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

January 30, 2025

Mr. Marc Coté, P.E.
Rossi Group
555 E. Loockerman Street, Suite 220
Dover, Delaware 19901

Dear Mr. Coté,

The enclosed Traffic Impact Study (TIS) review letter for the **750 Governor Lea Road** (Tax Parcels: 1200800004 and 1200800006) industrial 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: E Thomas Harvey, Governor Lea Road LLC
Stephen G Davies, Apex Engineering, Inc
David L. Edgell, Office of State Planning Coordination
Antoni Sekowski, New Castle County Department of Land Use
Bradford Shockley, New Castle County Department of Land Use
Owen C. Robatino, New Castle County Department of Land Use
Andrew J. Parker, McCormick Taylor, Inc.
Tucker Smith, McCormick Taylor, Inc.
DelDOT Distribution

DelDOT

DelDOT Distribution

Mark Luszcz, Director and Chief Engineer, Transportation Solutions (DOTS)
Brad Eaby, Deputy Attorney General
Matthew Vincent, Assistant Director, DOTS
Peter Haag, Chief Traffic Engineer, Traffic, DOTS
Wendy Carpenter, Traffic Calming & Subdivision Relations Manager, Traffic, DOTS
Sean Humphrey, Traffic Engineer, Traffic, DOTS
Brian Schilling, Canal District Engineer, Canal District
Nathan Draper, Canal District Public Works Engineer, Canal District
Jared Kauffman, Service Development Planner, Delaware Transit Corporation
Tremica Cherry, Service Development Planner, Delaware Transit Corporation
Pamela Steinebach, Director, Planning
Anthony Aglio, Planning Supervisor, Active Transportation and Community Connections
Steve Bayer, Planning Supervisor, Statewide & Regional Planning
Anson Gock, Planner, Statewide & Regional Planning
Todd Sammons, Assistant Director, Development Coordination, Planning
Wendy Polasko, Subdivision Engineer, Development Coordination, Planning
Randhir Sharma, New Castle Review Coordinator, Development Coordination, Planning
Michael White, New Castle Subdivision Engineer, Development Coordination, Planning
Sireen Muhtaseb, TIS Group Manager, Development Coordination, Planning
Ben Fisher, TIS Group Engineer, Development Coordination
Tijah Jones, TIS Group Engineer, Development Coordination

January 29, 2025

Ms. Sireen Muhtaseb, PE
TIS Group Manager
DelDOT Division of Planning
P.O. Box 778
Dover, DE 19903

RE: Agreement No. 1946F
Traffic Impact Study Services
Task No. 5A Subtask 19A – 750 Governor Lea Road

Dear Ms. Muhtaseb:

McCormick Taylor has completed its review of the Traffic Impact Study (TIS) for the 750 Governor Lea Road development prepared by Rossi, dated November 2024. Rossi prepared the report in a manner generally consistent with DelDOT's Development Coordination Manual.

The TIS evaluates the impacts of the proposed 750 Governor Lea development, located on the southwest corner of the Governor Lea Road (New Castle Road 405) intersection with River Road (Delaware Route 9), in New Castle County, Delaware. The proposed development would consist of 330,000 square feet of warehouse space. Three unsignalized access points are proposed for this development: two full-movement accesses on Governor Lea Road and one right-in/right-out on River Road. Construction is anticipated to be completed in 2025.

The subject land is located on an approximately 18.54-acre assemblage of parcels. The land is currently zoned as HI (Heavy Industrial), and the developer does not plan to rezone the land.

Relevant and On-Going Projects and Studies

Currently, DelDOT has one relevant or ongoing project within the area of study.

The *SR9 Bridge Replacements – Bridges 1-305, 390, 391, and 392* project (State Contract No. T201907101) has identified these four bridges as needing work by the Bridge Management System and they fall within areas that are frequently flooded during higher tidal events. The work involves bridge replacements and raising the roadway to minimize flooding. Of the four bridges, the only one in the study area is Bridge 1-305, located on River Road approximately ½ mile north of Governor Lea Road. This project is currently in the Project Development phase, with construction anticipated to begin in Winter 2025.

Summary of Analysis Results

The proposed 750 Governor Lea Road development would meet the New Castle County Level of Service (LOS) Standards as stated in Section 40.11.210 of the Unified Development Code (UDC), for all intersections.

However, as shown in the table below, based on the criteria listed in Chapter 2 of DelDOT's Development Coordination Manual, one intersection identified by DelDOT as being required for study may exhibit LOS deficiencies without the implementation of physical roadway and/or traffic control improvements. The potential LOS deficiencies at this unsignalized intersection are on the stop-controlled minor street approach. The deficiencies pertain to that approach only, and this intersection is not subject to New Castle County's concurrency requirements.

Intersection	***Existing Traffic Control***	***Situations for which deficiencies occur***
10. River Road and Hamburg Road	Unsignalized	2025 without development AM (Case 2); 2025 with development AM (Case 3)

10. River Road and Hamburg Road (See Recommendation 5 & Table 11, Page 27)
The eastbound approach of Hamburg Road would operate at LOS E during the future weekday AM peak hour without and with development. The future AM peak hour 95th percentile queue lengths would be greater than 150 feet long. While either a signal or a roundabout could address the LOS deficiencies and queuing concerns, there are many challenges to installing a roundabout at this location. The developer of the Blue Diamond Park Phase 2A-3-4 project will be installing a signal and associated geometric improvements at this intersection, and they prepared a Traffic Signal Justification Study (TSJS) showing that a signal is warranted under future with development volumes and would address the deficiencies. As such, the 750 Governor Lea Road developer should make an equitable share contribution to the Traffic Signal Revolving Fund (TSRF).

