



**ENVIRONMENTAL
MANAGEMENT
G R O U P**

1705 Bay Avenue, Suite 6
Pt. Pleasant, NJ 08742-4505
Phone: (732) 282-2222
Info@Emg-Environmental.com

ENVIRONMENTAL IMPACT STATEMENT

FOR

HEMINGWAY ESTATES

PROPOSED FOURTEEN (14) LOT SINGLE-FAMILY RESIDENTIAL SUBDIVISION

BLOCK 23, TAX LOTS 1242, 1267, 1268, 1272, 1276

BLOCK 24, TAX LOTS 1134, 113, 1165, 1206, 1216, 1234

BLOCK 26, TAX LOTS 1286, 1291, 1307

BLOCK 27, TAX LOTS 1168, 1187, 1197, 1201, 1204

BLOCK 28, TAX LOTS 1071, 1084, 1091

TOWNSHIP OF MANCHESTER

OCEAN COUNTY, NEW JERSEY

Prepared on behalf of

AYRA PROPERTIES, LLC

130 CENTRAL AVENUE

ISLAND HEIGHTS, NJ 08732

Prepared by

ENVIRONMENTAL MANAGEMENT GROUP, INC.

1705 BAY AVENUE, SUITE 6

POINT PLEASANT, NEW JERSEY 08742

**DATE: MAY, 2026
EMG FILE: 25-195**

COMPREHENSIVE ENVIRONMENTAL CONSULTING SERVICES

ENVIRONMENTAL IMPACT STATEMENT

HEMINGWAY ESTATES PROPOSED FOURTEEN (14) LOT SINGLE-FAMILY RESIDENTIAL SUBDIVISION TOWNSHIP OF MANCHESTER OCEAN COUNTY, NJ

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SECTION 1.0 INTRODUCTION

This **Environmental Impact Statement (EIS)** has been prepared in support of a **Major Subdivision Application (Hemingway Estates)** submitted to the Manchester Township Land Use Board on behalf of **Ayra Properties, LLC**.

In accordance with the Manchester Township, Article VI: Site Plan Requirements and Procedures, Section 245-50, an Environmental Impact Statement (EIS) is required for any application for development, which requires the approval of the Land Use Board, involving a Use Variance, Major Subdivision and Site Plan.

SECTION 1.1 PURPOSE

According to the Municipal Code, the primary purpose of an Environmental Impact Statement (EIS) is to compile information that will assist the Planning Board or Board of Adjustment in conjunction with the Environmental Commission, in determining whether or not a proposed development may cause an adverse environmental impact. This information will also be useful to the applicant in planning and designing the project so as to minimize adverse effects on the environment.

No application for a major subdivision or site plan shall be approved unless it has been affirmatively determined that the proposed project will not result in a significant adverse impact on the environment.

The EIS shall include the following minimum information and be reviewed and either approved or denied, as follows:

1. A description of the project which shall specify what is to be done and how it is to be done, during construction and operation, as well as a recital of alternative plans deemed practicable to achieve the object.
2. An inventory of existing environmental conditions at the project site and in the immediate surrounding region which shall describe air quality, water quality, water supply, hydrology, geology, physical soil borings and properties thereof, including their capability and limitations, sewerage systems, topography, slope, vegetation, wildlife habitat, aquatic organisms, noise characteristics and levels; demography, land use, aesthetics and history. Air and water quality shall be described with reference to standards promulgated by the Department of Environmental Protection of the State of New Jersey and soils shall be described with reference to criteria contained in the Soil Conservation District Standards and Specifications.
3. An evaluation of any adverse environmental impacts which cannot be avoided. Particular emphasis shall be placed on air or water pollution; increase in noise, storm drainage, sedimentation, and siltation; effect upon vehicular and pedestrian traffic; increase in Township services, and consequences to the Township tax structure; and damage to flora and fauna.

4. A description of steps to be taken to avoid or minimize adverse environmental impacts during construction and operation, including maps, schedules, and other explanatory data which clarify and explain these steps.
5. The aforesaid inventory shall be based upon actual visitation and inspection of the site proposed for development. The inventory shall be prepared by a person who is qualified and able to recognize the evidence and the presence of a species of flora or fauna by sight, sound, sign and habitat. Prior to the actual performance of the inventory, an applicant may present the qualifications of a proposed expert to the Environmental Commission for acceptance.
6. The inventory required by this subsection shall be accompanied by a log indicating the dates, times, weather conditions, and specific site locations of the on-site inspections required by this subsection. If evidence is detected of the presence of any endangered or threatened species as shown on any federal or New Jersey endangered or threatened species list, the inventory shall set forth specific strategies and procedures to protect and preserve any such endangered or threatened species.

