

PLANNING & ZONING COMMISSION

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Sussex County

DELAWARE
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302-855-7878 T
302-854-5079 F
JAMIE WHITEHOUSE, AICP, MRTPI
DIRECTOR

PLANNING AND ZONING AND COUNTY COUNCIL INFORMATION SHEET
Planning Commission Public Hearing Date: September 9th, 2021

Application: 2021-05 Unity Branch

Applicant: Schell Brothers, LLC
20184 Phillips Street
Rehoboth Beach, DE 19971

Owner: Hollyville Buyer, LLC
Attention: Timothy Green
20184 Phillips Street
Rehoboth Beach, DE 19971

Site Location: The properties are lying on the southeast side of Hollyville Road (S.C.R. 48), approximately 0.63 mile south of Harbeson Road (Route 5).

Current Zoning: Agricultural Residential (AR-1) Zoning District

Proposed Use: 195 Single-Family Lots as a Cluster Subdivision

Comprehensive Land Use Plan Reference: Low Density

Councilmanic District: Mr. Schaeffer

School District: Cape Henlopen School District

Fire District: Millsboro Fire Company

Sewer: Artesian Water Company

Water: Artesian Wastewater Management, Inc.

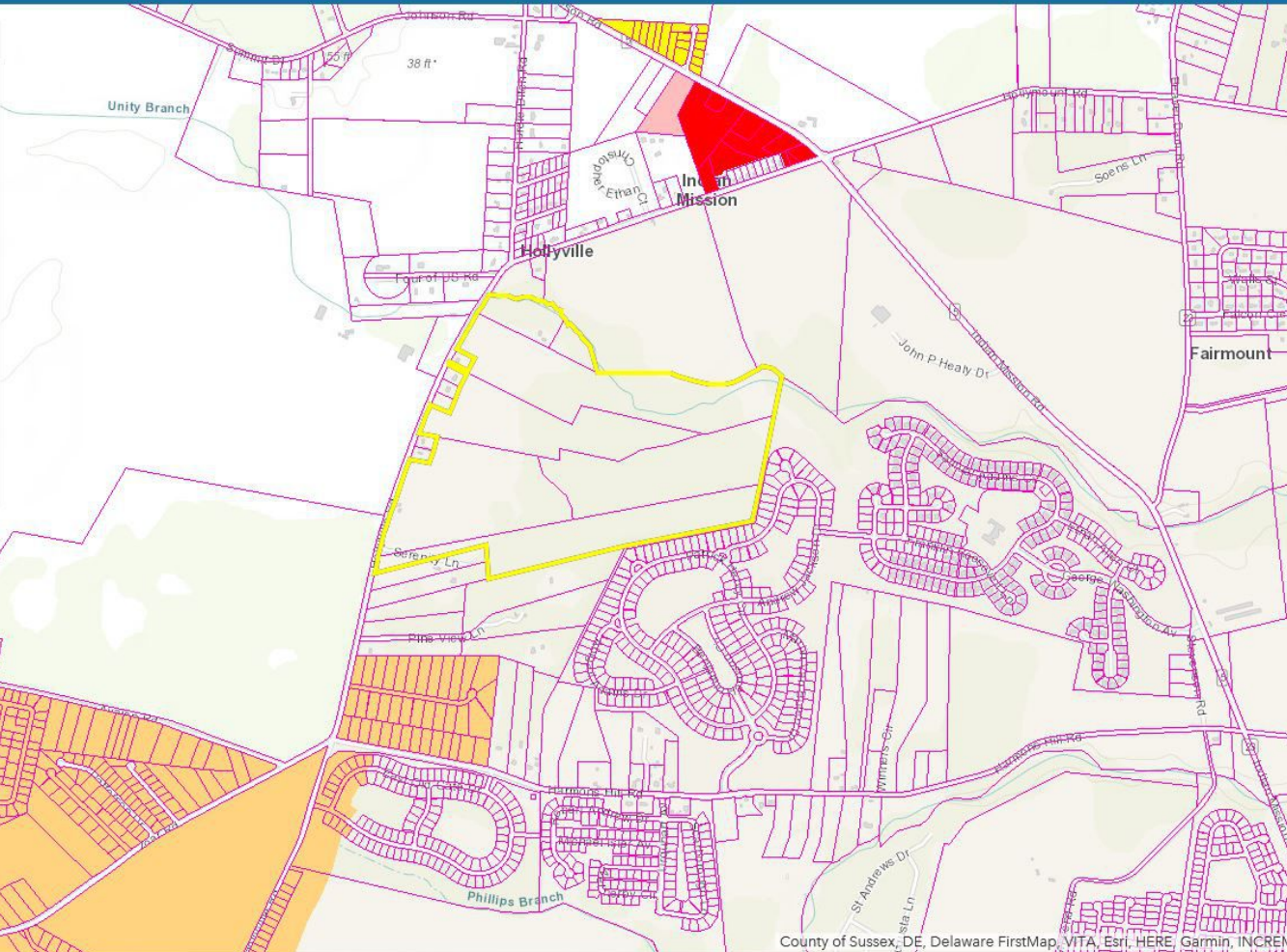
Site Area: 145.424 +/- acres

Tax Map ID: 234-10.00-199.00



Layers

- Addresses/Parcels**
 - 911 Addresses
 - Parcels
 - Subdivisions
- Zoning**
 - Zoning
 - Agricultural Residential - AR-1
 - Agricultural Residential - AR-2
 - Business Research - B-3
 - Commercial Residential - CR-1
 - General Commercial - C-1
 - General Commercial - C-2
 - General Commercial - C-3
 - General Commercial - C-4



Results

Clear Selected

Selected Features: Subdivisions (1)

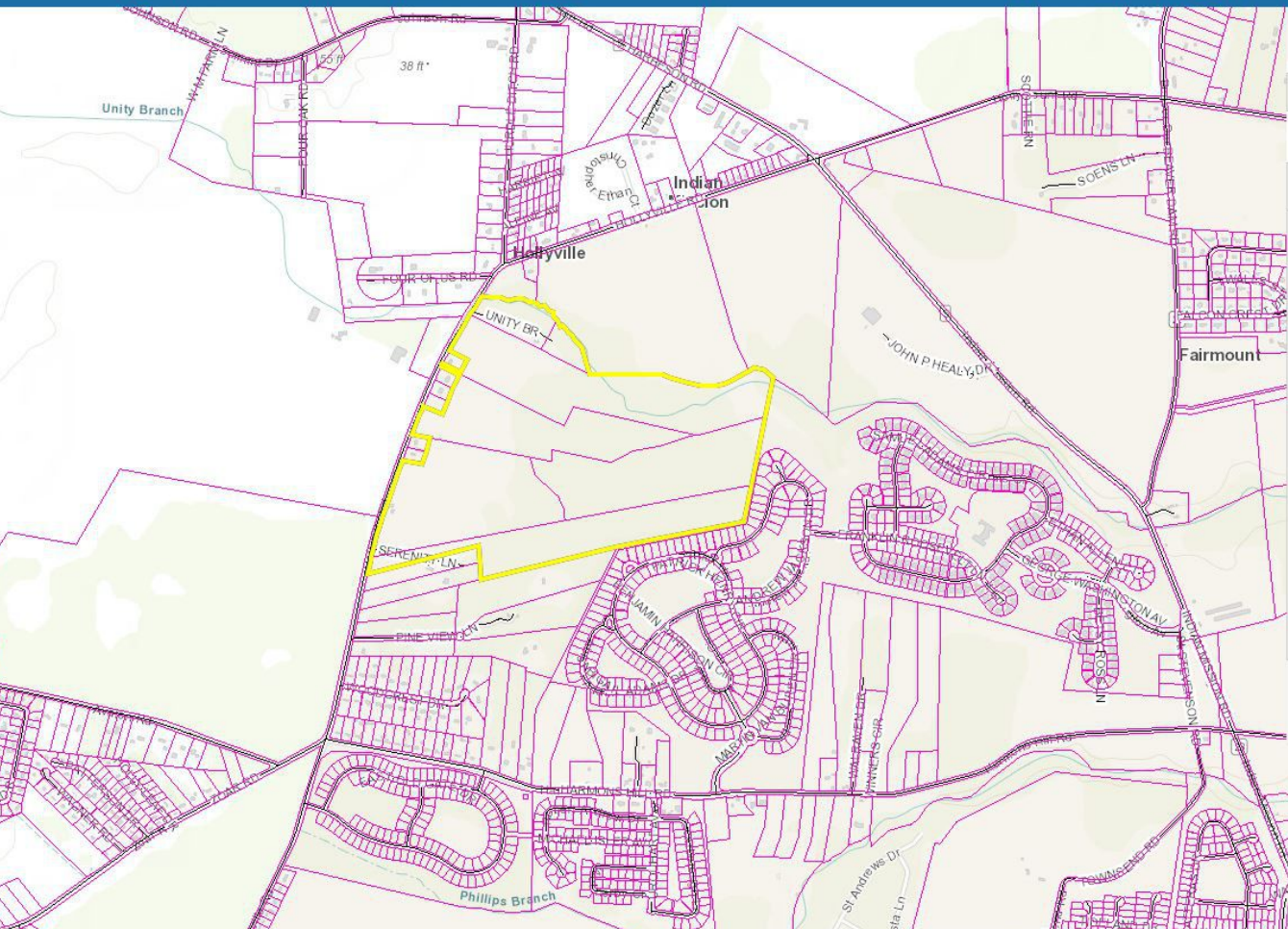
1) UNITY BRANCH [Zoom](#)

OBJECTID	8518
NAME	UNITY BRANCH
Month	DEC
Day	17
Year	2020
Class	SUBDIVISION
Type	Cluster
Road_Type	PRIVATE
length	
File_Numbe	2021-05
Number_of_	195
Category	25-10-10

Selected Features (1)

Layers

- Addresses/Parcels
 - 911 Addresses
 - Parcels
 - Subdivisions
- Zoning
 - Zoning
 - Agricultural Residential - AR-1
 - Agricultural Residential - AR-2
 - Business Research - B-3
 - Commercial Residential - CR-1
 - General Commercial - C-1
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 - General Commercial - C-3
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Results

Clear Selected

Selected Features: Subdivisions (1)

1) UNITY BRANCH [Zoom](#)

OBJECTID	8518
NAME	UNITY BRANCH
Month	DEC
Day	17
Year	2020
Class	SUBDIVISION
Type	Cluster
Road_Type	PRIVATE
length	
File_Numbe	2021-05
Number_of_	195
Scale	25:10,000

Selected Features (1)

Navigation icons: Home, Previous, Stop, Next, Refresh

File #: 2021-05
Pre-App Date: 12/15/20
202016055

Sussex County Major Subdivision Application

Sussex County, Delaware

Sussex County Planning & Zoning Department
2 The Circle (P.O. Box 417) Georgetown, DE 19947
302-855-7878 ph. 302-854-5079 fax

Type of Application: (please check applicable)

Standard:

Cluster:

Coastal Area:

Location of Subdivision:

South of Hollyville Road, West of Indian Mission Road

Proposed Name of Subdivision:

Fairmont

TM 234-16, P 1.01, 1.02, 3, 4, & 5

Tax Map #: 234-10 P 199

Total Acreage: 145.424

Zoning: AR-1

Density: 1.34

Minimum Lot Size: 7,500

Number of Lots: 195

Open Space Acres: 97

Water Provider: Artesian

Sewer Provider: Artesian

Applicant Information

Applicant Name: Schell Brothers, LLC

Applicant Address: 20184 Phillips Street

City: Rehoboth Beach

State: DE

Zip Code: 19971

Phone #: (302) 226-1994

E-mail: tgreen@schellbrothers.com

Owner Information

Owner Name: Hollyville Buyer, LLC

Owner Address: 20184 Phillips Street

City: Rehoboth Beach

State: DE

Zip Code: 19971

Phone #: (302) 226-1994

E-mail: tgreen@schellbrothers.com

Agent/Attorney/Engineer Information

Agent/Attorney/Engineer Name: Tunnell & Raysor PA (Attn: Mackenzie Peet, Esq.)

Agent/Attorney/Engineer Address: 30 East Pine Street

City: Georgetown

State: DE

Zip Code: 19947

Phone #: (302) 396-9645

E-mail: mackenzie@tunnellraysor.com



Check List for Sussex County Major Subdivision Applications

The following shall be submitted with the application

- ✓ **Completed Application**
- ✓ **Provide ten (10) copies of the Site Plan or Survey of the property and a PDF (via e-mail)**
 - Plan shall show the existing conditions, setbacks, roads, floodplain, wetlands, topography, proposed lots, landscape plan, etc. **Per Subdivision Code 99-22, 99-23 & 99-24**
 - Provide compliance with Section 99-9.
 - Deed or Legal description, copy of proposed deed restrictions, soil feasibility study
- ✓ **Provide Fee \$500.00**
- ___ **Optional - Additional information for the Commission to consider** (ex. photos, exhibit books, etc.) If provided submit seven (7) copies and they shall be submitted a minimum of ten (10) days prior to the Planning Commission meeting.
- ✓ **Please be aware that Public Notice will be sent to property owners within 200 feet of the subject site and County staff will come out to the subject site, take photos and place a sign on the site stating the date and time of the Public Hearings for the application.**
- ✓ **PLUS Response Letter** (if required) **Environmental Assessment & Public Facility Evaluation Report** (if within Coastal Area)
- ___ **51% of property owners consent if applicable**

The undersigned hereby certifies that the forms, exhibits, and statements contained in any papers or plans submitted as a part of this application are true and correct.

I also certify that I or an agent on my behalf shall attend all public hearing before the Planning and Zoning Commission and any other hearing necessary for this application and that I will answer any questions to the best of my ability to respond to the present and future needs, the health, safety, morals, convenience, order, prosperity, and general welfare of the inhabitants of Sussex County, Delaware.

Signature of Applicant/Agent/Attorney

Timothy Green Digitally signed by Timothy Green
Date: 2020.12.16 08:20:19 -05'00'

Date: 12/16/20

Signature of Owner

Timothy Green Digitally signed by Timothy Green
Date: 2020.12.16 08:20:34 -05'00'

Date: 12/16/20

For office use only:

Date Submitted: 12/17/20
Staff accepting application: [Signature]
Location of property: _____

Fee: \$500.00 Check #: 097931
Application & Case #: 2021-05

Date of PC Hearing: _____

Recommendation of PC Commission: _____

Lauren DeVore

From: Brockenbrough, Thomas (DeIDOT) <Thomas.Brockenbrough@delaware.gov>
Sent: Tuesday, August 31, 2021 11:03 AM
To: Lauren DeVore; McCabe, R. Stephen (DeIDOT)
Cc: Brestel, Troy (DeIDOT); Joinville, Claudy (DeIDOT); Furfato, Annamaria (DeIDOT)
Subject: RE: DeIDOT Review of 2021-04 Autumdale (F.K.A. Fairmont) & 2021-05 Turnberry (F.K.A. Unity Branch)

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or reply unless you recognize the sender and know the content is safe. Contact the IT Helpdesk if you need assistance.

Good morning Lauren,

In the context of the MOU between DeIDOT and the County, both developments are Minor based on their trip generation.

Presently a Traffic Operational Analysis (TOA) for Turnberry (fka Unity Branch) is under review. The TOA includes Autumdale (fka Fairmont) as a committed development. While we have completed an initial review and are discussing our findings with the developer's engineer, I do not anticipate that we will complete that discussion and issue a review letter by September 9.

I've copied Troy, Claudy and Annamaria primarily to inform them of the name changes.

Bill

T. William Brockenbrough, Jr., P.E., AICP
County Coordinator
Division of Planning
Delaware Department of Transportation
P.O. Box 778
Dover, DE 19903
(302)760-2109
Thomas.Brockenbrough@delaware.gov



From: Lauren DeVore <lauren.devore@sussexcountyyde.gov>
Sent: Tuesday, August 31, 2021 9:44 AM
To: Brockenbrough, Thomas (DeIDOT) <Thomas.Brockenbrough@delaware.gov>; McCabe, R. Stephen (DeIDOT) <Richard.McCabe@delaware.gov>
Subject: DeIDOT Review of 2021-04 Autumdale (F.K.A. Fairmont) & 2021-05 Turnberry (F.K.A. Unity Branch)
Importance: High

Good Morning, Gentlemen,

I hope that you are both well and enjoyed your weekend.

If you could please kindly review the attached Preliminary Subdivision Plans for traffic impacts in accordance with the County's MOU with DelDOT to determine whether the traffic impacts of the below mentioned Subdivisions will be diminutive, negligible, minor or major, this would be appreciated.

Please note that I will need this information prior to the publishing of the Paperless Packet for the upcoming 9/9/21 Planning and Zoning Commission Meeting, so I will need a response **no later than this Thursday morning (9/2/21)**.

Please see the following details below for further information regarding both projects which was extracted from the Legal Ads for both submissions:

2021-04 Autumdale (Fairmont)

A cluster subdivision to divide 73.905 acres +/- into 104 single-family lots to be located on a certain parcel of land lying and being in Indian River Hundred, Sussex County. The property is lying on the south side of Hollyville Road (S.C.R. 48), approximately 0.43 mile southwest of the intersection of Harbeson Road (Rt. 5) and Hollyville Road. Tax Parcel: 234-10.00-14.00. Zoning: AR-1 (Agricultural Residential District).

2021-05 Turnberry (Unity Branch)

A cluster subdivision to divide 145.424 acres +/- into 195 single-family lots to be located on a certain parcel of land lying and being in Indian River Hundred, Sussex County. The properties are lying on the southeast side of Hollyville Road (S.C.R. 48), approximately 0.63 mile south of Harbeson Road (Rt. 5). Tax Parcels: 234-10.00-199.00, 234-16.00-1.01, 1.02, 3.00, 4.00 & 5.00. Zoning: AR-1 (Agricultural Residential District).

As always, please let me know if you should have any further questions and it would be my pleasure to assist you.

Thank you in advance for your professional insight and assistance. You both are always a huge help in this process.

Best Regards,

-Lauren

Lauren DeVore

Planner III
Department of Planning and Zoning
P.O. Box 417
2 The Circle
Georgetown, DE 19947
(302)855-7878
8:30AM - 4:30PM

**SUSSEX COUNTY ENGINEERING DEPARTMENT
UTILITY PLANNING & DESIGN REVIEW DIVISION
C/U & C/Z COMMENTS**

TO: **Jamie Whitehouse**

REVIEWER: **Chris Calio**

DATE: **8/23/2021**

APPLICATION: **2021-05 Unity Branch**

APPLICANT: **Schell Brothers, LLC**

FILE NO: **NCPA-5.03**

TAX MAP &
PARCEL(S): **234-10.00-199.00, 199.01 & 234-16.00-1.01, 1.02, 3.00, 4.00, 5.00**

LOCATION: **Lying on the south side of Hollyville Road (SCR 48),
approximately 0.63 mile south of Harbeson Road (Route5).**

NO. OF UNITS: **195 single-family lots as a cluster subdivision**

GROSS
ACREAGE: **145.424**

SYSTEM DESIGN ASSUMPTION, MAXIMUM NO. OF UNITS/ACRE: **2**

SEWER:

- (1). Is the project in a County operated and maintained sanitary sewer and/or water district?
Yes No
- a. If yes, see question (2).
b. If no, see question (7).
- (2). Which County Tier Area is project in? **Tier 3**
- (3). Is wastewater capacity available for the project? **N/A** If not, what capacity is available? **N/A**.
- (4). Is a Construction Agreement required? **No** If yes, contact Utility Engineering at (302) 855-7717.
- (5). Are there any System Connection Charge (SCC) credits for the project? **No** If yes, how many? **N/A**. Is it likely that additional SCCs will be required? **N/A** If yes, the current System Connection Charge Rate is **Unified \$6,600.00** per EDU. Please contact **N/A** at **302-855-7719** for additional information on charges.

- (6). Is the project capable of being annexed into a Sussex County sanitary sewer district? **N/A**
- Attached is a copy of the Policy for Extending District Boundaries in a Sussex County Water and/or Sanitary Sewer District.
- (7). Is project adjacent to the Unified Sewer District? **No**
- (8). Comments: **The proposed subdivision is not in an area where the Sussex County Engineering Department has a schedule to provide sanitary sewer service.**
- (9). Is a Sewer System Concept Evaluation required? **Not at this time**
- (10). Is a Use of Existing Infrastructure Agreement Required? **Not at this time**
- (11). **All residential roads must meet or exceed Sussex County minimum design standards.**

UTILITY PLANNING & DESIGN REVIEW APPROVAL:



John J. Ashman
Sr. Manager of Utility Planning & Design Review

Xc: Hans M. Medlarz, P.E.
Lisa Walls
No Permit Tech Assigned



DELAWARE DEPARTMENT OF
AGRICULTURE

2320 SOUTH DUPONT HIGHWAY
DOVER, DELAWARE 19901
AGRICULTURE.DELAWARE.GOV

TELEPHONE: (302) 698-4500
TOLL FREE: (800) 282-8685
FAX: (302) 697-6287

April 14, 2021

Nick Torrance, Planner I
Planning & Zoning Commission
P.O. Box 417
Georgetown, Delaware 19947

Subject: **Preliminary Plans for Unity Branch**

Dear Mr. Torrance,

Thank you for providing preliminary plans for Unity Branch submitted by Solutions Integrated Planning Engineering & Management, LLC. The plans submitted to our section dated October 16th, 2020 are sufficient to meet the Sussex County Planning and Zoning Forested Buffer Ordinance.

The Delaware Forest Service recommends the plans reflect tree planting specifications and that the ISA ANSI A300 best management practices are followed for newly installed trees. DFS recommends planting a 70/30 mix of hardwood and evergreen tree species. There are several tree species that are not recommended for planting in the state due to their invasive nature or the susceptibility to pests and diseases. These species are listed on our department website.

The Delaware Forest Service has no further comment to Unity Branch preliminary subdivision plans dated October 16th, 2020 at this time.

If you have any questions please feel free to contact me at taryn.davidson@delaware.gov.

Sincerely,

Taryn Davidson
Urban Forestry Program
Delaware Forest Service



United States Department of Agriculture

Natural Resources
Conservation Service

April 2, 2021

Georgetown
Service Center

Jamie Whitehouse, Director
Sussex County Planning & Zoning
Sussex County Courthouse
Georgetown, DE 19947

21315 Berlin Road
Unit 3
Georgetown, DE
19947

**RE: Unity Branch
Indian River Hundred
195 single family lots**

Voice 302.856.3990
Fax 855.306.8272

Dear Mr. Whitehouse:

Soils within the delineated area on the enclosed map are:

- FhA Fort Mott-Henlopen complex, 0 to 2 percent slopes
- HpB Henlopen loamy sand, 2 to 5 percent slopes
- HuA Hurlock loamy sand, 0 to 2 percent slopes
- IeA Ingleside loamy sand, 0 to 2 percent slopes
- KsA Klej loamy sand, 0 to 2 percent slopes
- LO Longmarsh and Indiantown soils, frequently flooded
- PsA Pepperbox-Rosedale complex, 0 to 2 percent slopes
- RoA Rosedale loamy sand, 0 to 2 percent slopes
- RoB Rosedale loamy sand, 2 to 5 percent slopes
- RuA Runclint loamy sand, 0 to 2 percent slopes

Soil Interpretation Guide

Soil Limitation Class

Buildings

Map Symbol	Urbanizing Subclass	With Basement	Without Basement	Septic Filter Fields
FhA	G1	Not limited	Not limited	Somewhat limited/not limited
HpB	G2	Not limited	Not limited	Not limited
HuA	R2	Very limited	Very limited	Very limited
IeA	Y2	Somewhat limited	Not limited	Very limited
KsA	R2	Very limited	Very limited	Very limited
LO	R3	Very limited	Very limited	Very limited
PsA	Y2	Very limited/Somewhat limited	Somewhat limited/Not limited	Very limited

RoA	Y2	Somewhat limited	Not limited	Very limited
RoB	Y2	Somewhat limited	Not limited	Very limited
RuA	Y2	Somewhat limited	Not limited	Very limited

Definition of soil limitation ratings classes:

Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building site development.

"Not limited" indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected.

"Somewhat limited" indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected.

"Very limited" indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

G1:

These soils are on nearly level to strongly sloping (0-10% slopes), well drained, mostly permeable soils. As sites for large commercial, industrial, institutional, and residential developments, these soils have fewer limitations than any other soils in the state. Slopes are favorable, and grading can be done without difficulty. Foundation conditions are generally good. Grasses, trees, and do well. Principal soil limitations: No apparent soil limitations for conventional uses.

G2:

The soils in this classification are nearly level or gently sloping, excessively drained or somewhat excessively drained, very sandy, rapidly permeable soils. These soils are sandy and droughty. They are well suited for large commercial and industrial developments, and somewhat less suited for residential uses because of low available moisture for grasses. Care should be taken in location of septic filter fields, wells, and the size of the building lots. Because of the excessive permeability of these particular soils, there is a probability of polluting nearby wells, springs, ponds, streams, or other sources of water.

R2:

The soils in this classification are nearly or gently sloping, very poorly, poorly, and somewhat poorly drained. Seasonal high water tables, local ponding, and high potential frost action severely limit these soils for residential developments. The principal soil limitations are: 1) soil is highly susceptible to frost action, 2) excavations are likely to fill with water in late winter or early spring, 3) wet foundations or basements probable, and 4) hazard of temporary ponding of water in areas lacking outlets. Loose running sand commonly encountered in deep excavations.

R3:

These soils are alluvial soils that have a history of flooding. The hazard of potential flood damage and seasonal or fluctuating high water tables severely limits these soils for building use. The soil limitations are 1) soil is highly susceptible to frost action, 2) excavations are likely to fill with water in late winter or

early spring, 3) delayed construction in spring - slow to dry out, 4) wet foundations or basements probable, and 5) potential flood damage.

Y2:

The soils in this classification are nearly level or gently sloping, moderately well drained or well drained with ground water between four to six feet from the surface, and are subject to seasonal high water tables. Seasonal wetness and seepage around foundations moderately limits these soils for residential use. The principal soil limitations are: 1) lateral seepage in subsoil causes concentration of water around foundations, 2) soil is highly susceptible to frost action, 3) excavations are likely to fill with water in late winter or early spring, and 4) wet basements or foundations are probable.

The soil interpretations above do not eliminate the need for detailed investigations at each proposed construction site. However, the interpretations can serve as a guide to planning more detailed investigations. No consideration was given in these interpretations regarding the size and shape of the soil area; nor to the pattern they form with other soils in the landscape. Also, because of the scale of the maps used, small areas of other kinds of soils may be included within some delineations of the soil map. Thus, an individual lot or building site could occupy a small area that would not fit the interpretations given for the soils symbol representing the entire delineation of the map. Interpretations apply to the soils in their natural state and not for areas that may have been altered through grading, compacting, and the like.

Sincerely,

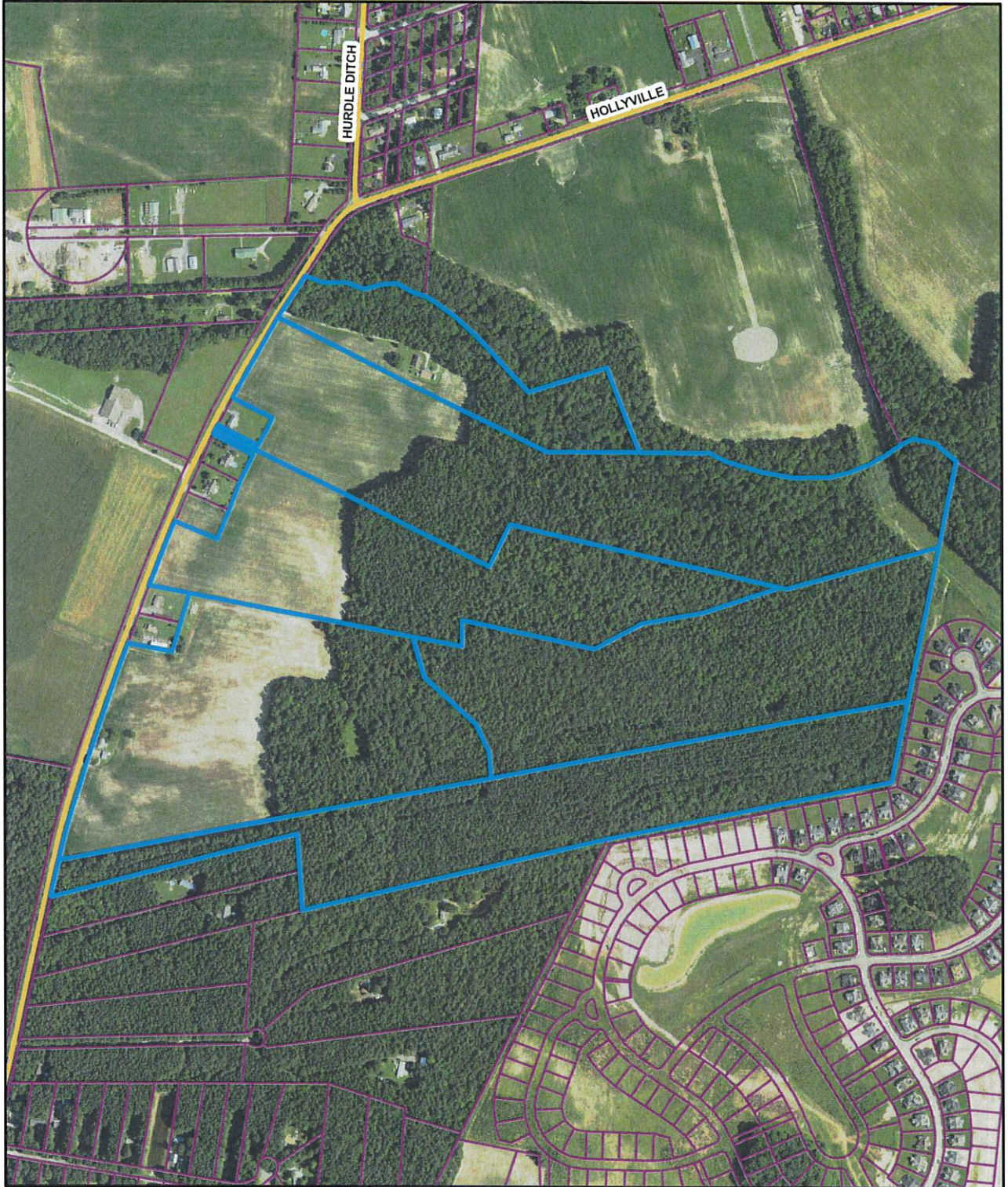


Thelton D. Savage
District Conservationist
USDA, Natural Resources Conservation Service

TDS/bh



2021-05
TM #234-10.00-199.00, & 234-16.00-1.01, 1.02, 3.00, 4.00 & 5.00
Unity Branch



2021-05
TM #234-10.00-199.00, & 234-16.00-1.01, 1.02, 3.00, 4.00 & 5.00
Unity Branch



March 4, 2021

Mr. Nick Torrance
Sussex County Planning & Zoning Commission
PO Box 417
Georgetown, DE 19947

Re: Sussex County Technical Advisory Committee

Dear Mr. Torrance:

The Division of Public Health Office of Engineering is in receipt of the following applications:

***Applications: 2021-04-Fairmont
2021-05- Unity Branch***

These applications indicate central water will be supplied by Artesian Water Company, Inc. *These projects require an Approval to Construct and an Approval to Operate from the Office of Engineering when constructing a new water system or altering an existing water system.* In order to obtain an Approval to Construct, plans and specifications must be prepared by a registered Delaware professional engineer. Plans for the system, including water mains or extensions thereto, storage facilities, treatment works, and all related appurtenances, must be approved by the Office of Engineering prior to construction. It is the owner's responsibility to ensure as-built drawings are maintained throughout all phases of construction.

Prior to receiving an Approval to Operate for these projects, the Office of Engineering requires one set of as-built drawings, including profile markups, for all plans approved for construction. An Approval to Operate will be issued after all applicable requirements are met.

Please do not hesitate to contact me at 302-741-8646 with questions or comments.

Sincerely,

A handwritten signature in black ink, appearing to read "William J. Milliken, Jr.".

William J. Milliken, Jr.
Engineer III
Office of Engineering

ENGINEERING DEPARTMENT

ADMINISTRATION	(302) 855-7718
AIRPORT & INDUSTRIAL PARK	(302) 855-7774
ENVIRONMENTAL SERVICES	(302) 855-7730
PUBLIC WORKS	(302) 855-7703
RECORDS MANAGEMENT	(302) 854-5033
UTILITY ENGINEERING	(302) 855-7717
UTILITY PERMITS	(302) 855-7719
UTILITY PLANNING	(302) 855-1299
FAX	(302) 853-5881



Sussex County

DELAWARE
sussexcountyde.gov

HANS M. MEDLARZ, P.E.
COUNTY ENGINEER

February 17, 2021

REF: **T. A. C. COMMENTS
UNITY BRANCH
SEWER TIER 3
SUSSEX COUNTY ENGINEERING DEPARTMENT
SUSSEX COUNTY TAX MAP NUMBER
234-10.00 PARCEL 199.00,1.01,1.02,3.00,4.00,5.00
PROJECT CLASS-3
AGREEMENT NO. 1168**

The following comments are the result of the Sussex County Engineering Department's review of the preliminary site plan for the above referenced project:

DESIGN REVIEW COMMENTS

1. Proposed developments with private roads or projects required to meet or exceed the County street design requirements shall be regulated by and conform to Sussex County Code and the comments here listed.
2. This project is not located within the limits of a Ground Water Management Zone (GMZ). Projects located within a GMZ must be forwarded to the County Engineer for review and comment.
3. Project Construction Drawings shall show, in detail, the proposed improvements. The work required includes preparation and delivery of an AutoCAD 2012 digitized plan showing existing and proposed lines, grades, topography and features in a given area, which was utilized in preparing plans for construction. The individual sheet types will be in a separate design to show plan views on sheets separate from profile views. In addition, each sheet of the plans shall be submitted in a PDF format.
4. All work shall be geo-referenced to the Delaware State Grid System NAD-83 (HARN) and provided in an AutoCAD 2012 format. North will always be shown in an up direction on all plans.
5. Topographic contours at one-foot intervals shall be shown and referenced to United States Geological Survey Mean Sea Level Datum NAVD 1988 Datum.
6. The plans shall be provided on 24" x 36" drawing sheets at a scale of 1" = 50' or less.

The plans shall show and address the following items at minimum:



7. The project requires professional land surveying services to accurately delineate, and show the following items but is not limited to the following: all property and right-of-way lines, established at a minimum, two (2) horizontal and vertical control concrete project benchmarks, survey monuments, easements, existing and proposed topographic contours at 1-foot vertical intervals and spot elevations as necessary to establish grades, the locations of all existing structures, highway and roadway pavements, shoulders, curbs, driveways, sidewalks, lighting structures, traffic control signs, and all public and private utilities, including, but not limited to, electric power and telephone lines, poles and boxes, underground electric, telephone, and communication lines, potable water lines, fire hydrants and valve boxes, gas lines, wells, sanitary sewers including septic systems, rim and invert elevations of manholes and cleanouts, and the rims and invert elevations and type of storm water structures, drainage ditches, ponds, streams and waterways, flood zones and flood zone boundaries and elevations, and State and Federal wetlands, trees, cemeteries and historic features, and the finished floor elevations of buildings.
8. Plans shall show the seal and signature of a registered Delaware land surveyor or registered Delaware professional engineer.
9. The plan requires a Certification Signature and/or a Certification Block for the Delaware Professional Engineer or Delaware Land Surveyor.
10. The plan requires a Certification Signature and/or a Certification Block for the Owner or Representative of the Owner.
11. The plan requires a Certification Signature and/or a Certification Block for the Professional Wetlands Delineator.
12. The name, address, phone number and contact person's name of the Owner of Record, the Developer and the Engineer or Surveyor preparing the plan.
13. Indicate the location of all wetlands (both state and federal), in order to facilitate compliance with County, State and Federal requirements.
14. Define the courses and distances of the property perimeter and the approximate acreage contained therein. Establish and set in the field two (2) CONCRETE MONUMENT project benchmarks, preferably at property perimeter corners, geo-referenced to the Delaware State Plane Coordinate system NAD 83 and show the location including the North and East coordinates of the marks on the plans.
15. Indicate the development construction phases proposed showing the boundaries of each phase. Phasing boundaries shall include buildings, residential units, amenities, roads, storm water management facilities, wastewater systems and all other improvements and utilities required to service each phase.
16. Show the layout, width and names of all streets, alleys, crosswalks and easements proposed to be dedicated for private or public use. Street names shall not duplicate nor closely resemble existing street names in the same hundred or postal district, except for extensions of existing streets.
17. When on site individual septic tank systems are to be used and the lot topography is to be modified by cuts and fills it is required that the Design Engineer contact the

Delaware Department of Natural Resources and Environmental Control, Division of Groundwater Water Discharge Section, 20653 DuPont Boulevard, Unit 5, Georgetown, DE 19947 phone number 302-856-4561 subject to mass grading operations for documented approval.

