



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

JENNIFER COHAN  
SECRETARY

October 15, 2020

Ms. Betty Tustin  
The Traffic Group, Inc.  
104 Kenwood Court  
Berlin, Maryland 21811

Dear Ms. Tustin,

The Department has completed its review of the traffic impact study (TIS) for the proposed Baywood Gardens – Phase 3 (f.k.a. Woodlands) residential development. The TIS was prepared by The Traffic Group, Inc. (TTG), and is dated September 30, 2019. TTG prepared the report in a manner generally consistent with DelDOT's *Development Coordination Manual*.

The TIS evaluates the traffic impacts of the proposed development, proposed to be located on the south side of Long Neck Road (Delaware Route 23) and the west side of School Lane (Sussex Road 298) in Sussex County, Delaware.

The proposed development would consist of 160 low-rise multi-family houses on an approximately 15.36-acre assemblage of parcels (Tax Parcels 234-23.00-273.01, 273.02, and 273.03). Two access points are proposed: one full access on School Lane (opposite of the Long Neck Shopping Center), and one rights-in / rights-out / lefts-out access on Long Neck Road (opposite of Greens Way). Construction is anticipated to be complete in 2024.

The subject land is currently zoned CR-1 (Commercial) in Sussex County, and the developer plans to rezone the land to HR-1 (High-Density Residential) with an RPC (Residential Planned Community) overlay.

DelDOT currently has one capital project within the area of study. The SR 24 at SR 5 / SR 23 Intersection Improvements Project (State Contract No. T201200903) includes the intersection of Delaware Route 24 / Indian Mission Road / Long Neck Road. The need for the project was identified, in part, through DelDOT's Hazard Elimination Program (HEP). The proposed improvements associated with this project include various operational and safety improvements at this intersection and other nearby intersections, such as adding channelization islands at accesses, extending turn lanes, adding sidewalk, and adding bike lanes. This project is currently in the design and right-of-way acquisition phase, with construction anticipated to begin in the spring of 2021.



Following submission of the TIS, DelDOT further considered the impact of traffic from several other developments in the area that were not contemplated in the original scope of the TIS. Based on this, it was determined that an additional through lane in each direction is going to be needed along Delaware Route 24. As such, the developer should make an equitable share contribution towards the cost of the both the aforementioned SR 24 at SR 5 / SR 23 Intersection Improvements Project and the future widening of Delaware Route 24, as described below in Item No. 4.

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

The review of the TIS shows that the following intersections exhibit Level of Service (LOS) deficiencies without the implementation of physical roadway and/or traffic control improvements:

<i>Intersection</i>	<i>Existing Traffic Control</i>	<i>Situation for which deficiencies occur</i>
Delaware Route 24 / Long Neck Road / Indian Mission Road	Signal (four-leg intersection)	2024 mid-day Saturday with and without Baywood Gardens – Phase 3 (Cases 2 & 3)
Site Entrance B / Long Neck Road / Greens Way	Two-way stop control (four-leg intersection)	2024 mid-day Saturday with Baywood Gardens – Phase 3 (Case 3)

The signalized intersection of Delaware Route 24 / Long Neck Road / Indian Mission Road exhibits unacceptable LOS during the future Saturday mid-day peak hour conditions with and without the proposed development. As mentioned above, there is a State project planned for this intersection. While implementation of the state project alone will not mitigate the LOS deficiencies, the addition of a second through lane in each direction would. Therefore, we will require the developer to make an equitable contribution towards the cost of this project and the additional widening of Delaware Route 24.

The unsignalized intersection of Site Entrance B / Long Neck Road / Greens Way exhibits unacceptable LOS during the future Saturday mid-day peak hour conditions with the proposed development. While LOS for the eastbound Long Neck Road left-turn movement is relatively good, the LOS along the proposed site entrance approach is not. However, the future Saturday mid-day peak hour traffic queues along the site entrance are short; no more than one vehicle is projected to be waiting in either the left-turn or right-turn traffic queue during this time period. Therefore, we do not recommend that the developer make any improvements to this intersection beyond what is listed in item 2 below.

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

1. The developer should improve School Lane, from Long Neck Road to the Long Neck Elementary School entrance, to meet DeIDOT’s local road standards. The standards include, but are not limited to, eleven-foot travel lanes and five-foot shoulders. The developer should provide a bituminous concrete overlay to the existing travel lanes, at DeIDOT’s discretion. DeIDOT should analyze the existing lane’s pavement section and recommend an overlay thickness to the developer’s engineer if necessary.
2. The developer should construct the site entrance on Long Neck Road, opposite of Greens Way. The proposed configuration is shown on the table below.

