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

NICOLE MAJESKI
SECRETARY

September 28, 2023

Christopher Duke, P.E.
Becker Morgan Group, Inc.
100 Discovery Blvd, Suite 102
Newark, DE 19713

Dear Mr. Christopher Duke:

The enclosed Traffic Impact Study (TIS) review letter for the proposed **Milton Village** (Tax Parcel: 235-14.00-77.00) multi-use 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 letter and concurs with the recommendations. If you have any questions concerning this letter or the enclosed review letter, please contact me at Annamaria.Furmato@delaware.gov.

Sincerely,

Annamaria Furmato
TIS Group Project Engineer

AF:km
Enclosures
cc with enclosures: Kevin DiSabatino, 1630 Ventures, LLC
Jonathan Falkowski, Becker Morgan Group, Inc.
David L. Edgell, Office of State Planning Coordination
Jamie Whitehouse, Sussex County Planning & Zoning
Ms. Joanne M. Arellano, Johnson, Mirmiran, & Thompson, Inc.
Mr. Mir Wahed, Johnson, Mirmiran, & Thompson, Inc.
DelDOT Distribution

DelDOT Distribution

Brad Eaby, Deputy Attorney General
Shanté Hastings, Deputy Secretary / Director of Transportation Solutions (DOTS)
Mark Luszcz, Deputy Director, DelDOT Traffic, DOTS
Michael Simmons, Assistant Director, Project Development South, DOTS
Peter Haag, Chief Traffic Engineer, DelDOT Traffic, DOTS
Wendy Carpenter, Traffic Calming & Subdivision Relations Manager, DelDOT Traffic, DOTS
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Derek Sapp, Sussex County Subdivision Reviewer, Development Coordination, Planning
Sireen Muhtaseb, TIS Group Manager, Development Coordination, Planning
Anthony Aglio, Planning Supervisor, Statewide & Regional Planning, Planning
Jennifer Cinelli, Transportation Planner, Statewide & Regional Planning

September 26, 2023

Ms. Annamaria Furmato
Project Engineer
Delaware Department of Transportation
Development Coordination, Division of Planning
800 Bay Road
Dover, DE 19901

RE: Agreement No. 1945F
Project Number 202069012/PO#611882
Traffic Impact Study Services
Task 11-18A –Milton Village TIS

Dear Ms. Furmato:

Johnson, Mirmiran, and Thompson (JMT) has completed a review of the Traffic Impact Study (TIS) for the Milton Village development, which was prepared by Becker Morgan Group, Inc., dated May 2023. This review was assigned as Task Number 11-18A. The report is prepared in a manner generally consistent with DelDOT's *Development Coordination Manual*.

The TIS evaluates the impacts of a proposed mixed-use development located on the southeast corner of the intersection of Delaware Route 16 and Delaware Route 30 in Sussex County, Delaware. The development would be comprised of 277 single-family detached houses, 123 townhomes (low-rise multi-family housing), 296 apartments (mid-rise multi-family housing), a 35,000 square foot assisted-living facility, 80,000 square feet of medical office space, and 210,000 square feet of retail space.

The subject property is on an approximately 213.78-acre assemblage of parcels. The land is currently split-zoned C-1 (General Commercial), AR-1 (Agriculture Residential), and HR-1 (High-Density Residential), and the developer does not plan to rezone the land. Construction for the development is anticipated to be completed in 2028. Five full access points are proposed: four on Delaware Route 16 and one on Delaware Route 30.

The TIS evaluated two access scenarios:

- Case 3a – 2028 with Development
  - Full movement access at Site Entrance A / Delaware Route 16
  - Right-in only at Site Entrance B / Delaware Route 16
  - Full movement access at Site Entrance C / Delaware Route 30
- Case 3b – 2028 with Development
  - Full movement access at Site Entrance A / Delaware Route 16
  - Right-in only at Site Entrance B / Delaware Route 16
  - Full movement access at Site Entrance C / Delaware Route 30
  - Full movement access at Site Entrance D / Delaware Route 16
  - Full movement access at Site Entrance E / Delaware Route 16

DelDOT has relevant and ongoing improvement projects within the study area including the *Coastal Corridors Study* which focuses on identifying transportation solutions for the east-west corridors including Delaware Route 16 and US Route 9 between US 113 and SR 1 that are currently congested or are anticipated to be in the future. The goals of the study are to identify short-term, medium-term, and long-term traffic solutions; educate and inform local stakeholders on the issues and seek feedback and preferences on proposed solutions; build support around the implementation of those solutions. The study is currently in targeted engagement phase which involves members of the Corridors Committee (which is comprised of municipal representatives, business owners, community-based organizations, and residents) working with the Study Team to review data and provide feedback on potential transportation solutions in the study area. The Corridors Committee along with interested members of the public met four times between December 2022 to March 2023. More information about the study can be found at: https://deldot.gov/projects/Studies/404/index.shtml.

The *HEP SC, SR 30 at SR 16 Intersection Improvements* (DelDOT Contract No. T202204303) project proposes to make geometric improvements and install a roundabout at the intersection of Delaware Route 30 and Delaware Route 16. The project intersection was identified in the 2017 Hazard Elimination Program as a high crash location. The project is currently in the Design phase. Construction is tentatively scheduled to begin in 2027. More information about the project can be found at:
https://deldot.gov/projects/index.shtml?dc=details&projectNumber=T202204303.

The *SR 16, DuPont Boulevard to SR1* project (DelDOT Contract No. T202206301) is a pavement and rehabilitation project that includes improvements at two of the study intersections. As part of this DelDOT project, a traffic signal will be installed at the Delaware Route 16 intersection with Mulberry Street (Sussex Road 197)/Mulberry Street Extension (Sussex Road 212). Additionally, the existing traffic signal phasing at the Delaware Route 16 intersection with Delaware Route 5 will be converted from concurrent to split phase operation along Delaware Route 5. Design is underway and is expected to be ready for construction advertisement in the Fall of 2023.

The *HEP SC, SR 30 at Sand Hill Road* project (DelDOT Contract No. T202404303) proposes to install a roundabout at the intersection of Delaware Route 30 and Sand Hill Road (Sussex Road 319). Design for the project begins this year during Fiscal Year 2024. Construction funding is tentatively scheduled to begin in Fiscal Year 2028.

A pavement and rehabilitation project (DelDOT Contract No. T201906303) is proposed along Sand Hill Road, from Gravel Hill Road to East Redden Road, and along Front Street (Sussex Road 89), from Cave Neck Road (Sussex Road 88) to Mount Zion Holy Church. The project is advertised for construction with construction scheduled to begin Fall of 2023. This project traverses along four study intersections: the Sand Hill Road intersections with Burton Road (Sussex Road 241),

Delaware Route 30, and Donovan Road (Sussex Road 242), and the Front Street intersection with Cave Neck Road.

It is noted that the proposed development is located within the boundary of the proposed Milton Transportation Improvement District (TID). A TID is a planning concept that seeks to proactively align transportation infrastructure spending and improvements with land use projects and future development within the designated district. The Milton TID is under development by DelDOT, the Town of Milton, and Sussex County and is currently in the process of developing a land use forecast for the project area to be used for future volume projections. If and when DelDOT and the County establish the TID, it may be appropriate for the developer to contribute to the TID. The TID is tentatively scheduled to be fully operational in 2023.

Based on our review of the traffic impact study, we have the following comments and recommendations:

The following intersections exhibit level of service (LOS) deficiencies without the implementation of physical roadway and/or traffic control improvements. The table below does not include any signalized intersections that exhibit LOS deficiencies that can be mitigated with signal timing optimization as optimization would not be the responsibility of the developer.

Intersection	**LOS Deficiencies Occur**			**Case****
	AM	**PM**	**SAT**	
Site Entrance A / Delaware Route 16	X	X	X	Case 3a – 2028 with Development
	X	X	X	Case 3b – 2028 with Development
Site Entrance D / Delaware Route 16	X	X	X	Case 3b – 2028 with Development
Site Entrance E / Delaware Route 16		X	X	Case 3b – 2028 with Development
Site Entrance C / Delaware Route 30*	X	X		Case 3a – 2028 with Development
	X	X		Case 3b – 2028 with Development
Delaware Route 30 / Delaware Route 16		X	X	Case 2 – 2028 without Development
	X	X	X	Case 3a – 2028 with Development
	X	X	X	Case 3b – 2028 with Development

Delaware Route 16 / Mulberry Street / Mulberry Street Extension		X		Case 1 – 2022 Existing
	X	X	X	Case 2 – 2028 without Development
	X	X	X	Case 3a – 2028 with Development
	X	X	X	Case 3b – 2028 with Development
Delaware Route 5 / Delaware Route 16		X	X	Case 2 – 2028 without Development
	X	X	X	Case 3b – 2028 with Development
Delaware Route 5 / Mulberry Street / Wharton Street*		X		Case 1 – 2022 Existing
	X	X		Case 2 – 2028 without Development
	X	X		Case 3a – 2028 with Development
	X	X		Case 3b – 2028 with Development
	X	X		Case 3b – 2028 with Development
Delaware Route 16 / Orchard Road / Holly Tree Road		X	X	Case 3a & 3b – 2028 with Development
Delaware Route 30 / Sand Hill Road (Sussex Road 319)*	X	X		Case 2 – 2028 without Development
	X	X		Case 3a – 2028 with Development
	X	X		Case 3b – 2028 with Development
Delaware Route 5 / Sand Hill Road*	X	X		Case 2 – 2028 without Development
	X	X		Case 3a – 2028 with Development
	X	X		Case 3b – 2028 with Development
Delaware Route 30 / Huff Road (Sussex Road 252)*		X		Case 2 – 2028 without Development
		X		Case 3a – 2028 with Development
		X		Case 3b – 2028 with Development

*Summer Saturday peak hour analysis was not conducted at this intersection based on the scoping letter revised May 13th 2022.

**Case 3 Scenarios:

Case 3a – 2028 with Development

a. Full movement access at Site Entrance A / Delaware Route 16
b. Right-in only at Site Entrance B / Delaware Route 16
c. Full movement access at Site Entrance C / Delaware Route 30

Case 3b – 2028 with Development

d. Full movement access at Site Entrance A / Delaware Route 16
e. Right-in only at Site Entrance B / Delaware Route 16
f. Full movement access at Site Entrance C / Delaware Route 30
g. Full movement access at Site Entrance D / Delaware Route 16
h. Full movement access at Site Entrance E / Delaware Route 16

Site Entrance A/Delaware Route 16 (Table 2a, Page 38)
The unsignalized Site Entrance A intersection with Delaware Route 16 would exhibit LOS deficiencies along the northbound Site Entrance A approach under both Case 3a (2028 with development and three entrances) and Case 3b (2028 with development and five entrances) conditions during the weekday AM and PM and Summer Saturday peak hour. These deficiencies occur along the northbound site entrance left turn movement with delays exceeding 400 seconds per vehicle during the PM and Summer Saturday peak hours and calculated 95th percentile queue lengths of approximately 545 feet during the Summer Saturday peak hour under Case 3a conditions.

With the installation of a traffic signal, the intersection would improve to operate at LOS C or better (13.8, 19.0, and 20.4 seconds of delay per vehicle) during the AM, PM, and Summer Saturday peak hours, respectively, under Case 3a conditions. The intersection would also improve to operate at LOS B (12.6, 17.0, and 19.4 seconds of delay per vehicle) during the AM, PM, and Summer Saturday peak hours, respectively, under Case 3b conditions. A signal warrant evaluation was completed at this intersection which found that Warrant 1 – Eight-Hour Vehicular Volume, Warrant 2 – Four-Hour Vehicular Volume, and Warrant 3 – Peak Hour Vehicle Volume from the Delaware Manual on Uniform Traffic Control Devices (DE MUTCD) were met for both the Case 3a and 3b conditions. With the installation of a roundabout, the intersection would improve to operate at LOS C or better (8.8, 16.2, and 17.1 seconds of delay per vehicle) during the AM, PM, and Summer Saturday peak hours, respectively, under Case 3a conditions. The intersection would also improve to operate at LOS B or better (8.2, 13.3, and 13.7 seconds of delay per vehicle) during the AM, PM, and Summer Saturday peak hours, respectively, under Case 3b conditions.

In addition to the capacity analysis, a safety analysis was also conducted using AASHTO's Highway Safety Manual (HSM) which predicted 1.786 crashes per year associated with the signalized alternative and 0.915 crashes per year associated with the roundabout alternative for Case 3a conditions. For the Case 3b conditions, 1.604 crashes per year were predicted for the signalized alternative and 0.878 crashes per year were predicted for the roundabout alternative.

Although a roundabout would mitigate the capacity constraints at the intersection, the installation of a roundabout would impact the residential developments on the northerly side of the proposed site entrance location. As such, it is recommended that the developer install a traffic signal at the intersection of Site Entrance A and Delaware Route 16.

Site Entrance D/Delaware Route 16 (Table 2b, Page 41)
The unsignalized Site Entrance D intersection with Delaware Route 16 would exhibit LOS deficiencies during the weekday PM and Summer Saturday peak hours under Case 3b (2028 with development and five entrances) conditions. These deficiencies occur along the northbound site entrance left turn movement with delays exceeding 56.0 seconds per vehicle during the PM and Summer Saturday peak hours and calculated 95th percentile queue lengths of approximately 40 feet during the Summer Saturday peak hour. As the deficiency would not impact operations along Delaware Route 16 and the calculated queue lengths are minimal, it is recommended that the developer construct Site Entrance D as an unsignalized full movement access.

Site Entrance E/Delaware Route 16 (Table 2c, Page 44)
The unsignalized Site Entrance E intersection with Delaware Route 16 would exhibit LOS deficiencies during the weekday PM and Summer Saturday peak hours under Case 3b (2028 with development and five entrances) conditions. These deficiencies occur along the northbound site entrance left turn movement with delays exceeding 42 seconds per vehicle during the PM and Summer Saturday peak hours and calculated 95th percentile queues of approximately 20 feet during the Summer Saturday peak hour. As the deficiency would not impact operations along Delaware Route 16 and the calculated queue lengths are minimal, it is recommended that the developer construct Site Entrance E as an unsignalized full movement access.

Site Entrance C/Delaware Route 30 (Table 4, Page 48)
The unsignalized Site Entrance C intersection with Delaware Route 30 would exhibit LOS deficiencies along the westbound Site Entrance C approach under both Case 3a (2028 with development and three entrances) and Case 3b (2028 with development and five entrances) conditions during the weekday AM and PM peak hours. It should be noted that based on the scoping letter revised May 13th, 2022, no Summer Saturday peak hour analysis was requested at this entrance location. These deficiencies occur along the westbound site entrance approach with delays exceeding 100 seconds per vehicle during the AM and PM peak hours and calculated 95th percentile queue lengths of approximately 510 feet during the PM peak hour under the Case 3a and 3b conditions.

With the installation of a traffic signal, the intersection would improve to operate at LOS C or better (15.9 and 27.9 seconds of delay per vehicle) during the AM and PM peak hours, respectively, under Case 3a and 3b conditions. A signal warrant evaluation was completed at this intersection which found that Warrant 1 – Eight-Hour Vehicular Volume, Warrant 2 – Four-Hour Vehicular Volume, and Warrant 3 – Peak Hour Vehicle Volume from the Delaware Manual on Uniform Traffic Control Devices (DE MUTCD) were met for both the Case 3a and 3b conditions. With the installation of a roundabout, the intersection would improve to operate at LOS D or better (12.4 and 30.8 seconds of delay per vehicle) during the AM and PM peak hours, respectively, under Case 3a and 3b conditions.

In addition to the capacity analysis, a safety analysis was also conducted using AASHTO's Highway Safety Manual (HSM) which predicted 2.400 crashes per year associated with the signalized alternative and 1.062 crashes associated with the roundabout alternative. Based on the roundabout alternative providing lower predicted crashes and traffic calming potential along Delaware Route 30 compared to the signalized alternative while maintaining acceptable LOS, we recommend that the developer provide a single lane roundabout at the intersection of Site Entrance C and Delaware Route 30. A roundabout at this location is also consistent with DelDOT's *HEP SC, SR 30 and SR 16 Intersection Improvement* project located just north of this intersection.

Delaware Route 30/Delaware Route 16 (Table 5, Page 51)
The signalized Delaware Route 30 and Delaware Route 16 intersection exhibits LOS deficiencies during the weekday AM, PM, and Saturday peak hours under future conditions with or without the proposed development, regardless of entrance configuration. Under Case 2 (2028 without development) conditions during the Saturday peak hour, the Delaware Route 30 and Delaware Route 16 intersection would operate at LOS F with a delay of 121.6 seconds per vehicle. Under

Case 3a and 3b conditions (2028 with development)) during the Summer Saturday peak hour, the Delaware Route 30 and Delaware Route 16 intersection would operate at LOS F with a delay of 402.4 seconds per vehicle. This intersection is being studied as part of the Milton TID.

As part of the *HEP SC, SR 30 at SR 16 Intersection Improvements* (DelDOT Contract No. T202204303) project, a single lane roundabout is proposed to be installed at the intersection of Delaware Route 30 and Delaware Route 16. Under Case 2 conditions and with the roundabout, the intersection would operate at acceptable LOS D or better during the weekday AM and PM peak hours, and operate at LOS E during the Summer Saturday peak hour.

As both the AM and PM peak hours would be mitigated with a roundabout and a DelDOT improvement project is already in place, it is recommended that the developer enter into an agreement with DelDOT to make an equitable contribution to the *HEP SC, SR 30 at SR 16 Intersection Improvements* (DelDOT Contract No. T202204303) project or coordinate with DelDOT on an equitable share contribution towards the improvements that will be implemented as part of the Milton TID.