18. Provide the limits and elevations of the one hundred (100) year flood. This may require the design engineer to complete an analysis and provide a report including the depiction of the subject watershed(s), calculations and other technical data necessary to determine the limits and elevations base flood.
19. The pavement radius for all cul-de-sacs shall be no less than 38 feet in diameter or as otherwise required by the State Fire Marshall's office or the County Engineering Department.
20. False berms shall not be utilized to create roadside drainage swale back slopes.
21. For parking lots and drives, provide spot elevations at the edge of pavement, right-of-way or travel way centerline, at changes in grade, and high points and low points, to the nearest drainage facilities. Show the limits of the various surface materials and provide construction sections.
22. Provide and show the locations and details of all ADA compliant accessible walks and ramp features.
23. If the site has a cemetery located on it the Developer shall contact the Delaware State Historic Preservation Office and satisfy the requirements of that Office prior to beginning any construction activity. This area shall not be disturbed by this project. Adequate access to the site and buffers to protect the site, shall be provided.
24. Private rights-of-way adjacent to and abutting parcels not part of the project shall be located and designed to provide adequate buffer so that construction activities do not encroach onto adjacent properties.
25. Provide statements explaining how and when the developer proposes to provide and install the required water supply, sewers or other means of sewage disposal, street pavement, drainage structures and any other required improvements.
26. Provide statements concerning any proposed deed restrictions to be imposed by the owner.
27. Where special physical conditions exist, which may act as constraints on normal development or may preclude development, the developer may be required to submit special technical data, studies or investigations. This information must be prepared by individuals technically qualified to perform such work. Additional information may include but is not limited to the following: on-site sanitary sewage disposal feasibility, water supply surveys, such as test well drilling, storm water runoff computations and identification of areas subject to periodic flooding.
28. If special conditions are found to exist, the Engineering Department may elect to withhold approval of a construction plan until it is determined that it is technically feasible to overcome such conditions. The Engineering Department may then require the developer to incorporate specific improvement design criteria into the plat as a

condition to its approval.

29. When special studies or investigations pertain to a regulatory program of another public agency, the developer shall submit the results of these studies or investigations to said public agencies for technical review and approval. Approvals and/or written comments from these agencies shall be supplied to Sussex County by the developer.

UTILITY PLANNING COMMENTS

REVIEWER: **Chris Calio**

APPLICATION: **2021-05 Unity Branch**

APPLICANT: **Schell Brothers, LLC**

FILE NO: NCPA-5.03

TAX MAP &
PARCEL(S): **234-10.00-199.01 & 134-16.00-1.01, 1.02, 3.00, 4.00, 5.00**

LOCATION: **East side of Hollyville Road (SCR 48), approximately 0.36 mile east of Hurdle Ditch Road (SCR 290).**

NO. OF UNITS: 195 single-family lots

GROSS
ACREAGE: 145.424

SYSTEM DESIGN ASSUMPTION, MAXIMUM NO. OF UNITS/ACRE: 2

SEWER:

- (1). Is the project in a County operated and maintained sanitary sewer and/or water district?
Yes No
- a. If yes, see question (2).
b. If no, see question (7).
- (2). Which County Tier Area is project in? Tier 3
- (3). Is wastewater capacity available for the project? N/A If not, what capacity is available? N/A.
- (4). Is a Construction Agreement required? N/A If yes, contact Utility Engineering at (302) 855-7717.

(5). Are there any System Connection Charge (SCC) credits for the project? No If yes, how many? N/A. Is it likely that additional SCCs will be required? **No** If yes, the current System Connection Charge Rate is **Choose an item.** per EDU. Please contact **N/A** at **302-855-7719** for additional information on charges.

(6). Is the project capable of being annexed into a Sussex County sanitary sewer district? **No**

Attached is a copy of the Policy for Extending District Boundaries in a Sussex County Water and/or Sanitary Sewer District.

(7). Is project adjacent to the Unified Sewer District? **N/A**

(8). Comments: **The proposed subdivision is not in an area where the Sussex County Engineering Department has a schedule to provide sanitary sewer service.**

(9). Is a Sewer System Concept Evaluation required? **N/A**

(10). Is a Use of Existing Infrastructure Agreement Required? **N/A**

If the above items, as applicable, are incorporated into the development plans, then preliminary approval is recommended. However, final plan approval should be withheld pending the approval of the construction plans by the Sussex County Engineering Department.

Nick Torrance

From: Dickerson, Troy <TDickerson@delaware.coop>
Sent: Thursday, February 11, 2021 12:18 PM
To: Nick Torrance
Subject: RE: TAC Review 2021-04 Fairmont, 2021-05 Unity Branch

CAUTION: This email originated from outside of the organization. Do not click links, open attachments, or reply unless you recognize the sender and know the content is safe. Contact the IT Helpdesk if you need assistance.

Nick,

Both of the developments are located within DEC's service territory and we have facilities in the area to serve both of them.

Thanks!!

Troy W. Dickerson, P.E.
Assistant V.P. of Engineering
Voice: (302) 349-3125
Cell: (302) 535-9048
Fax: (302) 349-5891
tdickerson@delaware.coop



DELAWARE ELECTRIC CO-OP
"We Keep the Lights On"

From: Nick Torrance
Sent: Wednesday, February 10, 2021 4:31 PM
To: Beth Krumrine <beth.krumrine@delaware.gov>; Brad Hawkes <bhawkes@sussexcountyde.gov>; Chris Calio <ccalio@sussexcountyde.gov>; Dave Detrick <ddetrick@chpk.com>; dholden@chpk.com; C. Daniel Parsons <dparsons@sussexcountyde.gov>; Duane.Fox@delaware.gov; eileen.butler@delaware.gov; James Sullivan <James.Sullivan@delaware.gov>; jennifer.cinelli@delaware.gov; jessica.watson@sussexconservation.org; John J. Ashman <jashman@sussexcountyde.gov>; John.Hayes@delaware.gov; John.kennel@delaware.gov; John.Martin@delaware.gov; Jordan T. Dickerson <jordan.dickerson@sussexcountyde.gov>; Kate.Flemming@Delaware.gov; kgabbard@chpk.com; McCabe, Richard (DelDOT) <Richard.McCabe@delaware.gov>; meghan.crystall@delaware.gov; michael.tholstrup@delaware.gov; Milton.melendez@delaware.gov; mindy.Anthony@delaware.gov; subdivision@delaware.gov; Susan Isaacs <sisaac@sussexcountyde.gov>; Dickerson, Troy <TDickerson@delaware.coop>; Terri Dukes <tdukes@sussexcountyde.gov>; tgiroux@chpk.com; Vince Robertson <vrobertson@pgslegal.com>
Subject: TAC Review 2021-04 Fairmont, 2021-05 Unity Branch

All,

Sussex County Planning Office has received two (2) applications that requires TAC review. Attached is a memo regarding the application and a PDF of the plans submitted.

Please provide comments on or before April 14th, 2021.

Please feel free to contact me with any questions.

2021-05 Unity Branch

Comments from the DNREC Drainage Program

No Tax Ditches on site.

Drainage recommendations:

- This area was part of the Hopkins Prong Drainage Study for the Sussex Conservation District. The lower portion of the watershed has experienced flooding.
- Request minimum 30' wetland buffer to allow for expansion of the wetland during wet times of the year.
- Requests all existing ditches on the property be checked for function and cleaned if needed prior to the construction of homes. Wetland permits may be required before cleaning ditches.
- Requests that all precautions be taken to ensure the project does not hinder any off-site drainage upstream of the project or create any off-site drainage problems downstream by the release of on-site storm water.
- The Drainage Program strongly recommends for any area designated as a drainage/utility easement be open space and not owned by the individual landowners.
- Requests any drainage/utility easement owned by an individual landowner should not have structures, decks, buildings, sheds, kennels, or fences within the drainage easement to allow for future drainage maintenance. Trees and shrubs planted within a drainage/utility easement should be spaced to allow for drainage maintenance at maturity.

Sussex County, Delaware
Technical Advisory Committee

Comment Sheet



DATE OF REVIEW: February 11, 2021

REVIEWING AGENCY: **Delaware State Fire Marshal's Office, Sussex Office**

INDIVIDUAL REVIEWERS: **Duane T. Fox, CFPS, CFPE, CFI, Asst. Chief Technical Services**
Dennett E. Pridgeon, CFPS, CFPE, CFI, Sr. Fire Protection Specialist
Jefferson L. Cerri, CFI, Sr. Fire Protection Specialist
Desiree B. McCall, CFI, Sr. Fire Protection Specialist

AGENCY PHONE NUMBERS: **302-856-5298, Fax: 302-856-5800**

RE: UNITY BRANCH (2021-05)

The reasons and conditions applied to this project and their sources are itemized below:

At the time of formal submittal, the applicant shall provide; completed application, fee, and three sets of plans depicting the following in accordance with the Delaware State Fire Prevention Regulation (DSFPR):

a. **Fire Protection Water Requirements:**

- Water distribution system capable of delivering at least 1000 gpm for 1-hour duration, at 20-psi residual pressure is required. Fire hydrants with 800 feet spacing on centers. (Assembly)
- Where a water distribution system is proposed for single-family dwellings it shall be capable of delivering at least 500 gpm for 1-hour duration, at 20-psi residual pressure. Fire hydrants with 1000 feet spacing on centers are required. (One & Two- Family Dwelling)
- Where a water distribution system is proposed for the site, the infrastructure for fire protection water shall be provided, including the size of water mains for fire hydrants and sprinkler systems.

b. **Fire Protection Features:**

- All structures over 10,000 sqft aggregate will require automatic sprinkler protection installed.
- Buildings greater than 10,000 sqft, 3-stories or more, over 35 feet, or classified as High Hazard, are required to meet fire lane marking requirements.
- Show Fire Department Connection location (Must be within 300 feet of fire hydrant), and detail as shown in the DSFPR.
- Show Fire Lanes and Sign Detail as shown in DSFPR

c. **Accessibility**

- All premises, which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. This means that the access road to the subdivision from Hollyville Road must be constructed so fire department apparatus may negotiate it.
- Fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 ft. of the front door.
- Any dead end road more than 300 feet in length shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. The dimensions of the cul-de-sac or turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.
- The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.
- The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.

d. **Gas Piping and System Information:**

- Provide type of fuel proposed and show locations of bulk containers on plan.

e. **Required Notes:**

- Provide a note on the final plans submitted for review to read “All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations”
- Proposed Use
- Alpha or Numerical Labels for each building/unit for sites with multiple buildings/units
- Square footage of each structure (Total of all Floors)
- National Fire Protection Association (NFPA) Construction Type
- Maximum Height of Buildings (including number of stories)
- Note indicating if building is to be sprinklered
- Name of Water Provider
- Letter from Water Provider approving the system layout
- Provide Lock Box Note (as detailed in DSFPR) if Building is to be sprinklered
- Provide Road Names, even for County Roads

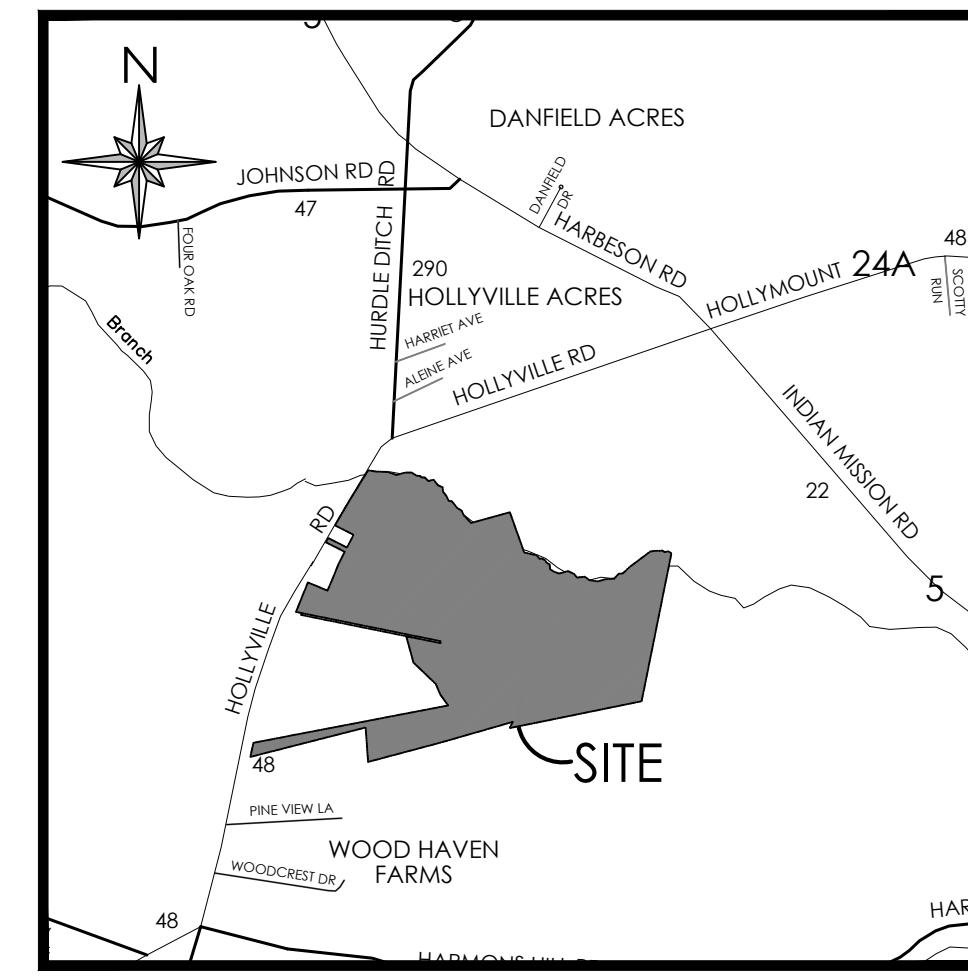
Preliminary meetings with fire protection specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded from our website:

www.statefiremarshal.delaware.gov, technical services link, plan review, applications or brochures.

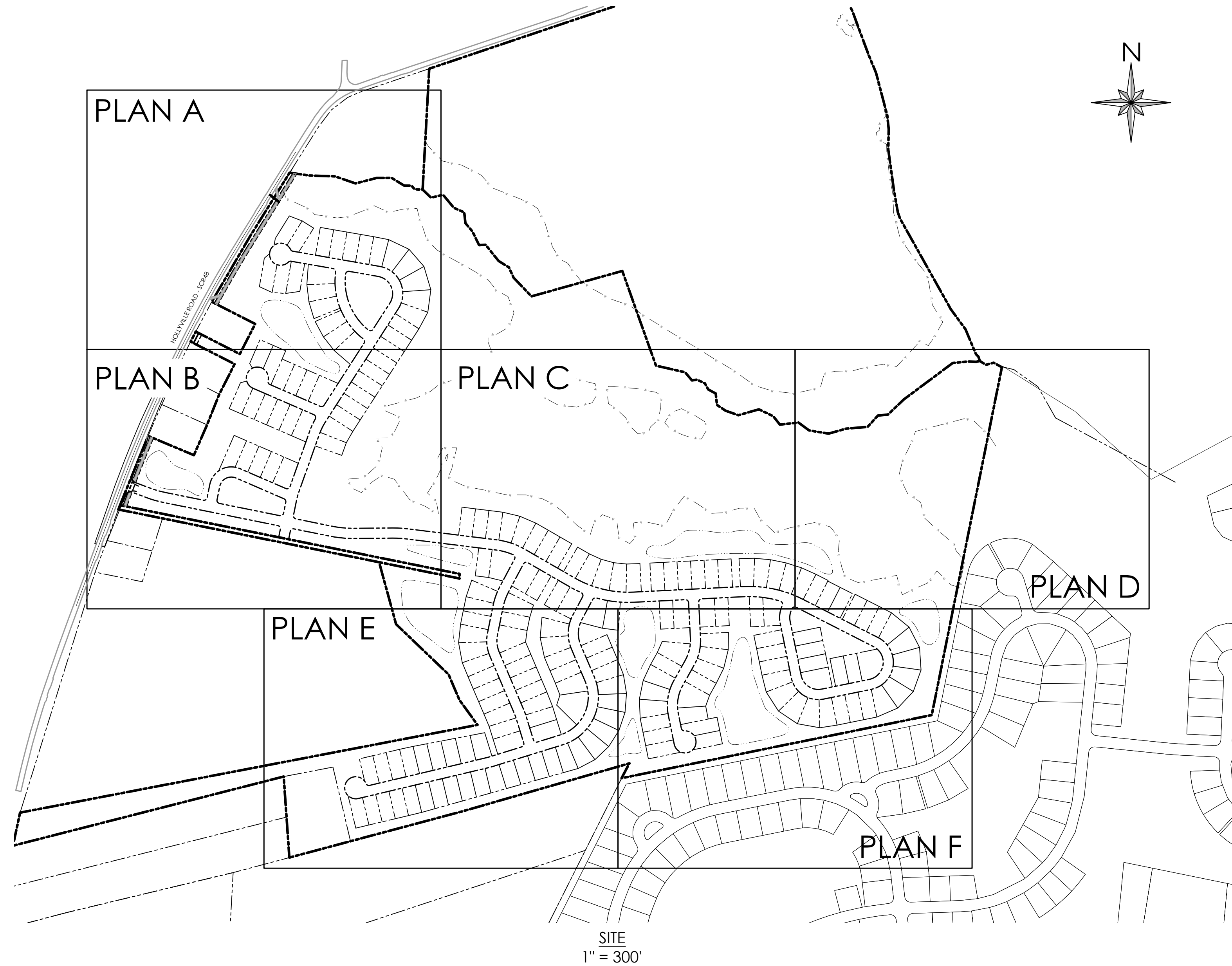
THIS DOCUMENT IS INFORMATIONAL ONLY, AND DOES NOT CONSTITUTE ANY TYPE OF APPROVAL FROM THE DELAWARE STATE FIRE MARSHAL'S OFFICE

PRELIMINARY PLAT FOR TURNBERRY

FORMERLY KNOWN AS UNITY
INDIAN RIVER HUNDRED
SUSSEX COUNTY, DELAWARE
FOR
HOLLYVILLE BUYER, LLC
SUSSEX COUNTY REFERENCE NO.: 2021-05

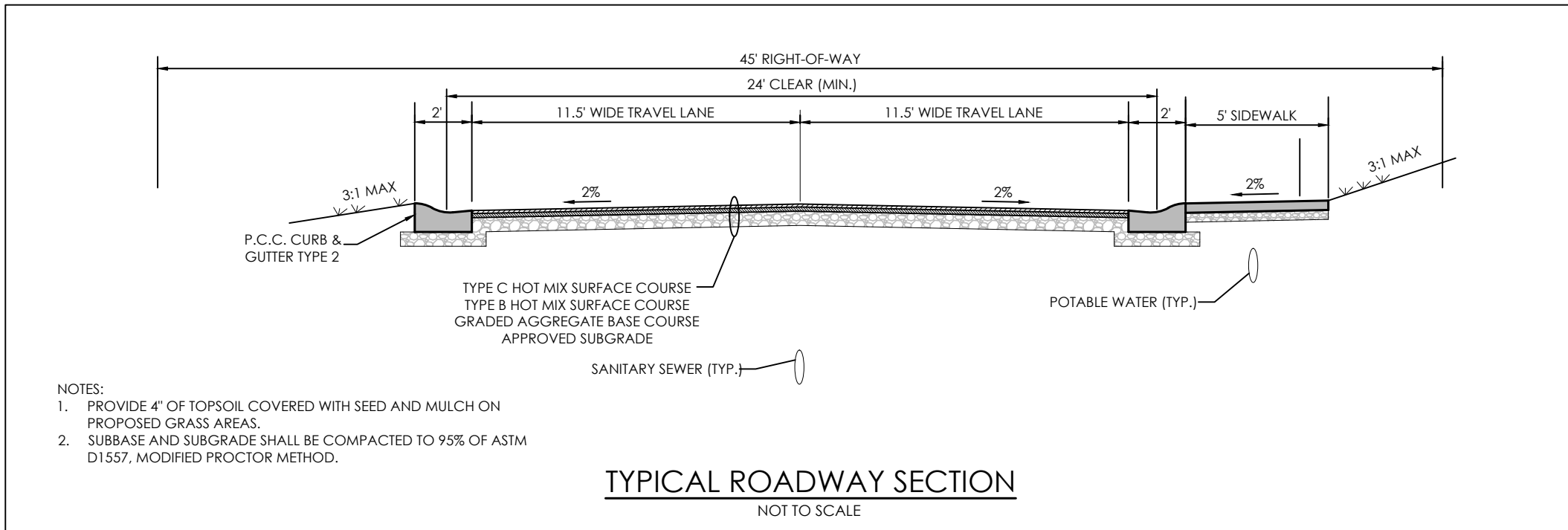


VICINITY MAP
SCALE: 1" = 2,000'



PRELIMINARY PLAT

- 1 COVER SHEET
- 2 EXISTING CONDITIONS PLAN
- 3 PRELIMINARY PLAT A
- 4 PRELIMINARY PLAT B
- 5 PRELIMINARY PLAT C
- 6 PRELIMINARY PLAT D
- 7 PRELIMINARY PLAT E
- 8 PRELIMINARY PLAT F



TYPICAL ROADWAY SECTION
NOT TO SCALE

LEGEND

	EXISTING	PROPOSED
PROPERTY LINE	---	---
EASEMENT LINE	---	---
SETBACK LINE	N/A	---
R.O.W. LINE	---	---
CONTOUR	---	N/A 28.00
SPOT ELEVATION	N/A	---
ROAD CENTERLINE	---	---
EDGE OF CONCRETE	N/A	---
EDGE OF PAVEMENT	---	---
CURB	N/A	---
DELDOT PAVEMENT HATCH	---	---
SIDEWALK	N/A	---
SIDEWALK HATCH	N/A	---
TRAIL	N/A	---
EDGE OF POND	N/A	---
EDGE OF WETLAND	---	N/A
WETLAND	---	N/A
FLOODPLAIN	---	N/A
CURB INLET	N/A	---
YARD INLET	N/A	---
STORM PIPE	N/A	SD
SANITARY MANHOLE	N/A	SS
SANITARY PIPE	N/A	---
FORCEMAIN	N/A	FM
WATER PIPE	N/A	W
FIRE HYDRANT	N/A	---
TREE LINE	---	---

NOTES:

1. ALL ON-SITE STREETS ARE PRIVATE AND SHALL BE MAINTAINED BY THE OWNER UNTIL DEDICATION TO THE HOMEOWNERS ASSOCIATION. THE PERPETUAL MAINTENANCE OF THE STREETS SHALL BE BY THE RESPECTIVE ORGANIZATION.
2. STORMWATER MANAGEMENT AND STORM DRAINAGE SHALL BE IN ACCORDANCE WITH THE SUSSEX COUNTY CONSERVATION DISTRICT AND SUSSEX COUNTY ENGINEERING REQUIREMENTS. THE SITE IS TO BE TREATED BY MULTIPLE WET PONDS. MAINTENANCE OF THE ON-SITE STORMWATER MANAGEMENT FACILITIES AND STORM DRAINAGE SYSTEM SHALL BE BY THE OWNER UNTIL DEDICATION TO THE HOMEOWNERS ASSOCIATION. THE PERPETUAL MAINTENANCE OF THE ABOVE PROACTIVE SHALL BE BY THE RESPECTIVE ORGANIZATION.
3. ALL OPEN SPACE, INCLUDING BUFFERS AND FOREST STRIPS, SHALL BE MAINTAINED BY THE HOMEOWNERS ASSOCIATION.
4. FOR ANY NEW DEVELOPMENT LOCATED IN WHOLE OR IN PART WITH 50 FEET OF THE BOUNDARY OF LAND USED PRIMARILY FOR AGRICULTURAL PURPOSES, NO IMPROVEMENT REQUIRING AN OCCUPANCY APPROVAL FOR A RESIDENTIAL TYPE USE SHALL BE CONSTRUCTED WITHIN 50 FEET OF THE BOUNDARY OF THE LANDS USED PRIMARILY FOR AGRICULTURAL PURPOSES.
5. POTABLE WATER, SANITARY SEWER, STORM DRAINAGE, STREET PAVEMENT SHALL BE CONSTRUCTED BY DEVELOPER. PHASING OF IMPROVEMENTS SHALL BE PER COUNTY AND CONSERVATION DISTRICT REQUIREMENTS.
6. THIS PROPERTY IS LOCATED IN THE VICINITY OF LAND USED PRIMARILY FOR AGRICULTURAL PURPOSES ON WHICH NORMAL AGRICULTURAL USES AND ACTIVITIES HAVE BEEN AFFORDED THE HIGHEST PRIORITY USE STATUS. IT CAN BE ANTICIPATED THAT SUCH AGRICULTURAL USES AND ACTIVITIES MAY NOW OR IN THE FUTURE INVOLVE NOISE, DUST, MANURE AND OTHER ODORS, THE USE OF AGRICULTURAL CHEMICALS AND NIGHTTIME FARM OPERATIONS. THE USE AND ENJOYMENT OF THIS PROPERTY IS EXPRESSLY CONDITIONED ON ACCEPTANCE OF ANY ANNOYANCE OR INCONVENIENCE WHICH MAY RESULT FROM SUCH NORMAL AGRICULTURAL USES AND ACTIVITIES

SITE DATA:

- OWNER: HOLLYVILLE BUYER, LLC
20184 PHILLIPS STREET
REHOBOTH BEACH, DE 19971
- APPLICANT/ DEVELOPER: SCHELL BROTHERS, LLC
20184 PHILLIPS STREET
REHOBOTH BEACH, DE 19971
PHONE: 302-778-9668
CONTACT: CHRIS SCHELL
- ENGINEER: SOLUTIONS IPEM
303 NORTH BEDFORD STREET
GEORGETOWN, DE 19947
PHONE: 302-297-9215
CONTACT: JASON PALKEWICZ, PE
- TAX MAP:
234-10.00-199.00
234-16.00-1.01
234-16.00-1.02
234-16.00-3.00
234-16.00-4.00
234-16.00-5.00
- SITE AREA = 145,424 ± ACRES
- PROPOSED USE: AR-1 CLUSTER SUBDIVISION
195 SINGLE FAMILY LOTS
DENSITY = 195 UNITS / 145,424 AC = 1.341 UNITS/AC
PERMITTED DENSITY = 2.178 UNITS/AC
MIN. LOT AREA = 7,500 S.F.
MIN. LOT WIDTH = 60'
MAXIMUM BUILDING HEIGHT: 42'
- EXISTING ZONING:
AR-1
- PROPOSED BUILDING SETBACKS:
FRONT: 25' (15' CORNER LOT)
SIDE: 10'
REAR: 10'
- FLOOD ZONE:
THE PROPERTY IS LOCATED WITHIN FLOOD ZONE A - NO BASE ELEVATION (SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD) AND FLOOD ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN). PER FIRM MAP NUMBER 1000SC0340K, MAP REVISED MARCH 16, 2015 AND FIRM MAP NUMBER 1000SC0325L, MAP REVISED JUNE 20, 2018.
- WATER SUPPLY:
ARTESIAN WATER COMPANY
- SANITARY SEWER:
ARTESIAN WASTEWATER MANAGEMENT, INC.
- SOIL CLASSIFICATIONS:
HJA: HURLOCK LOAMY SAND, 0 TO 2 PERCENT SLOPES
KA: KLEI LOAMY SAND, 0 TO 2 PERCENT SLOPES
LC: LONGMARSH AND INDIANTOWN SOILS, FREQUENTLY FLOODED
PA: PEPPERBOX ROSEDALE COMPLEX, 0 TO 2 PERCENT SLOPES
ROA: ROSEDALE LOAMY SAND, 0 TO 2 PERCENT SLOPES
RUA: RUNCLINT LOAMY SAND, 0 TO 2 PERCENT SLOPES
- TOPOGRAPHY AND BOUNDARY SHOWN HEREIN ARE AS PROVIDED BY SOLUTIONS IPEM LLC.
- OPEN SPACE = 97.81 ± AC (67% ±) (INCLUDES 43.97 AC ± OF NON-TIDAL WETLANDS) 2.00 AC ± TO BE RETAINED BY OWNER.
- EXISTING WOODLANDS = 118.0 ± AC.
WOODLANDS TO REMAIN = 88.0 ± AC.*
WOODLANDS TO BE REMOVED = 40.0 ± AC.*
SUBJECT TO FINAL ENGINEERING.
- PROJECT IS NOT LOCATED WITHIN THE HENLOPEN TRANSPORTATION IMPROVEMENT DISTRICT (ID).
- PROJECT IS NOT LOCATED WITHIN A WELLHEAD PROTECTION AREAS
- PROJECT IS LOCATED WITHIN THE AREAS OF FAIR AND POOR GROUNDWATER RECHARGE POTENTIAL

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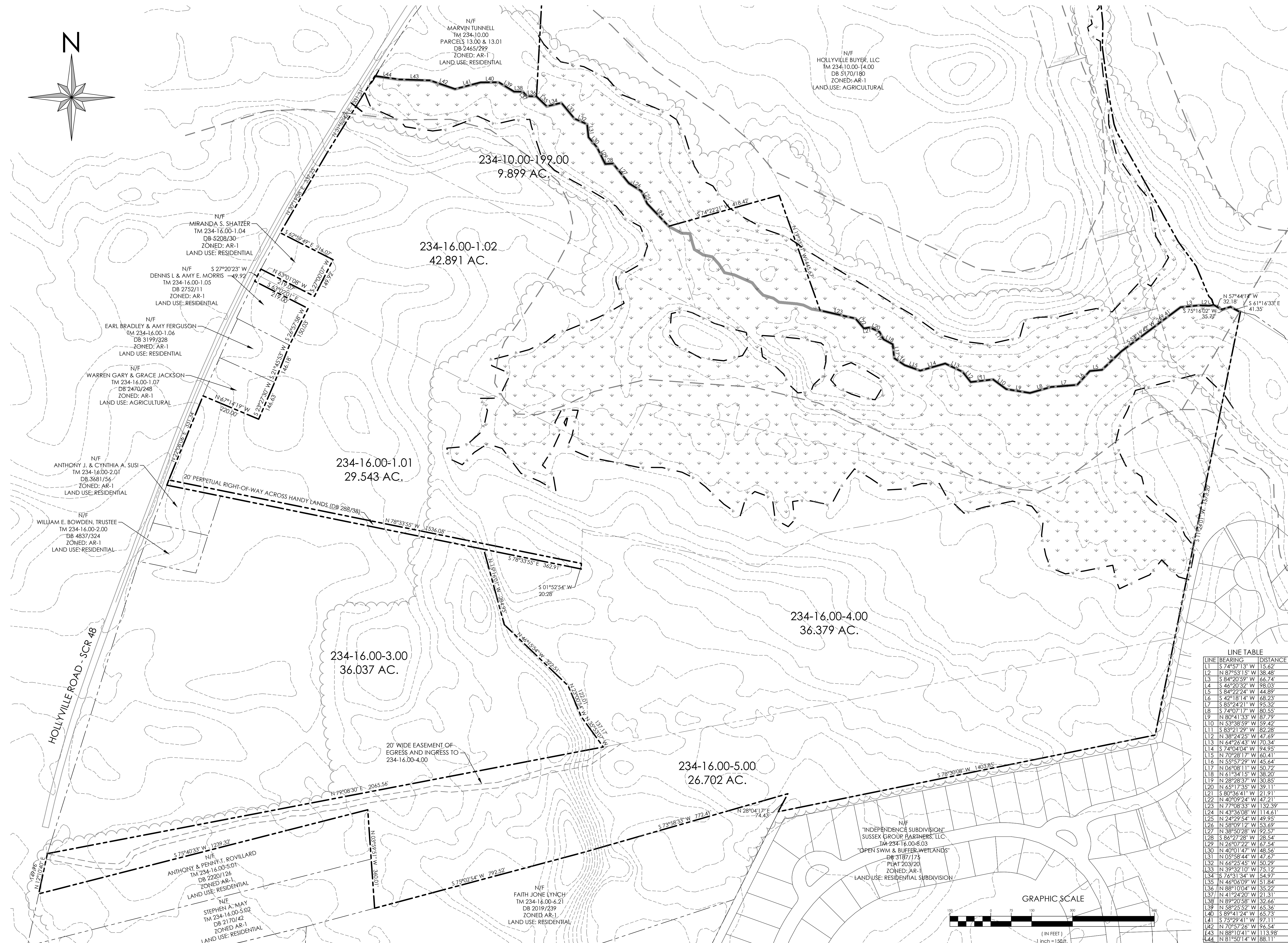
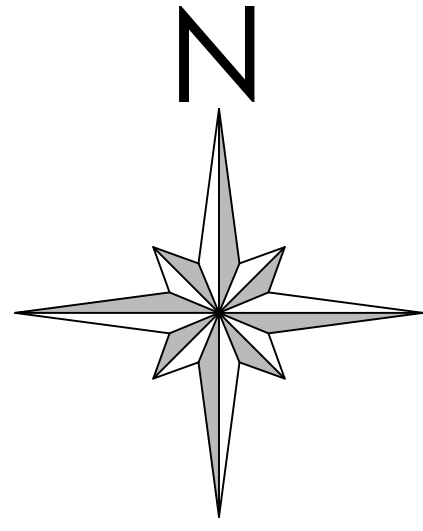


NO.	DATE	DESCRIPTION
1	8/20/21	REVISIONS PER AGENCY REVIEW LETTER DATED 8/13/21

COVER SHEET
for
TURNBERRY
SUSSEX COUNTY, DELAWARE
Prepared for: HOLLYVILLE BUYER, LLC

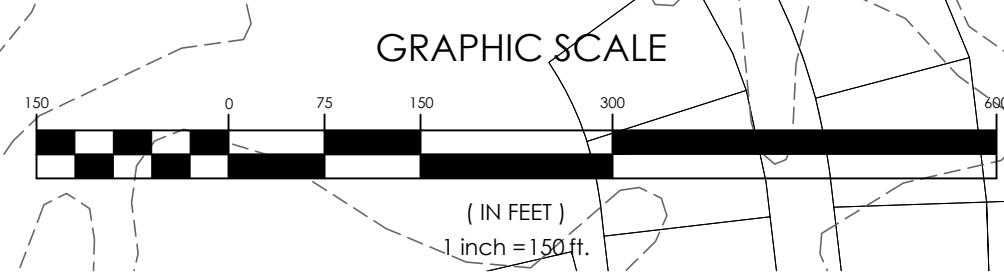
Date:	10-16-2020
Job Number:	20076
Scale:	AS SHOWN
Drawn By:	HBB
Designed By:	HBB
Approved By:	JIP

