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FEB 08 2023
 TOWN OF WINDSOR
 PLANNING DEPT

**Application for
Design Development
Concept Plan Proposal**

TOWN PLANNING & ZONING COMMISSION

- The Plan Proposal is for: Center Design Development
 New Neighborhood Design Development
 Peripheral Neighborhood Design Development
 Recreational Neighborhood Design Development

Alford Associates, Inc., c/o Christian Alford 860 688-7288 x12
 Name of Applicant Phone #

P.O. Box 484, 200 Pigeon Hill Rd, Windsor, CT 06095 calford@snet.net
 Applicant's Address E-mail Address

Are you the... Owner Optionee Buyer Agent Other

If other please explain: _____

Mastriani Realty LLC (203) 910-9220
 Owner(s) of Record (if other than applicant) Phone #

77 Cedar Grove Rd, Southbury, CT 06488 jmastri906@aol.com
 Owner's Address E-mail Address

Please indicate: New Application Revision to an approved application

144 Broad St B2
 Address of Subject Parcel (s) Zone(s)

3.228 3.228 _____ or 106
 Total Acreage Developable Acres # of Dwelling Units Revised # of Dwelling Units

Gross Residential Density: _____ or Revised Gross Residential Density: 32.8 DU per acre

Please describe the proposed Design Development and list the uses:

See attached.

DESIGN DEVELOPMENT CONCEPT PLAN PROPOSAL (continued)

Please list the items which will need specific consideration by the Town Planning and Zoning Commission (e.g., open space agreements, phasing of development, reduction in parking requirements):

See attached.

Christian Agard
Applicant's Signature

2/8/2023
Date

Samuel D. Dunbar
Owner's Signature

2/2/2023
Date

X Town of Windsor; Paul P. S.
Office Use Only

2/8/2023
Date

Fee \$ 2,920

Ck. No. 1036

App. rec'd by: Todd

Comm. Action/Date: _____

EXHIBIT

Application for Design Development Detail Plan Proposal

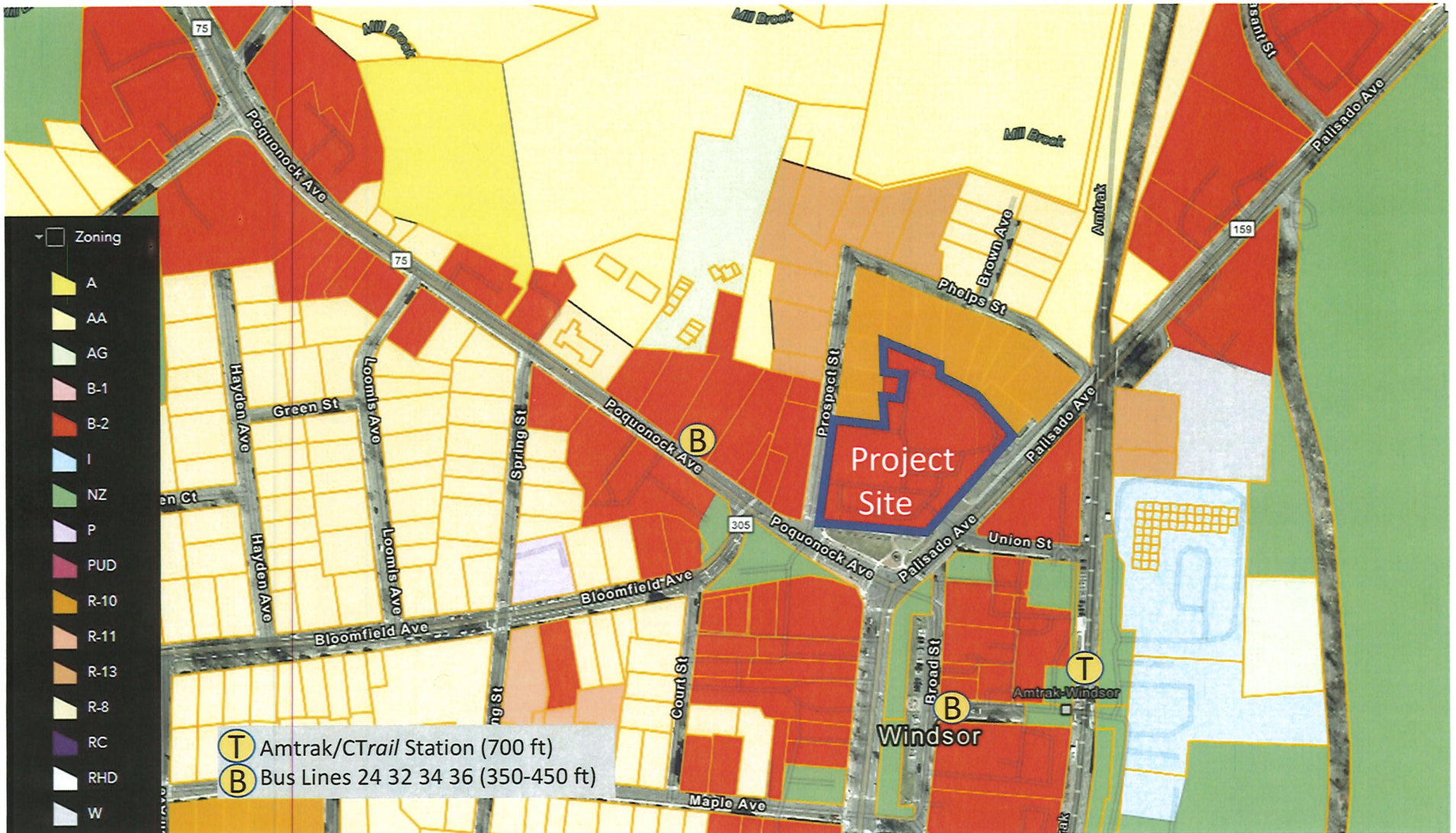
RECEIVED

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TOWN OF WINDSOR
PLANNING DEPT

Please describe the proposed Design Development and list the uses:

The proposed Design Development concerns the redevelopment of the 144 Broad Street (aka "Windsor Center Plaza") strip mall into a mixed-use Transit-Oriented Development (the "Project"). The Project is located at the junction of CT Routes 75, 159 and 305, a highly visible and central location within the Center Design Development district adjacent to major mass transit nodes. See below for Vicinity Map with the Project Site location outlined in blue (1" = ~350 ft).



The Project intends to fulfill the Town of Windsor's vision as laid out in the *Plan of Conservation and Development (2012)* and *Transit-Oriented Development Master Plan and Redevelopment Strategy (2014)* by:

- Reconstructing the previously demolished street wall at this location to enhance walkability and the overall character of Windsor Center;
- Providing much-needed, high quality housing near the Town's major transit nodes;
- Reserving 20% of units as "workforce housing" as defined by HUD for this statistical area and offering handicap adaptable ground floor units;
- Creating a mix of uses that includes street-facing retail, offices and wellness amenities to promote vibrancy and inclusion; and
- Supporting climate goals through the use of electric heating and cooling systems in the apartments and electric car charging infrastructure.

The Project accomplishes these goals through the creation of 106 new residential units, preserving and expanding existing retail tenancies and supplementing Center amenities. Total parking for the site is the requisite 147 spaces. The Project will be split into two phases:

The South Building, with construction expected to commence in 2023, includes:

- 40 apartments, consisting of 12 studios, and 28 one-bedrooms;
- Approximately 5,800 square feet of new retail storefronts and amenities, split into 4-5 units, forming a new street wall on Poquonock Avenue;
- A dynamic new public open space amenity abutting the new retail.

The North and West Buildings, with construction expected to commence in 2024, includes:

- An additional 66 apartments, consisting of 32 studios and 34 one-bedrooms;
- Approximately 5,750 square feet of tenant amenities, as well as outdoor pet and other leisure areas.

Please list the items which will need specific consideration by the Town Planning and Zoning Commission (e.g., open space agreements, phasing of development, reduction in parking requirements):

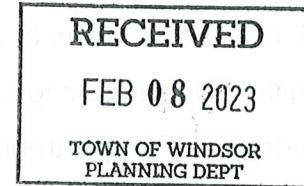
The Applicant received approval from the TPZ for its Concept Plan on June 14th, 2022, including approval of the following waivers, which are submitted for reapproval here:

1. Yards: Per 13.1.3.B.(2) Site Standards Yards.
2. Parking Lots Adjacent to Property and Right-of-Way Lines: Per 3.1.2.C.(1).(b).(iv).
3. Parking Lots Adjacent to Buildings: Per 3.1.2.C.(2).(a).(ii).
4. Landscaped Islands within Parking Lots: Per 3.1.2.C.(3)

The parking requirements have been reduced in accordance with section 3.3.1.E.(2) (a), (b), and (c).

May 3, 2022

Mr. Gregory Vaca
Grava Properties
74 Parsons Drive
West Hartford, CT 06117



**RE: Proposed Residential/Retail Development
144 Broad Street
Windsor, Connecticut
Our File # 22032**

Dear Mr. Vaca:

Pursuant to your request our office has prepared this report to document our findings related to the potential traffic impact of a proposed redevelopment of the property located at 144 Broad Street in the Town of Windsor, CT. The proposal is to replace the existing retail plaza with a mixed-use development consisting of retail and residential uses. The site location is presented in Figure 1 with respect to the surrounding roadway network. This report presents our findings.