Delaware Route 16/Mulberry Street/Mulberry Street Extension (Table 8, Page 55)

The unsignalized two-way stop-controlled Delaware Route 16 intersection with Mulberry Street and Mulberry Street Extension exhibits LOS deficiencies during the existing PM peak hour and the weekday AM, PM, and SAT peak hours under future conditions with or without the proposed development, regardless of entrance configuration. Under Case 1 (2022 without development) conditions during the PM peak hour, the northbound Mulberry Street approach would operate at LOS F with a delay of 59.8 seconds per vehicle and have a projected 95th percentile queue length of approximately 150 feet. Under Case 2 (2028 without development) conditions during the PM peak hour, the northbound Mulberry Street approach would operate at LOS F with a delay of 367.5 seconds per vehicle and have a projected 95th percentile queue length of approximately 430 feet. Under Cases 3a and 3b (2028 with development) conditions during the PM peak hour, the southbound Mulberry Street Extension and Northbound Mulberry Street approaches would operate at LOS F with a delay of over 1,000 seconds per vehicle, and extensive projected 95th percentile queue lengths that could not be calculated due to the limitations of the HCS software. This intersection is being studied as part of the Milton TID.

As part of the *SR 16, DuPont Boulevard to SR1* project (DelDOT Contract No. T202206301) a traffic signal will be installed at the Delaware Route 16 intersection with Mulberry Street (Sussex Road 197)/Mulberry Street Extension (Sussex Road 212). Under Case 2 conditions the intersection would operate at acceptable LOS D or better with a signal. Signalization would mitigate the weekday AM and PM peak hours. However, signalization would not mitigate the intersection deficiencies during the Summer Saturday Case 3 peak hour. As both the AM and PM peak hours would be mitigated with signalization and a DelDOT improvement project is already in place, it is recommended that the developer enter into an agreement with DelDOT to make an equitable contribution to the *SR 16, DuPont Boulevard to SR1* project (DelDOT Contract No. T202206301)) project or coordinate with DelDOT on an equitable share contribution towards the improvements that will be implemented as part of the Milton TID.

Delaware Route 5/Delaware Route 16 (Table 9, Page 57)

As part of the *SR 16, DuPont Boulevard to SR1* project (DelDOT Contract No. T202206301) the existing traffic signal phasing at the Delaware Route 16 intersection with Delaware Route 5 will be converted from concurrent to split phase operation along Delaware Route 5. The existing and future conditions analyses incorporate the split phase operation.

The signalized Delaware Route 5 and Delaware Route 16 intersection exhibits LOS deficiencies during the Summer Saturday peak hour under existing conditions and during the weekday AM, PM, and Summer Saturday peak hours under future conditions with or without the proposed development, regardless of entrance configuration. Under Case 2 (2028 without development) conditions during the Saturday peak hour, the Delaware Route 5 and Delaware Route 16 intersection would operate at LOS F with a delay of 200.7 seconds per vehicle. Under Case 3a and 3b conditions (2028 with development)) during the Summer Saturday peak hour, the Delaware Route 5 and Delaware Route 16 intersection would operate at LOS F with a delay of 309.5 seconds per vehicle. This intersection is being studied as part of the Milton TID.

Within the June 2, 2022 Royal Farms #28 Milton TIS Review Letter, the following improvements were recommended at the intersection:

- Provide separate left turn lanes along the eastbound and westbound Delaware Route 16 approaches.
- Provide a separate right turn lane along the southbound Delaware Route 5 approach.
- Provide protected-permissive signal phasing for the left turn lanes along Delaware Route 16.
- Provide concurrent signal phasing along the Delaware Route 5 approaches.

With those improvements, the intersection would continue to operate with capacity constraints but the intersection delay would reduce to 79.8 seconds of delay per vehicle during the Summer Saturday Case 3 conditions. As such, it is recommended that the Milton Village developer implement those improvements.

Delaware Route 5/Mulberry Street/Wharton Street (Table 13, Page 61)

The unsignalized two-way stop-controlled Delaware Route 5 intersection with Mulberry Street and Wharton Street exhibits LOS deficiencies during the existing PM peak hour and the weekday AM and PM peak hours under future conditions with or without the proposed development, regardless of entrance configuration. Under Case 1 (2022 without development) conditions during the PM peak hour, the westbound Wharton Street approach would operate at a LOS E with a delay of 36.2 seconds per vehicle and have a projected 95th percentile queue length of approximately 110 feet. Under Case 2 (2028 without development) conditions during the PM peak hour, the westbound Wharton Street approach would operate at a LOS F with a delay of 720.9 seconds per vehicle and have a projected 95th percentile queue length of approximately 693 feet. Under Cases 3a and 3b (2028 with development) conditions during the PM peak hour, the westbound Wharton Street Extension would operate at a LOS F with a delay of over 1,000 seconds per vehicle and have a projected 95th percentile queue length of approximately 870 feet.

The developer should design and construct future improvements at the intersection of Delaware Route 5 with Mulberry Street and Wharton Street possibly including a signal (if justified by a traffic signal justification study), roundabout, or other control measure, that will be determined by DelDOT at a later date. However, this intersection is being studied as part of the Milton TID. Alternatively, the developer may opt to participate in the Milton TID when it is fully operational. If the developer participates in the Milton TID, then their TID fees will apply towards this improvement.

Delaware Route 16/Orchard Road/Holly Tree Road (Table 17, Page 68)

The unsignalized two-way stop-controlled Delaware Route 16 intersection with Orchard Road/Holly Tree Road exhibits LOS deficiencies along the Southbound Holly Tree Road approach during the weekday PM peak hour and along the Northbound Orchard Road approach during the Saturday midday peak hour under future conditions with the proposed development, regardless of entrance configuration. However, the volume along the southbound approach during the PM peak hour and along the northbound approach during the Saturday peak hour is less than 10 vehicles per hour. Per the Development Coordination Manual (DCM) Section 2.2.8.12.5 for unsignalized intersections, if LOS failure occurs along an approach with 10 vehicles per hour or less, mitigation is not required. As such, we do not recommend that the developer implement any improvements at this intersection.

Delaware Route 30/Sand Hill Road (Sussex Road 319) (Table 18, Page 70)

The unsignalized all-way stop-controlled Delaware Route 30 intersection with Sand Hill Road exhibits LOS deficiencies during the weekday AM and PM peak hours under future conditions with or without the proposed development, regardless of entrance configuration. Under Case 3 (2028 with development) conditions during the PM peak hour, the intersection would operate at overall LOS F with 229.6 seconds of delay per vehicle. Furthermore the intersection would exhibit LOS deficiencies along the eastbound Sand Hill Road approach with a delay of 165.2 seconds per vehicle and a projected 95th percentile queue length of approximately 520 feet, along the northbound Delaware Route 30 approach with a delay of 144.7 seconds per vehicle and a projected 95th percentile queue length of approximately 525 feet, and along the southbound Delaware Route 30 approach with a delay of 398.0 seconds per vehicle and a projected 95th percentile queue length of approximately 1,410 feet.

The deficiencies at the intersection could be mitigated with a single-lane roundabout containing a yield-controlled bypass lane along the southbound approach, or a signalized intersection. However, this intersection is being studied as part of the Milton TID. Additionally, as part of the *HEP SC, SR 30 at Sand Hill Road* project (DelDOT Contract No. T202404303), a roundabout is proposed at the intersection. As such, it is not recommended that the developer implement any improvements at the intersection. The developer should enter into an agreement with DelDOT to make an equitable contribution to the *HEP SC, SR 30 at Sand Hill Road* project (DelDOT Contract No. T202404303) project or coordinate with DelDOT on an equitable share contribution towards the improvements that will be implemented as part of the Milton TID.

Delaware Route 5/Sand Hill Road (Table 20, Page 74)
The unsignalized two-way stop-controlled Delaware Route 5 intersection with Sand Hill Road exhibits LOS deficiencies along the eastbound Sand Hill Road approach during the weekday AM and PM peak hours under future conditions with or without the proposed development, regardless of entrance configuration. Specifically, under Case 3 (2028 with development) conditions during the PM peak hour the eastbound Sand Hill Road approach would operate at LOS F (154.0 seconds of delay per vehicle) with a projected 95th percentile queue length of approximately 330 feet.

The deficiencies at the intersection could be mitigated with a single-lane roundabout or a signalized intersection. The developer should design and construct future improvements at the intersection of Delaware Route 5 and Sand Hill Road possibly including a signal (if justified by a traffic signal justification study) or a single lane roundabout. However, this intersection is being studied as part of the Milton TID. Alternatively, the developer may opt to participate in the Milton TID when it is fully operational. If the developer participates in the Milton TID, then their TID fees will apply towards this improvement.

Delaware Route 30/Huff Road (Sussex Road 252) (Table 22, Page 78)
The unsignalized two-way stop-controlled Delaware Route 5 intersection with Huff Road exhibits LOS deficiencies during the weekday PM peak hours under future conditions with or without the proposed development, regardless of entrance configuration. Under Case 2 (2028 without development) conditions during the PM peak hour, the eastbound Huff Road approach would operate at a LOS F with a delay of 98.2 seconds per vehicle and have a projected 95th percentile queue length of approximately 210 feet. Under Case 3a and 3b (2028 with development) conditions during the PM peak hour, the eastbound Huff Road approach would operate at a LOS F with a delay of over 159.2 seconds per vehicle and have a projected 95th percentile queue length of approximately 265 feet.

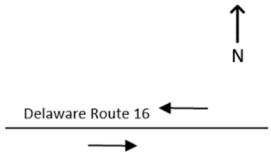
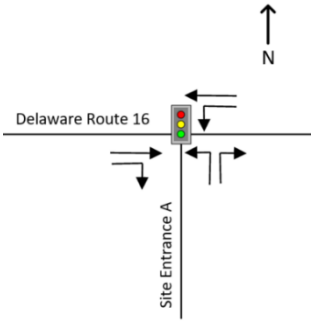
To mitigate the LOS deficiencies, it is recommended the developer construct a single lane roundabout at the intersection. A single lane roundabout would improve the level of service to LOS A in the Case 3a and 3b (2028 with development) conditions during the PM peak hour to 8.3 vehicles per second. Additionally, with a roundabout the calculated 95th percentile queue length along the eastbound Huff Road approach would be approximately 25 feet.

Should Sussex County approve the proposed 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 shall improve Delaware Route 16 and Delaware Route 30 within the limits of their frontage to meet DelDOT's standards for their Functional Classification as found in Section 1.1 of the *Development Coordination Manual* and elsewhere therein. The improvements shall include both directions of travel, regardless of whether the developer's lands are on one or both sides of the road. Frontage is defined in Section 1 of the *Development Coordination Manual*, which states "This length includes the length of roadway perpendicular to lines created by the projection of the outside parcel corners to

the roadway." The developer should coordinate with DelDOT's Development Coordination Section during the site plan review to determine the improvements.

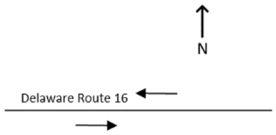
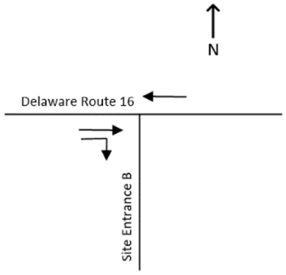
2. The developer should construct Site Entrance A as a full access signalized entrance for the proposed Milton Village development along Delaware Route 16 approximately 1,500 feet east of the intersection with Delaware Route 30. The intersection should be consistent with the lane configurations depicted 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 left turn lane and one through lane	
Northbound Site Entrance A	Does not exist		One left turn lane and one right turn lane	

The recommended minimum storage lengths (excluding taper) for the eastbound Delaware Route 16 right turn lane is 350 feet and the westbound Delaware Route 16 left turn lane is 240 feet. The projected queues from the HCS analysis can be accommodated within the recommended storage lengths. The developer should coordinate with DelDOT's Development Coordination Section during the plan review process regarding the design.

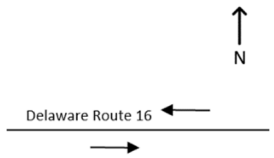
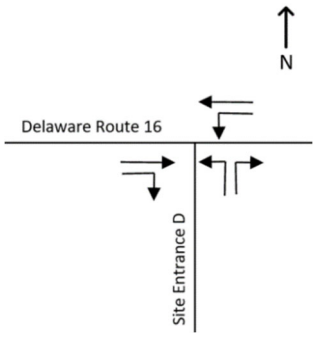
3. The developer should construct Site Entrance C as a single lane roundabout entrance for the proposed Milton Village development along Delaware Route 30 approximately 1,000 feet south of the intersection with Delaware Route 16. The developer should coordinate with DelDOT's Development Coordination section to identify the exact location as the entrance would be nearby to the proposed improvements associated with the *HEP SC, SR 30 at SR 16 Intersection Improvements* (DelDOT Contract No. T202204303) project.

4. The developer should construct Site Entrance B as a rights-in only entrance for the proposed Milton Village development along Delaware Route 16 approximately 2,100 feet east of the intersection with Delaware Route 30. The intersection should be consistent with the lane configurations depicted 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		No Change	

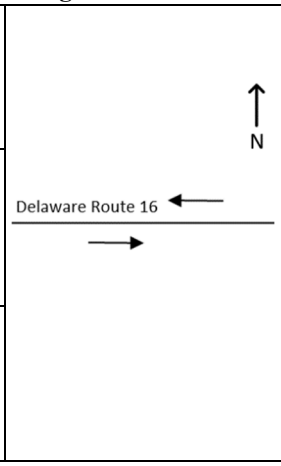
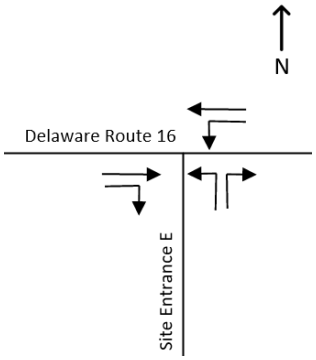
The recommended minimum storage length (excluding taper) for the eastbound Delaware Route 16 right turn lane is 350 feet. The projected queues from the HCS analysis can be accommodated within the recommended storage length. The developer should coordinate with DelDOT's Development Coordination Section during the plan review process regarding the design.

5. The developer should construct Site Entrance D as an unsignalized full movement entrance for the proposed Milton Village development along Delaware Route 16 approximately 600 feet east of the intersection with Delaware Route 30. The intersection should be consistent with the lane configurations depicted 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 left turn lane and one through lane	
Northbound Site Entrance D	Does not exist		One left turn lane and one right turn lane	

The recommended minimum storage lengths (excluding taper) for the eastbound Delaware Route 16 right turn lane is 350 feet and the westbound Delaware Route 16 left turn lane is 210 feet. The projected queues from the HCS analysis can be accommodated within the recommended storage lengths. The developer should coordinate with DelDOT's Development Coordination Section during the plan review process regarding the design.

6. The developer should construct Site Entrance E as an unsignalized full movement entrance for the proposed Milton Village development along Delaware Route 16 approximately 2,700 feet east of the intersection with Delaware Route 30. The intersection should be consistent with the lane configurations depicted in the table below.

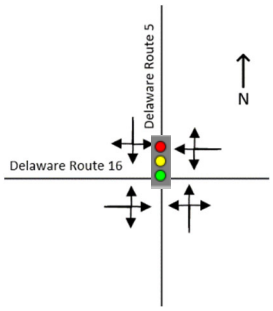
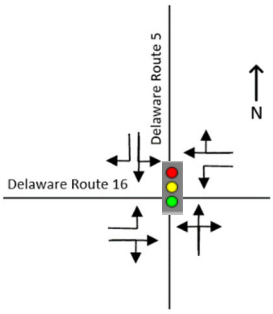
Approach	Current Configuration		Proposed Configuration	
Eastbound Delaware Route 16	One through lane		One through lane and one right turn lane	
Westbound Delaware Route 16	One through lane		One left turn lane and one through lane	
Northbound Site Entrance E	Does not exist		One left turn lane and one right turn lane	

The recommended minimum storage lengths (excluding taper) for the eastbound Delaware Route 16 right turn lane is 290 feet and the westbound Delaware Route 16 left turn lane is 210 feet. The projected queues from the HCS analysis can be accommodated within the recommended storage lengths. The developer should coordinate with DelDOT's Development Coordination Section during the plan review process regarding the design.

7. The developer should enter into an agreement with DelDOT to fund an equitable portion of the improvements proposed as part of the *HEP SC, SR 30 at SR 16 Intersection Improvements* (DelDOT Contract No. T202204303) project. The developer should coordinate with DelDOT on the implementation and equitable cost sharing of these improvements. The cost contribution is $206,178.43. Alternatively, the developer may opt to participate in the Milton TID when it is fully operational. If the developer participates in the Milton TID, then their TID fees will apply towards this intersection improvement.

8. The developer should enter into an agreement with DelDOT to fund an equitable portion of the improvements proposed as part of the *SR 16, DuPont Boulevard to SR1* (DelDOT Contract No. T202206301) project. The developer should coordinate with DelDOT on the implementation and equitable cost sharing of these improvements. The cost contribution will be provided at a later date.

9. The developer should construct a separate left turn lane at the intersection of Delaware Route 16 and Delaware Route 5 along the eastbound and westbound Delaware Route 16 approaches and a separate right turn lane along the southbound Delaware Route 5 approach. The westbound approach should be adjusted to provide proper alignment with the receiving lane on the westerly leg. The eastbound and westbound left turn lanes should operate with protected-permissive signal phasing and the northbound and southbound approaches should maintain concurrent signal phasing. Additionally, a five-foot bicycle lane should be provided along the westbound approach. The intersection should be consistent with the lane configurations shown in the table below.

