



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

NICOLE MAJESKI
SECRETARY

July 3, 2023

Ms. Dawn M. Riggi, P.E.
Davis, Bowen & Friedel, Inc.
1 Park Avenue
Milford, Delaware 19963

Dear Ms. Dawn Riggi:

The enclosed Traffic Impact Study (TIS) review letter for the proposed **Riverview - Town of Dagsboro** (Tax Parcel: 233-10.00-22.00) multi-use development has been completed under the responsible charge of a registered professional engineer whose firm is authorized to work in the State of Delaware. They have found the TIS to conform to DelDOT's Development Coordination Manual and other accepted practices and procedures for such studies. DelDOT accepts this letter and concurs with the recommendations. If you have any questions concerning this letter or the enclosed review letter, please contact me at Annamaria.Furmato@delaware.gov.

Sincerely,

Annamaria Furmato
TIS Group Project Engineer

AF:km

Enclosures

cc with enclosures: Mr. Greg Tobias, Schell Brothers
Mr. Zac Crouch, Davis, Bowen & Friedel, Inc.
Mr. David L. Edgell, Office of State Planning Coordination
Mr. Jamie Whitehouse, Sussex County Planning & Zoning
Mr. Andrew J. Parker, McCormick Taylor, Inc.
Mr. Tucker Smith, McCormick Taylor, Inc.
DelDOT Distribution

DelDOT Distribution

Brad Eaby, Deputy Attorney General
Shanté Hastings, Deputy Secretary / Director of Transportation Solutions (DOTS)
Mark Luszcz, Deputy Director, DelDOT Traffic, DOTS
Michael Simmons, Assistant Director, Project Development South, DOTS
Peter Haag, Chief Traffic Engineer, DelDOT Traffic, DOTS
Wendy Carpenter, Traffic Calming & Subdivision Relations Manager, DelDOT Traffic, DOTS
Sean Humphrey, Traffic Engineer, DelDOT Traffic, DOTS
Matt Schlitter, South District Public Works Engineer, Maintenance & Operations
Jared Kauffman, Service Development Planner, Delaware Transit Corporation
Tremica Cherry, Service Development Planner, Delaware Transit Corporation
Pamela Steinebach, Director, Planning
Todd Sammons, Assistant Director, Development Coordination, Planning
Wendy Polasko, Subdivision Engineer, Development Coordination, Planning
Kevin Hickman, Sussex County Review Coordinator, Development Coordination, Planning
Thomas Gagnon, Sussex County Subdivision Reviewer, Development Coordination, Planning
Sireen Muhtaseb, TIS Group Manager, Development Coordination, Planning
Annamaria Fumato, TIS Group Project Engineer, Development Coordination, Planning
Philip Lindsey, TIS Group Project Engineer, Development Coordination, Planning
Anthony Aglio, Planning Supervisor, Statewide & Regional Planning, Planning
Jennifer Cinelli, Transportation Planner, Statewide & Regional Planning



June 26, 2023

Ms. Annamaria Furrato
Project Engineer
DelDOT Division of Planning
P.O. Box 778
Dover, DE 19903

RE: Agreement No. 1946F
Traffic Impact Study Services
Task No. 4A Subtask 15A – Riverview – Town of Dagsboro

Dear Ms. Furrato:

McCormick Taylor has completed its review of the Traffic Impact Study (TIS) for the Riverview – Town of Dagsboro development prepared by Davis, Bowen, and Friedel, Inc. (DBF), dated April 2023. DBF prepared the report in a manner generally consistent with DelDOT's Development Coordination Manual.

The TIS evaluates the impacts of the proposed Riverview development, to be located on the west side of Main Street (Sussex Road 334) and north of Clayton Street (Sussex Road 26), and just east of US Route 113 in Dagsboro, Sussex County, Delaware. The proposed development would consist of 95 single-family detached houses and 160 units of low-rise multi-family housing.

The subject land is located on a portion of an approximately 280.40-acre parcel. The subject land is currently zoned as MR (Medium-Density Residential) within the Town of Dagsboro and the developer does not plan to rezone the land. The developer plans to pursue a residential planned community overlay.

Currently, there are three DelDOT projects within the area of study.

The first initiative is DelDOT's Corridor Capacity Preservation Program (CCPP), a statewide program intended to sustain the through capacity of adopted highway corridors by various means such as limiting access points and using service roads for local vehicle trips. The general purpose of the program is to ensure that existing principal arterial roadways, including this section of US Route 113, are able to efficiently carry regional traffic without impedance from the effects of local development. The proposed Riverview development does not include direct access to any of the CCPP corridors, such as US Route 113. Therefore, the CCPP restrictions do not apply to this development.

