STATE OF DELAWARE
DEPARTMENT OF TRANSPORTATION
800 BAY ROAD
P.O. BOX 778
DOVER, DELAWARE 19903

JENNIFER COHAN
SECRETARY

May 15, 2020

Ms. Dawn Riggi
Davis, Bowen & Friedel, Inc.
1 Park Avenue
Milford, DE 19963

Dear Ms. Riggi:

The enclosed Traffic Impact Study (TIS) review letter for the proposed **Clifton Property** (Tax Parcels 234-14.00-123.00 & 123.01, 235-14.16-1.00, 2.00, 3.00, & 4.00) development has been completed under the responsible charge of a registered professional engineer whose firm is authorized to work in the State of Delaware. They have found the TIS to conform to DelDOT's Development Coordination Manual and other accepted practices and procedures for such studies. DelDOT accepts this review letter and concurs with the recommendations. If you have any questions concerning this letter or the enclosed review letter, please contact me at (302) 760-2167.

Sincerely,

Troy Brestel
Project Engineer

TEB:km
Enclosures
cc with enclosures: Mr. Zachary Crouch, Davis, Bowen & Friedel, Inc.
Ms. Constance C. Holland, Office of State Planning Coordination
Ms. Kristy Rogers, Town Manager, Town of Milton
Ms. Joanne Arellano, Johnson, Mirmiran & Thompson, Inc.
DelDOT Distribution

DelDOT

DelDOT Distribution

Brad Eaby, Deputy Attorney General
Shanté Hastings, Director, Transportation Solutions (DOTS)
J. Marc Coté, Director, Planning
Mark Luszcz, Deputy Director, DOTS
Michael Simmons, Assistant Director, Project Development South, DOTS
Todd Sammons, Assistant Director, Development Coordination
T. William Brockenbrough, Jr., County Coordinator, Development Coordination
Peter Haag, Chief Traffic Engineer, Traffic, DOTS
Alastair Probert, South District Engineer, South District
Gemez Norwood, South District Public Works Manager, South District
Susanne Laws, Sussex Subdivision Review Coordinator, Development Coordination
David Dooley, Service Development Planner, Delaware Transit Corporation
Mark Galipo, Traffic Engineer, Traffic, DOTS
Anthony Aglio, Planning Supervisor, Statewide & Regional Planning
Derek Sapp, Sussex County Subdivision Reviewer, Development Coordination
Claudy Joinville, Project Engineer, Development Coordination

May 15, 2020

Mr. Troy E. Brestel
Project Engineer
Development Coordination, Division of Planning
800 Bay Road
Dover, DE 19901

RE: Agreement No. 1945F
Project Number T202069012
Traffic Impact Study Services
Task 8A - Clifton Property

Dear Mr. Brestel:

Johnson, Mirmiran and Thompson (JMT) has completed the review of the Traffic Impact Study (TIS) for Clifton Property prepared by Davis, Bowen & Friedel, Inc. (DBF) dated February 2020. This task was assigned as Task Number 8A. The report is prepared in a manner generally consistent with DelDOT's *Development Coordination Manual*.

The TIS evaluates the impacts of a proposed residential development in both the Town of Milton and Sussex County, Delaware. The development would be comprised of 71 multi-family (low-rise) units, 168 multi-family (mid-rise) units, and a 20,000 square-foot shopping center. Construction is anticipated to be complete in 2025.

The site is located on the southwest corner of the intersection of Delaware Route 16 and Country Road (Sussex Road 22A). Two full access points are proposed: one along Delaware Route 16 and another along Bay Avenue, opposite Yew Street.

The subject property is on an approximately 27.51-acre assemblage of parcels that is split-zoned as AR-1 (Agricultural Residential), R-1 (Single-Family Residential), and C-1 (General Commercial) and the developer plans to rezone the land to R-3 (General and Multi-Family Residential) and C-1 (General Commercial). Annexation of lands currently under Sussex County jurisdiction into the Town of Milton is anticipated.

DelDOT is actively coordinating with the Town of Milton to address operational concerns at two of the study intersections. At the Delaware Route 5 signalized intersection with Delaware Route 16, DelDOT's Traffic section is working with the Town to develop a short-term solution to minimize the occurrence of eastbound and westbound vehicles passing on the shoulders of Delaware Route 16. A potential short-term solution developed by DelDOT involves installing delineators along Delaware Route 16 at the shoulders located at the northeast and southwest corners. DelDOT is awaiting concurrence from the Town regarding the design but the short-term solution is expected to be implemented by the end of this year.