<b>Approach</b>	<b>Current Configuration</b>	<b>Proposed Configuration</b>
Eastbound Long Neck Road	One left-turn lane, one through lane	One left-turn lane, one through lane, one right-turn lane
Westbound Long Neck Road	One through lane, one right-turn lane	One through lane, one right-turn lane
Northbound Site Entrance	Does not exist	One shared left-turn / through lane, one right-turn lane
Southbound Greens Way	One left-turn lane, one right-turn lane	One shared left-turn / through lane, one right-turn lane

Initial recommended minimum turn-lane lengths (excluding tapers) of the separate turn lanes to be added along Long Neck Road are listed below. The developer should coordinate with DeIDOT’s Subdivision Section to determine final turn-lane lengths.

<b>Approach</b>	<b>Left-Turn Lane(s)</b>	<b>Right-Turn Lane</b>
Eastbound Long Neck Road	N/A	240 feet*
Westbound Long Neck Road	N/A	N/A

\* Proposed turn-lane length based on DeIDOT’s Auxiliary Lane Worksheet (6/26/19 edition)

3. The developer should construct the site entrance on School Lane, opposite of the Long Neck Plaza entrance. The proposed configuration is shown on the table below.

<b>Approach</b>	<b>Current Configuration</b>	<b>Proposed Configuration</b>
Northbound School Lane	One shared through / right-turn lane	One left-turn lane, one shared through / right-turn lane
Southbound School Lane	One shared through / left-turn lane	One left-turn lane, one through lane, one right-turn lane
Eastbound Site Entrance	Does not exist	One shared left-turn / through lane, one right-turn lane
Westbound Long Neck Plaza entrance	One shared left-turn / right-turn lane	One shared left-turn / through / right-turn lane

Initial recommended minimum turn-lane lengths (excluding tapers) of the separate turn lanes to be added along School Lane are listed below. The developer should coordinate with DelDOT’s Subdivision Section to determine final turn-lane lengths.

<b>Approach</b>	<b>Left-Turn Lane(s)</b>	<b>Right-Turn Lane</b>
Northbound School Lane	195 feet*	N/A
Southbound School Lane	50 feet**	150 feet*

\* Proposed turn-lane length based on DelDOT’s Auxiliary Lane Worksheet (6/26/19 edition)

\*\* Proposed turn-lane length based on DelDOT’s *Road Design Manual*

4. The developer should coordinate with DelDOT regarding an equitable share contribution toward DelDOT’s SR 24 at SR 5 / SR 23 Intersection Improvements Project. The amount of the contribution should be determined through coordination with DelDOT’s Development Coordination Section. As described on page 2, the contribution amount should account for the cost of both the DelDOT project as presently planned and the future widening of Delaware Route 24 to include an additional through lane in each direction.
5. The developer should enter into a signal agreement with DelDOT for the intersection of Long Neck Road / School Lane / Banks Road. The details of this agreement should be coordinated with DelDOT’s Development Coordination and Traffic Sections.
6. The following bicycle, pedestrian, and transit improvements should be included:
  - a. Adjacent to the right-turn lanes added to eastbound Long Neck Road and southbound School Lane at the site entrances, a minimum of a five-foot bicycle lane should be dedicated and striped with appropriate markings for bicyclists through the turn lane in order to facilitate safe and unimpeded bicycle travel.
  - b. Appropriate bicycle symbols, directional arrows, striping (including stop bars), and signing should be included along bicycle facilities and right-turn lanes within the project limit.
  - c. Utility covers should be made flush with the pavement.
  - d. A fifteen-foot wide easement from the edge of the right-of-way should be dedicated to DelDOT within the site frontage along Long Neck Road and School Lane.
  - e. Within the easements along Long Neck Road and School Lane, a ten-foot wide Shared-Use Path (SUP) that meets current AASHTO and ADA standards should be constructed along each site frontage.
  - f. ADA compliant curb ramps and crosswalks should be provided at all pedestrian crossings within the development, including all site entrances. Type 3 curb ramps are discouraged.

- g. DelDOT recommends the construction of internal sidewalks for pedestrian safety and to promote walking as a viable transportation alternative within the development. These sidewalks should each be a minimum of five feet wide (with a minimum of a five-foot buffer from the roadway) and should meet current AASHTO and ADA standards. These internal sidewalks should connect to the frontage shared-use paths.
- h. Regarding connectivity, a driveway connection should be provided to Turnstone Court in the Bayshore development, and a pedestrian connection should be provided to the Long Neck Elementary School; this connection is separate from the SUP connection to the sidewalk mentioned above in item 6e.
- i. A five-foot by eight-foot concrete pad bus stop should be constructed at least 50 feet from the proposed site entrance on Long Neck Road. The developer should coordinate with the Delaware Transit Corporation (DTC) on the details of the installation of this facility.