Approach	Current Configuration		Proposed Configuration	
Eastbound Delaware Route 16	One shared left turn/through/right turn lane		One left turn lane and one shared through/right turn lane	
Westbound Delaware Route 16	One shared left turn/through/right turn lane		One left turn lane and one shared through/right turn lane	
Northbound Delaware Route 5	One shared left turn/through/right turn lane		No Change	
Southbound Delaware Route 5	One shared left turn/through/right turn lane		One shared left turn/through lane and one right turn lane	

Based on DelDOT's *Development Coordination Manual* and the queue results from the HCS analysis, the recommended minimum storage length (excluding tapers) of the eastbound left turn lane is 150 feet, westbound left turn lane is 100 feet, and the southbound right turn lane is 210 feet. Prior to Entrance Plan approval, the developer should submit a plan to DelDOT Development Coordination Section to confirm the design of the intersection.

10. The developer should enter into a traffic signal agreement with DelDOT for the intersection of Delaware Route 16 and Delaware Route 5. The developer should coordinate with the DelDOT Subdivision Section to execute the traffic signal agreement.

11. The developer should design and construct future improvements at the intersection of Delaware Route 5 with Mulberry Street and Wharton Street possibly including a signal (if justified by a traffic signal justification study), roundabout, or other control measure, that will be determined by DelDOT at a later date. Alternatively, the developer may opt to participate in the Milton TID when it is fully operational. If the developer participates in the Milton TID, then their TID fees will apply towards this improvement.

12. The developer should enter into an agreement with DelDOT to fund an equitable portion of the improvements proposed as part of the *HEP SC, SR 30 at Sand Hill Road* project (DelDOT Contract No. T202404303) project. The developer should coordinate with DelDOT on the implementation and equitable cost sharing of these improvements. The cost contribution is $66,833.45. Alternatively, the developer may opt to participate in the Milton TID when it is fully operational. If the developer participates in the Milton TID, then their TID fees will apply towards this intersection improvement.

13. The developer should design and construct future improvements at the intersection of Delaware Route 5 and Sand Hill Road possibly including a signal (if justified by a traffic

signal justification study) or a single lane roundabout. Alternatively, the developer may opt to participate in the Milton TID when it is fully operational. If the developer participates in the Milton TID, then their TID fees will apply towards this improvement.

14. The developer should reconstruct the Delaware Route 30 intersection with Huff Road (Sussex Road 252) to be a one lane roundabout. The developer should coordinate with DelDOT Development Coordination Section during the Entrance Plan review process regarding the design and implementation.

15. Cross-access easements should be provided to the properties adjacent to the site.

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

    a. A minimum of fifteen-foot wide permanent easement from the edge of the right-of-way should be dedicated to DelDOT along the Delaware Route 16 and Delaware Route 30 site frontages. Within the easement, the developer should construct a ten-foot wide shared-use path (SUP) with an angled termination into the shoulder where the shoulder/bike lane is at least five feet wide. The SUP should be designed to meet current AASHTO and ADA standards. A minimum five-foot setback should be maintained from the edge of the pavement to the SUP. 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. Internal connections from the SUP along both Delaware Route 16 and Delaware Route 30 into the site are required.

    c. ADA compliant curb ramps and marked crosswalks should be provided along the Site Entrance approaches to Delaware Route 16 and Delaware Route 30.

    d. Minimum five-foot wide bicycle lanes should be incorporated in the right turn lane and shoulder along the Delaware Route 16 and Delaware Route 30 approaches to the Site Entrances.

    e. Utility covers should be moved outside of any designated bicycle lanes and any proposed sidewalks/SUP or should be flush with the pavement.

    f. Bicycle parking should be provided near the shopping center and medical office building entrances. Where the building architecture provides for an awning or other overhang, the bicycle parking should be covered.

    g. DART bus stops should be provided along both directions of Delaware Route 16 at the far-side of the Site Entrance A intersection. The eastbound stop should be constructed as a Type 2 (17'x13') bus shelter pad and the westbound stop should

be constructed as a Type 2 (5'x8') bus stop. The developer should coordinate with DelDOT's Development Coordination Section during the plan review process to identify the exact location and design of the bus stops.

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.

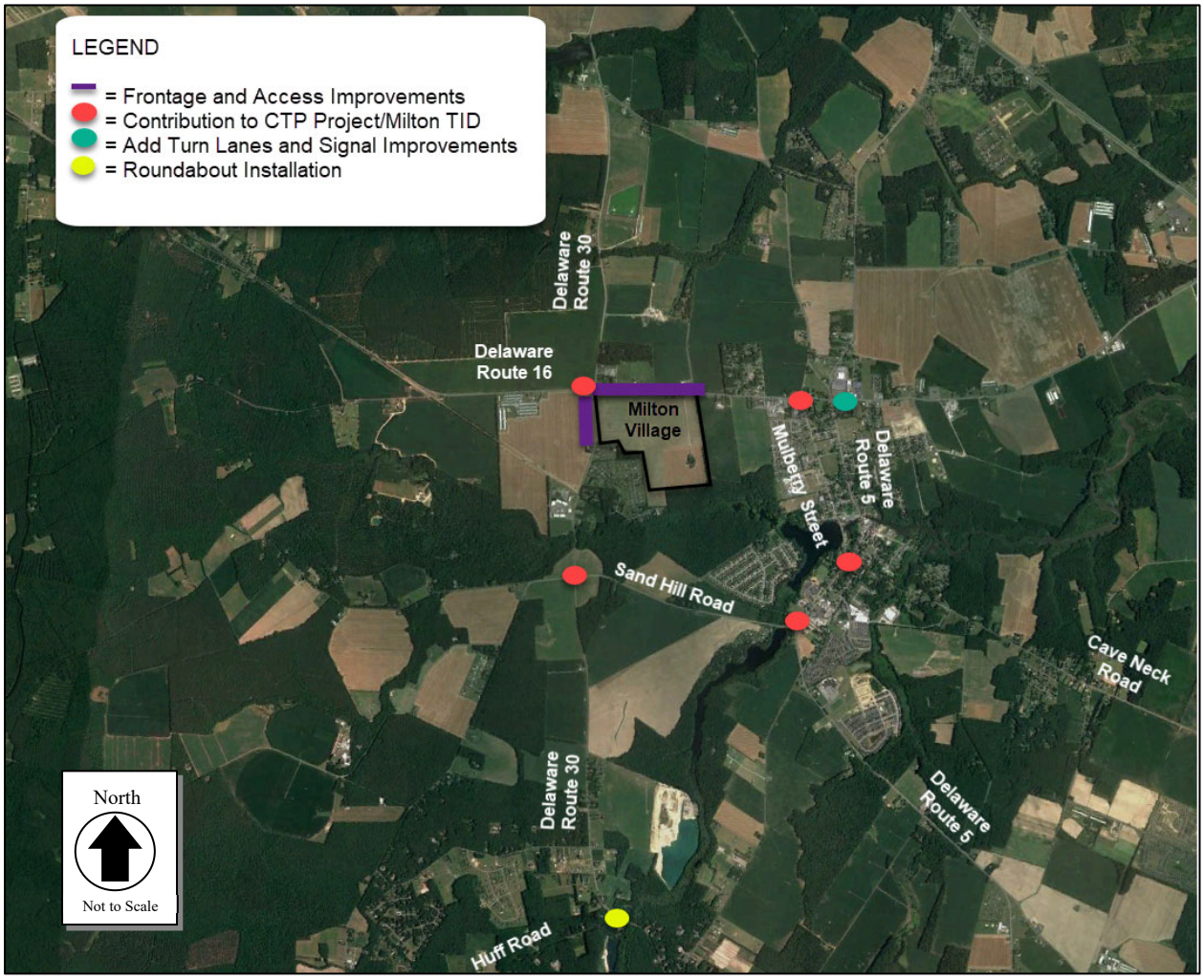
Additional details on our review of the TIS are attached. Please contact me at (302) 266-9600 if you have any questions concerning this review.

Sincerely,
Johnson, Mirmiran, and Thompson, Inc.

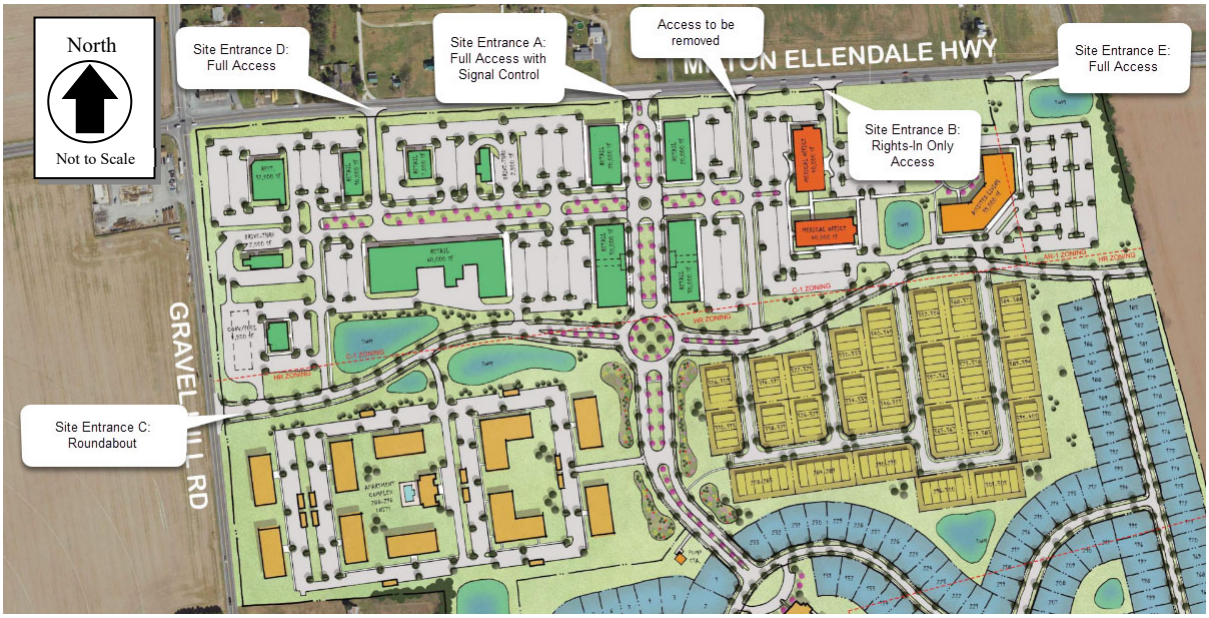
Joanne M. Arellano, P.E., PTOE

Enclosures
cc: Mir Wahed, P.E., PTOE
Janna Brown, P.E.

Recommendations Map



Entrance Recommendations Map



General Information

Report date: May 2023
Prepared by: Becker Morgan Group, Inc
Prepared for: 1630 Ventures, LLC
Tax Parcels: 235-14.00-77.00, 81.00, 82.00
Generally consistent with DelDOT's *Development Coordination Manual (DCM)*: Yes

Project Description and Background

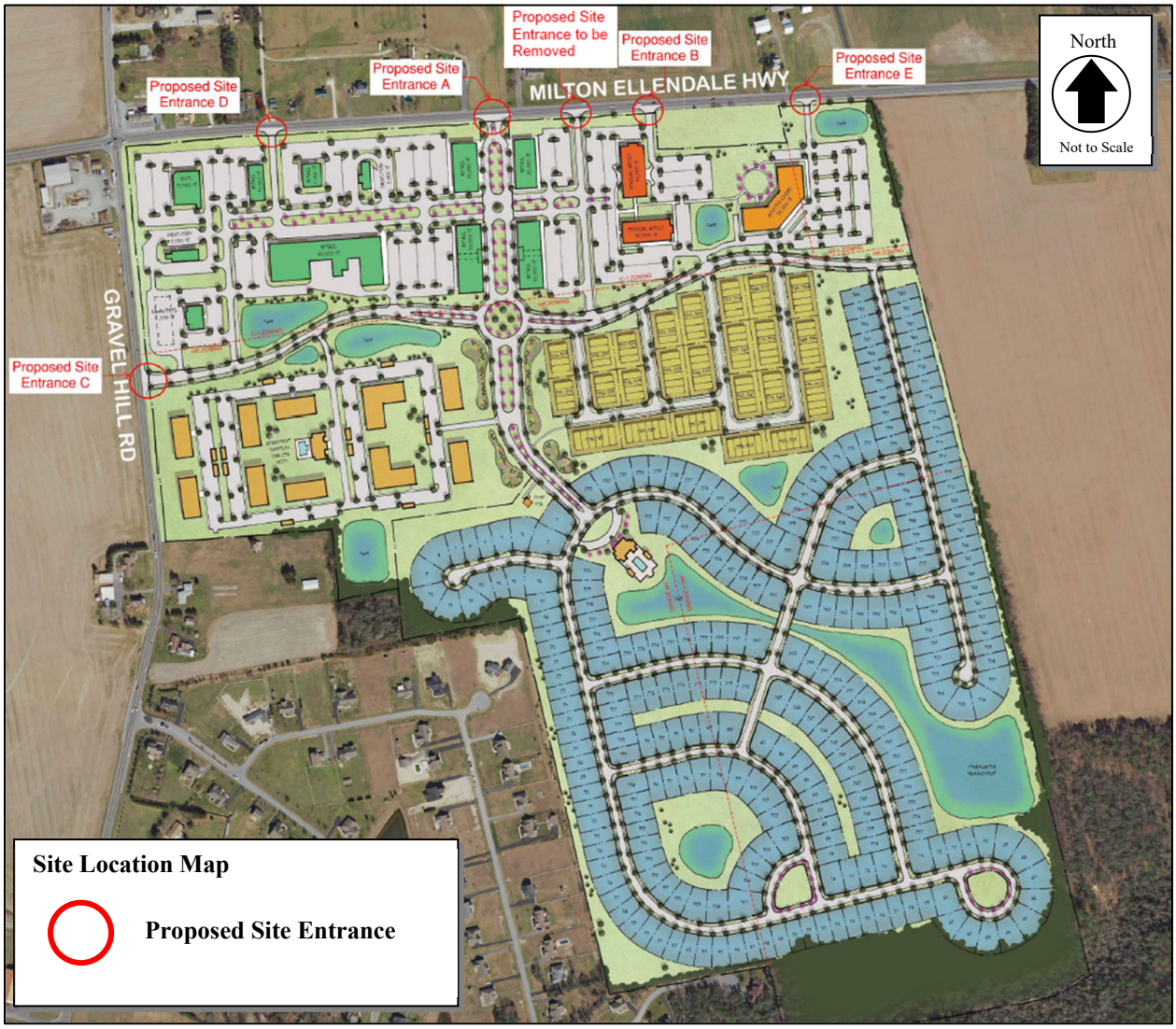
Description: The proposed development consists of 277 single-family detached houses, 123 low-rise multifamily houses (townhouses), 296 mid-rise multifamily houses (apartments), a 35,000 square-foot assisted living facility, a 80,000 square-foot medical dental office space, a 210,000 square-foot shopping center.
Location: The site is located on the southeast corner of the intersection of Delaware Route 16 and Delaware Route 30, in Sussex County, Delaware.
Amount of Land to be developed: An approximately 213.78-acre assemblage of parcels.
Land Use approval needed: Entrance Plan.
Proposed completion date: 2028.
Proposed access locations: Five full access points are proposed: four on Delaware Route 16 and one on Delaware Route 30.

Daily Traffic Volumes:

- 2022 Average Annual Daily Traffic on Delaware Route 16: 8,255 vehicles per day.
- 2022 Average Annual Daily Traffic on Delaware Route 30: 3,937 vehicles per day.

*AADT is sourced from data provided by DelDOT Gateway.

Site Map



**Graphic is an approximation based on the Concept Plan prepared by Becker Morgan Group for Milton Village, dated December 1, 2021.*

Relevant and On-going Projects

DelDOT has relevant and ongoing improvement projects within the study area including the *Coastal Corridors Study* which focuses on identifying transportation solutions for the east-west corridors including Delaware Route 16 and US Route 9 between US 113 and SR 1 that are currently congested or are anticipated to be in the future. The goals of the study are to identify short-term, medium-term, and long-term traffic solutions; educate and inform local stakeholders on the issues and seek feedback and preferences on proposed solutions; build support around the implementation of those solutions. The study is currently in targeted engagement phase which

involves members of the Corridors Committee (which is comprised of municipal representatives, business owners, community-based organizations, and residents) working with the Study Team to review data and provide feedback on potential transportation solutions in the study area. The Corridors Committee along with interested members of the public met four times between December 2022 to March 2023. More information about the study can be found at: https://deldot.gov/projects/Studies/404/index.shtml.

The *HEP SC, SR 30 at SR 16 Intersection Improvements* (DelDOT Contract No. T202204303) project proposes to make geometric improvements and install a roundabout at the intersection of Delaware Route 30 and Delaware Route 16. The project intersection was identified in the 2017 Hazard Elimination Program as a high crash location. The project is currently in the Design phase. Construction is tentatively scheduled to begin in 2027. More information about the project can be found at:
https://deldot.gov/projects/index.shtml?dc=details&projectNumber=T202204303.

The *SR 16, DuPont Boulevard to SR1* project (DelDOT Contract No. T202206301) is a pavement and rehabilitation project that includes improvements at two of the study intersections. As part of this DelDOT project, a traffic signal will be installed at the Delaware Route 16 intersection with Mulberry Street (Sussex Road 197)/Mulberry Street Extension (Sussex Road 212). Additionally, the existing traffic signal phasing at the Delaware Route 16 intersection with Delaware Route 5 will be converted from concurrent to split phase operation along Delaware Route 5. Design is underway and is expected to be ready for construction advertisement in the Fall of 2023.