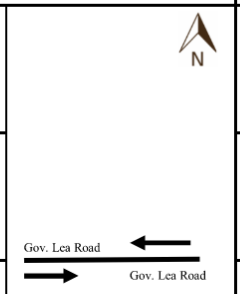
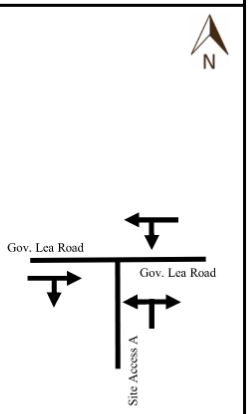
Development Improvements

Should New Castle County approve the proposed development, the following items should be incorporated into the site design and reflected on the record plan 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 Roads on which they front (Governor Lea Road and River 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

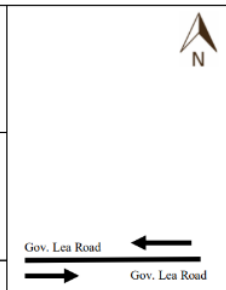
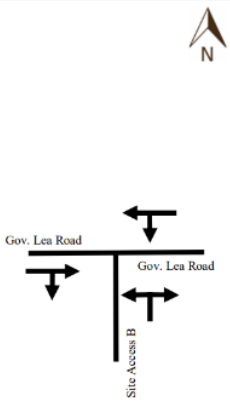
property tract where an entrance is proposed or required. If a single property tract has frontage along multiple roadways, any segment of roadway including an entrance shall be improved to meet DelDOT's Functional Classification criteria as found in Section 1.1 of the Development Coordination Manual 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 Access A on Governor Lea Road. The proposed configuration is shown in the table below.

Approach	Current Configuration		Approach	Proposed Configuration	
Eastbound Governor Lea Road	One through lane.		Eastbound Governor Lea Road	One shared through / right-turn lane.	
Westbound Governor Lea Road	One through lane.		Westbound Governor Lea Road	One shared left-turn / through lane.	
Northbound	Approach does not exist.		Northbound Site Access A	One shared left/ right-turn lane. Stop or yield control.	
Southbound	Approach does not exist.		Southbound	Approach does not exist.	

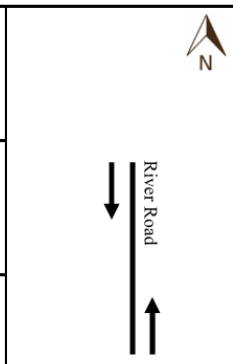
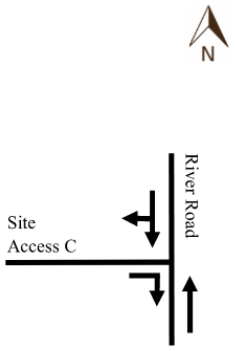
The developer should coordinate with DelDOT's Development Coordination Section to determine design details for Site Access A during the site plan review.

3. The developer should construct the full-movement Site Access B on Governor Lea Road. The proposed configuration is shown in the table below.

Approach	Current Configuration		Approach	Proposed Configuration	
Eastbound Governor Lea Road	One through lane.		Eastbound Governor Lea Road	One shared through / right-turn lane.	
Westbound Governor Lea Road	One through lane.		Westbound Governor Lea Road	One shared left-turn / through lane.	
Northbound	Approach does not exist.		Northbound Site Access B	One shared left/ right-turn lane. Stop or yield control.	
Southbound	Approach does not exist.		Southbound	Approach does not exist.	

The developer should coordinate with DelDOT's Development Coordination Section to determine design details for Site Access A during the site plan review.

4. The developer should construct the rights-in/rights-out Site Access C on River Road. The proposed configuration is shown in the table below.

Approach	Current Configuration		Approach	Proposed Configuration	
Eastbound	Approach does not exist.		Eastbound Site Access C	One right-turn lane. Stop or yield control.	
Westbound	Approach does not exist.		Westbound	No Change.	
Northbound River Road	One through lane.		Northbound River Road	No Change.	
Southbound River Road	One through lane.		Southbound River Road	One shared through / right-turn lane.	

The developer should design and construct Site Access C to include signage prohibiting all left turns at this intersection. The developer should coordinate with DelDOT's Development Coordination Section to determine design details for Site Access C during the site plan review.

5. The developer should contribute to the Traffic Signal Revolving Fund (TSRF) for a future traffic signal at the intersection of River Road and Hamburg Road. The TSRF contribution amount is $7,847.94. The developer should coordinate with DelDOT's Development Coordination Section to determine the terms of the TSRF contribution.

6. The developer should coordinate with DelDOT's Traffic Section regarding the need for and accommodation of overnight parking for trucks, if needed, with business at 750 Governor Lea Road, such that a parking plan agreeable to all parties can be established. To the extent feasible, DelDOT desires that trucks with business at this facility not add to existing off-site overnight truck parking demand in the area.

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

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

   b. Utility covers should be made flush with the pavement.

   c. A minimum 15-foot-wide permanent easement from the edge of the right-of-way should be dedicated to DelDOT within the site frontages along Governor Lea Road and River Road. Within the easement, 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 all boundaries of the property.

   d. Provide a pedestrian crossing of the stop-controlled leg of Governor Lea Road at the intersection with River Road with a marked crosswalk, stop bar, relocated stop sign and paired curb ramps.

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

   f. 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.