Site Plan

The site proposed for redevelopment is currently occupied by two existing commercial buildings with a total of 27,210 s.f. of floor area. The property provides a total of 148 parking spaces. Access to the parcel is provided by four driveways. There is a full access driveway to Palisado Avenue located opposite Union Street. There is a full access driveway to Prospect Street a short distance north of Route 75 as well as a service driveway to Prospect Street located behind a retail building next to the adjacent to the residential property. There is also access to Upper Broad Street located at the northeast corner of the parcel.

Mr. Gregory Vaca
May 3, 2022
Page 2

The proposed site plan, prepared by Alford Associates, Inc., shows that one of the existing retail buildings will be raised, and two new buildings will be constructed in their place. The two new buildings will include 6,000 s.f. of retail floor area and 76 apartment units. The remaining existing building will be renovated to include 6,000 s.f. of retail floor area, 35 apartment units, and an amenity center for use by the residents. The full development will consist of 96 apartment units, plus the Amenity Center, and 12,000 s.f. of retail space. A total of 140 parking spaces are provided. Access to the site is proposed by a full access driveway to Prospect Street as well as an entrance only drive from Prospect Street and an exit only drive to Upper Broad Street. The existing site driveway to Palisado Avenue will be closed.

Description of Area

The site proposed for redevelopment is located on the northwest corner of the intersection of Route 75 (Poquonock Ave) and Route 159 (Broad Street / Palisado Avenue). The property also has frontage to Prospect Street. Route 75 (Poquonock Avenue) is a state-maintained roadway that originates at a signalized intersection with Route 159 and extends in a northwest direction. The roadway intersects with Prospect Street and Route 305 at a signalized intersection. Route 75 continues northwest and intersects with I-91 and Day Hill Road at Exit No. 38. The roadway continues in a northwest direction, providing access to Route 20 and Bradley International Airport, before continuing north through Suffield and into the State of Massachusetts. Route 75 typically provides a single travel lane in each direction. Across the site frontage, the roadway provides a four lane cross section with two northbound lanes and two southbound lanes, separated by a painted double yellow centerline. The posted speed limit is 30 miles per hour. Land use in the area is a mix of residential and commercial.

Route 159 (Broad Street / Palisado Avenue) is a state-maintained roadway that originates at I-91 at the Windsor/Hartford Town Line, as an extension of Windsor

Avenue. The roadway extends in a northerly direction, providing access to I-291, then continues in a northerly direction into the center of Windsor to the signalized intersection with Route 75. Route 159 carries the name Broad Street south of Route 75. North of Route 75 the roadway takes on the name of Palisado Avenue. The roadway continues in a northerly direction under a railroad overpass and then over the Farmington River and continues north to provide access to I-91, then into the Town of Suffield and thence into Massachusetts. Broad Street typically provides two travel lanes in each direction separated by a raised center median. Palisado Avenue typically provides a single lane in each direction of travel. In the vicinity of the site, Broad Street provides five travel lanes with three northbound lanes and two southbound lanes separated by a painted double yellow centerline. The northbound lanes are striped with a double left turn into Route 75 and a single through lane to Palisado Avenue. Palisado Avenue provides a single northbound lane and two southbound lanes, separated by a painted double yellow centerline. The posted speed limit is 35 miles per hour. Land use in the area is a mix of residential and commercial. The intersection of Route 159 with Route 75 and Broad Street operates under signalized control.

Route 305 (Bloomfield Avenue) is a state-maintained roadway that originates at the signalized intersection with Route 75 and extends in a westerly direction, providing access to I-91, then continues in a westerly direction into the Town of Bloomfield. Bloomfield Avenue typically provides a single travel lane in each direction separated by a painted double yellow centerline. The posted speed limit is 25 miles per hour. Land use in the area is a mix of residential and commercial.

Prospect Street is a town maintained roadway that originates at a signalized three-way intersection with Prospect Street oriented in the north / south direction and Route 75 oriented in the east / west direction. Prospect Street traverses approximately 650 feet north until it bends east where it becomes Phelps Street. Prospect Street provides a

single travel lane in each direction until it nears the intersection with Route 75 where it provides a dedicated left-turn lane and a shared through / right-turn lane. The roadway provides between 30 to 35 feet of pavement separated by a double yellow centerline for approximately 250 feet from the signalized intersection. There are no painted shoulders on the roadway, sidewalks are provided on each side of the road. Land use along the roadway is a mix of commercial and residential. There is no posted speed limit.

Current Traffic Volumes

The Connecticut DOT maintains a traffic volume count program on all state highways and some local roadways. Included within the DOT database are counts on Route 75 west of Route 159 and on Route 159 northeast of Union Street. The count conducted on Route 75 during June 2019 indicates an Average Daily Traffic volume (ADT) of 6,400 vehicles with peak hour volumes of 438 vehicles during the a.m. peak hour (8:00 a.m.) and 705 vehicles during the p.m. peak hour (5:00 p.m.). The count conducted on Route 159 northeast of Union Street was recorded during June 2019 and indicates an Average Daily Traffic volume (ADT) of 6,800 vehicles with peak hour volumes of 622 vehicles during the a.m. peak hour (7:00 a.m.) and 744 vehicles during the p.m. peak hour (5:00 p.m.). Copies of the counts are presented in Tables 1 and 2.

Turning movement diagrams were obtained from the Town of Windsor for the recently completed Broad Street Road Diet Study (The Study) for the intersection of Route 159 and Route 175 for the morning and afternoon peak hours. The Study was conducted by Milone & MacBroom. The Study did not include data for the intersection of Route 75 with Prosect Street or Route 75 with Route 305. Nor did it provide Saturday volumes for the intersection of Route 159 and Route 75. Therefore, our office arranged to have those counts conducted during March 2022. The observed traffic volumes are displayed in Figure 2.

The background traffic volumes from The Study, representing 2019, were higher than our recently observed 2022 volumes, therefore the higher 2019 volumes were held, and the volumes balanced between intersections using the observed turning movement percentages for the other two intersections. This reduction in traffic is most likely due to the Covid outbreak.

The Study did not include Saturday volumes. The Study volumes at Route 75 and Route 159 were, on average, 43% higher than the recent observed volumes at the same intersection, for the morning and afternoon peak hours. Therefore, we increased the 2022 observed Saturday volumes by 43% in order to represent the same base year volumes as the morning and afternoon peak hours, presented in The Study. The resulting volumes represent the Existing Traffic volumes as presented in Figure 3.

The Existing Traffic volumes were increased 9%, consistent with The Study to a design year of 2030. In addition, the ITE Trip Generation Report was used to calculate traffic for the existing site. These volumes have been added to the movement diagrams. The resultant volumes represent the 2030 Background Traffic volumes for the study area as presented in Figure 4.

Site Generated Traffic

To determine the trip generation for the proposed site, the Institute of Transportation Engineers (ITE) *Trip Generation* Report was consulted. *Trip Generation* presents trip generation estimates for many land uses based on counts conducted at existing facilities throughout the country. Included within the ITE database are land uses that are applicable to the proposed development, Land Use Code (LUC) 220: Multifamily Housing (Low-Rise) and LUC 822: Strip Retail Plaza (<40k). The existing 27,210 square foot shopping center has a trip generation of 1,482 trips per day, with 64 trips during the morning peak hour, made up of 38 entering movements and 26 exiting

movements, 179 trips during the afternoon peak hour, made up of 89 entering movements and 90 exiting movements, and 179 trips during the Saturday peak hour, made up of 91 entering trips and 88 exiting trips. The figure displaying the directional distribution used for the existing site and the traffic volumes of the site generated trips can be found in the appendix.

Trip Generation was used to project the traffic volumes for the proposed development as well. The proposed development is to consist of 96 apartment units (multi-family attached low rise housing) and 12,000 square feet of shopping center. Applying the ITE Rates the site is projected to generate 1,427 trips per day, with 85 trips during the morning peak hour, made up of 32 entering movements and 53 exiting movements, 151 trips during the afternoon peak hour, made up of 83 entering movements and 68 exiting movements, and 118 trips during the Saturday peak hour, made up of 60 entering trips and 58 exiting trips. These volumes represent an increase of 21 trips during the morning peak hour, and a reduction of 28 trips and 61 trips, during the afternoon and Saturday peak hours, respectively. These results are presented in Table 3.

The site generated traffic was then added to the existing roadway network with a 100% of site traffic utilizing Prospect Street. We have projected that 20% will utilize Route 75 to the northwest, 40% to Route 305, 10% to Palisado Avenue and 30% to Broad Street. The site generated traffic based on this distribution is presented in Figure 5. Combining the 2030 background volumes with the site generated volumes provides the 2030 combined traffic volumes presented in Figure 6.