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 [http://www.deldot.gov/information/pubs\\_forms/manuals/de\\_mutcd/index.shtml](http://www.deldot.gov/information/pubs_forms/manuals/de_mutcd/index.shtml). For any additional information regarding the work zone impact and mitigation procedures during construction please contact Mr. Don Weber, Assistant Director for Traffic Operations and Management. Mr. Weber can be reached at (302) 659-4651 or by email at [Don.Weber@delaware.gov](mailto:Don.Weber@delaware.gov).

Please note that this review generally focuses on capacity and level of service issues; additional comments relating to bicycle, pedestrian, transit, safety and operational issues may be further addressed through DelDOT’s subdivision review process.

Ms. Betty Tustin  
October 15, 2020  
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Additional details on our review of this TIS are attached. If you have any questions concerning this review, please contact me at (302) 760-2167. My email is [Troy.Brestel@delaware.gov](mailto:Troy.Brestel@delaware.gov).

Sincerely,

Troy Brestel  
Project Engineer

TEB:km

Enclosures

cc with enclosures: Mr. Jamie Whitehouse, Sussex County Planning & Zoning  
Ms. Constance C. Holland, Office of State Planning Coordination  
Mr. Brad Eaby, Deputy Attorney General  
Ms. Shanté Hastings, Director, Transportation Solutions (DOTS)  
Mr. J. Marc Coté, Director, Planning  
Mr. Mark Luszcz, Deputy Director, Design, DOTS  
Mr. Michael Simmons, Assistant Director,  
Project Development South, DOTS  
Mr. Alastair Probert, South District Engineer, DOTS  
Mr. Todd Sammons, Assistant Director, Development Coordination  
Mr. T. William Brockenbrough, Jr., County Coordinator,  
Development Coordination  
Mr. Don Weber, Assistant Director, Traffic Operations and Management,  
Traffic, DOTS  
Mr. Peter Haag, Chief Traffic Engineer, Traffic, DOTS  
Mr. Jared Kauffman, Service Development Planner,  
Delaware Transit Corporation  
Ms. Tremica Cherry, Service Development Planner,  
Delaware Transit Corporation  
Mr. Anthony Aglio, Planning Supervisor, Statewide & Regional Planning  
Ms. Wendy Polasko, Subdivision Engineer, Development Coordination  
Ms. Susanne Laws, Sussex County Subdivision Coordinator,  
Development Coordination  
Mr. Claudy Joinville, Project Engineer, Development Coordination  
Mr. Brian Yates, Johnson, Mirmiran & Thompson, Inc.