Additionally, DelDOT's US 113 North / South Study aims to identify an alignment for a continuous limited access roadway from the Maryland / Delaware state line, north to Delaware Route 1, north of the City of Milford. The Riverview development is within the Millsboro-South Area of the study. Conceptual plans include improvements at the intersection of US Route 113 and



Dagsboro Road / Handy Road. The latest updates indicate that the study is in the design and planning phase. More details are available at the following link:

<https://deldot.gov/projects/Studies/us113/index.shtml>

Finally, the *US 113 3rd Lane Widening* project would involve widening US Route 113 to include a third through lane in each direction from Dagsboro Road / Handy Road, north to a point just south of Hardscrabble Road. The project is currently in the design stage and Preliminary Construction Plans are anticipated in early 2024. Construction finding is scheduled to begin in 2028. More details are available at the following link:

<https://deldot.gov/projects/index.shtml?dc=details&projectNumber=T202312701>.

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

The following intersections exhibits level of service (LOS) deficiencies without the implementation of physical roadway and/or traffic control improvements:

<i>Intersection</i>	<i>Existing Traffic Control</i>	<i>Situations for which deficiencies occur</i>
US Route 113 & Nine Foot Road / Clayton Street (Sussex Road 26)	Signalized	2022 existing Saturday (Case 1) 2028 without development AM/PM/Saturday (Case 2) 2028 with development AM/PM/Saturday (Case 3)
US Route 113 & Dagsboro Road (Sussex Road 334) / Handy Road (Sussex Road 337)	Signalized	2028 without development Saturday (Case 2) 2028 with development Saturday (Case 3)

US Route 113 & Nine Foot Road / Clayton Street (Sussex Road 26)

This signalized intersection experiences LOS deficiencies during the Saturday peak hour for Case 1 and all peak periods for Case 2 and Case 3. In Case 3, during the weekday PM peak hour this intersection is expected to operate at LOS E with 63.9 seconds of delay. However, this is calculated using existing signal timing and the LOS deficiency can be mitigated with signal retiming while maintaining the same cycle length and signal phasing. The developer is not expected to make additional mitigating improvements at this intersection.

US Route 113 & Dagsboro Road (Sussex Road 334) / Handy Road (Sussex Road 337)

This signalized intersection experiences LOS deficiencies during the Saturday peak hour for Case 2 and Case 3. In Case 3, during the Saturday peak hour this intersection is expected to operate at LOS E with 75.9 seconds of delay. However, this is calculated using existing signal timing and the LOS deficiency can be mitigated with signal retiming while maintaining the same cycle length and signal phasing. The developer is not expected to make additional mitigating improvements at this intersection. However, the developer should make an equitable contribution to the *US 113 3rd Lane Widening* project.

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

1. The developer shall improve the State-maintained road(s) on which they front (Clayton Street (Sussex Road 26)), within the limits of their frontage, to meet DelDOT’s standards for their Functional Classification as found in Section 1.1 of the Development Coordination Manual and elsewhere therein. The improvements shall include both directions of travel, regardless of whether the developer’s lands are on one or both sides of the road. Frontage is defined in Section 1 of the Development Coordination Manual, which states “This length includes the length of roadway perpendicular to lines created by the projection of the outside parcel corners to the roadway.” Questions on or appeals of this requirement should be directed to the DelDOT Subdivision Review Coordinator in whose area the development is located.
2. The developer should construct the proposed Site Access on Clayton Street. The proposed configuration is shown in the table below.

Approach	Current Configuration	Approach	Proposed Configuration
Eastbound Clayton Street	One through lane	Eastbound Clayton Street	One left turn lane and one through lane
Westbound Clayton Street	One through lane	Westbound Clayton Street	One through lane and one right turn lane
Northbound	Approach does not exist	Northbound	No Change
Southbound	Approach does not exist	Southbound Site entrance	One shared left/right turn lane. Stop Control.

