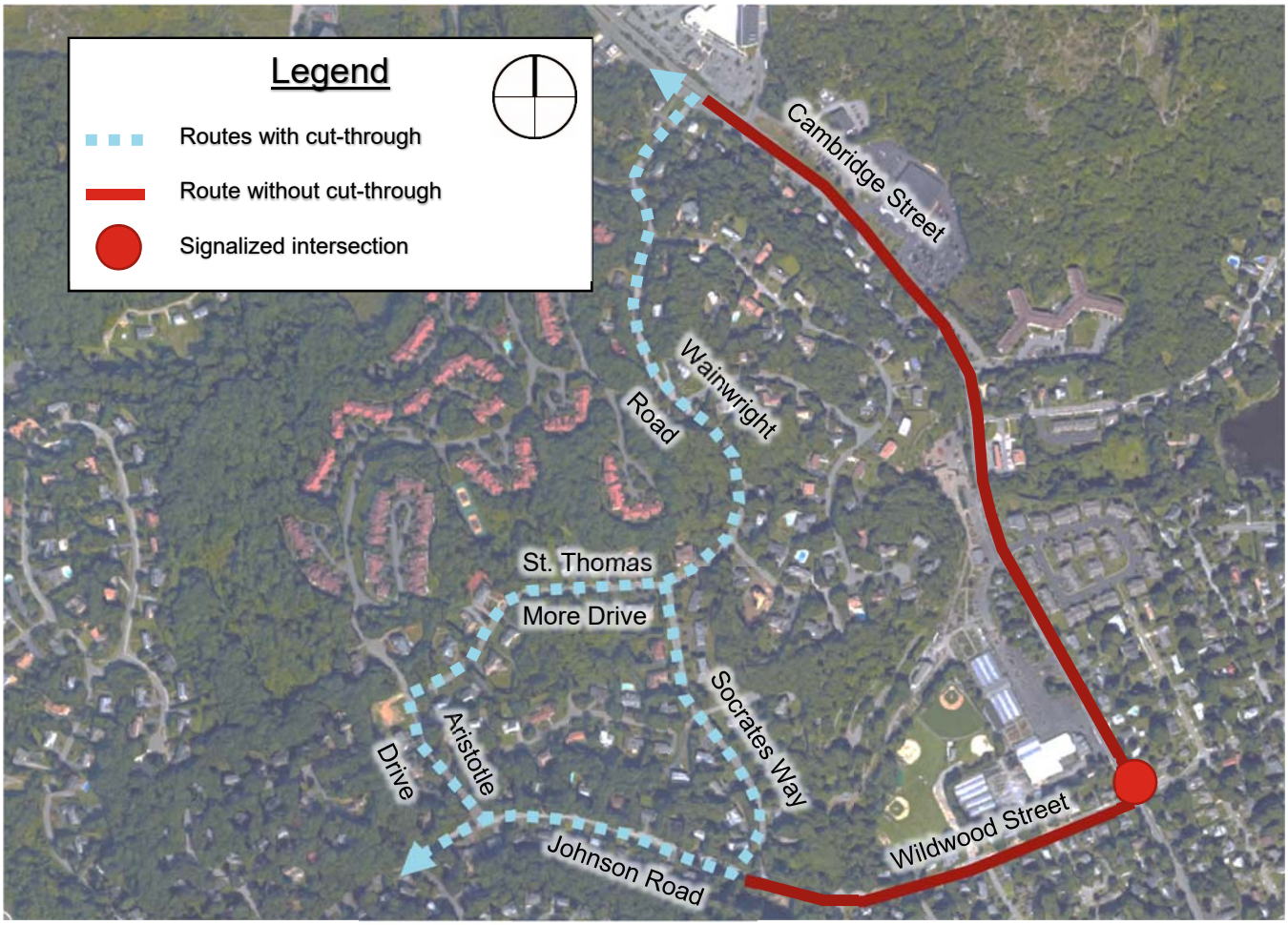


Figure 9 – Interpreted Routes for Cut-Through Traffic

STOP CONTROL ANALYSIS

When considering stop controlling an approach at an intersection, a number of factors should be considered: traffic volumes, crash history, and restricted views. This section will describe how each of these factors were considered and how they do or do not warrant stop control implementation.

Traffic Control Signal Warrant Analysis

As previously mentioned, traffic volumes were collected at the intersection of St. Thomas More Drive at Aristotle Drive and St. Thomas More Drive at Socrates Way. Toole Design evaluated the two study area intersections for volume-related warrants for traffic control signal installation as dictated by the *Manual on Uniform Traffic Control Devices* (MUTCD)[1], a Federal Highway Administration Publication. According to the MUTCD Section 4B.04 Alternatives to Traffic Control Signals, multi-way stop sign control can be used as an alternative to traffic control signal if the warrants were satisfied. The existing traffic volume data were compared with the following MUTCD warrants:

[1] *Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD)*; Washington, D.C.: U.S.; Department of Transportation, Federal Highway Administration, 2010.

- Warrant 1 – Eight Hour Vehicle Volume
    - Condition A – Minimum Vehicular Volume
    - Condition B – Interruption of Continuous Traffic
    - Combination of Condition A and B
- Warrant 2 – Four-Hour Vehicular Volume
- Warrant 3 – Peak-Hour Vehicular Volume

In accordance with the MUTCD, a traffic control signal or multi-way stop sign may only be installed if at least one of the signal warrants is met. A number of factors, however, are involved in determining if a signal control should be installed, including intersection operations, safety, and engineering judgment. It is not common to install a traffic control signal on the basis of the peak-hour warrant alone. Preferably, at least one of the eight-hour (Warrant 1, Condition A or B) should be met before signal control is considered. The peak-hour volume warrant is applied only in unusual cases such as driveways serving large office/industrial complexes, manufacturing plants, or high-occupancy vehicle facilities that attract or discharge large numbers of vehicles over a short period of time. In addition, the combination of Conditions A and B under Warrant 1 should only be applied after an adequate trial of other alternatives that could cause less delay and inconvenience to traffic has failed to solve the traffic problems.

To evaluate the signal warrants at the intersections, the TMCs that were collected in September 2018 were used. **Table 2** summarizes the results of the signal warrant analyses.

Table 2 – Traffic Signal Warrant Analysis Summary – Existing Traffic Volumes

	Warrant No. 1			**Warrant No. 2**	**Warrant No. 3**
Location	**A**	**B**	**Combo**		
St. Thomas More Drive at Aristotle Drive	No	No	No	No	No
St. Thomas More Drive at Socrates Way	No	No	No	No	No

As shown in **Table 2**, neither intersection meets the requirements to satisfy any of the traffic control signal warrants. The warrant analysis worksheets are provided in the **Attachments**.

Crash History Data

Crash data for the study area were collected from the Massachusetts Department of Transportation (MassDOT) Crash Portal for the most recent five-year period available (2012 through 2016). Based on the crash data collection effort, there were no crashes reported along St. Thomas More Drive within the five-year period. It is important to note that the MassDOT crash portal does not account for near-miss crashes or crashes that resulted in minor or no damage. These crashes may not have been significant enough for parties involved to submit reports. Toole Design also requested crash reports for any potential reported crashes along the corridor from the Town of Winchester Police Department (WPD) for the most recent five-year period available (2013 through 2017). At the time of this submission, the WPD has not yet followed up with the St. Thomas More Drive crash request. Due to the crash history collected, crash records alone do not warrant the installation of a stop sign.

Sight Distance Analysis

To assess the potential need for stop controlling one or more approaches at any of the study area intersections, Toole Design performed sight distance analyses to identify any safety concerns associated with the three

intersections. The sight distances have been evaluated to determine if the available sight distance for vehicles turning from minor roads have sufficient sight distance to safely make the judgment to proceed with making a turn. The available sight distances were compared with the minimum requirement, as established by MassDOT's Design Guide[2].

Intersection sight distance (ISD) is provided on minor street approaches to allow the drivers of stopped vehicles a sufficient view of the major roadway to decide when to enter the major roadway. By definition, ISD is the minimum distance required for a vehicle exiting a minor street to turn onto the major street, without being overtaken by an approaching vehicle reducing its speed from the design speed to 70 percent of the design speed. The ISD is measured from an eye height of 3.5 feet to an object height of 3.5 feet above street level.

The available ISD at the three study area intersections were measured in the field and compared to minimum requirements as established by the American Association of State Highway and Transportation Officials (AASHTO) and MassDOT's Project Development and Design Guide. The distance required to stop a vehicle is dependent on the speed of that vehicle. As previously mentioned, speed measurements were provided by the Town for the corridor. The results of the speed measurements are summarized above in **Table 1**. Based on the 85th percentile speeds along St. Thomas More Drive and Aristotle Drive, the ISD requirements for the three study area intersections were calculated. The required minimum sight distances are compared to the available sight distances, as shown in **Table 3**. The sight distance analysis worksheets are provided in the **Attachments**.

Table 3 – Sight Distance Summary

	Intersection Sight Distance (ISD)		
	Minimum Required [a]	**Desired**	**Measured**
St. Thomas More Drive at Aristotle Drive			
North of the Intersection	200'	290'	330'
South of the Intersection	220'	355'	350'
St. Thomas More Drive at Aquinas Path			
East of the Intersection	200'	290'	400'
West of the Intersection	220'	355'	255'
St. Thomas More Drive at Socrates Way and Wainwright Road			
East of the Intersection	200'	290'	**130'**
West of the Intersection	220'	355'	500'

a Based on Project Development & Design Guide requirements

As shown above, a review of the sight lines indicated that the intersection sight distance east of St. Thomas More Drive at Socrates Way/Wainright Road is insufficient and less than MassDOT's minimum requirement based on the Project Development and Design Guide. Most other sight distances are above the minimum requirement but below the desired distance. To ensure safety and comfort for the residents, improvements can be recommended so that the effects of having a desired distance can be met.

STUDY AREA CONCEPTUAL SAFETY IMPROVEMENTS

Toole Design's observations and data collection support the consideration of targeted safety and comfort improvements to the corridor. Toole Design identified where stop signs are recommended and potential other traffic calming elements at specific locations to address the issues identified in this assessment.

[2] *Project Development and Design Guide*; Massachusetts Highway Department; 2006.

St. Thomas More Drive and Aquinas Path

The intersection of St. Thomas More Drive and Aquinas Path is a three-legged unsignalized T-intersection. Currently, there are no signs for traffic management on any of the approaches. Toole Design performed a sight distance analysis to determine any potential safety concerns. As shown in **Table 2**, the minimum ISD measurements are met, however the desired ISD for vehicles turning left from Aquinas Path onto St. Thomas More Drive were not met. **Figures 10 and 11** show the available sight lines from Aquinas Path. To address the potential safety and comfort concerns at the intersection, Toole Design recommends installing a stop sign and stop bar for the Aquinas Path approach.

Figure 10 – Looking left (west) along St. Thomas More Drive from Aquinas Path

Figure 11 – Looking right (east) along St. Thomas More Drive from Aquinas Path

The estimated cost associated with installing a stop sign and stop bar for the intersection of St. Thomas More Drive and Aquinas Path is $200.

St. Thomas More Drive and Socrates Way

The intersection of St. Thomas More Drive and Aristotle Drive is a three-legged uncontrolled T-intersection. A traffic signal control warrant analysis was performed to potentially justify the installation of stop signs. As seen in **Table 1**, the warrants based on traffic volumes alone were not satisfied. Since the warrants cannot be met on the basis of traffic volumes, Toole Design performed sight distance analysis to determine any potential safety concerns. Based on field measurements, there is insufficient available ISD for vehicles turning right from Socrates Way onto Wainwright Road. **Figures 12 and 13** show the available sight lines from Socrates Way.

Figure 12 – Looking left (west) along St. Thomas More Drive from Socrates Way

Figure 13 – Looking rght (east) along St. Thomas More Drive from Socrates Way

As shown in Figure 13, the tree located on the southeast corner of the intersection impedes on available sight lines from Socrates Way when looking right (east). Consideration should be given to trimming back the tree to improve sight lines. Furthermore, upon analyzing the turning movement count data, all approaches of the intersection have similar volumes as shown in **Figures 7 and 8**. For these reasons – to improve safety for all approaches and deter cut-through traffic – Toole Design recommends adding stop signs and stop bars on all approaches of the intersection.

The estimated cost associated with the recommended stop signs and stop bars for the intersection of St. Thomas More Drive and Socrates Way is $400.

St. Thomas More Drive and Aristotle Drive

The intersection of St. Thomas More Drive and Aristotle Drive is an uncontrolled three-legged intersection. Toole Design performed a traffic control signal warrant analysis to justify the installation of stop signs. As seen in **Table 2**, the warrants were not satisfied. Since the warrants were not met on the basis of traffic volumes, Toole Design performed sight distance analysis to determine any potential safety concerns. Available sight lines at the intersection were identified to be sufficient (**Figures 14 and 15**).

Figure 14 – Looking left (west) along Aristotle Drive from St. Thomas More Drive

Figure 15 – Looking right (east) along Aristotle Drive from St. Thomas More Drive

To slow down vehicles, deter cut-through vehicles, and better manage traffic from all three approaches, Toole Design recommends constructing a neighborhood traffic circle, potentially with splitter islands on each approach, at the intersection. The traffic circle may include curbing and landscaping with proper warning and guidance signage. The splitter islands should be mountable for delivery and emergency vehicles. Toole Design conceptually analyzed the space available to determine the feasibility of retrofitting a neighborhood traffic circle. According to the National Association of City Transportation Officials (NACTO), it is recommended that approximately 15 feet of clearance is provided between the corners of the intersections and the edge of the traffic circle.

Toole Design developed the conceptual drawing shown in **Figure 16** to visualize how a neighborhood traffic circle will be integrated into the existing infrastructure. Additional engineering is required to size the traffic circle and splitter islands appropriately and determine any appropriate landscaping and signage. The neighborhood traffic circle will serve mostly to slow down traffic on Aristotle Drive and, in conjunction with other improvements on St. Thomas More Drive, discourage cut-through traffic from traveling down the corridor. The splitter islands will angle the vehicles to have better sight lines when entering the traffic circle as well as provide for a smooth transition into the traffic circle. The traffic circle will also slow down the turns onto and out of St. Thomas More Drive, reminding motorists that they are in a residential neighborhood and should proceed with slower speeds.

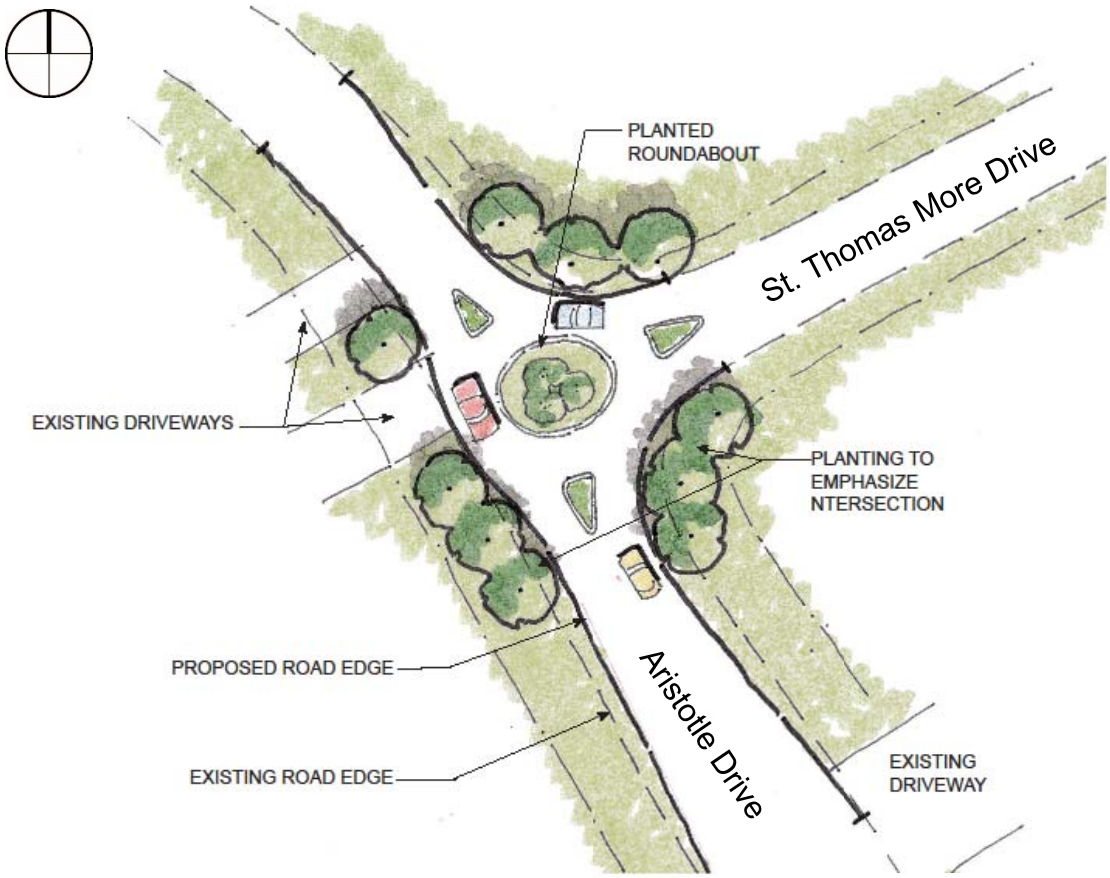


Figure 16 – Neighborhood traffic circle concept at St. Thomas More Drive and Aristotle Drive

Many neighborhood traffic circles have already been tested and installed in communities across the country, such as Seattle, Washington.