SECTION 1.2 EIS FORMAT & CHAPTER RELATIONS

This EIS has been prepared in accordance with Article VI: Site Plan Requirements and Procedures, Section 245-50, of the Manchester Township Ordinance.

In preparing this EIS, EMG has conducted field reconnaissance of the subject property and accessible portions of adjoining areas, and has obtained, reviewed and compiled relevant information from a number of reasonably ascertainable sources including, but not necessarily limited to: surveys, site plans and technical reports prepared by the Project Engineer and other Project Professionals, the Manchester Township Land Use Ordinance, NJDEP Bureau of Geographic Information Systems (GIS), NJDEP Natural Heritage Database, NJDEP Historic Preservation Office and the United States Department of Agricultural (USDA) Soil Conservation Service (SCS) Survey of Ocean County, New Jersey.

Throughout this EIS, pertinent information and analysis are presented to provide a detailed and objective evaluation of the potential environmental impacts of this project upon the natural and man-made environment.

SECTION 1.3 SITE LOCATION/DESCRIPTION

The proposed Hemingway Estates single-family residential subdivision is comprised of the following twenty five (25) individual lots: Lots 1242, 1267, 1268, 1272, 1276 of Block 23, Lots 1134, 113, 1165, 1206, 1216, 1234 of Block 24, Lots 1286, Part of 1291 and Part of 1307 of Block 26, Lots 1201, 1204, Part of 1197 and Part of 1168 Block 27, Lots 1071, 1084 and Part of 1091 of Block 28, referred to herein collectively as the *subject property*.

The subject property is situated in an area to the north of Wilbur Avenue, Holly Hill Road and east of Plainfield Avenue (See Figure 1 – Site Location Map).

The subject property is 15.152 acres of undeveloped and mostly wooded land.

A narrow, dirt road/easement and narrow foot trails extend through portions of the subject property.

The unimproved right-of-ways of Weston Avenue, Madison Street, Jackson Avenue and Manchester Avenue are present within the subject property.

Additional details regarding existing conditions throughout the subject property are provided in Report Section 3.0, Natural Resource Inventory.

Existing conditions of the subject of property are depicted on Page 2 of 12 of the plan set, submitted in support of the Subdivision Application, entitled, "Preliminary & Final Major Subdivision Plans, "Hemingway Estates, Lot 1242, 1267, 1268, 1272, 1276 of Block 23, Lot 1134, 113, 1165, 1206, 1216, 1234 of Block 24, Lot 1286, Part of 1291 and Part of 1307 of Block 26, Lot 1201, 1204, Part of 1197 and Part of 1168 Block 27, Lots 1071, 1084 and Part of 1091 of Block 28, Manchester Township, Ocean County, New Jersey," prepared by Two River Engineering dated April 17, 2026, Plan Sheet 2 (Existing Conditions & Roads Vacation Plan).

Additional information regarding certain site features and conditions is presented in report sections to follow.

A series of captioned, color site photographs are included as Appendix B.

TABLE 1
SITE DATA

Project:	Hemingway Estates Proposed fourteen (14) lot residential subdivision
Subject Property:	Block 23, Tax Lots 1242, 1267, 1268, 1272, 1276 Block 24, Tax Lots 1134, 113, 1165, 1206, 1216, 1234 Block 26, Tax Lots 1286, 1291, 1307 Block 27, Tax Lots 1168, 1187, 1197, 1201, 1204 Block 28, Tax Lots 1071, 1084, 1091 Township of Manchester Ocean County, New Jersey
Site Location:	North of Wilbur Avenue, west of Holly Hill Road and east of Plainfield Avenue
State Plane Coordinates:	E(x) 557086 N(y) 435635
Site Area:	15.152 ± acres

Current Use: Vacant, wooded, no ongoing uses/operations

Former/Historic Use: None documented

**Applicant/
Owner:** Ayra Properties, LLC
130 Central Avenue
Island Heights, NJ 08732

SECTION 1.4 CURRENT OPERATIONS

The subject property is currently unimproved and wooded with no ongoing operations.