The *HEP SC, SR 30 at Sand Hill Road* project (DelDOT Contract No. T202404303) proposes to install a roundabout at the intersection of Delaware Route 30 and Sand Hill Road (Sussex Road 319). Design for the project begins this year during Fiscal Year 2024. Construction funding is tentatively scheduled to begin in Fiscal Year 2028.

A pavement and rehabilitation project (DelDOT Contract No. T201906303) is proposed along Sand Hill Road, from Gravel Hill Road to East Redden Road, and along Front Street (Sussex Road 89), from Cave Neck Road (Sussex Road 88) to Mount Zion Holy Church. The project is advertised for construction with construction scheduled to begin Fall of 2023. This project traverses along four study intersections: the Sand Hill Road intersections with Burton Road (Sussex Road 241), Delaware Route 30, and Donovan Road (Sussex Road 242), and the Front Street intersection with Cave Neck Road.

It is noted that the proposed development is located within the boundary of the proposed Milton Transportation Improvement District (TID). A TID is a planning concept that seeks to proactively align transportation infrastructure spending and improvements with land use projects and future development within the designated district. The Milton TID is under development by DelDOT, the Town of Milton, and Sussex County and is currently in the process of developing a land use

forecast for the project area to be used for future volume projections. If and when DelDOT and the County establish the TID, it may be appropriate for the developer to contribute to the TID. The TID is tentatively scheduled to be fully operational in 2023.

Livable Delaware

(Source: Delaware Strategies for State Policies and Spending, 2020)

Location with respect to the Strategies for State Policies and Spending Map of Delaware:
The proposed development is located within Investment Level 2 and Investment Level 3.

Investment Level 2

These areas can be composed of less developed areas within municipalities, rapidly growing areas in the counties that have or will have public water and wastewater services and utilities, areas that are generally adjacent to or near Investment Level 1 Areas, smaller towns and rural villages that should grow consistently with their historic character, and suburban areas with public water, wastewater, and utility services. They serve as transition areas between Level 1 and the state's more open, less populated areas. They generally contain a limited variety of housing types, predominantly detached single-family dwellings.

In Investment Level 2 Areas, like 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. Investments should encourage departure from the typical single-family-dwelling developments and promote a broader mix of housing types and commercial sites encouraging compact, mixed-use development where applicable. Overall, the State's intent is to use its spending and management tools to promote well-designed development in these areas. Such development provides for a variety of housing types, user-friendly transportation systems, essential open spaces and recreational facilities, other public facilities, and services to promote a sense of community.

Level 2 Areas share similar priorities as with the Level 1 Areas where the aim remains to: make context sensitive transportation system capacity enhancements, preserve existing facilities, make safety enhancements, make transportation system capacity improvements, create transit system enhancements, ensure ADA accessibility, and close gaps in the pedestrian system, including the Safe Routes to School projects. Investment Level 2 Areas are ideal locations for Transportation Improvement Districts and Complete Community Enterprise Districts. Other priorities for Level 2

Areas include: Corridor Capacity Preservation, off-alignment multi-use paths, interconnectivity of neighborhoods and public facilities, and signal-system enhancements.

Investment Level 3

Investment Level 3 Areas generally fall into two categories. The first category covers lands that are in the long-term growth plans of counties or municipalities where development is not necessary to accommodate expected population growth during a five-year planning period (or longer). In these instances, development in Investment Level 3 may be least appropriate for new growth and development in the near term. The second category includes lands that are adjacent to or intermingled with fast-growing areas within counties or municipalities that are otherwise categorized as Investment Levels 1 or 2. Environmentally sensitive features, agricultural-preservation issues, or other infrastructure issues most often impact these lands. In these instances, development and growth may be appropriate in the near term, but the resources on the site and in the surrounding area should be carefully considered and accommodated by state agencies and local government with land-use authority. Investment Level 3 is further characterized by areas with new development separated from existing development by a substantial amount of vacant land that is not contiguous with existing infrastructure, areas that are experiencing some development pressure, areas with existing but disconnected development, and possible lack of adequate infrastructure.

The state will consider investing in infrastructure within Investment Level 3 Areas once the Investment Level 1 and 2 Areas are substantially built out, or when the infrastructure or facilities are logical extensions of existing systems and deemed appropriate to serve a particular area. The priorities in the Level 3 Areas are for DelDOT to focus on regional movements between towns and other population centers. DelDOT also supports the development and implementation of Transportation Improvement Districts in Investment Level 3 areas. Local roadway improvements will be made by developers and property owners as development occurs. Lower priority is given to transportation system–capacity improvements and transit-system enhancements.

Proposed Development's Compatibility with Livable Delaware:
The proposed site is located predominantly in Investment Level 2 with a small portion of land on the west side of the property located in Investment Level 3. The Investment Level 3 area consists of storm water management and approximately 15 lots designated for single-family detached houses.

Investment Level 2 areas encourage a mixed-use development consisting of a variety of housing types and commercial uses. The proposed development consists of various housing types including single-family detached houses, townhouses, apartments, and assisted living. The development also plans to include medical office spaces and a shopping center. Investment Level 3 areas include lands that are adjacent to or intermingled with fast-growing areas within counties or municipalities

that are otherwise categorized as Investment Levels 1 or 2 and development may be appropriate in the near term. The proposed site is adjacent to the fast-growing town of Milton which is categorized as Investment Level 1. Therefore, the proposed development is generally consistent with the 2020 update of the Livable *Delaware Strategies for State Policies and Spending.*

Comprehensive Plan

(Source: Sussex County Comprehensive Plan, 2019)

Sussex County Comprehensive Plan:

Per the *Sussex County Comprehensive Plan Existing Land Use Map,* the proposed development is currently zoned as Agricultural and Undeveloped Lands. Per the *Sussex County Comprehensive Plan Future Land Use Map,* the proposed development is designated as a Developing Area within a Growth Area.

Proposed Development's Compatibility with the Sussex County Comprehensive Plan:

The *Sussex County Comprehensive Plan* states that Developing Areas may include land use designated as General Commercial District (C-1), Agricultural Residential District (AR-1) and High Density Residential (HR-1). The developer does not plan to rezone, and the proposed site is currently zoned as C-1, AR-1 and HR-1. Therefore, the proposed development is generally consistent with the *Sussex County Comprehensive Plan*.

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, 11th Edition: An ITE Informational Report*, published by the Institute of Transportation Engineers (ITE) for ITE Land Use Code 210 (Single-Family Detached Housing), Land Use Code 220 (Low-Rise Multifamily Housing), Land Use Code 221 (Mid-Rise Multifamily Housing), Land Use Code 254 (Assisted Living), Land Use Code 720 (Medical Dental Office Building), Land Use Code 820 (Shopping Center). Trip generation was reviewed by DelDOT as part of the Preliminary TIS (PTIS) submission.

Table 1a
Milton Village Trip Generation

Land Use	Trips	Weekday AM Peak Hour			Weekday PM Peak Hour			Saturday Midday Peak Hour		
		In	Out	Total	In	Out	Total	In	Out	Total
277 Single-Family Detached Houses (ITE – 210)	Total	49	139	188	163	96	259	134	114	248
	Internal	1	4	5	57	17	74	47	21	68
	External	48	135	183	106	79	185	87	93	180
123 unit Low-Rise Multifamily Houses (ITE – 220)	Total	15	46	61	46	27	73	25	25	50
	Internal	0	1	1	16	5	21	9	5	14
	External	15	45	60	30	22	52	16	20	36
296 unit Mid-Rise Multifamily Houses (ITE – 221)	Total	27	92	119	71	45	116	61	58	119
	Internal	1	3	4	25	8	33	21	10	31
	External	26	89	115	46	37	83	40	48	88
35,00 square-foot Assisted Living (ITS – 254)	Total	10	3	13	5	12	17	5	12	17
	Internal	0	0	0	2	2	4	2	2	4
	External	10	3	13	3	10	13	3	10	13
80,000 square-foot Medical Dental Office Building (ITE – 720)	Total	156	41	197	96	226	322	138	104	242
	Internal	11	11	22	17	32	49	25	15	40
	External	145	30	175	79	194	273	113	89	202
210,000 square-foot Shopping Center (ITE – 820)	Total	159	98	257	462	501	963	608	561	1169
	Internal	14	8	22	51	105	156	67	118	185
	External	145	90	235	411	396	807	541	443	984
	Pass by	0	0	0	-119	-115	-234	-157	-128	-285
	Net New	145	90	235	292	281	573	384	315	699
New Trips		389	392	781	556	623	1,179	643	575	1,218

*A pass by rate of 29% for the weekday PM and summer Saturday midday peak hour was used.

Table 1b
Milton Village Trip Generation ADT

Land Use	ADT
277 Single-Family Detached Houses (ITE – 210)	2,576
123 unit Low-Rise Multifamily Houses (ITE – 220)	864
296 unit Mid-Rise Multifamily Houses (ITE – 221)	1,344
35,000 square-foot Assisted Living (ITS – 254)	147
80,000 square-foot Medical Dental Office Building (ITE – 720)	2,880
210,000 square-foot Shopping Center (ITE – 820)	11,347
Total ADT	19,158

Overview of TIS

Intersections examined:

1. Site Entrance A / Delaware Route 16
2. Site Entrance B / Delaware Route 16 (rights-in only)
3. Site Entrance C / Delaware Route 30
4. Site Entrance D / Delaware Route 16
5. Site Entrance E / Delaware Route 16
6. Delaware Route 30 / Delaware Route 16
7. Delaware Route 30 / Reynolds Pond Road (Sussex Road 231)
8. Delaware Route 30 / Hummingbird Road (Sussex Road 227)
9. Delaware Route 16 / Mulberry Street (Sussex Road 197) / Mulberry Street Extension (Sussex Road 212)
10. Delaware Route 5 / Delaware Route 16
11. Delaware Route 16 / Reynolds Road (Sussex Road 233)
12. Mulberry Street / Lavinia Road
13. Delaware Route 5 / Magnolia Street
14. Delaware Route 5 / Mulberry Street / Wharton Street (Sussex Road 88)

15. Delaware Route 5 / Front Street
16. Front Street (Sussex Road 89) / Off Centered Way / Cave Neck Road (Sussex Road 88)
17. Delaware Route 16 / Saw Mill Road (Sussex Road 239)
18. Delaware Route 16 / Orchard Road / Holly Tree Road (Sussex Road 226)
19. Delaware Route 30 / Sand Hill Road (Sussex Road 319)
20. Sand Hill Road / Lavinia Street (Sussex Road 250)
21. Delaware Route 5 / Sand Hill Road
22. Delaware Route 30 / Neptune Road (Sussex Road 251)
23. Delaware Route 30 / Huff Road (Sussex Road 252)
24. Sand Hill Road / Burton Road (Sussex Road 241)
25. Sand Hill Road / Donovan Road (Sussex Road 242)

Conditions examined:

1. Case 1 – 2022 Existing
2. Case 2 – 2028 without Development
3. Case 3a – 2028 with Development
    a. Full movement access at Site Entrance A / Delaware Route 16
    b. Right-in only at Site Entrance B / Delaware Route 16
    c. Full movement access at Site Entrance C / Delaware Route 30
4. Case 3b – 2028 with Development
    a. Full movement access at Site Entrance A / Delaware Route 16
    b. Right-in only at Site Entrance B / Delaware Route 16
    c. Full movement access at Site Entrance C / Delaware Route 30
    d. Full movement access at Site Entrance D / Delaware Route 16
    e. Full movement access at Site Entrance E / Delaware Route 16

Committed Developments considered:

1. Granary at Draper Farm (875 single-family detached houses, 475 units of multi-family mid-rise houses, a 60,000 square-foot retail space)
2. Four Winds Farm (336 single-family detached houses)
3. Royal Farms #428 Milton (5,154 square-foot super convenience store with gas pumps)
4. Heritage Creek (58 age-restricted detached houses)
5. Captains Way (240 units of mobile home park, a 1,500 square-foot retail space)
6. Hawthorne (a.k.a. Paradise Lakes) (213 single-family detached houses)
7. Azalea Woods (a.k.a. Wilson Moore) (610 single-family detached houses)
8. Vines at Sand Hill (a.k.a. Sand Hill Valley/Sposato Property) (393 single-family detached houses)
9. Cypress Grove (a.k.a. Clifton Property) (71 units of low-rise multi-family houses, 168 units of mid-rise multi-family houses, a 20,000 square-foot retail space)

10. Cheer Life Care Village (435 units of continuing care retirement community)
11. Harpers Glen (35 single-family detached houses)

Peak hours evaluated: Weekday AM, weekday PM, and Saturday midday.

*In addition to the weekday analysis, summer Saturday midday peak hours were required for intersections 6, 9, 10, 11, 17 and 18.

Intersection Descriptions

1. **Site Entrance A / Delaware Route 16**
   Type of Control: Proposed signalized intersection (T-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 left turn lane and one through lane.
   Northbound Approach: (Site Entrance A) Proposed one left turn lane and one right turn lane.

2. **Site Entrance B / Delaware Route 16 (rights-in only)**
   Type of Control: Proposed unsignalized intersection (T-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.

3. **Site Entrance C / Delaware Route 30**
   Type of Control: Proposed signalized intersection (T-intersection).
   Westbound Approach: (Site Entrance C) Proposed one left turn lane and one right turn lane.
   Northbound Approach: (Delaware Route 30) Existing one through lane; proposed one through lane and one right turn lane.
   Southbound Approach: (Delaware Route 30) Existing one through lane; proposed one left turn lane and one through lane.

4. **Site Entrance D / Delaware Route 16**
   Type of Control: Proposed two-way stop-controlled intersection (T-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 left turn lane and one through lane.

Northbound Approach: (Site Entrance D) Proposed one left turn lane and one right turn lane, stop-controlled.

5. **Site Entrance E / Delaware Route 16**
   Type of Control: Proposed two-way stop-controlled intersection (T-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 left turn lane and one through lane.
   Northbound Approach: (Site Entrance E) Proposed one left turn lane and one right turn lane, stop-controlled.

6. **Delaware Route 30 / Delaware Route 16**
   Type of Control: Existing signalized 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 30) Existing one shared left turn/through lane and one right turn lane.
   Southbound Approach: (Delaware Route 30) Existing one shared left turn/through/right turn lane.

7. **Delaware Route 30 / Reynolds Pond Road (Sussex Road 231)**
   Type of Control: Existing two-way stop-controlled intersection.
   Eastbound Approach: (Reynolds Pond Road) Existing one shared left turn/through/right turn lane, stop-controlled.
   Westbound Approach: (Reynolds Pond Road) Existing one shared left turn/through/right turn lane, stop-controlled.
   Northbound Approach: (Delaware Route 30) Existing one shared left turn/through/right turn lane.
   Southbound Approach: (Delaware Route 30) Existing one shared left turn/through/right turn lane.

8. **Delaware Route 30 / Hummingbird Road (Sussex Road 227)**
   Type of Control: Existing two-way stop-controlled intersection (T-intersection).
   Eastbound Approach: (Hummingbird Road) Existing one shared left turn/right turn lane, stop-controlled.
   Northbound Approach: (Delaware Route 30) Existing one shared left turn/through lane.

Southbound Approach: (Delaware Route 30) Existing one shared through/right turn lane.

9. **Delaware Route 16 / Mulberry Street (Sussex Road 197) / Mulberry Street Extension (Sussex Road 212)**
   Type of Control: Existing two-way stop-controlled 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: (Mulberry Street) Existing one shared left turn/through/right turn lane, stop-controlled.
   Southbound Approach: (Mulberry Street Extension) Existing one shared left turn/through/right turn lane, stop-controlled.

10. **Delaware Route 5 / Delaware Route 16**
    Type of Control: Existing signalized 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.

11. **Delaware Route 16 / Reynolds Road (Sussex Road 233)**
    Type of Control: Existing two-way stop-controlled intersection (T-intersection).
    Eastbound Approach: (Delaware Route 16) Existing one shared left turn/through lane.
    Westbound Approach: (Delaware Route 16) Existing one shared through/right turn lane.
    Southbound Approach: (Reynolds Road) Existing one shared left turn/right turn lane, stop-controlled.

12. **Mulberry Street / Lavinia Street**
    Type of Control: Existing two-way stop-controlled intersection (T-intersection).
    Eastbound Approach: (Lavinia Street) Existing one shared left turn/right turn lane, stop-controlled.
    Northbound Approach: (Mulberry Street) Existing one shared left turn/through lane.
    Southbound Approach: (Mulberry Street) Existing one through/right turn lane.

13. Delaware Route 5 / Magnolia Street

Type of Control: Existing two-way stop-controlled intersection (T-intersection).
Eastbound Approach: (Magnolia Street) Existing one shared left turn/right turn lane, stop-controlled.
Northbound Approach: (Delaware Route 5) Existing one shared left turn/through lane.
Southbound Approach: (Delaware Route 5) Existing one through/right turn lane.

14. Delaware Route 5 / Mulberry Street / Wharton Street (Sussex Road 88)

Type of Control: Existing two-way stop-controlled intersection.
Eastbound Approach: (Mulberry Street) Existing one shared left turn/through/right turn lane, stop-controlled.
Westbound Approach: (Wharton Street) Existing one shared left turn/through/right turn lane, stop-controlled.
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.

15. Delaware Route 5 / Front Street

Type of Control: Existing two-way stop-controlled intersection.
Eastbound Approach: (Front Street) Existing one shared left turn/through lane and one channelized right turn lane.
Westbound Approach: (Front Street) Existing one shared left turn/through/right turn lane, stop-controlled.
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, stop-controlled.