Sheet No.: 1
File Name: Cover.dwg



LINE TABLE

LINE	BEARING	DISTANCE
L1	S 74°57'13" W	15.62'
L2	N 87°53'15" W	38.48'
L3	S 84°30'59" W	66.74'
L4	S 42°20'32" W	98.03'
L5	S 84°22'24" W	44.89'
L6	S 42°18'14" W	68.23'
L7	S 85°24'21" W	95.32'
L8	S 74°07'17" W	80.55'
L9	N 83°41'33" W	87.79'
L10	N 53°38'59" W	59.42'
L11	S 83°21'29" W	82.28'
L12	N 38°24'25" W	47.69'
L13	N 64°26'43" W	70.34'
L14	S 74°04'04" W	94.95'
L15	N 70°28'17" W	60.41'
L16	N 55°57'29" W	45.64'
L17	N 06°08'11" W	50.72'
L18	N 61°34'15" W	38.20'
L19	N 28°28'37" W	30.85'
L20	N 65°17'35" W	39.11'
L21	S 83°34'41" W	21.91'
L22	N 40°09'24" W	47.21'
L23	N 77°08'33" W	132.39'
L24	N 43°36'08" W	114.61'
L25	N 24°29'54" W	49.95'
L26	N 58°09'12" W	55.69'
L27	N 38°50'28" W	92.57'
L28	S 86°27'28" W	28.54'
L29	N 26°07'22" W	67.54'
L30	N 40°01'47" W	48.56'
L31	N 05°58'44" W	47.67'
L32	N 68°20'58" W	50.29'
L33	N 39°32'10" W	75.12'
L34	S 76°31'34" W	54.97'
L35	N 46°06'09" W	51.84'
L36	N 88°10'04" W	35.22'
L37	N 41°24'20" W	21.31'
L38	N 89°20'58" W	32.66'
L39	N 58°25'52" W	65.36'
L40	S 89°41'24" W	65.73'
L41	S 75°29'41" W	97.11'
L42	N 70°57'26" W	96.54'
L43	N 88°10'41" W	113.98'
L44	N 81°50'14" W	88.11'



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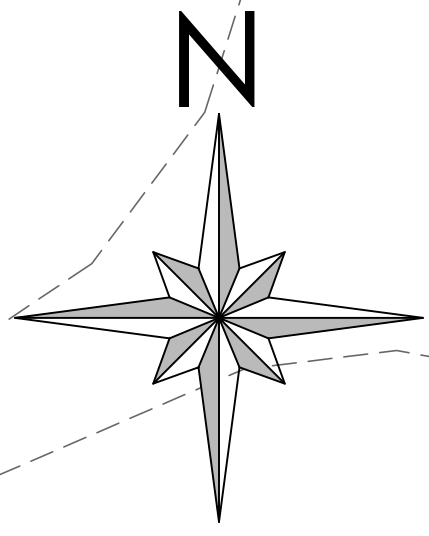
REVISIONS

NO.	DATE	DESCRIPTION
1	8/20/21	REVISIONS PER AGENCY REVIEW LETTER DATED 8/13/21

EXISTING CONDITIONS

for
TURNBERRY
 SUSSEX COUNTY, DELAWARE
 Prepared for: HOLLYVILLE BUYER, LLC

Date:	10-16-2020	Job Number:	20076	Scale:	1"=100'	Drawn By:	HHB	Designed By:	HHB	Approved By:	JJP
Sheet No.:											
File Name:											

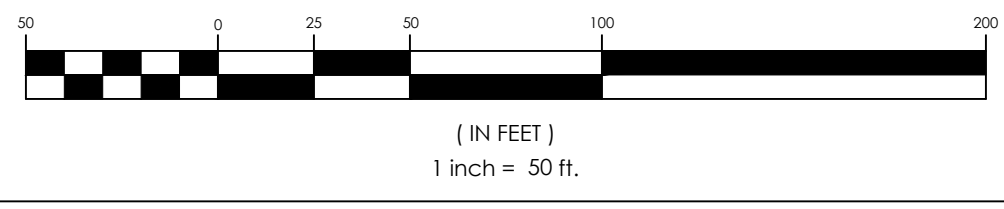


N/F
MARVIN TUNNELL
TM 234-10.00
PARCELS 13.00 & 13.01
DB 2465/299
ZONED: AR-1
LAND USE: RESIDENTIAL

HOLLYVILLE ROAD - SCR48

N/F
MIRANDA S. SHATZER
TM 234-16.00-1.04
LOT B-1
DB 5208/30
PLAT 70/211
ZONED: AR-1

GRAPHIC SCALE



FLOOD ZONE A
FLOOD ZONE X (UNSHADED)

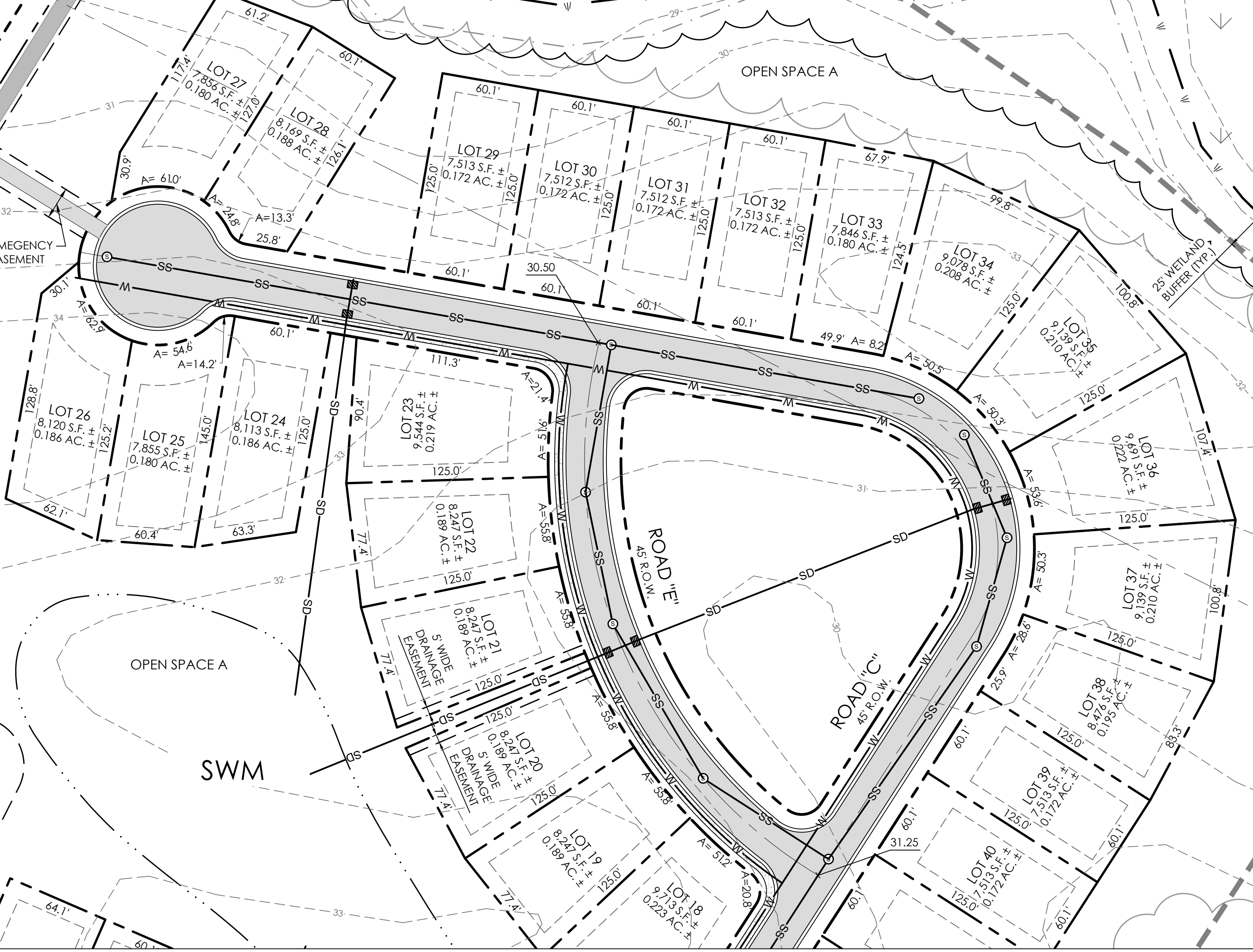
OPEN SPACE A

OPEN SPACE A
SWM

20' WIDE EMERGENCY
ACCESS EASEMENT

15' WIDE EASEMENT TO BE
DEDICATED TO DELDOT
40' WIDE R.O.W. TO BE
DEDICATED TO DELDOT

30' LANDSCAPE/
FORESTED BUFFER

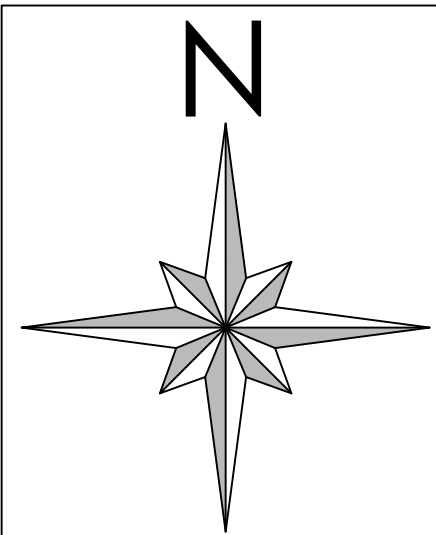
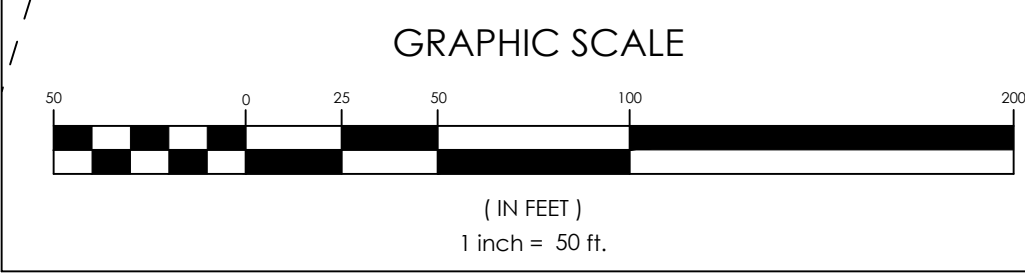
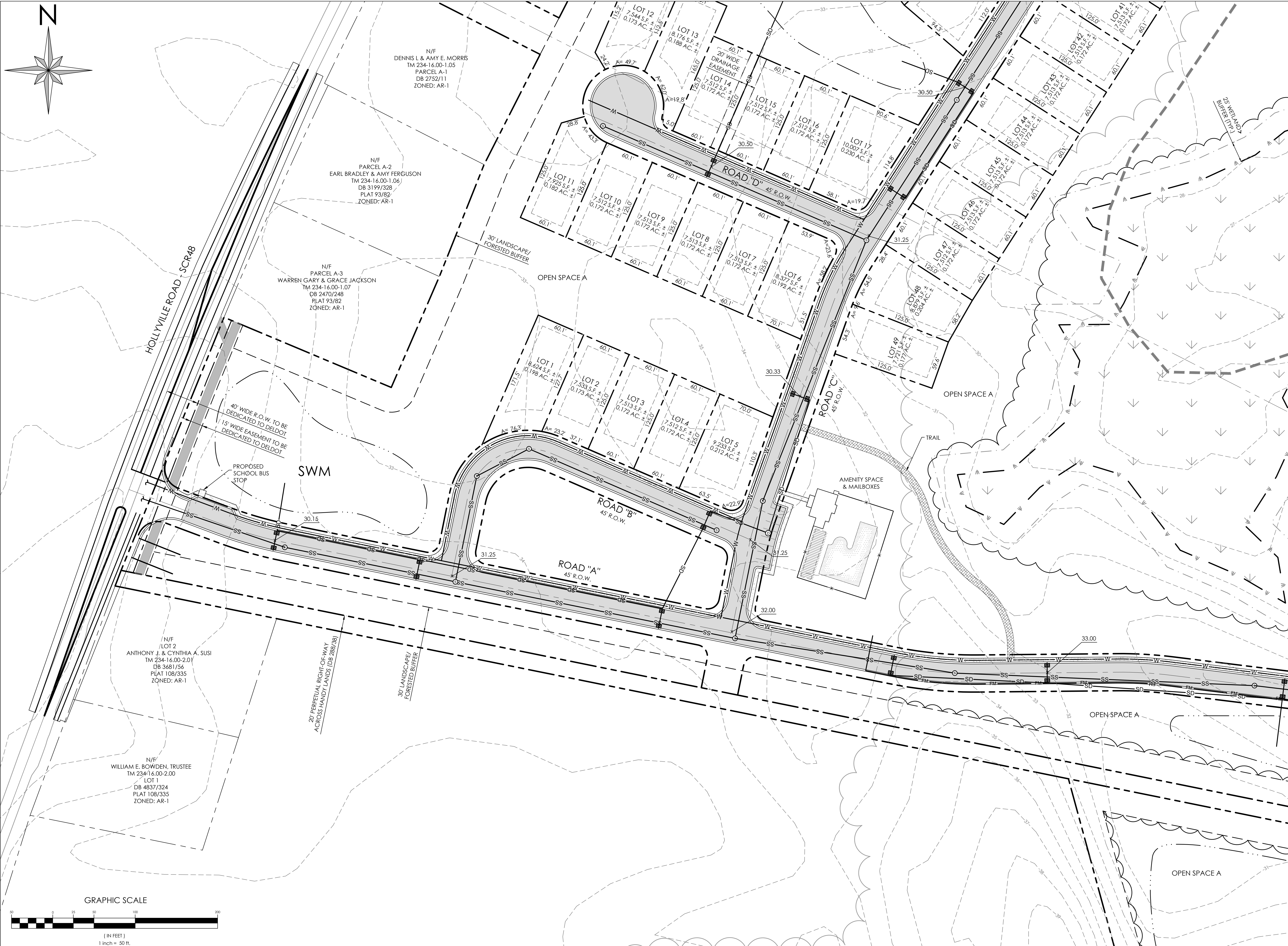


NO.	DATE	DESCRIPTION
1	8/20/21	REVISIONS PER AGENCY REVIEW LETTER DATED 8/13/21

PRELIMINARY PLAT A
for
TURNBERRY
SUSSEX COUNTY, DELAWARE
Prepared for: HOLLYVILLE BUYER, LLC

Date:	10-16-2020
Job Number:	20076
Scale:	1"=50'
Drawn By:	HBB
Designed By:	HBB
Approved By:	JIP

Sheet No.:
File Name: PP.dwg



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1	8/20/21	REVISIONS PER AGENCY REVIEW LETTER DATED 8/13/21

PRELIMINARY PLAT B

for

TURNBERRY

SUSSEX COUNTY, DELAWARE

Prepared for: HOLLYVILLE BUYER, LLC

Date:	10-16-2020
Job Number:	20076
Scale:	1"=50'
Drawn By:	HHB
Designed By:	HHB
Approved By:	J.P.

Sheet No.: 4

File Name: PP.dwg



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 CONSULTING ENGINEERS

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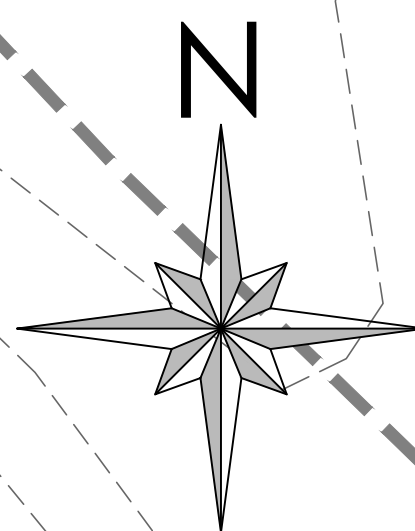


NO.	DATE	DESCRIPTION
1	8/20/21	REVISIONS PER AGENCY REVIEW LETTER DATED 8/13/21

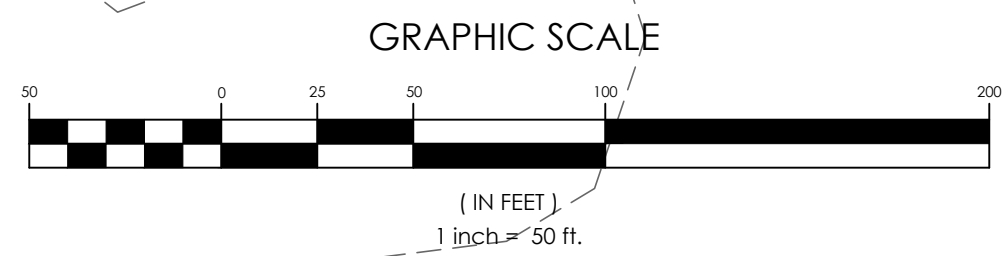
PRELIMINARY PLAT C
 for
TURNBERRY
 SUSSEX COUNTY, DELAWARE
 Prepared for: HOLLYVILLE BUYER, LLC

Date:	10-16-2020
Job Number:	20076
Scale:	1"=50'
Drawn By:	HHB
Designed By:	HHB
Approved By:	JIP

Sheet No.: **5**
 File Name: PP.dwg



N/F
 "INDEPENDENCE SUBDIVISION"
 SUSSEX GROUP PARTNERS, LLC
 TM 234-16.00-8.03
 "OPEN SWM & BUFFER WETLANDS"
 DB 3187/175
 PLAT 203/20
 ZONED: AR-1
 LAND USE: RESIDENTIAL SUBDIVISION



solutions
 CONSULTANTS

303 North Bedford Street
 Georgetown, DE 19147
 T. 302.297.9215
 3033 Manitt Mill Road
 Salisbury, MD 21804
 T. 410.572.8833
 www.solutionsipem.com Copyright © 2020



NO.	DATE	DESCRIPTION
1	8/20/21	REVISIONS PER AGENCY REVIEW LETTER DATED 8/13/21

PRELIMINARY PLAT
 for
TURNBERRY
 SUSSEX COUNTY, DELAWARE
 Prepared for: HOLLYVILLE BUYER, LLC

Date:	10-16-2020
Job Number:	20076
Scale:	1"=50'
Drawn By:	HBB
Designed By:	HBB
Approved By:	JIP

Sheet No.: 6
 File Name: PP.dwg



solutions

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NO.	DATE	DESCRIPTION
1	8/20/21	REVISIONS PER AGENCY REVIEW LETTER DATED 8/13/21

PRELIMINARY PLAT F
for
TURNBERRY
SUSSEX COUNTY, DELAWARE
Prepared for: HOLLYVILLE BUYER, LLC

Date:	10-16-2020
Job Number:	20076
Scale:	1"=50'
Drawn By:	HHB
Designed By:	HHB
Approved By:	JIP

Sheet No.: 8
File Name: PP.dwg

TURNBERRY



INDEPENDENCE

HOLLYVILLE ROAD

RT 5

WOOD HAVEN

HARMONS HILL ROAD

STONEWATER CREEK

WELSH RUN

WETHERBY

PELICAN POINT



38173 DUPONT BOULEVARD
P.O. BOX 169
SELBYVILLE, DE 19975
PHONE: 302-436-9637
FAX: 302-436-9639

August 27, 2021

ERI Project No. 593#0984

Mr. Jason Palkewicz, P.E.
Solutions IPeM
303 North Bedford Street
Georgetown, DE 19947

**RE: Presence / Absence of Federal / State
Endangered, Threatened & Rare Species Review
Turnberry – Proposed Residential Community
Tax Map Parcels 234-10.00-19.00, 234-16.00-1.01, 1.02, 3.00, 4.00 & 6.00
(145.424 acres), Indian River Hundred, Sussex County, Delaware**

Dear Mr. Palkewicz,

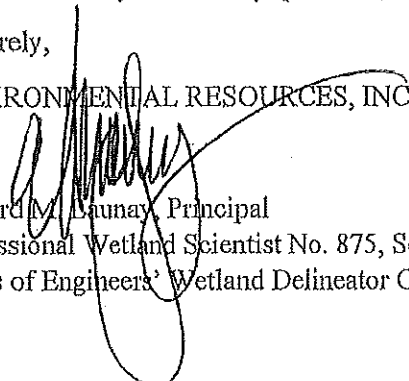
Environmental Resources, Inc. (ERI) is writing you regarding the 145.424 acre Turnberry property which is being proposed for residential development by Schell Brothers, LLC. I have completed a consultation with the U.S. Fish & Wildlife Services (USFWS) with respect to the presence or absence of any federally listed threatened or endangered species or their critical habitats subject to the Endangered Species Act of 1970. The two enclosed USFWS letters conclude that none are present on the property. The first USFWS letter dated February 13, 2020, noted that a threatened wetland plant, swamp pink, is known to occur in the project vicinity. The second USFWS letter dated March 10, 2020, concluded that swamp pink does not occur on the subject property and that this project will have no effect on that species.

In regard to any state species of concern, none were listed in the October 21, 2020, Delaware Office of State Planning PLUS Comment letter where the DNREC Division of Fish & Wildlife provides comments.

In addition, based upon my extensive review and numerous site inspections of the Turnberry property, I observed no federal or state threatened or endangered species or their critical habitats present. Should you have any questions, I am available at your convenience.

Sincerely,

ENVIRONMENTAL RESOURCES, INC.


Edward M. Bunay, Principal
Professional Wetland Scientist No. 875, Society of Wetland Scientists
Corps of Engineers' Wetland Delineator Certification No. WDCP93MD0510036B



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Chesapeake Bay Ecological Services Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401-7307

Phone: (410) 573-4599 Fax: (410) 266-9127

<http://www.fws.gov/chesapeakebay/>

<http://www.fws.gov/chesapeakebay/endsppweb/ProjectReview/Index.html>



In Reply Refer To:
Consultation Code: 05E2CB00-2020-SLI-0590
Event Code: 05E2CB00-2020-E-01527
Project Name: Hollyville Road Properties

February 13, 2020

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. This species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm>; <http://www.towerkill.com>; and <http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

- Official Species List
- USFWS National Wildlife Refuges and Fish Hatcheries
- Wetlands

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Chesapeake Bay Ecological Services Field Office
177 Admiral Cochrane Drive
Annapolis, MD 21401-7307
(410) 573-4599

Project Summary

Consultation Code: 05E2CB00-2020-SLI-0590

Event Code: 05E2CB00-2020-E-01527

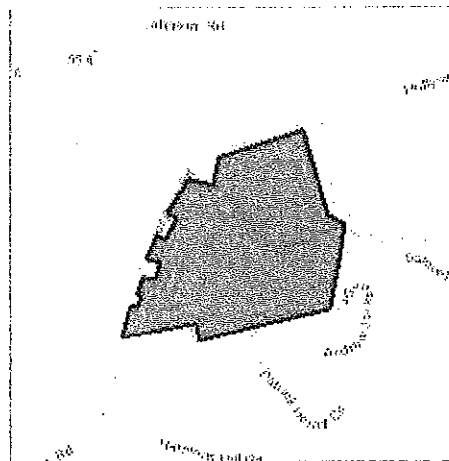
Project Name: Hollyville Road Properties

Project Type: DEVELOPMENT

Project Description: Residential Development on Uplands

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/38.666781032389N75.24280159338608W>



Counties: Sussex, DE

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. NOAA Fisheries, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Flowering Plants

NAME	STATUS
Swamp Pink <i>Helonias bullata</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/4333	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

USFWS National Wildlife Refuge Lands And Fish Hatcheries

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS OR FISH HATCHERIES WITHIN YOUR PROJECT AREA.

Wetlands

Impacts to NWI wetlands and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

FRESHWATER EMERGENT WETLAND

- PEM1A

FRESHWATER FORESTED/SHRUB WETLAND

- PFO1/3C
- PFO1/4A
- PFO1E

RIVERINE

- R2UBH
- R5UBH



United States Department of the Interior



FISH AND WILDLIFE SERVICE

Chesapeake Bay Field Office
177 Admiral Cochrane Drive
Annapolis, Maryland 21401
<http://www.fws.gov/chesapeakebay>

March 10, 2020

Environmental Resources, Inc.
P.O. Box 169
Selbyville, DE 19975

RE: SLI 0590 Hollyville Road Properties

Dear Edward Launay:

This responds to your letter, received February 13, 2020, requesting information on the presence of species which are federally listed or proposed for listing as endangered or threatened within the above referenced project area. We have reviewed the information you enclosed and are providing comments in accordance with section 7 of the Endangered Species Act (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.).

This project as proposed will have “no effect” on the endangered, threatened, or candidate species listed on your IPaC species list because while the project is within the range of the species, it is unlikely that the species would occur within the project area that was submitted. Therefore, no Biological Assessment or further Section 7 Consultation with the U.S. Fish and Wildlife Service is required. Should project plans change, or if additional information on the distribution of listed or proposed species becomes available, this determination may be reconsidered.

This response relates only to federally protected threatened or endangered species under our jurisdiction. For information on the presence of other rare species, you should contact Jason Davis of the Delaware Division of Fish and Wildlife, Wildlife Species Conservation and Research Program at (302) 735-3606. You may also obtain information on how to make such a request by visiting the Program website at www.dnrec.state.de.us/nhp.

An additional concern of the Service is wetlands protection. The Service’s wetlands policy has the interim goal of no overall net loss of Delaware Bay’s remaining wetlands, and the long term goal of increasing the quality and quantity of the Basin’s wetlands resource base. Because of this policy and the functions and values wetlands perform, the Service recommends avoiding wetland impacts. All wetlands within the project area should be identified, and if construction in wetlands is proposed, the U.S. Army Corps of Engineers, Philadelphia District should be contacted for permit requirements. They can be reached at (215) 656-6728.

TAKE PRIDE[®]
IN AMERICA 

We appreciate the opportunity to provide information relative to fish and wildlife issues, and thank you for your interest in these resources. If you have any questions or need further assistance, please contact Trevor Clark at (410) 573-4527.

Sincerely,

A handwritten signature in cursive script that reads "G. LaRouche". The signature is written in black ink and is positioned below the word "Sincerely,".

Genevieve LaRouche
Supervisor



REPLY TO
ATTENTION OF

DEPARTMENT OF THE ARMY

PHILADELPHIA DISTRICT CORPS OF ENGINEERS
WANAMAKER BUILDING, 100 PENN SQUARE EAST
PHILADELPHIA, PENNSYLVANIA 19107-3390

21 September 2020

Regulatory Branch
Application Section I

SUBJECT: CENAP-OP-R 2020-345-23 (PJD)
Project Name: Hollyville Road Property SX
Latitude/Longitude: 38.665834° N / -75.242564° W

Edward M. Launay
Environmental Resources, Incorporated
38173 DuPont Boulevard
Post Office Box 169
Selbyville, Delaware 19975

Dear Mr. Launay:

The plan identified on the following page depicts all delineated waterways and wetlands on the subject site that may be jurisdictional under Section 404 of the Clean Water Act and/or Section 10 of the Rivers and Harbor Act.

Pursuant to Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act, a Department of the Army permit is required for work or structures in navigable waters of the United States and the discharge of dredged or fill material into waters of the United States including adjacent wetlands. Any proposal to perform the above activities within any waters of the United States requires the prior approval of this office.

This preliminary determination has been conducted to identify the location(s) of wetlands and waters that may be waters of the United States for the particular site identified in this request. This determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are U.S. Department of Agriculture (USDA) program participants, or anticipate participating in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work.

This preliminary jurisdictional determination is non-binding and indicates that there may be waters of the United States, including wetlands on the parcel. Pursuant to Federal Regulations at 33 C.F.R. 331.2, preliminary JDs are advisory in nature and may not be appealed (see attached Notification of Appeal Form - Enclosure 1). However, the applicant retains the right to request an approved jurisdictional determination, which may be appealed. Also enclosed (Enclosure 2) is a copy of the Preliminary Jurisdictional Determination Form signed by the

applicant or his agent agreeing to accept a preliminary jurisdictional determination. Please be aware that for purposes of computation of impacts, compensatory mitigation requirements, and other resource protection measures, a permit decision made on the basis of a preliminary JD will treat all waters and wetlands that would be affected in any way by the permitted activity as if they are jurisdictional waters of the U.S.

This letter is valid for a period of five (5) years. However, this preliminary jurisdictional determination is issued in accordance with current Federal regulations and is based upon the existing site conditions and information provided by you in your application. This office reserves the right to reevaluate and modify the preliminary jurisdictional determination at any time should the existing site conditions or Federal regulations change, or should the information provided by you prove to be false, incomplete or inaccurate.

If you have any questions regarding this matter, please contact me at (302) 736-9764, or by email at john.g.brundage@usace.army.mil.

Sincerely,

BRUNDAG¹ Digitally signed by
BRUNDAGE.JOHN.
E.JOHN.G.1 G.1229157465
229157465 Date: 2020.09.21
14:45:11 -04'00'

John Brundage
Regulatory Branch

SUBJECT PROPERTY: A 193.66-acre property, located on Holleyville Road (SR48) at Tax Map Parcels 234-10.00-14.00 & 199.00; and Tax Map Parcels 234-16.00-1.01, 1.02, 3.00,4.00, & 5.00, Indian River Hundred, Sussex County, Delaware.

SURVEY DESCRIPTION: Plan prepared by Solutions, LLC, dated April 7, 2020, and titled: Boundary of Waters and Wetlands of the United States Subject to the United States Corps of Engineers Regulatory Program, Tax Map Parcels 234-10.00-14.00 & 199.00; 234-16.00-1.01, 1.02, 3.00, 4.00, & 5.00, Indian River Hundred, Sussex County, Delaware, one sheet.

COMMENTS: The above referenced site was inspected by a Corps of Engineers representative on May 20, 2020.

Enclosures

Jamie Whitehouse

From: Mackenzie Peet <Mackenzie@bmbde.com>
Sent: Friday, August 27, 2021 2:34 PM
To: Lauren DeVore; Jamie Whitehouse
Cc: Christin Scott; Kati; tgreen@schellbrothers.com; Jason Palkewicz
Subject: RE: Turnberry (FKA Unity)
Attachments: 202108271439.pdf

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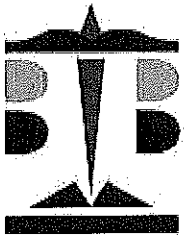
Good Afternoon Jamie and Lauren,

Please find the attached ESA letter from ERI Consultants, including two letters received from the US Fish & Wildlife Service with respect to federally listed threatened or endangered species and the letter from the Corps of Engineers approving the wetland boundary survey for the site.

Thank you,

Mackenzie

Mackenzie M. Peet, Associate Attorney
1413 Savannah Road, Suite 1, Lewes, DE
(302) 645-2262 (tel) | (302) 313-5278 (fax)
Mackenzie@bmbde.com



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MANDALAS
BROCKSTEDT** LLC

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From: Jason Palkewicz <jpalkewicz@solutionsipem.com>
Sent: Thursday, August 26, 2021 8:41 AM
To: Jamie Whitehouse <jamie.whitehouse@sussexcountyde.gov>
Cc: Lauren DeVore <lauren.devore@sussexcountyde.gov>; Christin Scott <christin.scott@sussexcountyde.gov>; Kati <kati@solutionsipem.com>; tgreen@schellbrothers.com; Mackenzie Peet <Mackenzie@bmbde.com>
Subject: Turnberry (FKA Unity)

CAUTION: This email originated from outside of the organization. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Jamie,

Good morning.

Please find the attached revised preliminary plat, response, booklet and displays for the public meeting on 09/09.

Note that the project has been renamed to Turnberry. Also, please be aware that the wooded areas to be saved noted on the plat are subject to final engineering and agency comments.

Thanks

Jason Palkewicz | PE, LEED AP | CEO |

Solutions IPEM | 303 N Bedford Street | Georgetown, DE 19947 | ph 302.297.9215 |

Preliminary Land Use Service (PLUS) Delaware State Planning Coordination 122 Martin Luther King Jr. Blvd., South • Dover, DE 19901 • Phone: 302-739-3090 • Fax: 302-739-5661	
<p>Purpose of PLUS - -The PLUS process is intended to provide consolidated State comments regarding the proposed project. The Applicant is encouraged to submit the application during the concept stages of planning as this process often offers recommendations for changes to the plan. The application should be submitted after the pre-application meeting with the local jurisdiction but before formal application is made.</p> <p>Please complete this PLUS application in its entirety. All questions <u>must</u> be answered. If a question is unknown at this time or not applicable, please explain. Unanswered questions on this form could lead to delays in scheduling your review. This form will enable the state staff to review the project <u>before</u> the scheduled meeting and to have beneficial information available for the applicant and/or developer at the time of review. If you need assistance or clarification, please call the State Planning Office at (302) 739-3090.</p> <p>PLUS Number (to be completed by OSPC): <u>2020-09-06</u> Investment Level Per Strategies for State Policies and Spending (to be determined by OSPC): <u>4</u></p>	
1. Project Title/Name: Unity Branch	
2. Location (please be specific): East of Hollyville Road, south of Hurdle Ditch Road.	
3. Parcel Identification #:	234-10-14 & 199 234-16-1.01, 1.02, 3, 4, & 5
4. County or Local Jurisdiction Name: where project is located: Sussex	
5. If contiguous to a municipality, are you seeking annexation:	
6. Owner's Name: Hollyville Buyer, LLD	
Address: 20184 Phillips Street	
City: Rehoboth Beach	State: DE Zip: 19971
Phone: 302.745.9614	Fax: Email: tgreen@schellbrothers.com
7. Equitable Owner/Developer (This Person is required to attend the PLUS meeting): Hollyville Buyer, LLC	
Address: 20184 Phillips Street Attn: Tim Green	
City: Rehoboth Beach	State: DE Zip: 19971
Phone: 302.745.9614	Fax: Email: tgreen@schellbrothers.com
8. Project Designer/Engineer: Solutions IPEM LLC	
Address: 303 North Bedford Street	
City: Georgetown	State: DE Zip: 19947
Phone: 302.297.9215	Fax: Email: jpalkewicz@solutionsipem.com
9. Please Designate a Contact Person, including phone number, for this Project: Jason Palkewicz	

Information Regarding Site:	
10. Type of Review: <input type="checkbox"/> Rezoning, if not in compliance with certified comprehensive plan <input type="checkbox"/> Site Plan Review <input checked="" type="checkbox"/> Subdivision	
11. Brief Explanation of Project being reviewed: Residential AR-1 Cluster If this property has been the subject of a previous LUPA or PLUS review, please provide the name(s) and date(s) of those applications.	
12. Area of Project (Acres +/-): 145.4 Number of Residential Units: 195 Commercial square footage: 0	
13. Present Zoning: AR-1	14. Proposed Zoning: AR-1
15. Present Use: Agriculture / Woodlands	16. Proposed Use: Residential Subdivision
17. Water: <input type="checkbox"/> Central (Community system) <input type="checkbox"/> Individual On-Site <input checked="" type="checkbox"/> Public (Utility) Service Provider Name: Artesian Will a new public well be located on the site? <input type="checkbox"/> Yes <input type="checkbox"/> No	
18. Wastewater: <input type="checkbox"/> Central (Community system) <input type="checkbox"/> Individual On-Site <input checked="" type="checkbox"/> Public (Utility) Service Provider Name: Artesian Will a new community wastewater system be located on this site? <input type="checkbox"/> Yes <input type="checkbox"/> No	
19. If residential, describe style and market segment you plan to target (Example- Age restricted):	
20. Environmental impacts: How many forested acres are presently on-site? 120 How many forested acres will be removed? 48.5 To your knowledge, are there any wetlands, as defined by the U.S. Army Corps of Engineers or the Department of Natural Resources and Environmental Control, on the site? <input type="checkbox"/> Yes <input type="checkbox"/> No Are the wetlands: <input type="checkbox"/> Tidal Acres: <input type="checkbox"/> Non-tidal Acres: 40 If "Yes", have the wetlands been delineated? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Has the Army Corps of Engineers signed off on the delineation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Will the wetlands be directly impacted and/or do you anticipate the need for wetland permits? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If "Yes", describe the impacts: How close do you anticipate ground disturbance to wetlands, streams, wells, or waterbodies? _____	
21. Does this activity encroach on or impact any tax ditch, public ditch, or private ditch (ditch that directs water off-site)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
22. List the proposed method(s) of stormwater management for the site: wet ponds, dry pond, bioretention, etc	
23. Is open space proposed? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If "Yes," how much? Acres: 90 What is the intended use of the open space (for example, active recreation, passive recreation, stormwater management, wildlife habitat, historical or archeological protection)? Active and passive recreation, swm, and wildlife habitat	
24. Are you considering dedicating any land for community use (e.g., police, fire, school)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	

25. Please estimate How many vehicle trips will this project generate on an average weekday? A trip is a vehicle entering or exiting. If traffic is seasonal, assume peak season: 1,891
What percentage of those trips will be trucks, excluding vans and pick-up trucks? Less than 5%

26. Will the project connect to state maintained roads? Yes No

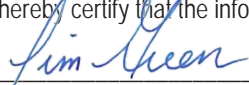
27. Please list any locations where this project physically could be connected to existing or future development on adjacent lands and indicate your willingness to discuss making these connections. TM 234-16-3

28. Are there existing sidewalks? Yes No; bike paths Yes No
Are there proposed sidewalks? Yes No; bike paths Yes
Is there an opportunity to connect to a larger bike, pedestrian, or transit network? Yes No

29. To your knowledge, is this site in the vicinity of any known historic/cultural resources or sites? Yes No
Has this site been evaluated for historic and/or cultural resources? Yes No
Would you be open to a site evaluation by the State Historic Preservation Office? Yes No

30. To promote an accurate review of your parcel's features, would you permit a State agency site visit? Yes No
Person to contact to arrange visit: _____ phone number: _____

31. Are any federal permits, licensing, or funding anticipated? Yes No

I hereby certify that the information on this application is complete, true and correct, to the best of my knowledge.