### **General Information**

**Report date:** September 30, 2019

**Prepared by:** The Traffic Group, Inc. (TTG)

**Prepared for:** Baywood, L.L.C.

**Tax parcels:** 234-23.00-273.01, 273.02 and 273.03

**Generally consistent with DelDOT's *Development Coordination Manual*:** Yes

### **Project Description and Background**

**Description:** 160 low-rise multi-family houses

**Location:** South side of Long Neck Road (Sussex Road 22) and the west side of School Lane (Sussex Road 298)

**Amount of land to be developed:** approximately 15.36 acres

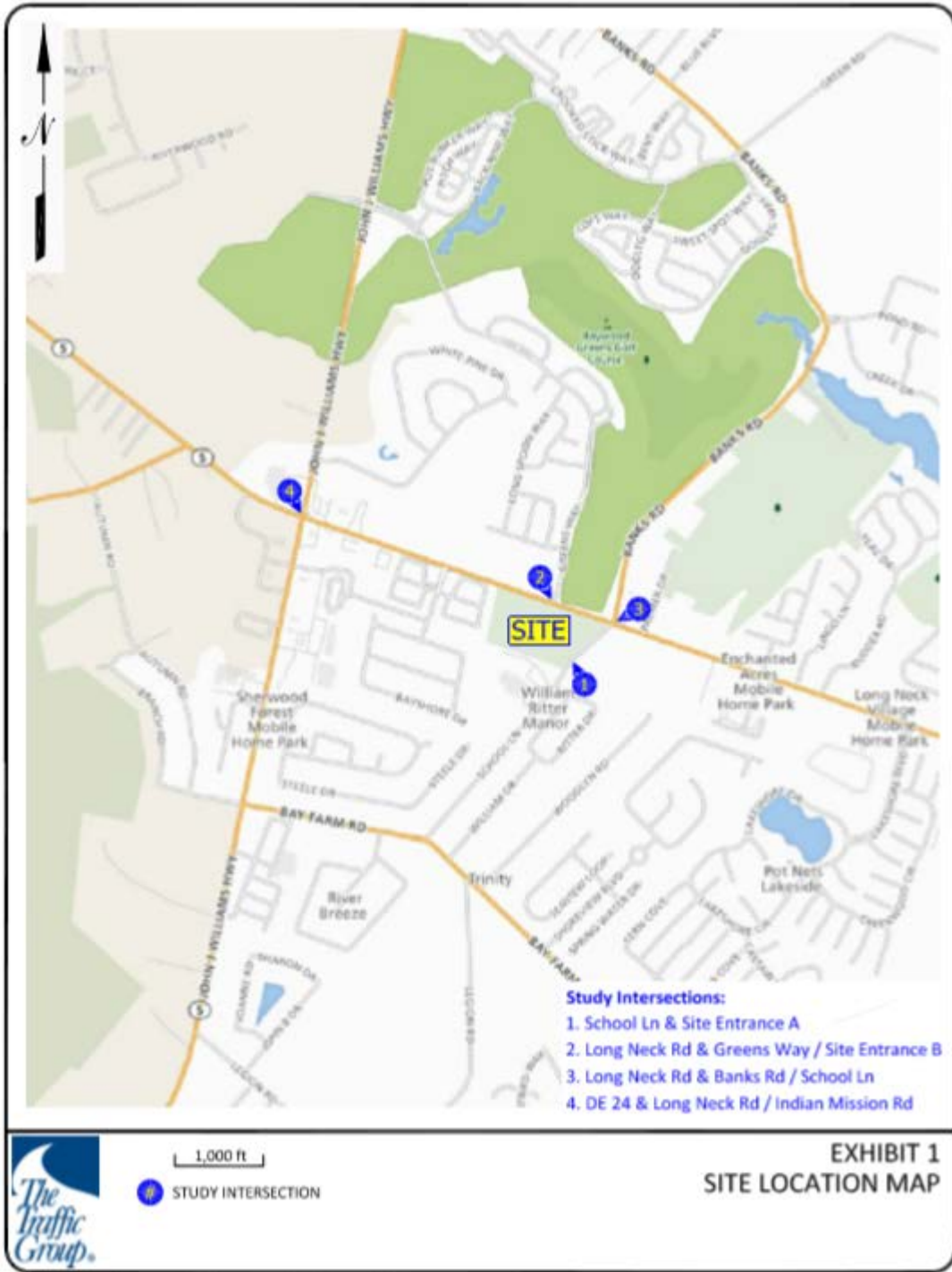
**Land use approval(s) needed:** DelDOT Subdivision approval and Sussex County land use approval

**Proposed completion date:** 2024

**Proposed access location:** Two access points are proposed: one full access on School Lane (opposite of the Long Neck Plaza Shopping Center), and one rights-in / rights-out / lefts-out access on Long Neck Road (opposite of Greens Way).

**Daily Traffic Volumes (per DelDOT Traffic Summary 2018):**

- 2018 Average Annual Daily Traffic on Long Neck Road: 11,338 vpd
- 2018 Average Annual Daily Traffic on School Lane: 3,921 vpd





## **2015 Delaware Strategies for State Policies and Spending**

### **Location with respect to the Strategies for State Policies and Spending Map of Delaware:**

The proposed Baywood Gardens – Phase 3 development is located within an Investment Level 2 area.

#### Investment Level 2

Investment Level 2 reflects areas where growth is anticipated by local, county, and State plans in the near-term future. This investment level has many diverse characteristics. 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. These areas have been shown to be the most active portion of Delaware's developed landscape. They serve as transition areas between Level 1 and the more open, less populated areas. They generally contain a limited variety of housing types, predominantly detached single-family dwellings.

In Investment Level 2, 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 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, and provides essential open spaces and recreational facilities, other public facilities, and services to promote a sense of community. Investment Level 2 areas are prime locations for designating "pre-permitted areas."

