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

SHANTÉ A. HASTINGS
SECRETARY

December 18, 2025

Mr. K. James Taylor, Jr., P.E.
Verdantas LLC
5400 Limestone Road
Wilmington, DE 19808

Dear Mr. Taylor,

The enclosed Traffic Impact Study (TIS) review letter for the **Bay Village** (Tax Parcel: 4-05-06800-01-0600-00001) residential 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 Review Engineer

AF:km
Enclosures
cc with enclosures: Joel Sens, Bay Village Holdings, LLC
Brian Clarke, Verdantas LLC
Ben Kulp, Verdantas LLC
Dawn Melson-Williams, City of Dover
Kris Connelly, Kent County Planning and Zoning
Andrew J. Parker, McCormick Taylor, Inc.
Tucker Smith, McCormick Taylor, Inc.
DelDOT Distribution

DelDOT

DelDOT Distribution

Mark Luszcz, Chief Engineer, Transportation Solutions (DOTS)
Brad Eaby, Deputy Attorney General, DOTS
Michael Simmons, Chief Project Development South, DOTS
Peter Haag, Chief Traffic Engineer, DOTS
Wendy Carpenter, Traffic Calming & Subdivision Relations Manager, Traffic, DOTS
Sean Humphrey, Traffic Engineer, Traffic, DOTS
Matthew Lichtenstein, Central District Engineer, M&O
Steve McCabe, Central District Public Works Manager, M&O
Jared Kaufman, Service Development Planner, DTC
Tremica Cherry, Service Development Planner, DTC
Anthony Aglio, Planning Supervisor, Active Transportation & Community Connections, Planning
Austin Gray, Assistant Director, Statewide & Regional Planning, Planning
Anson Gock, Planner, Statewide & Regional Planning, Planning
Jeff Van Horn, Director, Economic Development Coordination
Todd Sammons, Assistant Director, Economic Development Coordination
Brian Yates, Process and Quality Control Engineer, Economic Development Coordination
Wendy Polasko, Subdivision Engineer, Economic Development Coordination
Will Mobley, Acting Kent Review Coordinator, Economic Development Coordination
Ali Akbar, Kent Review Engineer, Economic Development Coordination
Sireen Muhtaseb, TIS Engineer, Economic Development Coordination
Ben Fisher, TIS Review Engineer, Economic Development Coordination
Tijah Jones, TIS Review Engineer, Economic Development Coordination

December 18, 2025

Ms. Sireen Muhtaseb, PE
TIS Engineer
DelDOT Development Coordination
800 Bay Road
Dover, DE 19901

RE: Agreement No. 2139S
Traffic Impact Study Services
**Task No. 1A Subtask 14 – Bay Village**

Dear Ms. Muhtaseb:

McCormick Taylor has completed its review of the Traffic Impact Study (TIS) for the Bay Village development prepared by Verdantas, dated October 2025. Verdantas prepared the report in a manner generally consistent with DelDOT's Development Coordination Manual.

The TIS evaluates the impacts of the proposed Bay Village development, proposed to be located on the south side of White Oak Road in the City of Dover, Kent County, Delaware. The proposed development would consist of 456 units of multifamily low-rise housing units. Two full-access entrances are proposed along White Oak Road, one opposite Garrison Oak Drive (East) and another 600 feet to the west. Construction is anticipated to be completed in 2035.

The subject land is located on an approximately 76.73-acre parcel. The land is currently zoned as RM-2 PND (Medium Density Residential Planned Community) and the developer does not plan to rezone the land.

**Relevant and On-Going Projects and Studies**

Currently, DelDOT has two relevant and ongoing projects within the area of study.

The *Garrison Oak Connector from SR 1 via White Oak Road Improvements* project aims to provide improvements that would enhance connections and access to the Central Delaware Aviation Complex (CDAC) at the Dover Air Force Base and the Garrison Oak Business and Technology Center (Garrison Oak) to the north from the regional highway network, as well as improve connections between these two facilities. These improved connections could potentially draw in more business to CDAC and Garrison Oak. An additional benefit would be the reduction of traffic, particularly heavy vehicles, on the area's local roadway network. The project is scheduled for design to begin in fiscal year 2026 (FY26). More information about the project can be found at the following link: https://deldot.gov/projects/index.shtml?dc=details&projectNumber=T202509502.

DelDOT has an active intersection improvement project at the intersection of US Route 13 and White Oak Road / Kings Highway. The improvements are expected to include a new signalized pedestrian crossing on the southside of the intersection, upgraded curb ramps, and Accessible

Pedestrian Signals (APS). The improvements are expected to be complete before Bay Village is complete in 2035.

**Summary of Analysis Results**

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

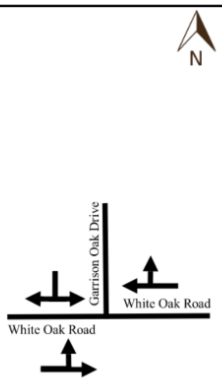
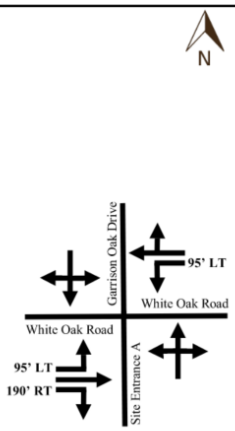
As analyzed, the proposed Bay Village development does not exhibit level of service (LOS) deficiencies at any intersections included in the scope of study.

**Development Improvements**

Should the City of Dover approve the proposed development, the following items should be incorporated into the site design and reflected on the record plan, entrance plans or construction plans by note or illustration, unless a Design Deviation is requested and approved by the Department. 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. The following items should be implemented at the same time as site construction once all agency approvals and permits are secured and completed in accordance with DelDOT's Standards and Specifications.

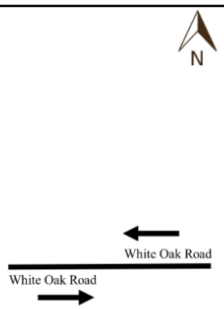
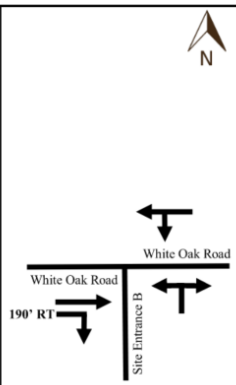
1. The developer shall improve the State-maintained road on which they front (White Oak Road), within the limits of their frontage. The improvements shall include both directions of travel, regardless of whether the developer's lands are on one or both sides of the road. "Frontage" means the length along the state right-of-way of a single property tract where an entrance is proposed or required. If a single property tract has frontage along multiple roadways, any segment of roadway including an entrance shall be improved to meet DelDOT's Functional Classification criteria as found in Section 1.1 of the Development Coordination Manual and elsewhere therein, and/or improvements established in the Traffic Operational Analysis and/or Traffic Impact Study. "Secondary Frontage" means the length along the state right-of-way of a single property tract where no entrance is proposed or required. The segment of roadway may be upgraded by improving the pavement condition of the existing roadway width. The Pavement Management Section and Subdivision Section will determine the requirements to improve the pavement condition.