At the Delaware Route 5/Front Street/Federal Street (Sussex Road 22) intersection, the Town has requested that the existing YIELD sign located along the Delaware Route 5/Union Street approach be converted to a STOP sign. A potential solution suggested by DelDOT Traffic involved the conversion of the intersection to be all-way-stop-controlled. DelDOT is awaiting a decision from the Town.

Based on our review of the TIS, we have the following comments and recommendations:

Based on the LOS evaluation criteria as stated in DelDOT's *Development Coordination Manual*, none of the study intersections exhibit LOS deficiencies.

Should the Town of Milton approve the development, the following items should be incorporated into the site design and reflected on the record plan. All applicable agreements (i.e. letter agreements for off-site improvements and traffic signal agreements) should be executed prior to entrance plan approval for the proposed development.

1. The developer should provide a bituminous concrete overlay to the existing travel lanes along the Delaware Route 16 site frontage in the area affected by entrance plan construction, including any auxiliary lanes, at DelDOT's discretion. DelDOT should analyze the existing lanes' pavement section and recommend an overlay thickness to the developer's engineer, if necessary.

2. The developer should coordinate with the Town regarding improvements along the Bay Avenue site frontage.

3. The developer should construct a full access site entrance for the proposed Clifton Property development along Delaware Route 16, approximately 520 feet east of the southeast point of tangency with the Palmer Street intersection to be consistent with the lane configurations shown in the table below:

Approach	Current Configuration	Proposed Configuration
Eastbound Delaware Route 16	One through lane	One through lane and one right-turn lane
Westbound Delaware Route 16	One through lane	One through lane and one left-turn lane
Northbound Site Entrance	Approach does not exist	One shared left-turn/right-turn lane

Based on DelDOT's *Development Coordination Manual*, the recommended minimum storage lengths along Delaware Route 16 is 190 feet (excluding taper) on the eastbound approach right turn lane and 120 feet (excluding taper) on the westbound approach left turn lane. The calculated queue lengths from the HCS analysis can be accommodated within the recommended storage lengths.

4. The developer should construct a full access site entrance for the proposed Clifton Property development along Bay Avenue directly across from Yew Street, to be consistent with the lane configurations shown in the table below:

Approach	Current Configuration	Proposed Configuration
Eastbound Bay Avenue	One shared through/right-turn lane	One shared left-turn/through/right-turn lane
Westbound Bay Avenue	One shared left-turn/through lane	One shared left-turn/through/right-turn lane
Northbound Yew Street	One shared left-turn/right-turn lane	One shared left-turn/through/right-turn lane
Southbound Site Entrance	Approach does not exist	One shared left-turn/through/right-turn lane

5. The following bicycle, pedestrian, and transit improvements should be included:

    a. A minimum fifteen-foot wide permanent easement from the edge of the right-of-way should be dedicated to DelDOT along the Delaware Route 16 and Country Road site frontages. Within the Delaware Route 16 easement, a shared use path should be constructed to meet AASHTO and ADA standards. If feasible, the SUP should be placed behind utility poles and street trees should be provided within the buffer area. The developer should coordinate with DelDOT's Development Coordination section during the plan review process to identify the exact location of the SUP.

    b. An internal connection from the SUP along the easternmost and westernmost Delaware Route 16 site frontages into the site should be installed.

    c. An internal connection between the commercial use and residential use should be installed.

    d. Where internal sidewalks are located alongside of parking spaces, a buffer, physical barrier or signage should be added to eliminate vehicular overhang onto the sidewalk.

    e. Internal bicycle racks should be installed for the commercial use section of the site. The bike parking should be provided near the building entrances. Where the building architecture provides for an awning or other overhang, the bike parking should be covered.

    f. A direct pedestrian pathway between the site and Park Royal Apartment's internal sidewalk should also be created to connect the site with the existing bus stops along

Palmer Street. The developer should coordinate with DelDOT's Development Coordination section for the exact location of the pathway.

g. ADA compliant curb ramps and marked crosswalks should be provided along the Site Entrance approaches to Delaware Route 16 and Bay Avenue. The use of diagonal curb ramps is discouraged. The curb ramps should be designed to accommodate the SUP.

h. Minimum five-foot wide bicycle lanes should be incorporated in the right turn lane and shoulder along the Delaware Route 16 approaches to the site entrance.

i. Utility covers should be moved outside of any designated bicycle lanes and any proposed sidewalks/shared-use paths or should be flush with the pavement.

j. A five-foot by eight-foot Type 2 bus stop should be installed along the westerly Delaware Route 16 site frontage. The developer should coordinate with DelDOT's Development Coordination section for the exact location of the bus stop.