Signature of property owner
8.29.2020
Date

Signature of Person completing form
(If different than property owner)
Date

Signed application must be received before application is scheduled for PLUS review.

This form should be returned to the Office of State Planning electronically at plus@state.de.us along with an electronic copy of any site plans and development plans for this site. Site Plans, drawings, and location maps should be submitted as image files (JPEG, GIF, TIF, etc.) or as PDF files. GIS data sets and CAD drawings may also be submitted. If electronic copy of the plan is not available, contact The Office of State Planning Coordination at (302) 739-3090 for further instructions. A signed copy should be forwarded to the Office of State Planning, 122 William Penn Street, Dover, DE 19901. Thank you for this input. Your request will be researched thoroughly. Please be sure to note the contact person so we may schedule your request in a timely manner.

LEGEND

	EXISTING	PROPOSED
PROPERTY LINE	---	---
EASEMENT/BUFFER LINE	---	N/A
R.O.W. LINE	---	---
MAJOR CONTOUR	---	N/A
MINOR CONTOUR	---	N/A
ROAD CENTERLINE	N/A	---
EDGE OF CONCRETE	N/A	---
PAVEMENT	N/A	---
CURB AND GUTTER	N/A	---
SIDEWALK	N/A	---
EDGE OF POND	N/A	---
WETLANDS	---	N/A
WOODS LINE	---	N/A
FLOOD ZONE	---	N/A

SITE DATA:

OWNER: HOLLYVILLE BUYER, LLC
20184 PHILLIPS STREET
REHOBOTH BEACH, DE 19971

DEVELOPER: SCHELL BROTHERS, LLC
20184 PHILLIPS STREET
REHOBOTH BEACH, DE 19971
MR. CHRIS SCHELL

ENGINEER/ LAND PLANNER: SOLUTIONS IPEM, LLC
303 NORTH BEDFORD STREET
GEORGETOWN, DE 19947
PHONE: 302.297.9215
CONTACT: JASON PALKIEWICZ, PE

PROPOSED USE: A-1 CLUSTER

SINGLE FAMILY LOTS = 195 LOTS
MIN. LOT AREA = 7,500 S.F.
MIN. LOT WIDTH = 60'

MAXIMUM BUILDING HEIGHT: 42'

FRONT YARD = 25' (15' ON CORNER)
SIDE YARD = 10'
REAR YARD = 10'

BOUNDARY AND TOPOGRAPHY AS SHOWN HEREON ARE AS PROVIDED BY SOLUTIONS IPEM LLC

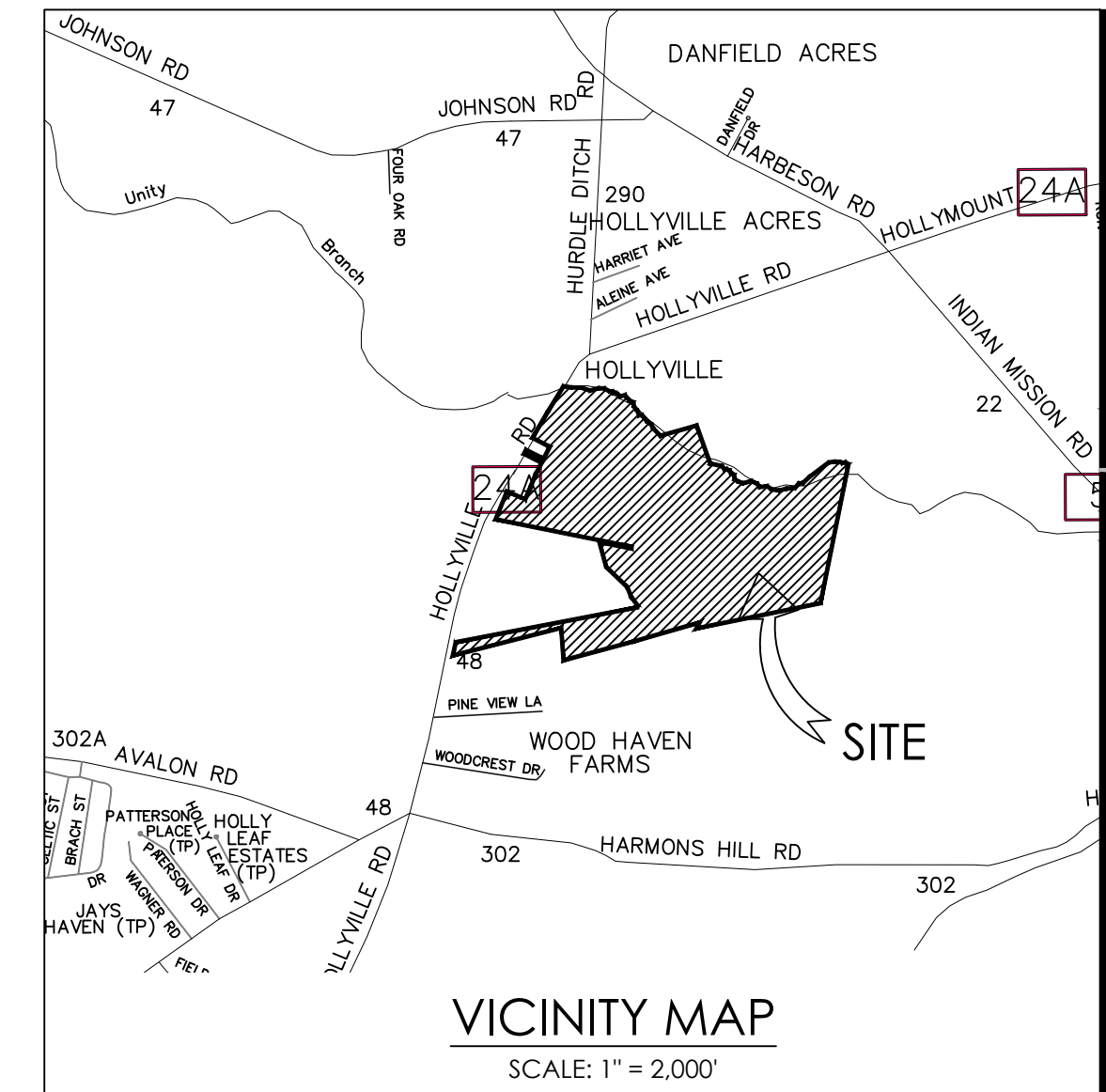
FLOOD ZONE: PROPERTY IS LOCATED IN ZONE A (SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD) AND ZONE X (AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN). PER FIRM MAP NUMBER 10005C0340K, MAP REVISED MARCH 16, 2015

WATER SUPPLY: ARTESIAN WATER COMPANY

SANITARY SEWER: ARTESIAN WASTEWATER MANAGEMENT, INC.

GROSS AREA = 145.42 AC.±
ALLOWABLE UNITS = 2,178 DU/AC * 145.42 AC = 316.72
PROPOSED UNITS = 195
(1.341 DU/ACRE GROSS)

AREAS:
OPEN SPACE AREA = 90 AC ± (61% ±)
NON-TIDAL WETLANDS AREA = 40.01 AC ±



solutions
IPEM, LLC
303 North Bedford Street
Georgetown, DE 19947
T. 302.297.9215
3033 Merritt Hill Road
Salisbury, MD 21804
T. 410.572.8833
www.solutionsipem.com Copyright © 2020

Seal _____
Date _____

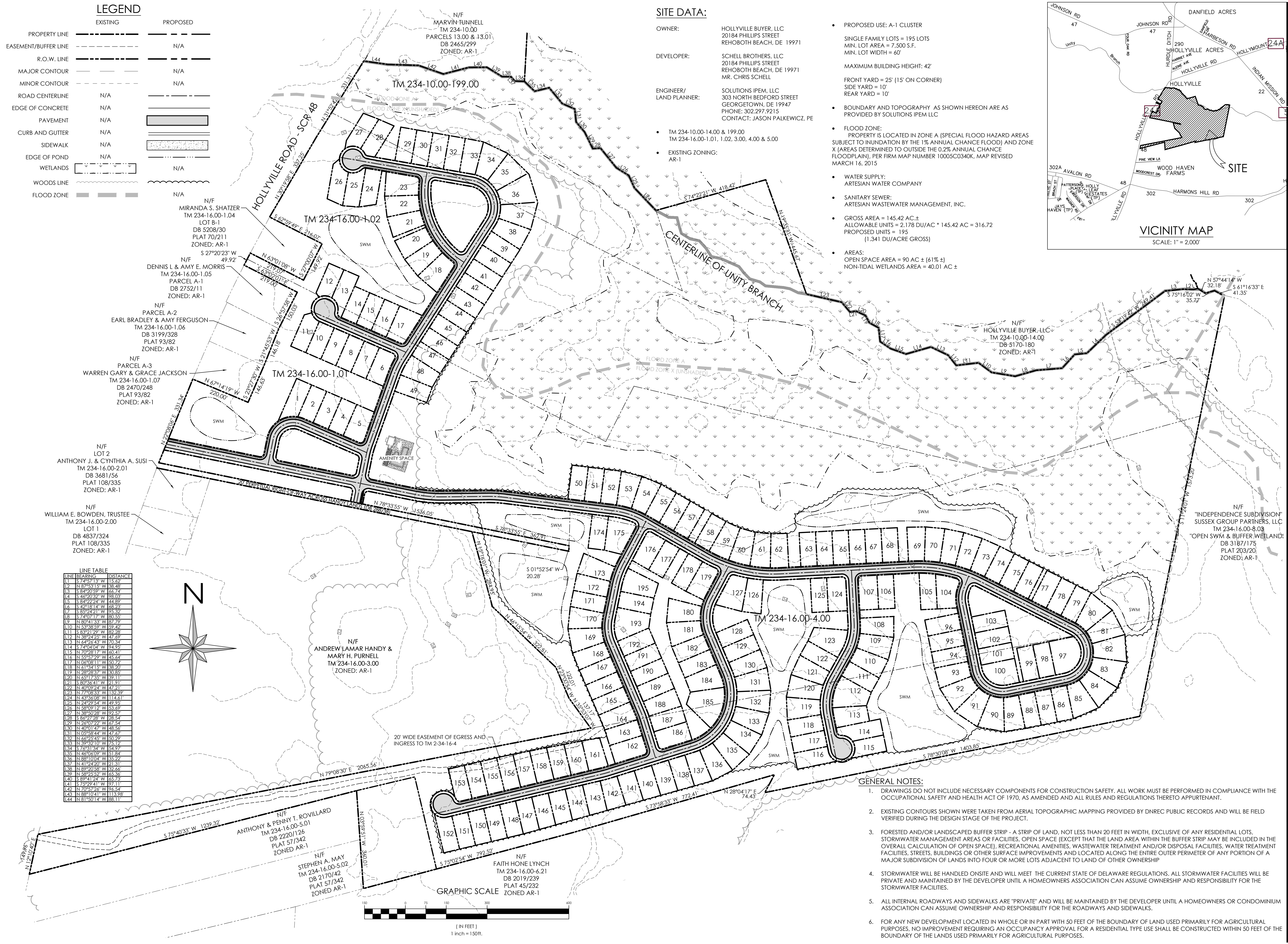
REVISIONS

NO.	DATE	DESCRIPTION

PLUS SITE PLAN for
UNITY BRANCH
INDIAN RIVER HUNDRED
SUSSEX COUNTY, DELAWARE

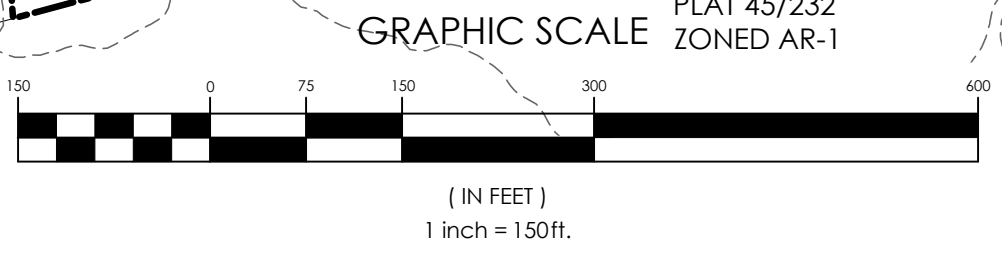
Date: 07/13/20
Job Number: G19087
Scale: 1" = 100'
Drawn By: MLL
Designed By: VE
Approved By: JIP

Sheet No.: 1
File Name: 19087-plus



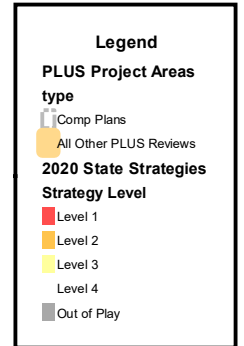
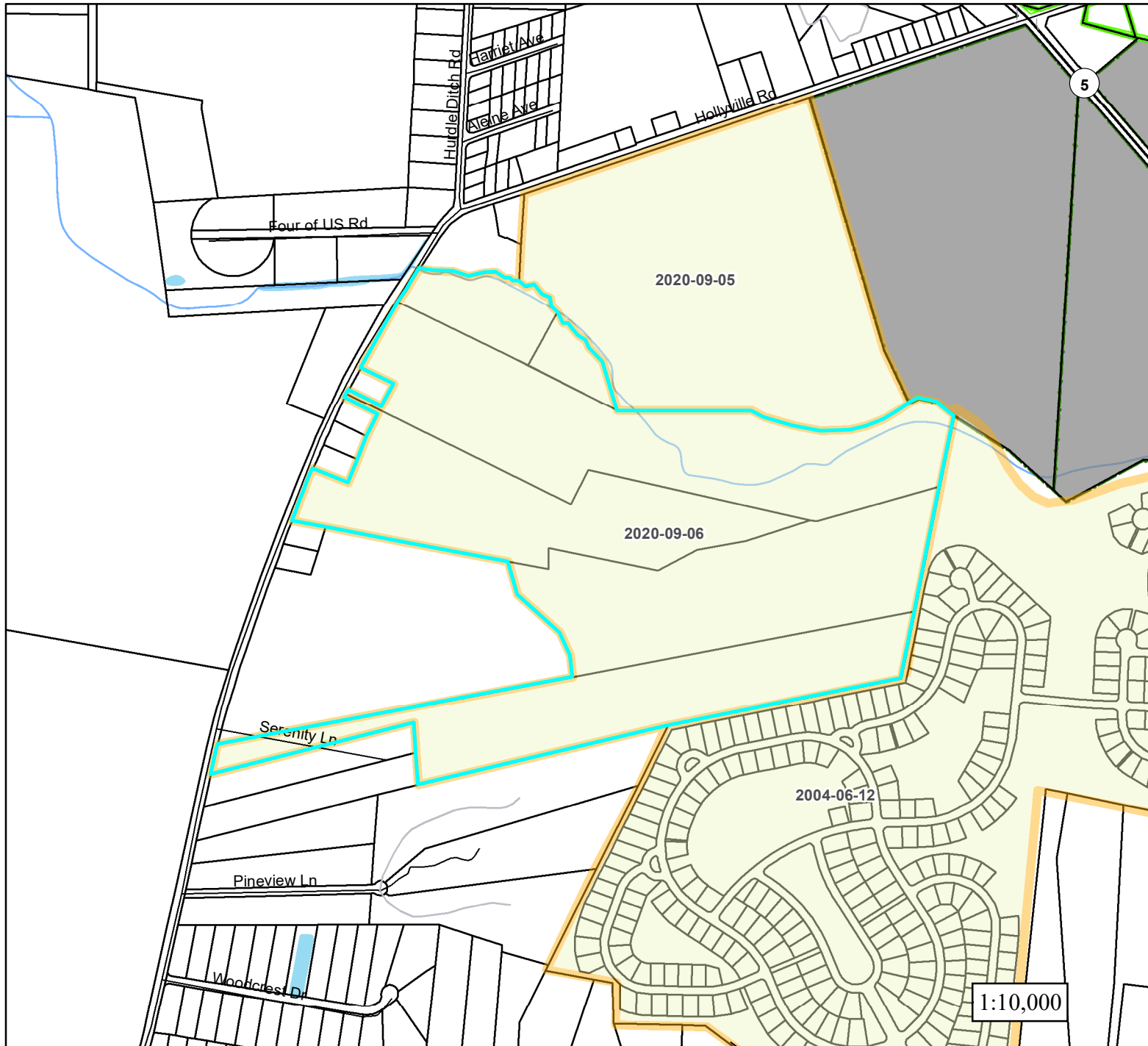
LINE TABLE

LINE	BEARING	DISTANCE
11	S 72°59'13" W	116.92
12	N 87°53'15" W	58.48
13	S 84°00'57" W	68.72
14	S 46°02'42" W	120.03
15	S 84°22'24" W	24.89
16	S 71°18'11" W	63.76
17	S 50°22'11" W	55.29
18	S 74°57'17" W	80.55
19	N 52°41'53" W	61.79
110	N 53°58'52" W	59.22
111	S 33°21'22" W	82.78
112	N 38°22'43" W	41.69
113	N 64°22'43" W	70.34
114	S 74°04'04" W	74.95
115	N 77°28'17" W	80.41
116	N 55°52'22" W	65.24
117	N 06°08'11" W	50.72
118	N 41°34'15" W	83.29
119	N 28°28'37" W	30.65
120	N 55°17'35" W	59.11
121	S 89°34'41" W	121.91
122	N 46°02'24" W	27.21
123	N 77°08'33" W	132.39
124	N 43°58'08" W	114.41
125	N 24°29'54" W	29.95
126	N 58°09'12" W	53.69
127	N 38°50'38" W	69.59
128	S 86°27'28" W	28.54
129	N 26°07'22" W	67.54
130	N 40°01'17" W	68.56
131	N 05°58'44" W	27.67
132	N 66°25'45" W	50.72
133	N 38°32'10" W	61.17
134	S 76°31'34" W	54.97
135	N 46°04'09" W	51.84
136	N 88°10'04" W	65.22
137	N 41°24'20" W	21.31
138	N 89°20'58" W	32.66
139	N 58°25'02" W	65.56
140	S 89°41'24" W	65.73
141	S 78°29'41" W	97.11
142	N 70°52'20" W	67.64
143	N 88°10'41" W	113.98
144	N 81°50'14" W	88.11

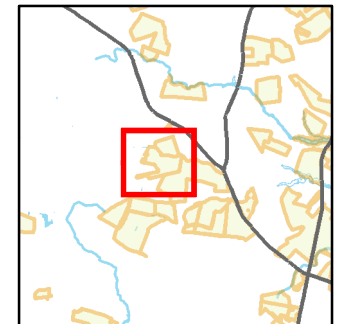


Preliminary Land Use Service (PLUS)

Unity Branch
2020-09-06

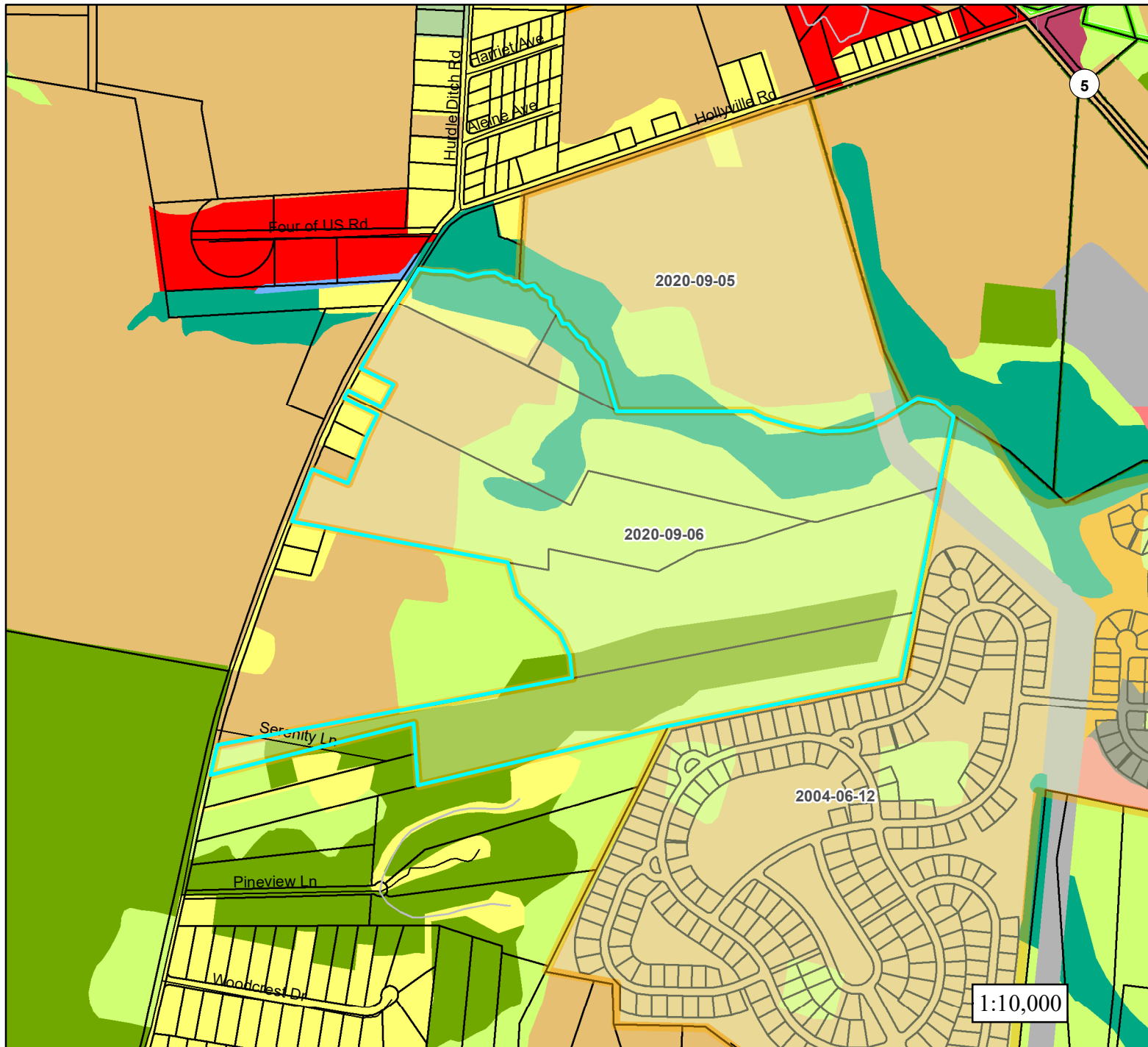


Location Map



Preliminary Land Use Service (PLUS)

Unity Branch
2020-09-06



Legend

2012 Land Use LULC Category

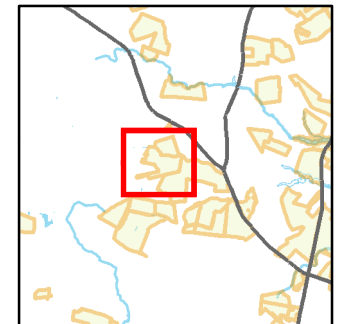
- 110
- Single Family Dwellings
- Multi-Family Dwellings
- Mobile Home Parks/Courts
- Commercial
- Industrial
- Transportation/Communication/Utilities
- Mixed Urban/Built-up
- Institutional/Governmental
- Recreational
- Farms, Pasture, Cropland
- Confined Animal Feeding Operations/Feedlots/Holding
- Rangeland
- Orchards/Nurseries/Horticulture
- Deciduous Forest
- Evergreen Forest
- Mixed Forest
- Shrub/Brush Rangeland
- Clear-cut
- Man-made Reservoirs and Impoundments
- Marinas/Port Facilities/Docks
- Open Water
- Emergent Wetlands - Tidal and Non-tidal
- Forested Wetlands - Tidal and Non-tidal
- Scrub/Shrub Wetlands - Tidal and Non-tidal
- Sandy Areas and Shoreline
- Extraction and Transitional

PLUS Project Areas

type

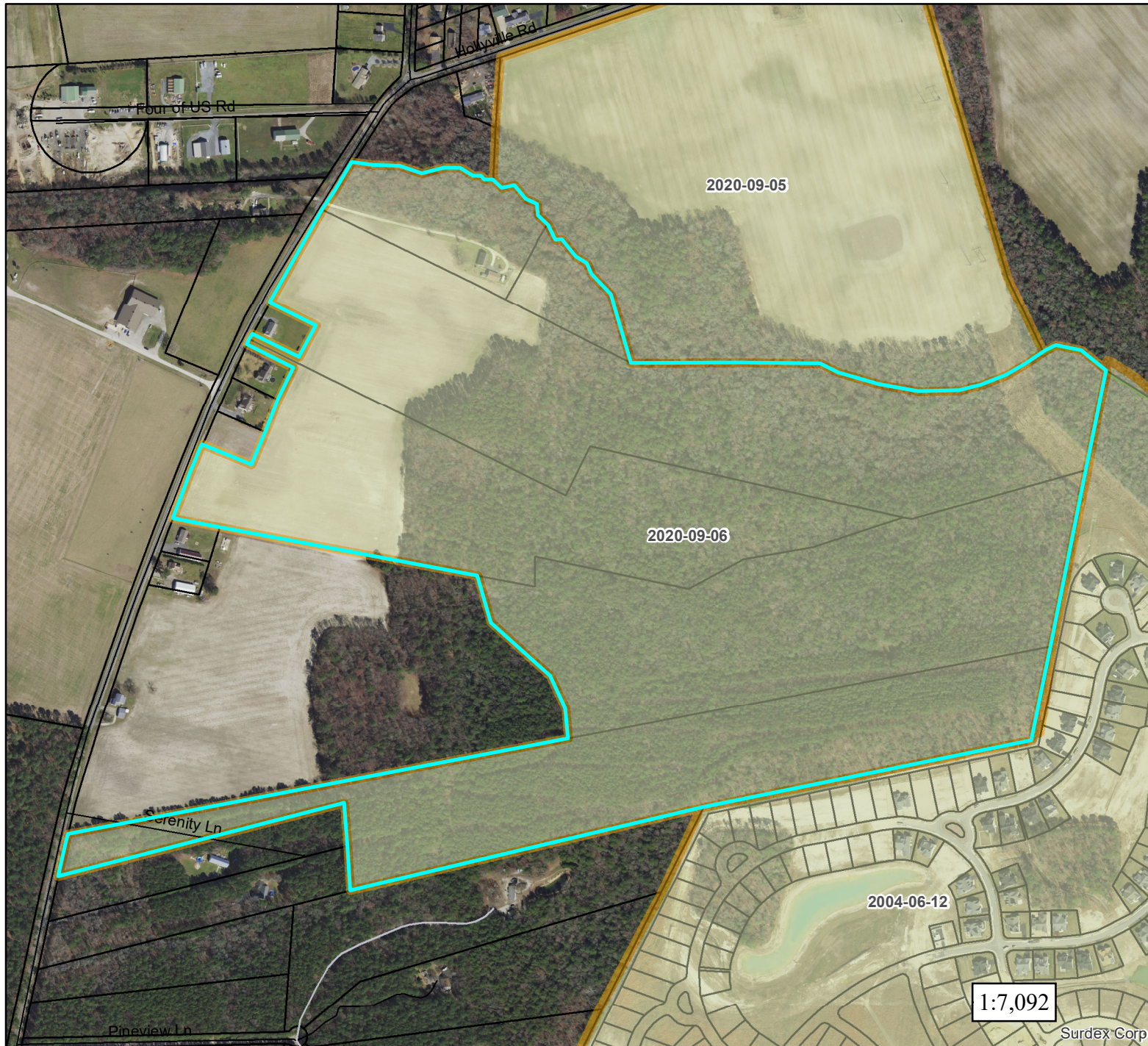
- Comp Plans
- All Other PLUS Reviews

Location Map



1:10,000

Preliminary Land Use Service (PLUS)

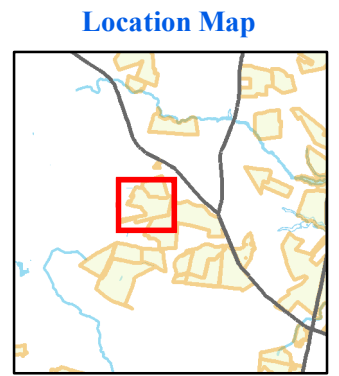


Unity Branch
2020-09-06

Legend

PLUS Project Areas
type

- Comp Plans
- All Other PLUS Reviews





STATE OF DELAWARE
EXECUTIVE DEPARTMENT
OFFICE OF STATE PLANNING COORDINATION

October 21, 2020

Mr. Jason Palkewicz
Solutions, IPEM LLC
303 North Bedford Street
Georgetown, DE 19947

RE: PLUS review 2020-09-06; Unity Branch

Dear Mr. Palkewicz:

Thank you for meeting with State agency planners on September 23, 2020 to discuss the Unity Branch project. According to the information received you are seeking review of a proposed 195-unit subdivision on 145.4 acres along Hollyville Road in Level 4 in Sussex County.

Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting. **The developers will also need to comply with any Federal, State, and local regulations regarding this property. We also note that as Sussex County is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the County.**

Strategies for State Policies and Spending

This project represents a residential development within a Level 4 area according to the 2020 Strategies for State Policies and Spending. Investment Level 4 indicates where State investments will support agricultural preservation, natural resource protection, and the continuation of the rural nature of these areas. New residential development activities are not supported in Investment Level 4 areas. These areas are comprised of prime agricultural lands and environmentally sensitive wetlands and wildlife habitats, which should be, and in many cases have been preserved.

From a fiscal responsibility perspective, development of this site is likewise inappropriate. The cost of providing services to development in rural areas is an inefficient and wasteful use of the State's fiscal resources. The project as proposed will bring a new residential development to an area where the State has no plans to invest in infrastructure upgrades or additional services. The intended development will need access to services and infrastructure such as police, and

transportation. To provide some examples, the State government funds 100% of road maintenance and drainage improvements for the transportation system, and 100% of the cost of police protection in the unincorporated portion of Sussex County where this development is proposed. Over the longer term, the unseen negative ramifications of this development will become even more evident as the cost of maintaining infrastructure and providing services increases.

Because the development is inconsistent with the 2020 *Strategies for State Policies and Spending*, the State does not support the development of this parcel.

With that said, the comments in this letter are technical, and are not intended to suggest that the State supports this development. This letter does not in any way suggest or imply that you may receive or may be entitled to permits or other approvals necessary to build on this property.

Code Requirements/Agency Permitting Requirements

Department of Transportation – Contact Bill Brockenbrough 760-2109

- The site access on Hollyville Road (Sussex Road 48) must be designed in accordance with DelDOT's Development Coordination Manual, which is available at <http://www.deldot.gov/Business/subdivisions/index.shtml?dc=changes>.
- Pursuant to Section 1.3 of the Manual, a Pre-Submittal Meeting is required before plans are submitted for review. The form needed to request the meeting and guidance on what will be covered there and how to prepare for it is located at https://www.deldot.gov/Business/subdivisions/pdfs/Meeting_Request_Form.pdf?08022017.
- Section 1.7 of the Manual addresses fees that are assessed for the review of development proposals. DelDOT anticipates collecting the Initial Stage Fee when the record plan is submitted for review and the Construction Stage Fee when construction plans are submitted for review.
- Per Section 2.2.2.1 of the Manual, Traffic Impact Studies (TIS) are warranted for developments generating more than 500 vehicle trip ends per day or 50 vehicle trip ends per hour in any hour of the day. From the PLUS application, the total daily trips are estimated at 1,891 vehicle trip ends per day. Using the 10th edition of the Institute of Transportation Engineers' Trip Generation Manual, DelDOT calculates this number as 1,922 and estimates the weekday morning and evening peak hour trip ends at 143 and 193, respectively.

Section 2.2.2.2 of the Development Coordination Manual provides that for developments generating less than 2000 vehicle trip ends per day and less than 200 vehicle trip ends per hour in any hour of the day, DelDOT may accept an Area Wide Study (AWS) Fee in lieu

of the TIS if the local government does not require a TIS. The AWS Fee is calculated as \$10 per daily trip or, in this case, \$19,220. AWS Fees are used to fund traffic studies, not to build improvements.

Preliminarily, DelDOT anticipates requiring the developer to make some or all of the following frontage and off-site improvements. DelDOT will develop an estimated trip distribution for the development and will meet with the applicant to discuss their findings as to which improvements will be required.