2. The developer should construct the full-movement Site Entrance A on White Oak Road, opposite Garrison Oak Drive (East). The proposed configuration is shown in the table below.

| Approach | Current Configuration | | Approach | Proposed Configuration | |
|---|---|---|---|---|---|
| Eastbound White Oak Road | One shared left turn/through lane. |  | Eastbound White Oak Road | One left turn lane one through lane, and one right-turn lane. |  |
| Westbound White Oak Road | One shared through/right turn lane. | | Westbound White Oak Road | One left turn lane and one shared through/right turn lane. | |
| Northbound | Approach does not exist. | | Northbound Site Entrance A | One shared left/ through/right turn lane. Stop control. | |
| Southbound Garrison Oak Drive | One shared left/ right turn lane. Stop control. | | Southbound Garrison Oak Drive | One shared left/ through/right turn lane. Stop control. | |

At the proposed Site Entrance A intersection, sperate turn lanes are warranted on both White Oak Road approaches based on DelDOT's *Auxiliary Lane Worksheet*. Initial recommended minimum turn-lane lengths (excluding tapers) include a 190-foot right-turn lane on eastbound White Oak Road, and a 95-foot left-turn lane on westbound White Oak Road. The developer of the Garrison Oak Technical Park will construct a 95-foot left-turn lane on eastbound White Oak Road. The developer should coordinate with DelDOT's Development Coordination Section to determine final turn lane lengths and other design details during the site plan review.

3. The developer should construct the full-movement Site Entrance B on White Oak Road, approximately 600 feet west of Garrison Oak Drive (East). The proposed configuration is shown in the table below.

| Approach | Current Configuration | | Approach | Proposed Configuration | |
|---|---|---|---|---|---|
| Eastbound White Oak Road | One through lane. |  | Eastbound White Oak Road | One through lane and one right-turn lane. |  |
| Westbound White Oak Road | One through lane. | | Westbound White Oak Road | One shared left turn/through lane. | |
| Northbound | Approach does not exist. | | Northbound Site Entrance B | One shared left/ right turn lane. Stop control. | |
| Southbound | Approach does not exist. | | Southbound | No change. | |

At the proposed Site Entrance B intersection, a right-turn lane is warranted on the eastbound White Oak Road approach based on DelDOT's *Auxiliary Lane Worksheet*. Initial recommended minimum turn-lane length (excluding taper) include a 190-foot right-turn lane on eastbound White Oak Road. The developer should coordinate with DelDOT's Development Coordination Section to determine final turn lane lengths and other design details during the site plan review.

4. The developer shall complete an Obstruction Evaluation Notification Form and submit it to the DelDOT Office of Aeronautics due to the site's proximity to a public-use airport; the form and related guidance are available at: https://deldot.gov/Programs/aeronautics/index.shtml?dc=airportLandUse. The developer shall also file notice of the proposed construction or alteration with the Federal Aviation Administration (FAA) in accordance with 14 CFR Part 77 using the Notice of Proposed Construction or Alteration form available at: https://www.faa.gov/forms/index.cfm/go/document.information/documentid/186273. Documentation of both submissions, along with any determinations or required mitigation, shall be provided to DelDOT during the site plan review. Additional information is available from the Office of Aeronautics at DelDOT_Aeronautics@delaware.gov.

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

    a. Per the DelDOT Development Coordination Manual section 5.2.9.2, bicycle lanes are required where right-turn lanes are being installed.

    b. Appropriate bicycle symbols, directional arrows, pavement markings, and signing should be included along bicycle facilities and turn lanes within the project limits.

    c. A minimum 15-foot-wide permanent easement from the edge of the final determined right-of-way should be dedicated to DelDOT within the site frontage along White Oak Road. Along the frontage, a minimum of a 10-foot wide shared-use path should be constructed. The shared-use path should meet AASHTO and ADA standards and should have a minimum of a five-foot buffer from the roadway. At the property boundaries, the shared-use path should connect to the adjacent property or to the shoulder in accordance with DelDOT's Development Coordination Manual. The developer shall coordinate with DelDOT's Development Coordination Section through the plan review process to determine the details of the shared-use path design and connections/terminations at or before the boundaries of the property.

    d. ADA compliant curb ramps and crosswalks should be provided at all pedestrian crossings, including all site entrances. Type 3 curb ramps are discouraged.

    e. Internal sidewalks for pedestrian safety and to promote walking as a viable transportation alternative should be constructed 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. Internal sidewalks in the development should connect to the proposed shared-use path along the site frontages.

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://deldot.gov/Publications/manuals/de_mutcd/index.shtml.