Please note that this review generally focuses on capacity and level of service issues; additional safety and operational issues will be further addressed through DelDOT's Plan Review process.

Improvements in this TIS may be considered "significant" under DelDOT's *Work Zone Safety and Mobility Procedures and Guidelines*. These guidelines are available on DelDOT's website at https://www.deldot.gov//Publications/manuals/de_mutcd/index.shtml. For any additional information regarding the work zone impact and mitigation procedures during construction please contact Mr. Don Weber, Assistant Director for Traffic Operations and Management. Mr. Weber can be reached at (302) 659-4651 or by email at Don.Weber@delaware.gov.

Additional details on our review of the TIS are attached. Please contact me at (302) 266-9600 if you have any questions concerning this review.

Sincerely,
Johnson, Mirmiran, and Thompson, Inc.

Joanne M. Arellano, P.E., PTOE

cc: Mir Wahed, P.E., PTOE
Enclosure

General Information

Report date: February 2020
Prepared by: Davis, Bowen & Friedel, Inc.
Prepared for: Milton Attainable Housing LLC
Tax Parcels: 234-14.00-123.00, 234-14.00-123.01, 235-14.16-1.00, 2.00, 3.00, & 4.00
Generally consistent with DelDOT's *Development Coordination Manual (DCM)*: Yes

Project Description and Background

Description: The developer seeks to develop 71 multi-family low-rise houses, 168 multi-family mid-rise houses, and 20,000 square feet of retail.
Location: The subject site is located on the southwest corner of the intersection of Delaware Route 16 and Country Road (Sussex Road 22A), in both the town of Milton and Sussex County.
Amount of Land to be developed: An approximately 27.5-acre assemblage of parcels.
Land Use approval(s) needed: Rezoning and Entrance Plan.
Proposed completion date: 2025.
Proposed access location: Two full access points are proposed: one along Delaware Route 16 and another along Bay Avenue, opposite Yew Street.

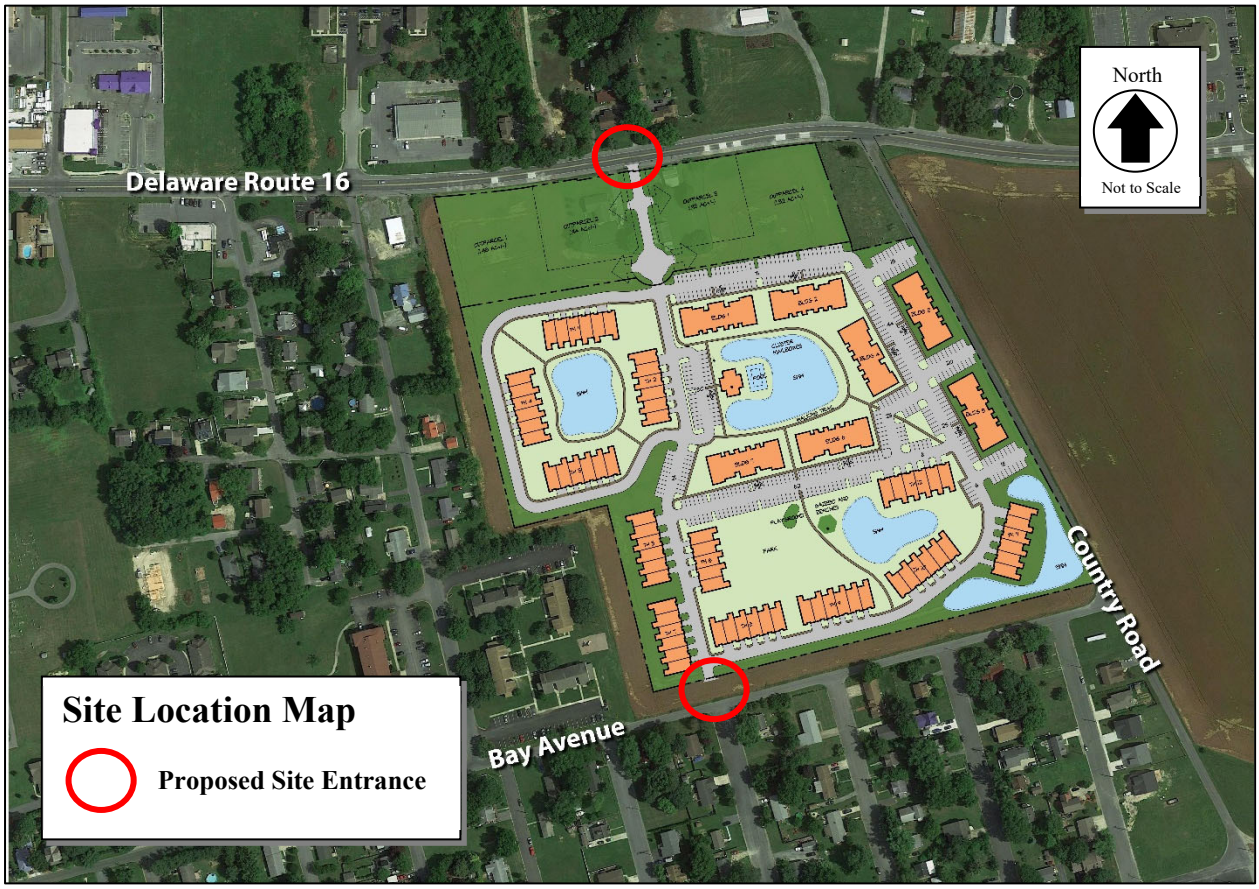
Daily Traffic Volumes:

- 2019 Average Annual Daily Traffic on Delaware Route 16: 6,693 vehicles per day (non-Summer)
- 2019 Average Annual Daily Traffic on Country Road: 1,786 vehicles per day (non-Summer)*

*ADT information is from the 2019 DelDOT Vehicle Volume Summary

Note: ADT information along Bay Avenue was not provided in the TIS or in the 2019 DelDOT Vehicle Volume Summary.

Site Map



**Graphic is an approximation based on the Conceptual Site Plan prepared by* Davis, Bowen & Friedel, Inc. *dated December 19, 2019.*

Relevant and On-going Projects

DelDOT is actively coordinating with the Town of Milton to address operational concerns at two of the study intersections. At the Delaware Route 5 signalized intersection with Delaware Route 16, DelDOT's Traffic section is working with the Town to develop a short-term solution to minimize the occurrence of eastbound and westbound vehicles passing on the shoulders of Delaware Route 16. A potential short-term solution developed by DelDOT involves installing delineators along Delaware Route 16 at the shoulders located at the northeast and southwest corners. DelDOT is awaiting concurrence from the Town regarding the design but the short-term solution is expected to be implemented by the end of this year.

At the Delaware Route 5/Front Street/Federal Street (Sussex Road 22) intersection, the Town has requested that the existing YIELD sign located along the Delaware Route 5/Union Street approach be converted to a STOP sign. A potential solution suggested by DelDOT Traffic involved the conversion of the intersection to be all-way-stop-controlled. DelDOT is awaiting a decision from the Town.

Livable Delaware
(Source: Delaware Strategies for State Policies and Spending, 2015)

Location with respect to the Strategies for State Policies and Spending Map of Delaware:
The proposed development is located within the Investment Level 1 area.

Investment Level 1

These areas are often municipalities, towns, or urban/urbanizing places in counties where density is generally higher than in surrounding areas. In Investment Level 1 Areas, state investments and policies should support and encourage a wide range of uses and densities, promote other transportation options, foster efficient use of existing public and private investments, and enhance community identity and integrity. Overall, it is the state's intent to use its spending and management tools to maintain and enhance community character, to promote well-designed and efficient new growth, and to facilitate redevelopment in Investment Level 1 Areas.

In Level 1 Areas the state's first priority will be for preserving existing facilities and making safety improvements. Level 1 areas will also be the highest priority for context sensitive transportation system capacity enhancements, transit-system enhancements, ADA accessibility, and for closing gaps in the pedestrian system, including the Safe Routes to School projects. Further, Level 1 areas are the first priority for planning projects and studies, bicycle facilities, signal-system enhancements, and the promotion of interconnectivity between neighborhoods and public facilities.