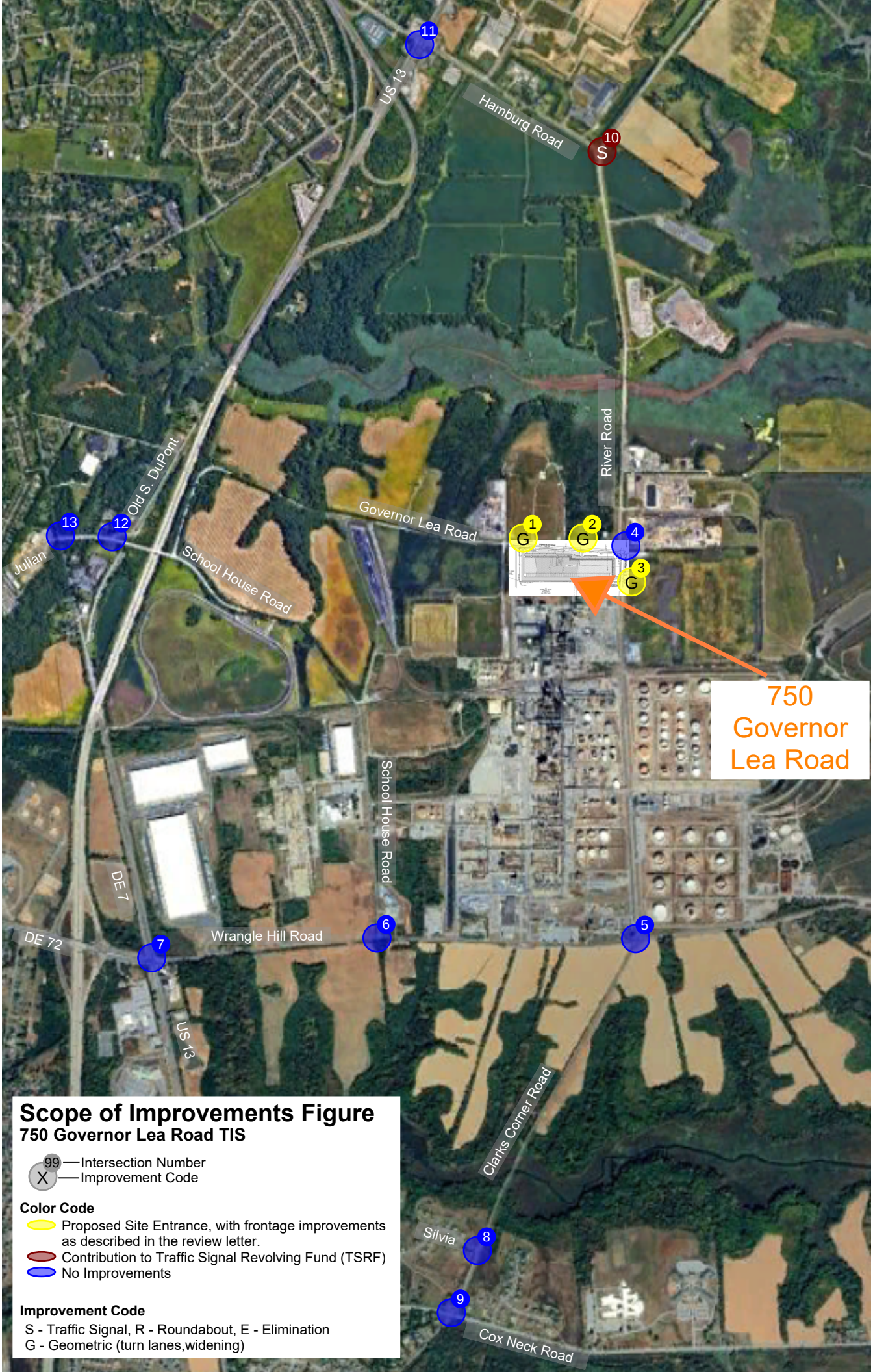
Additional details on our review of this TIS are attached. Please contact me at (610) 640-3500 or through e-mail at ajparker@mccormicktaylor.com if you have any questions concerning this review.

Sincerely,

McCormick Taylor, Inc.

Andrew J. Parker, PE, PTOE
Project Manager

Enclosure



Scope of Improvements Figure

750 Governor Lea Road TIS

99 — Intersection Number
X — Improvement Code

Color Code

- Proposed Site Entrance, with frontage improvements as described in the review letter.
- Contribution to Traffic Signal Revolving Fund (TSRF)
- No Improvements