### **Proposed Development's Compatibility with Strategies for State Policies and Spending:**

The proposed Baywood Gardens – Phase 3 development is comprised of a 15.36-acre assemblage of parcels with 160 low-rise multi-family homes located within an Investment Level 2 area. Investment Level 2 reflect areas where growth is anticipated in the near-term future. Developments in these areas should generally provide a mix of higher-density land uses, a variety of housing types, promote walking / cycling / transit, and make efficient use of existing public infrastructure / services. As such, the proposed development generally appears to comply with the guidelines of the 2015 "Strategies for State Policies and Spending."

## **Comprehensive Plan**

### **Sussex County Comprehensive Plan:**

*(Source: Sussex County Comprehensive Plan Update, March 2019)*

The Sussex County Comprehensive Plan 2045 Future Land Use Map indicates that the proposed development parcels are within a combination of Coastal Area and Commercial Area. Both are categorized as Growth Areas.

Coastal Area: Sussex County has designated the areas around Rehoboth Bay, Indian River Bay, and Little Assawoman Bay (the inland bays) as Coastal Areas. Coastal Areas generally encompass areas on the south-eastern side of Sussex County within what was previously referred to as the Environmentally Sensitive Developing Areas of prior Comprehensive Plans. The updated name more accurately reflects the function of this land use classification. While the Coastal Area is a Growth Area, additional considerations should be taken into account in this Area that may not apply in other Growth Areas.

The Coastal Area designation is intended to recognize two characteristics. First, this region is among the most desirable locations in Sussex County for new housing, as is reflected in new construction data and real estate prices. Second, this region contains ecologically important and sensitive characteristics as well as other coastal lands which help to absorb floodwaters and provide extensive habitat for native flora and fauna. This area also has significant impact upon water quality within the adjacent bays and inlets as well as upon natural the region's various habitats. And, these factors are themselves part of the reason that this Area is so desirable-making the protection of them important to both the environment and the economy.

The County has significant initiatives to extend public sewer service to replace inadequate on-site systems. Careful control of stormwater runoff is also an important concern in keeping sediment and other pollutants out of the Inland Bays.

The challenge in this region is to safeguard genuine natural areas and mitigate roadway congestion without stifling the tourism and real estate markets which: a) provide many jobs; b) create business for local entrepreneurs; and c) help keep local tax rates low.

The following guidelines should apply to future growth in Coastal Areas:

- Permitted Uses – Coastal Areas are areas that can accommodate development provided special environmental concerns are addressed. A range of housing types should be permitted in Coastal Areas, including single-family homes, townhouses, and multi-family units. Retail and office uses are appropriate but larger shopping centers and office parks should be confined to selected locations with access along arterial roads. Appropriate mixed-use development should also be allowed. In doing so, careful mixtures of homes with light commercial, office and institutional uses can be appropriate to provide for convenient services and to allow people to work close to home. Major new industrial uses are not proposed in these areas.

- **Densities** – Sussex County’s base density of 2 units per acre is appropriate throughout this classification; however, medium and higher density (4-12 units per acre) can be appropriate in certain locations. Medium and higher density could be supported in areas: where there is central water and sewer; near sufficient commercial uses and employment centers; where it is in keeping with the character of the area; where it is along a main road or at/or near a major intersection; where there is adequate Level of Service; or where other considerations exist that are relevant to the requested project and density. A clustering option permitting smaller lots and additional flexibility in dimensional standards is encouraged on tracts of a certain minimum size, provided significant permanent common open space is preserved and the development is connected to central water and sewer service. The preservation of natural resources or open space is strongly encouraged in this land use classification. The County should revisit environmental protection in the Coastal Areas. Specific regulations governing cluster developments are designated by zoning district. There currently is an option where density can be increased with optional density bonuses for certain zoning districts. Those optional bonuses may involve payment of fees that fund permanent land preservation elsewhere in the County, or other options. RPC’s are encouraged to allow for a mix of housing types and to preserve open space and natural areas/resources. Cluster development that allows for smaller lots and flexibility in dimensional standards is encouraged if the developer uses a cluster option that results in permanent preservation of a substantial percentage of the tract and/or natural areas/resources. Master planning should be encouraged especially for large-scale developments on large parcels or groups of parcels, higher density and mixed-use developments to provide flexibility in site design.

All applicants for developments of a minimum size (as specified in zoning) should continue to be required to provide information that analyzes the development’s potential environmental impacts, including effects on stormwater runoff, nitrogen and phosphorous loading, wetlands, woodlands, wastewater treatment, water systems, and other matters that affect the ecological sensitivity of the inland bays.

- **Infrastructure** – Central water and sewer facilities are strongly encouraged. If central utilities are not possible, permitted densities should be limited to two units per acre provided a septic permit can be approved.