Proposed Development's Compatibility with Livable Delaware:
The proposed development is located in the Investment Level 1 area. According to Livable Delaware, Level 1 areas support and encourage a wide range of uses and enhance community identity and integrity. The proposed project is a mixed-use development that will support the ongoing development in the surrounding area. Therefore, the proposed development is generally consistent with the 2015 update of the Livable Delaware "Strategies for State Policies and Spending."

Comprehensive Plans
(Source: Sussex County March 2019 Comprehensive Plan, Town Of Milton, Delaware Comprehensive Plan 2018)

Sussex County Comprehensive Plan:
Per the *Sussex County Comprehensive Plan Future Land Use Map,* the proposed development is in an area designated as a Municipality and Developing Area.

Proposed Development's Compatibility with the Sussex County Comprehensive Plan:
Per the *Sussex County Comprehensive Plan Future Land Use Map,* the proposed development is in an area designated as Municipality and Developing Area. A range of housing and commercial types are appropriate in developing areas, including multi-family low-rise, multi-family mid-rise, and retail units. Municipalities and Developing Areas are also listed as part of the seven "Growth

Areas" of Sussex County listed in the Comprehensive Plan. Therefore, the proposed development is generally consistent with the *Sussex County March 2019 Comprehensive Plan.*

Town of Milton Comprehensive Plan:
Per the *Town of Milton Comprehensive Plan's Land Use* section*,* the proposed development is in an area designated as the Northeast Quadrant and the Future Land Use Map depicts the area as residential.

Proposed Development's Compatibility with the Town of Milton Comprehensive Plan:
Per the *Town of Milton Comprehensive Plan's Land Use* section*,* the Town will continue to work with land developers to promote a mix of residential housing types and commercial activity will continue along the Delaware Route 16 corridor. Therefore, the proposed development is generally consistent with the *Town of Milton Comprehensive Plan 2018.*

Trip Generation

The trip generation for the proposed development was determined by using the comparable land use and rates/equations contained in the *Trip Generation, 10th Edition: An ITE Informational Report*, published by the Institute of Transportation Engineers (ITE) for ITE Land Use Code 220 (Multifamily Low-Rise Housing), Land Use Code 221 (Multifamily Mid-Rise Housing), and Land Use Code 820 (Shopping Center). The trip generation was approved by DelDOT during the PTIS review.

Table 1
Clifton Property Trip Generation

Land Use	ADT	AM Peak Hour			PM Peak Hour			SAT Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
71 Multifamily Low-Rise Houses (ITE Code 220)	496	8	26	34	28	16	44	21	22	43
168 Multifamily Mid-Rise Houses (ITE Code 221)	914	15	42	57	45	28	73	38	39	77
20,000 SF Shopping Center (ITE Code 820)	2,012	100	62	162	79	86	165	90	84	174
Total Trips	**3,422**	**123**	**130**	**253**	**152**	**130**	**282**	**149**	**145**	**294**
Internal Capture	488	1	1	2	30	30	60	31	31	62
External Trips	**2,934**	**122**	**129**	**251**	**122**	**100**	**222**	**118**	**114**	**232**
Pass-by Trips	442	0	0	0	23	23	46	19	18	37
Primary Trips	**2,492**	**122**	**129**	**251**	**99**	**77**	**176**	**99**	**96**	**195**

Overview of TIS

Intersections examined:

1. Site Entrance A / Delaware Route 16
2. Site Entrance B / Bay Avenue / Yew Street
3. Delaware Route 5 / Delaware Route 16
4. Delaware Route / Front Street / Federal Street (Sussex Road 22)

Conditions examined:

1. Case 1 – Existing (2019)
2. Case 2 – 2025 without development
3. Case 3 – 2025 with development

Committed Developments considered:

1. Dexter Property (72 multi-family mid-rise houses and a 5,619 square-foot convenience store).

Peak hours evaluated: Weekday morning, Weekday evening, and Summer Saturday midday peak hours.