Improvement Code

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

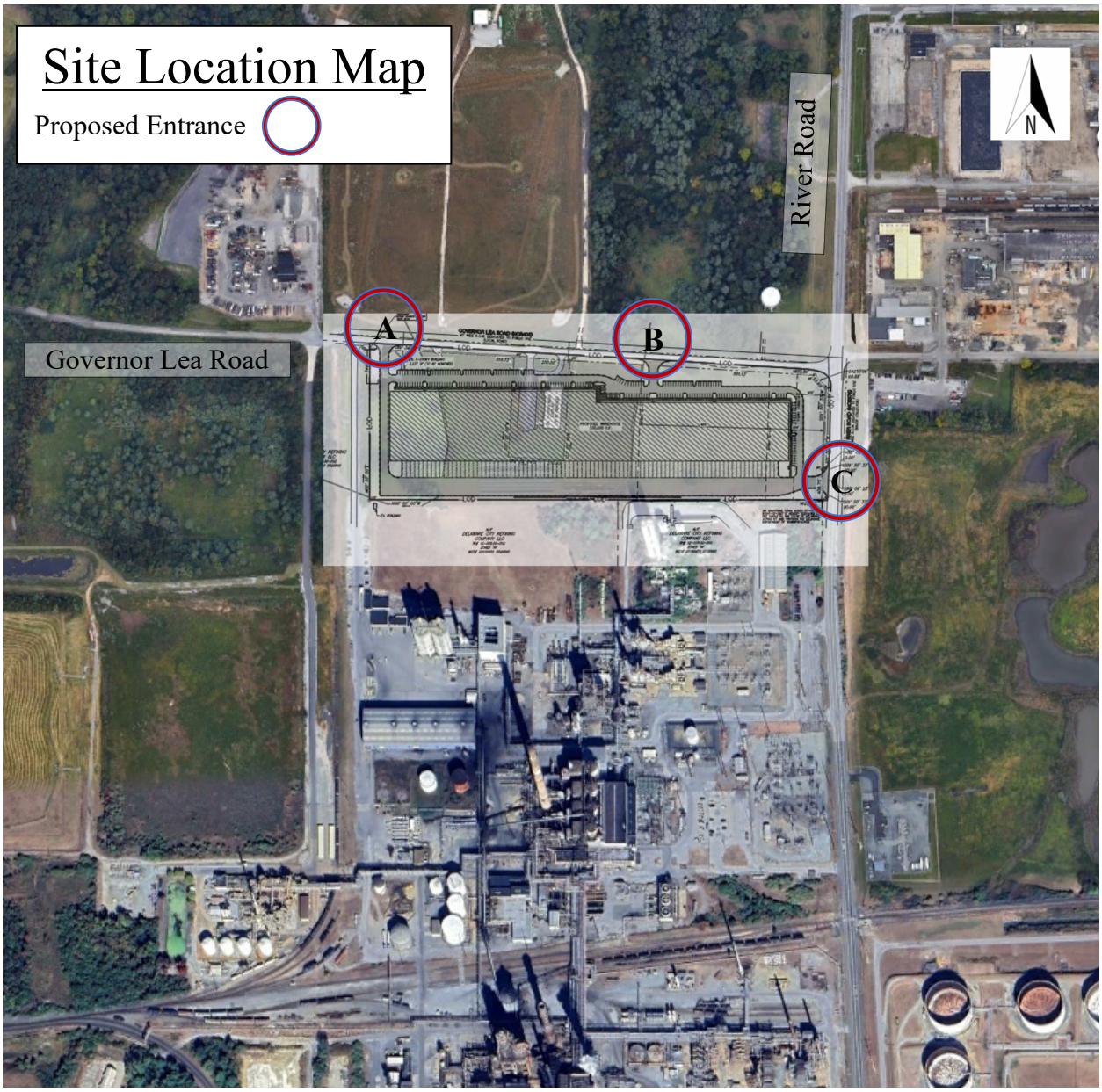
General Information

Report date: November 2024
Prepared by: Rossi
Prepared for: Apex Engineering
Tax parcel: 12-008.00-004 and 12-008.00-006
Generally consistent with DelDOT's Development Coordination Manual: Yes

Project Description and Background

Description: The proposed 750 Governor Lea Road development would consist of 330,000 square feet of warehouse space.
Location: The site is located on the southwest corner of the Governor Lea Road (New Castle Road 405) intersection with River Road (Delaware Route 9) in New Castle County, Delaware. A site location map is included on page 9.
Amount of land to be developed: approximately 18.54 acre assemblage of parcels
Land use approval(s) needed: Subdivision approval. The subject land is currently zoned as HI (Heavy Industrial), and the developer does not plan to rezone the land.
Proposed completion year: 2025
Proposed access locations: The proposed site has three access points: two full accesses on Governor Lea Road and one right-in/right-out on River Road.
Average Daily Traffic Volumes (per DelDOT Traffic Summary 2023):

- Governor Lea Road: 304 vehicles/day
- River Road: 4,539 vehicles/day


Site Location Map
Proposed Entrance
River Road
N
Governor Lea Road
A
B
C

2020 Delaware Strategies for State Policies and Spending

Location with respect to the Strategies for State Policies and Spending Map of Delaware: The proposed 750 Governor Lea Road 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 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 this 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 governments with land-use authority.

Due to the limits of finite financial resources, state infrastructure spending on "hard" or "grey" infrastructure such as roads, sewer, water, and public facilities will generally be directed to Investment Level 1 and 2 Areas during this planning period. The State will consider investing in these types of infrastructure in 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.

Proposed Development's Compatibility with Strategies for State Policies and Spending:
The proposed 750 Governor Lea Road development falls within Investment Level 2 and 3 areas, and is to be developed with 330,000 square feet of warehousing space. Investment Level 2 reflects areas where growth is anticipated by local, county, and state plans in the near-term future. Investment Level 3 reflects areas where growth is anticipated by local, county, and state plans in the longer-term future, or areas that may have environmental or other constraints to development. The proposed development is generally consistent with the character of Investment Levels 2 and 3, given that the nearby Investment Level 1 areas are mostly built out. Additionally, there are similar uses already constructed in nearby Investment Level 2 and 3 areas. It is therefore concluded that the proposed development appears to generally comply with the policies stated in the 2020 "Strategies for State Policies and Spending."

Comprehensive Plan

New Castle County Comprehensive Plan:
(Source: New Castle County Comprehensive Plan 2050, July 2022)

The New Castle County Comprehensive Plan Future Land Use Map indicates that the proposed development is located within the Heavy Industrial Zoned Land area.

The New Castle County Comprehensive Plan indicates that Heavy Industrial development is intended to provide for industrial and heavy industrial uses, typically having access to rail lines or navigable marine waterways in addition to roadways.

Proposed Development's Compatibility with Comprehensive Plan: The proposed 750 Governor Lea Road project includes 330,000 square feet of warehousing space on an approximately 18.5-acre assemblage of parcels. The land is currently zoned as HI (Heavy Industrial), and the developer does not plan to rezone the land. The proposed development generally aligns with both the Future Land Use Map and the proposed zoning.

Relevant Projects in the DelDOT Capital Transportation Program

Currently, DelDOT has one relevant or ongoing project within the area of study.

The *SR9 Bridge Replacements – Bridges 1-305, 390, 391, and 392* project (State Contract No. T201907101) has identified these four bridges as needing work by the Bridge Management System and they fall within areas that are frequently flooded during higher tidal events. The work involves bridge replacements and raising the roadway to minimize flooding. Of the four bridges, the only one in the study area is Bridge 1-305, located on River Road approximately ½ mile north of Governor Lea Road. This project is currently in the Project Development phase, with construction anticipated to begin in Winter 2025.

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:

- 330,000 square feet of warehousing (ITE Land Use Code 150)

Table 1
750 Governor Lea Road Peak Hour Trip Generation

Land Use	Daily	Weekday AM Peak Hour			Weekday PM Peak Hour		
		In	Out	Total	In	Out	Total
330,000 sf warehouse	560	49	14	63	19	47	66
TOTAL TRIPS	**560**	**49**	**14**	**63**	**19**	**47**	**66**

Overview of TIS

Intersections examined:

1) Site Entrance A / Governor Lea Road
2) Site Entrance B / Governor Lea Road
3) Site Entrance C / River Road
4) River Road / Governor Lea Road / Private Development Road
5) River Road / Wrangle Hill Road (Delaware Route 72) / Clarks Corner Road (New Castle Road 378)
6) School House Road / Wrangle Hill Road
7) US Route 13 / Delaware Route 72 / Delaware Route 7
8) Clarks Corner Road / Sylvia Way
9) Clarks Corner Road / Cox Neck Road (New Castle Road 411)
10) River Road / Hamburg Road (New Castle Road 381)
11) US Route 13 / Hamburg Road
12) School House Road / Old S. DuPont Highway (New Castle Road 406A)
13) School House Road / DE Route 7 / Julian Lane