16. Front Street (Sussex Road 89) / Off Centered Way / Cave Neck Road (Sussex Road 88)

Type of Control: Existing two-way stop-controlled intersection.
Eastbound Approach: (Cave Neck Road) Existing one left turn lane, one through lane and one right turn lane.
Westbound Approach: (Cave Neck Road) Existing one left turn lane and one shared through/right turn lane.
Northbound Approach: (Off Centered Way) Existing one shared left turn/through/right turn lane, stop-controlled.

Southbound Approach: (Front Street) Existing one shared left turn/through/right turn lane, stop-controlled.

17. Delaware Route 16 / Saw Mill Road (Sussex Road 239)

Type of Control: Existing two-way stop-controlled intersection (T-intersection).
Eastbound Approach: (Delaware Route 16) Existing one shared through/right turn lane.
Westbound Approach: (Delaware Route 16) Existing one shared left turn/through lane.
Northbound Approach: (Saw Mill Road) Existing one shared left turn/right turn lane, stop-controlled.

18. Delaware Route 16 / Orchard Road / Holly Tree Road (Sussex Road 226)

Type of Control: Existing two-way stop-controlled 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: (Orchard Road) Existing one shared left turn/through/right turn lane, stop-controlled.
Southbound Approach: (Holly Tree Road) Existing one shared left turn/through/right turn lane, stop-controlled.

19. Delaware Route 30 / Sand Hill Road (Sussex Road 319)

Type of Control: Existing all-way stop-controlled intersection.
Eastbound Approach: (Sand Hill Road) Existing one shared left turn/through/right turn lane.
Westbound Approach: (Sand Hill Road) Existing one shared left turn/through lane and one channelized right turn lane.
Northbound Approach: (Delaware Route 30) Existing one shared left turn/through lane and one right turn lane.
Southbound Approach: (Delaware Route 30) Existing one shared left turn/through lane and one right turn lane.

20. Sand Hill Road / Lavinia Street (Sussex Road 250)

Type of Control: Existing two-way stop-controlled intersection (T-intersection).
Eastbound Approach: (Sand Hill Road) Existing one shared left turn/through lane.
Westbound Approach: (Sand Hill Road) Existing one shared through/right turn lane.
Southbound Approach: (Lavinia Street) Existing one shared left turn/right turn lane, stop-controlled.

21. Delaware Route 5 / Sand Hill Road

Type of Control: Existing two-way stop-controlled intersection (T-intersection).
Eastbound Approach: (Sand Hill Road) Existing one left turn lane and one channelized right turn lane, stop-controlled.
Northbound Approach: (Delaware Route 5) Existing one left turn lane and one through lane.
Southbound Approach: (Delaware Route 5) Existing one through lane and one channelized right turn lane.

*A private driveway exists at the easterly leg of the intersection.

22. Delaware Route 30 / Neptune Road (Sussex Road 251)

Type of Control: Existing two-way stop-controlled intersection (T-intersection).
Eastbound Approach: (Neptune Road) Existing one shared left turn/right turn lane, stop-controlled.
Northbound Approach: (Delaware Route 30) Existing one shared left turn/through lane.
Southbound Approach: (Delaware Route 30) Existing one shared through/right turn lane.

*A private driveway exists at the easterly leg of the intersection.

23. Delaware Route 30 / Huff Road (Sussex Road 252)

Type of Control: Existing two-way stop-controlled intersection (T-intersection).
Eastbound Approach: (Huff Road) Existing one shared left turn/right turn lane, stop-controlled.
Northbound Approach: (Delaware Route 30) Existing one shared left turn/right turn lane.
Southbound Approach: (Delaware Route 30) Existing one shared through/right turn lane.

24. Sand Hill Road / Burton Road (Sussex Road 241)

Type of Control: Existing two-way stop-controlled intersection (T-intersection).
Eastbound Approach: (Burton Road) Existing one shared left turn/right turn lane, stop-controlled.
Northbound Approach: (Sand Hill Road) Existing one shared left turn/through lane.
Southbound Approach: (Sand Hill Road) Existing one shared through/right turn lane.

*Sand Hill Road typically runs east/west, however in the vicinity of the intersection Sand Hill Road runs north/south.

25. Sand Hill Road / Donovan Road (Sussex Road 242)

Type of Control: Existing two-way stop-controlled intersection (T-intersection).
Eastbound Approach: (Donovan Road) Existing one shared left turn/right turn lane, stop-controlled.
Northbound Approach: (Sand Hill Road) Existing one shared left turn/through lane.
Southbound Approach: (Sand Hill Road) Existing one share through/right turn lane.

*Sand Hill Road typically runs east/west, however in the vicinity of the intersection Sand Hill Road runs north/south.

Transit, Pedestrian, and Bicycle Facilities

Existing transit service: Per DelDOT Gateway, DART Route 303 operates along Delaware Route 16 and Delaware Route 5 and has eight stops within the study area. Route 303 provides 11 round trips from 4:40 AM to 10:48 PM on weekdays.

Planned transit service: Per email correspondence on June 29, 2023, with Mr. Jared Kauffman, Fixed-Route Planner for DART, the following improvements were recommended:

- Multiple pairs of DART bus stops are needed on SR 16 where a signalized intersection or crosswalk are being provided across SR 16. The first pair of stops are needed at the intersection of SR 16 and 30. Both stops should be placed far-side of the intersection. The westbound stop should be constructed as a Type 2 (5x8) bus stop, and the eastbound stop should be constructed as a Type 2 (17x13) shelter pad. The second pair of stops are needed at the proposed entrance from SR 16 leading directly to the internal roundabout. Both stops should be placed far-side of the intersection. The westbound stop should be constructed as a Type 2 (5x8) bus stop, and the eastbound stop should be constructed as a Type 2 (17x13) shelter pad.
- An internal Type 2 (17x13) shelter pad is needed in the event that a stop cannot be provided on westbound SR 16. The shelter pad should be placed on the internal road between the proposed retail and apartments, placed near the roundabout. An MOA will be required between DART and the landowner.
- The existing pair of stops (IDs 2961 and 2927) at the intersection of Delaware Route 5, Mulberry Street and Wharton Street should be improved to Type 1 (5x8) bus stops pads.
- A pair of Type 2 (5x8) bus stops are needed on Delaware Route 5 at Sand Hill Road. Both stops should be placed far-side of Sand Hill Road.
- It should be noted that all stops shall be constructed at full curb height and not flush with the roadway per the DelDOT M-9 Specs.

Existing bicycle and pedestrian facilities: According to DelDOT's Sussex County Delaware Bicycle Map, several study roadways are considered bicycle routes. Delaware Route 16, Delaware Route 30 (south of Delaware Route 16), and Delaware Route 5 (south of Delaware Route 16) are considered regional bicycle routes. Delaware Route 30 (north of Delaware Route 16), Delaware Route 5 (north of Delaware Route 16), Lavinia Street, and Sand Hill Road are considered connector bicycle routes. Front Street is considered a statewide bicycle route. Sidewalks exist on Mulberry Street, Delaware Route 5, Delaware Route 16, Wharton Street, Magnolia Street, Lavinia Street and Front Street. Bike lanes exist on Delaware Route 30, Cave Neck Road and Sand Hill Road. Pedestrian crosswalks exist on the south side of the Delaware Route 16, Mulberry Street and Mulberry Street Extension intersection; east side of the Delaware Route 5 and Delaware Route 16 intersection; west side of the Mulberry Street and Lavinia Street intersection; south and west side of the Delaware Route 5 and Magnolia Street intersection; north, east, south and west side of the Delaware Route 5, Mulberry Street and Wharton Street intersection; north, east and south side of the Delaware Route 5 and Front Street intersection; south side of the Front Street, Off Centered Way and Cave Neck Road intersection.

Planned bicycle and pedestrian facilities: Email correspondence was sent on June 12, 2023 to Mr. Anthony Aglio, DelDOT's Bicycle and Pedestrian coordinator. Any recommendations from DelDOT regarding bicycle and pedestrian facilities will be discussed at the pre-submittal meeting.

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 DelDOT Gateway.

- Delaware Route 16 LTS: 3
- Delaware Route 30 LTS: 4

Signal Warrant Evaluation

The TIS conducted a signal warrant evaluation for the proposed Delaware Route 16 intersection with Site Entrance A and the proposed Delaware Route 30 intersection with Site Entrance C. The evaluations were conducted using traffic volume data and geometric conditions in accordance with the Delaware Manual on Uniform Traffic Control Devices (DE MUTCD). As the study

intersections have a posted speed limit of 50 mph, the DE MUTCD's 70% volume criteria were applied. Based on the evaluation from the TIS, Warrant 1 – Eight-Hour Vehicular Volume, Warrant 2 – Four-Hour Vehicular Volume, and Warrant 3 – Peak Hour Vehicle Volume were met for Case 3b – 2028 with Development at both intersections. As the Case 3b scenario has less or equal vehicular volumes accessing the intersections compared to the Case 3a scenario, it is assumed that the same warrants are met for the Case 3a scenario. The warrant evaluation is based on the provision of separate auxiliary lanes along each approach to the intersections.

Crash Evaluation

Per the crash data included in the TIS from June 22, 2019, to June 22, 2022, provided by the Delaware Department of Transportation (DelDOT), a total of 65 crashes were reported within the study area. Of the 65 crashes reported, no fatalities occurred.

At the Delaware Route 30 and Delaware Route 16 intersection, 41 crashes were reported over the three-year period including 21 rear-end, 13 angle, three not a collision between two vehicles, two sideswipe, one head-on, and one rear-rear.

Previous Comments

All comments from the PTIS have been addressed in the Final TIS.

Sight Distance Evaluation

No sight distance constraints were noted at the proposed site entrance locations per a field visit conducted on June 13, 2023.

General HCS Analysis Comments

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

1) The TIS used version 7.8.5 of HCS7, whereas JMT used version 7.9.6 of HCS7 to complete the analysis.

2) Per DelDOT's *Development Coordination Manual*, JMT used a heavy vehicle percentage of 3% for each movement greater than 100 vph in the Case 2 and Case 3 future scenario analysis, 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 the analysis of future scenarios, whereas the TIS utilized the higher value between the existing heavy vehicle percentage or 3% in all cases.

3) 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 in the analyses, whereas the TIS utilized the existing heavy vehicle percentage.

4) Per DelDOT's *Development Coordination Manual,* JMT and the TIS utilized the existing PHF for the Case 1 scenario and a future PHF for Case 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.

5) The TIS evaluated two access scenarios:
   - Case 3a – 2028 with Development
     - Full movement access at Site Entrance A / Delaware Route 16
     - Right-in only at Site Entrance B / Delaware Route 16
     - Full movement access at Site Entrance C / Delaware Route 30
   - Case 3b – 2028 with Development
     - Full movement access at Site Entrance A / Delaware Route 16
     - Right-in only at Site Entrance B / Delaware Route 16
     - Full movement access at Site Entrance C / Delaware Route 30
     - Full movement access at Site Entrance D / Delaware Route 16
     - Full movement access at Site Entrance E / Delaware Route 16

Table 2a
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection Two-Way Stop Control (T-intersection) [1]	**LOS per TIS**			**LOS per JMT**		
Site Entrance A / Delaware Route 16 [2, 3]	Weekday AM	Weekday PM	Saturday Midday	Weekday AM	Weekday PM	Saturday Midday
2028 with Development (Case 3a)						
Westbound Delaware Route 16 Left Turn	A (9.5)	B (10.5)	B (11.3)	A (9.5)	B (10.5)	B (11.3)
Northbound Site Entrance Left Turn	F (57.8)	E (879.6)	F (1026.8)	F (57.8)	F (879.6)	F (1026.8)
Northbound Site Entrance Right Turn	B (14.3)	C (18.5)	C (19.3)	B (14.3)	C (18.5)	C (19.3)
Northbound Site Entrance Approach	E (36.1)	F (449.1)	F (523.0)	E (36.1)	F (449.1)	F (523.0)
2028 with Development (Case 3b)						
Westbound Delaware Route 16 Left Turn	A (9.3)	B (10.1)	B (10.6)	A (9.4)	B (10.1)	B (10.6)
Northbound Site Entrance Left Turn	E (39.3)	F (479.7)	F (528.3)	E (39.9)	F (475.7)	F (528.3)
Northbound Site Entrance Right Turn	B (14.1)	C (17.4)	C (18.2)	B (14.1)	C (16.6)	C (17.3)
Northbound Site Entrance Approach	D (26.7)	F (248.6)	F (273.2)	D (27.0)	F (261.0)	F (291.0)

[1] For signalized and unsignalized analysis, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds.
[2] JMT and the TIS modeled the intersection with one left turn lane and one right turn lane for the northbound Site Entrance A approach, one through lane and one right turn lane along the eastbound Delaware Route 16 approach, and one left turn lane and one through lane along the westbound Delaware Route 16 approach.
[3] The TIS modeled the westbound Delaware Route 16 approach to the intersection with a short left-turn pocket with a storage of nine vehicles whereas JMT modeled this approach with a standard left turn lane.

Table 2a (continued)
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Roundabout [1]	**LOS per TIS**			**LOS per JMT**		
Site Entrance A / Delaware Route 16 [4]	Weekday AM	Weekday PM	Saturday Midday	Weekday AM	Weekday PM	Saturday Midday
2028 with Development (Case 3a)						
Eastbound Delaware Route 16 Approach	-	-	-	A (9.8)	B (13.8)	C (18.3)
Westbound Delaware Route 16 Approach	-	-	-	A (7.1)	C (17.9)	C (15.6)
Northbound Site Entrance Approach	-	-	-	A (9.1)	C (17.1)	C (17.7)
Overall	-	-	-	A (8.8)	C (16.2)	C (17.1)
2028 with Development (Case 3b)						
Eastbound Delaware Route 16 Approach	-	-	-	A (9.2)	B (12.1)	B (14.5)
Westbound Delaware Route 16 Approach	-	-	-	A (6.8)	B (14.7)	B (13.1)
Northbound Site Entrance Approach	-	-	-	A (8.3)	B (12.4)	B (12.8)
Overall	-	-	-	A (8.2)	B (13.3)	B (13.7)

[4] JMT modeled this intersection as a single lane roundabout whereas the TIS did not include this additional analysis.

Table 2a (continued)
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Signalized Intersection [1]	**LOS per TIS**			**LOS per JMT**		
Site Entrance A / Delaware Route 16 [5, 6]	Weekday AM	Weekday PM	Saturday Midday	Weekday AM	Weekday PM	Saturday Midday
2028 with Development (Case 3a)	A (9.4)	B (13.8)	B (14.1)	B (13.8)	B (19.0)	C (20.4)
2028 with Development (Case 3b)	A (8.0)	B (11.2)	B (11.2)	B (12.6)	B (17.0)	B (19.4)

[5] JMT and the TIS modeled the intersection as a signalized intersection with a 60 second cycle length as well as one through lane and one right lane along the eastbound Delaware Route 16 approach, one through lane and one left turn lane along the Delaware Route 16 westbound approach, and one right turn and left turn lane along the northbound Site Entrance A approach.
[6] JMT modeled the westbound Delaware Route 16 approach with protected-permissive left turns whereas the TIS modeled this approach with permissive only left turns.

Table 2b
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection Two-Way Stop Control (T-intersection) [1]	**LOS per TIS**			**LOS per JMT**		
Site Entrance D / Delaware Route 16 [7,8]	Weekday AM	Weekday PM	Saturday Midday	Weekday AM	Weekday PM	Saturday Midday
2028 with Development (Case 3b)						
Westbound Delaware Route 16 Left Turn	A (9.0)	A (9.4)	A (9.7)	A (9.0)	A (9.4)	A (9.7)
Northbound Site Entrance Left Turn	C (23.7)	C (17.6)	F (51.6)	C (24.2)	F (57.5)	F (56.7)
Northbound Site Entrance Right Turn	B (13.1)	B (14.1)	B (14.8)	B (13.2)	B (14.4)	C (15.2)
Northbound Site Entrance Approach	C (18.4)	C (15.9)	D (33.2)	C (18.7)	E (35.9)	E (35.9)

[7] JMT and the TIS modeled the intersection with one shared through/right turn lane for the eastbound approach, one shared left turn/through lane for the westbound approach, and one left turn lane and one right turn lane for the northbound approach.
[8] JMT utilized the approved volumes from the PTIS, whereas the TIS did not for the WBT movement during the Weekday PM peak hour.

Table 2b (continued)
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Roundabout [1]	**LOS per TIS**			**LOS per JMT**		
Site Entrance D / Delaware Route 16 [9]	Weekday AM	Weekday PM	Saturday Midday	Weekday AM	Weekday PM	Saturday Midday
2028 with Development (Case 3b)						
Eastbound Delaware Route 16 Approach	-	-	-	A (8.1)	A (9.4)	B (10.6)
Westbound Delaware Route 16 Approach	-	-	-	A (6.1)	B (11.1)	A (9.8)
Northbound Site Entrance Approach	-	-	-	A (6.0)	A (7.1)	A (7.5)
Overall	-	-	-	A (7.2)	B (10.2)	B (10.1)

[9] JMT modeled this intersection as a one lane roundabout.

Table 2b (continued)
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Signalized Intersection [1]	**LOS per TIS**			**LOS per JMT**		
Site Entrance D / Delaware Route 16 [10]	Weekday AM	Weekday PM	Saturday Midday	Weekday AM	Weekday PM	Saturday Midday
2028 with Development (Case 3b)	-	-	-	B (11.6)	B (13.7)	B (15.9)

[10] The TIS did not include signalized analysis for this intersection. JMT modeled the signal as one through lane and one right turn lane for the eastbound approach, one left turn lane and one through lane for the westbound approach, and one left turn lane and one right turn lane for the northbound approach. JMT modeled the signal as an uncoordinated intersection with a 60 second cycle length, with the westbound left turn as protected-permissive.