One example of a neighborhood traffic circle is the one at the intersection of 18th Avenue NW and NW 73rd Street in the Ballard neighborhood in Seattle (**Figure 17**). The existing setup of the intersection is similar to that of St. Thomas More Drive and Aristotle Drive in terms of similar roadway widths and intersection space. Both intersections have around 25 feet of roadway width and 45 feet of space in diameter available in the intersection. In this example, a 15-foot wide neighborhood traffic circle is retrofitted in the center of the 45 feet of space in diameter. Following the NACTO recommendations, there is at least 15 feet of space between the corners of the intersection and the edge of the traffic circle. Landscaping is provided in the center of the traffic circle along with a warning sign.

Figure 17 – Neighborhood Traffic Circle at NW 73rd Street and 18th Avenue NW in Seattle, Washington

Another example is in the neighborhood of Capitol Hill in Seattle at E Harrison Street and 17th Avenue E (**Figure 18**). Again, the existing setup of the intersection is similar to that of St. Thomas More Drive and Aristotle Drive in terms of similar roadway widths and intersection space. Both intersections have around 25 feet of roadway width. W Knox Street and Oakland Avenue has around 60 feet of space in diameter available in the intersection while St. Thomas More Drive and Aristotle Drive have around 45. In this example, a 15 feet wide neighborhood traffic circle is retrofitted in the center of the 60 feet of space in diameter. Following the NACTO recommendations, there is about 20 feet of space between the corners of the intersection and the edge of the traffic circle. Landscaping is provided in the center of the traffic circle along with a warning sign.

Figure 18 – Neighborhood Traffic Circle at E Harrison Street and 17th Avenue in Seattle, Washington

The estimated cost associated with the proposed concept design for the intersection of St. Thomas More Drive and Aristotle Drive is $5,000 (excluding contingency).

CONCLUSION

Toole Design, on behalf of the Town of Winchester, has conducted a Transportation Safety Assessment and provided safety improvements for St. Thomas More Drive. This assessment represents the first step in creating a safer and more comfortable experience for residents, and all users along St. Thomas More Drive. In summary, the recommendations include:

- Stop control the Aquinas Path approach at the intersection with St. Thomas More Drive;
    - Estimated cost: $200
- Stop control all approaches at the intersection of St. Thomas More Drive at Socrates Way and Wainwright Road; and
    - Estimated cost: $400
- Neighborhood traffic circle at the intersection of St. Thomas More Drive at Aristotle Drive.
    - Estimated cost: $5,000

The traffic calming recommendations create a visionary plan for St. Thomas More Drive as a neighborhood slow street – one that lessens discomfort for residents through cutting excess traffic and reducing vehicle speeds. Toole Design hopes that this traffic calming assessment and recommended design will assist the Town of Winchester in creating a safer and more comfortable experience for all residents along St. Thomas More Drive.

ATTACHMENTS

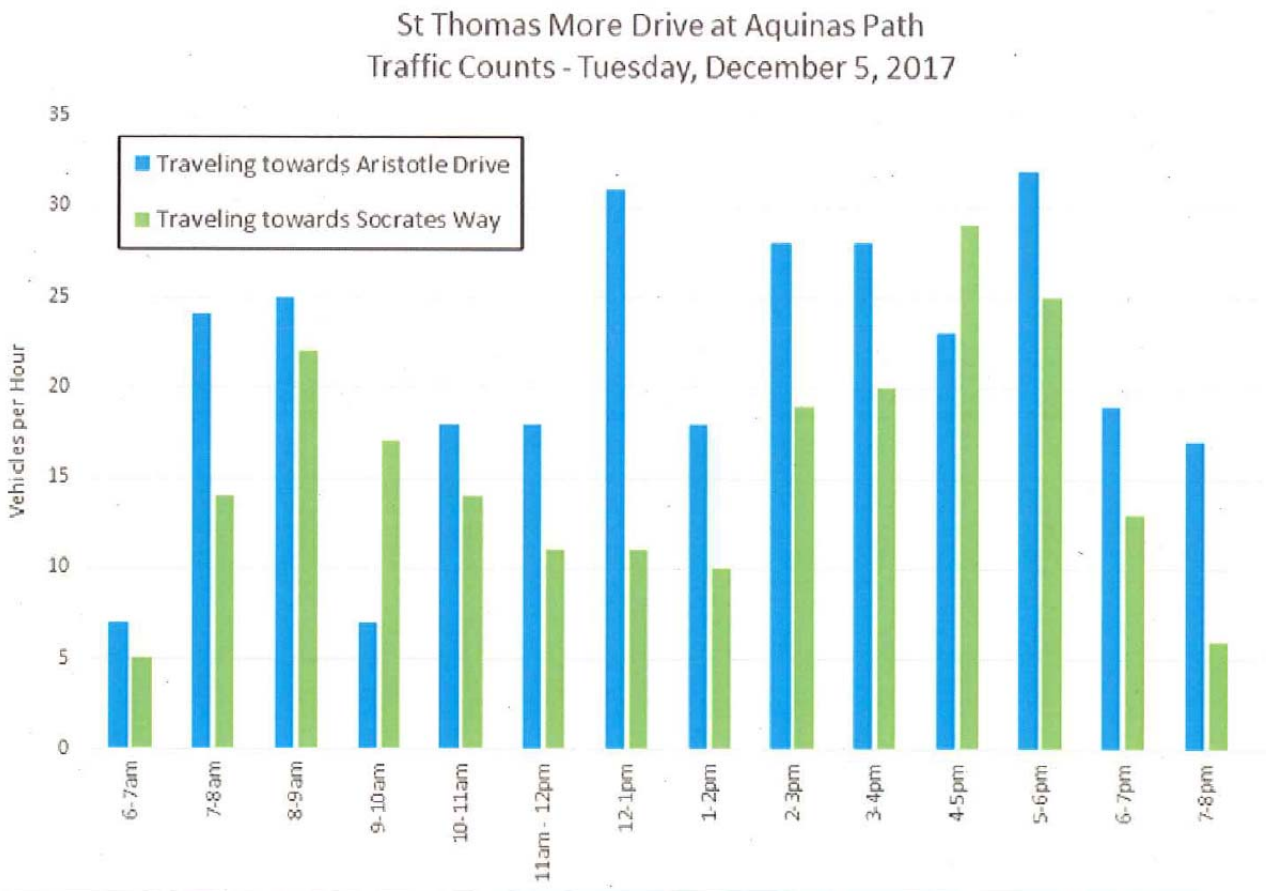
St. Thomas More Drive Vehicular Volume and Speed Data - 2017

St. Thomas More Drive Vehicular Volume and Speed Data - 2018

Traffic Signal / Multi-Way Stop Control Warrant Analysis

Sight Distance Analysis

ST. THOMAS MORE DRIVE
VEHICULAR VOLUME AND SPEED DATA - 2017


St Thomas More Drive at Aquinas Path
Traffic Counts - Tuesday, December 5, 2017
Traveling towards Aristotle Drive
Traveling towards Socrates Way
Vehicles per Hour
35
30
25
20
15
10
5
0
6-7am
7-8am
8-9am
9-10am
10-11am
11am - 12pm
12-1pm
1-2pm
2-3pm
3-4pm
4-5pm
5-6pm
6-7pm
7-8pm

St Thomas More Drive - Going toward Artistotle Drive

Date	Day of the Week	Peak Morning		Peak Afternoon		Total Daily Volume	85% Speed
		Time	#Cars	Time	#Cars		
12/5/2017	Tuesday	8-9am	25	5-6pm	32	319	
12/6/2017	Wednesday	8-9am	32	5-6pm	29	275	
12/7/2017	Thursday	8-9am	27	5-6pm	32	305	
12/8/2017	Friday	11-12pm	27	4-5pm	32	324	32 mph
	Weekday Ave=		28		31	306	

St Thomas More Drive - Going toward Socrates Way

Date	Day of the Week	Peak Morning		Peak Afternoon		Total Daily Volume	85% Speed
		Time	#Cars	Time	#Cars		
12/5/2017	Tuesday	8-9am	22	4-5pm	29	235	
12/6/2017	Wednesday	8-9am	20	5-6pm	26	209	
12/7/2017	Thursday	8-9am	20	4-5pm	30	227	
12/8/2017	Friday	8-9am	27	4-5pm	25	247	30 mph
	Weekday Ave=		22		28	230	

ST. THOMAS MORE DRIVE
VEHICULAR VOLUME AND SPEED DATA - 2018

PDI File #: **186432 A**
Location: **N: Aristotle Drive S: Aristotle Drive**
Location: **E: Saint Thomas More Drive W: Driveway**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **7:00 AM**
End Time: **10:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Aristotle Drive from North					Saint Thomas More Drive from East					Aristotle Drive from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	4	0	0	4	0	0	6	0	6	1	3	0	0	4	1	0	0	0	1	15
7:15 AM	0	2	0	0	2	0	0	7	0	7	1	0	0	0	1	0	0	0	0	0	10
7:30 AM	0	2	0	0	2	0	0	8	0	8	2	1	0	0	3	0	0	0	0	0	13
7:45 AM	0	6	1	0	7	0	0	10	0	10	6	0	0	0	6	0	0	0	0	0	23
Total	0	14	1	0	15	0	0	31	0	31	10	4	0	0	14	1	0	0	0	1	61
8:00 AM	0	5	1	0	6	2	0	11	0	13	10	2	0	0	12	0	0	0	0	0	31
8:15 AM	0	6	0	0	6	0	0	9	1	10	6	2	0	0	8	0	0	0	0	0	24
8:30 AM	0	3	0	0	3	1	0	4	0	5	6	1	0	0	7	0	0	0	0	0	15
8:45 AM	0	5	2	0	7	0	0	4	0	4	5	6	0	0	11	0	0	0	0	0	22
Total	0	19	3	0	22	3	0	28	1	32	27	11	0	0	38	0	0	0	0	0	92
9:00 AM	0	7	0	0	7	0	0	3	0	3	4	2	0	0	6	0	0	0	0	0	16
9:15 AM	0	5	0	0	5	2	0	4	0	6	3	0	0	0	3	0	0	0	0	0	14
9:30 AM	0	7	0	0	7	0	0	2	0	2	2	3	0	0	5	0	0	0	0	0	14
9:45 AM	0	5	1	0	6	2	0	2	0	4	3	4	0	0	7	0	0	0	0	0	17
Total	0	24	1	0	25	4	0	11	0	15	12	9	0	0	21	0	0	0	0	0	61
Grand Total	0	57	5	0	62	7	0	70	1	78	49	24	0	0	73	1	0	0	0	1	214
Approach %	0.0	91.9	8.1	0.0		9.0	0.0	89.7	1.3		67.1	32.9	0.0	0.0		100.0	0.0	0.0	0.0		
Total %	0.0	26.6	2.3	0.0	29.0	3.3	0.0	32.7	0.5	36.4	22.9	11.2	0.0	0.0	34.1	0.5	0.0	0.0	0.0	0.5	
Exiting Leg Total					31					55					128					0	214
Cars	0	57	4	0	61	7	0	69	0	76	44	23	0	0	67	1	0	0	0	1	205
% Cars	0.0	100.0	80.0	0.0	98.4	100.0	0.0	98.6	0.0	97.4	89.8	95.8	0.0	0.0	91.8	100.0	0.0	0.0	0.0	100.0	95.8
Exiting Leg Total					30					48					127					0	205
Heavy Vehicles	0	0	1	0	1	0	0	1	1	2	5	1	0	0	6	0	0	0	0	0	9
% Heavy Vehicles	0.0	0.0	20.0	0.0	1.6	0.0	0.0	1.4	100.0	2.6	10.2	4.2	0.0	0.0	8.2	0.0	0.0	0.0	0.0	0.0	4.2
Exiting Leg Total					1					7					1					0	9

Peak Hour Analysis from 07:00 AM to 10:00 AM begins at:

7:45 AM	Aristotle Drive from North					Saint Thomas More Drive from East					Aristotle Drive from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	0	6	1	0	7	0	0	10	0	10	6	0	0	0	6	0	0	0	0	0	23
8:00 AM	0	5	1	0	6	2	0	11	0	13	10	2	0	0	12	0	0	0	0	0	31
8:15 AM	0	6	0	0	6	0	0	9	1	10	6	2	0	0	8	0	0	0	0	0	24
8:30 AM	0	3	0	0	3	1	0	4	0	5	6	1	0	0	7	0	0	0	0	0	15
Total Volume	0	20	2	0	22	3	0	34	1	38	28	5	0	0	33	0	0	0	0	0	93
% Approach Total	0.0	90.9	9.1	0.0		7.9	0.0	89.5	2.6		84.8	15.2	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.833	0.500	0.000	0.786	0.375	0.000	0.773	0.250	0.731	0.700	0.625	0.000	0.000	0.688	0.000	0.000	0.000	0.000	0.000	0.750
Cars	0	20	2	0	22	3	0	33	0	36	24	5	0	0	29	0	0	0	0	0	87
Cars %	0.0	100.0	100.0	0.0	100.0	100.0	0.0	97.1	0.0	94.7	85.7	100.0	0.0	0.0	87.9	0.0	0.0	0.0	0.0	0.0	93.5
Heavy Vehicles	0	0	0	0	0	0	0	1	1	2	4	0	0	0	4	0	0	0	0	0	6
Heavy Vehicles %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.9	100.0	5.3	14.3	0.0	0.0	0.0	12.1	0.0	0.0	0.0	0.0	0.0	6.5
Cars Enter Leg	0	20	2	0	22	3	0	33	0	36	24	5	0	0	29	0	0	0	0	0	87
Heavy Enter Leg	0	0	0	0	0	0	0	1	1	2	4	0	0	0	4	0	0	0	0	0	6
Total Entering Leg	0	20	2	0	22	3	0	34	1	38	28	5	0	0	33	0	0	0	0	0	93
Cars Exiting Leg					8					26					53					0	87
Heavy Exiting Leg					0					5					1					0	6
Total Exiting Leg					8					31					54					0	93

PDI File #: **186432 A**
Location: **N: Aristotle Drive S: Aristotle Drive**
Location: **E: Saint Thomas More Drive W: Driveway**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **7:00 AM**
End Time: **10:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Aristotle Drive from North					Saint Thomas More Drive from East					Aristotle Drive from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	4	0	0	4	0	0	6	0	6	1	3	0	0	4	1	0	0	0	1	15
7:15 AM	0	2	0	0	2	0	0	7	0	7	1	0	0	0	1	0	0	0	0	0	10
7:30 AM	0	2	0	0	2	0	0	8	0	8	1	1	0	0	2	0	0	0	0	0	12
7:45 AM	0	6	1	0	7	0	0	10	0	10	6	0	0	0	6	0	0	0	0	0	23
Total	0	14	1	0	15	0	0	31	0	31	9	4	0	0	13	1	0	0	0	1	60
8:00 AM	0	5	1	0	6	2	0	10	0	12	8	2	0	0	10	0	0	0	0	0	28
8:15 AM	0	6	0	0	6	0	0	9	0	9	6	2	0	0	8	0	0	0	0	0	23
8:30 AM	0	3	0	0	3	1	0	4	0	5	4	1	0	0	5	0	0	0	0	0	13
8:45 AM	0	5	1	0	6	0	0	4	0	4	5	5	0	0	10	0	0	0	0	0	20
Total	0	19	2	0	21	3	0	27	0	30	23	10	0	0	33	0	0	0	0	0	84
9:00 AM	0	7	0	0	7	0	0	3	0	3	4	2	0	0	6	0	0	0	0	0	16
9:15 AM	0	5	0	0	5	2	0	4	0	6	3	0	0	0	3	0	0	0	0	0	14
9:30 AM	0	7	0	0	7	0	0	2	0	2	2	3	0	0	5	0	0	0	0	0	14
9:45 AM	0	5	1	0	6	2	0	2	0	4	3	4	0	0	7	0	0	0	0	0	17
Total	0	24	1	0	25	4	0	11	0	15	12	9	0	0	21	0	0	0	0	0	61
Grand Total	0	57	4	0	61	7	0	69	0	76	44	23	0	0	67	1	0	0	0	1	205
Approach %	0.0	93.4	6.6	0.0		9.2	0.0	90.8	0.0		65.7	34.3	0.0	0.0		100.0	0.0	0.0	0.0		
Total %	0.0	27.8	2.0	0.0	29.8	3.4	0.0	33.7	0.0	37.1	21.5	11.2	0.0	0.0	32.7	0.5	0.0	0.0	0.0	0.5	
Exiting Leg Total					30					48					127					0	205

Peak Hour Analysis from 07:00 AM to 10:00 AM begins at:

7:45 AM	Aristotle Drive from North					Saint Thomas More Drive from East					Aristotle Drive from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	0	6	1	0	7	0	0	10	0	10	6	0	0	0	6	0	0	0	0	0	23
8:00 AM	0	5	1	0	6	2	0	10	0	12	8	2	0	0	10	0	0	0	0	0	28
8:15 AM	0	6	0	0	6	0	0	9	0	9	6	2	0	0	8	0	0	0	0	0	23
8:30 AM	0	3	0	0	3	1	0	4	0	5	4	1	0	0	5	0	0	0	0	0	13
Total Volume	0	20	2	0	22	3	0	33	0	36	24	5	0	0	29	0	0	0	0	0	87
% Approach Total	0.0	90.9	9.1	0.0		8.3	0.0	91.7	0.0		82.8	17.2	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.833	0.500	0.000	0.786	0.375	0.000	0.825	0.000	0.750	0.750	0.625	0.000	0.000	0.725	0.000	0.000	0.000	0.000	0.000	0.777
Entering Leg	0	20	2	0	22	3	0	33	0	36	24	5	0	0	29	0	0	0	0	0	87
Exiting Leg					8					26					53					0	87
Total					30					62					82					0	174

PDI File #: **186432 A**
Location: **N: Aristotle Drive S: Aristotle Drive**
Location: **E: Saint Thomas More Drive W: Driveway**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **7:00 AM**
End Time: **10:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Aristotle Drive from North					Saint Thomas More Drive from East					Aristotle Drive from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
7:45 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	1	0	0	0	1	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	1	0	1	2	0	0	0	2	0	0	0	0	0	3
8:15 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
8:45 AM	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Total	0	0	1	0	1	0	0	1	1	2	4	1	0	0	5	0	0	0	0	0	8
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 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
Grand Total	0	0	1	0	1	0	0	1	1	2	5	1	0	0	6	0	0	0	0	0	9
Approach %	0.0	0.0	100.0	0.0		0.0	0.0	50.0	50.0		83.3	16.7	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	11.1	0.0	11.1	0.0	0.0	11.1	11.1	22.2	55.6	11.1	0.0	0.0	66.7	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					1					7					1					0	9
Buses	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.1
Exiting Leg Total					0					0					1					0	1
Single-Unit Trucks	0	0	1	0	1	0	0	0	1	1	5	1	0	0	6	0	0	0	0	0	8
% Single-Unit	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	100.0	50.0	100.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	88.9
Exiting Leg Total					1					7					0					0	8
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	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	0.0	0.0	0.0	0.0	0.0
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 07:00 AM to 10:00 AM begins at:

8:00 AM	Aristotle Drive from North					Saint Thomas More Drive from East					Aristotle Drive from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	0	0	0	0	0	0	1	0	1	2	0	0	0	2	0	0	0	0	0	3
8:15 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
8:45 AM	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Total Volume	0	0	1	0	1	0	0	1	1	2	4	1	0	0	5	0	0	0	0	0	8
% Approach Total	0.0	0.0	100.0	0.0		0.0	0.0	50.0	50.0		80.0	20.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.250	0.250	0.500	0.500	0.250	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.667
Buses	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	12.5
Single-Unit Trucks	0	0	1	0	1	0	0	0	1	1	4	1	0	0	5	0	0	0	0	0	7
Single-Unit %	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	100.0	50.0	100.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	87.5
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	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	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Single-Unit Trucks	0	0	1	0	1	0	0	0	1	1	4	1	0	0	5	0	0	0	0	0	7
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	0	1	0	1	0	0	1	1	2	4	1	0	0	5	0	0	0	0	0	8
Buses					0					0					1					0	1
Single-Unit Trucks					1					6					0					0	7
Articulated Trucks					0					0					0					0	0
Total Exiting Leg					1					6					1					0	8

PDI File #: **186432 A**
Location: **N: Aristotle Drive S: Aristotle Drive**
Location: **E: Saint Thomas More Drive W: Driveway**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **7:00 AM**
End Time: **10:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Aristotle Drive					Saint Thomas More Drive					Aristotle Drive					Driveway					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	4	0	0	4	0	0	6	0	6	1	1	0	0	2	1	0	0	0	1	13
7:15 AM	0	2	0	0	2	0	0	6	0	6	1	0	0	0	1	0	0	0	0	0	9
7:30 AM	0	2	0	0	2	0	0	6	0	6	0	1	0	0	1	0	0	0	0	0	9
7:45 AM	0	5	1	0	6	0	0	10	0	10	6	0	0	0	6	0	0	0	0	0	22
Total	0	13	1	0	14	0	0	28	0	28	8	2	0	0	10	1	0	0	0	1	53
8:00 AM	0	5	0	0	5	0	0	8	0	8	8	2	0	0	10	0	0	0	0	0	23
8:15 AM	0	6	0	0	6	0	0	9	0	9	6	1	0	0	7	0	0	0	0	0	22
8:30 AM	0	1	0	0	1	0	0	4	0	4	3	0	0	0	3	0	0	0	0	0	8
8:45 AM	0	5	1	0	6	0	0	4	0	4	5	4	0	0	9	0	0	0	0	0	19
Total	0	17	1	0	18	0	0	25	0	25	22	7	0	0	29	0	0	0	0	0	72
9:00 AM	0	7	0	0	7	0	0	3	0	3	2	2	0	0	4	0	0	0	0	0	14
9:15 AM	0	5	0	0	5	2	0	4	0	6	3	0	0	0	3	0	0	0	0	0	14
9:30 AM	0	5	0	0	5	0	0	2	0	2	2	2	0	0	4	0	0	0	0	0	11
9:45 AM	0	5	0	0	5	1	0	1	0	2	3	4	0	0	7	0	0	0	0	0	14
Total	0	22	0	0	22	3	0	10	0	13	10	8	0	0	18	0	0	0	0	0	53
Grand Total	0	52	2	0	54	3	0	63	0	66	40	17	0	0	57	1	0	0	0	1	178
Approach %	0.0	96.3	3.7	0.0		4.5	0.0	95.5	0.0		70.2	29.8	0.0	0.0		100.0	0.0	0.0	0.0		
Total %	0.0	29.2	1.1	0.0	30.3	1.7	0.0	35.4	0.0	37.1	22.5	9.6	0.0	0.0	32.0	0.6	0.0	0.0	0.0	0.6	
Exiting Leg Total					20					42					116					0	178

Peak Hour Analysis from 07:00 AM to 10:00 AM begins at:

7:30 AM	Aristotle Drive					Saint Thomas More Drive					Aristotle Drive					Driveway					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:30 AM	0	2	0	0	2	0	0	6	0	6	0	1	0	0	1	0	0	0	0	0	9
7:45 AM	0	5	1	0	6	0	0	10	0	10	6	0	0	0	6	0	0	0	0	0	22
8:00 AM	0	5	0	0	5	0	0	8	0	8	8	2	0	0	10	0	0	0	0	0	23
8:15 AM	0	6	0	0	6	0	0	9	0	9	6	1	0	0	7	0	0	0	0	0	22
Total Volume	0	18	1	0	19	0	0	33	0	33	20	4	0	0	24	0	0	0	0	0	76
% Approach Total	0.0	94.7	5.3	0.0		0.0	0.0	100.0	0.0		83.3	16.7	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.750	0.250	0.000	0.792	0.000	0.000	0.825	0.000	0.825	0.625	0.500	0.000	0.000	0.600	0.000	0.000	0.000	0.000	0.000	0.826
Entering Leg	0	18	1	0	19	0	0	33	0	33	20	4	0	0	24	0	0	0	0	0	76
Exiting Leg					4					21					51					0	76
Total					23					54					75					0	152

PDI File #: **186432 A**
Location: **N: Aristotle Drive S: Aristotle Drive**
Location: **E: Saint Thomas More Drive W: Driveway**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **7:00 AM**
End Time: **10:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Aristotle Drive from North					Saint Thomas More Drive from East					Aristotle Drive from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	2
7:15 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	0	0	0	2	0	2	1	0	0	0	1	0	0	0	0	0	3
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	0	1	0	0	3	0	3	1	2	0	0	3	0	0	0	0	0	7
8:00 AM	0	0	1	0	1	2	0	2	0	4	0	0	0	0	0	0	0	0	0	0	5
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
8:30 AM	0	2	0	0	2	1	0	0	0	1	1	1	0	0	2	0	0	0	0	0	5
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
Total	0	2	1	0	3	3	0	2	0	5	1	3	0	0	4	0	0	0	0	0	12
9:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	2	0	0	2	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	3
9:45 AM	0	0	1	0	1	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	3
Total	0	2	1	0	3	1	0	1	0	2	2	1	0	0	3	0	0	0	0	0	8
Grand Total	0	5	2	0	7	4	0	6	0	10	4	6	0	0	10	0	0	0	0	0	27
Approach %	0.0	71.4	28.6	0.0		40.0	0.0	60.0	0.0		40.0	60.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	18.5	7.4	0.0	25.9	14.8	0.0	22.2	0.0	37.0	14.8	22.2	0.0	0.0	37.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					10					6					11					0	27

Peak Hour Analysis from 07:00 AM to 10:00 AM begins at:

7:45 AM	Aristotle Drive from North					Saint Thomas More Drive from East					Aristotle Drive from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:45 AM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	1	0	1	2	0	2	0	4	0	0	0	0	0	0	0	0	0	0	5
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
8:30 AM	0	2	0	0	2	1	0	0	0	1	1	1	0	0	2	0	0	0	0	0	5
Total Volume	0	3	1	0	4	3	0	2	0	5	1	2	0	0	3	0	0	0	0	0	12
% Approach Total	0.0	75.0	25.0	0.0		60.0	0.0	40.0	0.0		33.3	66.7	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.375	0.250	0.000	0.500	0.375	0.000	0.250	0.000	0.313	0.250	0.500	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.600
Entering Leg	0	3	1	0	4	3	0	2	0	5	1	2	0	0	3	0	0	0	0	0	12
Exiting Leg					5					2					5					0	12
Total					9					7					8					0	24

PDI File #: **186432 A**
Location: **N: Aristotle Drive S: Aristotle Drive**
Location: **E: Saint Thomas More Drive W: Driveway**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **7:00 AM**
End Time: **10:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Aristotle Drive					Saint Thomas More Drive					Aristotle Drive					Driveway					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 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
8:00 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 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	1	0	1	0	0	0	0	0	0	0	0	0	0	1
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 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
Grand Total	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	100.0	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	100.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					1					0	1

Peak Hour Analysis from 07:00 AM to 10:00 AM begins at:

7:15 AM	Aristotle Drive					Saint Thomas More Drive					Aristotle Drive					Driveway					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg					0					0					1					0	1
Total					0					1					1					0	2

PDI File #: **186432 A**
Location: **N: Aristotle Drive S: Aristotle Drive**
Location: **E: Saint Thomas More Drive W: Driveway**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **7:00 AM**
End Time: **10:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Aristotle Drive					Saint Thomas More Drive					Aristotle Drive					Driveway					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
7:45 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	1	0	0	0	1	0	0	0	0	0	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
8:45 AM	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Total	0	0	1	0	1	0	0	0	1	1	4	1	0	0	5	0	0	0	0	0	7
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 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
Grand Total	0	0	1	0	1	0	0	0	1	1	5	1	0	0	6	0	0	0	0	0	8
Approach %	0.0	0.0	100.0	0.0		0.0	0.0	0.0	100.0		83.3	16.7	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	12.5	0.0	12.5	0.0	0.0	0.0	12.5	12.5	62.5	12.5	0.0	0.0	75.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					1					7					0					0	8

Peak Hour Analysis from 07:00 AM to 10:00 AM begins at:

8:00 AM	Aristotle Drive					Saint Thomas More Drive					Aristotle Drive					Driveway					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	0	0	2
8:45 AM	0	0	1	0	1	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	2
Total Volume	0	0	1	0	1	0	0	0	1	1	4	1	0	0	5	0	0	0	0	0	7
% Approach Total	0.0	0.0	100.0	0.0		0.0	0.0	0.0	100.0		80.0	20.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.250	0.250	0.500	0.250	0.000	0.000	0.625	0.000	0.000	0.000	0.000	0.000	0.875
Entering Leg	0	0	1	0	1	0	0	0	1	1	4	1	0	0	5	0	0	0	0	0	7
Exiting Leg					1					6					0					0	7
Total					2					7					5					0	14

PDI File #: **186432 A**
Location: **N: Aristotle Drive S: Aristotle Drive**
Location: **E: Saint Thomas More Drive W: Driveway**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **7:00 AM**
End Time: **10:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Aristotle Drive					Saint Thomas More Drive					Aristotle Drive					Driveway					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 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
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 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
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 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
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	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		
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	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					0					0					0	0

Peak Hour Analysis from 07:00 AM to 10:00 AM begins at:

7:00 AM	Aristotle Drive					Saint Thomas More Drive					Aristotle Drive					Driveway					
	from North					from East					from South					from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach 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		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg					0					0					0					0	0
Total					0					0					0					0	0

PDI File #: **186432 A**
Location: **N: Aristotle Drive S: Aristotle Drive**
Location: **E: Saint Thomas More Drive W: Driveway**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **7:00 AM**
End Time: **10:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Aristotle Drive from North							Saint Thomas More Drive from East							Aristotle Drive from South							Driveway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
7:15 AM	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
7:30 AM	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
7:45 AM	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
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
8:00 AM	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
8:15 AM	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
8:30 AM	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
8:45 AM	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
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
9:00 AM	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
9:15 AM	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
9:30 AM	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
9:45 AM	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
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
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		100.0	0.0	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	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							0							1							0							0	1

Peak Hour Analysis from 07:00 AM to 10:00 AM begins at:

7:00 AM	Aristotle Drive from North							Saint Thomas More Drive from East							Aristotle Drive from South							Driveway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
7:15 AM	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
7:30 AM	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
7:45 AM	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
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
% Approach 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		100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Exiting Leg							0							1							0							0	1
Total							0							1							1							0	2

PDI File #: **186432 A**
Location: **N: Aristotle Drive S: Aristotle Drive**
Location: **E: Saint Thomas More Drive W: Driveway**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **7:00 AM**
End Time: **10:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Aristotle Drive from North							Saint Thomas More Drive from East							Aristotle Drive from South							Driveway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	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	1	0	1	1
7:15 AM	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
7:30 AM	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
7:45 AM	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
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	1	0	1	1
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	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	1	0	1	1
8:30 AM	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	1	1	2	2
8:45 AM	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
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	2	1	3	5
9:00 AM	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
9:15 AM	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
9:30 AM	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
9:45 AM	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
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
Grand Total	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	3	1	4	6
Approach %	0	0	0	0	0	0		0	0	0	0	100	0		0	0	0	0	0	0		0	0	0	0	75	25		
Total %	0	0	0	0	0	0	0	0	0	0	0	33.3	0	33.3	0	0	0	0	0	0	0	0	0	0	0	50	16.7	66.7	
Exiting Leg Total							0							2							0							4	6

Peak Hour Analysis from 07:00 AM to 10:00 AM begins at:

7:45 AM	Aristotle Drive from North							Saint Thomas More Drive from East							Aristotle Drive from South							Driveway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
7:45 AM	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
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:15 AM	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	1	0	1	1
8:30 AM	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	1	1	2	2
Total Volume	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	2	1	3	5
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	66.7	33.3		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.500	0.250	0.375	0.625
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	2	1	3	5
Exiting Leg							0							2							0							3	5
Total							0							4							0							6	10