Capacity Analysis

To determine the impact of the site generated traffic on the surrounding roadway network, capacity analyses were conducted for the background and combined traffic volume conditions at each of the following intersections: Broad Street (Route 159) /

Palisado Ave (Route 159) & Poquonock Ave (Route 75) / Broad Street; Poquonock Ave (Route 75) and Prospect Street / Private Drive; Bloomfield Avenue (Route 305) and Poquonock Avenue (Route 75); and Prospect Street and Site Drive 1. The analysis covered for morning, afternoon, and Saturday peak hours utilizing the existing roadway geometry. In addition a analysis was completed for the combined traffic volumes for the proposed Road Diet roadway geometry. The analysis was completed utilizing the intersection capacity analysis program called SYNCHRO. The analysis results are presented in Table 4 and discussed below.

Broad Street (Rt 159) / Palisado Ave (Rt 159) & Route 75 / Broad Street – This is an existing signalized intersection with Route 159 oriented in the north/south direction. Route 75 (Poquonock Avenue) approaches from the west and Broad Street approaches from the east. The southbound Route 159 approach provides two shared lanes. The Route 159 northbound approach provides two dedicated left-turn lanes and a shared through / right turn lane. The eastbound Route 75 approach provides a dedicated right-turn lane and a shared through / left turn lane. The westbound Broad Street approach provides a single lane. The capacity analysis indicates that under the background traffic volume conditions the intersection will operate at an overall LOS C during all peak hours. With the introduction of site generated traffic the intersection will continue to operate at an overall LOS C during all peak hours.

The proposed Road Diet will change the lane configuration of Route 159 at its intersection with Route 75 / Broad Street. The Route 159 northbound approach will provide a single dedicated left-turn lane and a shared through / right-turn lane. The new Route 159 southbound approach will provide a dedicated left-turn lane, a single through lane, and a dedicated right-turn lane. The Poquonock Avenue and Broad Street Approaches will remain the same. Under the combined traffic volume conditions, using

the Road Diet lane configuration, the intersection will operate at an overall LOS B during all peak hours.

Route 75 (Poquonock Ave) & Prospect Street / Private Drive – This is an existing signalized intersection with Route 75 (Poquonock Avenue) oriented in the east/west direction. Prospect Street approaches from the north and a private driveway approaches from the south. The eastbound and westbound Route 75 approaches each provide two shared lanes. Prospect Street provides a dedicated left-turn lane and a shared through / right-turn lane. The private drive provides a single lane approach. The capacity analysis indicates that under the background traffic volume conditions the intersection will operate at an overall LOS C during all peak hours, and will continue to operate at the same level of service under the combined traffic volume conditions. There are no changes to the intersection geometry under the proposed Road Diet project. The intersection therefore will operate at the same levels of service.

Route 75 (Poquonock Ave) & Route 305 (Bloomfield Avenue) – This is an existing signalized intersection with Route 75 (Poquonock Avenue) oriented in the east/west direction. Route 305 (Bloomfield Avenue) approaches from the south. The eastbound and westbound Route 75 approaches each provide two shared lanes. The Route 305 approach provides a shared left / right turn lane and a dedicated right-turn lane. The capacity analysis indicates that under the background traffic volume conditions the intersection will operate at an overall LOS C during all peak hours, and will continue to operate at the same level of service under the combined traffic volume conditions. There are no changes to the intersection geometry under the proposed Road Diet project. The intersection therefore will operate at the same levels of service.

Route 159 (Palisado Avenue) & Union Street / Site Driveway – This is an existing un-signalized intersection with Route 159 (Palisado Avenue) oriented in the north/south

direction. Union Street approaches from the east. The site driveway approaches from the west. Since the driveway at this location will be abandoned, a capacity analysis has not been provided for this location.

Prospect Street & Site Driveway – This is an existing intersection with Prospect Street oriented in the north/south direction. The site driveway approaches from the east. Prospect Street provides a single lane on each approach. The site driveway provides a single lane approach and operates under stop sign control. The capacity analysis indicates that under the background traffic volume conditions all approaches operate at a LOS A during peak hours. With the closure of the driveway to Palisado Avenue, most of the site related traffic will utilize this driveway. Under the combined traffic volume conditions all approaches will continue to operate at a LOS A during peak hours.

Site Driveway Location and Design

Access to the site is proposed by way of a full service driveway to Prospect Street. The driveway will be located approximately 75 feet north of the Prospect Street stop bar. The driveway will provide 24 feet of pavement with a single 12 foot lane for both entering and exiting traffic, separated by a painted double yellow centerline. The driveway will operate under stop sign control. The available intersection sight distance is in excess of 300 feet looking to the north and extends to the intersection of Route 175 looking to the south. Prospect Street is posted at 25 mph. ConnDOT requires a minimum ISD of 240 feet for an 85% speed of 25 mph.

The two other driveways are an enter only driveway from Prospect Street and a driveway of convenience/emergency driveway to Upper Broad Street. The enter only drive on Prospect Street, north of the full access drive, will provide 10 feet of pavement consisting of an enter only lane. The exit only drive onto Upper Broad Street will provide 14 feet of pavement, consisting of an exit only lane.

Accident Data

The University of Connecticut Crash Data Repository gathers and compiles traffic accident data for all state highways and some major local roadways. Accidents were obtained for Route 159 from the intersection of Broad Street to the railroad overpass, For Route 75 from Route 159 to a point 250 feet west of Route 305 and for the entire length of Prospect Street. The data covers the period from January 1st, 2019 through December 31, 2021. The accident list is included in the appendix.

A total of thirty-two (32) accidents were recorded during the three-year period reviewed. Of those accidents, eleven (11) were front-to-rear, eight (8) involved fixed objects, six (6) were angled accidents, five (5) were sideswipe same direction, one (1) was classified as a roll-over accident, and one (1) was classified as unknown. Of the total accidents, thirty (30) involved property damage only, one (1) involved suspected injuries, and one (1) involved possible injuries. There were no reported fatalities.

Conclusion

The proposed redevelopment is projected to generate a total of 85 trips during the morning peak hour, 151 trips during the afternoon peak hour, and 118 trips during the Saturday peak hour. These volumes represent a reduction in traffic during the afternoon and Saturday peak hours, and a minor increase during the morning peak hour when compared to the existing development on the site. A capacity analysis indicated that all intersections within the study area and the proposed site driveway will operate at acceptable levels of service during peak hours. The site driveways are properly located with respect to available sight distances and are properly designed to accommodate the anticipated driveway volumes. Based on our analysis, it is our professional opinion that the traffic volumes associated with the proposed development can readily be accommodated by the existing roadway network.

Mr. Gregory Vaca
May 3, 2022
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We appreciate the opportunity to provide this analysis to you. A representative from our firm will be available to present testimony in support of your application before local planning agencies upon your request. If you require additional information regarding this application, please do not hesitate to contact our office.

Very truly yours,
F. A. Hesketh & Associates, Inc.