**Commercial Area:** Commercial Areas include concentrations of retail and service uses that are mainly located along arterials, and highways. As opposed to small, traditional downtown areas that are often historic and pedestrian-friendly, Commercial Areas include commercial corridors, shopping centers, and other medium and large commercial vicinities geared towards vehicular traffic. In addition to primary shopping destinations, this area would also be the appropriate place to locate hotels, motels, car washes, auto dealerships, and other medium and larger scale commercial uses not primarily targeted to the residents of immediately adjacent residential areas. These more intense uses should be located along main roads or near major intersections. Institutional and commercial uses may be appropriate depending on surrounding uses. Mixed-use buildings may also be appropriate for these areas.

**Proposed Development’s Compatibility with Comprehensive Plan:** The proposed Baywood Gardens – Phase 3 development is planned to be developed as 160 low-rise multi-family homes on a 15.36-acre assemblage of parcels. The site is currently zoned CR-1 (General Commercial). The developer plans to rezone the property to HR-1 (High Density Residential) with an RPC (Residential Planned Community) overlay. The purpose of these districts is to permit variety in housing types and provide for residential densities appropriate for areas which are or will be served by public sanitary sewer and water systems and which are well-located with respect to major thoroughfares, shopping facilities and centers of employment. The proposed development appears to comply with the characteristics of High Density Residential in general as well as the Permitted Uses for the Coastal Area.

While the type of use proposed for this site appears to be permitted in this location by the Comprehensive Plan, there are specific regulations that must be followed. For these reasons and due to a density of greater than 2 units per acre, this development raises questions regarding consistency with Sussex County regulations; therefore additional discussion may be required.

**Relevant Projects in the DelDOT Capital Transportation Program**

The SR 24 at SR 5 / SR 23 Intersection Improvements Project (State Contract No. T201200903) includes the intersection of Delaware Route 24 / Indian Mission Road / Long Neck Road. The need for the project was identified, in part, through DelDOT’s Hazard Elimination Program (HEP). The proposed improvements associated with this project include various operational and safety improvements at this intersection and other nearby intersections, such as adding channelization islands at accesses, extending turn lanes, adding sidewalk, and adding bike lanes. This project is currently in the design and right-of-way acquisition phase, with construction anticipated to begin in the spring of 2021.

**Trip Generation**

Trip generation for the proposed development was computed using comparable land uses and equations contained in the Trip Generation Manual, Tenth Edition, published by Institute of Transportation Engineers (ITE). The following land use was utilized to estimate the amount of new traffic generated for this development:

- 160 low-rise multi-family houses (ITE Land Use Code 220)

Table 1  
 BAYWOOD GARDENS – PHASE 3 PEAK HOUR TRIP GENERATION

Land Use	Weekday AM Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total
160 Single-Family Detached Houses									
<b>TOTAL TRIPS</b>	<b>17</b>	<b>58</b>	<b>75</b>	<b>57</b>	<b>33</b>	<b>90</b>	<b>76</b>	<b>64</b>	<b>140</b>

Table 2  
 BAYWOOD GARDENS – PHASE 3 DAILY TRIP GENERATION

Land Use 160 Single-Family Detached Houses	Weekday ADT			Saturday ADT		
	In	Out	Total	In	Out	Total
<b>TOTAL TRIPS</b>	<b>585</b>	<b>584</b>	<b>1,169</b>	<b>860</b>	<b>860</b>	<b>1,720</b>

**Overview of TIS**

**Intersections examined:**

- 1) Site Entrance A / School Lane (Sussex Road 298) / Long Neck Plaza site entrance
- 2) Site Entrance B / Long Neck Road (Sussex Road 22) / Greens Way
- 3) Delaware Route 24 / Long Neck Road / Indian Mission Road (Sussex Road 22)
- 4) Long Neck Road / School Lane / Banks Road (Sussex Road 298)

**Conditions examined:**

- 1) 2019 existing conditions (Case 1)
- 2) 2024 without Baywood Gardens – Phase 3 (Case 2)
- 3) 2024 with Baywood Gardens – Phase 3 (Case 3)

**Peak hours evaluated:** Weekday morning, afternoon, and Saturday mid-day peak hours

**Committed developments considered:**

- 1) Baywood Gardens Phases 1 & 2 (353 low-rise multi-family)
- 2) Keastone Bay (Bridlewood at Baywood) (675 single-family detached houses)\*
- 3) Pelican Point (400 single-family detached houses)
- 4) The Woods at Burton Pond (165 single-family detached houses)
- 5) Burton Pond (319 single-family detached houses)
- 6) Deerbrook (120 single-family detached houses)
- 7) Peninsula Lakes (588 single-family detached houses, 72 multi-family low-rise houses)
- 8) Baylis Estates (136 single-family detached houses)
- 9) Peninsula Square (40,000 square feet of retail space, 15,000 square feet of medical office space, a 6,200 square-foot high-turnover sit-down restaurant, 144 apartments, and a 100-room hotel)
- 10) Carillon Woods (189 apartments)