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

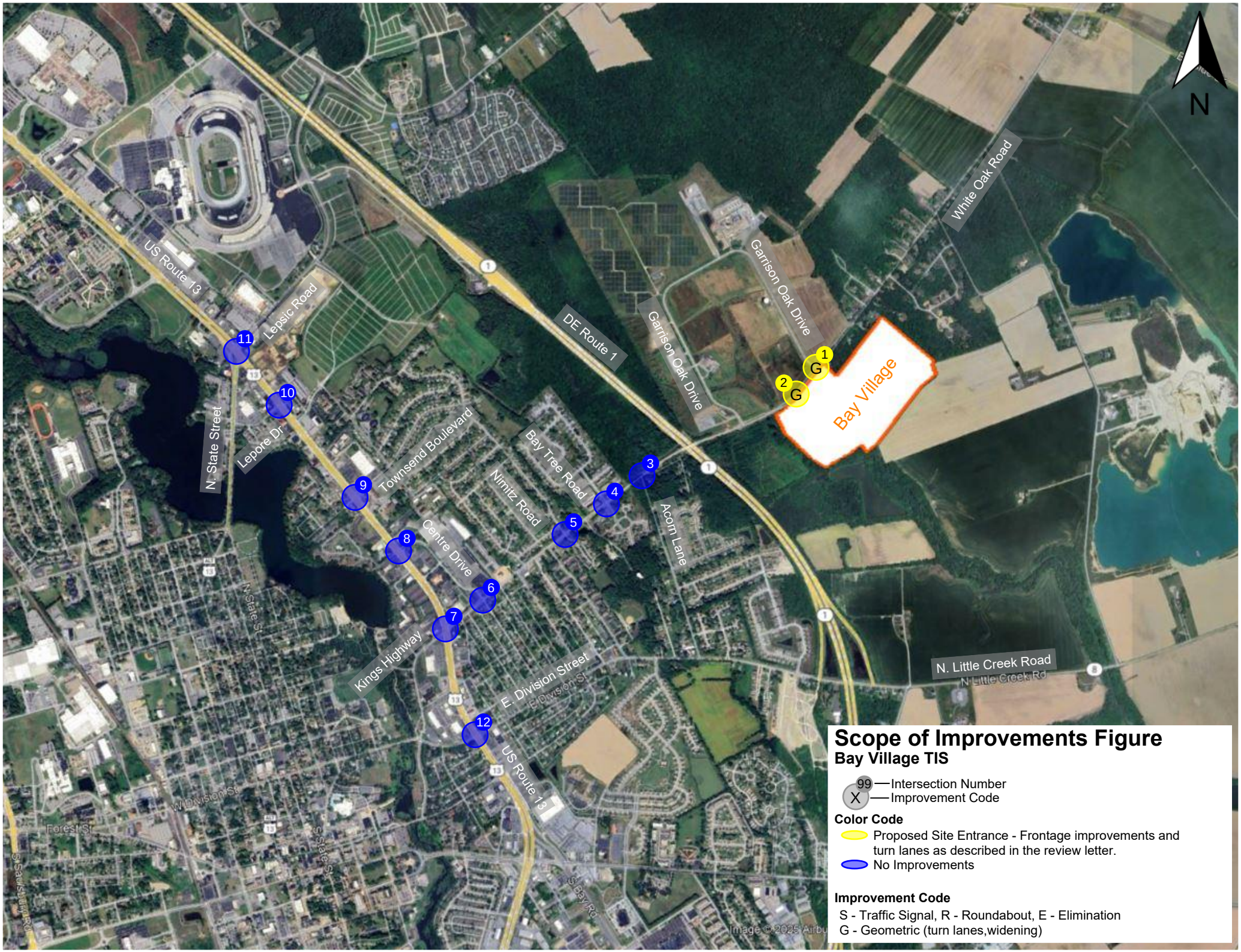
Additional details on our review of this TIS are attached. Please contact me at (302) 738-0203 or through e-mail at TBSmith@mccormicktaylor.com if you have any questions concerning this review.

Sincerely,

**McCormick Taylor, Inc.**

Tucker B. Smith, PE, PTOE
Senior Traffic Engineer

Enclosure




# Scope of Improvements Figure

## Bay Village TIS

99 — Intersection Number
X — Improvement Code

**Color Code**

Proposed Site Entrance - Frontage improvements and turn lanes as described in the review letter.

No Improvements

**Improvement Code**

S - Traffic Signal, R - Roundabout, E - Elimination
G - Geometric (turn lanes,widening)

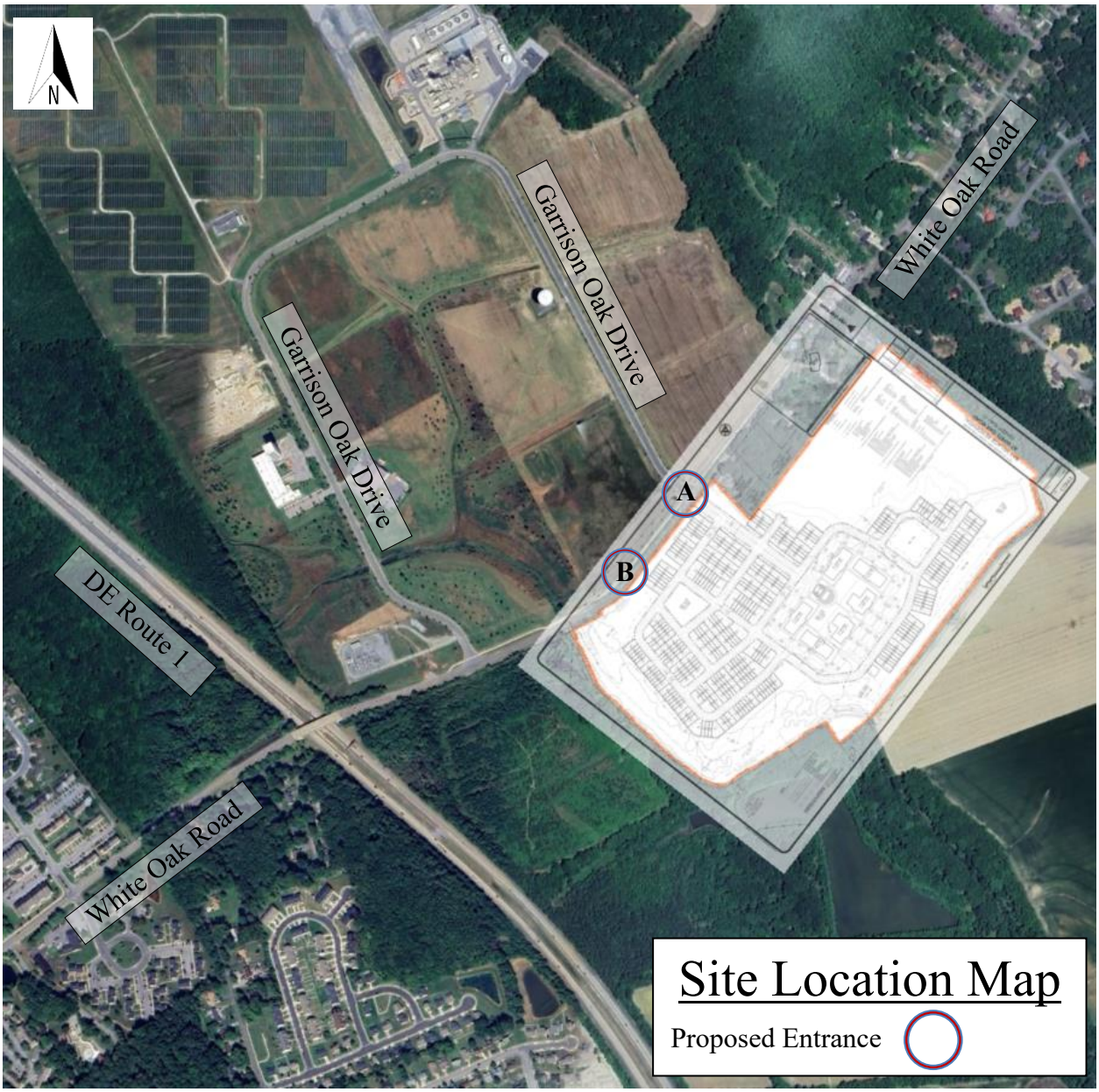
## General Information

**Report date:** October 2025
**Prepared by:** Verdantas
**Prepared for:** Bay Village Holdings, LLC
**Tax parcel:** 4-05-06800-01-0600-00001
**Generally consistent with DelDOT's Development Coordination Manual:** Yes