Scott F. Hesketh, P.E.
Manager of Transportation Engineering

cc: Christian Alford, Alford Associates

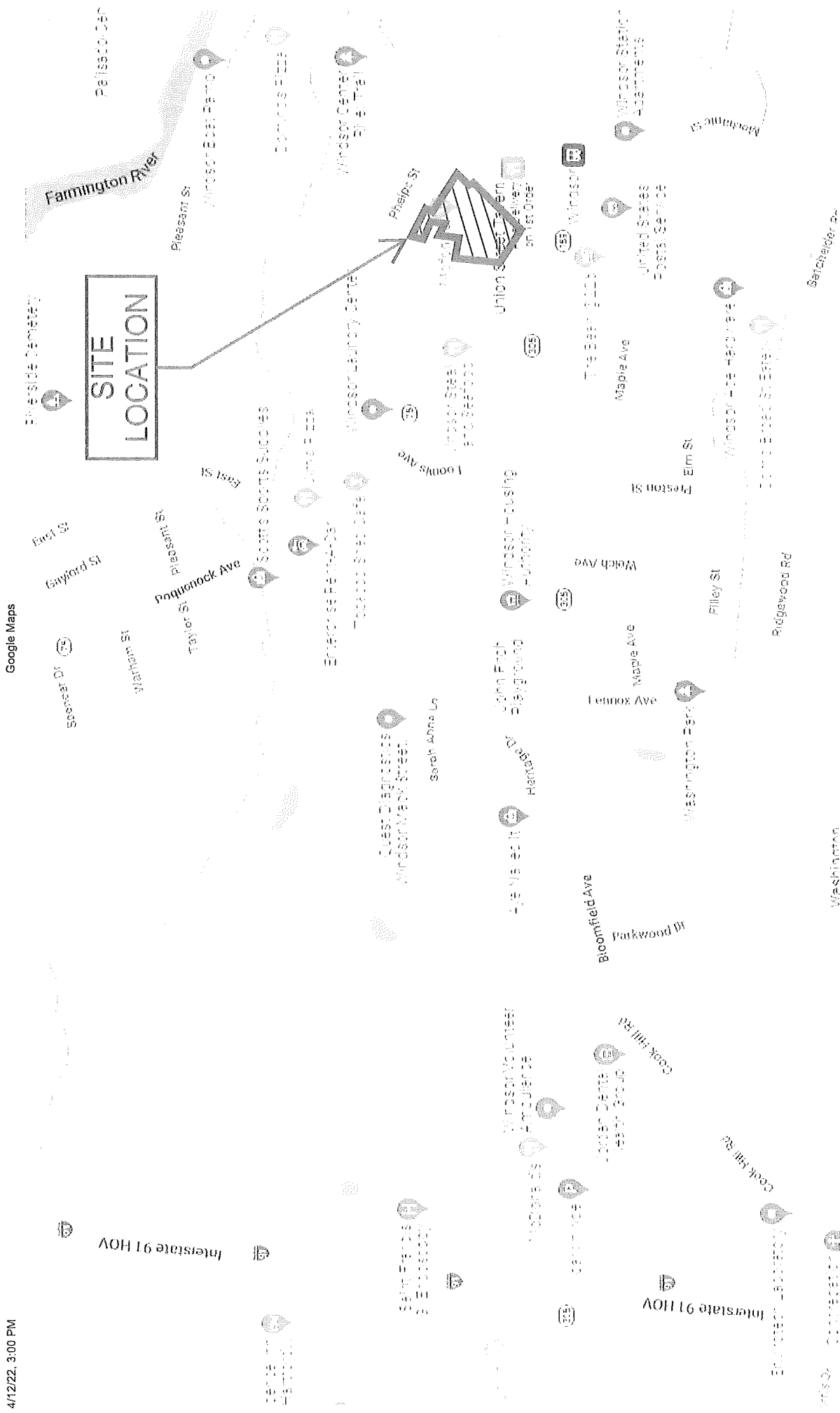


FIGURE 1

TABLE 1
 ConnDOT Traffic Volumes
 Route 75 West of Route 159
 Station No. 3

| | 17-Jun-19 Monday | | | 18-Jun-19 Tuesday | | |
|-------|---------------------|-----------|--------------|----------------------|-----------|--------------|
| | <u>NB</u> | <u>SB</u> | <u>Total</u> | <u>NB</u> | <u>SB</u> | <u>Total</u> |
| 12:00 | | | | 15 | 23 | 38 |
| 1:00 | | | | 3 | 12 | 15 |
| 2:00 | | | | 6 | 3 | 9 |
| 3:00 | | | | 2 | 4 | 6 |
| 4:00 | | | | 5 | 5 | 10 |
| 5:00 | | | | 25 | 36 | 61 |
| 6:00 | 78 | 71 | 149 | | | |
| 7:00 | 177 | 205 | 382 | | | |
| 8:00 | 223 | 215 | 438 | | | |
| 9:00 | 175 | 213 | 388 | | | |
| 10:00 | 224 | 224 | 448 | | | |
| 11:00 | 198 | 226 | 424 | | | |
| 12:00 | 251 | 258 | 509 | | | |
| 1:00 | 250 | 242 | 492 | | | |
| 2:00 | 238 | 228 | 466 | | | |
| 3:00 | 262 | 306 | 568 | | | |
| 4:00 | 277 | 377 | 654 | | | |
| 5:00 | 309 | 396 | 705 | | | |
| 6:00 | 192 | 233 | 425 | | | |
| 7:00 | 151 | 151 | 302 | | | |
| 8:00 | 135 | 118 | 253 | | | |
| 9:00 | 56 | 63 | 119 | | | |
| 10:00 | 44 | 29 | 73 | | | |
| 11:00 | 22 | 25 | 47 | | | |
| | 3262 | 3580 | 6842 | 56 | 83 | 139 |

AADT = 6,400 for station 3 in Windsor

Table 2

Status: OK

WNDS-018 - North & South

Route 159 - 3.87 mi NE of Union St (At Rr Underpass)

| | | 13-Jun | 14-Jun |
|--|--------------------------|---------|-----------|
| | | Thu | Fri |
| Town..... | Windsor | | |
| Station..... | 18 | | |
| Location..... | 41.853489,-72.642743 | 12:00am | 44 |
| Posted Speed Limit..... | 35 MPH | 01:00am | 17 |
| 2015-Minor Arterial 4..... | 2015-Urban | 02:00am | 14 |
| Start Report..... | 13-Jun-2019 08:00AM | 03:00am | 14 |
| End Report..... | 14-Jun-2019 08:00AM | 04:00am | 32 |
| 2019:WNDS-050 Axle Correction..... | 0.99 | 05:00am | 78 |
| | | 06:00am | 209 |
| | | 07:00am | 622 |
| 24-Hour Count..... | 7503 * G4(0.91) = 6827.7 | 08:00am | 603 |
| UnRounded...6827.7 / 1 * ACF(0.9897) = | 6758 | 09:00am | 414 |
| OK 2019 Thu 13-Jun -this report-..... | 6800 | 10:00am | 360 |
| OK 2016 Tue 02-Aug | 6500 | 11:00am | 436 |
| OK 2010 Tue 26-Jan | 7000 | 12:00pm | 407 |
| OK 2007 Mon 22-Oct | 7900 | 01:00pm | 387 |
| | | 02:00pm | 466 |
| | | 03:00pm | 643 |
| | | 04:00pm | 733 |
| | | 05:00pm | 744 |
| | | 06:00pm | 391 |
| | | 07:00pm | 313 |
| | | 08:00pm | 239 |
| | | 09:00pm | 169 |
| | | 10:00pm | 118 |
| | | 11:00pm | 50 |
| | | Totals | 6473 1030 |

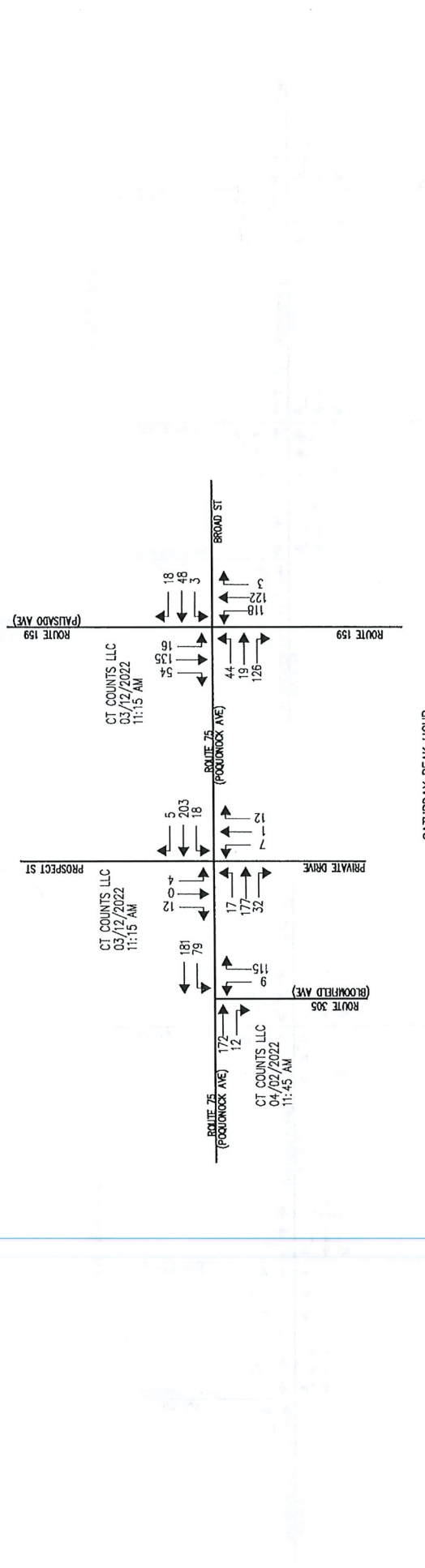
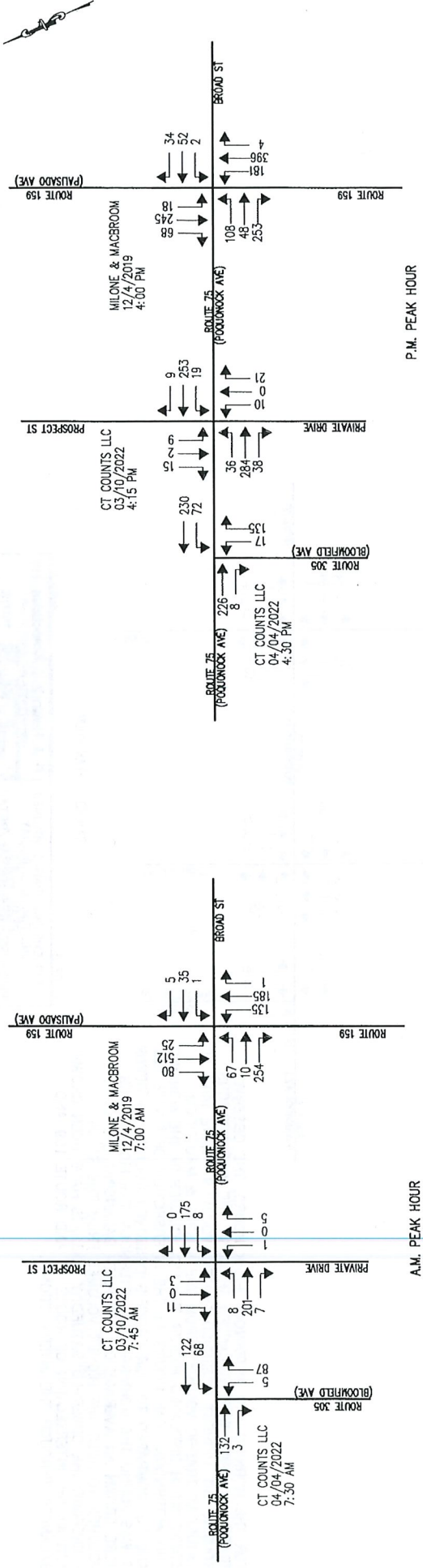