Separate turn lanes are warranted on both Clayton Street approaches based on DelDOT’s *Auxiliary Lane Worksheet*. Initial recommended minimum turn lane lengths (excluding tapers) include a 75-foot eastbound left turn lane on Clayton Street and a 85-foot westbound right turn lane on Clayton Street. 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 enter into an agreement with DelDOT to fund an equitable portion of the improvement proposed as part of the *US 113 3rd Lane Widening* project. The cost contribution is \$4,026.85. The developer should coordinate with the DelDOT Subdivision Section on the equitable cost payment terms.
4. 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. Utility covers should be made flush with the pavement.
 - d. If clubhouses or other community facilities are constructed within the site, bicycle parking should be provided near building entrances. Where building architecture provides for an awning, other overhang, or indoor parking, the bicycle parking should be covered.
 - e. 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 Clayton Street (Delaware Route 26). Within the easement, a minimum of a 10-foot wide shared-use path that meets current AASHTO and ADA standards 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 Shared-Use Path and/or Sidewalk Termination Reference Guide dated August 1, 2018. 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 both boundaries of the property.
 - f. ADA compliant curb ramps and crosswalks should be provided at all pedestrian crossings, including all site entrances. Type 3 curb ramps are discouraged.
 - g. 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 paths along Clayton Street (Delaware Route 26).



- h. Where internal sidewalks are located alongside parking spaces, a buffer should be added to prevent vehicular overhang onto the sidewalk.

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.

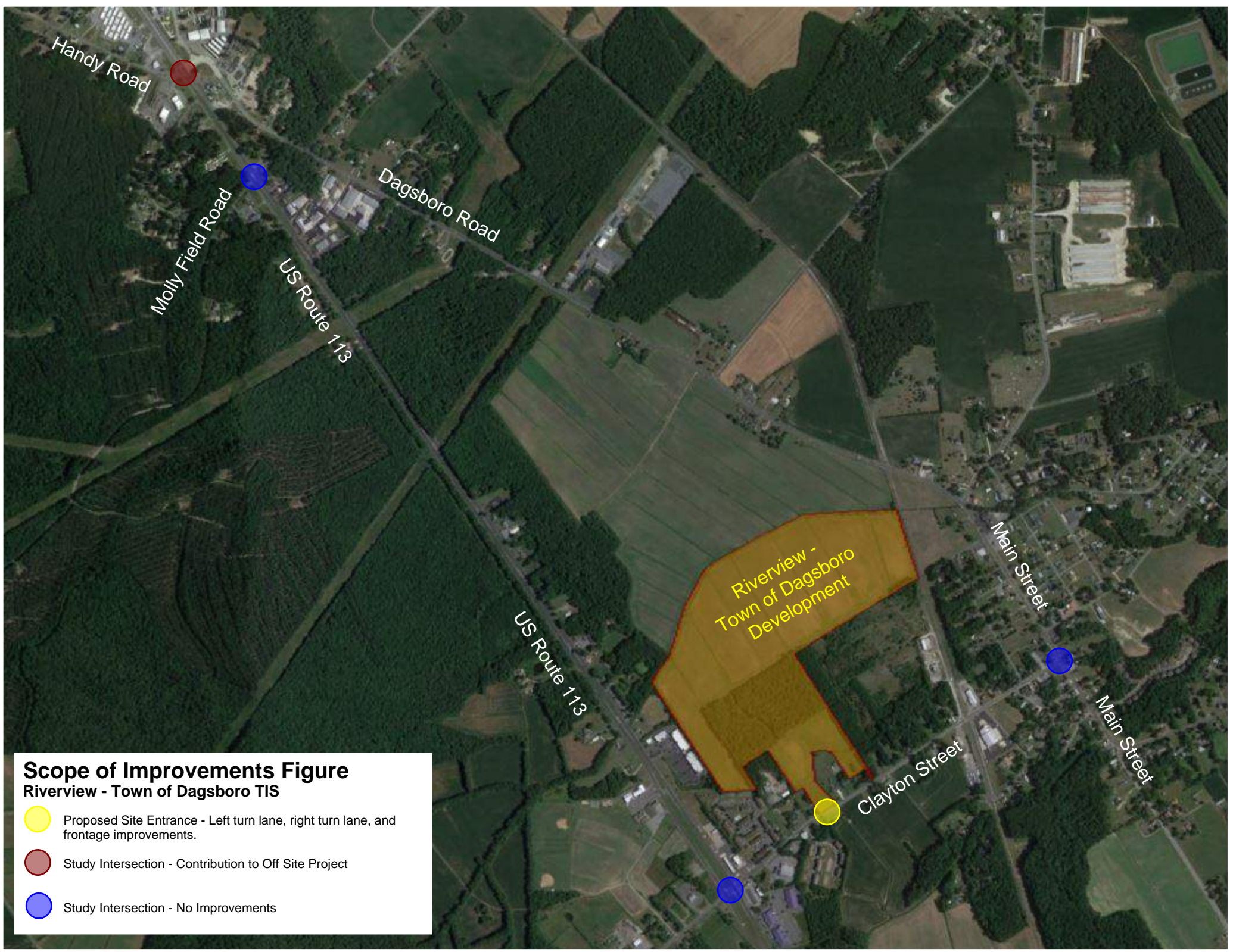
Sincerely,

McCormick Taylor, Inc.