## Project Description and Background

**Description:** The proposed Bay Village development would consist of 456 units of multifamily low-rise housing.
**Location:** The land is located on the south side of White Oak Road in the City of Dover, Kent County, Delaware. A site location map is included on page 9.
**Amount of land to be developed:** an approximately 76.73-acre parcel.
**Land use approval(s) needed:** The land is currently zoned as RM-2 PND (Medium Density Residential Planned Community) and the developer does not plan to rezone the land.
**Proposed completion year:** 2035
**Proposed access locations:** Two full-access entrances are proposed along White Oak Road, one opposite Garrison Oak Drive (East) and another 600 feet to the west.
**Average Daily Traffic Volumes (per DelDOT Traffic Summary 2024):**

- White Oak Road: 1,271 vehicles/day


N
Garrison Oak Drive
Garrison Oak Drive
White Oak Road
A
B
DE Route 1
White Oak Road
Site Location Map
Proposed Entrance

**2020 Delaware Strategies for State Policies and Spending**

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

*Investment Level 2*
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."

*Investment Level 3*
Investment Level 3 generally falls into two categories. The first category covers lands that are in the long-term growth plans of counties or municipalities, but where development is not necessary to accommodate expected short-term population growth. The second category includes lands that are adjacent to fast-growing Investment Level 1 and 2 areas but are often impacted by environmentally sensitive features, agricultural-preservation issues, or other infrastructure issues. 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 governments with land-use authority.

Generally, Investment Level 3 areas should not be developed until surrounding Investment Level 1 and 2 areas are substantially built out. From a housing perspective, Investment Level 3 areas are characterized by low density and rural homes. New housing developments in the short term would, in most cases, represent leap-frog development, which is undesirable. Higher density housing in Investment Level 3 areas is more appropriate once Level 2 areas are built out and utilities are available.

**Proposed Development's Compatibility with Strategies for State Policies and Spending:**
The proposed Bay Village development is situated within Investment Level 2 and Investment Level 3, with an approximately even split between the two. Bay Village is to be developed with 456 units of multifamily low-rise housing. The proposed development is generally consistent with the character of Investment Levels 2 and 3. As such, the proposed development appears to comply with the guidelines set forth in the 2020 "Strategies for State Policies and Spending".

## Comprehensive Plan

**City of Dover Comprehensive Plan:**
*(Source: City of Dover Comprehensive Plan, January 2020)*

The Land Development Map in the City of Dover Comprehensive Plan indicates that the proposed Bay Village development is on land designated for medium density residential.

**Kent County Comprehensive Plan:**
*(Source: Kent County Comprehensive Plan, October 2018)*

The Kent County Comprehensive Plan Future Land Use Map indicates that the proposed Bay Village site is within an area designated as Medium Density Residential (RM2) and is within the Dover municipal boundary.

**Proposed Development's Compatibility with Comprehensive Plan:**

The proposed Bay Village development project includes 456 units of multi-family low-rise housing on an approximately 76.73-acre assemblage of parcels. If the density and other aspects of the proposed development satisfy Dovers's zoning requirements, it would appear that the proposed Bay Village development fits within the intended land use for this location.

## Relevant and On-Going Projects and Studies

Currently, DelDOT has two relevant and ongoing projects within the area of study.

The *Garrison Oak Connector from SR 1 via White Oak Road Improvements* project aims to provide improvements that would enhance connections and access to the Central Delaware Aviation Complex (CDAC) at the Dover Air Force Base and the Garrison Oak Business and Technology Center (Garrison Oak) to the north from the regional highway network, as well as improve connections between these two facilities. These improved connections could potentially draw in more business to CDAC and Garrison Oak. An additional benefit would be the reduction of traffic, particularly heavy vehicles, on the area's local roadway network. The project is scheduled for design to begin in fiscal year 2026 (FY26). More information about the project can be found at the following link: https://deldot.gov/projects/index.shtml?dc=details&projectNumber=T202509502.

DelDOT has an active intersection improvement project at the intersection of US Route 13 and White Oak Road / Kings Highway. The improvements are expected to include a new signalized pedestrian crossing on the southside of the intersection, upgraded curb ramps, and Accessible

Pedestrian Signals (APS). The improvements are expected to be complete before Bay Village is complete in 2035.

## Trip Generation

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

- 456 multifamily low-rise housing units (ITE Land Use Code 220)

**Table 1: Bay Village Peak Hour Trip Generation**

| Land Use | Weekday ADT | | | Weekday AM Peak Hour | | | Weekday PM Peak Hour | | |
|---|---|---|---|---|---|---|---|---|---|
| | In | Out | Total | In | Out | Total | In | Out | Total |
| Multifamily (Low-Rise) Housing (456 units) | 1,499 | 1,499 | 2,998 | 39 | 125 | 164 | 136 | 81 | 217 |
| **TOTAL TRIPS** | **1,499** | **1,499** | **2,998** | **39** | **125** | **164** | **136** | **81** | **217** |

## Overview of TIS

**Intersections examined:**

1) Site Entrance A / Garrison Oak Drive and White Oak Road (Kent Road 66)
2) Site Entrance B and White Oak Road
3) White Oak Road and Acorn Lane (Kent Road 342)
4) White Oak Road and Bay Tree Road / Stevenson Drive
5) White Oak Road and Nimitz Road / Rockford Crossing
6) White Oak Road and Centre Drive / Upland Ave
7) US Route 13 and White Oak Road / Kings Highway (Kent Road 66)
8) US Route 13 and Centre Drive
9) US Route 13 and Townsend Boulevard / Lakeview Drive
10) US Route 13 and Lepore Drive (Kent Road 3B)
11) US Route 13 and Leipsic Road / N. State Street (Kent Road 3)
12) US Route 13 and E. Division Street (Kent Road 16)

**Conditions examined:**

1) 2025 Existing (Case 1)
2) 2035 No-Build (Case 2)
3) 2035 Build (Case 3)

**Peak hours evaluated:** Weekday morning and evening peak hours

**Committed developments considered:**

1) **Garrison Oak Technical Park:** multi-use industrial park (26,560 square feet of existing warehouse, 80,000 square foot industrial park, 165,000 square foot high-cube cold storage warehouse, 10,000 square feet of specialty contractor space.)
2) **Rojan Meadows:** 20 single-family detached houses, 139 units of midrise multi-family
3) **Dover Apartments:** 216 units of mid-rise, multi-family apartments
4) **DuPont Plaza:** 51,075 square feet of retail space and an 11,185 square foot high-turnover restaurant.