Intersection Descriptions

1. **Site Entrance A / Delaware Route 16**
   Type of Control: Proposed two-way stop-controlled intersection (three-legged intersection)
   Eastbound Approach: (Delaware Route 16) Existing one through lane; proposed one through lane and one right-turn lane
   Westbound Approach: (Delaware Route 16) Existing one through lane; proposed one through lane and one left-turn lane
   Northbound Approach: (proposed site entrance) Proposed shared left-turn/right-turn lane, stop controlled

2. **Site Entrance B / Bay Avenue / Yew Street (*Town of Milton*)**
   Type of Control: Existing two-way stop-controlled intersection (three-legged intersection); Proposed two-way stop-controlled intersection (four-legged intersection)
   Eastbound Approach: (Bay Avenue) Existing one shared through/right-turn lane; proposed one shared left-turn/through/right-turn lane
   Westbound Approach: (Bay Avenue) Existing one shared left-turn/through lane; proposed one shared left-turn/through/right-turn lane
   Northbound Approach: (Yew Street) Existing one shared left-turn/right-turn lane, stop controlled; proposed one shared left-turn/through/right-turn, stop controlled
   Southbound Approach: (Site Entrance) Proposed one shared left-turn/through/right-turn lane, stop-controlled

3. **Delaware Route 5 / Delaware Route 16**
   Type of Control: Existing signalized intersection (four-legged intersection)
   Eastbound Approach: (Delaware Route 16) Existing one shared left-turn/through /right-turn lane
   Westbound Approach: (Delaware Route 16) Existing one shared left-turn/through /right-turn lane
   Northbound Approach: (Delaware Route 5) Existing one shared left-turn/through /right-turn lane
   Southbound Approach: (Delaware Route 5) Existing one shared left-turn/through /right-turn lane

4. **Delaware Route 5 / Front Street / Federal Street (Sussex Road 22)**
   Type of Control: Existing two-way stop-controlled intersection (four-legged intersection)
   Eastbound Approach: (Delaware Route 5/Union Street) Existing one shared left-turn/through lane and one channelized right-turn lane, yield controlled
   Westbound Approach: (Front Street) Existing one shared left-turn/through/right-turn lane, stop controlled
   Northbound Approach: (Delaware Route 5/Federal Street) Existing one shared left-turn/through/right-turn lane
   Southbound Approach: (Federal Street) Existing one shared left-turn/through/right-turn lane, stop controlled

Transit, Pedestrian, and Bicycle Facilities

Existing transit service: Per DelDOT Gateway, Delaware Transit Corporation (DTC) currently provides existing services within the study area via DART Route 303. Per the DelDOT gateway, a bus stop exists along Palmer Street, near the intersection with Bay Avenue for Dart Route 303. Dart Route 303 provides 8 round trips on weekdays from 5:59 AM to 8:56 PM (there is no weekend service on this route).

Planned transit service: Per email correspondence on April 6, 2020 with Mr. Jared Kauffman, Fixed-Route Planner at the DTC, a Type 2 bus stop should be installed along Delaware Route 16 withing the frontage of the site for possible bus expansion. A direct pedestrian pathway between the site and Park Royal Apartment's internal sidewalk should also be created to connect the site with the existing bus stops along Palmer Street. Additionally, a shared use pathway should be installed along the Delaware Route 16, Country Road, and Bay Avenue site frontages, with a connection to the site.

Existing bicycle and pedestrian facilities: According to DelDOT's *Sussex County Bicycle Map*, one Statewide Bicycle Route, two Regional Bicycle Routes, and one Connector Bicycle Route exist within the study area. The Statewide Bicycle Route (Delaware Bicycle Route One) travels along Front Street, beginning at the study intersection with Delaware Route 5 and Federal Street, continuing onto Delaware Route 5, traversing through another study intersection (Delaware Route 5/Delaware Route 16), and continuing out of the study area along Delaware Route 5. One Regional Bicycle Route travels along Delaware Route 16, beginning at the study intersection (site entrance), and traversing another study intersection (Delaware Route 5/Delaware Route 16), and continuing out of the study area along Delaware Route 16. The other Regional Bicycle Route begins at the study intersection (Delaware Route 5/Front Street/Federal Street) and continues south from the study area along Delaware Route 5. The Connector Bike Route begins at the study intersection (Delaware Route 5/Delaware Route 16) and continues north from the study area along Delaware Route 5.

Planned bicycle and pedestrian facilities: Per email correspondence on April 8, 2020 from Mr. John Fiori, DelDOT's Bicycle Coordinator, the following improvements were recommended:

- A shared use path should be installed along the site frontages.
- A privacy fence should be installed separating the commercial use and residential uses of the site.
- An internal connection from the SUP along Delaware Route 16 into the site should be installed.
- An internal connection between the commercial use and residential use should be installed.
- Internal bicycle racks should be installed for the commercial use section of the site.
- Per the DCM, the site shall dedicate right-of-way per the roadway classification and establish a 15-foot wide permanent easement along the property frontage.
- All entrance, roadway and/or intersection improvements required shall incorporate bicycle and pedestrian facilities. Per the DCM, if the right turn lane is warranted, then a bike lane shall be incorporated along the right turn lane; if a left turn lane is required any roadway improvements shall include a shoulder matching the roadway classification or existing conditions.