- Improve Hollyville Road, within the limits of the site frontage (see definition in Section 1.8 of the Manual) to meet DelDOT's Major Collector Road standards, which include 12-foot lanes and 8-foot shoulders.
- Provide a Traffic Operational Analysis (TOA) to evaluate sight distance and the need for turning lanes at the intersection of Hollyville Road and Hurdle Ditch Road (Sussex Road 290) and to improve the intersection based on the results of that TOA.
- Contribute toward a DelDOT intersection improvement project (HEP SC, SR 5 & Hurdle Ditch Road) at the intersection of Delaware Route 5, Hurdle Ditch Road and Cool Spring Road (also Sussex Road 290).
- Enter a signal agreement for the intersection of Delaware Route 5, Hollyville Road and Hollymount Road (also Sussex Road 48).
- Enter a signal agreement for the intersection of Delaware Route 5, Harmons Hill Road (Sussex Road 302) and Zoar Road (also Sussex Road 48)
- Contribute toward a planned roundabout at the intersection of Hollyville Road (Sussex Road 305 south of Zoar Road), Zoar Road (also Sussex Road 48) and Harmons Hill Road.
- As necessary, in accordance with Section 3.2.5 and Figure 3.2.5-a of the Manual, DelDOT will require dedication of right-of-way along the site's frontage on Hollyville Road. By this regulation, this dedication is to provide a minimum of 40 feet of right-of-way from the physical centerline. The following right-of-way dedication note is required, **"An X-foot wide right-of-way is hereby dedicated to the State of Delaware, as per this plat."**
- In accordance with Section 3.2.5.1.2 of the Manual, DelDOT will require the establishment of a 15-foot wide permanent easement across the property frontage. The location of the easement shall be outside the limits of the ultimate right-of-way. The easement area can be used as part of the open space calculation for the site. The

following note is required, “A **15-foot wide permanent easement is hereby established for the State of Delaware, as per this plat.**”

- Referring to Section 3.4.2.1 of the Manual, the following items, among other things, are required on the Record Plan:
 - A Traffic Generation Diagram. See Figure 3.4.2-a for the required format and content.
 - Depiction of all existing entrances within 450 feet of the entrance on Hollyville Road.
 - Notes identifying the type of off-site improvements, agreements (signal, letter) contributions and when the off-site improvements are warranted.
- Section 3.5.4.2 of the Manual addresses requirements for Shared Use Paths (SUP) and sidewalks. For projects in Level 3 and 4 Investment Areas, installation of paths or sidewalks along the frontage on State-maintained roads is at DelDOT’s discretion. DelDOT anticipates requiring the developer to build an SUP along their frontage on Hollyville Road. DelDOT recognizes that this requirement would yield several short segments of path.
- Section 3.5.4.4 of the Manual addresses requirements for accessways. Accessways are paths that connect subdivision streets to a sidewalk or SUP. DelDOT anticipates requiring accessways to the SUP along the site frontage from proposed cul-de-sacs near Lots 11, 26 and 152.
- In accordance with Section 3.8 of the Manual, storm water facilities, excluding filter strips and bioswales, shall be located a minimum of 20 feet from the ultimate State right-of-way along Hollyville Road.
- In accordance with Section 5.2.9 of the Manual, the Auxiliary Lane Worksheet should be used to determine whether auxiliary lanes are warranted at the site entrances and how long those lanes should be. The worksheet can be found at <http://www.deldot.gov/Business/subdivisions/index.shtml>.
- In accordance with Section 5.4 of the Manual, sight distance triangles are required and shall be established in accordance with American Association of State Highway and Transportation Officials (AASHTO) standards. A spreadsheet has been developed to assist with this task. It can be found at <http://www.deldot.gov/Business/subdivisions/index.shtml>.

- In accordance with Section 5.14 of the Manual, all existing utilities must be shown on the plan and a utility relocation plan will be required for any utilities that need to be relocated.
- The applicant should expect a requirement that any substation and/or wastewater facilities will be required to have access from an internal driveway with no direct access to Hollyville Road.
- The applicant should expect a requirement that all PLUS and Technical Advisory Committee (TAC) comments be addressed prior to submitting plans for review.
- Please be advised that the Standard General Notes have been updated and posted to the DelDOT website. Please begin using the new versions and look for the revision dates of March 21, 2019 and March 25, 2019. The notes can be found at <https://www.deldot.gov/Business/subdivisions/>.

Department of Natural Resources and Environmental Control – Beth Krumrine 735-3480

Concerns Identified Within the Development Footprint

Special Flood Hazard Area

According to the newest Flood Insurance Rate Maps (FIRM), the northern end of this parcel is situated within Special Flood Hazard Area, specifically within the 100-year floodplain (1% annual chance of flooding). Building is not proposed within the floodplain.

- The applicant must comply with local floodplain ordinance and regulations applicable to development or construction within the 100-year floodplain. In determining the boundary of the floodplain, use the most recent FIRM maps available, which can be found at <https://maps.dnrec.delaware.gov/floodplanning/default.html>.
- Contact: DNREC Shoreline and Waterway Management Section at (302) 739-9921. Website: <http://www.dnrec.delaware.gov/swc/Drainage/Pages/Flooding.aspx>
- Locate proposed structures outside of the floodplain. If this is not possible, the developer should consider designing structures to a higher standard to avoid potential future flood damage and loss.

Wetlands

Statewide Wetlands Mapping Project maps indicate the presence of federal wetlands on the site. Federal wetlands include non-tidal and freshwater wetlands. According to the application, a wetland delineation has been completed the U.S. Army Corps of Engineers has not approved the

wetland delineation. A minimum of a 25-foot buffer has been proposed for the site, exceeding 150 feet in some areas, according to the preliminary site plans.

- If the project proposes to disturb (dredge or fill) federally regulated wetlands, a delineation of waterways and wetlands is required by the U.S. Army Corps of Engineers. In certain circumstances, additional certifications from DNREC Wetlands & Subaqueous Lands Section will be required as part of the U.S. Army Corps of Engineers permit process.
- For a list of consultants and engineers please visit the DNREC Wetlands and Subaqueous Lands Section link:
<http://www.dnrec.delaware.gov/wr/Documents/WLSL/Consultant%20List.pdf>
- Contact: U.S. Army Corps of Engineers (Dover Office) at DoverRegulatoryFieldOffice@usace.army.mil or (267) 240-5278.
Website: <https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Obtain-a-Permit/>

Vegetated Buffer Zones

Vegetated buffer zones placed adjacent to waterways and wetlands help to improve water quality by reducing sediment and pollutants loads. They also provide valuable habitat and can help prevent encroachment of human activities into ecologically sensitive areas. Please note that vegetated buffers are not equivalent to setbacks, as residential lots, walkways, and stormwater management facilities should not be contained within the vegetated buffer zone.

- The applicant must comply with minimum vegetated buffer widths as identified within county and municipal codes.
- Incorporate a 100-foot vegetated buffer from the edge of wetlands and streams to protect water quality.
- Vegetated buffer zones should be left undisturbed during construction and should be identified outside of the Limit of Disturbance (LOD) on the engineering plans. In some instances, stormwater outfalls, conveyances, and emergency spillways may cross through these zones, and will require temporary disturbance during construction.
- Vegetated buffer zones should be deeded as community open space. Signage should be installed at the edge and within the buffer zones to deter residents from encroaching into these common areas.
- Maintain vegetated buffer zones as either grasslands/meadows or forest. Buffer zones should be planted exclusively with native trees and plants. Native plants are well-suited to our climate and require limited maintenance. They also provide an increasingly important role in the survival of native birds and beneficial insects whose habitat is shrinking due to development and climate change. In general, grass cutting for vegetated

buffer zones should not occur between April 1st to July 31st to reduce impacts to nesting birds and other wildlife species that utilize meadows and grasslands for breeding habitat.

- Contact: DNREC Wildlife Species Conservation & Research Program at (302) 735-3600.
Website: <https://dnrec.alpha.delaware.gov/fish-wildlife/contact-information/>

Delaware Ecological Network

Approximately 80% of this site (forested portion) is located within the Delaware Ecological Network, much of which is proposed to be removed. This network is made up of interconnecting natural areas of significant ecological value. Forest disturbances on this site could jeopardize habitat beyond the parcel boundary.

- Removing forested areas within the Delaware Ecological Network should be avoided to the greatest extent possible. These areas provide habitat for wildlife, uptake nutrients, infiltrate stormwater, and improve water quality. Forests also provide shading and cooling, while reduce carbon that contributes to climate change.
- Contact: DNREC Wildlife Species Conservation and Research Program at (302) 735-3600.
Website: <https://dnrec.alpha.delaware.gov/fish-wildlife/contact-information/>

Old Growth Forest

An analysis of historical data indicates that the forest area proposed to be developed has likely maintained some degree of forest cover since 1937. Mature forests possess the potential for rare, threatened, or endangered species that rely on this type of habitat.

- A forest assessment should be conducted to determine if mature forest resources exist on the property and to delineate their boundaries. Additionally, a forest assessment would include the identification of specimen trees and forest-dependent wildlife.
- If mature forests are found, these areas should be conserved to the maximum extent practicable.
- Contact: DNREC Wildlife Species Conservation & Research Program at (302) 735-3600.
Website: <https://dnrec.alpha.delaware.gov/fish-wildlife/contact-information/>

Stormwater Management

This project/site has met the minimum threshold of 5000 square feet of land disturbing activity under the Delaware Sediment and Stormwater Program.

- A Sediment and Stormwater Plan must be developed and approved prior to any land disturbing activity taking place on the site. This plan approval agency will vary, depending on the location of the project, or whether it is operated by a state agency or school district. The appropriate agency for this project is identified below.

- Additionally, construction activities that exceed 1.0 acre of land disturbance require Construction General Permit coverage through submittal of an electronic Notice of Intent for Stormwater Discharges Associated with Construction Activity. This form must be submitted electronically (<https://apps.dnrec.state.de.us/eNOI/default.aspx>) to the DNREC Division of Watershed Stewardship, along with the \$195 fee.
- Schedule a project application meeting with the appropriate agency prior to moving forward with the stormwater and site design. As part of this process, you must submit a Stormwater Assessment Study.
- Appropriate plan review agency contact: Sussex Conservation District at (302) 856-2105 or (302) 856-7219. Website: <https://www.sussexconservation.org/>
- General stormwater contact: DNREC Sediment and Stormwater Program at (302) 739-9921. E-mail: DNREC.Stormwater@delaware.gov. Website: <http://www.dnrec.delaware.gov/swc/Pages/SedimentStormwater.aspx>.
- Where site and soil conditions allow, integrate runoff reduction techniques including infiltration basins, bioretention (rain gardens), filter strips, and pavers to encourage on-site stormwater infiltration and reduce overall runoff including pollutant runoff.
- For improved stormwater management, preserve existing trees, wetlands, and passive open space.

Hydric Soils

While most of the project lies within A soils (well drained), the northern portion of the site is comprised of A/D (somewhat poorly drained) and B/D (poorly drained) soils. These soil types are typically not conducive to utilizing infiltration stormwater Best Management Practices such as bioretention and infiltration basins, which must meet minimum infiltration requirements.

- Any stormwater Best Management Practices that propose the use of infiltration or natural recharge shall include a soils investigation.
- Contact: DNREC Sediment and Stormwater Program at (302) 739-9921.
E-mail: DNREC.Stormwater@delaware.gov.
Website: <http://www.dnrec.delaware.gov/swc/Pages/SedimentStormwater.aspx>.

General Drainage Recommendations

This area was part of the Hopkins Prong Drainage Study for the Sussex Conservation District. This study revealed that the lower portion of the watershed has experienced flooding.

- All existing ditches on the property should be checked for function and cleaned, if needed, prior to the construction of homes. Wetland permits may be required before cleaning ditches.

- All precautions should be taken to ensure the project does not hinder any off-site drainage upstream of the project or create any off-site drainage problems downstream by the release of on-site storm water.
- Any area designated as a drainage/utility easement should be open space and not owned by the individual landowners.
- Any drainage/utility easement owned by an individual landowner should not possess structures such as decks, buildings, sheds, kennels, or fences within the drainage easement to allow for future drainage maintenance. Trees and shrubs planted within a drainage/utility easement should be spaced to allow for drainage maintenance at maturity.
- Contact: DNREC Drainage Program at (302) 855-1930.
Website: <http://www.dnrec.delaware.gov/swc/Drainage/Pages/TaxDitches.aspx>

Nutrient Management Plan

This project proposes open space exceeding 10 acres (specifically 90 acres proposed).

- A nutrient management plan is required for all persons or entities who apply nutrients to lands or areas of open space of 10 acres or more.
- Contact: Delaware Department of Agriculture's Nutrient Management Program at (302) 698-4558. Website: <https://agriculture.delaware.gov/nutrient-management/>

Wildlife Displacement

Development of this site is anticipated to displace local wildlife. Wildlife displaced by encroaching development may become a nuisance for homeowners.

- Future residents are not permitted to discharge firearms within 100 yards (approximately 300 feet) of any occupied dwelling or building to hunt or remove nuisance wildlife.
- Deer, groundhogs, and rabbits will browse on gardens, yards, and ornamental landscaping. Developers can avoid conflicts with future residents and most wildlife by maintaining large blocks of forest, as opposed to small pockets of wooded areas within a 300-foot safety zone.
- Contact: DNREC Division of Fish and Wildlife at (302) 739-9912.
Website: <https://dnrec.alpha.delaware.gov/fish-wildlife/wildlife/>

Mosquitoes

The project lies within a zone that will be impacted by mosquitoes due to its location near large expanses of freshwater wetlands.

- Mosquito control issues are increasing as developments infringe on wetland areas, often leading to increased demands by the public for mosquito control services. These control

services can be provided at no charge to homeowners and other entities by the state's Mosquito Control Section, or by a private company licensed in this area of specialty.

- Contact: DNREC Division of Fish and Wildlife at (302) 739-9917.
Website: <https://dnrec.alpha.delaware.gov/fish-wildlife/mosquito-control/>

Wastewater Permitting – Large Systems

Artesian holds existing permits with the DNREC Groundwater Discharges Section's Large Systems Branch.

- It is the responsibility of Artesian to notify the Large Systems Branch if the capacity of the rate of wastewater disposal is to be updated.
- Contact: DNREC Large Systems Branch at (302) 739-9948
Website: <https://dnrec.alpha.delaware.gov/water/groundwater/>

Sustainable Practices

- Use efficient Energy Star rated products and materials in construction and redevelopment to lessen the power source emissions of the project and costs. Every percentage of energy efficiency translates into a percent reduction in pollution.
- Consider using renewable energy infrastructure such as solar or geothermal to reduce energy costs and further reduce pollution created from offsite generation. Energy efficiency upgrades for your project may be eligible for funding through the Division of Climate, Coastal, & Energy. Website: www.de.gov/greenenergy, www.de.gov/eeif.
- Incorporate nonmotorized connectivity and install bicycle racks where feasible to help facilitate non-vehicular travel modes.
- Consider installing electric vehicle charging infrastructure to assist Delaware in achieving its clean transportation goals. The Division of Climate, Coastal, & Energy offers incentives for clean transportation (electric vehicle charging). These programs address climate change goals of reducing greenhouse gas emissions and improving overall air quality Website: www.de.gov/cleantransportation.
- Air pollution from new construction is generated through the use of maintenance equipment, paints, and consumer products like roof coatings and primers. Use of structural paint coatings that are low in Volatile Organic Compounds will help protect air quality.
- The applicant should consider the use of recycled materials, such as reclaimed asphalt pavement, to reduce landfill waste, heat island effects on paved surfaces, and pavement costs.

- Include space for recycling dumpsters within the preliminary site design stage. These can be placed adjacent to trash dumpsters.

State Historic Preservation Office – Contact Carlton Hall 736-7400

- The Delaware SHPO does not recommend or support development in level 4 areas
- Prehistoric potential is moderate to high. Well-drained soils, prime farmland, and well within favorable distance to a water source, Unity Branch (Beers, topos). Archaeological site on north side of parcel has both historic and prehistoric components. Recommend an archaeological survey.
- Historic archaeological potential is moderate. There is a farmstead there as early as 1918 (topo) but was not there in 1868 (Beers), but that may be just off of the parcel. Remains associated with the farmhouse could be possible, especially with the cemetery. Other than that, the parcel appears to have remained the same through historic times. Considering the cemetery, the Delaware SHPO is recommending caution and an archaeological survey.
- If any project or development proceeds, the developer should be aware of the Unmarked Human Burials and Human Skeletal Remains Law (Del. C. Title 7, Ch. 54).
- If there is federal involvement, in the form of licenses, permits, or funds, the federal agency, often through its client, is responsible for complying with Section 106 of the National Historic Preservation Act (36 CFR 800) and must consider their project's effects on any known or potential cultural or historic resources. For further information on the Section 106 process please review the Advisory Council on Historic Preservation's website at: www.achp.gov

Delaware State Fire Marshall's Office – Contact Duane Fox 259-7037

At the time of formal submittal, the applicant shall provide; completed application, fee, and three sets of plans depicting the following in accordance with the Delaware State Fire Prevention Regulation:

Fire Protection Water Requirements:

- Where a water distribution system is proposed for single-family dwellings it shall be capable of delivering at least 500 gpm for 1-hour duration, at 20-psi residual pressure. Fire hydrants with 1000 feet spacing on centers are required.
- The infrastructure for fire protection water shall be provided, including the size of water mains.

Accessibility:

- All premises, which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. Additionally, where trees are to be situated adjacent to travel roads in the subdivision, some forethought should be exercised regarding how future growth of the trees may affect fire department travel throughout the subdivision.
- Fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 ft. of the front door.
- Any dead-end road more than 300 feet in length shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. The dimensions of the cul-de-sac or turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.
- The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.
- The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.

Gas Piping and System Information:

- Provide type of fuel proposed and show locations of bulk containers on plan.

Required Notes:

- Provide a note on the final plans submitted for review to read “All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations”
- Name of Water Supplier
- Proposed Use
- National Fire Protection Association (NFPA) Construction Type
- Maximum Height of Buildings (including number of stories)
- Provide Road Names, even for County Roads
- Although not a requirement of the State Fire Prevention Regulations, the Office of the State Fire Marshal encourages home builders to consider the benefits of home sprinkler protection in dwellings. The Office of the State Fire Marshal also reminds home builders that they are obligated to comply with requirements of Subchapter III of Chapter 36 of Title 6 of the Delaware Code which can be found at the following website:
<http://delcode.delaware.gov/title6/c036/sc03/index.shtml>
- Preliminary meetings with fire protection specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded

from our website: www.statefiremarshal.delaware.gov, technical services link, plan review, applications or brochures.

Department of Agriculture – Contact: Milton Melendez 698-4534

- The proposed project is adjacent to a property protected through the State's Agricultural Lands Preservation Program (DSWA District S-07-11-250 Parcel 234-10.00-15.00, 234-16.00-12.00). Therefore, the activities conducted on this preserved property are protected by the agricultural use protections outlined in Title 3, Del. C., Chapter 9. These protections effect adjoining developing properties. The 300-foot notification requirement affects all new deeds in a subdivision located in whole or part within 300 feet of an Agricultural District/Easement. Please take note of these restrictions as follows:

§ 910. Agricultural use protections.

(a) Normal agricultural uses and activities conducted in a lawful manner are preferred and priority uses and activities in Agricultural Preservation Districts. In order to establish and maintain a preference and priority for such normal agricultural uses and activities and avert and negate complaints arising from normal noise, dust, manure and other odors, the use of agricultural chemicals and nighttime farm operations, land use adjacent to Agricultural Preservation Districts shall be subject to the following restrictions:

(1) For any new subdivision development located in whole or in part within 300 feet of the boundary of an Agricultural Preservation District, the owner of the development shall provide in the deed restrictions and any leases or agreements of sale for any residential lot or dwelling unit the following notice:

This property is located in the vicinity of an established Agricultural Preservation District in which normal agricultural uses and activities have been afforded the highest priority use status. It can be anticipated that such agricultural uses and activities may now or in the future involve noise, dust, manure and other odors, the use of agricultural chemicals and nighttime farm operations. The use and enjoyment of this property is expressly conditioned on acceptance of any annoyance or inconvenience which may result from such normal agricultural uses and activities."

(2) For any new subdivision development located in whole or in part within 50 feet of the boundary of an Agricultural Preservation District, no improvement requiring an occupancy approval shall be constructed within 50 feet of the boundary of the Agricultural Preservation District.

(b) Normal agricultural uses and activities conducted in accordance with good husbandry and best management practices in Agricultural Preservation Districts shall be deemed protected actions and not subject to any claim or complaint of

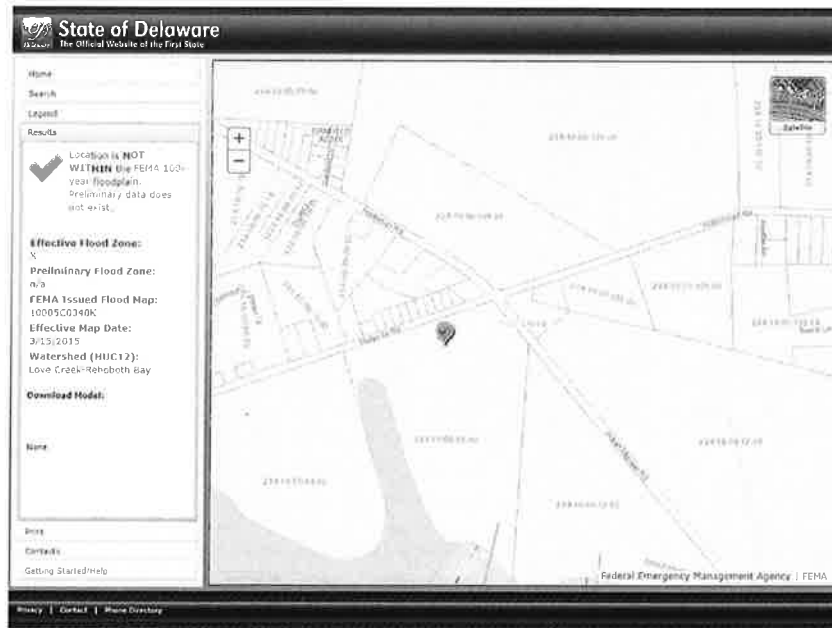
nuisance, including any such claims under any existing or future county or municipal code or ordinance. In the event a formal complaint alleging nuisance related to normal agricultural uses and activities is filed against an owner of lands located in an Agricultural Preservation District, such owner, upon prevailing in any such action, shall be entitled to recover reasonably incurred costs and expenses related to the defense of any such action, including reasonable attorney's fees (68 Del. Laws, c. 118, § 2.).

- In addition, if any wells are to be installed, Section 4.01(A)(2) of the Delaware Regulations Governing the Construction and Use of Wells will apply. This regulation states:

(2) For any parcel, lot, or subdivision created or recorded within fifty (50) feet of, or within the boundaries of, an Agricultural Lands Preservation District (as defined in Title 3, Del. C., Chapter 9); all wells constructed on such parcels shall be located a minimum of fifty (50) feet from any boundary of the Agricultural Lands Preservation District. This requirement does not apply to parcels recorded prior to the implementation date of these Regulations. However, it is recommended that all wells be placed the maximum distance possible from lands which are or have been used for the production of crops which have been subjected to the application of land applied federally regulated chemicals.

Delaware Emergency Management Agency – Contact Philip Cane 659-2325

- Dependent on the exact location of the construction and the extent of the project (size of the subdivision), the location may or may not have parts within the 100-year flood plain. The location described is NOT immediately apparent within the 100-year flood plain.



Sussex County Planning & Zoning – Contact Lauren DeVore 855-7878

- The applicant is required to participate in a pre-application meeting with the County. Please contact the Planning and Zoning Department to schedule a pre-application meeting with staff to discuss the proposed project by calling (302)855-7878 or you may reach out to Lauren DeVore at lauren.devore@sussexcountyde.gov.
- Following submission to the County, staff would undertake review of the Preliminary Site Plan, where more detailed comments would be provided to the applicant. At the PLUS stage of review, staff wish to limit comments to high-level comments only.
- 1.34 dwelling units per acre complies with Code requirements for the AR-1 Zoning District which allows a total of up to 2 dwelling units per acre and 4 with the density bonus.
- Staff note that there are 90 acres of open space proposed (roughly 60% of the site) which complies with Code requirements.
- There are 40 acres of non-tidal wetlands on-site and there should be a 25-ft buffer from all wetlands. Interconnectivity is encouraged so that there is not only one way in, one way out access in the event of an emergency.
- Please show text and hatching which clearly delineates the location of the 20-ft forested/landscape buffer around the perimeter of the site as per §99-5 of the Code. Please note that this buffer shall be at least 30-ft wide in areas within 50-ft of an existing residential development (§115-25(E)(4)).
- There are no Wellhead Protection Areas on site and the site is located within an area of “fair” Groundwater Recharge according to GIS records. Please note these items on the plans to accord with Chapter 89 “Source Water Protection” of the Sussex County Code.
- Please note that these are informal staff comments, and do not prejudice any decisions that the Sussex County Planning & Zoning Commission may wish to make as part of the formal review process.

Sussex County Housing – Contact: Brandy Nauman 855-7779

- Sussex County endeavors to promote non-discrimination and affordable housing whenever possible throughout the County. In this regard, the developer and associated financial institutions are encouraged to provide and finance affordable housing opportunities to Sussex County residents in all new developments, and affirmatively market those affordable housing units to diverse populations.

- For questions about opportunities available for affordable housing projects within Sussex County, please consult Sussex County's "Affordable Housing Support Policy". The policy along with other resources are available on the County's Affordable & Fair Housing Resource Center website: www.sussexcountyde.gov/affordable-and-fair-housing-resource-center. The County's Community Development & Housing Department can advise about existing affordable housing opportunities in Sussex County and the appropriate County Department to contact regarding specific development issues concerning future affordable housing projects within Sussex County.
- The Community Development & Housing Department can also explain and assist with any financial support or incentives that may be available to a project from federal, state and county sources, as well as private funding sources that also promote affordable housing in Sussex County.
- Please understand that all residential projects, including Affordable Housing Projects are subject to the applicable provisions of the Sussex County Subdivision and Zoning Codes, and the approval processes set forth in those Codes.

Sussex County Engineering Department – Contact Chris Calio 855-1299

- The project is within a Tier 3 area for wastewater planning. Sussex County does not currently have a schedule to provide sanitary sewer to these parcels. The Sussex County Engineering Department recommends the project receive wastewater service from a public utility or municipality.

Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the pre-application process, noting whether comments were incorporated into the project design or not and the reason therefore.

Thank you for the opportunity to review this project. If you have any questions, please contact me at 302-739-3090.

Sincerely,



Constance C. Holland, AICP
Director, Office of State Planning Coordination

CC: Sussex County

Turnberry

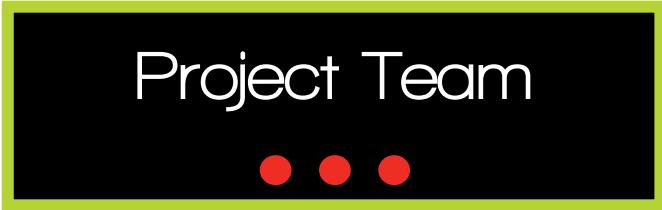
Project Reference Material

AR-1 Cluster



August 2021





APPLICANT/DEVELOPER:

Unity Branch Holdings, LLC

Contact: Tim Green
20184 Phillips Street
Rehoboth Beach, DE 19971
Telephone: 302.226.1994
Email: tgreen@schellbrothers.com

CIVIL ENGINEER/
LAND PLANNER

Solutions IPEM LLC

Contact: Jason Palkewicz, PE
303 North Bedford Street
Georgetown, DE 19947
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ENVIRONMENTAL

Environmental Resources, Inc

Contact: Edward M. Launay, Professional Wetland Scientist
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Selbyville, DE 19975
Telephone: 302.436.9637
Email: elaunay@ericonsultants.com

ATTORNEY:

Baird Mandalas Brockstedt, LLC

Contact: Mackenzie M Peet, Esq
1413 Savannah Road, Suite 1
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Telephone: 302.645.2262
Email: mackenzie@bmbde.com

TRAFFIC CONSULTANT:

The Traffic Group, Inc

Contact: Betty Tustin, PE, PTOE
104 Kenwood Court
Berlin, MD 21811
Telephone: 443.290.4060
Email: btustin@trafficgroup.com

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Resumes:

Jason Palkewicz, PE



I. Executive Summary

Turnberry is a proposed 145.4-acre Cluster Subdivision composed of 195 single-family detached homes on individual lots. The site is located on the West side of Hollyville Road adjacent to the existing Independence residential community. The land is currently zoned AR-1 Agricultural Residential.

Turnberry is located within Investment Level 4 of the State Strategies for Policies and Spending Map.

The proposed community provides 195 single-family homes on roads within private rights-of-way with curb and gutter and sidewalk on one side, streetlights and preserved wooded and wetland areas. The project contains a total of 97 +/- acres (67%) of interconnected open space.

A centrally located recreation facility is provided which includes a pool and bathhouse. Two trails connect the sidewalks to the proposed DeIDOT multi-modal path. A school bus stop and central mail facility will also be provided.

Proposed Density and Calculations:

Allowable Homes Calculation (AR-1 Cluster):

2.0 homes/acre
145.4 x 2.0 = 290 homes

Proposed Homes:

195 Homes

Actual Density:

195 / 145.4 = 1.34 homes/acre

In conclusion, the proposed community has been thoughtfully planned to achieve a superior living environment for future residents. This plan provides appealing amenities that will result in sustainable property values with neutral to positive impacts on property values in nearby neighborhoods while promoting the health, safety, and welfare of the citizens of Sussex County.

II. Project Overview

A. Boundary Plat, Topographic & Non-Tidal Wetlands Survey

A boundary topographic survey for the property was prepared by Solutions IPEM, LLC. The total area of the property is 145.4 +/- acres. Wetlands areas were flagged and field located as part of the survey.

B. Overview of Current Site Conditions

The property for the proposed Turnberry community is located West of Hollyville Road, adjacent to the Independence community. The proposed development is in the vicinity of the residential communities of Independence, Welsh Run, Wetherby, Pelican Point, Woodridge, Falcon Crest, and Stonewater Creek.

Areas that should be preserved were determined to be non-tidal wetlands, areas along Turnberry Branch as well as the woods adjacent to and within the non-tidal wetlands.

The property is located within flood Zone X, (areas determined to be outside the 0.2% annual chance floodplain), and Zone A, (special flood hazard areas subject to inundation by the 1% annual chance flood) per map number 10005C Panel 0340K, map revised March 16, 2015. The site is located within areas of fair groundwater recharge potential.

A soils report was prepared by GTA. Areas outside of the wetlands contain primarily Class A soils, with some Class A/D. The site is suitable for development including infrastructure, home construction and stormwater management.

C. Land Plan and Amenities

The land plan considers:

- Existing site conditions
 - Non-Tidal Wetlands
 - Forest Land
 - Existing Grades
 - Unity Branch
 - Flood Zones
- Stormwater outfalls
- Adjacent communities
- Existing roadways
- Current housing trends
- Recreational needs

The resultant plan has:

- A 30' landscaped buffer (partially existing woods).
- Proposed lots are more than 40' from the perimeter of the site.
- The lots are a minimum of 50' from the non-tidal wetlands.
- Sidewalks one side of the road along with an anticipated trail connecting to the proposed DeIDOT multi-modal path.
- A 50' buffer from Unity Branch.
- Main recreation facility including:

- Pool
- Bathhouse
- Streetlights.
- Community mailbox cluster.
- School bus stop.
- An efficient stormwater management system that acts as an amenity.
- Large tracks of open space
 - Open Space Required (30%) = 43.62 acres
 - Contiguous Open Space Required (30% of Required Open Space) = 13.09 acres
 - Contiguous Open Space Provided = 78 acres

D. DeIDOT Improvements

A series of discussions were held with DeIDOT officials concerning area roadway improvements related to Hollyville Road specifically about off-site transportation improvements and frontage improvements. A Traffic Operational Analysis (TOA) was prepared by Traffic Group. Entrance improvements are anticipated to include turn lanes into the development.

E. Preliminary Land Use Service (PLUS)

A concept plan for Turnberry was presented to PLUS on September 23, 2020. A response letter was provided to PLUS which addressed their comments point by point.

F. Sanitary Sewer Planning Area

The Turnberry community is anticipated to be served by Artesian. The site is located within the Sussex County Tier 3 – Coordinated CPCN Area.

III. Compliance with Applicable Regulations

A. Compliance with AR-1 (Agricultural Residential District)

The project is located within the AR-1 zone. The site is being developed with residential lots lines within the AR-1 zone and will meet the requirements of the AR-1 Cluster as existed at the time of application.

The proposed land use is in conformity with the Zoning Ordinance which allows 2.0 dwelling units per acre based on the gross site area.

Purpose: Turnberry conforms with the purpose of the AR-1 code in as much as it is a low-density residential community that protects water resources, watersheds, forest area and scenic views. Specific design elements include:

- Recreation facilities including a pool and bathhouse are provided.
- Sidewalks and a connection to the multi modal path are provided.
- No wetlands are impacted.
- There are no wellhead protection areas on the property.
- The site is within the fair groundwater recharge area.
- A walking trail.

Permitted Uses: The AR-1 allows the proposed single-family cluster development.

Permitted Accessory Uses: The zoning allows outdoor amenities for use of occupants and their guests.

Conditional Uses: Turnberry is not applying for any conditional uses.

Special Use Exceptions: Turnberry is not applying for any special use exceptions.

Permitted Signs: All proposed development signage will conform to the regulations provided in 115-159.2.

Height, Area and Bulk Requirements: The height, area and bulk requirements are set forth in the AR-1 District. The following is a summary of the lot dimensions and setbacks for Turnberry, all of which are in conformity with County requirements:

Single Family Lots -

- Minimum Lot Area = 7,500 S.F.
- Minimum Lot Width = 60'
- Front Yard = 25' (15' Corner Lot)
- Side Yard = 10'
- Rear Yard = 10'
- Maximum Building Height = 42'

B. Statement of Compliance with Chapter 115-25, E. Design Requirements for Cluster Development

(1) All development shall be in accordance with the latest amendment to the community design standards. The proposed cluster subdivision complies with the Community Design section of the County's comprehensive plan.

(2) Housing types in the low-density area, as shown on the Sussex County Comprehensive Plan, are limited to single-family detached dwellings and manufactured homes where permitted by ordinance. Only single-family detached home types are proposed within the cluster subdivision.

(3) A forested buffer area with a minimum width of 30 feet shall be provided for lots abutting an agricultural area. A 30' buffer is provided to the adjacent properties. Homes are further than 50' away from agricultural uses.

(4) Dwellings located within 50 feet of an existing residential development shall provide adequate transition in density or shall provide a thirty-foot buffer meeting the standards below and maintained by a designated entity. No proposed lots are within 40' of the outbounds of the project. A 30' buffer is provided.

(5) No lots shall have direct access to any state-maintained roads. No proposed lots have access to state-maintained roads.

(6) All lots shall be configured to be contained completely outside of all wetlands. The proposed lots are not located within wetlands.

(7) Any development using the option in Subsection B(2) shall have central water and wastewater systems operated and maintained by companies authorized by the State of Delaware to perform such services. Wastewater collection and treatment systems must be designed in accordance with the requirements of Sussex County ordinances and conform to the requirements for a central sewer system as defined in § 115-194A of the Sussex County Zoning Ordinance. The proposed community will be served by both central water and wastewater systems.

C. Statement of Compliance with Chapter 115-25, F. (3) Planning and Zoning Requirements

(a) [1] The proposed lots and amenities are located within the environmentally suitable portions of the site. Specifically, wetlands and waterways are avoided. Clearing of the woods will be limited to the amount required to develop the project.

(a) [3] The open space meets the requirements of the County Code. The required open space (30% of site) is 43.62 acres, 97 acres have been provided. Of the required open space (43.62 acres), 30% (13.09 acres) is required to be on one contiguous tract of land (separated by water and up to one street). The project provided 78 acres of contiguous open space. The open space tract is located along the wetlands and waterway. The sidewalk system is proposed to be connect to the DelDOT multi-modal system.

(a) [4] A minimum 25' buffer is provided around the existing non-tidal wetlands as well as a 50' buffer to the branch.

(a) [5] Stormwater management shall be provided per DNREC and Sussex Conservation District. Recharge or structurally equivalent BMPs shall be provided.

(a) [6] Tree removal shall be limited to necessary to construct the project.

(a) [7] Scenic views to waterway, wetland and wooded areas are preserved for the homeowners and passersby by limiting back-to-back lots and providing gaps between lots.

(a) [8] The land plan preserved natural facilities (wetlands, waterways, woods) and includes sidewalks and connections to DelDOT's multi-modal path. Open space adjacent to natural features has been prioritized. Existing grades and drainage area are considered in the lot layout.

(a) [9] Sidewalks are provided on one side of each street.

(b) Natural and historic features are preserved as part of the land plan.

(c) Section 99-9C items are addressed herein.

(d) The cluster subdivision is not located within a designated growth area.