A handwritten signature in black ink, appearing to read "Andrew J. Parker".

Andrew J. Parker, PE, PTOE
Project Manager

Enclosure



Scope of Improvements Figure
Riverview - Town of Dagsboro TIS

-  Proposed Site Entrance - Left turn lane, right turn lane, and frontage improvements.
-  Study Intersection - Contribution to Off Site Project
-  Study Intersection - No Improvements

General Information

Report date: April 2023

Prepared by: Davis, Bowen, and Friedel, Inc.

Prepared for: Schell Brothers, LLC.

Tax parcel: 233-10.00-22.00.

Generally consistent with DelDOT's Development Coordination Manual: Yes

Project Description and Background

Description: The proposed Riverview – Town of Dagsboro development would consist of 95 single-family detached houses and 160 units of low-rise multi-family housing.

Location: The site is located on the west side of Main Street (Sussex Road 334) and north of Clayton Street (Sussex Road 26), and just east of US Route 113 in Dagsboro, Sussex County, Delaware. A site location map is included on page 8.

Amount of land to be developed: a portion of an approximately 280.40-acre parcel.

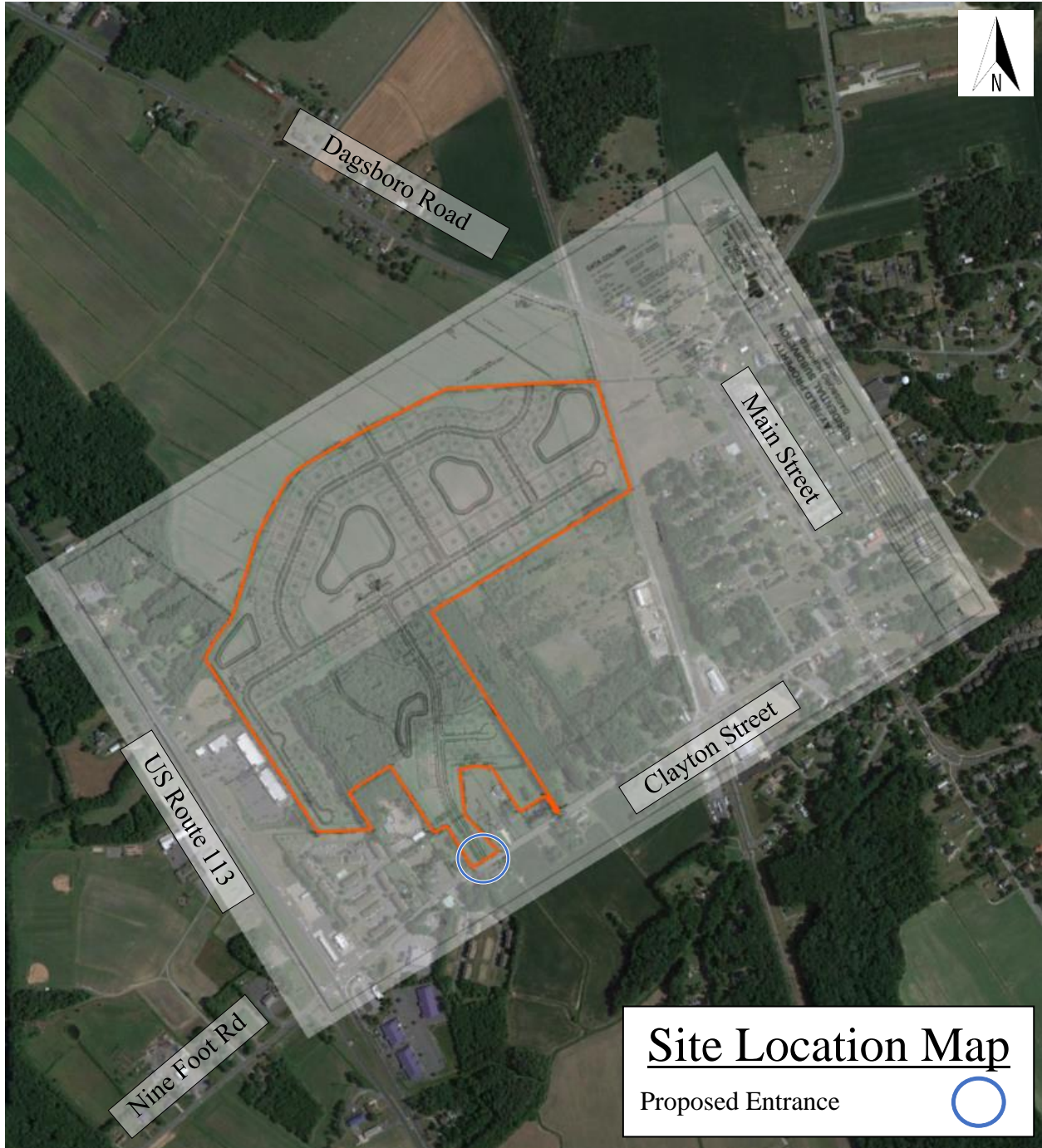
Land use approval(s) needed: The subject land is currently zoned as MR (Medium-Density Residential) within the Town of Dagsboro and the developer does not plan to rezone the land.