**Intersection Descriptions**

1) **Site Entrance A / Garrison Oak Drive and White Oak Road**
   **Type of Control:** Existing – one-way stop control (T-intersection). Proposed – two-way stop control.
   **Eastbound Approach:** (White Oak Road) Existing – one shared left-turn/through lane. Proposed – one left-turn lane, one through lane, and one right-turn lane.
   **Westbound Approach:** (White Oak Road) Existing – one shared through/right-turn lane. Proposed – one left-turn lane and one shared through/right-turn lane.
   **Northbound Approach:** (Site Entrance A) one proposed shared left/through/right-turn lane; stop controlled.
   **Southbound Approach:** (Garrison Oak Drive) one existing shared left/through/right-turn lane; stop controlled.

2) **Site Entrance B and White Oak Road**
   **Type of Control:** Proposed – one-way stop control (T-intersection).
   **Eastbound Approach:** (White Oak Road) Existing – one through lane. Proposed – one through lane and one right-turn lane.
   **Westbound Approach:** (White Oak Road) Existing – one through lane. Proposed – one shared left/through lane.
   **Northbound Approach:** (Site Entrance B) Proposed – one shared left/right-turn lane; stop controlled.

3) **White Oak Road and Acorn Lane**
   **Type of Control:** One-way stop control (T-intersection).
   **Eastbound Approach:** (White Oak Road) one shared through/right-turn lane.
   **Westbound Approach:** (White Oak Road) one shared left/through lane.
   **Northbound Approach:** (Acorn Lane) one shared left/right-turn lane; stop controlled.

4) **White Oak Road and Bay Tree Road / Stevenson Drive**
**Type of Control:** Two-way stop control.
**Eastbound Approach:** (White Oak Road) one shared left/through/right-turn lane.
**Westbound Approach:** (White Oak Road) one shared left/through/right-turn lane.
**Northbound Approach:** (Stevenson Drive) one shared left/through/right-turn lane; stop controlled.
**Southbound Approach:** (Bay Tree Road) one shared left/through/right-turn lane; stop controlled.

5) **White Oak Road and Nimitz Road / Rockford Crossing**
**Type of Control:** Two-way stop control.
**Eastbound Approach:** (White Oak Road) one shared left/through/right-turn lane.
**Westbound Approach:** (White Oak Road) one shared left/through/right-turn lane.
**Northbound Approach:** (Rockford Crossing) one shared left/through/right-turn lane; stop controlled.
**Southbound Approach: (**Nimitz Road) one shared left/through/right-turn lane; stop controlled.

6) **White Oak Road and Centre Drive / Upland Ave**
**Type of Control:** Signalized intersection
**Eastbound Approach:** (White Oak Road) one left-turn lane and one shared through/right-turn lane.
**Westbound Approach:** (White Oak Road) one left-turn lane, one through lane, and one right-turn lane.
**Northbound Approach:** (Upland Ave) one shared left/through/right-turn lane.
**Southbound Approach:** (Centre Drive) one shared left-turn/through lane and one right-turn lane.

7) **US Route 13 and Kings Highway / White Oak Road**
**Type of Control:** Signalized intersection.
**Eastbound Approach:** (Kings Highway) one left-turn lane and one shared left/through/right-turn lane.
**Westbound Approach:** (White Oak Road) one left-turn lane, one shared left-turn/through lane, and one right-turn lane.
**Northbound Approach:** (US Route 13) one left-turn lane, two through lanes, and one shared through/right-turn lane.
**Southbound Approach:** (US Route 13) one left-turn lane, two through lanes, and one shared through/right-turn lane.

8) **US Route 13 and Centre Drive**
**Type of Control:** Signalized intersection.
**Eastbound Approach:** (Driveway) one right-turn lane.
**Westbound Approach:** (Centre Drive) one right-turn lane.
**Northbound Approach:** (US Route 13) one left-turn lane, three through lanes, and one right-turn lane.
**Southbound Approach:** (US Route 13) one left-turn lane, two through lanes, and one shared through/right-turn lane.

9) **US Route 13 and Townsend Boulevard / Lakeview Drive**
**Type of Control:** Signalized intersection.
**Eastbound Approach:** (Lakeview Drive) one shared left-turn/through lane and one right-turn lane.
**Westbound Approach:** (Townsend Boulevard) one left-turn lane, one shared left-turn/through lane, and one right-turn lane.
**Northbound Approach:** (US Route 13) one left-turn lane, three through lanes, and one right-turn lane.
**Southbound Approach:** (US Route 13) one left-turn lane, two through lanes, and one shared through/right-turn lane.

10) **US Route 13 and Lepore Drive**
**Type of Control:** Signalized intersection.
**Eastbound Approach:** (Lepore Road) one right-turn lane.
**Northbound Approach:** (US Route 13) one left-turn lane, three through lanes, and one right-turn lane.
**Southbound Approach:** (US Route 13) two through lanes, and one shared through/right-turn lane.

11) **US Route 13 and Leipsic Road / N. State Street**
**Type of Control:** Signalized intersection.
**Eastbound Approach:** (N. State Street) two left-turn lanes, one shared left-turn/through lane, and one right-turn lane.
**Westbound Approach:** (Leipsic Road) two left-turn lanes, one through lane, and one right-turn lane.
**Northbound Approach:** (US Route 13) one U-turn lane (south of signal), three through lanes, and one right-turn lane.
**Southbound Approach:** (US Route 13) one left-turn lane, three through lanes, and one right-turn lane.

12) **US Route 13 and E. Division Street**
**Type of Control:** Signalized intersection.
**Eastbound Approach:** (E. Division Street) one left-turn lane, one shared left-turn/through lane, and one right-turn lane.
**Westbound Approach:** (E. Division Street) one left-turn lane, one shared left-turn/through lane, and one right-turn lane.
**Northbound Approach:** (US Route 13) two left-turn lanes, two through lanes, and one shared through/right-turn lane.
**Southbound Approach:** (US Route 13) one left-turn lane, three through lanes, and one right-turn lane.

## Safety Evaluation

**Crash Data:** Delaware Crash Analysis Reporting System (CARS) data was provided in Appendix E of the TIS for the three-year period from October 16, 2022, through October 16, 2025. The crash data indicates that 501 crashes occurred within the study area over that timeframe, with 410 (82%) occurring along US Route 13 from E. Division Street to Leipsic Road and 91 (18%) occurring along White Oak Road from US Route 13 and Garrison Oak Drive. There were five fatal crashes during the study period.

**White Oak Road:** Of the 91 crashes that occurred along the section of White Oak Road, 27 (30%) were front to rear, 24 (26%) were angle, 9 (9%) were sideswipe same direction, and 27 (30%) were not a collision between two vehicles. There were 33 (36%) crashes that involved personal injury and one (1%) crash involved a fatality.