Conditions examined:

1) 2024 Existing (Case 1)
2) 2025 without development (Case 2)
3) 2025 with development (Case 3)

Peak hours evaluated: Weekday morning and weekday evening peak hours

Committed developments considered:

1) Blue Diamond (4 warehouses totaling 2,148,000 SF)
2) Mealey Funeral Home (12,797 SF plus caretaker residence)
3) Governor's Glen (Age restricted, 72 detached houses and 14 attached houses)
4) Red Lion Christian Academy (13,240 SF/12 classroom high school addition)
5) Arlon (130,000 SF light manufacturing addition)
6) 1685 River Road (38,700 SF light industrial buildings)
7) Hamburg Mini-Storage (12,240 SF mini-storage warehouses)
8) Nicholas & Joanne Tsaganos (5,500 SF retail building)
9) Red Lion Plaza (17,570 SF shopping center)
10) Rising Sun Contractors (11,000 SF contractors' warehouse with office)
11) Delaware Mid-County DMV (10,663 SF additions)
12) Vista at Red Lion; Section 1 (244 townhomes)
13) Vista at Red Lion; Section 2 (Age restricted, 282 single family houses)
14) Dragon Run Ridge (4 single family detached dwellings)

Intersection Descriptions

1) **Governor Lea Road & Site Access A**
   Type of Control: proposed one-way stop (T-intersection)
   Eastbound Approach: (Governor Lea Road) one shared through/right-turn lane
   Westbound Approach: (Governor Lea Road) one shared through/left-turn lane
   Northbound Approach: (Site Access A) one shared left/right-turn lane, stop controlled

2) **Governor Lea Road & Site Access B**
   Type of Control: proposed one-way stop (T-intersection)
   Eastbound Approach: (Governor Lea Road) one shared through/right-turn lane
   Westbound Approach: (Governor Lea Road) one shared through/left-turn lane
   Northbound Approach: (Site Access B) one shared left/right-turn lane, stop controlled

3) **River Road & Site Access C**
   Type of Control: proposed one-way stop (T-intersection)
   Eastbound Approach: (Site Access C) one right-turn lane, stop controlled
   Northbound Approach: (River Road) one through lane
   Southbound Approach: (River Road) one shared through/right-turn lane

4) **River Road & Governor Lea Road/Private Development Road**
   Type of Control: two-way stop
   Eastbound Approach: (Governor Lea Road) one shared left/through/right-turn lane, stop controlled
   Westbound Approach: (Private Development Road) one shared left/through/right-turn lane, stop controlled
   Northbound Approach: (River Road) one shared left/through/right-turn lane
   Southbound Approach: (River Road) one shared left/through/right-turn lane

5) **River Road/Clarks Corner Road & Wrangle Hill Road**
Type of Control: signalized
Eastbound Approach: (Wrangle Hill Road) one shared left/through lane, one right-turn lane
Westbound Approach: (Wrangle Hill Road) one shared left/through lane, one right-turn lane
Northbound Approach:(Clarks Corner Road) one shared left/through/right-turn lane
Southbound Approach: (River Road) one shared left/through lane, one right-turn lane

6) **School House Road & Wrangle Hill Road**
Type of Control: one-way stop (T-intersection)
Eastbound Approach: (Wrangle Hill Road) one shared left/through lane
Westbound Approach: (Wrangle Hill Road) one shared through/right-turn lane
Southbound Approach: (School House Road) one shared left/right-turn lane

7) **US Route 13/Delaware Route 7 & Delaware Route 72**
Type of Control: signalized
Eastbound Approach: (DE Route 72) one left-turn lane, two through lanes, and one right-turn lane
Westbound Approach: (DE Route 72) one left-turn lane, two through lanes, and one right-turn lane
Northbound Approach: (US Route 13) two left-turn lanes, two through lanes, and one right-turn lane
Southbound Approach: (DE Route 7) one left-turn lane, one through lane, and one right-turn lane

8) **Clarks Corner Road & Sylvia Way**
Type of Control: one-way stop (T-intersection)
Eastbound Approach: (Sylvia Way) one shared left/right-turn lane, stop-controlled
Northbound Approach: (Clarks Corner Road) one shared left/through/right-turn lane
Southbound Approach: (Clarks Corner Road) one shared left/through lane and one right-turn lane

9) **Clarks Corner Road & Cox Neck Road**
Type of Control: two-way stop
Eastbound Approach: (Cox Neck Road) one shared left/through/right-turn lane
Westbound Approach: (Cox Neck Road) one shared left/through/right-turn lane
Northbound Approach: (Clarks Corner Road) one shared left/through/right-turn lane, stop-controlled
Southbound Approach: (Clarks Corner Road) one shared left/through/right-turn lane, stop-controlled

10) **River Road & Hamburg Road**
Type of Control: one-way stop (T-intersection)
Eastbound Approach: (Hamburg Road) one shared left/right-turn lane (right turn is flared and yield controlled), stop-controlled
Northbound Approach: (River Road) one shared through/left-turn lane and one bypass lane
Southbound Approach: (River Road) one shared through/right-turn lane

11) US Route 13 & Hamburg Road/Bear Road
Type of Control: signalized
Eastbound Approach: (Bear Road) one left-turn lane, one through lane, one right-turn lane
Westbound Approach: (Hamburg Road) one left-turn lane, one through lane, and one right-turn lane
Northbound Approach: (US Route 13) one left-turn lane, two through lanes, one right-turn lane
Southbound Approach: (US Route 13) one left-turn lane, two through lanes, one right-turn lane

12) School House Road & Old South Dupont Highway
Type of Control: one-way stop (T-intersection)
Eastbound Approach: (School House Road) one shared through/left-turn lane
Westbound Approach: (School House Road) one shared through/right-turn lane
Southbound Approach: (Old South Dupont Highway) one shared left/right-turn lane, stop controlled