SECTION 1.5 HISTORIC USES/OPERATIONS

Reasonably ascertainable information available to EMG has not identified any operations/uses in connection with the subject property.

A review of available historical aerial photography dating back to 1931 indicates that the subject property has remained unimproved and wooded.

SECTION 1.6 VICINITY CHARACTERISTICS

Existing land use in the immediate vicinity of the subject property is primarily single-family residential.

Areas of woodland occur west and northwest of the subject property.

SECTION 1.7 PRIOR PERMITS/APPROVALS

Research conducted by EMG has not identified any prior permits and/or approvals issued in connection with the subject property.

SECTION 2.0 PROJECT DESCRIPTION

SECTION 2.1 PROPOSED DEVELOPMENT

The applicant, Ayra Properties, LLC, is proposing to subdivide the 15.152 acre site into fourteen (14) single-family residential lots ranging in size from 25,076.77 square feet to 47,621.43 square feet. The project will also create an open space parcel totaling 152,162.07 square feet, 3.493 acres (Lot 15).

The proposed single-family residential subdivision will require the vacation of existing portions of the Westin Avenue right-of-way, the Manchester Avenue right-of-way, the Jackson Avenue right-of-way and the Madison Avenue right-of-way.

The proposed public road vacation is shown on Plan Sheet 2 of the Preliminary and Final Major Subdivision Plans (Existing Conditions and Roads Vacation Plan).

Each of the fourteen (14) single-family residential lots will front onto a new cul-de-sac extending north onto the subject property from Wilbur Avenue.

The proposed residential development of the subject property will involve the extension of and installation of a number of available utilities including, but not necessarily limited to, a public potable water supply and sanitary sewer, natural gas, telephone, electric and cable.

The proposed residential subdivision is detailed on the plans entitled, "Preliminary & Final Major Subdivision Plans, "Hemingway Estates, Lot 1242, 1267, 1268, 1272, 1276 of Block 23, Lot 1134, 113, 1165, 1206, 1216, 1234 of Block 24, Lot 1286, Part of 1291 and Part of 1307 of Block 26, Lot 1201, 1204, Part of 1197 and Part of 1168 Block 27, Lots 1071, 1084 and Part of 1091 of Block 28, Manchester Township, Ocean County, New Jersey," prepared by Two River Engineering dated April 17, 2026, **Plan Sheet 3 of 12 (Site Layout Plan)**.

Additional information regarding the subject property and the proposed single-family residential development is provided in report sections that follow.

SECTION 2.2 REQUIRED PERMITS/APPROVALS

EMG has been advised that the proposed subdivision has not yet obtained any required approvals.

The Subdivision Application has been or will be submitted to Manchester Township.

Applications have been submitted to the Ocean County Soil Conservation District and Ocean County Planning Board.

SECTION 2.3 LAND USE & ZONING

The subject property is located in Manchester Townships R-40 (Residential) Zone. Single-family dwellings are a permitted use in the R-40 Zone (Residential Zone).

The R-40 Zone allows for cluster development with a minimum lot area of 25,000 feet. Each of the fourteen (14) single-family residential lots exceed the minimum lot area requirement.

A table of the R-40 Zone requirements is provided on the Site Layout Plan (Sheet 3 of 12).

SECTION 2.4 TRANSPORTATION PLAN

The applicant proposes to construct Ernest Way extending east through the subdivision from Wilbur Avenue. The proposed Ernest Way terminates at a cul-de-sac at the east end of the subdivision.

Each of the proposed fourteen (14) dwellings will have driveway access from Ernest Way.

Traffic is further discussed in Section 4.9 of this EIS.

SECTION 2.5 UTILITIES

SECTION 2.5.1 POTABLE WATER SUPPLY

Potable water serving the proposed fourteen (14) single-family dwellings will be provided by Manchester Township (Public Water Supply ID #NJ1518005).

The Manchester Township Water Utility serves approximately 22,633 residents and is divided into two (2) main service areas (Eastern) east of Route 70/Lakehurst Circle and (Western) west of Route 70/Lakehurst Circle.

The subject property is located within the Eastern Utility Service Area.

Manchester Township draws water from nine (9) active drilled wells between 75 and 1,150 feet into two (2) underground sources of water called the Cohansey and Upper Raritan aquifers.