**US Route 13:** Of the 410 crashes that occurred along the section of US Route 13, 197 (48%) were front to rear, 12 (3%) were front to front, 84 (20%) were angle, 65 (16%) were sideswipe same direction, and 31 (8%) were not a collision between two vehicles. There were 100 (24%) crashes that involved personal injury and four (1%) involved a fatality.

**Sight Distance:** The proposed site access on White Oak Road was observed to have an unobstructed view looking from the proposed driveway approach with no apparent visual obstructions in either direction. As always adequacy of available sight distance must be confirmed during the site plan review process for all proposed movements at the site access.

## Transit, Pedestrian, and Bicycle Facilities

**Existing transit service:** Based on the current DART Bus Stop Map, the Delaware Transit Corporation (DTC) currently operates one fixed-route transit bus service in the area of the proposed Bay Village development. Route 108 runs between the Dover Transit Center and the Dover Mall with approximately 15 trips in each direction during the week and 9 trips in each direction on Saturdays. The nearest stops to the proposed Bay Village development are on Nimitz Road, adjacent to the White Oak Road and Nimitz Road/Rockford Crossing intersection approximately 1 mile west from the proposed development.

**Planned transit service:** Based on coordination with DTC representatives, there are no additional transit amenities proposed or required at this time.

**Existing bicycle and pedestrian facilities**: The following study area roadways are identified as "Bicycling Routes" on the *Kent County Bicycle Map* published by DelDOT:

- US Route 13
  - Connector Bicycle Route with Bikeway
  - Over 5,000 vehicles daily and challenging for cyclists
- White Oak Road
  - Connector Bicycle Route with Bikeway west of the proposed site and without Bikeway east of the proposed site.
  - Over 5,000 vehicles daily

US Route 13 has shoulders in both directions throughout the area as well as marked bike lanes adjacent to right-turn lanes. White Oak Road has shoulders on both sides, but lacks bike lanes. Shared use paths are present along the Garrison Oak Technical Park frontage on White Oak Road, opposite the proposed site. The shared use paths do not connect to other pedestrian facilities.

**Planned bicycle and pedestrian facilities:** The developer should construct a shared use path along the site frontage, provide a pedestrian crossing at the site entrance, and provide connections to pedestrian and bicycle facilities within the proposed development.

**Previous Comments**

The initial scoping memorandum between the developer and DelDOT weas dated November 4, 2022.

In a review letter dated February 29, 2022, DelDOT commented on the traffic counts and seasonally adjusted volumes. The developer was asked to provide correspondence, update percentage distributions, and apply growth factors. The developer was asked to complete the changes and proceed to the Preliminary TIS.

In a second review letter dated May 29, 2024, DelDOT requested updates to the Preliminary TIS. The developer was asked to modify the narrative, revise trip generation and update the exhibits. The developer was asked to address the comments and resubmit the Preliminary TIS.

In a third review letter dated August 22, 2025, DelDOT requested updates to trip generation for Garrison Oak Technical Park and DuPont Plaza and to revise the future volume figures. The developer was asked to address the comments and resubmit the Preliminary TIS.

In a fourth review letter dated October 2, 2025, DelDOT requested revisions to committed development volumes and exhibits. The developer was asked to address the comments and proceed to the Final TIS.

It appears that all substantive comments from DelDOT's TIS Scoping Memorandum, Traffic Count Review, Preliminary TIS Review, and other correspondence were addressed in the Final TIS submission.

**General HCS Analysis Comments**

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

1) The TIS and McCormick Taylor used Highway Capacity Software (HCS) to complete the traffic analyses.

2) The TIS and McCormick Taylor generally used heavy vehicle percentages (HV%) from turning movement counts for existing and future conditions (as per DelDOT's Development Coordination Manual section 2.2.8.11.6.H). McCormick Taylor and the TIS assumed 3% HV at proposed site entrances in future conditions.

3) The TIS and McCormick Taylor determined overall intersection peak hour factors (PHF) for each intersection based on the turning movement counts. Future PHFs were determined as per the DelDOT Development Coordination Manual section 2.2.8.11.6.F where applicable.

4) For analyses of all intersections, McCormick Taylor and the TIS assumed 0% grade for all movements.

5) The TIS applied Central Business District (CBD) Area Type to several US Route 13 intersections. This designation is generally appropriate only for true downtown contexts with narrow right-of-way, limited turn-lane availability, frequent parking or loading activity, and elevated pedestrian volumes. The CBD adjustment reduces saturation flow rates in HCS, which contributed to the LOS deficiencies reported in the TIS but not in McCormick Taylor's analysis.

Table 2
Peak Hour Levels of Service (LOS)
*Based on Bay Village Traffic Impact Study – October 2025*
*Prepared by Verdantas*

| **Unsignalized Intersection** [1] **Two-Way Stop Control** | **LOS per TIS** | | **LOS per McCormick Taylor** | |
|---|---|---|---|---|
| **1 - Site Entrance A / Garrison Oak Drive & White Oak Road** | Weekday AM | Weekday PM | Weekday AM | Weekday PM |
| 2025 Existing (Case 1) | | | | |
| Eastbound White Oak Road – Left | A (7.9) | A (7.4) | A (7.9) | A (7.4) |
| Southbound Garrison Oak Drive | A (9.2) | A (9.5) | A (9.2) | A (9.5) |
| | | | | |
| 2035 Future No Build (Case 2) | | | | |
| Eastbound White Oak Road – Left | A (8.2) | A (7.5) | A (8.2) | A (7.5) |
| Southbound Garrison Oak Drive | A (9.6) | A (9.8) | A (9.6) | A (9.8) |
| | | | | |
| 2035 Future Build (Case 3) | | | | |
| Eastbound White Oak Road – Left | A (8.2) | A (7.5) | A (8.2) | A (7.5) |
| Westbound White Oak Road – Left | A (7.4) | A (7.7) | A (7.4) | A (7.7) |
| Northbound Site Entrance A | B (13.2) | B (13.2) | B (13.4) | B (13.7) |
| Southbound Garrison Oak Drive | A (9.7) | A (10.0) | A (9.7) | A (9.9) |

[1] For both unsignalized and signalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, LOS analysis results are given for only the overall intersection delay.

Table 3
Peak Hour Levels of Service (LOS)
*Based on Bay Village Traffic Impact Study – October 2025*
*Prepared by Verdantas*

| **Unsignalized Intersection** [2] **One-Way Stop (T-Intersection)** | **LOS per TIS** | | **LOS per McCormick Taylor** | |
|---|---|---|---|---|
| **2 – Site Entrance B & White Oak Road** | Weekday AM | Weekday PM | Weekday AM | Weekday PM |
| 2035 Future Build (Case 3) | | | | |
| Westbound White Oak Road – Left | A (7.6) | A (7.8) | A (7.6) | A (7.8) |
| Northbound Site Entrance B | B (11.4) | B (12.0) | B (11.4) | B (12.0) |

[2] For both unsignalized and signalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, LOS analysis results are given for only the overall intersection delay.