FIGURE 2

OBSERVED TRAFFIC VOLUMES
A.M. & SATURDAY
P.M. PEAK HOURS

PROPOSED TRAFFIC VOLUMES
RESIDENTIAL/RETAIL
DEVELOPMENT

144 BROAD STREET
WINDSOR CONNECTICUT

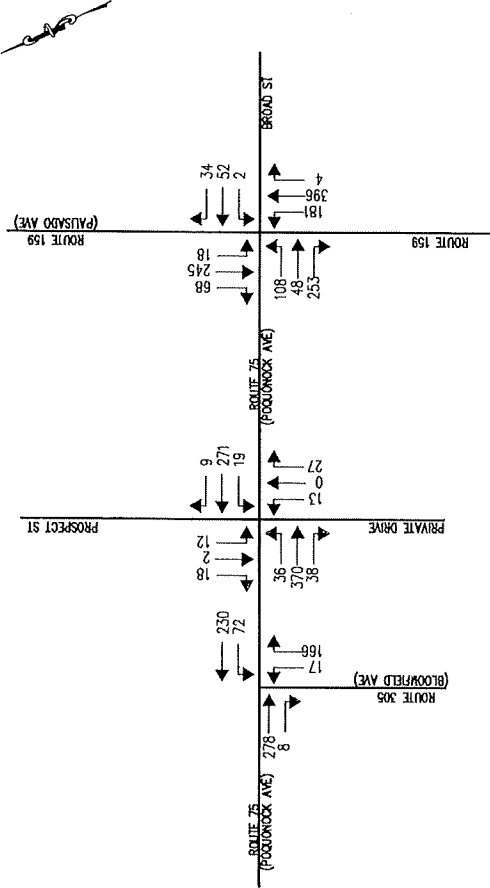
04-06-2022

F. A. Heekath & Associates, Inc.
200 Main Street, WindSOR, CT 06093

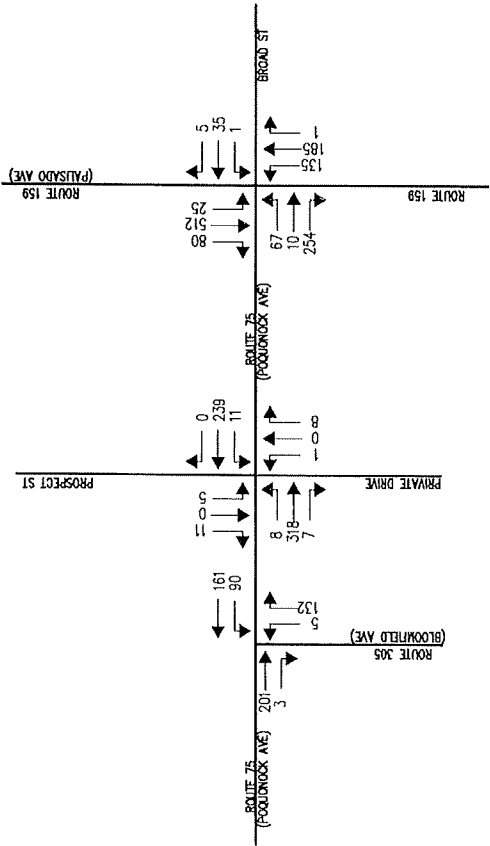
FAH

TRAFFIC
PLANNING
ENGINEERING
DESIGN

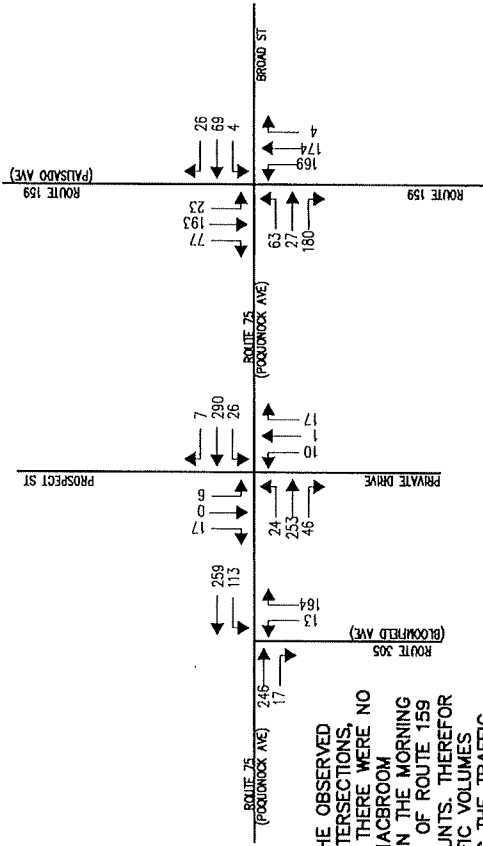
NOT TO SCALE



P.M. PEAK HOUR



A.M. PEAK HOUR



SATURDAY PEAK HOUR

FOR THE MORNING AND AFTERNOON PEAK HOURS, THE OBSERVED TRAFFIC VOLUMES WERE BALANCED THROUGH THE INTERSECTIONS, HOLDING THE HIGHEST OBSERVED TRAFFIC VOLUMES. THERE WERE NO SATURDAY TRAFFIC VOLUMES FROM THE MILONE & MACBROOM STUDY WHICH DISPLAYED HIGHER TRAFFIC VOLUMES IN THE MORNING AND AFTERNOON PEAK HOURS AT THE INTERSECTION OF ROUTE 159 AND 75, COMPARED TO OUR OFFICE'S OBSERVED COUNTS. THEREFOR IT WAS FOUND THE MORNING AND AFTERNOON TRAFFIC VOLUMES WERE GROWN AN AVERAGE OF 43% WHEN BALANCING THE TRAFFIC VOLUMES TO HOLD THE HIGHER VOLUMES FROM THE STUDY. THEREFORE THE OBSERVED SATURDAY VOLUMES HAVE BEEN GROWN 43% AT THE INTERSECTION OF ROUTE 75 AND ROUTE 159 AND BALANCED THROUGH THE INTERSECTIONS.

04-08-2022

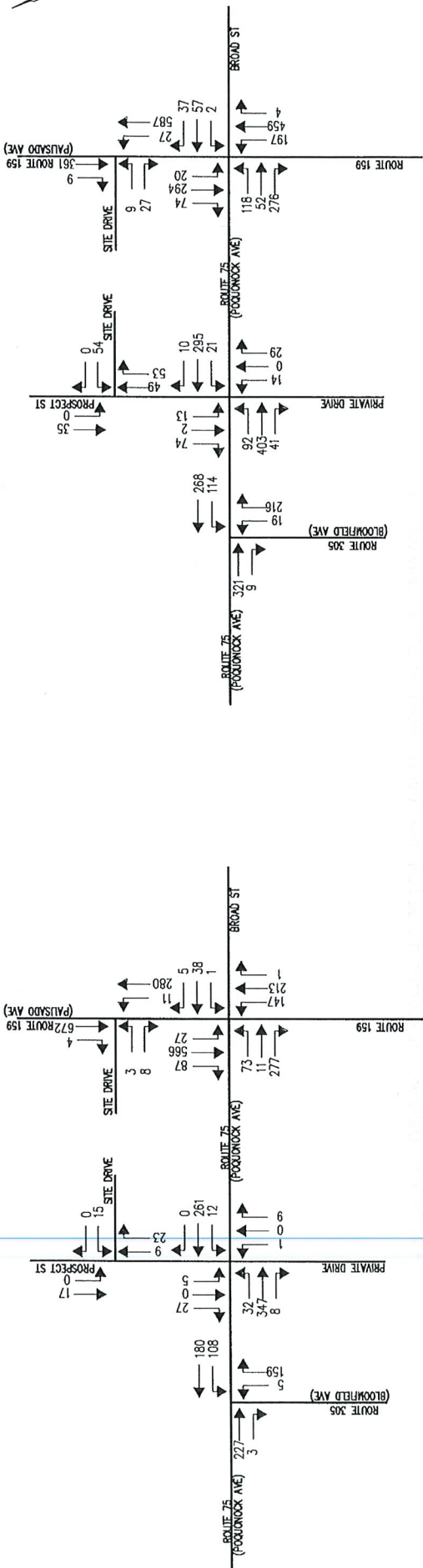
F. A. Heekath & Associates, Inc.
TRAFFIC PLANNING ENGINEERING ARCHITECTURE

2019 EXISTING TRAFFIC VOLUMES
A.M., P.M. & SATURDAY
PEAK HOURS
PROPOSED RESIDENTIAL/RETAIL
DEVELOPMENT
144 BROAD STREET
WINDSOR, CONNECTICUT

FAH

NOT TO SCALE

FIGURE 3



A.M. PEAK HOUR

P.M. PEAK HOUR

THE 2019 EXISTING TRAFFIC VOLUMES FROM FIGURE 3 HAVE BEEN GROWN 9% TO THE 2030 DESIGN YEAR. EXISTING SITE GENERATED TRAFFIC VOLUMES FROM FIGURE 1A HAVE BEEN INCLUDED TO PROVIDE THE 2030 BACKGROUND TRAFFIC VOLUMES.