Estimated potable water demand for the subdivision as per N.J.A.C. 7:10-12.6 and using a multiplier of 80-100 gallons a day per person and assuming a four (4) person occupation for each of the single-family dwellings is 4,480-5,600 gallons per day (GPD).

SECTION 2.5.2 SANITARY SEWER FACILITIES

Each of the proposed single-family dwellings will be served by public sanitary sewer service provided by Manchester Township.

Estimated sewer demand for the proposed subdivision as per N.J.A.C. 7.14A-23.3 and based upon 300 gallons per day per dwelling is 4,200 gallons per day.

SECTION 2.5.3 STORMWATER MANAGEMENT

Details regarding the stormwater management system designed for the subdivision, including calculations in support of the design, are provided in a Stormwater Management Report prepared by Two River Engineering dated April 20, 2026.

A key element of the proposed stormwater management system for the subdivision are three (3) small-scale infiltration basins situated along the easterly/southeasterly site boundary.

The Stormwater Management Report offers the following conclusions:

- The proposed development will comply with applicable stormwater quantity, quality and groundwater recharge measures as specified in NJAC 7:8. Three (3) small-scale infiltration basins are located on-site to treat the stormwater runoff before being infiltrated.

Through non-structural, stormwater management measures, the proposed development will mitigate the stormwater impacts from the proposed development. When considering infiltration, not only would the peak rate of runoff from the subject property be further reduced but the runoff volume discharged from the subject property would also be reduced thereby increasing runoff which will be recharged into the ground.

Through recharging all storms up to the 100-year storm event with infiltration, the proposed development complies N.J.A.C. 7:8 which requires through hydrologic and hydraulic analysis that the increase of stormwater runoff volume from pre-construction to post-construction for the two year storm is infiltrated. However, the basins have been designed to fully detain and infiltrate all storms up to the hundred (100) year storm so it can be assumed that the increase in stormwater runoff volume for the two (2) year storm is being infiltrated.

The proposed stormwater drainage system is detailed on the plan entitled, "Preliminary & Final Major Subdivision Plans, Preliminary & Final Major Subdivision Plans, "Hemingway Estates, Lot 1242, 1267, 1268, 1272, 1276 of Block 23, Lot 1134, 113, 1165, 1206, 1216, 1234 of Block 24, Lot 1286, Part of 1291 and Part of 1307 of Block 26, Lot 1201, 1204, Part of 1197 and Part of 1168 Block 27, Lots 1071, 1084 and Part of 1091 of Block 28, Manchester Township, Ocean County, New Jersey," prepared by Two River Engineering dated April 17, 2026, **Plan Sheet 4 of 16 (Grading, Drainage & Utilities Plan)**.

Water quality is further discussed in Report Section 4.6

SECTION 2.5.4 SOLID WASTE COLLECTION, RECYCLING & DISPOSAL

Solid waste generated during site preparation and construction will be carted off-site to an appropriate disposal and/or recycling facility.

The proposed residential subdivision will result in the generation of non-hazardous, solid waste/common refuse and recyclable materials.

Household waste and recyclable materials will be collected at each dwelling curbside by the Manchester Township Department of Public Works.

SECTION 2.5.5 LIGHTING

A total of eleven (11) 12.75 foot pole-mounted light fixtures are proposed along Ernest Way.

Details and specifications for the proposed light fixtures are provided on the **Lighting Plan (Sheet 8 of 16)**.

SECTION 3.0 NATURAL RESOURCE INVENTORY

SECTION 3.1 TOPOGRAPHY

Existing and proposed elevations and contours throughout the subject property are depicted on the Preliminary & Final Major Subdivision Plans prepared by Two River Engineering dated April 17, 2026.

Site elevations range from approximately 70 feet near Wilbur Avenue to 85 feet at the north end of the subject property.

Proposed contours and elevations throughout the development site are provided on the Grading, Drainage and Utilities Plan, **Plan Sheet 4 of 10** of the Preliminary & Final Major Subdivision Plans, submitted in support of this application.

SECTION 3.2 GEOLOGY / SOILS

The subject property is situated within the Coastal Plains Physiographic Province.

Coastal Plain Physiographic Province soils are generally characterized as young, unconsolidated and sandy materials derived from marine and fluvial sediments deposited over millions of years. These soils typically span from New Jersey to Texas, forming a flat, low-lying, and gently sloping terrain, often featuring thick sandy surface layers (epipedons) underlain by clays.