D. Statement of Compliance with Chapter 99, Sussex County Subdivision of Land

Chapter 99-9 (C)

The proposed development plan has taken into consideration all items listed within the Subdivision of Land – Chapter 99, Section C within the Sussex County Code and complies with it in the following manner:

1. *"Integration of the proposed subdivision into existing terrain and surrounding landscape."*

- a. The Developer has taken great effort to utilize the additional land as open space. The proposed location of storm water management facilities was also based on extensive soils borings and a soil report.
- b. Forested non-tidal wetlands have been preserved.
- c. A minimum 30' landscaped buffer has been provided adjacent to all surrounding property lines.
- d. The proposed lots within the community are a minimum of 40' from the outbounds of the property.

2. *"Minimal use of wetlands and floodplains."*

- a. A minimum of 50' is provided between the proposed lots and wetlands.
- b. The proposed lots are located within flood Zone X (unshaded), areas determined to be outside the 0.2% annual chance floodplain.

3. "Preservation of natural and historic features."

- a. There are no known historic sites.
- b. The roadway system, stormwater features and lots were designed in such a way to minimize impacts/disturbance of steep slopes.

4. "Preservation of open space and scenic views."

- a. Large tracts of open space are being persevered including wooded areas, wetlands, buffers and flood zone.
- b. Views of the existing wooded wetlands are preserved and are viewable from the lots and through open space adjacent to the roadways.

5. "Minimization of tree, vegetation, and soil removal and grade changes."

- a. Disturbance to the site will be limited to only those areas required for homes, roads, storm water management and utility installation. All undisturbed vegetation that is compatible with native vegetation shall remain.
- b. Grade changes to the site shall be limited to those necessary to provide positive drainage and proper cover over utilities.

6. "Screening of objectionable features from neighboring properties and roadways."

- a. Screening of objectionable features on the site from adjacent properties and roadways shall be provided utilizing the required 30' landscaped buffer around the perimeter of the site or existing forested areas and storm water management facilities where those exist.
- b. The proposed lots within the community are a minimum of 40' from the outbounds of the property.

7. "Provision for water supply."

- a. Artesian will provide potable water and fire protection for the development.

8. "Provision for sewage disposal."

- a. The Turnberry community wastewater service is intended to be provided by Artesian.

9. "Provision for solid waste disposal."

- a. Arrangements will be made with a commercial trash hauler to provide trash collection for Turnberry.

10. "Prevention of surface and groundwater pollution."

- a. All runoff from the Turnberry site will be directed via the closed road section and storm drain network into a storm water management system consisting of Best Management Practices (BMP) for treatment and discharge. The storm water management facilities will be designed in accordance with Delaware and Sussex County standards.
- b. Ultimately, through post-development design, runoff will receive better treatment than during pre-development conditions. The project will meet the current storm water management regulations as required by DNREC.

11. *“Minimization of erosion and sedimentation, minimization of changes in groundwater levels, minimization of increased rates of runoff, minimization of potential for flooding and design of drainage so that groundwater recharge is maximized.”*

- a. As stated above, stormwater management quality and quantity will be provided by a storm water management system consisting of Best Management Practices (BMP) for treatment and discharge. The BMP’s will be designed per Delaware and Sussex County standards. The stormwater collection/treatment system will be adequately sized to prevent flooding.
- b. Erosion and sediment control will be provided by methods approved by the Sussex Conservation District. An erosion and sediment control plan will be prepared and submitted for review.

12. *“Provision for safe vehicular and pedestrian movement within the site and to adjacent ways.”*

- a. Entrance to the site shall be designed per current DelDOT standards.
- b. To promote pedestrian traffic within the development, 5’ sidewalks are provided along one side of the road.
- c. All roads will be designed in accordance with Sussex County standards.

13. *“Effect on area property values.”*

- a. It is expected that the proposed Turnberry community will cause current property values to remain the same if not increase the value of the properties in the area. Great attention has been paid to the detail and aesthetic qualities of the plan, the livability of the community and amenities provided.

14. *“Preservation and conservation of farmland.”*

- a. The proposed subdivision will not adversely affect adjacent farmland due to landscaped buffers and other natural wooded areas and wetland that separate the community from farmland.

15. *“Effect on schools, public buildings, and community facilities.”*

- a. Turnberry will have no adverse effect on schools, public buildings, and community facilities as demonstrated by the PLUS comments.
- b. Community amenities will include a pool and bathhouse. In addition, Turnberry includes several open space areas for other active and passive uses.

16. “Effect on area roadways and public transportation.”

- a. A series of discussions were held with DelDOT officials concerning area roadway improvements related to Turnberry specifically with regard to off-site transportation improvements and frontage improvements. Entrance improvements are anticipated to include turn lanes into the property.

17. “Compatibility with Other Land Uses.”

- a. The project is near to other residential communities of The proposed development is in the vicinity of the residential communities of Independence, Welsh Run, Wetherby, Pelican Point, Woodridge, Falcon Crest, and Stonewater Creek, thus being compatible in density, home style and land use.

18. “Effect on Area Waterways.”

- a. Runoff will be treated for water quality and quantity prior to discharge.

E. Statement of Conformity with Sussex County, Delaware, Comprehensive Plan Update, March 2019

Chapter 4 Future Land Use:

The site is located within the Low-Density Area and complies as follows:

- The proposed land plan addresses environmental concerns.
 - o Greater than 20% of the site is set aside as open space.
 - o 30’ perimeter landscape buffer.
- Single-family homes are permitted.
- The proposed density of 1.34 du/ac is in compliance with the 2 du/ac as appropriate in this location.
- Central water and sewer will be available to the site.

Chapter 5 Conservation:

The proposed community complies with the Conservation section as follows:

- The site complies with surface water runoff requirements.
- There are no well head protection areas nor excellent ground recharge areas within the proposed site.
- Wetlands will be preserved.
- No lots are proposed within the existing wetlands.
- The proposed lots are not located within flood zones.
- Central water and sewer will be available to the site.

Chapter 6 Recreation and Open Space:

The proposed community complies with the Recreation and Open Space section as follows:

- The site is located within Region 5 of the Delaware Statewide Comprehensive Outdoor Recreation Plan and provides the following:
 - o High Priorities:
 - Swimming pools
 - Walking/jogging paths (multi-modal)
 - Bike paths (multi-modal)
- In addition, the community provides:
 - o Sidewalks

Chapter 7 Utilities:

The proposed community complies with the Utilities section as follows:

- Water will be provided by Artesian who has the CPCN for the project.
- The Turnberry community wastewater service will be provided by Artesian.
- Adequate areas are provided for stormwater management and stormwater drainage.
- It is anticipated that solid waste collection will be by a licensed commercial hauler.

Chapter 8 Housing:

The proposed community complies with the Housing section as follows:

- The community is located West of the Lewes / Rehoboth Beach region and will provide housing for retirees as well as those working in the County.

Chapter 9 Economic Development:

The proposed community complies with the Economic Development section as follows:

- This development project will directly provide employment/opportunities in:
 - o Construction
 - o Professional, Business and IT Services
 - o Finance, Insurance and Real Estate
 - o Utilities
- The development will also indirectly provide job opportunities in:
 - o Leisure and Hospitality
 - o Education and Healthcare

Chapter 10 Historic Preservation:

The proposed community complies with the Historic Preservation section as follows:

- There are no known historic sites located on the site.

Chapter 12 Community Design:

The proposed community complies with the Community Design section as follows:

- The proposed community is a cluster subdivision, which is widely used in AR-1 zoning.
- Street lighting will be provided.
- Sidewalks are proposed on one side of the roadways.
- The lot sizes within the cluster make rear garages impossible and side loads very unlikely.
- The narrower right-of-way allows for homes to be placed closer to the road.
- The proposed homes will be limited to 42' in height.

- No variances to the required setbacks are proposed.
- Although no direct connection of walking trails or bicycle paths to the existing adjacent communities is possible, the community will connect to multi-modal paths within DeIDOT's right-of-way.
- The entrance to the community will be landscaped.
- Cross walks will be provided.
- Landscape/forested buffers will be provided along the perimeter.
- Utilities are proposed to be underground.
- Street signage will be provided throughout the community.

Chapter 13 Mobility Element:

The proposed community complies with the Mobility Element section as follows:

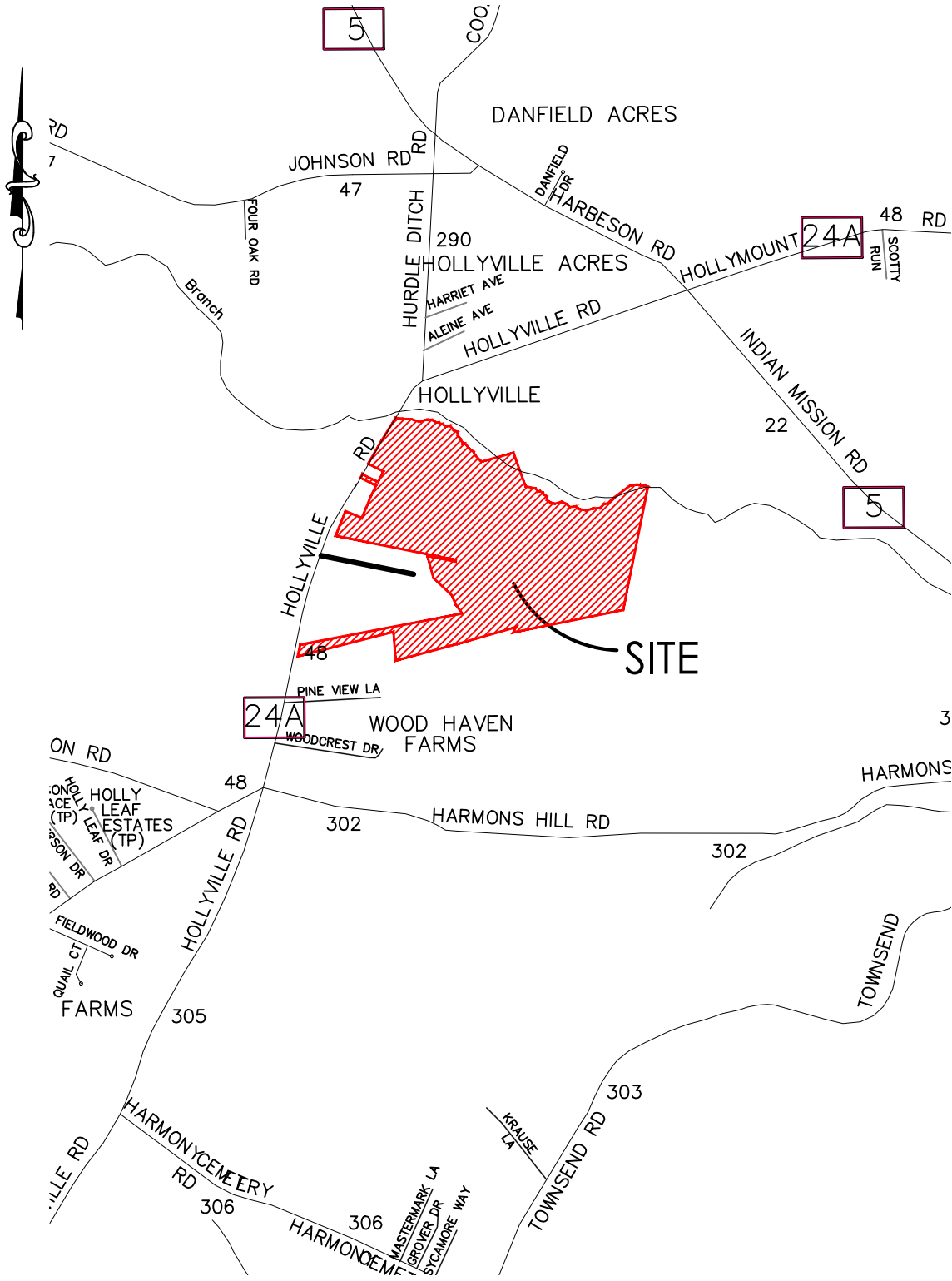
- Entrance, roadway and off-site improvements necessitated by DeIDOT will be designed and constructed per DeIDOT standards.

IV. Conclusion

The proposed community of Turnberry will enhance the area with a well-planned design, upscale homes, amenities, and minimal negative impact on the land. The design preserves large amounts of open space while preserving attractive views within the community. The homes will have a neutral to positive impact on the value of the surrounding neighborhoods and will provide the County with additional tax revenue. Passive amenities include existing woodlands and wetlands on-site. Active amenities include pool and bathhouse as well as dedicated open spaces for other activities. The design also preserves and enhances existing views through non-disturbance and accentuates certain features of the existing terrain.

The proposed Community of Unity meets the standards set forth by the County and State and will provide a superior living environment for future residents without placing a burden on the County, State, or taxpayers to serve this community.

VICINITY MAP



TURNBERRY



solutions

Integrated Planning
Engineering & Management, LLC

Fuller Hall & ASSOCIATES, INC.
A Wholly Owned Subsidiary

November 12, 2020

Mrs. Constance C. Holland, AICP, State Planning Director
Haslet Armory
122 Martin Luther King Jr. Blv. South
Dover, DE 19901

RE: PLUS review 2020-09-06; Unity Branch

Dear Mrs. Holland;

Please allow this letter to serve as our response to the PLUS review of the Unity Branch property. Answers to comments have been provided following each comment taken directly from your comment letter for ease of use. Our responses are in red and in different font for ease in review.

Please note that changes to the plan, other than those suggested in this letter, could result in additional comments from the State. Additionally, these comments reflect only issues that are the responsibility of the agencies represented at the meeting. **The developers will also need to comply with any Federal, State, and local regulations regarding this property. We also note that as Sussex County is the governing authority over this land, the developers will need to comply with any and all regulations/restrictions set forth by the County.**

Response: The developer will comply with all Federal, State and local regulations regarding the development of this property. The developer will comply with any and all regulations/restrictions set forth by Sussex County.

Strategies for State Policies and Spending

This project represents a residential development within a Level 4 area according to the 2020 Strategies for State Policies and Spending. Investment Level 4 indicates where State investments will support agricultural preservation, natural resource protection, and the continuation of the rural nature of these areas. New residential development activities are not supported in Investment Level 4 areas. These areas are comprised of prime agricultural lands and environmentally sensitive wetlands and wildlife habitats, which should be, and in many cases have been preserved.

From a fiscal responsibility perspective, development of this site is likewise inappropriate. The cost of providing services to development in rural areas is an inefficient and wasteful use of the State's fiscal resources. The project as proposed will bring a new residential development to an area where the State has no plans to invest in infrastructure upgrades or additional services. The intended development will need access to services and infrastructure such as police, and transportation. To provide some examples, the State government funds 100% of road maintenance and drainage improvements for the transportation system, and 100% of the cost of police protection in the unincorporated portion of Sussex County where this development is proposed. Over the longer term, the unseen negative ramifications of this development will become even more evident as the cost of maintaining infrastructure and providing services increases.

Because the development is inconsistent with the *2020 Strategies for State Policies and Spending*, the State does not support the development of this parcel.

With that said, **the comments in this letter are technical, and are not intended to suggest that the State supports this development. This letter does not in any way suggest or imply that you may receive or may be entitled to permits or other approvals necessary to build on this property.**

[Response: Understood.](#)

Code Requirements/Agency Permitting Requirements

Department of Transportation – Contact Bill Brockenbrough 760-2109

- The site access on Hollyville Road (Sussex Road 48) must be designed in accordance with DelDOT's Development Coordination Manual, which is available at <http://www.deldot.gov/Business/subdivisions/index.shtml?dc=changes>.
- Pursuant to Section 1.3 of the Manual, a Pre-Submittal Meeting is required before plans are submitted for review. The form needed to request the meeting and guidance on what will be covered there and how to prepare for it is located at https://www.deldot.gov/Business/subdivisions/pdfs/Meeting_Request_Form.pdf?08022017.
- Section 1.7 of the Manual addresses fees that are assessed for the review of development proposals. DelDOT anticipates collecting the Initial Stage Fee when the record plan is submitted for review and the Construction Stage Fee when construction plans are submitted for review.

- Per Section 2.2.2.1 of the Manual, Traffic Impact Studies (TIS) are warranted for developments generating more than 500 vehicle trip ends per day or 50 vehicle trip ends per hour in any hour of the day. From the PLUS application, the total daily trips are estimated at 1,891 vehicle trip ends per day. Using the 10th edition of the Institute of Transportation Engineers' Trip Generation Manual, DelDOT calculates this number as 1,922 and estimates the weekday morning and evening peak hour trip ends at 143 and 193, respectively.

Section 2.2.2.2 of the Development Coordination Manual provides that for developments generating less than 2000 vehicle trip ends per day and less than 200 vehicle trip ends per hour in any hour of the day, DelDOT may accept an Area Wide Study (AWS) Fee in lieu of the TIS if the local government does not require a TIS. The AWS Fee is calculated as \$10 per daily trip or, in this case, \$19,220. AWS Fees are used to fund traffic studies, not to build improvements.

Preliminarily, DelDOT anticipates requiring the developer to make some or all of the following frontage and off-site improvements. DelDOT will develop an estimated trip distribution for the development and will meet with the applicant to discuss their findings as to which improvements will be required.

- Improve Hollyville Road, within the limits of the site frontage (see definition in Section 1.8 of the Manual) to meet DelDOT's Major Collector Road standards, which include 12-foot lanes and 8-foot shoulders.
- Provide a Traffic Operational Analysis (TOA) to evaluate sight distance and the need for turning lanes at the intersection of Hollyville Road and Hurdle Ditch Road (Sussex Road 290) and to improve the intersection based on the results of that TOA.
- Contribute toward a DelDOT intersection improvement project (HEP SC, SR 5 & Hurdle Ditch Road) at the intersection of Delaware Route 5, Hurdle Ditch Road and Cool Spring Road (also Sussex Road 290).
- Enter a signal agreement for the intersection of Delaware Route 5, Hollyville Road and Hollymount Road (also Sussex Road 48).
- Enter a signal agreement for the intersection of Delaware Route 5, Harmons Hill Road (Sussex Road 302) and Zoar Road (also Sussex Road 48)

- Contribute toward a planned roundabout at the intersection of Hollyville Road (Sussex Road 305 south of Zoar Road), Zoar Road (also Sussex Road 48) and Harmons Hill Road.
- As necessary, in accordance with Section 3.2.5 and Figure 3.2.5-a of the Manual, DelDOT will require dedication of right-of-way along the site's frontage on Hollyville Road. By this regulation, this dedication is to provide a minimum of 40 feet of right-of-way from the physical centerline. The following right-of-way dedication note is required, **“An X-foot wide right-of-way is hereby dedicated to the State of Delaware, as per this plat.”**
- In accordance with Section 3.2.5.1.2 of the Manual, DelDOT will require the establishment of a 15-foot wide permanent easement across the property frontage. The location of the easement shall be outside the limits of the ultimate right-of-way. The easement area can be used as part of the open space calculation for the site. The following note is required, **“A 15-foot wide permanent easement is hereby established for the State of Delaware, as per this plat.”**
- Referring to Section 3.4.2.1 of the Manual, the following items, among other things, are required on the Record Plan:
 - A Traffic Generation Diagram. See Figure 3.4.2-a for the required format and content.
 - Depiction of all existing entrances within 450 feet of the entrance on Hollyville Road.
 - Notes identifying the type of off-site improvements, agreements (signal, letter) contributions and when the off-site improvements are warranted.
- Section 3.5.4.2 of the Manual addresses requirements for Shared Use Paths (SUP) and sidewalks. For projects in Level 3 and 4 Investment Areas, installation of paths or sidewalks along the frontage on State-maintained roads is at DelDOT's discretion. DelDOT anticipates requiring the developer to build an SUP along their frontage on Hollyville Road. DelDOT recognizes that this requirement would yield several short segments of path.
- Section 3.5.4.4 of the Manual addresses requirements for accessways. Accessways are paths that connect subdivision streets to a sidewalk or SUP. DelDOT anticipates requiring accessways to the SUP along the site frontage from proposed cul-de-sacs near Lots 11, 26 and 152.

- In accordance with Section 3.8 of the Manual, storm water facilities, excluding filter strips and bioswales, shall be located a minimum of 20 feet from the ultimate State right-of-way along Hollyville Road.
- In accordance with Section 5.2.9 of the Manual, the Auxiliary Lane Worksheet should be used to determine whether auxiliary lanes are warranted at the site entrances and how long those lanes should be. The worksheet can be found at <http://www.deldot.gov/Business/subdivisions/index.shtml>.
- In accordance with Section 5.4 of the Manual, sight distance triangles are required and shall be established in accordance with American Association of State Highway and Transportation Officials (AASHTO) standards. A spreadsheet has been developed to assist with this task. It can be found at <http://www.deldot.gov/Business/subdivisions/index.shtml>.
- In accordance with Section 5.14 of the Manual, all existing utilities must be shown on the plan and a utility relocation plan will be required for any utilities that need to be relocated.
- The applicant should expect a requirement that any substation and/or wastewater facilities will be required to have access from an internal driveway with no direct access to Hollyville Road.
- The applicant should expect a requirement that all PLUS and Technical Advisory Committee (TAC) comments be addressed prior to submitting plans for review.
- Please be advised that the Standard General Notes have been updated and posted to the DelDOT website. Please begin using the new versions and look for the revision dates of March 21, 2019 and March 25, 2019. The notes can be found at <https://www.deldot.gov/Business/subdivisions/>.

Response: The developer will continue to coordinate with DelDOT regarding final frontage improvements, off-site improvements, final entrance locations, and cost sharing. Record and Entrance Plans will be submitted to DelDOT in accordance with the latest DelDOT regulations.

Department of Natural Resources and Environmental Control – Beth Krumrine 735-3480

Concerns Identified Within the Development Footprint

Special Flood Hazard Area

According to the newest Flood Insurance Rate Maps (FIRM), the northern end of this parcel is situated within Special Flood Hazard Area, specifically within the 100-year floodplain (1% annual chance of flooding). Building is not proposed within the floodplain.

- The applicant must comply with local floodplain ordinance and regulations applicable to development or construction within the 100-year floodplain. In determining the boundary of the floodplain, use the most recent FIRM maps available, which can be found at <https://maps.dnrec.delaware.gov/floodplanning/default.html>.
- Contact: DNREC Shoreline and Waterway Management Section at (302) 739-9921. Website: <http://www.dnrec.delaware.gov/swc/Drainage/Pages/Flooding.aspx>
- Locate proposed structures outside of the floodplain. If this is not possible, the developer should consider designing structures to a higher standard to avoid potential future flood damage and loss.

Wetlands

Statewide Wetlands Mapping Project maps indicate the presence of federal wetlands on the site. Federal wetlands include non-tidal and freshwater wetlands. According to the application, a wetland delineation has been completed the U.S. Army Corps of Engineers has not approved the wetland delineation. A minimum of a 25-foot buffer has been proposed for the site, exceeding 150 feet in some areas, according to the preliminary site plans.

- If the project proposes to disturb (dredge or fill) federally regulated wetlands, a delineation of waterways and wetlands is required by the U.S. Army Corps of Engineers. In certain circumstances, additional certifications from DNREC Wetlands & Subaqueous Lands Section will be required as part of the U.S. Army Corps of Engineers permit process.
- For a list of consultants and engineers please visit the DNREC Wetlands and Subaqueous Lands Section link: <http://www.dnrec.delaware.gov/wr/Documents/WSLS/Consultant%20List.pdf>
- Contact: U.S. Army Corps of Engineers (Dover Office) at DoverRegulatoryFieldOffice@usace.army.mil or (267) 240-5278. Website: <https://www.usace.army.mil/Missions/Civil-Works/Regulatory-Program-and-Permits/Obtain-a-Permit/>

Vegetated Buffer Zones

Vegetated buffer zones placed adjacent to waterways and wetlands help to improve water quality by reducing sediment and pollutants loads. They also provide valuable habitat and can help prevent encroachment of human activities into ecologically sensitive areas. Please note that vegetated buffers are not equivalent to setbacks, as residential lots, walkways, and stormwater management facilities should not be contained within the vegetated buffer zone.

- The applicant must comply with minimum vegetated buffer widths as identified within county and municipal codes.
- Incorporate a 100-foot vegetated buffer from the edge of wetlands and streams to protect water quality.
- Vegetated buffer zones should be left undisturbed during construction and should be identified outside of the Limit of Disturbance (LOD) on the engineering plans. In some instances, stormwater outfalls, conveyances, and emergency spillways may cross through these zones, and will require temporary disturbance during construction.
- Vegetated buffer zones should be deeded as community open space. Signage should be installed at the edge and within the buffer zones to deter residents from encroaching into these common areas.
- Maintain vegetated buffer zones as either grasslands/meadows or forest. Buffer zones should be planted exclusively with native trees and plants. Native plants are well-suited to our climate and require limited maintenance. They also provide an increasingly important role in the survival of native birds and beneficial insects whose habitat is shrinking due to development and climate change. In general, grass cutting for vegetated buffer zones should not occur between April 1st to July 31st to reduce impacts to nesting birds and other wildlife species that utilize meadows and grasslands for breeding habitat.
- Contact: DNREC Wildlife Species Conservation & Research Program at (302) 735-3600. Website: <https://dnrec.alpha.delaware.gov/fish-wildlife/contact-information/>

Delaware Ecological Network

Approximately 80% of this site (forested portion) is located within the Delaware Ecological Network, much of which is proposed to be removed. This network is made up of interconnecting natural areas of significant ecological value. Forest disturbances on this site could jeopardize habitat beyond the parcel boundary.

- Removing forested areas within the Delaware Ecological Network should be avoided to the greatest extent possible. These areas provide habitat for wildlife, uptake nutrients, infiltrate

stormwater, and improve water quality. Forests also provide shading and cooling, while reduce carbon that contributes to climate change.

- Contact: DNREC Wildlife Species Conservation and Research Program at (302) 735-3600. Website: <https://dnrec.alpha.delaware.gov/fish-wildlife/contact-information/>

Old Growth Forest

An analysis of historical data indicates that the forest area proposed to be developed has likely maintained some degree of forest cover since 1937. Mature forests possess the potential for rare, threatened, or endangered species that rely on this type of habitat.

- A forest assessment should be conducted to determine if mature forest resources exist on the property and to delineate their boundaries. Additionally, a forest assessment would include the identification of specimen trees and forest-dependent wildlife.
- If mature forests are found, these areas should be conserved to the maximum extent practicable.
- Contact: DNREC Wildlife Species Conservation & Research Program at (302) 735-3600. Website: <https://dnrec.alpha.delaware.gov/fish-wildlife/contact-information/>

Stormwater Management

This project/site has met the minimum threshold of 5000 square feet of land disturbing activity under the Delaware Sediment and Stormwater Program.

- A Sediment and Stormwater Plan must be developed and approved prior to any land disturbing activity taking place on the site. This plan approval agency will vary, depending on the location of the project, or whether it is operated by a state agency or school district. The appropriate agency for this project is identified below.
- Additionally, construction activities that exceed 1.0 acre of land disturbance require Construction General Permit coverage through submittal of an electronic Notice of Intent for Stormwater Discharges Associated with Construction Activity. This form must be submitted electronically (<https://apps.dnrec.state.de.us/eNOI/default.aspx>) to the DNREC Division of Watershed Stewardship, along with the \$195 fee.
- Schedule a project application meeting with the appropriate agency prior to moving forward with the stormwater and site design. As part of this process, you must submit a Stormwater Assessment Study.
- Appropriate plan review agency contact: Sussex Conservation District at (302) 856-2105 or (302) 856-7219. Website: <https://www.sussexconservation.org/>

- General stormwater contact: DNREC Sediment and Stormwater Program at (302) 739-9921. E-mail: DNREC.Stormwater@delaware.gov. Website: <http://www.dnrec.delaware.gov/swc/Pages/SedimentStormwater.aspx>.
- Where site and soil conditions allow, integrate runoff reduction techniques including infiltration basins, bioretention (rain gardens), filter strips, and pavers to encourage on-site stormwater infiltration and reduce overall runoff including pollutant runoff.
- For improved stormwater management, preserve existing trees, wetlands, and passive open space.

Hydric Soils

While most of the project lies within A soils (well drained), the northern portion of the site is comprised of A/D (somewhat poorly drained) and B/D (poorly drained) soils. These soil types are typically not conducive to utilizing infiltration stormwater Best Management Practices such as bioretention and infiltration basins, which must meet minimum infiltration requirements.

- Any stormwater Best Management Practices that propose the use of infiltration or natural recharge shall include a soils investigation.
- Contact: DNREC Sediment and Stormwater Program at (302) 739-9921. E-mail: DNREC.Stormwater@delaware.gov. Website: <http://www.dnrec.delaware.gov/swc/Pages/SedimentStormwater.aspx>.

General Drainage Recommendations

This area was part of the Hopkins Prong Drainage Study for the Sussex Conservation District. This study revealed that the lower portion of the watershed has experienced flooding.

- All existing ditches on the property should be checked for function and cleaned, if needed, prior to the construction of homes. Wetland permits may be required before cleaning ditches.
- All precautions should be taken to ensure the project does not hinder any off-site drainage upstream of the project or create any off-site drainage problems downstream by the release of on-site storm water.
- Any area designated as a drainage/utility easement should be open space and not owned by the individual landowners.
- Any drainage/utility easement owned by an individual landowner should not possess structures such as decks, buildings, sheds, kennels, or fences within the drainage easement to allow for future drainage maintenance. Trees and shrubs planted within a

drainage/utility easement should be spaced to allow for drainage maintenance at maturity.

- Contact: DNREC Drainage Program at (302) 855-1930.
Website: <http://www.dnrec.delaware.gov/swc/Drainage/Pages/TaxDitches.aspx>

Nutrient Management Plan

This project proposes open space exceeding 10 acres (specifically 90 acres proposed).

- A nutrient management plan is required for all persons or entities who apply nutrients to lands or areas of open space of 10 acres or more.
- Contact: Delaware Department of Agriculture's Nutrient Management Program at (302) 698-4558. Website: <https://agriculture.delaware.gov/nutrient-management/>

Wildlife Displacement

Development of this site is anticipated to displace local wildlife. Wildlife displaced by encroaching development may become a nuisance for homeowners.

- Future residents are not permitted to discharge firearms within 100 yards (approximately 300 feet) of any occupied dwelling or building to hunt or remove nuisance wildlife.
- Deer, groundhogs, and rabbits will browse on gardens, yards, and ornamental landscaping. Developers can avoid conflicts with future residents and most wildlife by maintaining large blocks of forest, as opposed to small pockets of wooded areas within a 300-foot safety zone.
- Contact: DNREC Division of Fish and Wildlife at (302) 739-9912.
Website: <https://dnrec.alpha.delaware.gov/fish-wildlife/wildlife/>

Mosquitoes

The project lies within a zone that will be impacted by mosquitoes due to its location near large expanses of freshwater wetlands.

- Mosquito control issues are increasing as developments infringe on wetland areas, often leading to increased demands by the public for mosquito control services. These control services can be provided at no charge to homeowners and other entities by the state's Mosquito Control Section, or by a private company licensed in this area of specialty.
- Contact: DNREC Division of Fish and Wildlife at (302) 739-9917.
Website: <https://dnrec.alpha.delaware.gov/fish-wildlife/mosquito-control/>

Wastewater Permitting – Large Systems

Artesian holds existing permits with the DNREC Groundwater Discharges Section's Large Systems Branch.

- It is the responsibility of Artesian to notify the Large Systems Branch if the capacity of the rate of wastewater disposal is to be updated.
- Contact: DNREC Large Systems Branch at (302) 739-9948
Website: <https://dnrec.alpha.delaware.gov/water/groundwater/>

Sustainable Practices

- Use efficient Energy Star rated products and materials in construction and redevelopment to lessen the power source emissions of the project and costs. Every percentage of energy efficiency translates into a percent reduction in pollution.
- Consider using renewable energy infrastructure such as solar or geothermal to reduce energy costs and further reduce pollution created from offsite generation. Energy efficiency upgrades for your project may be eligible for funding through the Division of Climate, Coastal, & Energy. Website: www.de.gov/greenenergy, www.de.gov/eef.
- Incorporate nonmotorized connectivity and install bicycle racks where feasible to help facilitate non-vehicular travel modes.
- Consider installing electric vehicle charging infrastructure to assist Delaware in achieving its clean transportation goals. The Division of Climate, Coastal, & Energy offers incentives for clean transportation (electric vehicle charging). These programs address climate change goals of reducing greenhouse gas emissions and improving overall air quality Website: www.de.gov/cleantransportation.
- Air pollution from new construction is generated through the use of maintenance equipment, paints, and consumer products like roof coatings and primers. Use of structural paint coatings that are low in Volatile Organic Compounds will help protect air quality.
- The applicant should consider the use of recycled materials, such as reclaimed asphalt pavement, to reduce landfill waste, heat island effects on paved surfaces, and pavement costs.
- Include space for recycling dumpsters within the preliminary site design stage. These can be placed adjacent to trash dumpsters.

Response: The developer will comply with all County and State requirements regarding wetlands, open space, flood zone, etc.

State Historic Preservation Office – Contact Carlton Hall 736-7400

- The Delaware SHPO does not recommend or support development in level 4 areas
- Prehistoric potential is moderate to high. Well-drained soils, prime farmland, and well within favorable distance to a water source, Unity Branch (Beers, topos). Archaeological site on north side of parcel has both historic and prehistoric components. Recommend an archaeological survey.
- Historic archaeological potential is moderate. There is a farmstead there as early as 1918 (topo) but was not there in 1868 (Beers), but that may be just off of the parcel. Remains associated with the farmhouse could be possible, especially with the cemetery. Other than that, the parcel appears to have remained the same through historic times. Considering the cemetery, the Delaware SHPO is recommending caution and an archaeological survey.
- If any project or development proceeds, the developer should be aware of the Unmarked Human Burials and Human Skeletal Remains Law (Del. C. Title 7, Ch. 54).
- If there is federal involvement, in the form of licenses, permits, or funds, the federal agency, often through its client, is responsible for complying with Section 106 of the National Historic Preservation Act (36 CFR 800) and must consider their project's effects on any known or potential cultural or historic resources. For further information on the Section 106 process please review the Advisory Council on Historic Preservation's website at: www.achp.gov

Response: Noted.

Delaware State Fire Marshall's Office – Contact Duane Fox 259-7037

At the time of formal submittal, the applicant shall provide; completed application, fee, and three sets of plans depicting the following in accordance with the Delaware State Fire Prevention Regulation:

Fire Protection Water Requirements:

- Where a water distribution system is proposed for single-family dwellings it shall be capable of delivering at least 500 gpm for 1-hour duration, at 20-psi residual pressure. Fire hydrants with 1000 feet spacing on centers are required.

- The infrastructure for fire protection water shall be provided, including the size of water mains.

Accessibility:

- All premises, which the fire department may be called upon to protect in case of fire, and which are not readily accessible from public roads, shall be provided with suitable gates and access roads, and fire lanes so that all buildings on the premises are accessible to fire apparatus. Additionally, where trees are to be situated adjacent to travel roads in the subdivision, some forethought should be exercised regarding how future growth of the trees may affect fire department travel throughout the subdivision.
- Fire department access shall be provided in such a manner so that fire apparatus will be able to locate within 100 ft. of the front door.
- Any dead-end road more than 300 feet in length shall be provided with a turn-around or cul-de-sac arranged such that fire apparatus will be able to turn around by making not more than one backing maneuver. The minimum paved radius of the cul-de-sac shall be 38 feet. The dimensions of the cul-de-sac or turn-around shall be shown on the final plans. Also, please be advised that parking is prohibited in the cul-de-sac or turn around.
- The use of speed bumps or other methods of traffic speed reduction must be in accordance with Department of Transportation requirements.
- The local Fire Chief, prior to any submission to our Agency, shall approve in writing the use of gates that limit fire department access into and out of the development or property.

Gas Piping and System Information:

- Provide type of fuel proposed and show locations of bulk containers on plan.