\* Section 2.2.8.10 of the Development Coordination Manual provides a rule for determining a development’s expected year of completion for the purpose of a TIS. In accordance with that rule, Keastone Bay has a projected buildout year of 2034. Again by that rule, Keastone Bay projected to have 200 dwellings occupied in 2024. Therefore, this TIS should account for only 200 of the 675 total dwellings.

### **Transit, Pedestrian, and Bicycle Facilities**

**Existing transit service:** The Traffic Group, Inc. contacted representatives of the Delaware Transit Corporation (DTC) to determine existing and planned transit services near the proposed development. DART currently operates Route 215 along Delaware Route 24 and Long Neck Road.

**Planned transit service:** Based on comments from DTC representatives, bus stops are planned along Delaware Route 24 near Long Neck Road / Indian Mission Road. DTC requested that a concrete pad bus stop be installed near the proposed site entrance on Long Neck Road.

**Existing bicycle and pedestrian facilities:** According to the Sussex County bicycle map, Delaware Route 24 and Long Neck Road are classified as Regional Bicycle Routes. Both roads are noted as high-traffic roads with shoulders on both sides. Existing pedestrian facilities in the study area include sidewalk scattered in areas along Long Neck Road and School Lane.

**Planned bicycle and pedestrian facilities:** The Traffic Group contacted a representative from DelDOT's Statewide and Regional Planning Section regarding bicycle and pedestrian facilities. Bicycle lanes at the site entrances and shared-use paths along the site frontage on both Long Neck Road and School Lane were requested. Additionally, an internal non-motorized connection to Long Neck Elementary School was requested.

### **Previous Comments**

All comments from DelDOT's Scoping Letter and Traffic Count Review were addressed in the Final TIS submission.

### **General HCS Analysis Comments**

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

There were no general differences between the TIS and DelDOT's review of it.

There were minor differences in analysis inputs, as well as different lane configurations along the site entrances; these differences had minimal impact to the analysis results.

Table 3  
 PEAK HOUR LEVELS OF SERVICE (LOS)  
*based on the Traffic Impact Study for Baywood Gardens – Phase 3*  
*Report dated September 2019*  
 Prepared by The Traffic Group, Inc.

Unsignalized Intersection <sup>1</sup>	LOS per TIS			LOS per DeIDOT		
	Weekday AM	Weekday PM	Saturday Midday	Weekday AM	Weekday PM	Saturday Midday
Site Entrance A / School Lane / Long Neck Plaza Entrance						
2019 existing						
Southbound School Lane Left-Turn	A (7.9)	A (8.2)	A (8.0)	A (7.9)	A (8.2)	A (8.1)
Westbound Long Neck Plaza Entrance	B (11.8)	B (12.8)	B (12.1)	B (11.8)	B (12.8)	B (12.6)
2024 without development						
Southbound School Lane Left-Turn	A (8.2)	A (8.5)	A (8.4)	A (8.0)	A (8.4)	A (8.5)
Westbound Long Neck Plaza Entrance	B (13.8)	C (15.7)	B (14.5)	B (12.4)	B (14.5)	C (15.3)
2024 with development <sup>2</sup>						
Northbound School Lane Left-Turn	A (8.1)	A (8.0)	A (8.0)	A (8.0)	A (7.9)	A (8.1)
Southbound School Lane Left-Turn	A (8.2)	A (8.5)	A (8.4)	A (8.0)	A (8.4)	A (8.5)
Eastbound Site Entrance	C (17.5)	C (19.4)	C (19.0)	B (14.3)	C (18.2)	C (19.8)
Westbound Long Neck Plaza Entrance	C (15.4)	C (18.0)	C (16.6)	B (13.4)	C (16.2)	C (17.9)

<sup>1</sup> For both unsignalized and signalized intersection analyses, the numbers in parentheses following levels of service (LOS) are average delay per vehicle, measured in seconds.

<sup>2</sup> The TIS assumed shared lanes on all approaches, whereas DeIDOT's review assumed separate lanes as described in item 3 on page 3 above.