Proposed completion year: 2028

Proposed access locations: One full access on Clayton Street (Sussex Road 26).

Average Daily Traffic Volumes (per DelDOT Traffic Summary 2022):

- Clayton Street (Sussex Road 26): 6,133 vehicles/day



2020 Delaware Strategies for State Policies and Spending

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

The Riverview development is located primarily within Investment Level 1, as described below.

Investment Level 1

Investment Level 1 areas are often municipalities, towns, or urban/urbanizing places in counties. Density is generally higher than in the surrounding areas. There are a variety of transportation opportunities available. Buildings may have mixed uses, such as a business on the first floor and apartments above.

In Investment Level 1 areas, state investments and policies should support and encourage a wide range of uses and densities, promote a variety of transportation options, foster efficient use of existing public and private investments, and enhance community identity and integrity. Overall, it is the State's intent to use its spending and management tools to maintain and enhance community character, to promote well-designed and efficient new growth, and to facilitate redevelopment in Investment Level 1 areas. These areas would be a prime location for designating "pre-permitted areas" to help steer development where the local government and citizens are most prepared to accept it.

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

The proposed Riverview development would consist of 95 single-family detached houses and 160 units of low-rise multi-family housing in an Investment Level 1 area. Investment Level 1 supports the development of residential growth with infrastructure, essential neighborhood services, and encourages a broad mix of housing options. As such, the proposed development generally appears to comply with the guidelines for Investment Levels as described in the 2020 "Strategies for State Policies and Spending."

Comprehensive Plan

Sussex County Comprehensive Plan:

(Source: Sussex County Comprehensive Plan, March 2019)

The Sussex County Comprehensive Plan Future Land Use Map indicates that the proposed development is in the Town of Dagsboro, a municipality. Sussex County strongly favors directing development to municipalities that desire it. The specific permitted uses and densities governing new construction within an incorporated municipality will continue to be governed by the zoning ordinance for that municipality, its public water and sewer capacities, and its comprehensive planning policies.

Town of Dagsboro Comprehensive Plan:
(Source: Comprehensive Plan, Update 2015)

The Town of Dagsboro’s comprehensive plan, Future Land Use Map indicates that the land included in the Riverview development is within the Town Limits and classified as “Residential”.

Proposed Development’s Compatibility with Comprehensive Plan:

The proposed Riverview development, that would consist of single-family detached houses and low-rise multi-family housing, appears to comply with the Town of Dagsboro Comprehensive Plan.

Relevant Projects in the DelDOT Capital Transportation Program

Currently, there are three DelDOT projects within the area of study.

The first initiative is DelDOT’s Corridor Capacity Preservation Program (CCPP), a statewide program intended to sustain the through capacity of adopted highway corridors by various means such as limiting access points and using service roads for local vehicle trips. The proposed Riverview development does not include direct access to any of the CCPP corridors, such as US Route 113. Therefore, the CCPP restrictions do not apply to this development.

Additionally, DelDOT’s US 113 North / South Study aims to identify an alignment for a continuous limited access roadway from the Maryland/Delaware state line, north to Delaware Route 1, north of the City of Milford. The Riverview development is within the Millsboro-South Area of the study. Conceptual plans include improvements at the intersection of US Route 113 and Dagsboro Road/Handy Road. The latest updates indicate that the study is in the design and planning phase.

Finally, the *US 113 3rd Lane Widening* project would involve widening US Route 113 to include a third through lane in each direction from Dagsboro Road/Handy Road, north to a point just south of Hardscrabble Road. The project is currently in the design stage and Preliminary Construction Plans are anticipated in early 2024. Construction finding is scheduled to begin in 2028.