13) School House Road/Julian Lane & Delaware Route 7
Type of Control: two-way stop
Eastbound Approach: (Julian Lane) one shared left/through/right-turn lane, stop-controlled
Westbound Approach: (School House Road) one shared left/through/right-turn lane, stop-controlled
Northbound Approach: (Delaware Route 7) one shared left/through/right-turn lane
Southbound Approach: (Delaware Route 7) one shared left/through/right-turn lane

Safety Evaluation

Crash Data: Delaware Crash Analysis Reporting System (CARS) data was provided in the TIS for the three-year period from February 13, 2021 through February 13, 2024 for the 10 study intersections analyzed in this TIS. A total of 151 crashes occurred throughout the study area during the three-year period. 76 of the crashes occurred at the intersection of US Route 13 & Hamburg Road. Out of the total crashes, 27 (18%) involved personal injuries, and zero fatalities were reported. Only one of the crashes involved a bicyclist or pedestrian.

Sight Distance: The study area generally consists of relatively flat roadways and there are few visual obstructions. However, sight distance does appear to be limited for drivers on Governor Lea Road at the River Road intersection, and this should be further evaluated to determine if mitigation is needed to improve sight distance at that location. The new site accesses A, B and C will be designed in accordance with DelDOT entrance standards. No problematic sight distance issues have been reported or indicated by crash data. As always the adequacy of available sight distance should be confirmed during the site plan review process for all proposed movements at the site accesses and nearby intersections.

Transit, Pedestrian, and Bicycle Facilities

Existing transit service: Based on the current DART Bus Stop Map, the Delaware Transit Corporation (DTC) currently operates multiple fixed-route transit bus services within the extents of the study area. However none of the bus routes or bus stops are located along either Governor Lea Road or River Road, and the nearest stop is located more than 1.5 miles from the site along Hamburg Road east of US Route 13.

Planned transit service: Delaware Transit Corporation (DTC) was contacted regarding the existing and planned transit service in the area. DTC did not have any transit-related comments for this project.

Existing bicycle and pedestrian facilities: According to DelDOT's New Castle County Bicycle Map, US Route 13 is classified as a High-Traffic Connector Bicycle Route with Bikeway. River Road is classified as a Statewide Bicycle Route with Bikeway. Clarks Corner Road is classified as a Statewide Bicycle Route without Bikeway. Wrangle Hill Road is classified as a Regional Bicycle Route with Bikeway. Near the site, there are shoulders with bicycle markings along River Road. There are no bicycle or pedestrian facilities along Governor Lea Road except for short section of sidewalk along the south side of the road at the west end of the site frontage. Along the other roads mentioned above, there are many locations with shoulders (with or without bicycle markings), sidewalks and shared-use paths.

Planned bicycle and pedestrian facilities: Per John Fiori (DelDOT), a 10' shared-use path is requested along the site frontages of Governor Lea Road and River Road. The developer should provide a pedestrian crossing of the stop-controlled leg of Governor Lea Road at the intersection with River Road with a marked crosswalk, stop bar, relocated stop sign and paired curb ramps. If this site is required to install a minimum 5' wide shoulder on Governor Lea Road, the two proposed entrances on that road shall incorporate bicycle facilities.

Previous Comments

The initial scoping memorandum between the developer and DelDOT was dated October 2, 2023.

In a review letter dated March 19, 2024, DelDOT commented on the traffic counts and seasonally adjusted traffic volumes. The developer was asked to revise some turning movement volumes and was provided with annual growth factors to be applied to the seasonally adjusted volumes. The developer was directed to apply the growth factors and proceed to the Preliminary TIS.

There were four rounds of Preliminary TIS submission and review with comments from DelDOT, and in a review letter dated September 20, 2024, DelDOT acknowledged that the updated Preliminary TIS was acceptable and they directed the developer to proceed with 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) For two-way stop control intersections, the TIS and McCormick Taylor applied heavy vehicle factors (HV) by movement using existing data. For signalized intersections, the TIS and McCormick Taylor applied HV by lane group using existing data. The TIS and McCormick Taylor generally assumed future HV to be the same as existing HV at all intersections other than site access. McCormick Taylor and the TIS assumed 3% HV at proposed site entrances in future conditions.

2) For existing conditions, the TIS and McCormick Taylor determined overall intersection peak hour factors (PHF) for each intersection based on the turning movement counts that were available. The application of future PHFs in the TIS was inconsistent between intersections and volume scenarios. Future PHFs were determined by McCormick Taylor as per the DelDOT Development Coordination Manual section 2.2.8.11.6.F where applicable.

3) For analyses of signalized intersections, McCormick Taylor used a base saturation flow rate of 1,900 pc/hr/ln per DelDOT's Development Coordination Manual.

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

5) The TIS and McCormick Taylor used different signal timings when analyzing the signalized intersections in some cases.

Table 2
Peak Hour Levels of Service (LOS)
Based on 750 Governor Lea Road Traffic Impact Study – November 2024
Prepared by Rossi

Unsignalized Intersection [1] **One-Way Stop (T-intersection)**	**LOS per TIS**		**LOS per McCormick Taylor**	
Site Access A & Governor Lea Road	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2025 Build Condition (Case 3)				
Westbound Governor Lea Road – Left	A (7.3)	A (7.3)	A (7.3)	A (7.3)
Northbound Site Access A	A (8.6)	A (8.6)	A (8.6)	A (8.6)

[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 750 Governor Lea Road Traffic Impact Study – November 2024
Prepared by Rossi

Unsignalized Intersection [2] **One-Way Stop (T-intersection)**	**LOS per TIS**		**LOS per McCormick Taylor**	
Site Access B & Governor Lea Road	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2025 Build Condition (Case 3)				
Westbound Governor Lea Road – Left	A (7.3)	A (7.3)	A (7.3)	A (7.3)
Northbound Site Access B	A (8.6)	A (8.6)	A (8.6)	A (8.7)