PDI File #: **186432 AA**
Location: **N: Aristotle Drive S: Aristotle Drive**
Location: **E: Saint Thomas More Drive W: Driveway**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **2:00 PM**
End Time: **7:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Aristotle Drive from North					Saint Thomas More Drive from East					Aristotle Drive from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:00 PM	0	5	0	0	5	1	0	9	0	10	6	5	0	0	11	0	0	0	0	0	26
2:15 PM	0	0	0	0	0	0	0	4	0	4	4	4	0	0	8	0	0	0	0	0	12
2:30 PM	0	5	0	0	5	0	0	2	0	2	6	7	0	0	13	0	0	0	0	0	20
2:45 PM	0	2	0	0	2	0	0	5	0	5	3	4	0	0	7	0	0	0	0	0	14
Total	0	12	0	0	12	1	0	20	0	21	19	20	0	0	39	0	0	0	0	0	72
3:00 PM	0	0	0	0	0	0	0	2	1	3	4	2	0	0	6	0	0	0	0	0	9
3:15 PM	0	3	0	0	3	0	0	3	0	3	5	4	0	0	9	0	0	0	0	0	15
3:30 PM	0	2	0	0	2	0	0	4	0	4	3	4	0	0	7	0	0	0	0	0	13
3:45 PM	0	2	0	0	2	0	0	2	0	2	8	5	0	0	13	0	0	0	0	0	17
Total	0	7	0	0	7	0	0	11	1	12	20	15	0	0	35	0	0	0	0	0	54
4:00 PM	0	2	1	0	3	0	0	5	0	5	7	5	0	0	12	0	0	0	0	0	20
4:15 PM	0	2	0	0	2	0	0	4	0	4	12	3	1	0	16	0	1	0	0	1	23
4:30 PM	0	2	0	0	2	1	0	8	0	9	9	4	0	0	13	0	0	0	0	0	24
4:45 PM	0	1	0	0	1	1	0	6	0	7	10	2	0	0	12	0	0	0	0	0	20
Total	0	7	1	0	8	2	0	23	0	25	38	14	1	0	53	0	1	0	0	1	87
5:00 PM	0	2	2	0	4	0	1	5	0	6	9	4	0	0	13	0	0	0	0	0	23
5:15 PM	0	6	2	0	8	1	0	3	0	4	10	1	0	0	11	0	0	0	0	0	23
5:30 PM	0	1	1	0	2	1	0	8	0	9	15	3	0	0	18	0	0	0	0	0	29
5:45 PM	0	4	0	0	4	0	0	3	0	3	10	5	0	0	15	0	0	0	0	0	22
Total	0	13	5	0	18	2	1	19	0	22	44	13	0	0	57	0	0	0	0	0	97
6:00 PM	0	4	0	0	4	0	0	10	0	10	3	4	1	0	8	0	0	0	0	0	22
6:15 PM	0	3	0	0	3	0	0	5	0	5	6	2	0	0	8	1	0	0	0	1	17
6:30 PM	0	3	0	0	3	0	0	3	0	3	2	2	0	0	4	0	0	0	0	0	10
6:45 PM	0	1	1	0	2	1	0	3	0	4	1	1	0	0	2	0	0	0	0	0	8
Total	0	11	1	0	12	1	0	21	0	22	12	9	1	0	22	1	0	0	0	1	57
Grand Total	0	50	7	0	57	6	1	94	1	102	133	71	2	0	206	1	1	0	0	2	367
Approach %	0.0	87.7	12.3	0.0		5.9	1.0	92.2	1.0		64.6	34.5	1.0	0.0		50.0	50.0	0.0	0.0		
Total %	0.0	13.6	1.9	0.0	15.5	1.6	0.3	25.6	0.3	27.8	36.2	19.3	0.5	0.0	56.1	0.3	0.3	0.0	0.0	0.5	
Exiting Leg Total					77					142					145					3	367
Cars	0	50	6	0	56	6	1	94	0	101	131	71	2	0	204	1	1	0	0	2	363
% Cars	0.0	100.0	85.7	0.0	98.2	100.0	100.0	100.0	0.0	99.0	98.5	100.0	100.0	0.0	99.0	100.0	100.0	0.0	0.0	100.0	98.9
Exiting Leg Total					77					138					145					3	363
Heavy Vehicles	0	0	1	0	1	0	0	0	1	1	2	0	0	0	2	0	0	0	0	0	4
% Heavy Vehicles	0.0	0.0	14.3	0.0	1.8	0.0	0.0	0.0	100.0	1.0	1.5	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.1
Exiting Leg Total					0					4					0					0	4

Peak Hour Analysis from 02:00 PM to 07:00 PM begins at:

5:00 PM	Aristotle Drive from North					Saint Thomas More Drive from East					Aristotle Drive from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	2	2	0	4	0	1	5	0	6	9	4	0	0	13	0	0	0	0	0	23
5:15 PM	0	6	2	0	8	1	0	3	0	4	10	1	0	0	11	0	0	0	0	0	23
5:30 PM	0	1	1	0	2	1	0	8	0	9	15	3	0	0	18	0	0	0	0	0	29
5:45 PM	0	4	0	0	4	0	0	3	0	3	10	5	0	0	15	0	0	0	0	0	22
Total Volume	0	13	5	0	18	2	1	19	0	22	44	13	0	0	57	0	0	0	0	0	97
% Approach Total	0.0	72.2	27.8	0.0		9.1	4.5	86.4	0.0		77.2	22.8	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.542	0.625	0.000	0.563	0.500	0.250	0.594	0.000	0.611	0.733	0.650	0.000	0.000	0.792	0.000	0.000	0.000	0.000	0.000	0.836
Cars	0	13	5	0	18	2	1	19	0	22	44	13	0	0	57	0	0	0	0	0	97
Cars %	0.0	100.0	100.0	0.0	100.0	100.0	100.0	100.0	0.0	100.0	100.0	100.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0
Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Heavy Vehicles %	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	0.0	0.0	0.0	0.0	0.0
Cars Enter Leg	0	13	5	0	18	2	1	19	0	22	44	13	0	0	57	0	0	0	0	0	97
Heavy Enter Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	13	5	0	18	2	1	19	0	22	44	13	0	0	57	0	0	0	0	0	97
Cars Exiting Leg					15					49					32					1	97
Heavy Exiting Leg					0					0					0					0	0
Total Exiting Leg					15					49					32					1	97

PDI File #: **186432 AA**
Location: **N: Aristotle Drive S: Aristotle Drive**
Location: **E: Saint Thomas More Drive W: Driveway**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **2:00 PM**
End Time: **7:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Aristotle Drive from North					Saint Thomas More Drive from East					Aristotle Drive from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:00 PM	0	5	0	0	5	1	0	9	0	10	5	5	0	0	10	0	0	0	0	0	25
2:15 PM	0	0	0	0	0	0	0	4	0	4	4	4	0	0	8	0	0	0	0	0	12
2:30 PM	0	5	0	0	5	0	0	2	0	2	6	7	0	0	13	0	0	0	0	0	20
2:45 PM	0	2	0	0	2	0	0	5	0	5	3	4	0	0	7	0	0	0	0	0	14
Total	0	12	0	0	12	1	0	20	0	21	18	20	0	0	38	0	0	0	0	0	71
3:00 PM	0	0	0	0	0	0	0	2	0	2	4	2	0	0	6	0	0	0	0	0	8
3:15 PM	0	3	0	0	3	0	0	3	0	3	5	4	0	0	9	0	0	0	0	0	15
3:30 PM	0	2	0	0	2	0	0	4	0	4	2	4	0	0	6	0	0	0	0	0	12
3:45 PM	0	2	0	0	2	0	0	2	0	2	8	5	0	0	13	0	0	0	0	0	17
Total	0	7	0	0	7	0	0	11	0	11	19	15	0	0	34	0	0	0	0	0	52
4:00 PM	0	2	0	0	2	0	0	5	0	5	7	5	0	0	12	0	0	0	0	0	19
4:15 PM	0	2	0	0	2	0	0	4	0	4	12	3	1	0	16	0	1	0	0	1	23
4:30 PM	0	2	0	0	2	1	0	8	0	9	9	4	0	0	13	0	0	0	0	0	24
4:45 PM	0	1	0	0	1	1	0	6	0	7	10	2	0	0	12	0	0	0	0	0	20
Total	0	7	0	0	7	2	0	23	0	25	38	14	1	0	53	0	1	0	0	1	86
5:00 PM	0	2	2	0	4	0	1	5	0	6	9	4	0	0	13	0	0	0	0	0	23
5:15 PM	0	6	2	0	8	1	0	3	0	4	10	1	0	0	11	0	0	0	0	0	23
5:30 PM	0	1	1	0	2	1	0	8	0	9	15	3	0	0	18	0	0	0	0	0	29
5:45 PM	0	4	0	0	4	0	0	3	0	3	10	5	0	0	15	0	0	0	0	0	22
Total	0	13	5	0	18	2	1	19	0	22	44	13	0	0	57	0	0	0	0	0	97
6:00 PM	0	4	0	0	4	0	0	10	0	10	3	4	1	0	8	0	0	0	0	0	22
6:15 PM	0	3	0	0	3	0	0	5	0	5	6	2	0	0	8	1	0	0	0	1	17
6:30 PM	0	3	0	0	3	0	0	3	0	3	2	2	0	0	4	0	0	0	0	0	10
6:45 PM	0	1	1	0	2	1	0	3	0	4	1	1	0	0	2	0	0	0	0	0	8
Total	0	11	1	0	12	1	0	21	0	22	12	9	1	0	22	1	0	0	0	1	57
Grand Total	0	50	6	0	56	6	1	94	0	101	131	71	2	0	204	1	1	0	0	2	363
Approach %	0.0	89.3	10.7	0.0		5.9	1.0	93.1	0.0		64.2	34.8	1.0	0.0		50.0	50.0	0.0	0.0		
Total %	0.0	13.8	1.7	0.0	15.4	1.7	0.3	25.9	0.0	27.8	36.1	19.6	0.6	0.0	56.2	0.3	0.3	0.0	0.0	0.6	
Exiting Leg Total					77					138					145					3	363

Peak Hour Analysis from 02:00 PM to 07:00 PM begins at:

5:00 PM	Aristotle Drive from North					Saint Thomas More Drive from East					Aristotle Drive from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	2	2	0	4	0	1	5	0	6	9	4	0	0	13	0	0	0	0	0	23
5:15 PM	0	6	2	0	8	1	0	3	0	4	10	1	0	0	11	0	0	0	0	0	23
5:30 PM	0	1	1	0	2	1	0	8	0	9	15	3	0	0	18	0	0	0	0	0	29
5:45 PM	0	4	0	0	4	0	0	3	0	3	10	5	0	0	15	0	0	0	0	0	22
Total Volume	0	13	5	0	18	2	1	19	0	22	44	13	0	0	57	0	0	0	0	0	97
% Approach Total	0.0	72.2	27.8	0.0		9.1	4.5	86.4	0.0		77.2	22.8	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.542	0.625	0.000	0.563	0.500	0.250	0.594	0.000	0.611	0.733	0.650	0.000	0.000	0.792	0.000	0.000	0.000	0.000	0.000	0.836
Entering Leg	0	13	5	0	18	2	1	19	0	22	44	13	0	0	57	0	0	0	0	0	97
Exiting Leg					15					49					32					1	97
Total					33					71					89					1	194

PDI File #: **186432 AA**
Location: **N: Aristotle Drive S: Aristotle Drive**
Location: **E: Saint Thomas More Drive W: Driveway**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **2:00 PM**
End Time: **7:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)

	Aristotle Drive from North					Saint Thomas More Drive from East					Aristotle Drive from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 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	1	0	0	0	1	0	0	0	0	0	1
3:00 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
3:45 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	1	1	1	0	0	0	1	0	0	0	0	0	2
4:00 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 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	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 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
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 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
Grand Total	0	0	1	0	1	0	0	0	1	1	2	0	0	0	2	0	0	0	0	0	4
Approach %	0.0	0.0	100.0	0.0		0.0	0.0	0.0	100.0		100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	25.0	0.0	25.0	0.0	0.0	0.0	25.0	25.0	50.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					4					0					0	4
Buses	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
% Buses	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	25.0
Exiting Leg Total					0					1					0					0	1
Single-Unit Trucks	0	0	1	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
% Single-Unit	0.0	0.0	100.0	0.0	100.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0
Exiting Leg Total					0					2					0					0	2
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	0.0	25.0
Exiting Leg Total					0					1					0					0	1

Peak Hour Analysis from 02:00 PM to 07:00 PM begins at:

2:45 PM	Aristotle Drive from North					Saint Thomas More Drive from East					Aristotle Drive from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	0	0	0	0	0	2
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	100.0		100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.500
Buses	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
Buses %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	50.0
Single-Unit Trucks	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
Single-Unit %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	50.0
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

PDI File #: **186432 AA**
Location: **N: Aristotle Drive S: Aristotle Drive**
Location: **E: Saint Thomas More Drive W: Driveway**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **2:00 PM**
End Time: **7:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Aristotle Drive from North					Saint Thomas More Drive from East					Aristotle Drive from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
Articulated %	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	0.0	0.0	0.0	0.0	0.0
Buses	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
Single-Unit Trucks	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	0	0	0	0	0	2
Buses					0					1					0					0	1
Single-Unit Trucks					0					1					0					0	1
Articulated Trucks					0					0					0					0	0
Total Exiting Leg					0					2					0					0	2

PDI File #: **186432 AA**
Location: **N: Aristotle Drive S: Aristotle Drive**
Location: **E: Saint Thomas More Drive W: Driveway**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **2:00 PM**
End Time: **7:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Aristotle Drive from North					Saint Thomas More Drive from East					Aristotle Drive from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:00 PM	0	5	0	0	5	1	0	9	0	10	5	5	0	0	10	0	0	0	0	0	25
2:15 PM	0	0	0	0	0	0	0	3	0	3	2	4	0	0	6	0	0	0	0	0	9
2:30 PM	0	5	0	0	5	0	0	2	0	2	6	6	0	0	12	0	0	0	0	0	19
2:45 PM	0	2	0	0	2	0	0	5	0	5	3	4	0	0	7	0	0	0	0	0	14
Total	0	12	0	0	12	1	0	19	0	20	16	19	0	0	35	0	0	0	0	0	67
3:00 PM	0	0	0	0	0	0	0	1	0	1	4	2	0	0	6	0	0	0	0	0	7
3:15 PM	0	3	0	0	3	0	0	3	0	3	5	4	0	0	9	0	0	0	0	0	15
3:30 PM	0	2	0	0	2	0	0	4	0	4	2	4	0	0	6	0	0	0	0	0	12
3:45 PM	0	1	0	0	1	0	0	2	0	2	8	5	0	0	13	0	0	0	0	0	16
Total	0	6	0	0	6	0	0	10	0	10	19	15	0	0	34	0	0	0	0	0	50
4:00 PM	0	2	0	0	2	0	0	5	0	5	7	5	0	0	12	0	0	0	0	0	19
4:15 PM	0	2	0	0	2	0	0	4	0	4	9	3	1	0	13	0	1	0	0	1	20
4:30 PM	0	2	0	0	2	1	0	8	0	9	8	4	0	0	12	0	0	0	0	0	23
4:45 PM	0	1	0	0	1	0	0	6	0	6	9	2	0	0	11	0	0	0	0	0	18
Total	0	7	0	0	7	1	0	23	0	24	33	14	1	0	48	0	1	0	0	1	80
5:00 PM	0	2	2	0	4	0	1	5	0	6	9	4	0	0	13	0	0	0	0	0	23
5:15 PM	0	5	2	0	7	1	0	3	0	4	10	1	0	0	11	0	0	0	0	0	22
5:30 PM	0	0	1	0	1	1	0	8	0	9	15	3	0	0	18	0	0	0	0	0	28
5:45 PM	0	4	0	0	4	0	0	3	0	3	10	5	0	0	15	0	0	0	0	0	22
Total	0	11	5	0	16	2	1	19	0	22	44	13	0	0	57	0	0	0	0	0	95
6:00 PM	0	4	0	0	4	0	0	10	0	10	3	4	1	0	8	0	0	0	0	0	22
6:15 PM	0	3	0	0	3	0	0	5	0	5	6	2	0	0	8	1	0	0	0	1	17
6:30 PM	0	3	0	0	3	0	0	3	0	3	2	2	0	0	4	0	0	0	0	0	10
6:45 PM	0	1	1	0	2	1	0	3	0	4	1	1	0	0	2	0	0	0	0	0	8
Total	0	11	1	0	12	1	0	21	0	22	12	9	1	0	22	1	0	0	0	1	57
Grand Total	0	47	6	0	53	5	1	92	0	98	124	70	2	0	196	1	1	0	0	2	349
Approach %	0.0	88.7	11.3	0.0		5.1	1.0	93.9	0.0		63.3	35.7	1.0	0.0		50.0	50.0	0.0	0.0		
Total %	0.0	13.5	1.7	0.0	15.2	1.4	0.3	26.4	0.0	28.1	35.5	20.1	0.6	0.0	56.2	0.3	0.3	0.0	0.0	0.6	
Exiting Leg Total					75					131					140					3	349

Peak Hour Analysis from 02:00 PM to 07:00 PM begins at:

5:00 PM	Aristotle Drive from North					Saint Thomas More Drive from East					Aristotle Drive from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
5:00 PM	0	2	2	0	4	0	1	5	0	6	9	4	0	0	13	0	0	0	0	0	23
5:15 PM	0	5	2	0	7	1	0	3	0	4	10	1	0	0	11	0	0	0	0	0	22
5:30 PM	0	0	1	0	1	1	0	8	0	9	15	3	0	0	18	0	0	0	0	0	28
5:45 PM	0	4	0	0	4	0	0	3	0	3	10	5	0	0	15	0	0	0	0	0	22
Total Volume	0	11	5	0	16	2	1	19	0	22	44	13	0	0	57	0	0	0	0	0	95
% Approach Total	0.0	68.8	31.3	0.0		9.1	4.5	86.4	0.0		77.2	22.8	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.550	0.625	0.000	0.571	0.500	0.250	0.594	0.000	0.611	0.733	0.650	0.000	0.000	0.792	0.000	0.000	0.000	0.000	0.000	0.848
Entering Leg	0	11	5	0	16	2	1	19	0	22	44	13	0	0	57	0	0	0	0	0	95
Exiting Leg					15					49					30					1	95
Total					31					71					87					1	190