Table 2c
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection Two-Way Stop Control (T-intersection) [1]	**LOS per TIS**			**LOS per JMT**		
Site Entrance E / Delaware Route 16 [11]	Weekday AM	Weekday PM	Saturday Midday	Weekday AM	Weekday PM	Saturday Midday
2028 with Development (Case 3b)						
Westbound Delaware Route 16 Left Turn	A (9.0)	A (9.4)	A (9.5)	A (9.0)	A (9.4)	A (9.5)
Northbound Site Entrance Left Turn	C (22.8)	E (45.7)	E (40.9)	C (23.1)	E (47.6)	E (42.7)
Northbound Site Entrance Right Turn	B (13.0)	B (14.2)	B (14.4)	B (13.1)	B (14.3)	B (14.6)
Northbound Site Entrance Approach	C (17.9)	D (22.9)	D (27.6)	C (18.1)	D (31.0)	D (28.6)

[11] JMT and the TIS modeled the intersection with one left turn lane and one right turn lane for the northbound approach. The eastbound approach was modeled with one shared through/right turn lane. The westbound approach was modeled with one shared left turn/through lane. JMT and the TIS modeled the

Table 2c (continued)
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Roundabout [1]	**LOS per TIS**			**LOS per JMT**		
Site Entrance E / Delaware Route 16 [12]	Weekday AM	Weekday PM	Saturday Midday	Weekday AM	Weekday PM	Saturday Midday
2028 with Development (Case 3b)						
Eastbound Delaware Route 16 Approach	-	-	-	A (8.0)	A (9.4)	A (9.8)
Westbound Delaware Route 16 Approach	-	-	-	A (6.1)	B (10.9)	A (9.3)
Northbound Site Entrance Approach	-	-	-	A (5.8)	A (6.7)	A (6.8)
Overall	-	-	-	A (7.2)	B (10.1)	A (9.5)

[12] JMT modeled this intersection as a one lane roundabout.

Table 2c (continued)
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Signalized Intersection [1]	**LOS per TIS**			**LOS per JMT**		
Site Entrance E / Delaware Route 16 [13]	Weekday AM	Weekday PM	Saturday Midday	Weekday AM	Weekday PM	Saturday Midday
2028 with Development (Case 3b)	-	-	-	B (11.7)	B (15.2)	B (15.9)

[13] JMT and the TIS modeled the intersection as a signalized control with a 60 second cycle length and a protected/ permissive left turn for the eastbound approach. The TIS and JMT both modeled the intersection with one through lane and one right lane along the eastbound approach, one through lane and one left turn lane on the westbound approach, and one right turn lane and one left turn lane along the northbound approach.

Table 3
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection Two-Way Stop Control (T-intersection) [1]	**LOS per TIS**			**LOS per JMT**		
Site Entrance B / Delaware Route 30 [14]	Weekday AM	Weekday PM	Saturday Midday	Weekday AM	Weekday PM	Saturday Midday
2028 with Development (Case 3b)	-	-	-	-	-	-

[14] As the intersection only has eastbound through, eastbound right turn, and westbound through movement as the permitted movements, HCS does not produce any level of service results. As such, there are no associated results for this intersection.

Table 4
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection Two-Way Stop Control (T-intersection) [1]	**LOS per TIS**		**LOS per JMT**	
Site Entrance C / Delaware Route 30 [15]	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2028 with Development (Case 3a)				
Westbound Site Entrance Left Turn	F (180.9)	F (1499.5)	F (186.2)	F (1499.5)
Westbound Site Entrance Right Turn	C (16.1)	C (23.2)	C (16.2)	C (23.2)
Westbound Site Entrance Approach	F (102.3)	F (784.1)	F (105.1)	F (784.1)
Southbound Delaware Route 30 Left Turn	B (10.1)	B (11.8)	B (10.2)	B (11.8)
2028 with Development (Case 3b)				
Westbound Site Entrance Left Turn	F (180.9)	F (1499.5)	F (186.2)	F (1499.5)
Westbound Site Entrance Right Turn	C (16.1)	C (23.2)	C (16.2)	C (23.2)
Westbound Site Entrance Approach	F (102.3)	F (784.1)	F (105.1)	F (784.1)
Southbound Delaware Route 30 Left Turn	B (10.1)	B (11.8)	B (10.2)	B (11.8)

[15] Both JMT and the TIS modeled the intersection with one left turn lane and one right turn lane for the westbound approach, one through lane and one right turn lane for the northbound approach, and one left turn lane and one through lane for the southbound approach.

Table 4 (continued)
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Roundabout [1]	**LOS per TIS**		**LOS per JMT**	
Site Entrance C / Delaware Route 30 [16]	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2028 with Development (Case 3a)				
Westbound Site Entrance Approach	-	-	B (10.1)	C (20.2)
Northbound Delaware Route 30 Approach	-	-	B (12.8)	D (25.4)
Southbound Delaware Route 30 Approach	-	-	B (12.6)	E (39.4)
Overall	-	-	B (12.4)	D (30.8)
2028 with Development (Case 3b)				
Westbound Site Entrance Approach	-	-	B (10.1)	C (20.2)
Northbound Delaware Route 30 Approach	-	-	B (12.8)	D (25.4)
Southbound Delaware Route 30 Approach	-	-	B (12.6)	C (39.4)
Overall	-	-	B (12.4)	D (30.8)

[16] JMT modeled this intersection as a single lane roundabout whereas the TIS did not include this additional analysis.

Table 4 (continued)
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Signalized Intersection [1]	**LOS per TIS**		**LOS per JMT**	
Site Entrance C / Delaware Route 30 [17, 18]	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2028 with Development (Case 3a)	A (8.9)	B (15.8)	B (15.9)	C (27.9)
2028 with Development (Case 3b)	A (8.9)	B (15.8)	B (15.9)	C (27.9)

[17] JMT and the TIS modeled the intersection as a signalized intersection with a 60 second cycle length as well as one through lane and one right lane along the northbound Delaware Route 30 approach, one through lane and one left turn lane along the Delaware Route 16 southbound approach, and one right turn and left turn lane along the westbound Site Entrance C approach.
[18] JMT modeled the southbound Delaware Route 30 approach with protected-permissive left turns whereas the TIS modeled this approach with permissive only left turns.

Table 5
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Signalized Intersection [1]	**LOS per TIS**			**LOS per JMT**		
Delaware Route 30 / Delaware Route 16 [19]	Weekday AM	Weekday PM	Saturday Midday	Weekday AM	Weekday PM	Saturday Midday
2022 Existing (Case 1) *with signal optimization*	C (28.6)	D (43.3)	E (59.8)	C (22.5)	C (25.8)	C (24.8)
2028 without Development (Case 2) *with signal optimization*[20]	F (187.3)	F (442.0)	F (319.4)	D (47.9)	F (107.4)	F (121.6)
2028 with Development (Case 3a3b) *with signal optimization*	F (421.6)	F (855.2)	F (700.4)	F (126.1)	F (269.0)	F (402.4)

[19] The TIS evaluated the northbound and southbound approaches as being split phased, while JMT did not. The TIS also evaluated the intersection as Phase 4 being the southbound direction, while JMT evaluated the intersection as Phase 4 being the northbound direction.
[20] The TIS used variable cycle lengths for the AM, PM, and SAT peak hour for the signal optimization, while JMT used a cycle length of 90 seconds for the AM, PM, and SAT peak hour for the signal optimization.

Table 5 (Continued)
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Roundabout [1]	**LOS per TIS**			**LOS per JMT**		
Delaware Route 30 / Delaware Route 16	Weekday AM	Weekday PM	Saturday Midday	Weekday AM	Weekday PM	Saturday Midday
2028 without Development (Case 2) *with Improvements I* [21]	A (9.4)	B (13.0)	E (39.2)	C (22.0)	D (26.1)	E (37.0)
2028 without Development (Case 2) *with Improvements II*[22]	-	-	-	A (8.8)	B (11.6)	B (13.7)
2028 with Development (Case 3a) *with Improvements I*	B (12.7)	D (32.6)	E (46.2)	F (59.6)	F (118.7)	F (169.7)
2028 with Development (Case 3a) *with Improvements II*	-	-	-	B (12.2)	D (29.7)	D (34.5)

[21] Improvement Scenario I incorporates a roundabout design from DelDOT. Preliminary design plans have a single lane roundabout with one approach lane for each approach.
[22] Improvement Scenario II incorporates a double lane roundabout. The TIS did not include any analysis for a double lane roundabout.

Table 6
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection Two-Way Stop Control (T-intersection) [1]	**LOS per TIS**		**LOS per JMT**	
Delaware Route 30 / Reynolds Pond Road [23]	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2022 without Development (Case 1)				
Eastbound Reynolds Pond Road Approach	A (9.7)	B (10.9)	B (12.0)	B (12.4)
Westbound Reynolds Pond Road Approach	B (11.6)	B (10.3)	B (12.3)	B (12.3)
Northbound Delaware Route 30 Left Turn	A (8.1)	A (7.7)	A (7.9)	A (7.8)
Southbound Delaware Route 30 Left Turn	A (7.6)	A (7.8)	A (7.6)	A (7.8)
2028 without Development (Case 2)				
Eastbound Reynolds Pond Road Approach	B (10.7)	B (13.1)	B (13.2)	C (15.3)
Westbound Reynolds Pond Road Approach	B (13.0)	B (12.1)	B (13.8)	B (14.8)
Northbound Delaware Route 30 Left Turn	A (8.2)	A (8.0)	A (8.0)	A (8.1)
Southbound Delaware Route 30 Left Turn	A (7.8)	A (8.0)	A (7.8)	A (8.1)
2028 with Development (Case 3a/3b)				
Eastbound Reynolds Pond Road Approach	B (11.5)	B (14.8)	B (14.2)	C (17.3)
Westbound Reynolds Pond Road Approach	B (14.1)	B (13.5)	C (14.9)	C (16.8)
Northbound Delaware Route 30 Left Turn	A (8.3)	A (8.2)	A (8.1)	A (8.3)
Southbound Delaware Route 30 Left Turn	A (7.9)	A (8.2)	A (8.0)	A (8.3)

[23] JMT and the TIS modeled the intersection with one shared left turn/through/right turn lane for the southbound approach. The northbound approach was modeled with one shared left turn/through/right turn lane. The eastbound approach was modeled with one shared left turn/through/right turn lane. The westbound approach was modeled with one shared left turn/through/right turn lane.

Table 7
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection Two-Way Stop Control (T-intersection) [1]	**LOS per TIS**		**LOS per JMT**	
Delaware Route 30 / Hummingbird Road [24]	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2022 without Development (Case 1)				
Eastbound Hummingbird Road Approach	B (10.0)	A (9.7)	B (10.4)	A (9.8)
Northbound Delaware Route 30 Left Turn	A (7.8)	A (7.7)	A (8.0)	A (7.8)
2028 without Development (Case 2)				
Eastbound Hummingbird Road Approach	A (10.4)	B (10.5)	B (10.6)	B (10.6)
Northbound Delaware Route 30 Left Turn	A (7.9)	A (8.0)	A (8.0)	A (8.0)
2028 with Development (Case 3a/3b)				
Eastbound Hummingbird Road Approach	B (10.8)	B (11.1)	B (10.8)	B (11.1)
Northbound Delaware Route 30 Left Turn	A (8.0)	A (8.2)	A (8.1)	A (8.2)

[24] JMT and the TIS modeled the intersection with one through lane and one right turn lane for the southbound approach. The northbound approach was modeled with one left turn lane and one through lane. The eastbound approach was modeled with one shared left/right turn lane.

Table 8
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection Two-Way Stop Control (T-intersection) [1]	**LOS per TIS**			**LOS per JMT**		
Delaware Route 16 / Mulberry Street / Mulberry Street Extension	Weekday AM	Weekday PM	Saturday Midday	Weekday AM	Weekday PM	Saturday Midday
2022 without Development (Case 1)						
Eastbound Delaware Route 16 Left Turn	A (7.9)	A (8.2)	A (7.9)	A (7.8)	A (8.3)	A (8.0)
Westbound Delaware Route 16 Left Turn	A (8.3)	A (8.3)	A (8.5)	A (8.4)	A (8.3)	A (8.5)
Northbound Mulberry Street Approach	D (26.3)	F (57.6)	D (32.9)	D (26.0)	F (59.8)	D (33.5)
Southbound Mulberry Street Extension Approach	D (25.7)	F (28.2)	C (24.1)	D (25.1)	D (28.7)	C (24.7)
2028 without Development (Case 2)						
Eastbound Delaware Route 16 Left Turn	A (8.1)	A (8.6)	A (8.2)	A (7.9)	A (8.6)	A (8.2)
Westbound Delaware Route 16 Left Turn	A (8.8)	A (8.7)	A (8.9)	A (8.8)	A (8.6)	A (9.0)
Northbound Mulberry Street Extension Approach	F (92.2)	F (359.7)	F (179.3)	F (89.1)	F (367.5)	F (184.8)
Southbound Mulberry Street Extension Approach	F (57.5)	F (87.2)	F (65.6)	F (55.5)	F (89.3)	F (68.0)
2028 with Development (Case 3a/3b)						
Eastbound Delaware Route 16 Left Turn	A (8.5)	A (9.2)	A (8.8)	A (8.2)	A (9.2)	A (8.8)
Westbound Delaware Route 16 Left Turn	A (9.4)	A (9.6)	A (9.9)	A (9.3)	A (9.6)	A (9.9)
Northbound Mulberry Street Extension Approach	F (*)	F (*)	F (*)	F (621.2)	F (*)	F (*)
Southbound Mulberry Street Extension Approach	F (216.6)	F (*)	F (*)	F (135.8)	F (*)	F (*)

* Delay exceeds 1000 seconds/vehicle

Table 8 (continued)
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Signalized Intersection [1]	**LOS per TIS**			**LOS per JMT**		
Delaware Route 16 / Mulberry Street / Mulberry Street Extension[25]	Weekday AM	Weekday PM	Saturday Midday	Weekday AM	Weekday PM	Saturday Midday
2028 without Development (Case 2)	B (12.0)	B (13.1)	B (11.8)	B (15.5)	C (31.7)	B (15.5)
2028 with Development (Case 3)	B (14.5)	B (18.7)	B (17.0)	C (24.1)	D (48.9)	C (34.8)

[25] JMT and the TIS modeled the signalized intersection as having a 60 second cycle with concurrent phasing.

Table 9
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Signalized Intersection [1]	**LOS per TIS**			**LOS per JMT**		
Delaware Route 5 / Delaware Route 16 [26,27]	Weekday AM	Weekday PM	Saturday Midday	Weekday AM	Weekday PM	Saturday Midday
2022 Existing (Case 1) *with DelDOT timings*	-	-	-	D (39.0)	D (50.2)	E (75.4)
2022 Existing (Case 1) *with signal optimization*	C (22.7)	D (35.1)	E (59.5)	C (25.3)	D (40.8)	E (55.2)
2028 without Development (Case 2) *with signal optimization*	F (93.2)	F (147.7)	F (207.8)	F (82.4)	F (146.6)	F (200.7)
2028 without Development (Case 2) *with Improvement Scenario I* [28]	D (38.2)	E (56.0)	F (102.8)	B (13.8)	C (34.8)	D (48.1)
2028 without Development (Case 2) *with Improvement Scenario II*[28,29]	B (13.5)	B (15.5)	C (20.6)	C (21.4)	D (35.1)	D (53.3)
2028 without Development (Case 2) *with Improvement Scenario III*[28,30]	-	-	-	C (29.1)	D (35.0)	D (43.0)
2028 with Development (Case 3a/3b) *with signal optimization*	F (145.1)	F (224.8)	F (311.1)	F (135.3)	F (224.6)	F (309.5)
2028 with Development (Case 3a/3b) *with Improvement Scenario I*[28]	D (51.4)	E (77.3)	F (140.8)	B (19.7)	E (69.0)	E (74.9)
2028 with Development (Case 3a/3b) *with Improvement Scenario II*[28,29]	B (15.6)	C (21.6)	D (50.5)	C (32.3)	D (35.7)	E (79.8)
2028 with Development (Case 3a/3b) *with Improvement Scenario III*[28,30]	-	-	-	D (35.4)	D (41.8)	D (54.6)

[26] The TIS used a speed limit of 35 MPH for the Northbound approach whereas JMT used a speed limit of 25 MPH.
[27] In coordination with DelDOT, JMT ran the signalized analysis as split-phased, as the intersection is under design to be split-phased.
[28] JMT modified traffic signal settings to allow for side street concurrent phasing.
[29] JMT utilized the Royal Farms Milton recommended improvements from the June 2, 2022 TIS Review Letter for Delaware Route 5 and Delaware Route 16 intersection. JMT used separate left turn lanes with shared through/right turn lanes for both the eastbound and westbound directions, a separate right turn lane and a shared left turn/through lane for the southbound approach, and a shared left turn/through/right-turn lane for the northbound approach.
[30] JMT utilized a 100 s cycle length with separate left turn lanes with shared through/right turn lanes for each approach.