SATURDAY PEAK HOUR

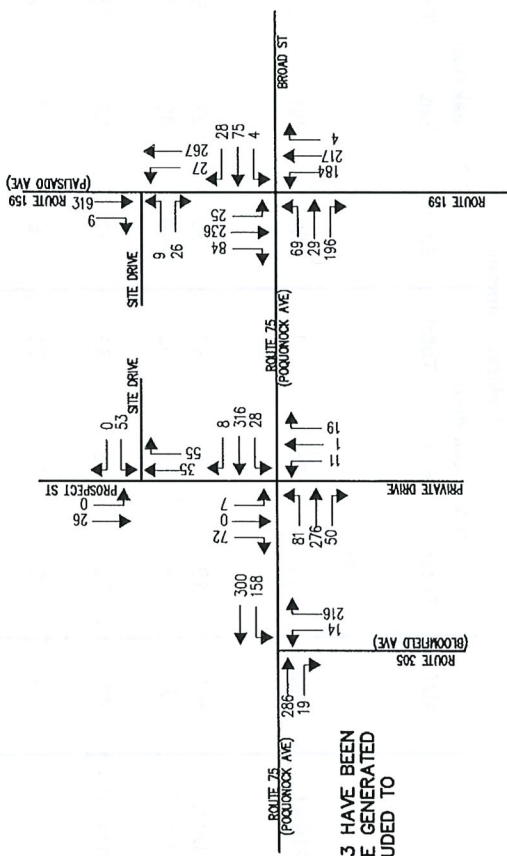


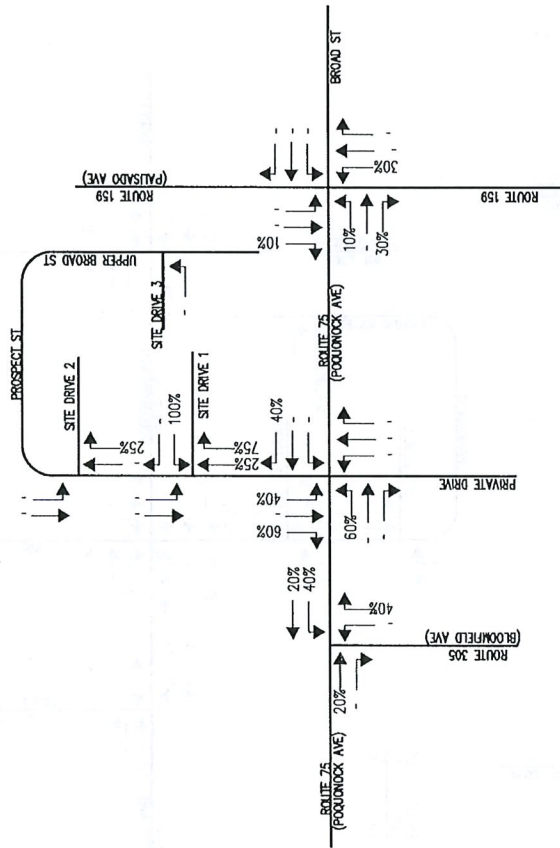
FIGURE 4
 2030 BACKGROUND TRAFFIC VOLUMES
 A.M., P.M. & SATURDAY
 PEAK HOURS
 PROPOSED RESIDENTIAL/RETAIL
 DEVELOPMENT
 144 BROAD STREET
 WINDSOR CONNECTICUT

04-06-2022
F. A. Harkness & Associates, Inc.
 550 MAIN STREET SUITE 200
FAH
 TRAFFIC
 PLANNING
 ENGINEERING
 DESIGN
 NOT TO SCALE

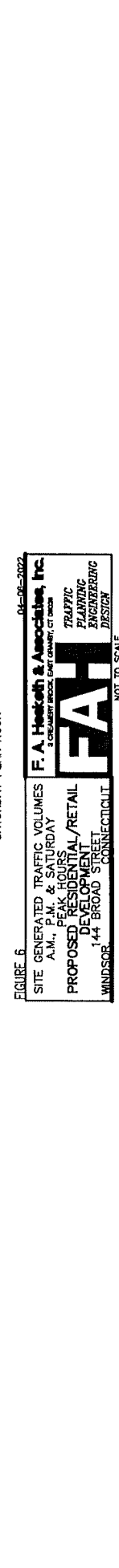
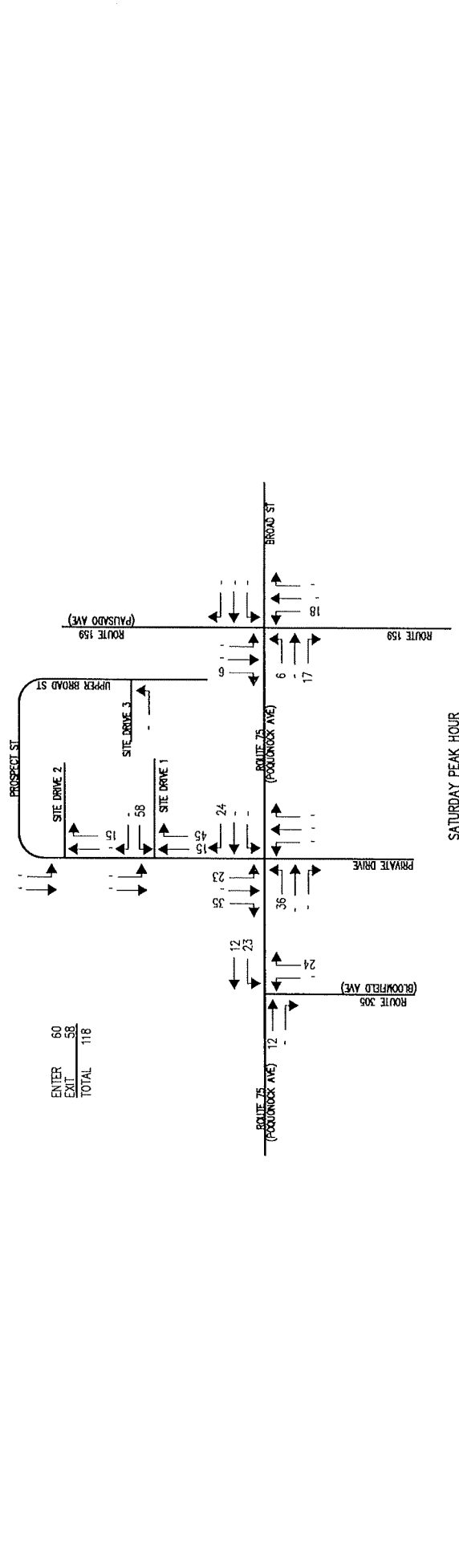
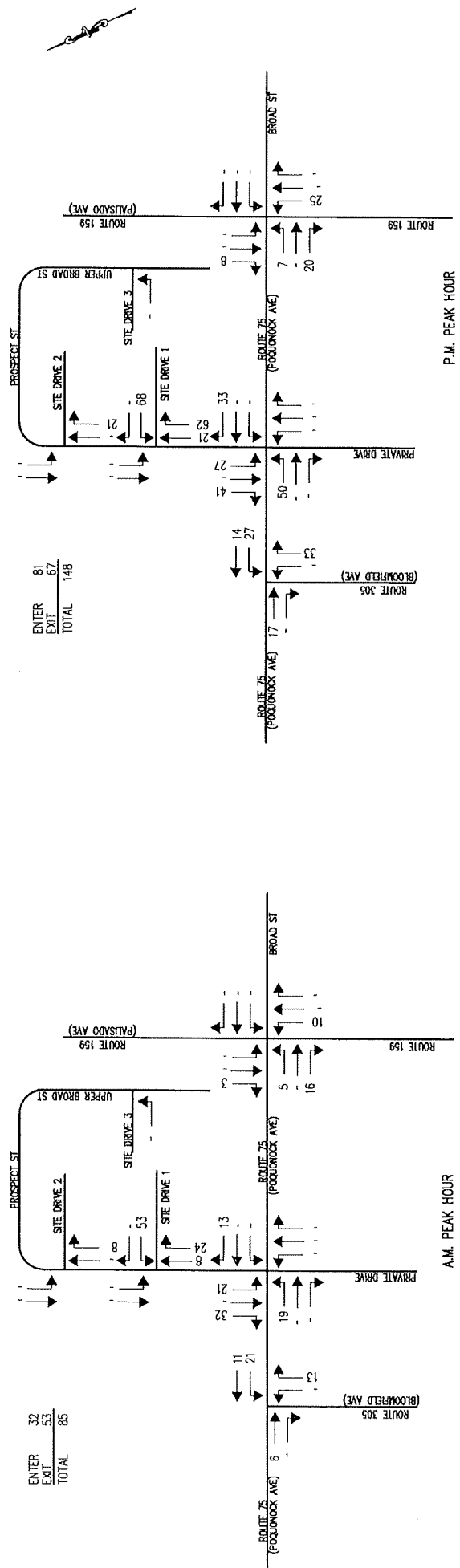
**Table 3
Trip Generation
Windsor Center Plaza
Windsor, CT**

| Land Use | Size | ADT | Weekday Volumes | | | | Daily ADT | Saturday Volumes | | | |
|---|-------------------------|------------|-----------------|----------|----------------|----------|-----------|------------------|----------------|----------|----------|
| | | | A.M. Peak Hour | | P.M. Peak Hour | | | Enter | Peak Hour Exit | Total | |
| | | | Enter | Exit | Total | Enter | Exit | Total | Enter | Exit | Total |
| Existing Development Shopping Center* | 27,210 s.f. | 1482 | 38 | 26 | 64 | 89 | 90 | 179 | 91 | 88 | 179 |
| Proposed Development Multi Family Attached Low Rise Shopping Center* | 96 Units 12,000 s.f. | 691 736 | 13 19 | 40 13 | 53 32 | 39 44 | 23 45 | 62 89 | 20 40 | 19 39 | 39 79 |
| | Combined | 1427 | 32 | 53 | 85 | 83 | 68 | 151 | 60 | 58 | 118 |
| | Difference | -55 | -6 | 27 | 21 | -6 | -22 | -28 | -31 | -30 | -61 |