PDI File #: **186432 AA**
Location: **N: Aristotle Drive S: Aristotle Drive**
Location: **E: Saint Thomas More Drive W: Driveway**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **2:00 PM**
End Time: **7:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Aristotle Drive from North					Saint Thomas More Drive from East					Aristotle Drive from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	1	0	1	2	0	0	0	2	0	0	0	0	0	3
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1
2:45 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	1	0	1	2	1	0	0	3	0	0	0	0	0	4
3:00 PM	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	1
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	1	0	0	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	2
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	2
Total	0	0	0	0	0	1	0	0	0	1	5	0	0	0	5	0	0	0	0	0	6
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:30 PM	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 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
Grand Total	0	3	0	0	3	1	0	2	0	3	7	1	0	0	8	0	0	0	0	0	14
Approach %	0.0	100.0	0.0	0.0		33.3	0.0	66.7	0.0		87.5	12.5	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	21.4	0.0	0.0	21.4	7.1	0.0	14.3	0.0	21.4	50.0	7.1	0.0	0.0	57.1	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					2					7					5					0	14

Peak Hour Analysis from 02:00 PM to 07:00 PM begins at:

4:00 PM	Aristotle Drive from North					Saint Thomas More Drive from East					Aristotle Drive from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3	0	0	0	0	0	3
4:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
4:45 PM	0	0	0	0	0	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	2
Total Volume	0	0	0	0	0	1	0	0	0	1	5	0	0	0	5	0	0	0	0	0	6
% Approach Total	0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.417	0.000	0.000	0.000	0.417	0.000	0.000	0.000	0.000	0.000	0.500
Entering Leg	0	0	0	0	0	1	0	0	0	1	5	0	0	0	5	0	0	0	0	0	6
Exiting Leg					1					5					0					0	6
Total					1					6					5					0	12

PDI File #: **186432 AA**
Location: **N: Aristotle Drive S: Aristotle Drive**
Location: **E: Saint Thomas More Drive W: Driveway**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **2:00 PM**
End Time: **7:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Aristotle Drive from North					Saint Thomas More Drive from East					Aristotle Drive from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 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
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
3:45 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	1	0	0	0	1	0	0	0	0	0	1
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 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
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 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
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 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
Grand Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		100.0	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	100.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					1					0					0	1

Peak Hour Analysis from 02:00 PM to 07:00 PM begins at:

2:45 PM	Aristotle Drive from North					Saint Thomas More Drive from East					Aristotle Drive from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
Exiting Leg					0					1					0					0	1
Total					0					1					1					0	2

PDI File #: **186432 AA**
Location: **N: Aristotle Drive S: Aristotle Drive**
Location: **E: Saint Thomas More Drive W: Driveway**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **2:00 PM**
End Time: **7:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Aristotle Drive from North					Saint Thomas More Drive from East					Aristotle Drive from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 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
3:00 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 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	1	1	0	0	0	0	0	0	0	0	0	0	1
4:00 PM	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 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	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 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
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 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
Grand Total	0	0	1	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	2
Approach %	0.0	0.0	100.0	0.0		0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
Total %	0.0	0.0	50.0	0.0	50.0	0.0	0.0	0.0	50.0	50.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					2					0					0	2

Peak Hour Analysis from 02:00 PM to 07:00 PM begins at:

2:15 PM	Aristotle Drive from North					Saint Thomas More Drive from East					Aristotle Drive from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	1
Exiting Leg					0					1					0					0	1
Total					0					2					0					0	2

PDI File #: **186432 AA**
Location: **N: Aristotle Drive S: Aristotle Drive**
Location: **E: Saint Thomas More Drive W: Driveway**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **2:00 PM**
End Time: **7:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Aristotle Drive from North					Saint Thomas More Drive from East					Aristotle Drive from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 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	1	0	0	0	1	0	0	0	0	0	1
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 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
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 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
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 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
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 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
Grand Total	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		100.0	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	100.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total					0					1					0					0	1

Peak Hour Analysis from 02:00 PM to 07:00 PM begins at:

2:00 PM	Aristotle Drive from North					Saint Thomas More Drive from East					Aristotle Drive from South					Driveway from West					
	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Right	Thru	Left	U-Turn	Total	Total
2:00 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		100.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	1
Exiting Leg					0					1					0					0	1
Total					0					1					1					0	2

PDI File #: **186432 AA**
Location: **N: Aristotle Drive S: Aristotle Drive**
Location: **E: Saint Thomas More Drive W: Driveway**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **2:00 PM**
End Time: **7:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Aristotle Drive from North							Saint Thomas More Drive from East							Aristotle Drive from South							Driveway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
2:00 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	0	0	0	0	0
2:15 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	0	0	0	0	0
2:30 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	0	0	0	0	0
2:45 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	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	0	0	0	0	0	0	0	0
3:00 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	0	0	0	0	0
3:15 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	0	0	0	0	0
3:30 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	0	0	0	0	0
3:45 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	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	0	0	0	0	0	0	0	0
4:00 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	0	0	0	0	0
4:15 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	0	0	0	0	0
4:30 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	0	0	0	0	0
4:45 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	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	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
5:15 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	0	0	0	0	0
5:30 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	0	0	0	0	0
5:45 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	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
6:00 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	0	0	0	0	0
6:15 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	0	0	0	0	0
6:30 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	0	0	0	0	0
6:45 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	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	0	0	0	0	0	0	0	0
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Approach %	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		100.0	0.0	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	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Exiting Leg Total							0							1							0							0	1

Peak Hour Analysis from 02:00 PM to 07:00 PM begins at:

4:15 PM	Aristotle Drive from North							Saint Thomas More Drive from East							Aristotle Drive from South							Driveway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
4:15 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	0	0	0	0	0
4:30 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	0	0	0	0	0
4:45 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	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
% Approach 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		100.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Exiting Leg							0							1							0							0	1
Total							0							1							1							0	2

PDI File #: **186432 AA**
Location: **N: Aristotle Drive S: Aristotle Drive**
Location: **E: Saint Thomas More Drive W: Driveway**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **2:00 PM**
End Time: **7:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Aristotle Drive from North							Saint Thomas More Drive from East							Aristotle Drive from South							Driveway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
2:00 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	0	0	0	0	0
2:15 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	0	0	0	0	0
2:30 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	0	0	0	0	0
2:45 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	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	0	0	0	0	0	0	0	0
3:00 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	0	0	0	0	0
3:15 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	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
3:45 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	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
4:00 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	0	0	0	0	0
4:15 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	0	0	0	0	0
4:30 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	0	0	0	0	0
4:45 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	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	0	0	0	0	0	0	0	0
5:00 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	0	0	0	0	0
5:15 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	0	0	0	0	0
5:30 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	0	0	0	0	0
5:45 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	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	0	0	0	0	0	0	0	0
6:00 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	0	0	0	0	0
6:15 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	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total	0	0	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Grand Total	0	0	0	0	0	0	0	0	0	0	0	1	4	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
Approach %	0	0	0	0	0	0		0	0	0	0	20	80		0	0	0	0	0	0		0	0	0	0	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	0	20	80	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Exiting Leg Total							0							5							0							0	5

Peak Hour Analysis from 02:00 PM to 07:00 PM begins at:

6:00 PM	Aristotle Drive from North							Saint Thomas More Drive from East							Aristotle Drive from South							Driveway from West							
	Right	Thru	Left	U-Turn	CW-EB	CW-WB	Total	Right	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Thru	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	Left	U-Turn	CW-NB	CW-SB	Total	Total
6:00 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	0	0	0	0	0
6:15 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	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Total Volume	0	0	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
% Approach Total	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	25.0	75.0		0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.333	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	1	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
Exiting Leg							0							4							0							0	4
Total							0							8							0							0	8

PDI File #: **186432 B**
Location: **S: Socrates Way**
Location: **E: Wainwright Road W: Saint Thomas More Drive**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **7:00 AM**
End Time: **10:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Wainwright Road				Socrates Way				Saint Thomas More Drive				
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	6	8	0	14	1	0	0	1	0	1	0	1	16
7:15 AM	10	19	0	29	3	0	0	3	2	4	0	6	38
7:30 AM	7	13	0	20	2	0	1	3	2	0	0	2	25
7:45 AM	5	8	0	13	2	0	0	2	2	7	0	9	24
Total	28	48	0	76	8	0	1	9	6	12	0	18	103
8:00 AM	12	12	0	24	5	0	0	5	2	8	0	10	39
8:15 AM	10	6	0	16	6	0	0	6	1	7	0	8	30
8:30 AM	5	2	0	7	5	0	0	5	1	2	0	3	15
8:45 AM	4	5	0	9	2	0	0	2	2	6	0	8	19
Total	31	25	0	56	18	0	0	18	6	23	0	29	103
9:00 AM	3	4	0	7	5	0	0	5	0	6	0	6	18
9:15 AM	6	0	0	6	1	1	0	2	0	4	0	4	12
9:30 AM	2	2	0	4	2	0	0	2	0	3	0	3	9
9:45 AM	2	2	0	4	2	1	0	3	0	5	0	5	12
Total	13	8	0	21	10	2	0	12	0	18	0	18	51
Grand Total	72	81	0	153	36	2	1	39	12	53	0	65	257
Approach %	47.1	52.9	0.0		92.3	5.1	2.6		18.5	81.5	0.0		
Total %	28.0	31.5	0.0	59.5	14.0	0.8	0.4	15.2	4.7	20.6	0.0	25.3	
Exiting Leg Total				89				94				74	257
Cars	69	79	0	148	32	2	1	35	8	50	0	58	241
% Cars	95.8	97.5	0.0	96.7	88.9	100.0	100.0	89.7	66.7	94.3	0.0	89.2	93.8
Exiting Leg Total				82				88				71	241
Heavy Vehicles	3	2	0	5	4	0	0	4	4	3	0	7	16
% Heavy Vehicles	4.2	2.5	0.0	3.3	11.1	0.0	0.0	10.3	33.3	5.7	0.0	10.8	6.2
Exiting Leg Total				7				6				3	16

Peak Hour Analysis from 07:00 AM to 10:00 AM begins at:

7:15 AM	Wainwright Road				Socrates Way				Saint Thomas More Drive				
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:15 AM	10	19	0	29	3	0	0	3	2	4	0	6	38
7:30 AM	7	13	0	20	2	0	1	3	2	0	0	2	25
7:45 AM	5	8	0	13	2	0	0	2	2	7	0	9	24
8:00 AM	12	12	0	24	5	0	0	5	2	8	0	10	39
Total Volume	34	52	0	86	12	0	1	13	8	19	0	27	126
% Approach Total	39.5	60.5	0.0		92.3	0.0	7.7		29.6	70.4	0.0		
PHF	0.708	0.684	0.000	0.741	0.600	0.000	0.250	0.650	1.000	0.594	0.000	0.675	0.808
Cars	32	52	0	84	10	0	1	11	6	18	0	24	119
Cars %	94.1	100.0	0.0	97.7	83.3	0.0	100.0	84.6	75.0	94.7	0.0	88.9	94.4
Heavy Vehicles	2	0	0	2	2	0	0	2	2	1	0	3	7
Heavy Vehicles %	5.9	0.0	0.0	2.3	16.7	0.0	0.0	15.4	25.0	5.3	0.0	11.1	5.6
Cars Enter Leg	32	52	0	84	10	0	1	11	6	18	0	24	119
Heavy Enter Leg	2	0	0	2	2	0	0	2	2	1	0	3	7
Total Entering Leg	34	52	0	86	12	0	1	13	8	19	0	27	126
Cars Exiting Leg				28				59				32	119
Heavy Exiting Leg				3				2				2	7
Total Exiting Leg				31				61				34	126

PDI File #: **186432 B**
Location: **S: Socrates Way**
Location: **E: Wainwright Road W: Saint Thomas More Drive**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **7:00 AM**
End Time: **10:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Wainwright Road				Socrates Way				Saint Thomas More Drive				
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	6	8	0	14	1	0	0	1	0	1	0	1	16
7:15 AM	10	19	0	29	3	0	0	3	2	4	0	6	38
7:30 AM	6	13	0	19	1	0	1	2	1	0	0	1	22
7:45 AM	5	8	0	13	2	0	0	2	2	7	0	9	24
Total	27	48	0	75	7	0	1	8	5	12	0	17	100
8:00 AM	11	12	0	23	4	0	0	4	1	7	0	8	35
8:15 AM	9	6	0	15	6	0	0	6	1	7	0	8	29
8:30 AM	5	2	0	7	4	0	0	4	1	2	0	3	14
8:45 AM	4	4	0	8	2	0	0	2	0	6	0	6	16
Total	29	24	0	53	16	0	0	16	3	22	0	25	94
9:00 AM	3	4	0	7	4	0	0	4	0	5	0	5	16
9:15 AM	6	0	0	6	1	1	0	2	0	4	0	4	12
9:30 AM	2	1	0	3	2	0	0	2	0	2	0	2	7
9:45 AM	2	2	0	4	2	1	0	3	0	5	0	5	12
Total	13	7	0	20	9	2	0	11	0	16	0	16	47
Grand Total	69	79	0	148	32	2	1	35	8	50	0	58	241
Approach %	46.6	53.4	0.0		91.4	5.7	2.9		13.8	86.2	0.0		
Total %	28.6	32.8	0.0	61.4	13.3	0.8	0.4	14.5	3.3	20.7	0.0	24.1	
Exiting Leg Total				82				88				71	241

Peak Hour Analysis from 07:00 AM to 10:00 AM begins at:

7:15 AM	Wainwright Road				Socrates Way				Saint Thomas More Drive				
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:15 AM	10	19	0	29	3	0	0	3	2	4	0	6	38
7:30 AM	6	13	0	19	1	0	1	2	1	0	0	1	22
7:45 AM	5	8	0	13	2	0	0	2	2	7	0	9	24
8:00 AM	11	12	0	23	4	0	0	4	1	7	0	8	35
Total Volume	32	52	0	84	10	0	1	11	6	18	0	24	119
% Approach Total	38.1	61.9	0.0		90.9	0.0	9.1		25.0	75.0	0.0		
PHF	0.727	0.684	0.000	0.724	0.625	0.000	0.250	0.688	0.750	0.643	0.000	0.667	0.783
Entering Leg	32	52	0	84	10	0	1	11	6	18	0	24	119
Exiting Leg				28				59				32	119
Total				112				70				56	238

PDI File #: **186432 B**
Location: **S: Socrates Way**
Location: **E: Wainwright Road W: Saint Thomas More Drive**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **7:00 AM**
End Time: **10:00 AM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Wainwright Road				Socrates Way				Saint Thomas More Drive				
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	1	0	0	1	1	0	0	1	1	0	0	1	3
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	1	0	0	1	1	0	0	1	3
8:00 AM	1	0	0	1	1	0	0	1	1	1	0	2	4
8:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
8:45 AM	0	1	0	1	0	0	0	0	2	0	0	2	3
Total	2	1	0	3	2	0	0	2	3	1	0	4	9
9:00 AM	0	0	0	0	1	0	0	1	0	1	0	1	2
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	1	0	1	0	0	0	0	0	1	0	1	2
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	1	0	0	1	0	2	0	2	4
Grand Total	3	2	0	5	4	0	0	4	4	3	0	7	16
Approach %	60.0	40.0	0.0		100.0	0.0	0.0		57.1	42.9	0.0		
Total %	18.8	12.5	0.0	31.3	25.0	0.0	0.0	25.0	25.0	18.8	0.0	43.8	
Exiting Leg Total				7				6				3	16
Buses	2	0	0	2	2	0	0	2	0	0	0	0	4
% Buses	66.7	0.0	0.0	40.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	25.0
Exiting Leg Total				2				0				2	4
Single-Unit Trucks	1	2	0	3	2	0	0	2	4	3	0	7	12
% Single-Unit	33.3	100.0	0.0	60.0	50.0	0.0	0.0	50.0	100.0	100.0	0.0	100.0	75.0
Exiting Leg Total				5				6				1	12
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
% Articulated	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
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 07:00 AM to 10:00 AM begins at:

8:00 AM	Wainwright Road				Socrates Way				Saint Thomas More Drive				
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
8:00 AM	1	0	0	1	1	0	0	1	1	1	0	2	4
8:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
8:45 AM	0	1	0	1	0	0	0	0	2	0	0	2	3
Total Volume	2	1	0	3	2	0	0	2	3	1	0	4	9
% Approach Total	66.7	33.3	0.0		100.0	0.0	0.0		75.0	25.0	0.0		
PHF	0.500	0.250	0.000	0.750	0.500	0.000	0.000	0.500	0.375	0.250	0.000	0.500	0.563
Buses	1	0	0	1	1	0	0	1	0	0	0	0	2
Buses %	50.0	0.0	0.0	33.3	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	22.2
Single-Unit Trucks	1	1	0	2	1	0	0	1	3	1	0	4	7
Single-Unit %	50.0	100.0	0.0	66.7	50.0	0.0	0.0	50.0	100.0	100.0	0.0	100.0	77.8
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Articulated %	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
Buses	1	0	0	1	1	0	0	1	0	0	0	0	2
Single-Unit Trucks	1	1	0	2	1	0	0	1	3	1	0	4	7
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	2	1	0	3	2	0	0	2	3	1	0	4	9
Buses				1				0				1	2
Single-Unit Trucks				2				4				1	7
Articulated Trucks				0				0				0	0
Total Exiting Leg				3				4				2	9