Table 10
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection Two-Way Stop Control (T-intersection) [1]	**LOS per TIS**			**LOS per JMT**		
Delaware Route 16 / Reynolds Road (Sussex Road 233) [31,32]	Weekday AM	Weekday PM	Saturday Midday	Weekday AM	Weekday PM	Saturday Midday
2022 Existing (Case 1)						
Eastbound Delaware Route 16 Left Turn	A (8.5)	A (8.3)	A (8.0)	A (7.8)	A (8.4)	A (8.1)
Westbound Delaware Route 16 Left Turn	A (8.1)	A (8.0)	A (8.3)	A (8.2)	A (8.0)	A (8.4)
Northbound Driveway Approach	-	B (14.1)	B (11.2)	B (10.7)	B (14.3)	B (11.4)
Southbound Reynolds Road (Sussex Road 233) Approach	B (12.0)	B (14.4)	B (12.0)	B (11.5)	B (14.5)	B (12.3)
2028 without Development (Case 2)						
Eastbound Delaware Route 16 Approach	A (8.9)	A (8.8)	A (8.4)	A (8.1)	A (8.9)	A (8.5)
Westbound Delaware Route 16 Left Turn	A (8.6)	A (8.3)	A (8.8)	A (8.7)	A (8.4)	A (8.9)
Northbound Driveway Approach	-	C (18.5)	B (12.6)	B (12.2)	C (18.6)	B (12.7)
Southbound Reynolds Road (Sussex Road 233) Approach	B (14.6)	C (18.3)	B (14.6)	B (14.0)	C (18.5)	B (14.9)
2028 with Development (Case 3a/3b)						
Eastbound Delaware Route 16 Approach	A (9.1)	A (9.0)	A (8.6)	A (8.1)	A (9.1)	A (8.7)
Westbound Delaware Route 16 Left Turn	A (8.7)	A (8.5)	A (9.0)	A (8.8)	A (8.5)	A (9.0)
Northbound Driveway Approach	-	C (20.8)	B (13.0)	B (12.5)	C (21.0)	B (13.2)
Southbound Reynolds Road (Sussex Road 233) Approach	B (14.7)	C (18.5)	B (14.8)	B (13.9)	C (18.6)	C (15.2)

[31] TIS modeled the Eastbound approach as a shared through-left and separate right turn, whereas JMT modeled approach as a one lane shared left-through-right.
[32] JMT modeled the intersection with one right turning vehicle along the northbound Driveway approach during the AM peak hour to generate LOS results and queue results along that approach, whereas the TIS did not.

Table 11
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection Two-Way Stop Control (T-intersection) [1]	**LOS per TIS**		**LOS per JMT**	
Mulberry Street / Lavinia Street (*Town)*	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2022 Existing (Case 1)				
Eastbound Lavinia Street Approach	B (11.5)	B (13.2)	B (11.9)	B (13.0)
Northbound Mulberry Street Left Turn	A (7.8)	A (7.9)	A (7.9)	A (8.0)
2028 without Development (Case 2)				
Eastbound Lavinia Street Approach	B (13.3)	B (14.2)	B (13.7)	B (14.0)
Northbound Mulberry Street Left Turn	A (7.9)	A (8.1)	A (8.0)	A (8.1)
2028 with Development (Case 3a/3b)				
Eastbound Lavinia Street Approach	B (14.3)	C (15.9)	B (14.7)	C (15.7)
Northbound Mulberry Street Left Turn	A (8.0)	A (8.2)	A (8.0)	A (8.2)

Table 12
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection Two-Way Stop Control (T-intersection) [1]	**LOS per TIS**		**LOS per JMT**	
Delaware Route 5 / Magnolia Street (*Town)*	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2022 Existing (Case 1)				
Eastbound Magnolia Street Approach	B (11.3)	B (11.6)	B (10.4)	B (11.6)
Northbound Delaware Route 5 Left Turn	A (8.0)	A (7.9)	A (7.8)	A (7.9)
2028 without Development (Case 2)				
Eastbound Magnolia Street Approach	B (12.6)	B (14.5)	B (12.3)	B (14.6)
Northbound Delaware Route 5 Left Turn	A (8.1)	A (8.4)	A (8.0)	A (8.4)
2028 with Development (Case 3a/3b)				
Eastbound Magnolia Street Approach	B (13.2)	C (15.8)	B (12.9)	C (15.8)
Northbound Delaware Route 5 Left Turn	A (8.2)	A (8.5)	A (8.1)	A (8.6)

Table 13
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection Two-Way Stop Control [1]	**LOS per TIS**		**LOS per JMT**	
Delaware Route 5 / Mulberry Street / Wharton Street (Sussex Road 88)	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2022 Existing (Case 1)				
Eastbound Mulberry Street Approach	C (16.8)	C (20.4)	C (18.5)	C (20.7)
Westbound Wharton Street (Sussex Road 88) Approach	C (19.0)	E (35.6)	C (21.6)	E (36.2)
Northbound Delaware Route 5 Left Turn	A (7.6)	A (7.8)	A (7.6)	A (7.8)
Southbound Delaware Route 5 Left Turn	A (7.9)	A (7.7)	A (7.9)	A (7.8)
2028 without Development (Case 2)				
Eastbound Mulberry Street Approach	E (40.9)	E (46.7)	F (51.1)	E (47.8)
Westbound Wharton Street (Sussex Road 88) Approach	F (183.0)	F (708.3)	F (297.1)	F (720.9)
Northbound Delaware Route 5 Left Turn	A (7.8)	A (8.3)	A (7.9)	A (8.3)
Southbound Delaware Route 5 Left Turn	A (8.8)	A (8.3)	A (8.7)	A (8.3)
2028 with Development (Case 3a3b) [33]				
Eastbound Mulberry Street Approach	F (55.8)	-	F (74.2)	F (92.0)
Westbound Wharton Street (Sussex Road 88) Approach	F (311.2)	-	F (518.9)	F (*)
Northbound Delaware Route 5 Left Turn	A (7.8)	-	A (7.9)	A (8.3)
Southbound Delaware Route 5 Left Turn	A (8.8)	-	A (8.7)	A (8.3)

* Delay exceeds 1000 seconds/vehicle

[33] The TIS did not include the analysis for the Delaware Route 5, Mulberry Street and Wharton Street intersection in Case 3a3b PM.

Table 13 (Continued)
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection All-Way Stop Control [1]	**LOS per TIS**		**LOS per JMT**	
Delaware Route 5 / Mulberry Street / Wharton Street (Sussex Road 88) [34,35]	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2028 without Development (Case 2) *with Improvements*				
Eastbound Mulberry Street Approach	-	-	B (14.7)	C (17.7)
Westbound Wharton Street (Sussex Road 88) Approach	-	-	B (14.2)	D (26.9)
Northbound Delaware Route 5 Approach	-	-	E (46.8)	D (33.3)
Southbound Delaware Route 5 Approach	-	-	C (15.3)	E (41.5)
Overall	-	-	D (30.9)	D (32.0)
2028 with Development (Case 3a3b) *with Improvements*				
Eastbound Mulberry Street Approach	-	-	C (16.5)	C (24.0)
Westbound Wharton Street (Sussex Road 88) Approach	-	-	C (15.6)	E (41.0)
Northbound Delaware Route 5 Approach	-	-	F (55.8)	E (46.3)
Southbound Delaware Route 5 Approach	-	-	C (16.4)	F (61.1)
Overall	-	-	E (35.5)	E (45.5)

[34] JMT modeled the intersection as an all-way stop control, with a shared left turn/through/right turn lane for the eastbound, westbound, and southbound approaches. The northbound approach was modeled as a left turn lane and a shared through/right turn lane.
[35] The TIS did not include the analysis for the all-way stop controlled improvement to Delaware Route 5, Mulberry Street and Wharton Street intersection.

Table 13 (Continued)
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Roundabout [1]	**LOS per TIS**		**LOS per JMT**	
Delaware Route 5 / Mulberry Street / Wharton Street (Sussex Road 88) [36,37]	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2028 without Development (Case 2) *with Improvements*				
Eastbound Mulberry Street Approach	-	-	A (6.6)	A (8.4)
Westbound Wharton Street (Sussex Road 88) Approach	-	-	A (6.6)	A (8.0)
Northbound Delaware Route 5 Approach	-	-	B (11.0)	A (7.8)
Southbound Delaware Route 5 Approach	-	-	A (6.0)	A (9.6)
Overall	-	-	A (8.7)	A (8.5)
2028 with Development (Case 3a3b) *with Improvements*				
Eastbound Mulberry Street Approach	-	-	A (7.0)	A (9.3)
Westbound Wharton Street (Sussex Road 88) Approach	-	-	A (6.9)	A (8.6)
Northbound Delaware Route 5 Approach	-	-	B (11.7)	A (8.4)
Southbound Delaware Route 5 Approach	-	-	A (6.2)	B (10.3)
Overall	-	-	A (9.1)	A (9.1)

[36] JMT modeled intersection with single lane roundabout.

[37] The TIS did not include the analysis for the roundabout improvement for Delaware Route 5, Mulberry Street and Wharton Street intersection.

Table 14
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection Two-Way Stop Control [1]	**LOS per TIS**		**LOS per JMT**	
Delaware Route 5 / Front Street (*Town*)[38]	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2022 Existing (Case 1)				
Eastbound Delaware Route 5 Approach	A (1.6)	A (1.9)	-	-
Westbound Front Street Left Approach	A (6.5)	A (7.6)	-	-
Northbound Delaware Route 5 Approach	A (0.3)	A (0.5)	-	-
Southbound Federal Street Approach	A (3.3)	A (3.5)	-	-
Overall	A (2.1)	A (3.0)	-	-
2028 without Development (Case 2)				
Eastbound Delaware Route 5 Approach	A (1.9)	A (1.9)	-	-
Westbound Front Street Left Approach	A (7.7)	A (9.9)	-	-
Northbound Delaware Route 5 Approach	A (0.6)	A (0.7)	-	-
Southbound Federal Street Approach	A (5.7)	A (5.3)	-	-
Overall	A (2.2)	A (3.1)	-	-
2028 with Development (Case 3a3b)				
Eastbound Delaware Route 5 Approach	A (2.5)	A (2.9)	-	-
Westbound Front Street Left Approach	A (8.5)	A (10.8)	-	-
Northbound Delaware Route 5 Approach	A (0.6)	A (0.8)	-	-
Southbound Federal Street Approach	A (5.7)	A (4.6)	-	-
Overall	A (2.8)	A (4.0)	-	-

[38] The TIS and JMT both modeled the intersection using Synchro, as the westbound and southbound approaches are stop-controlled and the eastbound approach is yield-controlled. The TIS used SimTraffic to obtain level of service results.

Table 14 (Continued)
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection All-Way Stop Control [1]	**LOS per TIS**		**LOS per TIS**	
Delaware Route 5 / Front Street (*Town*)[39]	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2022 Existing (Case 1)				
Eastbound Delaware Route 5 Approach	-	-	A (8.7)	B (10.4)
Westbound Front Street Left Approach	-	-	A (8.2)	A (9.7)
Northbound Delaware Route 5 Approach	-	-	A (9.2)	B (10.5)
Southbound Federal Street Approach	-	-	A (7.7)	A (8.6)
Overall	-	-	A (8.8)	B (10.2)
2028 without Development (Case 2)				
Eastbound Delaware Route 5 Approach	-	-	B (11.9)	C (19.0)
Westbound Front Street Left Approach	-	-	A (9.6)	B (11.6)
Northbound Delaware Route 5 Approach	-	-	B (14.0)	C (16.0)
Southbound Federal Street Approach	-	-	A (8.6)	A (9.9)
Overall	-	-	B (12.4)	C (16.4)
2028 with Development (Case 3a3b)				
Eastbound Delaware Route 5 Approach	-	-	B (13.5)	D (26.4)
Westbound Front Street Left Approach	-	-	B (10.3)	B (13.4)
Northbound Delaware Route 5 Approach	-	-	B (14.9)	C (17.7)
Southbound Federal Street Approach	-	-	A (8.9)	B (10.5)
Overall	-	-	B (13.5)	C (20.7)

[39] The TIS and JMT both modeled the intersection using Synchro, as the westbound and southbound approaches are stop-controlled and the eastbound approach is yield-controlled. JMT modeled the intersection as all-way stop-controlled and obtained the level of service results in Synchro.

Table 15
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection Two-Way Stop Control [1]	**LOS per TIS**		**LOS per JMT**	
Front Street (Sussex Road 89) / Off-Center Way/ Cave Neck Road (Sussex Road 88)	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2022 Existing (Case 1)				
Eastbound Cave Neck Road (Sussex Road 88) Left Turn	A (7.6)	A (8.2)	A (7.6)	A (7.8)
Westbound Cave Neck Road (Sussex Road 88) Left Turn	A (8.4)	A (8.1)	A (7.8)	A (7.6)
Northbound Off-Center Way Approach	-	A (8.7)	A (9.8)	A (9.7)
Southbound Front Street (Sussex Road 88) Approach	B (13.5)	B (13.3)	B (13.4)	B (13.3)
2028 without Development (Case 2)				
Eastbound Cave Neck Road (Sussex Road 88) Left Turn	A (7.8)	A (8.6)	A (7.8)	A (8.1)
Westbound Cave Neck Road (Sussex Road 88) Left Turn	A (8.9)	A (8.4)	A (8.2)	A (7.8)
Northbound Off-Center Way Approach	-	A (9.2)	B (10.7)	B (10.4)
Southbound Front Street (Sussex Road 88) Approach	C (17.8)	C (18.1)	C (17.4)	C (18.1)
2028 with Development (Case 3a)				
Eastbound Cave Neck Road (Sussex Road 88) Left Turn	A (7.9)	A (8.8)	A (7.9)	A (8.3)
Westbound Cave Neck Road (Sussex Road 88) Left Turn	A (9.0)	A (8.5)	A (8.2)	A (7.9)
Northbound Off-Center Way Approach	-	A (9.4)	B (10.8)	B (10.8)
Southbound Front Street (Sussex Road 88) Approach	C (22.0)	D (25.4)	C (21.4)	D (25.4)

Table 16
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection Two-Way Stop Control (T-intersection) [1]	**LOS per TIS**			**LOS per JMT**		
Delaware Route 16 / Saw Mill Road (Sussex Road 239)	Weekday AM	Weekday PM	Saturday Midday	Weekday AM	Weekday PM	Saturday Midday
Existing 2022 (Case 1)						
Westbound Delaware Route 16 Left Turn	A (8.4)	A (8.2)	A (8.2)	A (8.2)	A (8.1)	A (8.2)
Northbound Saw Mill Road Approach	B (10.1)	A (8.8)	B (10.5)	B (11.3)	B (12.4)	B (10.6)
2028 without Development (Case 2)						
Westbound Delaware Route 16 Left Turn	A (9.0)	A (9.1)	A (8.9)	A (8.6)	A (8.9)	A (8.9)
Northbound Saw Mill Road Approach	B (11.6)	B (11.4)	B (12.8)	B (13.0)	C (17.2)	B (12.8)
2028 with Development (Case 3a and 3b)						
Westbound Delaware Route 16 Left Turn	A (9.1)	A (9.5)	A (9.4)	A (8.8)	A (9.3)	A (9.3)
Northbound Saw Mill Road Approach	B (11.9)	B (11.8)	B (14.1)	B (13.8)	C (19.0)	B (14.2)

Table 17
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection Two-Way Stop Control [1]	**LOS per TIS** [40]		
Delaware Route 16 / Orchard Road / Holly Tree Road	Weekday AM	Weekday PM	Saturday Midday
Existing 2022 (Case 1)			
Eastbound Delaware Route 16 Approach	A (0.6)	A (1.9)	A (1.4)
Westbound Delaware Route 16 Approach	A (0.3)	A (1.5)	A (1.1)
Southeast Holly Tree Road Approach	C (17.5)	C (22.3)	C (19.3)
Northwest Orchard Road Approach	C (20.2)	D (26.9)	C (21.3)
Southwest Emerald Pines Road Approach	A (0.0)	A (6.0)	B (10.6)
2028 without Development (Case 2)			
Eastbound Delaware Route 16 Approach	A (0.7)	A (2.0)	A (1.7)
Westbound Delaware Route 16 Approach	A (0.6)	A (2.0)	A (0.4)
Southeast Holly Tree Road Approach	D (26.8)	F (82.2)	D (27.1)
Northwest Orchard Road Approach	D (25.9)	E (44.3)	D (27.0)
Southwest Emerald Pines Road Approach	A (9.6)	B (10.6)	F (71.2)
2028 with Development (Case 3a and 3b)			
Eastbound Delaware Route 16 Approach	A (0.7)	A (3.4)	A (2.3)
Westbound Delaware Route 16 Approach	A (0.8)	A (2.2)	A (1.9)
Southeast Holly Tree Road Approach	D (29.5)	F (242.5)	F (139.2)
Northwest Orchard Road Approach	E (40.5)	C (21.3)	F (237.6)
Southwest Emerald Pines Road Approach	A (7.0)	A (5.3)	F (129.5)

[40] The TIS modeled the intersection using Synchro and SimTraffic.

Table 17 (continued)
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection Two-Way Stop Control [1]	**LOS per JMT**		
Delaware Route 16 / Orchard Road / Holly Tree Road	Weekday AM	Weekday PM	Saturday Midday
Existing 2022 (Case 1)			
Eastbound Delaware Route 16 Left Turn	A (7.7)	A (8.3)	A (8.0)
Westbound Delaware Route 16 Left Turn	A (8.2)	A (8.1)	A (8.3)
Northbound Orchard Road Approach	B (14.4)	B (14.9)	C (16.8)
Southbound Holly Tree Road Approach [41]	B (11.8)	C (16.6)	B (14.7)
2028 without Development (Case 2)			
Eastbound Delaware Route 16 Left Turn	A (8.2)	A (8.9)	A (8.6)
Westbound Delaware Route 16 Left Turn	A (8.6)	A (8.8)	A (9.0)
Northbound Orchard Road Approach	C (21.5)	C (23.5)	D (28.8)
Southbound Holly Tree Road Approach [41]	C (15.4)	D (27.8)	C (23.6)
2028 with Development (Case 3a and 3b)			
Eastbound Delaware Route 16 Left Turn	A (8.4)	A (9.3)	A (8.9)
Westbound Delaware Route 16 Left Turn	A (8.8)	A (9.1)	A (9.3)
Northbound Orchard Road Approach	D (25.2)	D (29.4)	E (37.4)
Southbound Holly Tree Road Approach [41]	C (17.0)	E (35.9)	D (30.1)

[41] Due to the limitations of the HCS software, JMT modeled Holly Tree Road and Emerald Pines Road as a combined approach.