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:

- 95 Single-Family Homes (ITE Land Use Code 210)
- 160 Multi-Family Housing (Low-Rise) Units (ITE Land Use Code 220)

Table 1
Riverview Peak Hour Trip Generation

Land Use	Weekday AM Peak Hour			Weekday PM Peak Hour			Saturday Peak Hour		
	In	Out	Total	In	Out	Total	In	Out	Total
Single Family Detached House (95 units)	18	53	71	60	35	95	49	42	91
Multifamily Housing, Low-Rise (160 units)	17	55	72	56	33	89	32	34	66
TOTAL TRIPS	35	108	143	116	68	184	81	76	157

Overview of TIS

Intersections examined:

- 1) Site Entrance & Clayton Street (Sussex Road 26)
- 2) Clayton Street & Main Street (Sussex Road 334)
- 3) US Route 113 & Nine Foot Road / Clayton Street (Sussex Road 26)
- 4) US Route 113 & Cricket Street / Molly Field Road (Sussex Road 407)
- 5) US Route 113 & Dagsboro Road (Sussex Road 334) / Handy Road (Sussex Road 337)

Conditions examined:

- 1) 2022 Existing (Case 1)
- 2) 2028 without development (Case 2)
- 3) 2028 with development (Case 3)

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

Committed developments considered:

- 1) Highlands of Peppers Creek (60 single family detached houses)
- 2) Plantation Lakes (961 single-family detached houses, 1,516 townhouses / condominiums, 478,000 square feet of retail space, 18-hole golf course)
- 3) Alderleaf Meadows (f.k.a. Homestead Phase 2) (163 single family detached houses)
- 4) Westtown Village (f.k.a. Millwood Phase 2) (92 single family detached houses)

Intersection Descriptions

1) Site Entrance & Clayton Street (Sussex Road 26)

Type of Control: proposed minor stop-controlled T-intersection

Eastbound Approach: (Clayton Street) proposed left-turn lane and existing through lane

Westbound Approach: (Clayton Street) existing through lane and proposed right-turn lane

Southbound Approach: (Site Entrance) proposed shared left-turn/right-turn lane, stop controlled

2) Clayton Street & Main Street (Sussex Road 334)

Type of Control: signalized T-intersection

Eastbound Approach: (Clayton Street) one left-turn lane and one right-turn lane

Northbound Approach: (Main Street) one left-turn lane and one through lane

Southbound Approach: (Main Street) one through lane and one right-turn lane

3) US Route 113 & Nine Foot Road / Clayton Street (Sussex Road 26)

Type of Control: signalized intersection

Eastbound Approach: (Nine Foot Road) shared left-turn/through lane and one right-turn lane

Westbound Approach: (Clayton Street) shared left-turn/through lane and one right-turn lane

Northbound Approach: (US Route 113) one left-turn lane, two through lanes, and one right-turn lane

Southbound Approach: (US Route 113) one left-turn lane, two through lanes, and one right-turn lane

4) US Route 113 & Cricket Street / Molly Field Road (Sussex Road 407)

Type of Control: minor street yield control / major street left-turn stop control

Eastbound Approach: (Molly Field Road) one right-turn lane, yield control

Westbound Approach: (Cricket Street) one right-turn lane, yield control

Northbound Approach: (US Route 113) one left-turn lane (stop control), two through lanes, and one right-turn lane

Southbound Approach: (US Route 113) one left-turn lane (stop control), two through lanes, and one right-turn lane

5) US Route 113 & Dagsboro Road (Sussex Road 334) / Handy Road (Sussex Road 337)

Type of Control: signalized intersection

Eastbound Approach: (Handy Road) one left-turn lane, one through lane, and one right-turn lane.

Westbound Approach: (Dagsboro Road) one left-turn lane, one through lane, and one right-turn lane.

Northbound Approach: (US Route 113) one left-turn lane, two through lanes, and one right-turn lane

Southbound Approach: (US Route 113) two left-turn lane, two through lanes, and one 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 January 4, 2020, to January 4, 2023. A total of 129 crashes occurred within the study area during the three-year period. Of those 129 collisions, 23 resulted in personal injury and one pedestrian fatality. The highest frequency of crashes occurred at the signalized intersection of US Route 113 and Dagsboro Road / Handy Road, where there were 58 crashes reported. The most common type of collision was Front to Rear (31), followed by Angle (11). The one fatal crash occurred at the intersection of US Route 113 and Cricket Street / Molly Field Road which involved a pedestrian being struck by a vehicle at 10:01 pm on May 31, 2021. There are no pedestrian facilities or roadway lighting at this intersection.