Table 4
Peak Hour Levels of Service (LOS)
*Based on Bay Village Traffic Impact Study – October 2025*
*Prepared by Verdantas*

| **Unsignalized Intersection** [3] **One-Way Stop (T-Intersection)** | **LOS per TIS** | | **LOS per McCormick Taylor** | |
|---|---|---|---|---|
| **3 – White Oak Road & Acorn Lane** | Weekday AM | Weekday PM | Weekday AM | Weekday PM |
| 2025 Existing (Case 1) | | | | |
| Westbound White Oak Road - Left | A (7.8) | A (7.5) | A (7.8) | A (7.5) |
| Northbound Acorn Lane | A (9.5) | A (10.0) | A (9.6) | B (10.0) |
| | | | | |
| 2035 Future No Build (Case 2) | | | | |
| Westbound White Oak Road - Left | A (8.4) | A (7.7) | A (8.4) | A (7.7) |
| Northbound Acorn Lane | B (11.8) | B (12.8) | B (11.9) | B (12.9) |
| | | | | |
| 2035 Future Build (Case 3) | | | | |
| Westbound White Oak Road - Left | A (8.6) | A (8.1) | A (8.6) | A (8.0) |
| Northbound Acorn Lane | B (13.5) | C (15.6) | B (13.6) | C (15.7) |

[3] For both unsignalized and signalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, LOS analysis results are given for only the overall intersection delay.

Table 5
Peak Hour Levels of Service (LOS)
*Based on Bay Village Traffic Impact Study – October 2025*
*Prepared by Verdantas*

| **Unsignalized Intersection** [4] **Two-Way Stop Control** | **LOS per TIS** | | **LOS per McCormick Taylor** | |
|---|---|---|---|---|
| **4 – White Oak Road & Bay Tree Road / Stevenson Drive** | Weekday AM | Weekday PM | Weekday AM | Weekday PM |
| 2025 Existing (Case 1) | | | | |
| Eastbound White Oak Road – Left | A (7.6) | A (7.7) | A (7.5) | A (7.7) |
| Westbound White Oak Road – Left | A (7.4) | A (7.5) | A (7.4) | A (7.5) |
| Northbound Stevenson Drive | B (11.7) | B (14.8) | B (11.9) | B (14.8) |
| Southbound Bay Tree Road | A (9.8) | A (9.8) | A (9.8) | A (9.8) |
| | | | | |
| 2035 Future No Build (Case 2) | | | | |
| Eastbound White Oak Road – Left | A (7.7) | A (7.5) | A (7.7) | A (8.4) |
| Westbound White Oak Road – Left | A (7.9) | A (7.7) | A (7.9) | A (7.7) |
| Northbound Stevenson Drive | C (15.7) | C (23.4) | C (16.1) | C (23.4) |
| Southbound Bay Tree Road | B (11.1) | B (12.2) | B (11.2) | B (12.2) |
| | | | | |
| 2035 Future Build (Case 3) | | | | |
| Eastbound White Oak Road – Left | A (8.0) | A (8.6) | A (7.9) | A (8.6) |
| Westbound White Oak Road – Left | A (8.0) | A (8.0) | A (8.0) | A (8.0) |
| Northbound Stevenson Drive | C (19.1) | D (33.2) | C (19.6) | D (33.3) |
| Southbound Bay Tree Road | B (12.6) | B (13.6) | B (12.7) | B (13.6) |

[4] For both unsignalized and signalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, LOS analysis results are given for only the overall intersection delay.

Table 6
Peak Hour Levels of Service (LOS)
*Based on Bay Village Traffic Impact Study – October 2025*
*Prepared by Verdantas*

| **Unsignalized Intersection** [5] **Two-Way Stop Control** | **LOS per TIS** | | **LOS per McCormick Taylor** | |
|---|---|---|---|---|
| **5 – White Oak Road & Nimitz Road / Rockford Crossing** | Weekday AM | Weekday PM | Weekday AM | Weekday PM |
| 2025 Existing (Case 1) | | | | |
| Eastbound White Oak Road – Left | A (7.7) | A (7.8) | A (7.9) | A (7.9) |
| Westbound White Oak Road – Left | A (7.5) | A (7.7) | A (7.5) | A (7.7) |
| Northbound Rockford Crossing | B (12.3) | B (14.5) | B (12.6) | B (14.5) |
| Southbound Nimitz Road | A (10.0) | B (11.5) | B (10.1) | B (11.6) |
| | | | | |
| 2035 Future No Build (Case 2) | | | | |
| Eastbound White Oak Road – Left | A (7.9) | A (8.4) | A (8.1) | A (8.5) |
| Westbound White Oak Road – Left | A (8.0) | A (8.0) | A (8.0) | A (8.0) |
| Northbound Rockford Crossing | C (15.8) | C (21.0) | C (16.3) | C (21.0) |
| Southbound Nimitz Road | B (11.7) | C (15.5) | B (11.8) | C (15.6) |
| | | | | |
| 2035 Future Build (Case 3) | | | | |
| Eastbound White Oak Road – Left | A (8.2) | A (8.7) | A (8.4) | A (8.7) |
| Westbound White Oak Road – Left | A (8.1) | A (8.3) | A (8.1) | A (8.3) |
| Northbound Rockford Crossing | C (18.8) | D (27.9) | C (19.5) | D (27.7) |
| Southbound Nimitz Road | B (13.2) | C (18.8) | B (13.3) | C (18.8) |

[5] For both unsignalized and signalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, LOS analysis results are given for only the overall intersection delay.

Table 7
Peak Hour Levels of Service (LOS)
*Based on Bay Village Traffic Impact Study – October 2025*
*Prepared by Verdantas*

| **Signalized Intersection** [6] | **LOS per TIS** | | **LOS per McCormick Taylor** | |
|---|---|---|---|---|
| **6 – White Oak Road & Centre Drive / Upland Ave** | Weekday AM | Weekday PM | Weekday AM | Weekday PM |
| 2025 Existing (Case 1) | | | | |
| Overall | A (4.6) | A (8.3) | A (8.4) | B (19.8) |
| | | | | |
| 2035 Future No Build (Case 2) | | | | |
| Overall | A (5.0) | A (8.5) | A (7.3) | B (16.5) |
| | | | | |
| 2035 Future Build (Case 3) | | | | |
| Overall | A (5.4) | A (8.9) | A (7.7) | B (15.3) |

[6] For both unsignalized and signalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, LOS analysis results are given for only the overall intersection delay.