Table 18
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection All-Way Stop Control [1]	**LOS per TIS**		**LOS per JMT**	
Delaware Route 30 / Sand Hill Road (Sussex Road 319)	Weekday AM	Weekday PM	Weekday AM	Weekday PM
Existing 2022 (Case 1)				
Eastbound Sand Hill Road Approach	C (16.7)	C (16.0)	C (16.3)	C (16.0)
Westbound Sand Hill Road Approach	B (12.0)	B (11.9)	B (11.6)	B (12.0)
Northbound Delaware Route 30 Approach	B (13.4)	B (14.6)	B (13.6)	C (15.0)
Southbound Delaware Route 30 Approach	D (27.5)	C (18.6)	D (25.5)	C (18.5)
Overall	C (20.3)	C (15.8)	C (19.2)	C (15.8)
2028 without Development (Case 2)				
Eastbound Sand Hill Road Approach	E (36.5)	F (72.1)	E (36.3)	F (71.7)
Westbound Sand Hill Road Approach	D (26.3)	D (25.4)	D (25.1)	D (25.5)
Northbound Delaware Route 30 Approach	F (93.4)	F (87.3)	F (100.4)	F (89.7)
Southbound Delaware Route 30 Approach	F (166.6)	F (322.4)	F (162.4)	F (320.1)
Overall	F (95.5)	F (161.7)	F (95.6)	F (161.3)
2028 with Development (Case 3a and 3b)				
Eastbound Sand Hill Road Approach	F (70.8)	F (165.9)	F (70.2)	F (165.2)
Westbound Sand Hill Road Approach	D (29.4)	D (27.1)	D (28.0)	D (27.3)
Northbound Delaware Route 30 Approach	F (157.5)	F (141.3)	F (166.8)	F (144.7)
Southbound Delaware Route 30 Approach	F (249.4)	F (400.3)	F (245.1)	F (398.0)
Overall	F (150.7)	F (229.8)	F (151.0)	F (229.6)

Table 18 (continued)
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Roundabout [1]	**LOS per TIS** [42]		**LOS per JMT** [43]	
Delaware Route 30 / Sand Hill Road (Sussex Road 319)	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2028 without Development (Case 2)				
Eastbound Sand Hill Road Approach	B (10.5)	B (12.7)	B (12.3)	C (18.2)
Westbound Sand Hill Road Approach	A (8.4)	A (8.0)	C (15.8)	C (17.3)
Northbound Delaware Route 30 Approach	B (10.6)	B (11.4)	C (19.3)	C (19.1)
Southbound Delaware Route 30 Approach	A (9.7)	B (10.8)	B (12.0)	B (12.7)
Overall	A (9.8)	B (10.7)	B (14.8)	C (16.1)
2028 with Development (Case 3a and 3b)				
Eastbound Sand Hill Road Approach	C (15.5)	C (23.1)	C (18.2)	E (44.2)
Westbound Sand Hill Road Approach	B (10.3)	B (10.5)	C (24.7)	D (34.8)
Northbound Delaware Route 30 Approach	C (15.1)	C (18.6)	D (34.5)	E (43.8)
Southbound Delaware Route 30 Approach	B (11.2)	B (13.4)	B (14.3)	C (16.5)
Overall	B (12.6)	C (15.8)	C (22.2)	D (31.0)

[42] The TIS modeled the intersection as a single-lane roundabout with a shared left turn/through lane and a right turn lane.
[43] JMT modeled the intersection as a single-lane roundabout with a yielding right turn bypass lane along the southbound approach.

Table 18 (continued)
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Signalized Intersection [1]	**LOS per TIS** [44]		**LOS per JMT**	
Delaware Route 30 / Sand Hill Road (Sussex Road 319) [45]	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2028 without Development (Case 2) [46]	-	-	C (33.8)	D (38.0)
2028 with Development (Case 3a and 3b) [47]	-	-	D (37.3)	D (54.7)

[44] The TIS did not include signalized intersection analysis for the Delaware Route 30 and Sand Hill Road (Sussex Road 319) intersection.
[45] JMT modeled the signalized intersection with protected-permitted left turn phases along the northbound and southbound approaches and permitted left turn phases along the eastbound and westbound approaches. The eastbound and westbound approaches were modeled with one left turn lane and one shared through/right turn lane; the northbound and southbound approaches with one left turn lane, one through lane and one right turn lane.
[46] JMT modeled the signalized intersection for Case 2 with a 90 second cycle length.
[47] JMT modeled the signalized intersection for Case 3a and 3b with a 120 second cycle length.

Table 19
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection Two-Way Stop Control (T-Intersection) [1]	**LOS per TIS**		**LOS per JMT**	
Sand Hill Road / Lavinia Street (Sussex Road 250) [48]	Weekday AM	Weekday PM	Weekday AM	Weekday PM
Existing 2022 (Case 1)				
Eastbound Sand Hill Road Left Turn	A (7.9)	A (7.9)	A (7.7)	A (7.9)
Southbound Lavinia Street Approach	B (10.4)	B (10.5)	B (10.2)	B (10.4)
2028 without Development (Case 2)				
Eastbound Sand Hill Road Left Turn	A (8.3)	A (8.2)	A (8.0)	A (8.2)
Westbound Sand Hill Road Left Turn	A (8.3)	A (8.5)	A (8.3)	A (8.5)
Northbound Granary at Draper Farm Approach	D (29.3)	D (30.1)	D (27.3)	D (28.0)
Southbound Lavinia Street Approach	C (17.0)	D (27.4)	C (16.3)	D (25.9)
2028 with Development (Case 3a and 3b)				
Eastbound Sand Hill Road Left Turn	A (8.4)	A (8.3)	A (8.0)	A (8.3)
Westbound Sand Hill Road Left Turn	A (8.4)	A (8.6)	A (8.3)	A (8.6)
Northbound Granary at Draper Farm Approach	E (35.2)	F (52.3)	D (27.6)	D (34.9)
Southbound Lavinia Street Approach	C (18.5)	D (34.7)	C (16.5)	D (30.7)

[48] The intersection for Case 2, Case 3a and 3b was modeled incorporating the improvements proposed as part of the *Granary at Draper Farm* development. The eastbound approach was modeled with one left turn lane, one through lane and one right turn lane; the westbound approach with one left turn lane and one shared through/right turn lane; the northbound approach with one shared left turn/through lane and one right turn lane; the southbound approach with one shared left turn/through/right turn lane.

Table 20
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection Two-Way Stop Control (T-Intersection) [1]	**LOS per TIS**		**LOS per JMT**	
Delaware Route 5 / Sand Hill Road [49]	Weekday AM	Weekday PM	Weekday AM	Weekday PM
Existing 2022 (Case 1)				
Eastbound Sand Hill Road Approach	C (16.1)	B (13.7)	C (15.2)	B (13.2)
Northbound Delaware Route 5 Left Turn	A (8.2)	A (8.8)	A (8.1)	A (8.3)
2028 without Development (Case 2)				
Eastbound Sand Hill Road Approach	F (116.3)	F (139.1)	F (110.9)	F (113.3)
Northbound Delaware Route 5 Left Turn	A (8.8)	B (10.8)	A (8.3)	A (9.1)
2028 with Development (Case 3a and 3b)				
Eastbound Sand Hill Road Approach	F (148.0)	F (191.6)	F (140.5)	F (154.0)
Northbound Delaware Route 5 Left Turn	A (8.9)	B (11.2)	A (8.4)	A (9.2)

[49] JMT included the southbound channelized right turn lane in the analysis, while the TIS did not.

Table 20 (continued)
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Roundabout [1]	**LOS per TIS**		**LOS per JMT**	
Delaware Route 5 / Sand Hill Road [50]	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2028 without Development (Case 2)				
Eastbound Sand Hill Road Approach	B (13.6)	A (9.1)	C (15.2)	A (9.1)
Northbound Delaware Route 5 Approach	B (11.5)	B (11.8)	B (11.0)	B (11.4)
Southbound Delaware Route 5 Approach	A (7.5)	B (14.2)	A (7.3)	B (14.2)
Overall	B (11.3)	B (12.1)	B (11.6)	B (12.0)
2028 with Development (Case 3a and 3b)				
Eastbound Sand Hill Road Approach	B (14.7)	B (10.0)	C (16.7)	B (10.1)
Northbound Delaware Route 5 Approach	B (12.4)	B (13.1)	B (11.8)	B (12.6)
Southbound Delaware Route 5 Approach	A (7.9)	C (16.1)	A (7.6)	C (15.9)
Overall	B (12.2)	B (13.5)	B (12.7)	B (13.3)

[50] JMT modeled the intersection as a single-lane roundabout.

Table 20 (continued)
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Signalized Intersection [1]	**LOS per TIS [51]**		**LOS per JMT**	
Delaware Route 5 / Sand Hill Road [52]	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2028 without Development (Case 2)	-	-	B (17.3)	B (15.1)
2028 with Development (Case 3a and 3b)	-	-	B (18.8)	B (17.4)

[51] The TIS did not include signalized intersection analysis for the Delaware Route 5 and Sand Hill Road intersection.
[52] JMT modeled the intersection as an uncoordinated signalized intersection with a 60 second cycle length, protected-permitted left turn phases along the northbound approach. The eastbound approach was modeled with one left turn lane and one right turn lane; the northbound approach with one left turn lane and one through lane; the southbound approach with one through lane and one right turn lane.

Table 21
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection Two-Way Stop Control [1]	**LOS per TIS** [53]		**LOS per JMT**	
Delaware Route 30 / Neptune Road (Sussex Road 251) / Private Driveway	Weekday AM	Weekday PM	Weekday AM	Weekday PM
Existing 2022 (Case 1)				
Eastbound Neptune Road Approach	A (8.2)	A (8.3)	B (10.6)	B (11.5)
Westbound Private Driveway Approach	-	-	B (12.5)	A (9.8)
Northbound Delaware Route 30 Left Turn	A (7.7)	A (7.8)	A (7.7)	A (7.9)
Southbound Delaware Route 30 Left Turn	A (7.5)	A (7.8)	A (7.6)	A (7.8)
2028 without Development (Case 2)				
Eastbound Neptune Road Approach	A (9.4)	B (12.7)	B (14.0)	C (18.0)
Westbound Private Driveway Approach	-	-	C (18.4)	B (11.5)
Northbound Delaware Route 30 Left Turn	A (8.2)	A (8.5)	A (8.2)	A (8.6)
Southbound Delaware Route 30 Left Turn	A (8.0)	A (8.4)	A (8.1)	A (8.5)
2028 with Development (Case 3a and 3b)				
Eastbound Neptune Road Approach	B (12.0)	C (21.7)	C (16.6)	D (25.3)
Westbound Private Driveway Approach	-	-	C (20.0)	B (11.8)
Northbound Delaware Route 30 Left Turn	A (8.3)	A (8.8)	A (8.3)	A (8.7)
Southbound Delaware Route 30 Left Turn	A (8.1)	A (8.6)	A (3.1)	A (8.6)

[53] The TIS did not include the Westbound Private Driveway Approach analysis for the Delaware Route 30, Neptune Road (Sussex Road 251) and Private Driveway intersection.

Table 22
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection Two-Way Stop Control [1]	**LOS per TIS**		**LOS per JMT**	
Delaware Route 30 / Huff Road (Sussex 252) / Private Driveway	Weekday AM	Weekday PM	Weekday AM	Weekday PM
Existing 2022 (Case 1)				
Eastbound Huff Road Approach	B (11.2)	B (12.1)	B (10.9)	B (12.2)
Westbound Private Driveway Approach	-	C (17.9)	-	C (16.7)
Northbound Delaware Route 30 Left Turn	A (8.0)	A (7.9)	A (7.9)	A (7.9)
Southbound Delaware Route 30 Left Turn	A (7.6)	A (7.8)	A (7.6)	A (7.9)
2028 without Development (Case 2)				
Eastbound Huff Road Approach	D (26.1)	F (91.9)	D (25.6)	F (98.2)
Westbound Private Driveway Approach	-	D (33.2)	-	D (30.0)
Northbound Delaware Route 30 Left Turn	A (8.7)	A (8.8)	A (8.6)	A (8.9)
Southbound Delaware Route 30 Left Turn	A (7.9)	A (8.1)	A (7.9)	A (8.2)
2028 with Development (Case 3a and 3b)				
Eastbound Huff Road Approach	D (30.5)	F (149.1)	D (30.0)	F (159.2)
Westbound Private Driveway Approach	-	E (39.2)	-	E (35.0)
Northbound Delaware Route 30 Left Turn	A (8.8)	A (9.0)	A (8.7)	A (9.1)
Southbound Delaware Route 30 Left Turn	A (7.9)	A (8.2)	A (8.0)	A (8.3)

Table 22 (continued)
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Roundabout [1]	**LOS per TIS**		**LOS per JMT**	
Delaware Route 30 / Huff Road (Sussex 252) / Private Driveway [54]	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2028 without Development (Case 2)				
Eastbound Huff Road Approach	A (6.1)	A (6.7)	A (6.3)	A (6.4)
Westbound Private Driveway Approach	-	A (5.7)	-	A (5.7)
Northbound Delaware Route 30 Approach	A (6.4)	A (8.4)	A (6.4)	A (8.2)
Southbound Delaware Route 30 Approach	A (6.9)	A (7.4)	A (7.5)	A (7.5)
Overall	A (6.6)	A (7.7)	A (6.9)	A (7.6)
2028 with Development (Case 3a and 3b)				
Eastbound Huff Road Approach	A (6.4)	A (7.2)	A (6.6)	A (6.8)
Westbound Private Driveway Approach	-	A (6.0)	-	A (6.0)
Northbound Delaware Route 30 Approach	A (6.7)	A (9.1)	A (6.8)	A (8.9)
Southbound Delaware Route 30 Approach	A (7.3)	A (8.1)	A (7.9)	A (8.2)
Overall	A (6.9)	A (8.4)	A (7.3)	A (8.3)

[54] JMT modeled the intersection as a single-lane roundabout.

Table 22 (continued)
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Signalized Intersection [1]	**LOS per TIS [55]**		**LOS per JMT**	
Delaware Route 30 / Huff Road (Sussex 252) / Private Driveway [56]	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2028 without Development (Case 2)	-	-	B (17.3)	B (18.2)
2028 with Development (Case 3a and 3b)	-	-	B (19.3)	B (18.4)

[55] The TIS did not include signalized intersection analysis for the Delaware Route 30, Huff Road (Sussex Road 252) and Private Driveway intersection.

[56] JMT modeled the signalized intersection with a 90 second cycle length, protected-permitted left turn phases along the northbound approach and permitted left turn phases along the eastbound, westbound and southbound approaches. The eastbound approach was modeled with one right turn lane and one shared left turn/through lane; the westbound approach with one shared left turn/through/right turn lane; the northbound approach with one left turn lane and one shared through/right turn lane; the southbound approach with one shared left turn/through lane and one right turn lane. The eastbound and westbound approaches were modeled as split-phased.

Table 23
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection Two-Way Stop Control (T-Intersection) [1]	**LOS per TIS**		**LOS per JMT**	
Sand Hill Road / Burton Road (Sussex Road 241)	Weekday AM	Weekday PM	Weekday AM	Weekday PM
Existing 2022 (Case 1)				
Eastbound Burton Road Approach	B (11.0)	B (11.1)	B (11.6)	B (12.0)
Northbound Sand Hill Road Left Turn	A (8.1)	A (8.2)	A (7.8)	A (7.9)
2028 without Development (Case 2)				
Eastbound Burton Road Approach	B (13.8)	B (14.8)	B (14.3)	C (15.3)
Northbound Sand Hill Road Left Turn	A (8.6)	A (8.5)	A (8.2)	A (8.1)
2028 with Development (Case 3a and 3b)				
Eastbound Burton Road Approach	C (16.5)	C (20.6)	C (17.0)	C (21.0)
Northbound Sand Hill Road Left Turn	A (8.9)	A (8.9)	A (8.4)	A (8.4)

Table 24
Peak Hour Levels Of Service (LOS)
Based on Final Traffic Impact Study for Milton Village
Report Dated: May 2023
Prepared by: Becker Morgan Group, Inc.

Unsignalized Intersection Two-Way Stop Control (T-Intersection) [1]	**LOS per TIS**		**LOS per JMT**	
Sand Hill Road / Donovan Road (Sussex Road 242)	Weekday AM	Weekday PM	Weekday AM	Weekday PM
Existing 2022 (Case 1)				
Eastbound Donovan Road Approach	B (11.1)	-	B (11.7)	B (11.7)
Northbound Sand Hill Road Left Turn	A (8.1)	A (7.7)	A (7.8)	A (7.8)
2028 without Development (Case 2)				
Eastbound Donovan Road Approach	B (13.0)	C (15.6)	B (13.6)	B (14.2)
Northbound Sand Hill Road Left Turn	A (8.4)	A (7.9)	A (8.1)	A (8.0)
2028 with Development (Case 3a and 3b)				
Eastbound Donovan Road Approach	B (14.5)	C (19.2)	C (15.2)	C (17.0)
Northbound Sand Hill Road Left Turn	A (8.6)	A (8.2)	A (8.3)	A (8.3)