Sight Distance: The study area generally consists of relatively flat roadways and there are few visual obstructions. Sight distance appears adequate throughout the study area. No problematic sight distance issues have been reported or indicated by crash data. As always, adequacy of available sight distance should be confirmed during the site plan review process for all proposed movements at the site accesses.

Transit, Pedestrian, and Bicycle Facilities

Existing transit service: Based on the DART Bus Stop Map (accessed May 2023), the Delaware Transit Corporation (DTC) does not operate any transit routes through the study area. The nearest bus stop is in Millsboro, Delaware.

Planned transit service: Jared Kaufmann, representing DTC, was contacted regarding existing and planned transit service in the area. He stated that DTC has no transit-specific comments regarding this site.

Existing bicycle and pedestrian facilities: According to DelDOT's Sussex County Bicycle Map, Clayton Street is classified as a Regional Bicycle Route with Bikeway. Main Street is classified as a Statewide Bicycle Route with Bikeway and vehicular traffic over 5,000 vehicles per day. There are currently no existing bicycle lanes along the site frontage; however, there are 5' shoulders along Clayton Street in some areas. On the south side of Clayton Street, opposite the proposed site access, a sidewalk extends from US Route 113 to Main Street. On the north side of Clayton Street, east of US Route 113, there is a multi-use path, bicycle lanes, and pedestrian crosswalks that were installed as part of the Royal Farms development on the same corner.

Planned bicycle and pedestrian facilities: A multi-use path is requested along the property frontage with a bicycle lane to be included between the through lane and right-turn lane into the site on Clayton Street.

Previous Comments

The initial scoping memorandum, dated September 24, 2021, included 352 single family houses and 172 multi-family low-rise houses.

The revised scoping memorandum, dated August 18, 2022, included 74 single family houses and 172 multi-family low-rise houses.

In a review letter dated December 20, 2022, DelDOT requested revisions to volume balancing and volume figures. In the same letter, DelDOT permitted the developer to proceed with the Preliminary TIS.

In a second review letter dated January 30, 2023, DelDOT found the Preliminary TIS to be acceptable and directed the developer to proceed with the Final TIS.

In an email dated March 3, 2023, DBF notified DelDOT that the developer was increasing the total number of housing units by 9 homes (an increase from 74 single family houses and 172 multi-family low-rise houses to 95 single family houses and 160 multi-family low-rise houses). DelDOT responded to DBF via email on March 6, 2023, directing the developer to submit a revised Preliminary TIS for review.

In a third review letter dated March 13, 2023, DelDOT requested revisions to a site trip assignment figure and 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 Reviews, 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 used Highway Capacity Software (HCS) version 7.9.5 to complete the traffic analyses. McCormick Taylor used HCS 2023.
- 2) Per DelDOT's Development Coordination Manual, section 2.2.8.11.6.F, the TIS and McCormick Taylor utilized the existing peak hour factors (PHF) for all scenarios at existing intersections. At the proposed site entrances, the TIS used 0.80 for intersections with less than 500 vph, 0.88 for intersections between 500 and 1,000 vph and 0.92 for intersections with more than 1,000 vph.
- 3) Per DelDOT's Development Coordination Manual, section 2.2.8.11.6.H, McCormick Taylor and the TIS used existing heavy vehicle percentages (HV%) in Case 1. Where volumes were less than 100 vehicles per hour, 5% was used. In Case 2 and Case 3, traffic from committed developments and site traffic was assumed to be 3% HV. This future traffic was then averaged with existing traffic composition to develop future HV%. At the proposed site entrance, 3% was used in Case 3 models.
- 4) For analyses of all intersections, McCormick Taylor assumed 0% grade for all movements. The TIS used grades that are reasonable for the topography of the study area.

Table 2
Peak Hour Levels of Service (LOS)
Based on the Riverview Traffic Impact Study – October 2022
Prepared by Davis, Bowen & Friedel, Inc.

Unsignalized Intersection ¹ One-Way Stop (T-intersection)	LOS per TIS			LOS per McCormick Taylor		
	Weekday AM	Weekday PM	Summer Saturday	Weekday AM	Weekday PM	Summer Saturday
1 - Site Entrance & Clayton Street (Sussex Road 26)						
2028 Build Condition (Case 3)						
Eastbound Clayton Street - Left	A (7.9)	A (8.3)	A (8.1)	A (7.9)	A (8.3)	A (8.1)
Southbound Site Entrance	B (12.5)	B (14.0)	B (12.7)	B (12.6)	B (14.4)	B (12.9)

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 the Riverview Traffic Impact Study – October 2022
Prepared by Davis, Bowen & Friedel, Inc.