According to the United States Department of Agriculture (USDA) Soil Conservation Service (SCS) Soil Survey of Ocean County, New Jersey, soils mapped throughout the subject property are classified as Downer Loamy Sand (DocBO). These deep well-drained soils formed in acid loamy coastal plain sediments.

Natural vegetation on the Downer Series soils includes White oak, Black oak, Chestnut oak, and a few Pitch pines, Shortleaf pines and Virginia pines. The understory is Lowbush blueberry, Sheep laurel and Bracken fern.

The Ocean County Soil Survey reports that the depth to the seasonal high water table for this soil type is greater than 6 feet.

EMG reviewed the NJDEP GeoWeb Mapping Program for the potential presence of a historic fill within and/or in the immediate vicinity of the subject property. Historic fill *is not mapped* within the subject property and/or an immediate vicinity of the subject property.

SECTION 3.3 VEGETATION

EMG personnel conducted a reconnaissance throughout the subject property and accessible portions of adjoining areas on December 12, 2025 and May 1, 2026.

The subject property is located in the Northern Atlantic Coastal Plain Section and the New Jersey Outer Coastal Plains Subsection as recognized by the US Forest Service.

Vegetatively, the subject property can be categorized as pine-oak upland.

A review of the New Jersey Department of Environmental Protection (NJDEP) Landscape Project Mapping (*Version 3.4, Pinelands Landscape Region*), as viewed on the Department's GeoWeb Mapping Program, identified the following habitat within the subject property:

- Rank 4 –Mixed Forest (>50% Coniferous With >50% Crown Closure)

The subject property is part of a 66.09 acre habitat patch.

The subject property is uniformly forested. Species of oak are predominant in the overstory. Pitch pine is a consistent overstory constituent. A uniform shrub layer is dominated by low bush blueberry, black huckleberry with occasional thick stands of mountain laurel.

A review of available historical aerial photography dating back to 1931 indicates that the subject property has remained unimproved and entirely wooded.

During the field studies conducted by EMG on December 12, 2025 and May 1, 2026, EMG developed the following listing of plant species present within the subject property.

TABLE 2
PLANT SPECIES LIST

Trees

Common Name	Scientific Name
Cherry, Black	<i>Prunus serotina</i>
Cherry, Pin	<i>Prunus pensylvanica</i>
Holly, American	<i>Ilex Opaca</i>
Locust, Black	<i>Robinia pseudoacacia</i>
Maple, Red	<i>Acer rubrum</i>
Oak, Chestnut	<i>Quercus Montana</i>
Oak, Post	<i>Quercus Stellata</i>
Oak, Scarlet	<i>Quercus Coccinea</i>
Oak, Southern Red	<i>Quercus falcata</i>
Oak, White	<i>Quercus Alba</i>
Pine, Pitch	<i>Pinus Rigida</i>
Pine, Shortleaf	<i>Pinus Echinata</i>
Pine, Virginia	<i>Pinus Virginiana</i>
Sassafras	<i>Sassafras Albidum</i>

Shrubs

Black Huckleberry	<i>Gaylussacia Baccata</i>
Eastern Teaberry	<i>Gaultheria Procumbens</i>
Lowbush Blueberry	<i>Vaccinium Angustifolium</i>
Mountain Laurel	<i>Kalmia Latifolia</i>
Sheep Laurel	<i>Kalmia angustifolia</i>
Sweetfern	<i>Comptonia peregrina</i>

Herbaceous Plants

Bracken Fern	<i>Pteridium aquilinum</i>
Wintergreen, Spotted	<i>Chimaphilia maculata</i>

SECTION 3.4 WILDLIFE

Observations regarding wildlife species were recorded. The recorded observations included direct visual sightings of wildlife, species and/or wildlife signs. The likely presence of a wildlife species at the subject property was also evaluated in the context of the existing vegetative cover and the surrounding area.

The subject property is located within the Pinelands Landscape Region.

The NJDEP Office of Natural Lands Management, Natural Heritage Program (NHP) database records for potential threatened and endangered species occurrences as well as the NJDEP Landscape Project Mapping, which depicts habitat polygons used to value areas for potential critical wildlife habitat, were reviewed to obtain a list of species with potential to occur within the subject property.

Threatened and endangered wildlife species is further discussed in Section 4.5.

An inventory of plants/vegetation and observed wildlife was conducted by EMG on two (2) dates, December 12th, 2025 and May 1, 2026.