Table 4  
**PEAK HOUR LEVELS OF SERVICE (LOS)**  
*based on the Traffic Impact Study for Baywood Gardens – Phase 3*  
*Report dated September 2019*  
 Prepared by The Traffic Group, Inc.

Unsignalized Intersection <sup>1</sup>	LOS per TIS			LOS per DeIDOT		
	Weekday AM	Weekday PM	Saturday Midday	Weekday AM	Weekday PM	Saturday Midday
Site Entrance B / Long Neck Road / Greens Way						
2019 existing						
Southbound Greens Way	B (13.6)	B (14.3)	C (19.4)	B (13.5)	B (14.3)	C (19.4)
Eastbound Long Neck Road Left-Turn	A (8.6)	A (8.0)	A (8.7)	A (8.6)	A (8.0)	A (8.7)
2024 without development						
Southbound Greens Way	C (15.0)	C (16.6)	C (24.5)	B (14.6)	C (16.6)	C (23.1)
Eastbound Long Neck Road Left-Turn	A (8.8)	A (8.2)	A (9.1)	A (8.7)	A (8.2)	A (9.0)
2024 with development <sup>2</sup>						
Northbound Site Entrance <sup>3</sup>	C (20.8)	C (20.7)	E (46.8)	C (19.7)	C (20.6)	E (42.4)
Southbound Greens Way	C (16.9)	C (19.4)	D (33.1)	C (16.2)	C (19.4)	D (30.6)
Eastbound Long Neck Road Left-Turn	A (8.8)	A (8.2)	A (9.2)	A (8.8)	A (8.2)	A (9.1)

<sup>1</sup> For both unsignalized and signalized intersection analyses, the numbers in parentheses following levels of service (LOS) are average delay per vehicle, measured in seconds.

<sup>2</sup> The TIS assumed a shared lane for the site entrance, whereas DeIDOT's review assumed a separate right-turn lane.

<sup>3</sup> The 95% traffic queues for the site entrance during the Saturday mid-day peak hour are approximately 1 vehicle for both the left-turn and right-turn lane.



Table 5  
 PEAK HOUR LEVELS OF SERVICE (LOS)  
*based on the Traffic Impact Study for Baywood Gardens – Phase 3*  
*Report dated September 2019*  
 Prepared by The Traffic Group, Inc.

Signalized Intersection <sup>1</sup>	LOS per TIS			LOS per DeDOT		
	Weekday AM	Weekday PM	Saturday Midday	Weekday AM	Weekday PM	Saturday Midday
Long Neck Road / School Lane / Banks Road						
2019 existing	B (17.2)	C (25.4)	C (24.0)	C (22.8)	C (32.4)	C (30.6)
2024 without development	B (19.1)	C (28.2)	C (27.8)	C (26.2)	C (34.0)	C (33.9)
2024 with development	B (19.3)	C (28.3)	C (28.2)	C (26.8)	C (34.2)	C (34.3)

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<sup>1</sup> For both unsignalized and signalized intersection analyses, the numbers in parentheses following levels of service (LOS) are average delay per vehicle, measured in seconds.

Table 6  
 PEAK HOUR LEVELS OF SERVICE (LOS)  
*based on the Traffic Impact Study for Baywood Gardens – Phase 3*  
*Report dated September 2019*  
 Prepared by The Traffic Group, Inc.

Signalized Intersection <sup>1</sup>	LOS per TIS			LOS per DelDOT		
	Weekday AM	Weekday PM	Saturday Midday	Weekday AM	Weekday PM	Saturday Midday
Delaware Route 24 / Indian Mission Road / Long Neck Road						
2019 existing	C (23.9)	C (25.3)	C (34.4)	C (29.8)	C (28.6)	C (33.3)
2024 without development	C (31.1)	D (36.6)	E (65.7)	C (31.5)	C (34.3)	E (66.3)
2024 without development – with DelDOT project <sup>2</sup>	N/A	N/A	N/A	C (29.0)	C (28.9)	D (37.5)
2024 with development	C (31.8)	D (38.2)	E (72.0)	C (31.9)	D (35.3)	E (70.2)
2024 with development – with DelDOT project <sup>2</sup>	N/A	N/A	N/A	C (29.3)	C (29.3)	D (39.3)

<sup>1</sup> For both unsignalized and signalized intersection analyses, the numbers in parentheses following levels of service (LOS) are average delay per vehicle, measured in seconds.

<sup>2</sup> DelDOT project (T201200903) consists of installing a two-way left-turn lane along southbound Delaware Route 24; this case was also analyzed assuming a second through lane is added on Delaware Route 24 in each direction.