PDI File #: **186432 B**
Location: **S: Socrates Way**
Location: **E: Wainwright Road W: Saint Thomas More Drive**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **7:00 AM**
End Time: **10:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Wainwright Road				Socrates Way				Saint Thomas More Drive				
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	6	7	0	13	1	0	0	1	0	1	0	1	15
7:15 AM	9	17	0	26	3	0	0	3	2	4	0	6	35
7:30 AM	6	13	0	19	1	0	1	2	1	0	0	1	22
7:45 AM	5	8	0	13	2	0	0	2	2	7	0	9	24
Total	26	45	0	71	7	0	1	8	5	12	0	17	96
8:00 AM	7	12	0	19	3	0	0	3	1	6	0	7	29
8:15 AM	9	6	0	15	6	0	0	6	1	7	0	8	29
8:30 AM	4	2	0	6	4	0	0	4	1	2	0	3	13
8:45 AM	4	3	0	7	1	0	0	1	0	6	0	6	14
Total	24	23	0	47	14	0	0	14	3	21	0	24	85
9:00 AM	3	4	0	7	3	0	0	3	0	4	0	4	14
9:15 AM	6	0	0	6	1	1	0	2	0	3	0	3	11
9:30 AM	1	1	0	2	2	0	0	2	0	2	0	2	6
9:45 AM	2	2	0	4	2	1	0	3	0	4	0	4	11
Total	12	7	0	19	8	2	0	10	0	13	0	13	42
Grand Total	62	75	0	137	29	2	1	32	8	46	0	54	223
Approach %	45.3	54.7	0.0		90.6	6.3	3.1		14.8	85.2	0.0		
Total %	27.8	33.6	0.0	61.4	13.0	0.9	0.4	14.3	3.6	20.6	0.0	24.2	
Exiting Leg Total				75				84				64	223

Peak Hour Analysis from 07:00 AM to 10:00 AM begins at:

7:15 AM	Wainwright Road				Socrates Way				Saint Thomas More Drive				
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:15 AM	9	17	0	26	3	0	0	3	2	4	0	6	35
7:30 AM	6	13	0	19	1	0	1	2	1	0	0	1	22
7:45 AM	5	8	0	13	2	0	0	2	2	7	0	9	24
8:00 AM	7	12	0	19	3	0	0	3	1	6	0	7	29
Total Volume	27	50	0	77	9	0	1	10	6	17	0	23	110
% Approach Total	35.1	64.9	0.0		90.0	0.0	10.0		26.1	73.9	0.0		
PHF	0.750	0.735	0.000	0.740	0.750	0.000	0.250	0.833	0.750	0.607	0.000	0.639	0.786
Entering Leg	27	50	0	77	9	0	1	10	6	17	0	23	110
Exiting Leg				26				57				27	110
Total				103				67				50	220

PDI File #: **186432 B**
Location: **S: Socrates Way**
Location: **E: Wainwright Road W: Saint Thomas More Drive**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **7:00 AM**
End Time: **10:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Wainwright Road from East				Socrates Way from South				Saint Thomas More Drive from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	1	0	1	0	0	0	0	0	0	0	0	1
7:15 AM	1	2	0	3	0	0	0	0	0	0	0	0	3
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	3	0	4	0	0	0	0	0	0	0	0	4
8:00 AM	4	0	0	4	1	0	0	1	0	1	0	1	6
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
8:45 AM	0	1	0	1	1	0	0	1	0	0	0	0	2
Total	5	1	0	6	2	0	0	2	0	1	0	1	9
9:00 AM	0	0	0	0	1	0	0	1	0	1	0	1	2
9:15 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
9:30 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
9:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total	1	0	0	1	1	0	0	1	0	3	0	3	5
Grand Total	7	4	0	11	3	0	0	3	0	4	0	4	18
Approach %	63.6	36.4	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	38.9	22.2	0.0	61.1	16.7	0.0	0.0	16.7	0.0	22.2	0.0	22.2	
Exiting Leg Total				7				4				7	18

Peak Hour Analysis from 07:00 AM to 10:00 AM begins at:

7:15 AM	Wainwright Road from East				Socrates Way from South				Saint Thomas More Drive from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:15 AM	1	2	0	3	0	0	0	0	0	0	0	0	3
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	4	0	0	4	1	0	0	1	0	1	0	1	6
Total Volume	5	2	0	7	1	0	0	1	0	1	0	1	9
% Approach Total	71.4	28.6	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.313	0.250	0.000	0.438	0.250	0.000	0.000	0.250	0.000	0.250	0.000	0.250	0.375
Entering Leg	5	2	0	7	1	0	0	1	0	1	0	1	9
Exiting Leg				2				2				5	9
Total				9				3				6	18

PDI File #: **186432 B**
Location: **S: Socrates Way**
Location: **E: Wainwright Road W: Saint Thomas More Drive**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **7:00 AM**
End Time: **10:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Wainwright Road from East				Socrates Way from South				Saint Thomas More Drive from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	1	0	0	1	1	0	0	1	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	1	0	0	1	0	0	0	0	2
8:00 AM	1	0	0	1	1	0	0	1	0	0	0	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	0	0	1	1	0	0	1	0	0	0	0	2
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	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
Grand Total	2	0	0	2	2	0	0	2	0	0	0	0	4
Approach %	100.0	0.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
Total %	50.0	0.0	0.0	50.0	50.0	0.0	0.0	50.0	0.0	0.0	0.0	0.0	
Exiting Leg Total				2				0				2	4

Peak Hour Analysis from 07:00 AM to 10:00 AM begins at:

7:15 AM	Wainwright Road from East				Socrates Way from South				Saint Thomas More Drive from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	1	0	0	1	1	0	0	1	0	0	0	0	2
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	1	0	0	1	1	0	0	1	0	0	0	0	2
Total Volume	2	0	0	2	2	0	0	2	0	0	0	0	4
% Approach Total	100.0	0.0	0.0		100.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.500	0.000	0.000	0.500	0.500	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.500
Entering Leg	2	0	0	2	2	0	0	2	0	0	0	0	4
Exiting Leg				2				0				2	4
Total				4				2				2	8

PDI File #: **186432 B**
Location: **S: Socrates Way**
Location: **E: Wainwright Road W: Saint Thomas More Drive**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **7:00 AM**
End Time: **10:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Wainwright Road from East				Socrates Way from South				Saint Thomas More Drive from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	1	0	0	1	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	0	0	1	1
8:00 AM	0	0	0	0	0	0	0	0	1	1	0	2	2
8:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
8:45 AM	0	1	0	1	0	0	0	0	2	0	0	2	3
Total	1	1	0	2	1	0	0	1	3	1	0	4	7
9:00 AM	0	0	0	0	1	0	0	1	0	1	0	1	2
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	1	0	1	0	0	0	0	0	1	0	1	2
9:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	1	0	0	1	0	2	0	2	4
Grand Total	1	2	0	3	2	0	0	2	4	3	0	7	12
Approach %	33.3	66.7	0.0		100.0	0.0	0.0		57.1	42.9	0.0		
Total %	8.3	16.7	0.0	25.0	16.7	0.0	0.0	16.7	33.3	25.0	0.0	58.3	
Exiting Leg Total				5				6				1	12

Peak Hour Analysis from 07:00 AM to 10:00 AM begins at:

8:00 AM	Wainwright Road from East				Socrates Way from South				Saint Thomas More Drive from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
8:00 AM	0	0	0	0	0	0	0	0	1	1	0	2	2
8:15 AM	1	0	0	1	0	0	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	1	0	0	1	0	0	0	0	1
8:45 AM	0	1	0	1	0	0	0	0	2	0	0	2	3
Total Volume	1	1	0	2	1	0	0	1	3	1	0	4	7
% Approach Total	50.0	50.0	0.0		100.0	0.0	0.0		75.0	25.0	0.0		
PHF	0.250	0.250	0.000	0.500	0.250	0.000	0.000	0.250	0.375	0.250	0.000	0.500	0.583
Entering Leg	1	1	0	2	1	0	0	1	3	1	0	4	7
Exiting Leg				2				4				1	7
Total				4				5				5	14

PDI File #: **186432 B**
Location: **S: Socrates Way**
Location: **E: Wainwright Road W: Saint Thomas More Drive**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **7:00 AM**
End Time: **10:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Wainwright Road				Socrates Way				Saint Thomas More Drive				
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	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
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	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
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	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
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	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	0.0	0.0	
Exiting Leg Total				0				0				0	0

Peak Hour Analysis from 07:00 AM to 10:00 AM begins at:

7:00 AM	Wainwright Road				Socrates Way				Saint Thomas More Drive				
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg				0				0				0	0
Total				0				0				0	0

PDI File #: **186432 B**
Location: **S: Socrates Way**
Location: **E: Wainwright Road W: Saint Thomas More Drive**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **7:00 AM**
End Time: **10:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Wainwright Road						Socrates Way						Saint Thomas More Drive						
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	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
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	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
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	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
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Approach %	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		
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	0.0	0.0	
Exiting Leg Total						0						0						0	0

Peak Hour Analysis from 07:00 AM to 10:00 AM begins at:

7:00 AM	Wainwright Road						Socrates Way						Saint Thomas More Drive						
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
% Approach 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		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Exiting Leg						0						0						0	0
Total						0						0						0	0

PDI File #: **186432 B**
Location: **S: Socrates Way**
Location: **E: Wainwright Road W: Saint Thomas More Drive**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **7:00 AM**
End Time: **10:00 AM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Wainwright Road from East						Socrates Way from South						Saint Thomas More Drive from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	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
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	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	1	1	0	0	0	0	0	0	1
9:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
9:45 AM	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
Grand Total	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
Approach %	0	0	0	0	0		0	0	0	0	100		0	0	0	0	0		
Total %	0	0	0	0	0	0	0	0	0	0	100	100	0	0	0	0	0	0	
Exiting Leg Total						0						1						0	1

Peak Hour Analysis from 07:00 AM to 10:00 AM begins at:

7:15 AM	Wainwright Road from East						Socrates Way from South						Saint Thomas More Drive from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	100.0		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	1
Exiting Leg						0						1						0	1
Total						0						2						0	2

PDI File #: **186432 BB**
Location: **S: Socrates Way**
Location: **E: Wainwright Road W: Saint Thomas More Drive**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **2:00 PM**
End Time: **7:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars and Heavy Vehicles (Combined)

	Wainwright Road from East				Socrates Way from South				Saint Thomas More Drive from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
2:00 PM	7	4	0	11	1	2	0	3	0	5	0	5	19
2:15 PM	5	2	0	7	7	0	0	7	1	3	0	4	18
2:30 PM	3	1	0	4	5	0	0	5	2	7	0	9	18
2:45 PM	6	7	0	13	6	1	0	7	0	4	0	4	24
Total	21	14	0	35	19	3	0	22	3	19	0	22	79
3:00 PM	5	3	0	8	3	0	0	3	2	7	0	9	20
3:15 PM	4	2	0	6	3	1	0	4	0	7	0	7	17
3:30 PM	8	2	0	10	3	2	0	5	0	3	0	3	18
3:45 PM	2	3	0	5	5	0	0	5	0	6	0	6	16
Total	19	10	0	29	14	3	0	17	2	23	0	25	71
4:00 PM	3	2	0	5	5	1	0	6	1	8	0	9	20
4:15 PM	6	0	0	6	2	0	0	2	0	12	0	12	20
4:30 PM	10	2	0	12	4	1	0	5	1	12	0	13	30
4:45 PM	7	1	0	8	2	0	0	2	1	10	0	11	21
Total	26	5	0	31	13	2	0	15	3	42	0	45	91
5:00 PM	10	1	0	11	5	0	0	5	0	10	0	10	26
5:15 PM	6	2	0	8	5	2	0	7	0	13	0	13	28
5:30 PM	10	4	0	14	7	1	0	8	0	18	0	18	40
5:45 PM	1	7	0	8	5	2	0	7	0	10	0	10	25
Total	27	14	0	41	22	5	0	27	0	51	0	51	119
6:00 PM	10	2	0	12	3	1	0	4	0	3	0	3	19
6:15 PM	5	3	0	8	7	1	0	8	1	6	0	7	23
6:30 PM	2	3	0	5	3	0	0	3	0	2	0	2	10
6:45 PM	6	3	0	9	2	2	0	4	0	2	0	2	15
Total	23	11	0	34	15	4	0	19	1	13	0	14	67
Grand Total	116	54	0	170	83	17	0	100	9	148	0	157	427
Approach %	68.2	31.8	0.0		83.0	17.0	0.0		5.7	94.3	0.0		
Total %	27.2	12.6	0.0	39.8	19.4	4.0	0.0	23.4	2.1	34.7	0.0	36.8	
Exiting Leg Total				231				63				133	427
Cars	115	51	0	166	80	17	0	97	8	144	0	152	415
% Cars	99.1	94.4	0.0	97.6	96.4	100.0	0.0	97.0	88.9	97.3	0.0	96.8	97.2
Exiting Leg Total				224				59				132	415
Heavy Vehicles	1	3	0	4	3	0	0	3	1	4	0	5	12
% Heavy Vehicles	0.9	5.6	0.0	2.4	3.6	0.0	0.0	3.0	11.1	2.7	0.0	3.2	2.8
Exiting Leg Total				7				4				1	12

Peak Hour Analysis from 02:00 PM to 07:00 PM begins at:

5:00 PM	Wainwright Road from East				Socrates Way from South				Saint Thomas More Drive from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
5:00 PM	10	1	0	11	5	0	0	5	0	10	0	10	26
5:15 PM	6	2	0	8	5	2	0	7	0	13	0	13	28
5:30 PM	10	4	0	14	7	1	0	8	0	18	0	18	40
5:45 PM	1	7	0	8	5	2	0	7	0	10	0	10	25
Total Volume	27	14	0	41	22	5	0	27	0	51	0	51	119
% Approach Total	65.9	34.1	0.0		81.5	18.5	0.0		0.0	100.0	0.0		
PHF	0.675	0.500	0.000	0.732	0.786	0.625	0.000	0.844	0.000	0.708	0.000	0.708	0.744
Cars	27	13	0	40	21	5	0	26	0	51	0	51	117
Cars %	100.0	92.9	0.0	97.6	95.5	100.0	0.0	96.3	0.0	100.0	0.0	100.0	98.3
Heavy Vehicles	0	1	0	1	1	0	0	1	0	0	0	0	2
Heavy Vehicles %	0.0	7.1	0.0	2.4	4.5	0.0	0.0	3.7	0.0	0.0	0.0	0.0	1.7
Cars Enter Leg	27	13	0	40	21	5	0	26	0	51	0	51	117
Heavy Enter Leg	0	1	0	1	1	0	0	1	0	0	0	0	2
Total Entering Leg	27	14	0	41	22	5	0	27	0	51	0	51	119
Cars Exiting Leg				72				13				32	117
Heavy Exiting Leg				1				1				0	2
Total Exiting Leg				73				14				32	119

PDI File #: **186432 BB**
Location: **S: Socrates Way**
Location: **E: Wainwright Road W: Saint Thomas More Drive**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **2:00 PM**
End Time: **7:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars-Combined (Motorcycles, Cars, Light Goods)

	Wainwright Road				Socrates Way				Saint Thomas More Drive				
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
2:00 PM	7	4	0	11	1	2	0	3	0	5	0	5	19
2:15 PM	5	2	0	7	7	0	0	7	1	3	0	4	18
2:30 PM	3	1	0	4	5	0	0	5	2	7	0	9	18
2:45 PM	6	6	0	12	5	1	0	6	0	4	0	4	22
Total	21	13	0	34	18	3	0	21	3	19	0	22	77
3:00 PM	4	2	0	6	3	0	0	3	2	5	0	7	16
3:15 PM	4	2	0	6	3	1	0	4	0	7	0	7	17
3:30 PM	8	2	0	10	2	2	0	4	0	2	0	2	16
3:45 PM	2	3	0	5	5	0	0	5	0	6	0	6	16
Total	18	9	0	27	13	3	0	16	2	20	0	22	65
4:00 PM	3	2	0	5	5	1	0	6	0	8	0	8	19
4:15 PM	6	0	0	6	2	0	0	2	0	12	0	12	20
4:30 PM	10	2	0	12	4	1	0	5	1	11	0	12	29
4:45 PM	7	1	0	8	2	0	0	2	1	10	0	11	21
Total	26	5	0	31	13	2	0	15	2	41	0	43	89
5:00 PM	10	1	0	11	5	0	0	5	0	10	0	10	26
5:15 PM	6	2	0	8	4	2	0	6	0	13	0	13	27
5:30 PM	10	3	0	13	7	1	0	8	0	18	0	18	39
5:45 PM	1	7	0	8	5	2	0	7	0	10	0	10	25
Total	27	13	0	40	21	5	0	26	0	51	0	51	117
6:00 PM	10	2	0	12	3	1	0	4	0	3	0	3	19
6:15 PM	5	3	0	8	7	1	0	8	1	6	0	7	23
6:30 PM	2	3	0	5	3	0	0	3	0	2	0	2	10
6:45 PM	6	3	0	9	2	2	0	4	0	2	0	2	15
Total	23	11	0	34	15	4	0	19	1	13	0	14	67
Grand Total	115	51	0	166	80	17	0	97	8	144	0	152	415
Approach %	69.3	30.7	0.0		82.5	17.5	0.0		5.3	94.7	0.0		
Total %	27.7	12.3	0.0	40.0	19.3	4.1	0.0	23.4	1.9	34.7	0.0	36.6	
Exiting Leg Total				224				59				132	415