Wildlife species identified in connection with the subject property consists of one (1) large mammal (white-tailed deer) and a number of common, small mammals and songbirds, many of which have adapted to suburban settings.

The following table provides a list of wildlife species identified in connection with the subject property.

**TABLE 3
TERRESTRIAL WILDLIFE SPECIES**

This list includes wildlife species observed at the subject property during the field studies, as well as species that may be expected to occur in the subject property and the immediate site area, either on a permanent or temporary basis. The list is a result of wildlife sightings

recorded during the field studies (December 12, 2025 and May 1, 2026) performed by Environmental Management Group, Inc. Sightings consisted of direct observation of wildlife species and/or observations of signs. The presence, or likely presence of a wildlife species at the subject property was also evaluated in the context of the existing vegetative cover and the surrounding area. This list may be regarded as partial since a comprehensive, directed wildlife habitat assessment was not conducted and due to seasonal or temporal fluctuations in wildlife species populations.

Mammals

Common Name	Scientific Name
Deer Mouse	<i>Peromyscus maniculatus</i>
Eastern Chipmunk	<i>Tamias striatus</i>
Eastern Cottontail	<i>Odocoileus transitorialis</i>
Eastern Gray Squirrel	<i>Sciurus corolinensis</i>
House mouse	<i>Mus musculus</i>
Opposum	<i>Dipelphis virginiana</i>
Raccoon	<i>Procyon Lotor</i>
Red Fox	<i>Vulpes vulpes</i>
Striped Skunk	<i>Mephitis mephitis</i>
White-tailed Deer	<i>Odocoileus virginianus</i>
Woodchuck	<i>Marmota monax</i>

Avifauna

Cardinal	<i>Richmondena cardinalis</i>
Catbird	<i>Dumetella carolinensis</i>
Chickadee, Black-capped	<i>Parus atricapillus</i>
Crow, Common	<i>Corvus brachyrhynchos</i>
Dove, Mourning	<i>Zenaidura macroura</i>
Flicker, Yellow-shafted	<i>Colaptes auratus</i>
Goldfinch, American	<i>Spinus tristis</i>
Grackle, Common	<i>Quiscalus quinscula</i>
Hawk, Red-tailed	<i>Buteo jamaicensis</i>
Hawk, Sharp-shinned	<i>Accipiter striatus</i>
Jay, Blue	<i>Cyanocitta cristata</i>
Junco, Slate-colored	<i>Junco hyemalis</i>
Mockingbird	<i>Mimus polyg</i> Lottis
Oriole, Baltimore	<i>Icterus galbula</i>
Owl, Barn	<i>Tyto alba</i>
Phoebe, Eastern	<i>Sayornis phoebe</i>
Redstart, American	<i>Setophaga ruticilla</i>
Robin	<i>Turdus migratorius</i>
Sparrow, House	<i>Passer domesticus</i>
Starling	<i>Sturnus vulgaris</i>
Towhee, Rufous-sided	<i>Pipilo erthrodphthalmus</i>

Vulture, Turkey	<i>Cathartes aura</i>
Warbler, Black and White	<i>Mniotilta varia</i>
Warbler, Blue-winged	<i>Vermivora pinus</i>
Warbler, Yellow	<i>Dendroica petechia</i>
Warbler, Yellow-throated	<i>Dendroica dominica</i>
Wild turkey	<i>Meleagris gallopavo</i>
Woodpecker, Downey	<i>Dendrocopos Pubescens</i>
Woodpecker, Red-bellied	<i>Centurus carolinus</i>
Wren, House	<i>Troglodytes aedon</i>
Yellow-bellied sapsucker	<i>Sphyrapicus varius</i>

Reptiles

Common Garter Snake	<i>Thamnophis sirtalis</i>
Eastern Box Turtle	<i>Terrapene carolina</i>
Eastern King Snake	<i>Lampropeltis getula</i>
Northern Fence Lizard	<i>Sceloporus undulatus hyacinthinus</i>

SECTION 3.5 WATER AREAS

The subject property is located within the Union/Ridgeway Branch (Toms River) and Toms River (above Oak Ridge Parkway) Watersheds and Toms River (Rt 70 to Hope Chapel Road) and Ridgeway Br (below Hope Chapel Rd) Sub-Watersheds.

No mapped streams or other surface/open water features are present within or in the near vicinity of the subject property.