Required Notes:

- Provide a note on the final plans submitted for review to read “All fire lanes, fire hydrants, and fire department connections shall be marked in accordance with the Delaware State Fire Prevention Regulations”
- Name of Water Supplier
- Proposed Use
- National Fire Protection Association (NFPA) Construction Type
- Maximum Height of Buildings (including number of stories)
- Provide Road Names, even for County Roads
- Although not a requirement of the State Fire Prevention Regulations, the Office of the State Fire Marshal encourages home builders to consider the benefits of home sprinkler

protection in dwellings. The Office of the State Fire Marshal also reminds home builders that they are obligated to comply with requirements of Subchapter III of Chapter 36 of Title 6 of the Delaware Code which can be found at the following website:

<http://delcode.delaware.gov/title6/c036/sc03/index.shtml>

- Preliminary meetings with fire protection specialists are encouraged prior to formal submittal. Please call for appointment. Applications and brochures can be downloaded from our website: www.statefiremarshal.delaware.gov, technical services link, plan review, applications or brochures.

Response: The developer will comply with State Fire Marshal requirements.

Department of Agriculture – Contact: Milton Melendez 698-4534

- The proposed project is adjacent to a property protected through the State’s Agricultural Lands Preservation Program (DSWA District S-07-11-250 Parcel 234-10.00-15.00, 234-16.00-12.00). Therefore, the activities conducted on this preserved property are protected by the agricultural use protections outlined in Title 3, Del. C., Chapter 9. These protections effect adjoining developing properties. The 300-foot notification requirement affects all new deeds in a subdivision located in whole or part within 300 feet of an Agricultural District/Easement. Please take note of these restrictions as follows:

§ 910. Agricultural use protections.

(a) Normal agricultural uses and activities conducted in a lawful manner are preferred and priority uses and activities in Agricultural Preservation Districts. In order to establish and maintain a preference and priority for such normal agricultural uses and activities and avert and negate complaints arising from normal noise, dust, manure and other odors, the use of agricultural chemicals and nighttime farm operations, land use adjacent to Agricultural Preservation Districts shall be subject to the following restrictions:

(1) For any new subdivision development located in whole or in part within 300 feet of the boundary of an Agricultural Preservation District, the owner of the development shall provide in the deed restrictions and any leases or agreements of sale for any residential lot or dwelling unit the following notice:

This property is located in the vicinity of an established Agricultural Preservation District in which normal agricultural uses and activities have been afforded the highest priority use status. It can be anticipated that such agricultural uses and activities may now or in the future involve noise, dust, manure and other odors, the use of agricultural chemicals and nighttime farm operations. The use and enjoyment of this property is

expressly conditioned on acceptance of any annoyance or inconvenience which may result from such normal agricultural uses and activities."

(2) For any new subdivision development located in whole or in part within 50 feet of the boundary of an Agricultural Preservation District, no improvement requiring an occupancy approval shall be constructed within 50 feet of the boundary of the Agricultural Preservation District.

(b) Normal agricultural uses and activities conducted in accordance with good husbandry and best management practices in Agricultural Preservation Districts shall be deemed protected actions and not subject to any claim or complaint of nuisance, including any such claims under any existing or future county or municipal code or ordinance. In the event a formal complaint alleging nuisance related to normal agricultural uses and activities is filed against an owner of lands located in an Agricultural Preservation District, such owner, upon prevailing in any such action, shall be entitled to recover reasonably incurred costs and expenses related to the defense of any such action, including reasonable attorney's fees (68 Del. Laws, c. 118, § 2.).

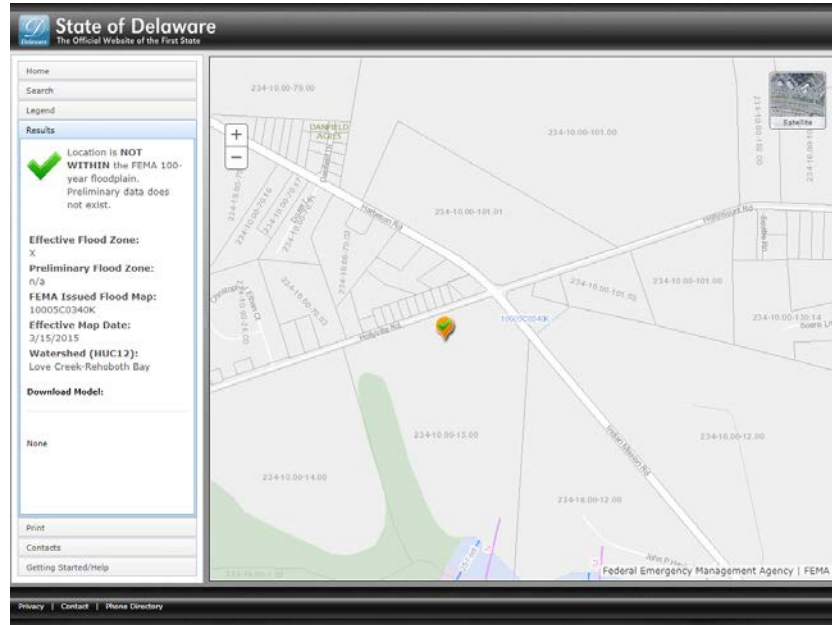
- In addition, if any wells are to be installed, Section 4.01(A)(2) of the Delaware Regulations Governing the Construction and Use of Wells will apply. This regulation states:

(2) For any parcel, lot, or subdivision created or recorded within fifty (50) feet of, or within the boundaries of, an Agricultural Lands Preservation District (as defined in Title 3, Del. C., Chapter 9); all wells constructed on such parcels shall be located a minimum of fifty (50) feet from any boundary of the Agricultural Lands Preservation District. This requirement does not apply to parcels recorded prior to the implementation date of these Regulations. However, it is recommended that all wells be placed the maximum distance possible from lands which are or have been used for the production of crops which have been subjected to the application of land applied federally regulated chemicals.

Response: Noted.

Delaware Emergency Management Agency – Contact Philip Cane 659-2325

- Dependent on the exact location of the construction and the extent of the project (size of the subdivision), the location may or may not have parts within the 100-year flood plain. The location described is NOT immediately apparent within the 100-year flood plain.



Response: Noted.

Sussex County Planning & Zoning – Contact Lauren DeVore 855-7878

- The applicant is required to participate in a pre-application meeting with the County. Please contact the Planning and Zoning Department to schedule a pre-application meeting with staff to discuss the proposed project by calling (302)855-7878 or you may reach out to Lauren DeVore at lauren.devore@sussexcountyde.gov.
- Following submission to the County, staff would undertake review of the Preliminary Site Plan, where more detailed comments would be provided to the applicant. At the PLUS stage of review, staff wish to limit comments to high-level comments only.
- 1.34 dwelling units per acre complies with Code requirements for the AR-1 Zoning District which allows a total of up to 2 dwelling units per acre and 4 with the density bonus.
- Staff note that there are 90 acres of open space proposed (roughly 60% of the site) which complies with Code requirements.
- There are 40 acres of non-tidal wetlands on-site and there should be a 25-ft buffer from all wetlands. Interconnectivity is encouraged so that there is not only one way in, one way out access in the event of an emergency.

- Please show text and hatching which clearly delineates the location of the 20-ft forested/landscape buffer around the perimeter of the site as per §99-5 of the Code. Please note that this buffer shall be at least 30-ft wide in areas within 50-ft of an existing residential development (§115-25(E)(4)).
- There are no Wellhead Protection Areas on site and the site is located within an area of “fair” Groundwater Recharge according to GIS records. Please note these items on the plans to accord with Chapter 89 “Source Water Protection” of the Sussex County Code.
- Please note that these are informal staff comments, and do not prejudice any decisions that the Sussex County Planning & Zoning Commission may wish to make as part of the formal review process.

Response: The developer will comply with Sussex County zoning requirements.

Sussex County Housing – Contact: Brandy Nauman 855-7779

- Sussex County endeavors to promote non-discrimination and affordable housing whenever possible throughout the County. In this regard, the developer and associated financial institutions are encouraged to provide and finance affordable housing opportunities to Sussex County residents in all new developments, and affirmatively market those affordable housing units to diverse populations.
- For questions about opportunities available for affordable housing projects within Sussex County, please consult Sussex County’s “Affordable Housing Support Policy”. The policy along with other resources are available on the County’s Affordable & Fair Housing Resource Center website: www.sussexcountycle.gov/affordable-and-fair-housing-resource-center. The County’s Community Development & Housing Department can advise about existing affordable housing opportunities in Sussex County and the appropriate County Department to contact regarding specific development issues concerning future affordable housing projects within Sussex County.
- The Community Development & Housing Department can also explain and assist with any financial support or incentives that may be available to a project from federal, state and county sources, as well as private funding sources that also promote affordable housing in Sussex County.
- Please understand that all residential projects, including Affordable Housing Projects are subject to the applicable provisions of the Sussex County Subdivision and Zoning Codes, and the approval processes set forth in those Codes.

Response: Noted.

Sussex County Engineering Department – Contact Chris Calio 855-1299

- The project is within a Tier 3 area for wastewater planning. Sussex County does not currently have a schedule to provide sanitary sewer to these parcels. The Sussex County Engineering Department recommends the project receive wastewater service from a public utility or municipality.

Response: Noted. The project is anticipated to be served by Artesian.

Following receipt of this letter and upon filing of an application with the local jurisdiction, the applicant shall provide to the local jurisdiction and the Office of State Planning Coordination a written response to comments received as a result of the pre-application process, noting whether comments were incorporated into the project design or not and the reason therefore.

This concludes our response. If you have any questions, please contact us at your convenience.

Sincerely,

Solutions, IPEM



Jason Palkewicz, PE

STATE SPENDING STRATEGIES

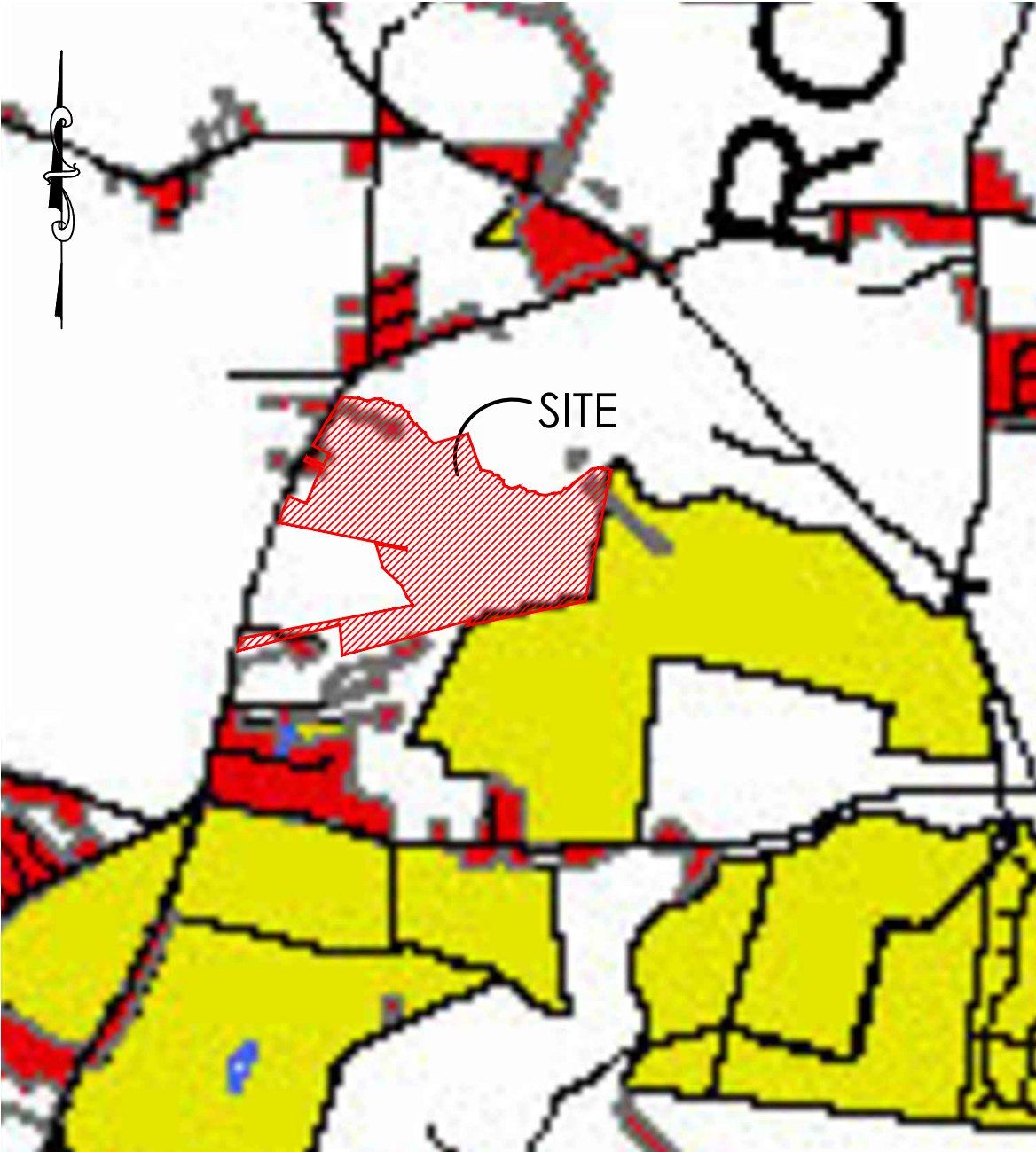


OUT OF PLAY

INVESTMENT LEVEL 4

TURNBERRY





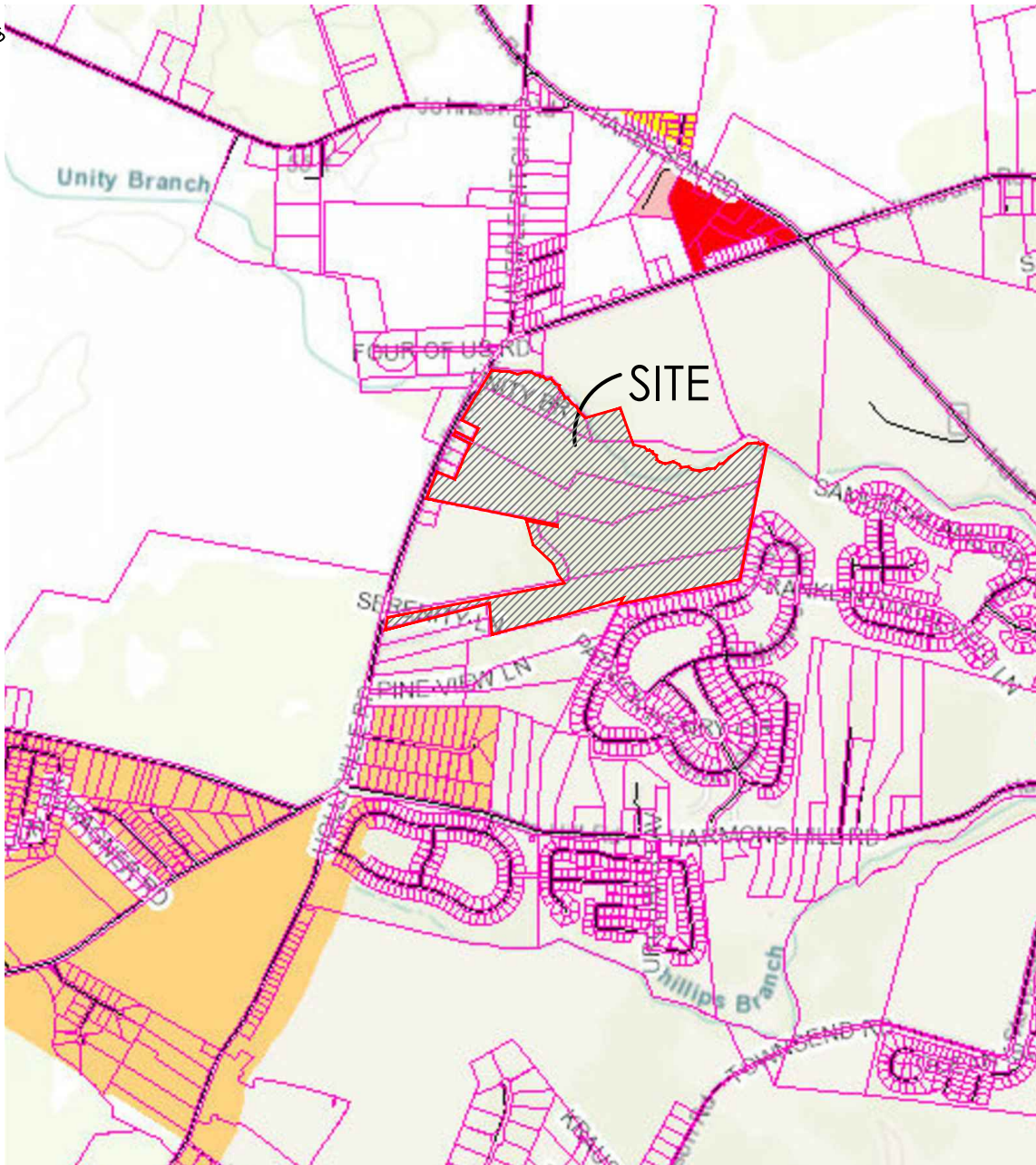
DEVELOPED LANDS






MAJOR PROPOSED DEVELOPMENTS

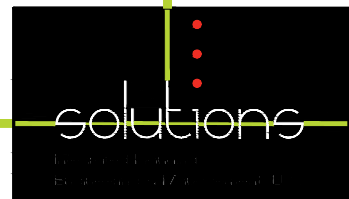
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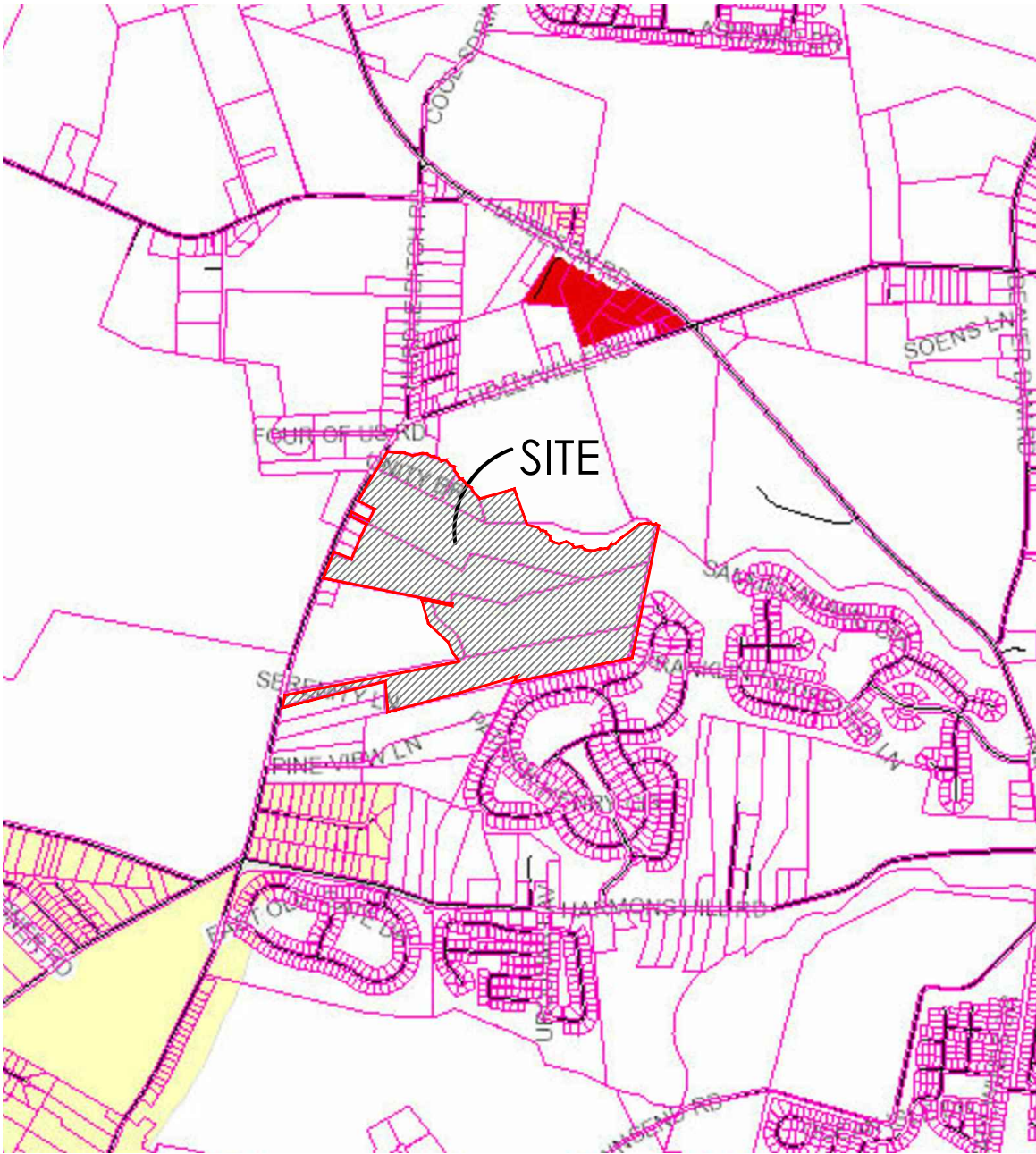




-  AGRICULTURAL - AR-1
-  HIGH DENSITY RESIDENTIAL - HR-1
-  GENERAL COMMERCIAL - C-1

TURNBERRY





 EXISTING DEVELOPMENT AREA

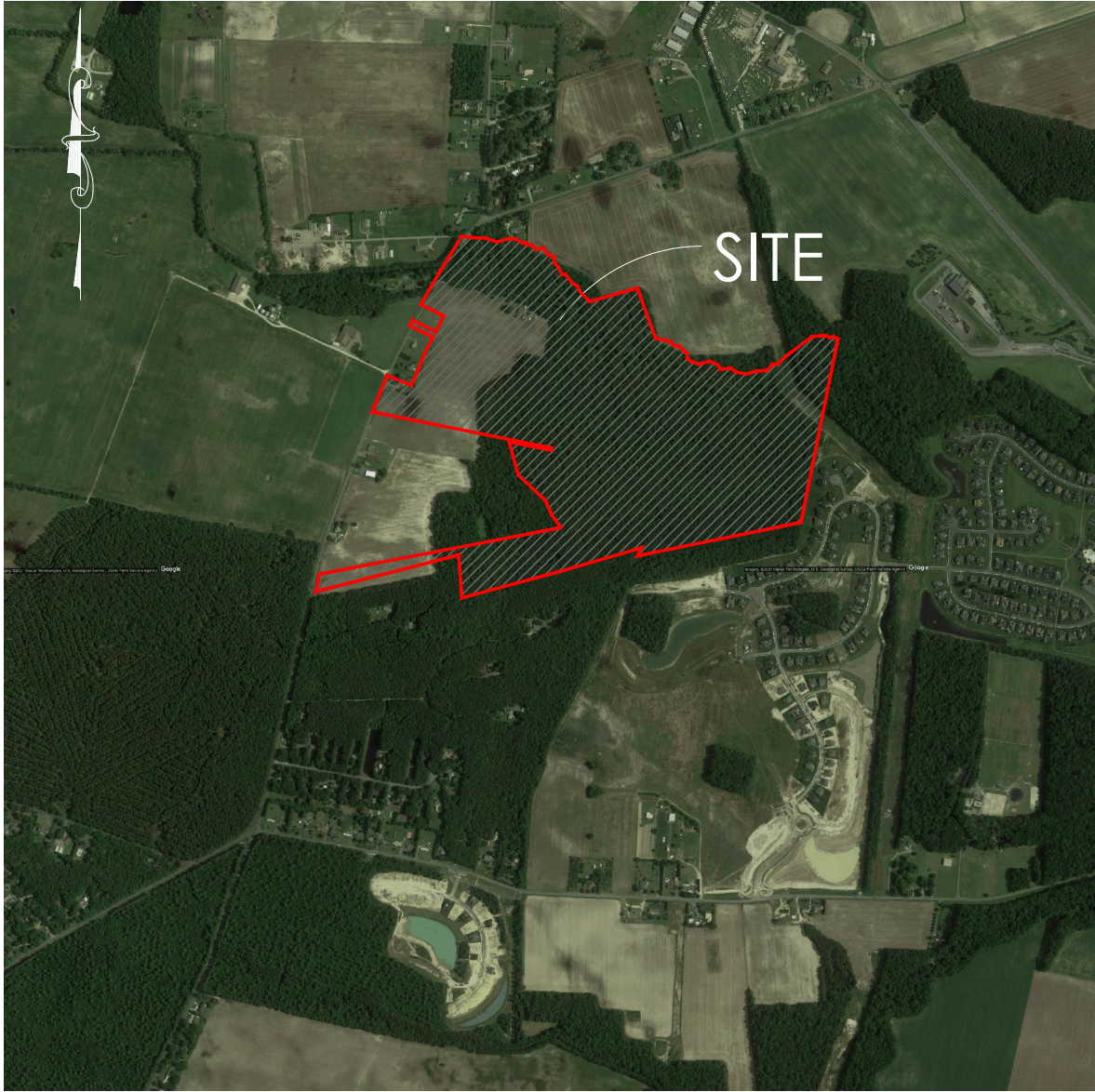
 LOW DENSITY AREA

 COMMERCIAL

FUTURE LAND USE PLAN

TURNBERRY

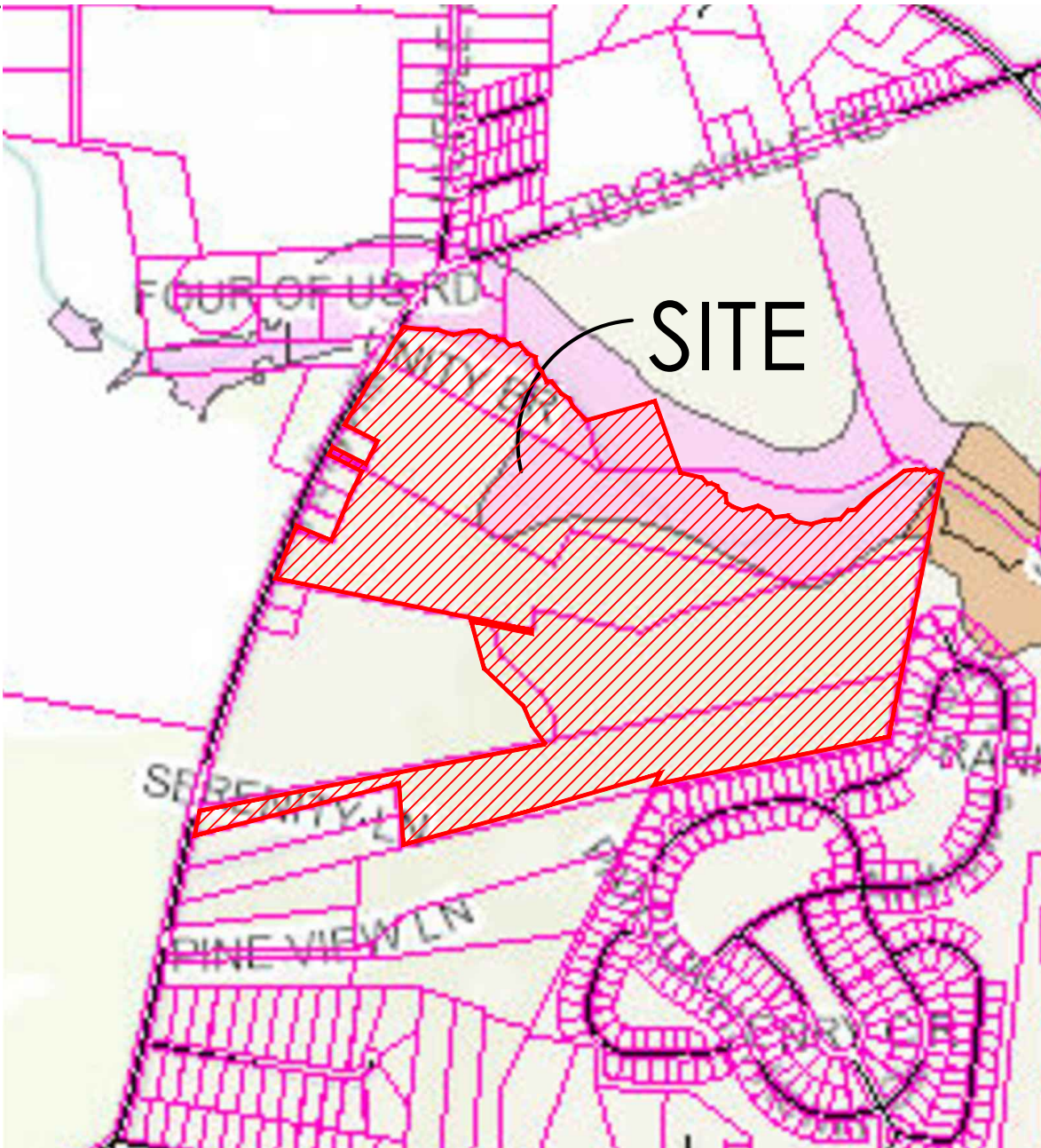




AERIAL

TURNBERRY









FLOOD MAP

PROPERTY IS LOCATED IN FLOOD ZONE A - SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD (NO BASE FLOOR ELEVATION DETERMINED) AND ZONE X (UNSHADED) - AREAS DETERMINED TO BE OUTSIDE THE 0.2% ANNUAL CHANCE FLOODPLAIN, PER FIRM MAP 10005C0340K, MAP REVISED MARCH 16, 2015.

TURNBERRY





-  EXCELLENT GROUNDWATER RECHARGE
-  GOOD GROUNDWATER RECHARGE
-  FAIR GROUNDWATER RECHARGE
-  POOR GROUNDWATER RECHARGE

TURNBERRY

GROUNDWATER RECHARGE PLAN





OVER 100 YEARS OF SUPERIOR SERVICE

Artesian Water Company



Artesian Wastewater Management



Artesian Utility Development



Artesian Water Pennsylvania



Artesian Water Maryland



Artesian Wastewater Maryland

July 26, 2021

Mr. Chris Schell
Schell Brothers, LLC
20184 Phillips Street
Rehoboth Beach, Delaware 19971

RE: Unity Branch Subdivision Ability to Serve Letter

With reference to your request concerning Water and Wastewater Service (collectively, "Service") for Unity Branch Subdivision Project on Hollyville Road in Indian River Hundred, Sussex County, Delaware, with tax parcel numbers 234-10.00-199.00, 234-16.00-1.01, 234-16.00-1.02, 234-16.00-3.00, 234-16.00-4.00 and 234-16.00-5.00 (the "Property"), please be advised as follows:

Subject to the following conditions, Artesian Water Company, Inc. and Artesian Wastewater Management, Inc. (collectively, "Artesian") are willing and able to provide Service to the Property that meets all applicable State of Delaware, Delaware Department of Natural Resources and Environmental Control, and Sussex County standards. Artesian has the water and wastewater Certificates of Public Convenience and Necessity ("CPCNs") from the Delaware Public Service Commission.

Based on current conditions and subject to the development entity and Artesian entering Water and Wastewater Service Agreements (collectively, "Agreements") that addresses the financial terms of the provision of Service for the Property, in accordance with Artesian's tariff as approved by the Delaware Public Service Commission, Artesian is willing and able to provide the required Service for this Property.

This letter shall expire if Agreements are not executed within one year of the date of this letter.

If you have any questions, please do not hesitate to contact us.

Yours very truly,

Katherine E. Garrison

Katherine E. Garrison
Senior Planning Designer

GEO-TECHNOLOGY ASSOCIATES, INC.

GEOTECHNICAL AND
ENVIRONMENTAL CONSULTANTS

A Practicing Geoprofessional Business Association Member Firm



August 20, 2021

Schell Brothers LLC
20184 Phillip Street
Rehoboth Beach, Delaware 19971

Attn: Mr. Tim Green
Director of Land Development

Re: Report of Subsurface Exploration
Hollyville Property
Buildings and Roadways
Sussex County, Delaware

Ladies & Gentlemen:

Pursuant to your request, Geo-Technology Associates, Incorporated (GTA) has performed geotechnical exploration at the proposed ***Hollyville Property*** project located in Sussex County, Delaware. The purpose of the subsurface exploration was to present our recommendations with respect to foundation and slab support for the proposed house construction, including basement feasibility, earthwork, pavement and utility construction. The exploration consisted of performing ten hand auger borings within the proposed construction area, visually classifying the soils, and performing limited laboratory testing.

Unless Schell Brothers, LLC specifies otherwise, the samples collected as a part of the subsurface exploration will be disposed of after a period of 60 days from the date of this report. Thank you for the opportunity to be of assistance. If you have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,
GEO-TECHNOLOGY ASSOCIATES, INC.

Travis P. Caraway, EIT
Project Geotechnical Professional
TPC/GRS/llh 31210796

Gregory R. Sauter, P.E.
Vice President



21133 Sterling Avenue, Suite 7, Georgetown, DE 19947 (302) 855-9761

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REPORT OF SUBSURFACE EXPLORATION

Hollyville Property **Buildings and Roadways** Sussex County, Delaware

August 20, 2021

Prepared For:

Schell Brothers, LLC
20184 Phillips Street
Rehoboth Beach, Delaware 19971

Attn: Mr. Tim Green
Director of Land Development

Prepared By:

GEO-TECHNOLOGY ASSOCIATES, INC.
Geotechnical and Environmental Consultants
21133 Sterling Avenue, Suite 7
Georgetown, Delaware 19947
302-855-9761

GTA Job No: 31210796

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**REPORT OF SUBSURFACE EXPLORATION
HOLLYVILLE
BUILDINGS AND ROADWAYS
SUSSEX COUNTY, DELAWARE
AUGUST 2021**

INTRODUCTION

A new community is proposed along the south and east sides of Hollyville Road approximately ½ to 1-mile west of Harbeson Road (Route 5) in the Harbeson area of Sussex County, Delaware. Geo-Technology Associates, Inc. (GTA) was retained by Schell Brothers to perform a geotechnical exploration of the site. The scope of this study included field exploration, review of site plans, limited laboratory testing and engineering analysis. The field exploration consisted of 10 auger borings, performed throughout the property. Concept plans, depicting the proposed improvements prepared by Solutions IPEM, LLC were referenced for this report. A SWM and pump station report with 61 additional borings has been submitted separately.

SITE CONDITIONS

Referring to the attached Site Location Plan and Exploration Location Plan, the project site consists of two irregularly shaped parcels located on the south and east sides of Hollyville Road with the first parcel approximately ½ mile and the second parcel approximately 1 mile west of Harbeson Road in the Harbeson area of Sussex County, Delaware. The two parcels are separated by Unity Branch and plan designated wetlands. The site consists of agricultural fields and mature woods. Topographically, the site gently slopes downward in an easterly direction towards Unity Branch with the ground surface ranging from approximate Elevation 35 to 26 Mean Sea Level (MSL) at the boring locations.

PROPOSED CONSTRUCTION

The proposed construction will consist of 195 single-family homes within the southern parcel and 104 single-family homes within the northern parcel. A shallow spread foundation system and ground supported slabs are anticipated. Preliminary, foundation loads of upwards to 20 kips for columns and 3 kips per lineal foot are estimated for the proposed structures. Once final loads are determined, GTA should be consulted for additional analysis and recommendations, as applicable.

The proposed construction will also consist of roadways, utilities, and stormwater management (SWM) facilities. The buildings will be served by public water and sewer. While the grading scheme was not available at the time of this report, GTA assumes the building lots and roadway areas will require several feet of cut to fill and ranging from 6 to 14 feet of cut to achieve pond bottom grades in the SWM areas.