Bicycle Level of Traffic Stress in Delaware: Researchers with the Mineta Transportation Institute developed a framework to measure low-stress connectivity, which can be used to evaluate and guide bicycle network planning. Bicycle LTS analysis uses factors such as the speed of traffic, volume of traffic, and the number of lanes to rate each roadway segment on a scale of 1 to 4, where 1 is a low-stress place to ride and 4 is a high-stress place to ride. It analyzes the total connectivity of a network to evaluate how many destinations can be accessed using low-stress routes. Developed by planners at the Delaware Department of Transportation (DelDOT), the bicycle Level of Traffic Stress (LTS) model will be applied to bicycle system planning and evaluation throughout the state. The Bicycle LTS for the roadways under existing conditions along the site frontage are summarized below. The Bicycle LTS was determined utilizing the map on the DelDOT Gateway.

- Delaware Route 16 – LTS: 2 and 3
- Country Road – LTS: 1
- Bay Avenue – LTS: 1

Crash Evaluation

Per the crash data included in the TIS from December 16, 2016 to December 16, 2019 and provided by the Delaware Crash Analysis Reporting System, a total of 34 crashes were reported within the study area. The TIS reports that 33 of these crashes are relevant within the study area and intersections. 15 of these crashes occurred within the functional area of the intersection of Delaware Route 5 and Delaware Route 16, and 18 occurred within the functional area of the intersection of Delaware Route 5 and Federal Street/Front Street. Six (6) crashes resulted in personal injury, and no fatalities occurred within the study area over the 3-year period. It should be noted that the crash data does not indicate any unusual concerns or safety issues regarding the study area.

Previous Comments

There were no comments from DelDOT for the Preliminary Traffic Impact Study (PTIS).

General HCS Analysis Comments

(See table footnotes on the following pages for specific comments)

1. Per DelDOT's *Development Coordination Manual*, JMT and the TIS used a heavy vehicle percentage of 3% for each movement greater than 100 vph in the Case 2 and Case 3 future scenario analyses, unless the existing heavy vehicle percentage was greater than 3% and there was no significant increase of vehicles along that movement, in which case the existing heavy vehicle percentage was used for analysis of future scenarios.

2. Per DelDOT's *Development Coordination Manual* and coordination with DelDOT Planning, JMT used a heavy vehicle percentage of 5% for each movement less than 100 vph along roadways and site entrances, whereas the TIS did not.

3. Per DelDOT's *Development Coordination Manual,* JMT and the TIS utilized the existing PHF for the Case 1 scenario and a future PHF for Cases 2 and 3 scenarios of 0.80 for roadways with less than 500 vph, 0.88 for roadways between 500 and 1,000 vph, and 0.92 for roadways with more than 1,000 vph or the existing PHF, whichever was higher.

4. For the signalized and unsignalized intersection JMT utilized the number of pedestrians consistent with existing counts but the TIS did not.

Table 2
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Clifton Property
Report Dated: February 2020
Prepared by Davis Bowen & Friedel, Inc.

Unsignalized Intersection Two-Way Stop Control (T-intersection) [1]	**LOS per TIS**			**LOS per JMT**		
Site Entrance A/Delaware Route 16	Weekday AM	Weekday PM	Saturday Peak	Weekday AM	Weekday PM	Saturday Peak
2025 with development (Case 3)						
Westbound Delaware Route 16 Left Turn	A (8.7)	A (8.1)	A (8.8)	A (8.7)	A (8.1)	A (8.8)
Northbound Site Entrance A Approach	C (18.3)	C (16.8)	C (21.8)	C (17.7)	C (16.4)	C (20.9)

[1] For signalized and unsignalized analysis, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds.

Table 3
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Clifton Property
Report Dated: February 2020
Prepared by Davis Bowen & Friedel, Inc.