Table 8
Peak Hour Levels of Service (LOS)
*Based on Bay Village Traffic Impact Study – October 2025*
*Prepared by Verdantas*

| **Signalized Intersection** [7] | **LOS per TIS** | | **LOS per McCormick Taylor** [8] | |
|---|---|---|---|---|
| **7 – US Route 13 & White Oak Road / Kings Highway** | Weekday AM | Weekday PM | Weekday AM | Weekday PM |
| 2025 Existing (Case 1) | | | | |
| Overall | C (24.2) | D (42.7) | C (24.3) | D (37.2) |
| | | | | |
| 2035 Future No Build (Case 2) | | | | |
| Overall | D (40.5) | E (66.3) | C (32.6) | D (51.5) |
| | | | | |
| 2035 Future Build (Case 3) | | | | |
| Overall | D (44.5) | F (95.3) | D (36.2) | D (54.3) |

[7] For both unsignalized and signalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, LOS analysis results are given for only the overall intersection delay.
[8] McCormick Taylor modeled this intersection with a 120 second cycle length, split phasing, pedestrian phases on all approaches, and Flashing Red Arrow (FRA) phasing for the northbound and southbound left-turns and did not find a LOS deficiency. The TIS modeled the intersection with Central Business District (CBD) Area Type, which increases the delay at the intersection by 16.3 seconds in the Case 3 PM peak hour. The CBD area type is typically not used in areas like this.

Table 9
Peak Hour Levels of Service (LOS)
*Based on Bay Village Traffic Impact Study – October 2025*
*Prepared by Verdantas*

| **Signalized Intersection** [9] | **LOS per TIS** | | **LOS per McCormick Taylor** | |
|---|---|---|---|---|
| **8 – US Route 13 & Centre Drive** | Weekday AM | Weekday PM | Weekday AM | Weekday PM |
| 2025 Existing (Case 1) | | | | |
| Overall | A (9.3) | B (14.6) | A (5.3) | B (15.2) |
| | | | | |
| 2035 Future No Build (Case 2) | | | | |
| Overall | A (9.9) | B (16.2) | A (5.4) | B (16.4) |
| | | | | |
| 2035 Future Build (Case 3) | | | | |
| Overall | A (9.1) | B (16.4) | A (5.4) | B (16.5) |

[9] For both unsignalized and signalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, LOS analysis results are given for only the overall intersection delay.

Table 10
Peak Hour Levels of Service (LOS)
*Based on Bay Village Traffic Impact Study – October 2025*
*Prepared by Verdantas*

| **Signalized Intersection** [10] | **LOS per TIS** | | **LOS per McCormick Taylor** | |
|---|---|---|---|---|
| **9 – US Route 13 & Townsend Boulevard** | Weekday AM | Weekday PM | Weekday AM | Weekday PM |
| 2025 Existing (Case 1) | | | | |
| Overall | B (15.1) | C (21.9) | B (14.2) | B (19.6) |
| | | | | |
| 2035 Future No Build (Case 2) | | | | |
| Overall | B (15.5) | C (24.7) | B (14.3) | C (21.3) |
| | | | | |
| 2035 Future Build (Case 3) | | | | |
| Overall | B (15.5) | C (25.0) | B (14.3) | C (21.5) |

[10] For both unsignalized and signalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, LOS analysis results are given for only the overall intersection delay.

Table 11
Peak Hour Levels of Service (LOS)
*Based on Bay Village Traffic Impact Study – October 2025*
*Prepared by Verdantas*

| **Signalized Intersection** [11] | **LOS per TIS** | | **LOS per McCormick Taylor** [12] | |
|---|---|---|---|---|
| **10 – US Route 13 & Lepore Drive** | Weekday AM | Weekday PM | Weekday AM | Weekday PM |
| 2025 Existing (Case 1) | | | | |
| Overall | A (5.3) | B (10.2) | B (12.4) | B (16.4) |
| | | | | |
| 2035 Future No Build (Case 2) | | | | |
| Overall | A (6.3) | B (12.5) | B (13.0) | B (18.3) |
| | | | | |
| 2035 Future Build (Case 3) | | | | |
| Overall | A (6.2) | B (12.8) | B (13.0) | B (18.6) |

[11] For both unsignalized and signalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, LOS analysis results are given for only the overall intersection delay.
[12] DelDOT completed improvements at this intersection in 2025 that include a signalized pedestrian crossing of US Route 13, north of Lepore Drive. McCormick Taylor modeled this crossing which results in higher delay compared to the TIS.

Table 12
Peak Hour Levels of Service (LOS)
*Based on Bay Village Traffic Impact Study – October 2025*
*Prepared by Verdantas*

| **Signalized Intersection** [13] | **LOS per TIS** | | **LOS per McCormick Taylor** | |
|---|---|---|---|---|
| **11 – US Route 13 & Leipsic Road / N. State Road** | Weekday AM | Weekday PM | Weekday AM | Weekday PM |
| 2025 Existing (Case 1) | | | | |
| Overall | B (18.9) | C (28.6) | B (18.4) | C (26.0) |
| | | | | |
| 2035 Future No Build (Case 2) | | | | |
| Overall | C (23.1) | D (39.8) | C (22.7) | D (39.9) |
| | | | | |
| 2035 Future Build (Case 3) | | | | |
| Overall | C (23.1) | D (40.1) | C (22.8) | D (38.6) |

[13] For both unsignalized and signalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, LOS analysis results are given for only the overall intersection delay.

Table 13
Peak Hour Levels of Service (LOS)
*Based on Bay Village Traffic Impact Study – October 2025*
*Prepared by Verdantas*

| **Signalized Intersection** [14] | **LOS per TIS** | | **LOS per McCormick Taylor** [15] | |
|---|---|---|---|---|
| **12 – US Route 13 & E. Division Street** | Weekday AM | Weekday PM | Weekday AM | Weekday PM |
| 2025 Existing (Case 1) | | | | |
| Overall | D (37.0) | D (46.7) | C (33.8) | D (38.1) |
| | | | | |
| 2035 Future No Build (Case 2) | | | | |
| Overall | D (41.8) | F (87.7) | D (36.8) | D (43.2) |
| | | | | |
| 2035 Future Build (Case 3) | | | | |
| Overall | D (42.1) | F (92.8) | D (36.8) | D (43.4) |

[14] For both unsignalized and signalized analyses, the numbers in parentheses following levels of service are average delay per vehicle, measured in seconds. For signalized analyses, LOS analysis results are given for only the overall intersection delay.
[15] McCormick Taylor modeled this intersection with the signal timings provided by DelDOT and did not find that there is an LOS deficiency. The TIS modeled the intersection with Central Business District (CBD) Area Type, which is generally not used for an intersection like this.