[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 750 Governor Lea Road Traffic Impact Study – November 2024
Prepared by Rossi

Unsignalized Intersection [3] **One-Way Stop (T-intersection)**	**LOS per TIS**		**LOS per McCormick Taylor**	
Site Access C & Governor Lea Road	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2025 Build Condition (Case 3)				
Eastbound Site Access C – Right	A (9.1)	B (10.4)	A (9.1)	B (10.5)

[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 750 Governor Lea Road Traffic Impact Study – November 2024
Prepared by Rossi

Unsignalized Intersection [4] **Two-Way Stop**	**LOS per TIS**		**LOS per McCormick Taylor**	
River Road & Governor Lea Road / Private Development Road	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2024 Existing (Case 1)				
Eastbound Governor Lea Road	C (16.5)	B (12.7)	C (16.5)	B (12.6)
Westbound Private Development Road	B (13.1)	B (10.9)	B (13.1)	B (10.9)
Northbound River Road – Left	A (7.8)	A (7.9)	A (7.8)	A (7.9)
Southbound River Road – Left	A (8.5)	A (8.3)	A (8.5)	A (8.3)
2025 No Build Condition (Case 2)				
Eastbound Governor Lea Road	C (17.5)	B (13.0)	C (17.0)	B (12.9)
Westbound Private Development Road	B (14.0)	B (11.6)	B (13.7)	B (11.6)
Northbound River Road – Left	A (7.8)	A (8.0)	A (7.8)	A (7.9)
Southbound River Road – Left	A (8.6)	A (8.3)	A (8.5)	A (8.3)
2025 Build Condition (Case 3)				
Eastbound Governor Lea Road	C (20.0)	B (14.3)	C (19.2)	B (14.3)
Westbound Private Development Road	B (14.8)	B (11.9)	B (14.4)	B (12.0)
Northbound River Road – Left	A (7.9)	A (8.0)	A (7.9)	A (8.0)
Southbound River Road – Left	A (8.6)	A (8.3)	A (8.5)	A (8.4)

[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 750 Governor Lea Road Traffic Impact Study – November 2024
Prepared by Rossi

Signalized Intersection [5]	**LOS per TIS**		**LOS per McCormick Taylor**	
River Road/Clarks Corner Road & Wrangle Hill Road	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2024 Existing (Case 1)				
Overall	C (26.0)	C (25.0)	B (18.9)	B (16.8)
2025 No Build Condition (Case 2)				
Overall	C (26.1)	C (24.9)	B (19.4)	B (17.1)
2025 Build Condition (Case 3)				
Overall	C (26.4)	C (24.5)	B (19.8)	B (17.2)

[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 750 Governor Lea Road Traffic Impact Study – November 2024
Prepared by Rossi

Unsignalized Intersection [6] **One-Way Stop (T-intersection)**	**LOS per TIS**		**LOS per McCormick Taylor**	
School House Road & Wrangle Hill Road	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2024 Existing (Case 1)				
Eastbound Wrangle Hill Road - Left	A (7.6)	A (7.8)	A (7.6)	A (7.8)
Southbound School House Road	A (9.8)	B (11.2)	A (9.8)	B (11.2)
2025 No-Build Condition (Case 2)				
Eastbound Wrangle Hill Road - Left	A (7.7)	A (7.8)	A (7.7)	A (7.8)
Southbound School House Road	B (10.5)	B (11.8)	B (10.5)	B (11.8)
2025 Build Condition (Case 3)				
Eastbound Wrangle Hill Road - Left	A (7.7)	A (7.9)	A (7.7)	A (7.9)
Southbound School House Road	B (10.6)	B (12.1)	B (10.6)	B (12.1)

[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 750 Governor Lea Road Traffic Impact Study – November 2024
Prepared by Rossi

Signalized Intersection [7]	**LOS per TIS**		**LOS per McCormick Taylor**	
US Route 13 / DE 7 & DE 72	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2024 Existing (Case 1)				
Overall	C (28.1)	C (29.8)	C (27.9)	C (31.2)
2025 No-Build Condition (Case 2)				
Overall	C (28.6)	C (30.3)	C (28.6)	C (31.8)
2025 Build Condition (Case 3)				
Overall	C (28.4)	C (30.3)	C (28.5)	C (32.0)

[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.

Table 9
Peak Hour Levels of Service (LOS)
Based on 750 Governor Lea Road Traffic Impact Study – November 2024
Prepared by Rossi

Unsignalized Intersection [8] **One-Way Stop (T-intersection)**	**LOS per TIS**		**LOS per McCormick Taylor**	
Clarks Corner Road & Sylvia Way	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2024 Existing (Case 1)				
Eastbound Sylvia Way	A (9.4)	A (8.9)	A (9.4)	A (9.0)
Northbound Clarks Corner Road – Left	A (7.4)	A (7.4)	A (7.4)	A (7.4)
2025 No-Build Condition (Case 2)				
Eastbound Sylvia Way	A (9.4)	A (8.9)	A (9.4)	A (9.1)
Northbound Clarks Corner Road – Left	A (7.4)	A (7.4)	A (7.4)	A (7.4)
2025 Build Condition (Case 3)				
Eastbound Sylvia Way	A (9.4)	A (8.9)	A (9.4)	A (9.1)
Northbound Clarks Corner Road – Left	A (7.4)	A (7.4)	A (7.4)	A (7.4)

[8] 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 750 Governor Lea Road Traffic Impact Study – November 2024
Prepared by Rossi