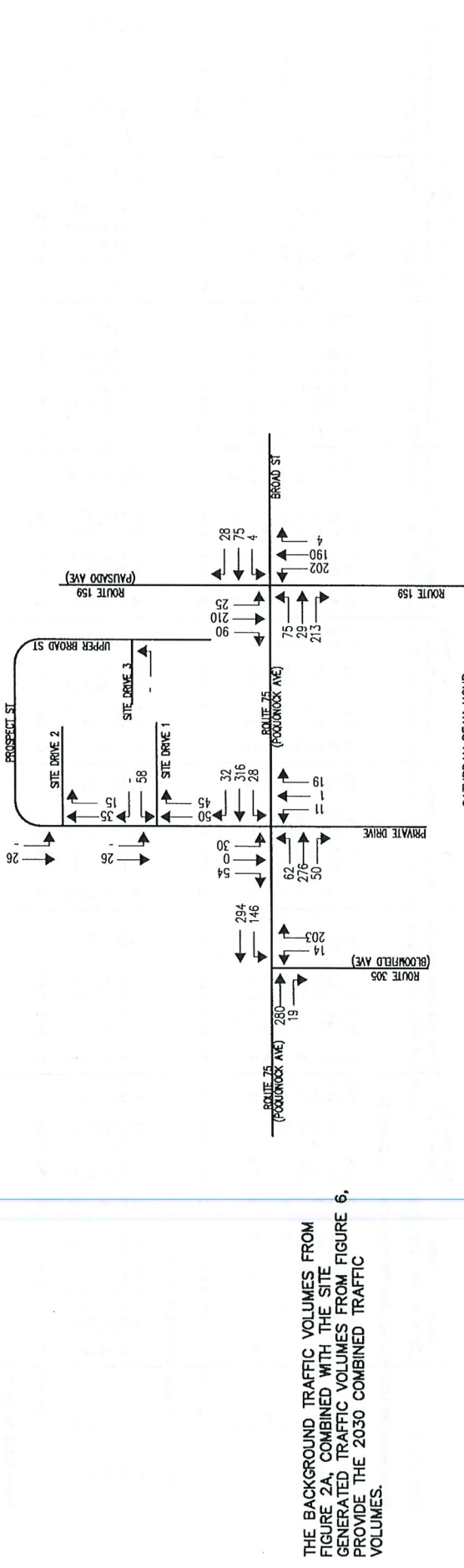
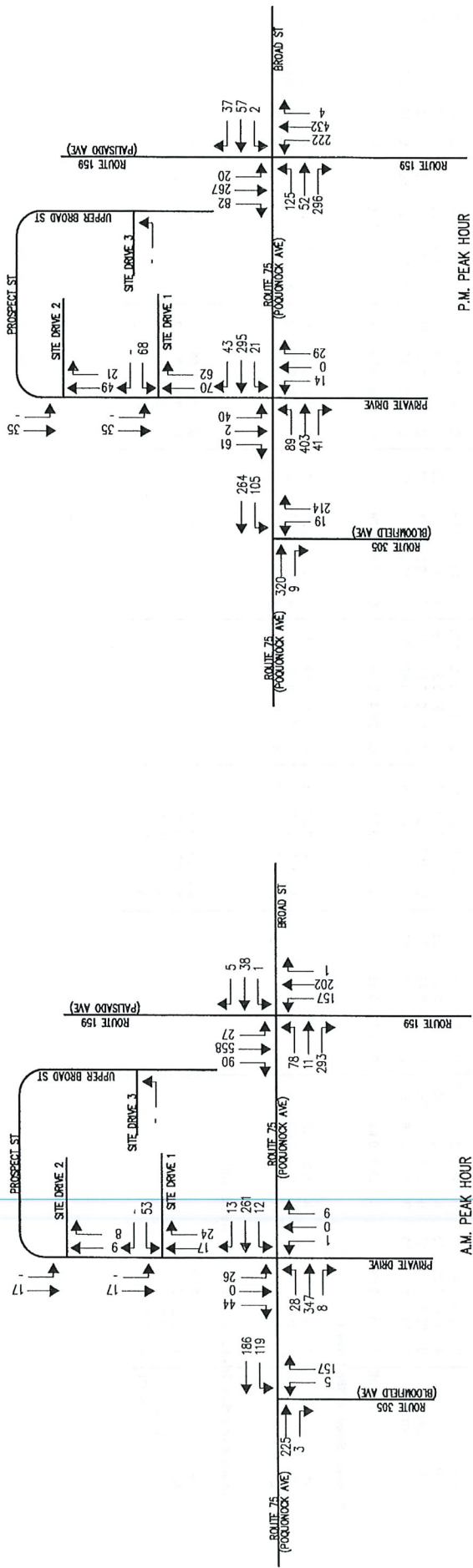
* - Saturday Daily volume estimated based on peak hour representing 10% of daily volume



04-06-2022
F. A. Hesketh & Associates, Inc.
100 MAIN STREET, SUITE 200, DANBURY, CT 06820
TRAFFIC PLANNING ENGINEERING DESIGN
FAH
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 WINDSOR, CONNECTICUT
FIGURE 5
 DIRECTIONAL DISTRIBUTION OF SITE GENERATED TRAFFIC VOLUMES ALL PEAK HOURS PROPOSED RESIDENTIAL/RETAIL DEVELOPMENT 144 BROAD STREET WINDSOR, CONNECTICUT



04-06-2022
F. A. Heekath & Associates, Inc.
 3 CREAM HILL ROAD, EAST GRAFTON, CT 06033
FAH
 TRAFFIC
 PLANNING
 ENGINEERING
 DESIGN
 DEVELOPMENT
 144 BROAD STREET
 WINDSOR, CONNECTICUT
 NOT TO SCALE



THE BACKGROUND TRAFFIC VOLUMES FROM FIGURE 2A, COMBINED WITH THE SITE GENERATED TRAFFIC VOLUMES FROM FIGURE 6, PROVIDE THE 2030 COMBINED TRAFFIC VOLUMES.

04-06-2022

F. A. Heekath & Associates, Inc.
 3-25 BROAD STREET, SUITE 200
 WINDSOR, CONNECTICUT 06095

FAH

TRAFFIC PLANNING
 ENGINEERING
 DESIGN

FIGURE 7
 2030 COMBINED TRAFFIC VOLUMES
 A.M., P.M. & SATURDAY
 PROPOSED RESIDENTIAL/RETAIL DEVELOPMENT
 144 BROAD STREET
 WINDSOR, CONNECTICUT