SITE GEOLOGY

According to the Geologic Map of the Fairmount and Rehoboth Beach Quadrangles, Delaware (2011), published by the Delaware Geological Survey, the project area is underlain by sediments of the Coastal Plain Physiographic Province. Coastal Plain sediments below the surficial deposits exposed in the site area were generally deposited in commonly estuarine environments of the Tertiary and Quaternary geologic ages. The Late Pliocene deposits, located in the northeastern portion of the site, are predominately designated as the Beaverdam formation. These deposits are characterized by “...very coarse sand with pebbles to silty clay...silty to clayey, fine to coarse sand.” The Late Pleistocene deposits, located in the southwestern portion of the site, are predominately designated as the Lynch Height Formation. These deposits are characterized by “...silty, clayey, very coarse to fine sand...gravelly sand to sandy gravel.” Please review the referenced publication for further details regarding these geologic units.

SUBSURFACE EXPLORATION

To characterize subsurface conditions, GTA performed 10 auger borings, designated as A-1 through A-10, along the roadway alignments, at the relative locations shown on the attached Figure 2, Exploration Location Plan. The borings were drilled to a depth of 10 feet below the ground surface level or where wet, caving conditions were met a depth of 5½ to 8½ feet below the ground surface, during August 2021.

Samples obtained from the borings were returned to GTA's office for visual classification by GTA personnel. Selected samples recovered from the field exploration were submitted for limited laboratory analysis. The soil layers were classified in accordance with the Unified Soil Classification System (USCS). Classifications provided on the logs are visual descriptions,

supplemented by available laboratory data. The exploration logs are presented in Appendix B. The logs represent our interpretation of the field data based on observation and limited soil classification tests. The interfaces indicated on the logs may be gradual.

SUBSURFACE CONDITIONS

The soils were visually classified in accordance with the Unified Soil Classification System (USCS). Beneath an approximately 2- to 16-inch-thick surficial topsoil layer, the explorations generally encountered native subsoils visually classified as predominantly consisting of Silty SANDS (USCS: SM), Poorly-graded SANDs with Silt (SP-SM) and Clayey SANDs (SC). The relative densities of the granular soils were very loose to medium dense based on average DCP values of 2 to 25+ blows per 1¾ inches (bpi).

Explorations A-4 and A-6 encountered subordinate layers of native, fine-grained materials. These fine-grained materials generally consisted of SILTs (USCS: ML). The consistencies of these fine-grained materials were stiff based upon average DCP values of 9 bpf.

GTA’s estimate of the seasonal high groundwater level is based upon water levels near seasonal highs, soil coloring, mottling and/or saturation. The results of the groundwater level readings and GTA’s opinion of the estimated seasonal high groundwater depth are summarized as follows:

GROUNDWATER DATA SUMMARY

Exploration No.	Existing Ground Surface Elevation (MSL)	Depth Below Existing Ground Surface (ft.)/ Elevation (MSL) to Groundwater at Completion	Depth Below Existing Ground Surface (ft.)/ Elevation (MSL) to Groundwater At One to Three Days After Completion	*Depth Below Existing Ground Surface (ft.)/ Elevation (MSL) to Estimated Seasonal High Groundwater
A-1	EL 29	5.2 / EL 23.8	3.9 / EL 25.1	3 / EL 26
A-2	EL 31	7.8 / EL 23.2	7.5 / EL 23.5	5 / EL 26
A-3	EL 30	4.4 / EL 25.6	4.0 / EL 26.0	3 / EL 27
A-4	EL 30	5.8 / EL 24.2	4.4 / EL 25.6	3 / EL 27
A-5	EL 31	5.9 / EL 25.1	5.6 / EL 25.4	5 / EL 26
A-6	EL 33	6.8 / EL 26.2	6.1 / EL 26.9	5 / EL 28
A-7	EL 35	Dry to 10.0 / Dry to EL 25.0	Dry to 10.0 / Dry to EL 25.0	10 / EL 25

Exploration No.	Existing Ground Surface Elevation (MSL)	Depth Below Existing Ground Surface (ft.)/ Elevation (MSL) to Groundwater at Completion	Depth Below Existing Ground Surface (ft.)/ Elevation (MSL) to Groundwater At One to Three Days After Completion	*Depth Below Existing Ground Surface (ft.)/ Elevation (MSL) to Estimated Seasonal High Groundwater
A-8	EL 28	5.3 / EL 22.7	4.9 / EL 23.1	4 / EL 24
A-9	EL 31	7.6 / EL 23.4	6.4 / EL 24.6	5 / EL 26
A-10	EL 37	Dry to 10.0 / Dry to EL 27.0	Dry to 10.0 / Dry to EL 27.0	10 / EL 27

*Seasonal high groundwater estimate based upon observed soil mottling, color and/or saturation and should be considered approximate.

**Existing ground surface elevation estimated from Google Earth.

The groundwater levels can be expected to fluctuate with seasonal changes, precipitation, and other factors such as development activity. Additionally, perched water conditions develop in granular soils overlying fine-grained and/or denser soils during the “wet season” and during heavy periods of precipitation. Please refer to the exploration logs provided in Appendix B for further information.

LABORATORY TESTING

Selected samples obtained from the borings was tested for grain-size analysis, Atterberg Limits, moisture density relationship, natural moisture content, and/or California Bearing Ratio (CBR). The grain-size analysis and Atterberg Limits testing were performed to identify the Unified Soil Classification System (USCS) designations for the soil. The results of testing are as follows:

SUMMARY OF LABORATORY TESTING

EXPLORATION NO.	DEPTH (FT.)	USCS CLASSIFICATION	LL (%)	PI (%)	NM %
A-5/A-10 Composite	1 – 4	Silty SAND (SM)	NP	NP	5.5
A-5	1 – 4	Poorly-graded SAND with Silt (SP-SM)	NP	NP	6.1
A-10	1 – 4	Silty SAND (SM)	NP	NP	3.0

Note: LL=Liquid Limit PI=Plastic Index NP=Non-plastic NM=Natural Moisture Content

A near surface, bulk sample was also tested for moisture-density relationships in accordance with the Modified Proctor (ASTM D-1557) method for use in evaluating the suitability of these soils for reuse as fill. The sample was also subjected to California Bearing Ratio (CBR)

testing for use in evaluation of pavement subgrade supporting quality. Results of these tests are summarized in the following table.

**SUMMARY OF COMPACTION and CBR DATA
(ASTM D 1557, the Modified Proctor; ASTM D 1883, CBR)**

EXPLORATION NO.	DEPTH (FT)	MAXIMUM DRY DENSITY (PCF)	OPTIMUM MOISTURE (%)	NATURAL MOISTURE (%)	CBR AT 95% COMPACTION (%)
A-5/A-10 Composite	1 – 4	124.0	8.5	5.5	27.1

Please refer to the laboratory test results included within Appendix C for additional information.

CONCLUSIONS AND RECOMMENDATIONS

Based upon the results of this study, it is our opinion that construction of the proposed improvements is feasible, given that the geotechnical recommendations are followed and that the standard level of care is maintained during construction. GTA’s preliminary recommendations are provided in the following paragraphs.

Earthwork

Before the placement of compacted fill, areas below proposed foundations, slabs, and pavements should be stripped to remove topsoil and soft materials. In areas where soft and/or concentrated organic materials are encountered during mass earthwork operations, these materials should be removed to expose firm native soils and replaced with structural fill. After stripping, subgrade areas should be proof-rolled with a loaded tandem-axle dump truck, performed as recommended by GTA. No fill should be placed until the geotechnical engineer approves the subgrade. Wet soils near surface grade will result in poor trafficability. Positive drainage should be maintained during construction.

Precipitation will result in standing water at low areas and in localized undercut areas. Positive drainage should be provided to protect exposed subgrades. During wet season construction, GTA anticipates that the existing surficial soils may soften and significant rutting

may occur. If water is allowed to pond, the exposed subgrade materials may deteriorate and additional over-excavation or subgrade improvement may be required at the affected areas. Depending on the level of precipitation and construction traffic routing, a contingency (cost per in-place cubic yard) should be established for undercut and replacement of soft soils.

Most near surface on-site soils beneath the topsoil, similar to the materials tested, are considered suitable for reuse as structural fill material within roadways and building lots. Excavated site materials conforming to SP, SP-SM or SM classifications will be suitable for reuse as structural fill. Materials conforming to SP-SM or SP are recommended for at least the top one foot of building pad and roadway subgrade fill. Materials conforming to USCS SC, CL and ML are not recommended for structural fill and should be placed in designated green and pond areas or properly disposed of offsite. The moisture of the bulk sample tested was approximately three percent below the optimum moisture content. At this indicated moisture level, granular site materials similar to the sample tested may require limited moisture supplementation after spreading over a large area and prior to compaction. During wet weather or when excavating below or near groundwater, delays and expense will likely be associated with reducing soil moistures to acceptable levels.

For utility and site earthwork construction, the success of these operations will be largely dependent upon the weather conditions at the time of the earthwork construction. Summer construction season is recommended to reduce the premium cost for drying. A contingency should be established for moisture adjustments and importing suitable materials. If the work is performed during wet weather, offsite borrow may be required to complete the earthwork construction.

Deeper excavations, such as for utility installations, will likely encounter groundwater. Consideration must be given to dewatering and stability of excavated slopes. Contractors should provide adequate dewatering and earth support systems in utility trench excavations. Utility pipe systems below pavement and other structural areas should be backfilled using controlled, compacted fill conforming to USCS SM, SP-SM or SP soils. The backfill should be constructed as described in our site grading recommendations. Lift thickness should be reduced to 4 inches when compacting with lightweight equipment around structures.

Dewatering through the use of “sump and pump” for trenches extending 1 to 2 feet below groundwater, in conjunction with well point techniques in deeper utility areas, will be required for utility installation. Most utility installations extended below 5 feet will likely encounter groundwater. Well points will be required for deeper utility alignments.

Off-site borrow should meet Unified Soil Classification System (USCS) designation SM, SP, SW, GM, GP, or GW and be approved by GTA. Utility backfill and roadway fill should conform to DelDOT Type C Borrow. All fills should be constructed in maximum 8-inch thick loose lifts and be compacted to the following specifications:

COMPACTION SPECIFICATIONS

Structure / Fill Location	Compaction / Moisture Specification
Below foundations, floor slab subgrades and within wall backfill and pavement areas	95% of ASTM D 1557 Moisture: ± 3% of optimum
Lawn or unimproved areas	90% of ASTM D 1557 Moisture: optimum to ± 3% of optimum

A fulltime soils-technician under guidance of GTA should observe fill construction. Compactive effort should be verified by in-place density testing.

Basement Feasibility

Considering groundwater levels below normal seasonal highs, a nominal clearance of 2 to 3-feet between the estimated seasonal high groundwater and basement depth was used with respect to GTA’s opinion of the feasibility of basement construction when considering groundwater depth.

While the grading scheme is not available at the time of this report, in general, it is our opinion that conventional basement construction (5 to 6 feet deep) is not feasible at most lots, with respect to the estimated seasonal high groundwater level. Depending upon final grading scheme, GTA recommends that the top of finished ground concrete slab surface for each basement/crawlspace lot be placed no lower than as follows:

Lot Numbers	Top of Basement/Crawlspace Slab Embedment Elevation (MSL)
South: 71 – 85, 97 – 99, 103 – 105	EL 26
South: 54 – 59, 176 – 179	EL 27
North: 1 – 23, 38 – 78, 90 – 104 South: 6 – 11, 17, 46 – 53, 60 – 70, 86 – 96, 100 – 102, 106 – 141, 162 – 164, 174, 175, 180 – 188	EL 28
North: 24 – 37, 79 – 89 South: 12 – 16, 18 – 45, 142 – 161, 165 – 173, 189 – 195	EL 29
South: 1 – 5	EL 30

To facilitate basement construction, yard grades will need to be raised several feet, at most lots. If the grades cannot be raised to facilitate basement construction, GTA recommends conditioned crawlspace or slab on grade construction.

If saturated footing and slab subgrades are encountered during construction, GTA should be consulted. The subgrade should be stabilized and the basement or crawlspace ground floor level may have to be raised as recommended by GTA. At lots where, clayey subgrade is encountered at ground floor subgrade, drainage trenches filled with AASHTO # 57 aggregate wrapped with filter fabric (Mirafi 140N or approved equal) will need to be excavated to penetrate the clayey materials and expose underlying sands. GTA should observe the basement/crawlspace foundation subgrade and construction for conformance with our recommendations and to allow for additional recommendations based upon the conditions observed in the field at the time of construction.

For basement and crawlspace foundations, an exterior and interior perimeter foundation drain system outletted to a sump crock provided with a backup mechanical pump is recommended. Perimeter drains should be installed for the foundation to prevent excess hydrostatic pressure. All exterior grades should slope to drain away from the building foundation. Basement and crawlspace drains, damproofing, footings, and wall construction should be in general accordance with IRC 2012 and Sussex County requirements, as applicable.

Foundations

Based upon the exploration data, it is GTA's opinion that the proposed houses and clubhouse facility may be supported on structural fill or firm native soils using shallow spread footings designed for a maximum net allowable bearing pressure of 2,000 pounds per square foot (psf). Minimum widths for wall footings of 16 inches and column footings of 24 inches are recommended. Settlement of 1-inch total and ½-inch differential over a 50-foot horizontal span is estimated considering preliminary wall loads of 3 kips per foot and column loads of 20 kips. Exterior footings should be founded a minimum of 24 inches below the final exterior grades to provide protection from frost action.

Detailed foundation evaluations should be performed in each footing excavation prior to the placement of reinforcing steel or concrete. These evaluations should be performed by a representative of GTA to confirm that the allowable soil bearing capacity is available. The foundation bearing surface evaluations should be performed using a combination of visual observation, comparison with the borings, hand-rod probing, and Dynamic Cone Penetrometer (DCP) testing. Footings should be concreted on the day they are excavated. If very loose or unsuitable materials are encountered, the footing excavations should be undercut and the subgrade should be reestablished with AASHTO No. 57 crushed stone or in accordance with GTA's recommendations in the field at the time of construction.

Floor Slabs

The ground floors should be designed as concrete slab-on-grade. GTA recommends that the concrete floor slabs supported on grade be founded on a four-inch thick open-graded stone layer covered with a polyethylene vapor retarder to interrupt the rise of moisture through the slab. Natural and compacted fill subgrades for support of the floor slabs should be tested to verify stability and compaction in accordance with GTA's earthwork recommendations prior to placement of concrete. Control joints should be provided to control shrinkage cracking of the concrete floor system. Isolation joints should be present at the location of walls, columns, and footings to allow for differential movement.

Pavements

Pavement sections should be designed based on anticipated subgrade conditions and traffic intensity. Laboratory testing of selected site soils indicated a CBR value of approximately 27.1 percent for the Silty SAND (AASHTO A-2-4(0)) sample tested. The CBR value is based upon a relative compaction of 95 percent of maximum dry density (Modified Proctor, ASTM D-1557). Based upon the CBR value and the field conditions encountered at the borings, the site soils tested are considered to be generally good for supporting standard pavement sections.

Based on GTA’s experience with similar projects, construction traffic is likely to be more significant for the design of the pavements. The pavement section thickness should be designed to reflect construction traffic and the subgrade supporting quality of the site soils. The on-site soils conforming to SM, SP-SM or SP will be suitable for the support of the pavement thickness sections indicated in the following paragraphs. However, subgrade materials should be carefully evaluated prior to graded aggregate base placement and paving. Subgrade materials conforming to AASHTO Classification A-4, A-5, A-6 or A-7 and USCS SC classification should be undercut and replaced with suitable granular materials conforming to A-1, A-2 or A-3 and DelDOT Type C Borrow. Therefore, GTA recommends that the upper 12 inches of roadway subgrade be constructed of fill with the following characteristics:

PAVEMENT SUBGRADE SPECIFICATIONS

Liquid Limit	35 or less
Plasticity Index	Non-Plastic
Maximum Dry Density	105 pcf or greater
California Bearing Ratio	10 or greater

Prior to construction of pavement sections, the pavement subgrade should be proof-rolled with a loaded tandem-axle dump truck under the observation of GTA to verify stability. Unstable or unsuitable soils should be over-excavated to a stable bearing layer. The subgrade may be re-established with approved, controlled, compacted stabilized fill. A contingency for undercutting and replacement of unsuitable materials should be provided.

For roadway pavement construction, it is recommended that two different pavement sections be utilized to reduce the potential for pavement failures during construction. The heavy-duty pavement section can be constructed for the primary roadways including the entrance. The standard-duty pavement section can be constructed for the interior minor roadways. It is recommended that construction traffic be limited to the heavy-duty pavement sections. The recommended preliminary pavement sections are as follows:

FLEXIBLE PAVEMENT

Pavement Components	Standard-Duty	Heavy-Duty
Hot Mix Asphalt Surface Course (Type C; 9.5 mm Superpave)	1 ¼ inches	1 ¼ inches
Hot Mix Asphalt Base Course (Type B; 19 mm Superpave)	3 inches	3 ¾ inches
Graded Aggregate Base Course (Type B Crusher Run)	6 inches	8 inches
Approved Subgrade	12 inches	12 inches

RIGID PAVEMENT

Pavement Components	Standard-Duty	Heavy-Duty
Portland Cement Concrete*	6 inches	7 inches
Graded Aggregate Base Course (Type B Crusher Run)	4 inches	4 inches
Approved Subgrade	12 inches	12 inches

*f_c= 4,000 psi concrete provided with 7% air-entrainment; control joints, isolation joints, load transfer devices, and reinforcement as required.

When pavement areas are established to approximate pavement subgrade, the pavement subgrade material should be observed by GTA to allow for additional recommendations based upon subgrade conditions observed at the time of construction. All pavement materials and construction should conform to the State of Delaware, Department of Transportation (DelDOT), STANDARD SPECIFICATIONS, latest edition, and Sussex County standards, as applicable.

LIMITATIONS

This report, including all supporting exploration logs, field data, field notes, laboratory test data, calculations, estimates, and other documents prepared by GTA in connection with this project, has been prepared for the exclusive use of Schell Brothers, LLC pursuant to the agreements between GTA and Schell Brothers, LLC dated April 20, 2021 and in accordance with generally accepted engineering practice. All terms and conditions set forth in the Agreement and the General

Provisions attached thereto are incorporated herein by reference. No warranty, express or implied, is given herein. Use and reproduction of this report by any other person without the expressed written permission of GTA and Schell Brothers, LLC is unauthorized and such use is at the sole risk of the user.

The analysis and preliminary recommendations contained in this report are based on the data obtained from limited observation and testing of the encountered materials. Test borings indicate soil conditions only at specific locations and times and only at the depths penetrated. They do not necessarily reflect strata or variations that may exist between test boring locations. Consequently, the analysis and recommendations must be considered preliminary until the subsurface conditions can be verified by direct observation at the time of construction. If variations of subsurface conditions from those described in this report are noted during construction, recommendations in this report may need to be re-evaluated.

In the event that any changes in the nature, design, or location of the facilities are planned, the conclusions and recommendations contained in this report should not be considered valid unless the changes are reviewed and conclusions of this report are verified in writing. Geo-Technology Associates, Inc. is not responsible for any claims, damages, or liability associated with interpretation of subsurface data or reuse of the subsurface data or engineering analysis without the expressed written authorization of Geo-Technology Associates, Inc.

The scope of our services for this geotechnical exploration did not include any environmental assessment or investigation for the presence or absence of wetlands, or hazardous or toxic materials in the soil, surface water, groundwater or air, on or below or around this site. Any statements in this report or on the logs regarding odors or unusual or suspicious items or conditions observed are strictly for the information of our Client. This report and the attached logs are instruments of service. The subject matter of this report is limited to the facts and matters stated herein. Absence of a reference to any other conditions or subject matter shall not be construed by the reader to imply approval by the writer.

Important Information about This

Geotechnical-Engineering Report

Subsurface problems are a principal cause of construction delays, cost overruns, claims, and disputes.

While you cannot eliminate all such risks, you can manage them. The following information is provided to help.

The Geoprofessional Business Association (GBA) has prepared this advisory to help you – assumedly a client representative – interpret and apply this geotechnical-engineering report as effectively as possible. In that way, you can benefit from a lowered exposure to problems associated with subsurface conditions at project sites and development of them that, for decades, have been a principal cause of construction delays, cost overruns, claims, and disputes. If you have questions or want more information about any of the issues discussed herein, contact your GBA-member geotechnical engineer. Active engagement in GBA exposes geotechnical engineers to a wide array of risk-confrontation techniques that can be of genuine benefit for everyone involved with a construction project.

Understand the Geotechnical-Engineering Services Provided for this Report

Geotechnical-engineering services typically include the planning, collection, interpretation, and analysis of exploratory data from widely spaced borings and/or test pits. Field data are combined with results from laboratory tests of soil and rock samples obtained from field exploration (if applicable), observations made during site reconnaissance, and historical information to form one or more models of the expected subsurface conditions beneath the site. Local geology and alterations of the site surface and subsurface by previous and proposed construction are also important considerations. Geotechnical engineers apply their engineering training, experience, and judgment to adapt the requirements of the prospective project to the subsurface model(s). Estimates are made of the subsurface conditions that will likely be exposed during construction as well as the expected performance of foundations and other structures being planned and/or affected by construction activities.

The culmination of these geotechnical-engineering services is typically a geotechnical-engineering report providing the data obtained, a discussion of the subsurface model(s), the engineering and geologic engineering assessments and analyses made, and the recommendations developed to satisfy the given requirements of the project. These reports may be titled investigations, explorations, studies, assessments, or evaluations. Regardless of the title used, the geotechnical-engineering report is an engineering interpretation of the subsurface conditions within the context of the project and does not represent a close examination, systematic inquiry, or thorough investigation of all site and subsurface conditions.

Geotechnical-Engineering Services are Performed for Specific Purposes, Persons, and Projects, and At Specific Times

Geotechnical engineers structure their services to meet the specific needs, goals, and risk management preferences of their clients. A geotechnical-engineering study conducted for a given civil engineer

will not likely meet the needs of a civil-works constructor or even a different civil engineer. Because each geotechnical-engineering study is unique, each geotechnical-engineering report is unique, prepared *solely* for the client.

Likewise, geotechnical-engineering services are performed for a specific project and purpose. For example, it is unlikely that a geotechnical-engineering study for a refrigerated warehouse will be the same as one prepared for a parking garage; and a few borings drilled during a preliminary study to evaluate site feasibility will not be adequate to develop geotechnical design recommendations for the project.

Do not rely on this report if your geotechnical engineer prepared it:

- for a different client;
- for a different project or purpose;
- for a different site (that may or may not include all or a portion of the original site); or
- before important events occurred at the site or adjacent to it; e.g., man-made events like construction or environmental remediation, or natural events like floods, droughts, earthquakes, or groundwater fluctuations.

Note, too, the reliability of a geotechnical-engineering report can be affected by the passage of time, because of factors like changed subsurface conditions; new or modified codes, standards, or regulations; or new techniques or tools. *If you are the least bit uncertain* about the continued reliability of this report, contact your geotechnical engineer before applying the recommendations in it. A minor amount of additional testing or analysis after the passage of time – if any is required at all – could prevent major problems.

Read this Report in Full

Costly problems have occurred because those relying on a geotechnical-engineering report did not read the report in its entirety. Do not rely on an executive summary. Do not read selective elements only. *Read and refer to the report in full.*

You Need to Inform Your Geotechnical Engineer About Change

Your geotechnical engineer considered unique, project-specific factors when developing the scope of study behind this report and developing the confirmation-dependent recommendations the report conveys. Typical changes that could erode the reliability of this report include those that affect:

- the site's size or shape;
- the elevation, configuration, location, orientation, function or weight of the proposed structure and the desired performance criteria;
- the composition of the design team; or
- project ownership.

As a general rule, *always* inform your geotechnical engineer of project or site changes – even minor ones – and request an assessment of their impact. *The geotechnical engineer who prepared this report cannot accept*

responsibility or liability for problems that arise because the geotechnical engineer was not informed about developments the engineer otherwise would have considered.

Most of the “Findings” Related in This Report Are Professional Opinions

Before construction begins, geotechnical engineers explore a site’s subsurface using various sampling and testing procedures. *Geotechnical engineers can observe actual subsurface conditions only at those specific locations where sampling and testing is performed.* The data derived from that sampling and testing were reviewed by your geotechnical engineer, who then applied professional judgement to form opinions about subsurface conditions throughout the site. Actual site-wide subsurface conditions may differ – maybe significantly – from those indicated in this report. Confront that risk by retaining your geotechnical engineer to serve on the design team through project completion to obtain informed guidance quickly, whenever needed.

This Report’s Recommendations Are Confirmation-Dependent

The recommendations included in this report – including any options or alternatives – are confirmation-dependent. In other words, they are not final, because the geotechnical engineer who developed them relied heavily on judgement and opinion to do so. Your geotechnical engineer can finalize the recommendations *only after observing actual subsurface conditions* exposed during construction. If through observation your geotechnical engineer confirms that the conditions assumed to exist actually do exist, the recommendations can be relied upon, assuming no other changes have occurred. *The geotechnical engineer who prepared this report cannot assume responsibility or liability for confirmation-dependent recommendations if you fail to retain that engineer to perform construction observation.*

This Report Could Be Misinterpreted

Other design professionals’ misinterpretation of geotechnical-engineering reports has resulted in costly problems. Confront that risk by having your geotechnical engineer serve as a continuing member of the design team, to:

- confer with other design-team members;
- help develop specifications;
- review pertinent elements of other design professionals’ plans and specifications; and
- be available whenever geotechnical-engineering guidance is needed.

You should also confront the risk of constructors misinterpreting this report. Do so by retaining your geotechnical engineer to participate in prebid and preconstruction conferences and to perform construction-phase observations.

Give Constructors a Complete Report and Guidance

Some owners and design professionals mistakenly believe they can shift unanticipated-subsurface-conditions liability to constructors by limiting the information they provide for bid preparation. To help prevent the costly, contentious problems this practice has caused, include the complete geotechnical-engineering report, along with any attachments or appendices, with your contract documents, *but be certain to note*

conspicuously that you’ve included the material for information purposes only. To avoid misunderstanding, you may also want to note that “informational purposes” means constructors have no right to rely on the interpretations, opinions, conclusions, or recommendations in the report. Be certain that constructors know they may learn about specific project requirements, including options selected from the report, *only* from the design drawings and specifications. Remind constructors that they may perform their own studies if they want to, and *be sure to allow enough time* to permit them to do so. Only then might you be in a position to give constructors the information available to you, while requiring them to at least share some of the financial responsibilities stemming from unanticipated conditions. Conducting prebid and preconstruction conferences can also be valuable in this respect.

Read Responsibility Provisions Closely

Some client representatives, design professionals, and constructors do not realize that geotechnical engineering is far less exact than other engineering disciplines. This happens in part because soil and rock on project sites are typically heterogeneous and not manufactured materials with well-defined engineering properties like steel and concrete. That lack of understanding has nurtured unrealistic expectations that have resulted in disappointments, delays, cost overruns, claims, and disputes. To confront that risk, geotechnical engineers commonly include explanatory provisions in their reports. Sometimes labeled “limitations,” many of these provisions indicate where geotechnical engineers’ responsibilities begin and end, to help others recognize their own responsibilities and risks. *Read these provisions closely.* Ask questions. Your geotechnical engineer should respond fully and frankly.

Geoenvironmental Concerns Are Not Covered

The personnel, equipment, and techniques used to perform an environmental study – e.g., a “phase-one” or “phase-two” environmental site assessment – differ significantly from those used to perform a geotechnical-engineering study. For that reason, a geotechnical-engineering report does not usually provide environmental findings, conclusions, or recommendations; e.g., about the likelihood of encountering underground storage tanks or regulated contaminants. *Unanticipated subsurface environmental problems have led to project failures.* If you have not obtained your own environmental information about the project site, ask your geotechnical consultant for a recommendation on how to find environmental risk-management guidance.

Obtain Professional Assistance to Deal with Moisture Infiltration and Mold

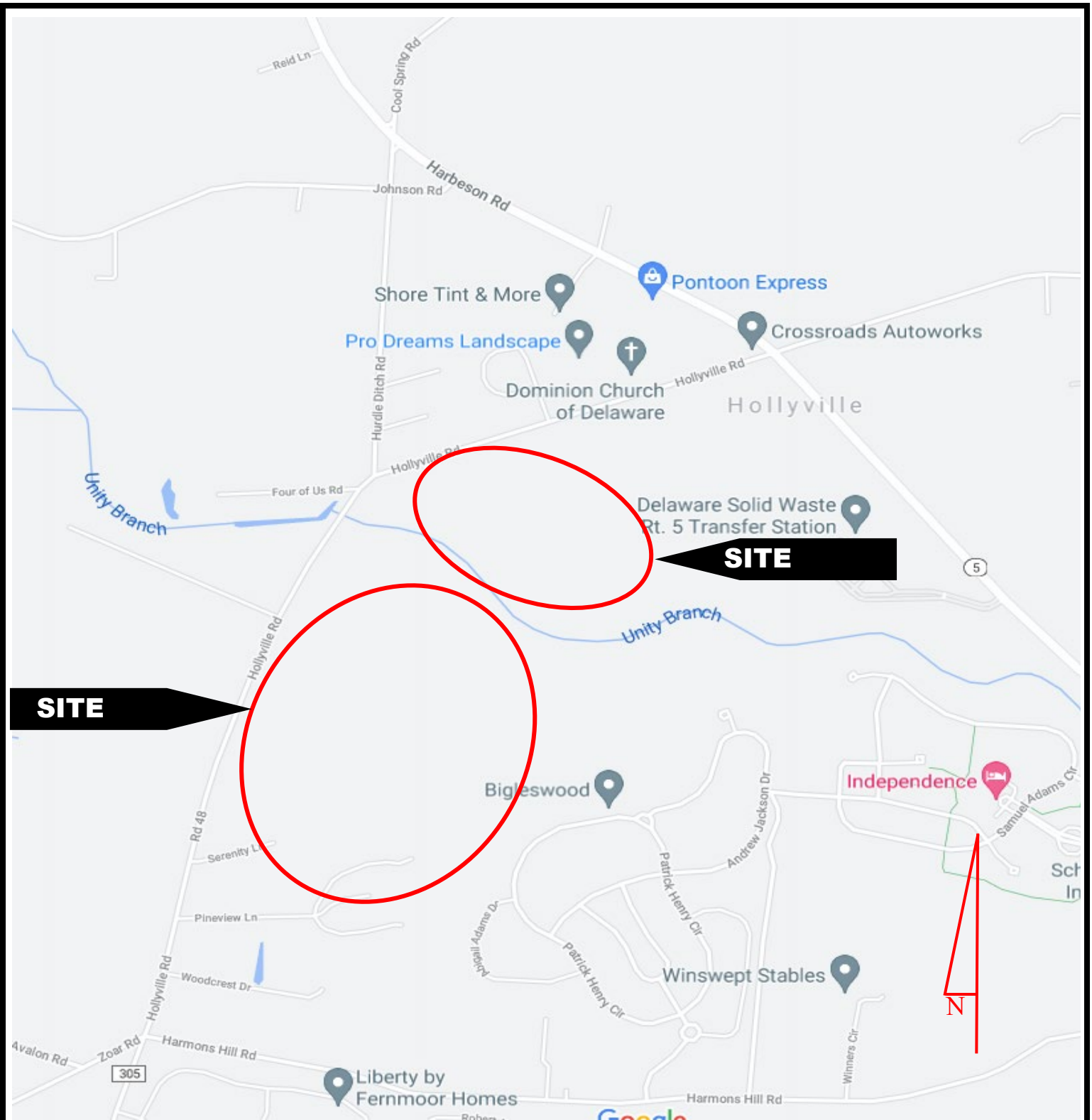
While your geotechnical engineer may have addressed groundwater, water infiltration, or similar issues in this report, the engineer’s services were not designed, conducted, or intended to prevent migration of moisture – including water vapor – from the soil through building slabs and walls and into the building interior, where it can cause mold growth and material-performance deficiencies. Accordingly, *proper implementation of the geotechnical engineer’s recommendations will not of itself be sufficient to prevent moisture infiltration.* **Confront the risk of moisture infiltration** by including building-envelope or mold specialists on the design team. **Geotechnical engineers are not building-envelope or mold specialists.**



Telephone: 301/565-2733

e-mail: info@geoprofessional.org www.geoprofessional.org

APPENDIX A
FIGURES



Site Location Plan taken from Google Maps



GEO-TECHNOLOGY ASSOCIATES, INC.
 GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
 21133 Sterling Avenue, Suite 7
 Georgetown, Delaware 19947
 (302) 855-9761 Fax (302) 856-3388

Site Location Plan
Hollyville Property
Sussex County, Delaware

SCALE
 NTS

DATE
 August 2021

DRAWN BY
 GTA


DESIGN BY
 Google Maps

REVIEW BY
 GRS

JOB NO.
 31210796



Exploration Location Plan taken from Google Earth and an untitled plan prepared by Solutions IPEM and not dated.

 Exploration Location



GEO-TECHNOLOGY ASSOCIATES, INC.
 GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
 21133 Sterling Avenue, Suite 7
 Georgetown, Delaware 19947
 (302) 855-9761 Fax (302) 856-3388

Exploration Location Plan
Hollyville
Sussex County, Delaware

SCALE 11X17

1" ~ 190'

DATE

August 2021

DRAWN BY

GTA

DESIGN BY

Solutions

REVIEW BY

GRS

JOB NO.


31210796

Figure

2



Exploration Location Plan taken from Google Earth and an untitled plan prepared by Solutions IPEM and not dated.

 Exploration Location



GEO-TECHNOLOGY ASSOCIATES, INC.
 GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS
 21133 Sterling Avenue, Suite 7
 Georgetown, Delaware 19947
 (302) 855-9761 Fax (302) 856-3388

Exploration Location Plan
Hollyville Property
Sussex County, Delaware

SCALE 11X17

1" ~ 305'

DATE

August 2021

DRAWN BY

GTA

DESIGN BY

Solutions

REVIEW BY

GRS

JOB NO.

31210796

Figure

3

Jason Palkewicz, Professional Engineer
CEO

EDUCATION

BE, Environmental Eng., 1995
Hofstra University

MS, Civil Eng., 1999
University of Toledo

REGISTRATIONS

- Professional Engineer
MD # 25088
- Professional Engineer
DE # 12083
- Professional Engineer
VA # 035417

MEMBERSHIPS

- LEED, AP

PROFESSIONAL SUMMARY

Mr. Palkewicz is a Professional Engineer and Project Manager with licenses in Maryland, Virginia and Delaware, with over 25 years of experience successfully overseeing all phases of planning, engineering and survey projects for government and private-sector clients. He is a highly skilled team leader, detail oriented with the ability to solve problems with limited resources while never losing sight of the big picture.

SPECIAL PROJECT EXPERIENCE

- **Pot-Nets Bayside, Sussex County, DE** – Provided design and permitting drawings for the rehabilitation and replacement of approximately 10,000 lf of vinyl marina bulkhead including dozens of piers, hundreds of piles and two boat launching facilities.
- **Pelican Point, Sussex County, DE** – Prepared construction drawings and plats for a 379 unit residential along Rte 5 outside of Long Neck. Plans included roadway, grading, sediment and erosion control, potable water, gravity sanitary sewer and sanitary pump station
- **Chase Oaks, Sussex County, DE** – The civil engineer project manager for this 253 unit coastal area cluster subdivision located on Robinsonville Road. The project included planning, entitlement, roadway, grading, stormwater management, sanitary sewer, pump station and DelDOT entrance design.
- **Headwater Cove, Sussex County, DE** – Prepared construction drawings and plats for a 163 unit residential subdivision on Dorman Road. Plans included roadway, grading, sediment and erosion control, potable water, gravity sanitary sewer and sanitary pump station.