Peak Hour Analysis from 02:00 PM to 07:00 PM begins at:

5:00 PM	Wainwright Road				Socrates Way				Saint Thomas More Drive				
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
5:00 PM	10	1	0	11	5	0	0	5	0	10	0	10	26
5:15 PM	6	2	0	8	4	2	0	6	0	13	0	13	27
5:30 PM	10	3	0	13	7	1	0	8	0	18	0	18	39
5:45 PM	1	7	0	8	5	2	0	7	0	10	0	10	25
Total Volume	27	13	0	40	21	5	0	26	0	51	0	51	117
% Approach Total	67.5	32.5	0.0		80.8	19.2	0.0		0.0	100.0	0.0		
PHF	0.675	0.464	0.000	0.769	0.750	0.625	0.000	0.813	0.000	0.708	0.000	0.708	0.750
Entering Leg	27	13	0	40	21	5	0	26	0	51	0	51	117
Exiting Leg				72				13				32	117
Total				112				39				83	234

PDI File #: **186432 BB**
Location: **S: Socrates Way**
Location: **E: Wainwright Road W: Saint Thomas More Drive**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **2:00 PM**
End Time: **7:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Wainwright Road				Socrates Way				Saint Thomas More Drive				
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
Total	0	1	0	1	1	0	0	1	0	0	0	0	2
3:00 PM	1	1	0	2	0	0	0	0	0	2	0	2	4
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	1	0	0	1	0	1	0	1	2
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	1	0	2	1	0	0	1	0	3	0	3	6
4:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	1	0	2	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
5:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	1	0	0	1	0	0	0	0	2
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	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
Grand Total	1	3	0	4	3	0	0	3	1	4	0	5	12
Approach %	25.0	75.0	0.0		100.0	0.0	0.0		20.0	80.0	0.0		
Total %	8.3	25.0	0.0	33.3	25.0	0.0	0.0	25.0	8.3	33.3	0.0	41.7	
Exiting Leg Total				7				4				1	12
Buses	0	1	0	1	1	0	0	1	0	1	0	1	3
% Buses	0.0	33.3	0.0	25.0	33.3	0.0	0.0	33.3	0.0	25.0	0.0	20.0	25.0
Exiting Leg Total				2				1				0	3
Single-Unit Trucks	1	2	0	3	2	0	0	2	1	2	0	3	8
% Single-Unit	100.0	66.7	0.0	75.0	66.7	0.0	0.0	66.7	100.0	50.0	0.0	60.0	66.7
Exiting Leg Total				4				3				1	8
Articulated Trucks	0	0	0	0	0	0	0	0	0	1	0	1	1
% Articulated	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	25.0	0.0	20.0	8.3
Exiting Leg Total				1				0				0	1

Peak Hour Analysis from 02:00 PM to 07:00 PM begins at:

2:45 PM	Wainwright Road				Socrates Way				Saint Thomas More Drive				
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
2:45 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
3:00 PM	1	1	0	2	0	0	0	0	0	2	0	2	4
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	1	0	0	1	0	1	0	1	2
Total Volume	1	2	0	3	2	0	0	2	0	3	0	3	8
% Approach Total	33.3	66.7	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.250	0.500	0.000	0.375	0.500	0.000	0.000	0.500	0.000	0.375	0.000	0.375	0.500
Buses	0	1	0	1	1	0	0	1	0	1	0	1	3
Buses %	0.0	50.0	0.0	33.3	50.0	0.0	0.0	50.0	0.0	33.3	0.0	33.3	37.5
Single-Unit Trucks	1	1	0	2	1	0	0	1	0	2	0	2	5
Single-Unit %	100.0	50.0	0.0	66.7	50.0	0.0	0.0	50.0	0.0	66.7	0.0	66.7	62.5
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0

PDI File #: **186432 BB**
Location: **S: Socrates Way**
Location: **E: Wainwright Road W: Saint Thomas More Drive**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **2:00 PM**
End Time: **7:00 PM**

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Class: **Heavy Vehicles-Combined (Buses, Single-Unit Trucks, Articulated Trucks)**

	Wainwright Road				Socrates Way				Saint Thomas More Drive				
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
Articulated %	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
Buses	0	1	0	1	1	0	0	1	0	1	0	1	3
Single-Unit Trucks	1	1	0	2	1	0	0	1	0	2	0	2	5
Articulated Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Entering Leg	1	2	0	3	2	0	0	2	0	3	0	3	8
Buses				2				1				0	3
Single-Unit Trucks				3				1				1	5
Articulated Trucks				0				0				0	0
Total Exiting Leg				5				2				1	8

PDI File #: **186432 BB**
Location: **S: Socrates Way**
Location: **E: Wainwright Road W: Saint Thomas More Drive**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **2:00 PM**
End Time: **7:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Cars

	Wainwright Road from East				Socrates Way from South				Saint Thomas More Drive from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
2:00 PM	7	4	0	11	0	2	0	2	0	5	0	5	18
2:15 PM	3	2	0	5	5	0	0	5	1	2	0	3	13
2:30 PM	3	1	0	4	5	0	0	5	1	6	0	7	16
2:45 PM	6	6	0	12	4	1	0	5	0	4	0	4	21
Total	19	13	0	32	14	3	0	17	2	17	0	19	68
3:00 PM	3	2	0	5	2	0	0	2	1	5	0	6	13
3:15 PM	4	1	0	5	3	1	0	4	0	7	0	7	16
3:30 PM	8	1	0	9	2	2	0	4	0	2	0	2	15
3:45 PM	2	3	0	5	4	0	0	4	0	6	0	6	15
Total	17	7	0	24	11	3	0	14	1	20	0	21	59
4:00 PM	3	2	0	5	5	1	0	6	0	8	0	8	19
4:15 PM	6	0	0	6	2	0	0	2	0	9	0	9	17
4:30 PM	10	1	0	11	3	1	0	4	1	11	0	12	27
4:45 PM	6	0	0	6	2	0	0	2	1	9	0	10	18
Total	25	3	0	28	12	2	0	14	2	37	0	39	81
5:00 PM	10	1	0	11	5	0	0	5	0	10	0	10	26
5:15 PM	6	2	0	8	4	2	0	6	0	13	0	13	27
5:30 PM	10	2	0	12	7	1	0	8	0	18	0	18	38
5:45 PM	1	7	0	8	5	2	0	7	0	10	0	10	25
Total	27	12	0	39	21	5	0	26	0	51	0	51	116
6:00 PM	10	1	0	11	3	1	0	4	0	3	0	3	18
6:15 PM	5	3	0	8	7	1	0	8	1	6	0	7	23
6:30 PM	2	3	0	5	3	0	0	3	0	2	0	2	10
6:45 PM	6	3	0	9	2	2	0	4	0	2	0	2	15
Total	23	10	0	33	15	4	0	19	1	13	0	14	66
Grand Total	111	45	0	156	73	17	0	90	6	138	0	144	390
Approach %	71.2	28.8	0.0		81.1	18.9	0.0		4.2	95.8	0.0		
Total %	28.5	11.5	0.0	40.0	18.7	4.4	0.0	23.1	1.5	35.4	0.0	36.9	
Exiting Leg Total				211				51				128	390

Peak Hour Analysis from 02:00 PM to 07:00 PM begins at:

5:00 PM	Wainwright Road from East				Socrates Way from South				Saint Thomas More Drive from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
5:00 PM	10	1	0	11	5	0	0	5	0	10	0	10	26
5:15 PM	6	2	0	8	4	2	0	6	0	13	0	13	27
5:30 PM	10	2	0	12	7	1	0	8	0	18	0	18	38
5:45 PM	1	7	0	8	5	2	0	7	0	10	0	10	25
Total Volume	27	12	0	39	21	5	0	26	0	51	0	51	116
% Approach Total	69.2	30.8	0.0		80.8	19.2	0.0		0.0	100.0	0.0		
PHF	0.675	0.429	0.000	0.813	0.750	0.625	0.000	0.813	0.000	0.708	0.000	0.708	0.763
Entering Leg	27	12	0	39	21	5	0	26	0	51	0	51	116
Exiting Leg				72				12				32	116
Total				111				38				83	232

PDI File #: **186432 BB**
Location: **S: Socrates Way**
Location: **E: Wainwright Road W: Saint Thomas More Drive**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **2:00 PM**
End Time: **7:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Light Goods Vehicle

	Wainwright Road				Socrates Way				Saint Thomas More Drive				
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
2:00 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
2:15 PM	2	0	0	2	2	0	0	2	0	1	0	1	5
2:30 PM	0	0	0	0	0	0	0	0	1	1	0	2	2
2:45 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	2	0	0	2	4	0	0	4	1	2	0	3	9
3:00 PM	1	0	0	1	1	0	0	1	1	0	0	1	3
3:15 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
3:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
3:45 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
Total	1	2	0	3	2	0	0	2	1	0	0	1	6
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	3	0	3	3
4:30 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
4:45 PM	1	1	0	2	0	0	0	0	0	1	0	1	3
Total	1	2	0	3	1	0	0	1	0	4	0	4	8
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	0	0	0	1
6:00 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	0	0	0	0	0	0	0	0	1
Grand Total	4	6	0	10	7	0	0	7	2	6	0	8	25
Approach %	40.0	60.0	0.0		100.0	0.0	0.0		25.0	75.0	0.0		
Total %	16.0	24.0	0.0	40.0	28.0	0.0	0.0	28.0	8.0	24.0	0.0	32.0	
Exiting Leg Total				13				8				4	25

Peak Hour Analysis from 02:00 PM to 07:00 PM begins at:

2:15 PM	Wainwright Road				Socrates Way				Saint Thomas More Drive				
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
2:15 PM	2	0	0	2	2	0	0	2	0	1	0	1	5
2:30 PM	0	0	0	0	0	0	0	0	1	1	0	2	2
2:45 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
3:00 PM	1	0	0	1	1	0	0	1	1	0	0	1	3
Total Volume	3	0	0	3	4	0	0	4	2	2	0	4	11
% Approach Total	100.0	0.0	0.0		100.0	0.0	0.0		50.0	50.0	0.0		
PHF	0.375	0.000	0.000	0.375	0.500	0.000	0.000	0.500	0.500	0.500	0.000	0.500	0.550
Entering Leg	3	0	0	3	4	0	0	4	2	2	0	4	11
Exiting Leg				6				2				3	11
Total				9				6				7	22

PDI File #: **186432 BB**
Location: **S: Socrates Way**
Location: **E: Wainwright Road W: Saint Thomas More Drive**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **2:00 PM**
End Time: **7:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Buses

	Wainwright Road from East				Socrates Way from South				Saint Thomas More Drive from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
Total	0	1	0	1	1	0	0	1	0	0	0	0	2
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	1	0	1	1
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	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
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	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
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	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
Grand Total	0	1	0	1	1	0	0	1	0	1	0	1	3
Approach %	0.0	100.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
Total %	0.0	33.3	0.0	33.3	33.3	0.0	0.0	33.3	0.0	33.3	0.0	33.3	
Exiting Leg Total				2				1				0	3

Peak Hour Analysis from 02:00 PM to 07:00 PM begins at:

2:45 PM	Wainwright Road from East				Socrates Way from South				Saint Thomas More Drive from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
2:45 PM	0	1	0	1	1	0	0	1	0	0	0	0	2
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	0	1	0	1	1	0	0	1	0	1	0	1	3
% Approach Total	0.0	100.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.000	0.250	0.000	0.250	0.250	0.000	0.000	0.250	0.000	0.250	0.000	0.250	0.375
Entering Leg	0	1	0	1	1	0	0	1	0	1	0	1	3
Exiting Leg				2				1				0	3
Total				3				2				1	6

PDI File #: **186432 BB**
Location: **S: Socrates Way**
Location: **E: Wainwright Road W: Saint Thomas More Drive**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **2:00 PM**
End Time: **7:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Single-Unit Trucks

	Wainwright Road from East				Socrates Way from South				Saint Thomas More Drive from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	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
3:00 PM	1	1	0	2	0	0	0	0	0	2	0	2	4
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1	1	0	2	1	0	0	1	0	2	0	2	5
4:00 PM	0	0	0	0	0	0	0	0	1	0	0	1	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	1	0	0	1	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
5:30 PM	0	1	0	1	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	1	0	1	1	0	0	1	0	0	0	0	2
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	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
Grand Total	1	2	0	3	2	0	0	2	1	2	0	3	8
Approach %	33.3	66.7	0.0		100.0	0.0	0.0		33.3	66.7	0.0		
Total %	12.5	25.0	0.0	37.5	25.0	0.0	0.0	25.0	12.5	25.0	0.0	37.5	
Exiting Leg Total				4				3				1	8

Peak Hour Analysis from 02:00 PM to 07:00 PM begins at:

2:45 PM	Wainwright Road from East				Socrates Way from South				Saint Thomas More Drive from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
2:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:00 PM	1	1	0	2	0	0	0	0	0	2	0	2	4
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	1	0	0	1	0	0	0	0	1
Total Volume	1	1	0	2	1	0	0	1	0	2	0	2	5
% Approach Total	50.0	50.0	0.0		100.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.250	0.250	0.000	0.250	0.250	0.000	0.000	0.250	0.000	0.250	0.000	0.250	0.313
Entering Leg	1	1	0	2	1	0	0	1	0	2	0	2	5
Exiting Leg				3				1				1	5
Total				5				2				3	10

PDI File #: **186432 BB**
Location: **S: Socrates Way**
Location: **E: Wainwright Road W: Saint Thomas More Drive**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **2:00 PM**
End Time: **7:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Articulated Trucks

	Wainwright Road				Socrates Way				Saint Thomas More Drive				
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	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
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	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
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0	0	0	1	0	1	1
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	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
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	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
Grand Total	0	0	0	0	0	0	0	0	0	1	0	1	1
Approach %	0.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
Total %	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	100.0	
Exiting Leg Total				1				0				0	1

Peak Hour Analysis from 02:00 PM to 07:00 PM begins at:

3:45 PM	Wainwright Road				Socrates Way				Saint Thomas More Drive				
	from East				from South				from West				
	Thru	Left	U-Turn	Total	Right	Left	U-Turn	Total	Right	Thru	U-Turn	Total	Total
3:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	1
Total Volume	0	0	0	0	0	0	0	0	0	1	0	1	1
% Approach Total	0.0	0.0	0.0		0.0	0.0	0.0		0.0	100.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	1	0	1	1
Exiting Leg				1				0				0	1
Total				1				0				1	2

PDI File #: **186432 BB**
Location: **S: Socrates Way**
Location: **E: Wainwright Road W: Saint Thomas More Drive**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **2:00 PM**
End Time: **7:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Bicycles (on Roadway and Crosswalks)

	Wainwright Road from East						Socrates Way from South						Saint Thomas More Drive from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	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
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	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
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	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
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	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	1	0	0	0	1	1
6:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	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
Grand Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
Approach %	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	100.0	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	0.0	0.0	0.0	100.0	0.0	0.0	0.0	100.0	
Exiting Leg Total						1						0						0	1

Peak Hour Analysis from 02:00 PM to 07:00 PM begins at:

4:15 PM	Wainwright Road from East						Socrates Way from South						Saint Thomas More Drive from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
Total Volume	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0	0.0		0.0	100.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.250
Entering Leg	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1
Exiting Leg						1						0						0	1
Total						1						0						1	2

PDI File #: **186432 BB**
Location: **S: Socrates Way**
Location: **E: Wainwright Road W: Saint Thomas More Drive**
City, State: **Winchester, MA**
Client: **Toole Design/ T. Dennerlein**
Site Code: **TBA**
Count Date: **Wednesday, September 12, 2018**
Start Time: **2:00 PM**
End Time: **7:00 PM**
Class:

PRECISION DATA INDUSTRIES, LLC
46 Morton Street, Framingham, MA 01702
Office: 508-875-0100 Fax: 508-875-0118
Email: datarequests@pdillc.com

Pedestrians

	Wainwright Road						Socrates Way						Saint Thomas More Drive						
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
2:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2:45 PM	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
3:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3:45 PM	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
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	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
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2
Total	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2
6:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
6:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
6:45 PM	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	1	0	1	0	0	0	0	0	0	1
Grand Total	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	3
Approach %	0	0	0	0	0		0	0	0	33.333	66.667		0	0	0	0	0		
Total %	0	0	0	0	0	0	0	0	0	33.333	66.667	100	0	0	0	0	0	0	
Exiting Leg Total						0						3						0	3

Peak Hour Analysis from 02:00 PM to 07:00 PM begins at:

5:15 PM	Wainwright Road						Socrates Way						Saint Thomas More Drive						
	from East						from South						from West						
	Thru	Left	U-Turn	CW-SB	CW-NB	Total	Right	Left	U-Turn	CW-WB	CW-EB	Total	Right	Thru	U-Turn	CW-NB	CW-SB	Total	Total
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	0	2
6:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	1
Total Volume	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	3
% Approach Total	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	33.3	66.7		0.0	0.0	0.0	0.0	0.0		
PHF	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.250	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.375
Entering Leg	0	0	0	0	0	0	0	0	0	1	2	3	0	0	0	0	0	0	3
Exiting Leg						0						3						0	3
Total						0						6						0	6

TRAFFIC SIGNAL / MULTI-WAY STOP CONTROL WARRANT ANALYSIS

2009 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: St Thomas More Drive at Aristotle Drive

Major Street Direction: Northbound-Southbound

Year: 2018 **Condition:** Existing

Operating speed on major roadway: 32 mph

Number of approaches: 3

			Required approach volumes	
Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**		Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	500	500
	Minor Street :	1 Lane(s) on each approach	150	150
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	750	750
	Minor Street :	1 Lane(s) on each approach	75	75
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	1 Lane(s) on each approach	400	600
	Minor Street :	1 Lane(s) on each approach	120	60

Warrant 2 **FOUR HOUR VEHICULAR VOLUME**

Major Street : 1 Lane(s) on each approach — If "verify" indicated, see Figure 4C-1 or 4C-2.