NOT TO SCALE

**Table 4
Level of Service Summary
Proposed Residential/ Retail Development - 144 Broad Street
Windsor, CT**

| Intersection | A.M. Peak Hour | | | P.M. Peak Hour | | | Saturday Peak Hour | | | Combined Traffic (Road Diet) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Background Traffic LOS delay v/c Queue | Combined Traffic LOS delay v/c Queue | Combined Traffic (Road Diet) LOS delay v/c Queue | Background Traffic LOS delay v/c Queue | Combined Traffic LOS delay v/c Queue | Combined Traffic (Road Diet) LOS delay v/c Queue | Background Traffic LOS delay v/c Queue | Combined Traffic LOS delay v/c Queue | Combined Traffic (Road Diet) LOS delay v/c Queue | Background Traffic LOS delay v/c Queue | Combined Traffic LOS delay v/c Queue | Combined Traffic (Road Diet) LOS delay v/c Queue |
| Broad Street (Rt 159)/ Palisado Ave (Rt 159) & Route 75/Broad St | | | | | | | | | | | | |
| EB Thru | D 52.6 0.61 131 | D 54.8 0.62 138 | D 36.8 0.49 82 | E 62.6 0.61 230 | E 65.4 0.82 #244 | D 43.6 0.71 #173 | E 63.2 0.72 149 | E 66.3 0.74 157 | D 38.1 0.55 90 | E 63.2 0.72 149 | E 66.3 0.74 157 | D 38.1 0.55 90 |
| EB Right | C 27.8 0.47 260 | C 25.1 0.48 253 | B 13.5 0.52 110 | C 20.6 0.39 235 | B 18.7 0.41 228 | A 3.9 0.40 43 | C 20.4 0.35 130 | B 19.2 0.37 129 | A 3.9 0.34 35 | C 20.4 0.35 130 | B 19.2 0.37 129 | A 3.9 0.34 35 |
| WB | D 45.0 0.23 65 | D 44.2 0.22 64 | C 25.5 0.17 43 | C 34.6 0.32 103 | C 34.1 0.31 103 | B 19.2 0.29 67 | D 49.1 0.49 128 | D 47.7 0.47 127 | C 26.1 0.40 79 | D 49.1 0.49 128 | D 47.7 0.47 127 | C 26.1 0.40 79 |
| NB | D 55.0 0.47 90 | E 55.5 0.50 96 | A 5.7 0.33 44 | D 49.4 0.44 115 | D 51.2 0.51 128 | A 6.2 0.33 61 | E 55.3 0.54 108 | E 56.6 0.58 121 | A 5.0 0.26 62 | E 55.3 0.54 108 | E 56.6 0.58 121 | A 5.0 0.26 62 |
| SB Thru | A 7.2 0.17 148 | A 7.4 0.16 143 | B 10.9 0.22 103 | B 12.1 0.39 391 | B 12.1 0.37 362 | B 17.6 0.53 250 | A 8.0 0.18 159 | A 8.2 0.16 142 | B 11.9 0.22 111 | A 8.0 0.18 159 | A 8.2 0.16 142 | B 11.9 0.22 111 |
| SB Left | - | - | A 3.9 0.03 11 | - | - | A 4.7 0.04 9 | - | - | A 4.2 0.03 12 | - | - | A 4.2 0.03 12 |
| SB Thru | B 17.2 0.38 340 | B 17.5 0.38 337 | B 16.2 0.60 333 | C 21.4 0.27 195 | C 21.0 0.26 183 | B 14.6 0.33 143 | B 15.7 0.21 161 | B 15.3 0.20 146 | B 12.2 0.23 120 | B 15.7 0.21 161 | B 15.3 0.20 146 | B 12.2 0.23 120 |
| SB Right | - | - | A 3.2 0.11 24 | - | - | A 3.3 0.11 22 | - | - | A 3.5 0.11 26 | - | - | A 3.5 0.11 26 |
| Overall | C 24.5 0.61 - | C 24.8 0.62 - | B 14.3 0.60 - | C 27.2 0.81 - | C 28.0 0.82 - | B 15.1 0.71 - | C 28.5 0.72 - | C 29.8 0.74 - | B 12.2 0.55 - | C 28.5 0.72 - | C 29.8 0.74 - | B 12.2 0.55 - |
| Private Drive/Prospect Street & Route 75 | | | | | | | | | | | | |
| EB | A 4.7 0.22 21 | A 4.7 0.22 21 | A 4.7 0.22 21 | A 6.0 0.33 26 | A 6.1 0.34 26 | A 6.1 0.34 26 | A 6.0 0.33 26 | A 6.1 0.34 26 | A 4.2 0.23 19 | A 6.1 0.34 26 | A 6.1 0.34 26 | A 4.2 0.23 19 |
| WB | E 58.6 0.69 152 | E 57.1 0.69 157 | E 55.7 0.69 160 | E 60.9 0.81 183 | E 55.1 0.79 197 | E 57.3 0.79 192 | E 62.3 0.76 208 | E 60.5 0.76 223 | E 55.1 0.76 199 | E 62.3 0.76 208 | E 60.5 0.76 223 | E 55.1 0.76 199 |
| NB | A 0.1 0.02 0 | A 0.1 0.02 0 | A 0.1 0.02 0 | A 0.3 0.08 0 | A 0.3 0.08 0 | A 0.3 0.08 0 | A 0.3 0.08 0 | A 0.3 0.08 0 | C 21.9 0.07 42 | A 0.3 0.08 0 | A 0.3 0.08 0 | C 21.9 0.07 42 |
| SB Left | D 39.2 0.01 17 | D 37.3 0.07 51 | D 37.3 0.07 51 | D 37.8 0.04 31 | D 37.5 0.11 70 | D 37.5 0.11 70 | D 38.7 0.02 22 | D 37.3 0.08 58 | D 37.3 0.08 58 | D 38.7 0.02 22 | D 37.3 0.08 58 | D 37.3 0.08 58 |
| SB Thru | A 0.0 0.03 0 | A 0.1 0.05 0 | A 0.1 0.05 0 | B 10.7 0.16 50 | B 11.6 0.13 46 | B 11.6 0.13 46 | B 10.7 0.16 50 | A 0.1 0.06 0 | A 0.1 0.06 0 | A 0.2 0.08 0 | A 0.1 0.06 0 | A 0.1 0.06 0 |
| Overall | C 25.7 0.69 - | C 25.5 0.69 - | C 25.0 0.69 - | C 24.6 0.81 - | C 24.7 0.79 - | C 25.1 0.79 - | C 24.6 0.81 - | C 24.7 0.79 - | C 27.5 0.76 - | C 24.6 0.81 - | C 24.7 0.79 - | C 27.5 0.76 - |
| Route 305 & Route 75 | | | | | | | | | | | | |
| EB | D 49.8 0.49 130 | D 49.0 0.48 128 | D 49.0 0.48 128 | D 49.0 0.59 174 | D 46.7 0.55 170 | D 46.7 0.55 170 | D 49.0 0.59 174 | D 46.7 0.55 170 | D 44.8 0.49 153 | D 46.7 0.55 170 | D 46.7 0.55 170 | D 44.8 0.49 153 |
| WB | A 4.8 0.23 15 | A 5.3 0.24 23 | A 5.8 0.24 23 | A 5.6 0.29 21 | A 3.9 0.27 19 | A 4.8 0.27 23 | A 5.6 0.29 21 | A 3.9 0.27 19 | A 6.4 0.33 44 | A 4.8 0.27 23 | A 4.8 0.27 23 | A 6.4 0.33 44 |
| NB | B 20.0 0.46 53 | B 20.0 0.46 53 | B 20.0 0.46 53 | C 20.2 0.51 71 | C 20.2 0.51 71 | C 20.2 0.51 71 | C 20.2 0.51 71 | C 20.2 0.51 71 | C 20.9 0.52 65 | C 20.2 0.51 71 | C 20.2 0.51 71 | C 20.9 0.52 65 |
| Right | B 18.4 0.46 52 | B 18.4 0.46 51 | B 18.4 0.46 51 | B 14.6 0.49 57 | B 14.6 0.49 56 | B 14.6 0.49 56 | B 14.6 0.49 57 | B 14.6 0.49 56 | B 16.5 0.51 56 | B 14.6 0.49 56 | B 14.6 0.49 56 | B 16.5 0.51 56 |
| Overall | C 23.4 0.69 - | C 22.9 0.69 - | C 23.1 0.69 - | C 23.7 0.81 - | C 22.4 0.79 - | C 22.8 0.79 - | C 23.7 0.81 - | C 22.4 0.79 - | C 21.6 0.76 - | C 23.7 0.81 - | C 22.4 0.79 - | C 21.6 0.76 - |
| Prospect Street & Site Drive 1 | | | | | | | | | | | | |
| WB | A 8.8 0.02 1 | A 9.0 0.06 5 | A 9.0 0.06 5 | A 9.4 0.07 5 | A 9.7 0.09 7 | A 9.7 0.09 7 | A 9.4 0.07 5 | A 9.7 0.09 7 | A 9.3 0.07 6 | A 9.7 0.09 7 | A 9.7 0.09 7 | A 9.3 0.07 6 |
| NB | A 0.0 0.02 0 | A 0.0 0.03 0 | A 0.0 0.03 0 | A 0.0 0.07 0 | A 0.0 0.08 0 | A 0.0 0.08 0 | A 0.0 0.07 0 | A 0.0 0.08 0 | A 0.0 0.06 0 | A 0.0 0.08 0 | A 0.0 0.08 0 | A 0.0 0.06 0 |
| SB | A 0.0 0.00 0 | A 0.0 0.00 0 | A 0.0 0.00 0 | A 0.0 0.00 0 | A 0.0 0.00 0 | A 0.0 0.00 0 | A 0.0 0.00 0 | A 0.0 0.00 0 | A 0.0 0.00 0 | A 0.0 0.00 0 | A 0.0 0.00 0 | A 0.0 0.00 0 |
| Palisado Ave & Site Drive 2 (Existing/To Be Removed) | | | | | | | | | | | | |
| EB | B 13.8 0.03 2 | - | - | B 13.9 0.03 7 | - | - | B 13.9 0.03 7 | - | - | - | - | - |
| NB | A 0.5 0.01 1 | - | - | A 0.7 0.03 2 | - | - | A 0.7 0.03 2 | - | - | - | - | - |
| SB | A 0.0 0.29 0 | - | - | A 0.0 0.15 0 | - | - | A 0.0 0.15 0 | - | - | - | - | - |
| Thru/Right | A 0.0 0.15 0 | - | - | A 0.0 0.08 0 | - | - | A 0.0 0.08 0 | - | - | - | - | - |