Signalized Intersection ²	LOS per TIS			LOS per McCormick Taylor		
	Weekday AM	Weekday PM	Summer Saturday	Weekday AM	Weekday PM	Summer Saturday
2 - Clayton Street & Main Street (Sussex Road 334)						
2022 Existing Condition (Case 1)	B (14.9)	B (13.7)	B (14.3)	B (15.6)	B (14.4)	B (13.8)
2028 No Build Condition (Case 2)	B (16.4)	B (15.0)	B (15.4)	B (17.2)	B (15.6)	B (14.9)
2028 Build Condition (Case 3)	B (17.4)	B (15.4)	B (15.8)	B (19.0)	B (16.0)	B (16.2)

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 the Riverview Traffic Impact Study – October 2022
Prepared by Davis, Bowen & Friedel, Inc.

Signalized Intersection ³	LOS per TIS			LOS per McCormick Taylor		
	Weekday AM	Weekday PM	Summer Saturday	Weekday AM	Weekday PM	Summer Saturday
3 - US Route 113 & Nine Foot Road / Clayton Street (Sussex Road 26)						
2022 Existing Condition (Case 1)	D (50.7)	D (46.0)	F (103.1)	D (50.4)	D (51.1)	F (130.3)
Case 1 Optimized	D (41.7)	D (39.8)	C (30.7)	--	--	D (42.0)
2028 No Build Condition (Case 2)	E (64.2)	E (55.2)	F (147.8)	E (56.7)	E (59.1)	F (177.5)
Case 2 Optimized	D (44.9)	D (42.8)	C (33.7)	D (49.7)	D (47.3)	D (49.1)
2028 Build Condition (Case 3)	E (68.5)	E (60.0)	F (146.1)	E (61.3)	E (63.9)	F (176.1)
Case 3 Optimized	D (49.6)	D (48.0)	D (40.5)	D (52.5)	D (53.2)	D (54.4)

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 the Riverview Traffic Impact Study – October 2022
Prepared by Davis, Bowen & Friedel, Inc.

Unsignalized Intersection ⁴ Left-Turn Stop Controlled	LOS per TIS			LOS per McCormick Taylor		
	Weekday AM	Weekday PM	Summer Saturday	Weekday AM	Weekday PM	Summer Saturday
4 - US Route 113 & Cricket Street / Molly Field Road (Sussex Road 407)						
2022 Existing Condition (Case 1)						
Northbound US 113 - Left	C (16.6)	B (14.8)	C (21.0)	C (16.6)	B (14.8)	C (20.9)
Southbound US 113 - Left	B (12.7)	B (12.5)	C (21.4)	B (12.7)	B (12.5)	C (21.4)
2028 No Build Condition (Case 2)						
Northbound US 113 - Left	C (18.1)	C (16.6)	C (24.6)	C (18.1)	C (16.6)	C (24.6)
Southbound US 113 - Left	B (13.2)	B (14.4)	D (27.0)	B (13.2)	B (14.4)	D (27.0)
2028 Build Condition (Case 3)						
Northbound US 113 - Left	C (18.4)	C (17.3)	D (25.4)	C (18.3)	C (17.3)	D (25.4)
Southbound US 113 - Left	B (13.6)	B (14.7)	D (27.8)	B (13.6)	B (14.7)	D (27.8)

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 the Riverview Traffic Impact Study – October 2022
Prepared by Davis, Bowen & Friedel, Inc.

Signalized Intersection ⁵	LOS per TIS			LOS per McCormick Taylor		
	Weekday AM	Weekday PM	Summer Saturday	Weekday AM	Weekday PM	Summer Saturday
5 - US Route 113 & Dagsboro Road (Sussex Road 334) / Handy Road (Sussex Road 337)						
2022 Existing Condition (Case 1)	D (41.4)	D (42.7)	D (42.0)	D (42.3)	D (45.4)	D (53.7)
Case 1 Optimized	C (24.8)	C (24.7)	C (24.9)	--	--	--
2028 No Build Condition (Case 2)	D (43.6)	D (45.6)	D (43.9)	D (45.5)	D (52.9)	E (72.9)
Case 2 Optimized	C (26.3)	C (26.2)	C (28.0)	--	--	D (49.7)
2028 Build Condition (Case 3)	D (44.2)	D (46.8)	D (45.2)	D (46.1)	D (53.5)	E (75.9)
Case 3 Optimized	C (26.1)	C (26.4)	C (27.8)	--	--	D (52.0)

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.