Minor Street : 1 Lane(s) on each approach — 25 = accuracy of regression equations

Warrant 3 **PEAK HOUR VOLUME**

Major Street : 1 Lane(s) on each approach — If "verify" indicated, see Figure 4C-3 or 4C-4.

Minor Street : 1 Lane(s) on each approach — 25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road Northbound	Entering Vol. on Major Road Southbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
7:00 - 8:00 AM	31	14	15	29	No	No	No	No	No
8:00 - 9:00 AM	32	38	22	60	No	No	No	No	No
9:00 - 10:00 AM	15	21	25	46	No	No	No	No	No
10:00 - 11:00 AM				0	No	No	No	No	No
11:00 - 12:00 AM				0	No	No	No	No	No
12:00 - 1:00 AM				0	No	No	No	No	No
1:00 - 2:00 PM				0	No	No	No	No	No
2:00 - 3:00 PM	21	39	12	51	No	No	No	No	No
3:00 - 4:00 PM	12	35	7	42	No	No	No	No	No
4:00 - 5:00 PM	25	53	8	61	No	No	No	No	No
5:00 - 6:00 PM	22	57	18	75	No	No	No	No	No
6:00 - 7:00 PM	22	22	12	34	No	No	No	No	No
7:00 - 8:00 PM				0	No	No	No	No	No
					No	**No**	**No**	**No**	**No**
				Warrants Met?		**1**		**2**	**3**
						NO		**No**	**No**

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 0

(non-concurrent) 0

0

0

Warrant 5, School Crossing:

See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 6, Coordinated Signal System:

See MUTCD for details.

Warrant 8, Roadway Network:

See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2009 Edition [2009]

last updated: 08/05/05 [version]

2009 MUTCD

TRAFFIC SIGNAL WARRANT ANALYSIS (VOLUME BASED)

Intersection: St Thomas More Drive at Socrates Way

Major Street Direction: Eastbound-Westbound

Year: 2018 **Condition:** Existing

Operating speed on major roadway: 32 mph

Number of approaches: 3

Warrant 1	**EIGHT-HOUR VEHICULAR VOLUME**		Required approach volumes: Minimum*	Adjusted Minimum**
Warrant 1A	MINIMUM VEHICULAR VOLUME (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	500	500
	Minor Street :	1 Lane(s) on each approach	150	150
Warrant 1B	INTERRUPTION OF CONTINUOUS TRAFFIC (8 hours of day)			
	Major Street :	1 Lane(s) on each approach	750	750
	Minor Street :	1 Lane(s) on each approach	75	75
80 PERCENT SATISFACTION OF WARRANT 1A **AND** WARRANT 1B			Warrant 1A	Warrant 1B
	Major Street :	1 Lane(s) on each approach	400	600
	Minor Street :	1 Lane(s) on each approach	120	60

Warrant 2	**FOUR HOUR VEHICULAR VOLUME**	
Major Street :	1 Lane(s) on each approach	If "verify" indicated, see Figure 4C-1 or 4C-2.
Minor Street :	1 Lane(s) on each approach	25 = accuracy of regression equations

Warrant 3	**PEAK HOUR VOLUME**	
Major Street :	1 Lane(s) on each approach	If "verify" indicated, see Figure 4C-3 or 4C-4.
Minor Street :	1 Lane(s) on each approach	25 = accuracy of regression equations

Hour	Entering Vol. Minor Road+	Entering Vol. on Major Road: Eastbound	Entering Vol. on Major Road: Westbound	Tot. Ent. Vol. On Major Rd	Meets the following volume-based warrants? 1A	1B	80%(1A&1B)	2	3
7:00 - 8:00 AM	9	18	76	94	No	No	No	No	No
8:00 - 9:00 AM	18	29	56	85	No	No	No	No	No
9:00 - 10:00 AM	12	18	21	39	No	No	No	No	No
10:00 - 11:00 AM				0	No	No	No	No	No
11:00 - 12:00 AM				0	No	No	No	No	No
12:00 - 1:00 AM				0	No	No	No	No	No
1:00 - 2:00 PM				0	No	No	No	No	No
2:00 - 3:00 PM	22	22	35	57	No	No	No	No	No
3:00 - 4:00 PM	17	25	29	54	No	No	No	No	No
4:00 - 5:00 PM	15	45	31	76	No	No	No	No	No
5:00 - 6:00 PM	27	51	41	92	No	No	No	No	No
6:00 - 7:00 PM	19	14	34	48	No	No	No	No	No
7:00 - 8:00 PM				0	No	No	No	No	No
					No	**No**	**No**	**No**	**No**
				Warrants Met?		**1**		**2**	**3**
						NO		**No**	**No**

*From the criteria described for the warrant in the MUTCD.

**If the operating speed is higher than 40mph then the volumes can be adjusted to 70%. (If no adjusted minimum, the minimum from the previous column is shown)

+If more than one approach, report the approach that has the higher volume.

NON-VOLUME-BASED WARRANTS

Warrant 4, Minimum Pedestrian Volume: No

Peak Four Hour Pedestrian Volumes: 0
(non-concurrent) 0
0
0

Warrant 5, School Crossing:
See MUTCD for details.

Warrant 6, Coordinated Signal System:
See MUTCD for details.

Warrant 7, Crash Experience: No

# of accidents "correctable by signalization" occuring in the last 12 months: 0

Warrant 8, Roadway Network:
See MUTCD for details.

Source: *Manual on Uniform Traffic Control Devices* (MUTCD); 2009 Edition [2009]

last updated: 08/05/05 [version]

SIGHT DISTANCE ANALYSIS

Stopping Sight Distance and Intersection Sight Distance Calculator [v0.97]
Based on 'A Policy on Geometric Design of Highways and Streets', AASHTO, 2004

Section I

Project Information

Project Number:	60138	**Analyst:**	TDG - HG
City/Town, State:	Winchester		
Location:	St Thomas More Drive at Aristotle Drive	**Client:**	Town of Winchester

Street Names and Directions

Major Street name:	Aristotle Drive	NB/SB
Minor Street name:	St Thomas More Drive	EB/WB
Minor Street intersects *from* the:		east
The minor street *predominantly* serves...		Passenger Cars
Sight distance location intersection is...		Existing
Total number of lanes on Major Street is...		2

Street Notes

Grade Information [enter down slope as a negative number]

Major Street Approach Grade:	0.00%	NB
	0.00%	SB
Minor Street Approach Grade:	0.00%	SB
	0.00%	NB

Major Street Speed Information

Posted		*Observed **
30	NB	30
30	SB	32

** note: off-peak 85th percentile speeds*

Section II

ISD and SSD *Observations*

Instructions on how to observe and measure ISD and SSD are included on subsequent pages.

ISD - Intersection sight distance is the distance that is based on the time required for perception, reaction and completion of the desired critical exiting maneuver [typically, a left turn] once the driver on a minor street approach [or a site drive] decides to execute the maneuver. Calculation for the critical ISD includes the time to [1] turn left, and to clear the near half of the intersection without conflicting with the vehicles approaching from the left; and [2] upon turning left, to accelerate to the operating speed on the roadway without causing approaching vehicles on the main road to unduly reduce their speed. In this context, ISD can be considered as a *desirable* visibility criterion for the safe operation of an unsignalized intersection.

SSD - Stopping sight distance is the distance required for a vehicle approaching an intersection from either direction to perceive, react, and come to a complete stop before colliding with the exiting vehicle from a driveway. In this respect, SSD can be considered as the *minimum* visibility criterion for the safe operation of an unsignalized intersection.

			Limiting Factors:
***Observed* ISD:**	330	looking left [south]	
(rounded to nearest 5 feet)	350	looking right [north]	
***Observed* SSD:**		traveling NB	
(rounded to nearest 5 feet)		traveling SB	

Section III

ISD and SSD *Calculations* (rounded up to the next highest 5 feet) [sources: SSD - AASHTO, pp.110-117; ISD - AASHTO, pp. 650 - 664]

Cases are described in detail on subsequent pages. In summary...

B1: left turn from minor road, from stop control
B2: right turn from minor road, from stop control
B3: crossing maneuver from minor road, from stop control, assuming left- and right turns are not permitted *[otherwise, case B1 or B2 would supercede]*

***Desirable* Calculated...**		**Condition Met?**
... ISD, case B1:	355	**No**
... ISD, case B2:	290	**Yes**
... ISD, case B3:	310	**Yes**

[note: if number of lanes crossed exceeds 6, or if grades are steep, consult the manual]

***Minimum* Calculated ...**		**Condition Met?**
... ISD, case B1:	220	**Yes**
... ISD, case B2:	200	**Yes**
... ISD, case B3:	220	**Yes**

[note: minimum ISD is equal to required SSD]

Calculated ...			**Condition Met?**
... SSD:	200	traveling NB	**No**
	220	traveling SB	**No**

Section IV

AASHTO Guidance

Refer to AASHTO for specific guidance on SSD and ISD if presented with an unusual/atypical case.
Adequate ISD is not needed at signalized intersections, assuming traffic signal heads are visible on all approaches.
Any object that would obstruct the driver's view should be removed or lowered, if practical. Such objects include buildings, parked cars, highway structures, hedges/vegetation/trees/bushes/unmowed lawn, walls, fences, and terrain.
For ISD, an object should be considered an obstruction if it obstructs the vision of a driver whose eye height is 3.5 feet above the roadway surface and the object to be seen is 3.5 feet above the surface of the intersecting road.
Where horizontal sight restrictions occur on downgrades, particularly at the ends of long downgrades, it is desirable to provide SSD that exceeds those values indicated above (refer to page 114 of AASHTO).

Stopping Sight Distance and Intersection Sight Distance Calculator [v0.97]
Based on 'A Policy on Geometric Design of Highways and Streets', AASHTO, 2004

Section I

Project Information

Project Number:	60138	**Analyst:**	TDG - HG
City/Town, State:	Winchester		
Location:	St Thomas More Drive at Socrates Way	**Client:**	Town of Winchester

Street Names and Directions

Major Street name:	St Thomas More Drive	EB/WB
Minor Street name:	Socrates Way	NB/SB
Minor Street intersects *from* the:		south
The minor street *predominantly* serves...		Passenger Cars
Sight distance location intersection is...		Existing
Total number of lanes on Major Street is...		2

Street Notes

Grade Information [enter down slope as a negative number]

Major Street Approach Grade:	0.00%	EB
	0.00%	WB
Minor Street Approach Grade:	0.00%	SB
	0.00%	NB

Major Street Speed Information

Posted		*Observed **
30	EB	30
30	WB	32

** note: off-peak 85th percentile speeds*

Section III

ISD and SSD *Calculations* (rounded up to the next highest 5 feet) [sources: SSD - AASHTO, pp.110-117; ISD - AASHTO, pp. 650 - 664]

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B1: left turn from minor road, from stop control
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B3: crossing maneuver from minor road, from stop control, assuming left- and right turns are not permitted *[otherwise, case B1 or B2 would supercede]*

***Desirable* Calculated...**		**Condition Met?**
... ISD, case B1:	355	**Yes**
... ISD, case B2:	290	**No**
... ISD, case B3:	310	**Yes**

[note: if number of lanes crossed exceeds 6, or if grades are steep, consult the manual]

***Minimum* Calculated ...**		**Condition Met?**
... ISD, case B1:	220	**Yes**
... ISD, case B2:	200	**No**
... ISD, case B3:	220	**Yes**

[note: minimum ISD is equal to required SSD]

Calculated ...			**Condition Met?**
... SSD:	200	traveling EB	**No**
	220	traveling WB	**No**

Section II

ISD and SSD *Observations*

Instructions on how to observe and measure ISD and SSD are included on subsequent pages.

ISD - Intersection sight distance is the distance that is based on the time required for perception, reaction and completion of the desired critical exiting maneuver [typically, a left turn] once the driver on a minor street approach [or a site drive] decides to execute the maneuver. Calculation for the critical ISD includes the time to [1] turn left, and to clear the near half of the intersection without conflicting with the vehicles approaching from the left; and [2] upon turning left, to accelerate to the operating speed on the roadway without causing approaching vehicles on the main road to unduly reduce their speed. In this context, ISD can be considered as a *desirable* visibility criterion for the safe operation of an unsignalized intersection.

SSD - Stopping sight distance is the distance required for a vehicle approaching an intersection from either direction to perceive, react, and come to a complete stop before colliding with the exiting vehicle from a driveway. In this respect, SSD can be considered as the *minimum* visibility criterion for the safe operation of an unsignalized intersection.

			Limiting Factors:
***Observed* ISD:**	500	looking left [west]	
(rounded to nearest 5 feet)	130	looking right [east]	Tree branches are in the way looking right. Without the tree obstruction, ISD is lengthened to 290' (curve in the rd)
***Observed* SSD:**		traveling EB	
(rounded to nearest 5 feet)		traveling WB	

Section IV

AASHTO Guidance

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Where horizontal sight restrictions occur on downgrades, particularly at the ends of long downgrades, it is desirable to provide SSD that exceeds those values indicated above (refer to page 114 of AASHTO).

Stopping Sight Distance and Intersection Sight Distance Calculator [v0.97]
Based on 'A Policy on Geometric Design of Highways and Streets', AASHTO, 2004

Section I

Project Information

Project Number:	60138	**Analyst:**	TDG - HG
City/Town, State:	Winchester		
Location:	St Thomas More Drive at Aquinas Path	**Client:**	Town of Winchester

Street Names and Directions

Major Street name:	St Thomas More Drive	EB/WB
Minor Street name:	Aquinas Path	NB/SB
Minor Street intersects *from* the:		south
The minor street *predominantly* serves...		Passenger Cars
Sight distance location intersection is...		Existing
Total number of lanes on Major Street is...		2

Street Notes

Grade Information [enter down slope as a negative number]

Major Street Approach Grade:	0.00%	EB
	0.00%	WB
Minor Street Approach Grade:	0.00%	SB
	0.00%	NB

Major Street Speed Information

Posted		*Observed **
30	EB	30
30	WB	32

** note: off-peak 85th percentile speeds*

Section II

ISD and SSD *Observations*

Instructions on how to observe and measure ISD and SSD are included on subsequent pages.

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SSD - Stopping sight distance is the distance required for a vehicle approaching an intersection from either direction to perceive, react, and come to a complete stop before colliding with the exiting vehicle from a driveway. In this respect, SSD can be considered as the *minimum* visibility criterion for the safe operation of an unsignalized intersection.

			Limiting Factors:
***Observed* ISD:**	255	looking left [west]	
(rounded to nearest 5 feet)	400	looking right [east]	
***Observed* SSD:**		traveling EB	
(rounded to nearest 5 feet)		traveling WB	

Section III

ISD and SSD *Calculations* (rounded up to the next highest 5 feet) [sources: SSD - AASHTO, pp.110-117; ISD - AASHTO, pp. 650 - 664]

Cases are described in detail on subsequent pages. In summary...

B1: left turn from minor road, from stop control
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B3: crossing maneuver from minor road, from stop control, assuming left- and right turns are not permitted *[otherwise, case B1 or B2 would supercede]*

***Desirable* Calculated...**		**Condition Met?**
... ISD, case B1:	355	**No**
... ISD, case B2:	290	**Yes**
... ISD, case B3:	310	**No**

[note: if number of lanes crossed exceeds 6, or if grades are steep, consult the manual]

***Minimum* Calculated ...**		**Condition Met?**
... ISD, case B1:	220	**Yes**
... ISD, case B2:	200	**Yes**
... ISD, case B3:	220	**Yes**

[note: minimum ISD is equal to required SSD]

Calculated ...			**Condition Met?**
... SSD:	200	traveling EB	**No**
	220	traveling WB	**No**

Section IV

AASHTO Guidance

Refer to AASHTO for specific guidance on SSD and ISD if presented with an unusual/atypical case.
Adequate ISD is not needed at signalized intersections, assuming traffic signal heads are visible on all approaches.
Any object that would obstruct the driver's view should be removed or lowered, if practical. Such objects include buildings, parked cars, highway structures, hedges/vegetation/trees/bushes/unmowed lawn, walls, fences, and terrain.
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Where horizontal sight restrictions occur on downgrades, particularly at the ends of long downgrades, it is desirable to provide SSD that exceeds those values indicated above (refer to page 114 of AASHTO).