Unsignalized Intersection [9] **Two-Way Stop**	**LOS per TIS**		**LOS per McCormick Taylor**	
Clarks Corner Road & Cox Neck Road	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2024 Existing (Case 1)				
Eastbound Cox Neck Road	A (7.7)	A (7.8)	A (7.7)	A (7.8)
Westbound Cox Neck Road	A (8.0)	A (7.5)	A (8.2)	A (7.5)
Northbound Clarks Corner Road – Left	B (13.6)	B (10.2)	B (13.6)	B (10.2)
Southbound Clarks Corner Road – Left	C (21.6)	B (13.5)	C (21.7)	B (13.5)
2025 No Build Condition (Case 2)				
Eastbound Cox Neck Road	A (7.7)	A (7.8)	A (7.7)	A (7.8)
Westbound Cox Neck Road	A (8.0)	A (7.5)	A (8.2)	A (7.5)
Northbound Clarks Corner Road – Left	B (13.8)	B (10.2)	B (13.8)	B (10.2)
Southbound Clarks Corner Road – Left	C (21.9)	B (13.5)	C (22.0)	B (13.5)
2025 Build Condition (Case 3)				
Eastbound Cox Neck Road	A (7.7)	A (7.8)	A (7.7)	A (7.8)
Westbound Cox Neck Road	A (8.0)	A (7.5)	A (8.2)	A (7.5)
Northbound Clarks Corner Road – Left	B (14.1)	B (10.3)	B (14.1)	B (10.3)
Southbound Clarks Corner Road – Left	C (22.4)	B (13.7)	C (22.4)	B (13.7)

[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 11
Peak Hour Levels of Service (LOS)
Based on 750 Governor Lea Road Traffic Impact Study – November 2024
Prepared by Rossi

Unsignalized Intersection [10] **One-Way Stop (T-intersection)**	**LOS per TIS**		**LOS per McCormick Taylor**	
River Road & Hamburg Road	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2024 Existing (Case 1)				
Eastbound Hamburg Road	D (33.5)	C (20.3)	D (32.8)	C (17.6)
Northbound River Road – Left	A (8.6)	A (9.7)	A (8.6)	A (9.7)
2025 No-Build Condition (Case 2)				
Eastbound Hamburg Road	E (44.2)	C (23.2)	E (45.0)	C (20.5)
Northbound River Road – Left	A (8.7)	A (9.9)	A (8.7)	A (9.9)
2025 Build Condition (Case 3)				
Eastbound Hamburg Road	E (44.8)	D (25.8)	E (46.2)	C (23.1)
Northbound River Road – Left	A (8.7)	B (10.0)	A (8.7)	B (10.0)

Signalized Intersection [10]	**LOS per TIS**		**LOS per McCormick Taylor**	
River Road & Hamburg Road	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2025 Build Condition (Case 3) *Installation of traffic signal with added turn lanes*	N/A	N/A	B (18.8)	B (16.4)

[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 12
Peak Hour Levels of Service (LOS)
Based on 750 Governor Lea Road Traffic Impact Study – November 2024
Prepared by Rossi

Signalized Intersection [11]	**LOS per TIS**		**LOS per McCormick Taylor**	
US Route 13 & Hamburg Road/Bear Road [12]	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2024 Existing (Case 1)				
Overall	D (35.5)	D (39.9)	C (31.5)	D (37.0)
2025 No-Build Condition (Case 2)				
Overall	D (40.4)	D (48.0)	D (35.2)	D (43.6)
2025 Build Condition (Case 3)				
Overall	D (42.1)	D (50.1)	D (36.5)	D (44.7)

[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] The TIS analyzed this intersection with the previous geometric that existed before intersection improvements were implemented in 2023/2024, and kept the previous geometry for future conditions analysis also. McCormick Taylor analyzed the intersection in all cases with the recently completed improvements. These included a separate right-turn lane on the westbound approach.

Table 13
Peak Hour Levels of Service (LOS)
Based on 750 Governor Lea Road Traffic Impact Study – November 2024
Prepared by Rossi

Unsignalized Intersection [13] **One-Way Stop (T-intersection)**	**LOS per TIS**		**LOS per McCormick Taylor**	
School House Road & Old South Dupont Highway	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2024 Existing (Case 1)				
Eastbound School House Road – Left	A (7.2)	A (7.5)	A (7.2)	A (7.7)
Old South Dupont Highway	A (8.9)	A (8.6)	A (9.7)	A (8.7)
2025 No-Build Condition (Case 2)				
Eastbound School House Road – Left	A (7.3)	A (7.5)	A (7.3)	A (7.7)
Old South Dupont Highway	A (9.0)	A (8.9)	A (9.8)	A (8.8)
2025 Build Condition (Case 3)				
Eastbound School House Road – Left	A (7.3)	A (7.5)	A (7.3)	A (7.8)
Old South Dupont Highway	A (9.1)	A (8.9)	A (9.8)	A (8.9)

[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 14
Peak Hour Levels of Service (LOS)
Based on 750 Governor Lea Road Traffic Impact Study – November 2024
Prepared by Rossi

Unsignalized Intersection [14] **Two-Way Stop**	**LOS per TIS**		**LOS per McCormick Taylor**	
DE Route 7 & School House Road / Julian Lane	Weekday AM	Weekday PM	Weekday AM	Weekday PM
2024 Existing (Case 1)				
Eastbound Julian Lane	B (15.0)	B (13.5)	C (15.5)	B (13.8)
Westbound School House Road	B (14.1)	B (11.2)	B (14.8)	B (11.2)
Northbound DE 7– Left	A (7.9)	A (7.9)	A (8.4)	A (9.2)
Southbound DE 7– Left	A (8.2)	A (7.9)	A (8.2)	A (8.4)
2025 No Build Condition (Case 2)				
Eastbound Julian Lane	C (16.5)	C (15.0)	C (16.5)	B (14.2)
Westbound School House Road	B (14.7)	B (11.6)	B (14.9)	B (11.2)
Northbound DE 7– Left	A (8.0)	A (8.0)	A (8.4)	A (9.3)
Southbound DE 7– Left	A (8.4)	A (8.0)	A (8.3)	A (8.4)
2025 Build Condition (Case 3)				
Eastbound Julian Lane	C (16.8)	C (15.2)	C (16.7)	B (14.3)
Westbound School House Road	B (14.3)	B (11.5)	B (14.5)	B (11.1)
Northbound DE 7– Left	A (8.0)	A (8.0)	A (8.4)	A (9.3)
Southbound DE 7– Left	A (8.4)	A (8.0)	A (8.4)	A (8.4)

[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.