Unsignalized Intersection Two-Way Stop Control [1]	**LOS per TIS**			**LOS per JMT**		
Site Entrance B/Bay Avenue/Yew Street	Weekday AM	Weekday PM	Saturday Peak	Weekday AM	Weekday PM	Saturday Peak
2019 Existing (Case 1)						
Westbound Bay Avenue Left Turn	A (7.3)	A (7.3)	A (7.3)	A (7.3)	A (7.2)	A (7.2)
Northbound Yew Street Approach	A (8.5)	A (8.8)	A (8.7)	A (8.4)	A (8.8)	A (8.7)
2025 without development (Case 2)						
Westbound Bay Avenue Left Turn	A (7.3)	A (7.3)	A (7.3)	A (7.3)	A (7.2)	A (7.2)
Northbound Yew Street Approach	A (8.4)	A (8.8)	A (8.7)	A (8.4)	A (8.8)	A (8.7)
2025 with development (Case 3)						
Eastbound Bay Avenue Left Turn	A (7.3)	A (7.3)	A (7.3)	A (7.3)	A (7.3)	A (7.3)
Westbound Bay Avenue Left Turn	A (7.3)	A (7.3)	A (7.3)	A (7.3)	A (7.2)	A (7.2)
Northbound Yew Street Approach	A (8.4)	A (9.2)	A (9.1)	A (8.4)	A (9.2)	A (9.1)
Southbound Site Entrance B Approach	A (8.7)	A (8.7)	A (8.6)	A (8.7)	A (8.7)	A (8.7)

Table 4
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Clifton Property
Report Dated: February 2020
Prepared by Davis Bowen & Friedel, Inc.

Signalized Intersection [1]	**LOS per TIS**			**LOS per JMT**		
Delaware Route 5/Delaware Route 16 [2, 2]	Weekday AM	Weekday PM	Saturday Peak	Weekday AM	Weekday PM	Saturday Peak
2019 Existing (Case 1)	B (13.2)	B (18.2)	B (16.7)	B (19.1)	C (21.9)	C (20.6)
2025 without development (Case 2)	B (14.3)	B (15.7)	B (14.4)	C (20.6)	C (23.8)	C (22.4)
2025 without development (Case 2) *with DelDOT improvement* [3]	-	-	-	C (20.6)	C (23.8)	C (22.4)
2025 with development (Case 3)	B (14.6)	B (16.3)	B (14.9)	C (21.3)	C (25.0)	C (23.8)
2025 with development (Case 3) *with DelDOT improvement*	-	-	-	C (21.3)	C (25.1)	C (23.8)

[2] JMT utilized a cycle length of 102 and signal timing splits consistent with the DelDOT timing plans for the AM, PM, and SAT peak hours, whereas the TIS utilized arbitrary values.
[2] Per DelDOT's *Development Coordination Manual,* JMT utilized a saturation flow rate of 1,750 for south of the Delaware Canal for AM, PM and Saturday peaks, whereas the TIS used a saturation flow rate of 1,900 for Saturday peak.
[3] The DelDOT improvement will install flexible delineators withing the shoulders of Delaware Route 16 approaching the intersection with Delaware Route 5 to restrict vehicles from utilizing the shoulders to execute right turns on red and bypass left turning vehicles. JMT's analysis accounted for this improvement by restricting right turns on red along these approaches.

Table 5
Peak Hour Levels Of Service (LOS)
Based on Traffic Impact Study for Clifton Property
Report Dated: February 2020
Prepared by Davis Bowen & Friedel, Inc.

Unsignalized Intersection All-Way Stop Control [1]	**LOS per TIS**			**LOS per JMT**		
Delaware Route 5/Front Street/Federal Street (Sussex Road 22) [4, 5]	Weekday AM	Weekday PM	Saturday Peak	Weekday AM	Weekday PM	Saturday Peak
2019 Existing (Case 1)	A (8.3)	A (9.4)	B (10.3)	A (8.2)	A (9.2)	A (9.5)
2025 without development (Case 2)	A (8.6)	A (9.8)	B (10.8)	A (8.5)	A (9.5)	A (10.0)
2025 with development (Case 3)	A (9.0)	B (10.3)	B (11.6)	A (8.8)	A (9.8)	B (10.4)

[4] The TIS and JMT analyses configured the Delaware Route 5 intersection with Front Street and Federal Street as an all-way stop control intersection.
[5] JMT configured the Delaware Route 5 southbound approach as a channelized right turn and a shared left turn/through lane consistent with existing conditions, whereas the TIS configured the approach as a shared left turn/through/right turn lane.