The nearest mapped stream/watercourse is the tributary to Ridgeway Branch, approximately 1,918 ± feet west of the subject property.

SECTION 4.0 EVALUATION OF PROJECT RELATED IMPACTS UPON THE MAN-MADE AND NATURAL ENVIRONMENT

SECTION 4.1 FRESHWATER WETLANDS & WETLAND BUFFERS

The NJDEP GeoWeb/GIS mapping does not indicate the potential presence of jurisdictional freshwater wetlands, wetland transition areas (buffers) and/or waters within the subject property or in the immediate vicinity of the subject property.

As a result of field studies conducted on December 12, 2025 and May 1, 2026, EMG concluded that freshwater wetlands, waters and/or wetland transition areas (buffers) are not present within the subject property.

SECTION 4.2 RIPARIAN CORRIDORS & BUFFERS

No mapped streams or other surface/open water features are present within or in the immediate vicinity of the subject property.

The nearest mapped stream/watercourse is the tributary to Ridgeway Branch, approximately 1,918 ± feet west of the subject property.

The subject property does not contain Flood Hazard Control Area (FHACA) flood zones and/or riparian zones.

SECTION 4.3 HISTORICAL & ARCHEOLOGICAL RESOURCES

Historical and archeological resources generally include objects, structures, neighborhood districts and other features for the landscape which either are on or eligible for inclusion on the State or National Register of Historic Places. Features of local historic and/or cultural significance should also be considered.

Reasonably ascertainable information available to EMG has not identified any operations/uses in connection with the subject property.

A review of available historical aerial photography dating back to 1931 indicates that the subject property has remained unimproved and wooded.

There are no features of historical, cultural or archeological significance identified in connection with the subject property. The subject property is not listed as eligible for the State or National Registry of Historic Places according to the State's Historic Preservation Office (HPO) website.

SECTION 4.4 SPECIMEN TREES

The State of New Jersey defines "specimen trees" as the largest known individual trees of each species in New Jersey. In addition, large trees approaching the diameter of the known largest tree shall be considered specimen trees. Individual trees with a circumference equal to or greater than 85% of the circumference of the record tree as measured 4.5 feet aboveground surface (diameter at breast height) shall be considered a specimen tree.

No specimen trees are present within the subject property.

SECTION 4.5 ENDANGERED AND/OR THREATENED WILDLIFE OR PLANT SPECIES

The New Jersey Department of Environmental Protection (NJDEP) Landscape Project Mapping Data (*Version 3.4, Pinelands Landscape Region*), as viewed on the Department's GeoWeb program, identifies the following habitat within the subject property and the immediate vicinity:

- Rank 4 –Mixed Forest (>50% Coniferous With >50% Crown Closure)

As previously mentioned in Report Section 4.1, jurisdictional freshwater wetlands, waters and/or wetland transition areas (buffers) or Flood Hazard Area Control Act (FHACA) riparian zones *are not present* within the subject property.

As per the NJDEP Landscape Project mapping and data, a Conservation Rank of 4 is assigned to habitat patches with at least one (1) occurrence of a state endangered species.

According to the NJDEP Landscape Project Mapping and Data, the areas mapped within the subject property are part of a contiguous 66.09 acre forest patch.

For the forested habitats mapped within the subject property and surrounding areas, the threatened species of interest are the Northern Pine Snake (*Pituophis melanoleucus*) and Timber Rattlesnake (*Crotalus horridus*).

The Landscape Project records for these species within the 66.09 acre habitat patch include one (1) reference to Timber rattlesnake (occupied habitat) for the year 2000 and fourteen (14) references for Northern Pine Snake with the most recent record being 2014.

Timber Rattlesnakes are found in two (2) separate regions in New Jersey. In northern New Jersey, they are found in mountainous portions of Warren, Sussex, Passaic, Morris and Bergen Counties. In southern New Jersey, this species tends to be found in the Pinelands region and nearby portions of Cumberland, Ocean, Burlington and Atlantic Counties.

In southern New Jersey, Timber Rattlesnakes usually live along streams in white cedar swamps. The snakes use crevices among the tree roots to access underground cavities just above the groundwater line. At least one (1) southern New Jersey den occurred in an upland location associated with a tree stump.

Pine snakes thrive in open pine oak forests and woodlands with well-drained, sandy soils. This species requires open canopy areas with little underbrush for nesting and basking. The subject property does not provide the open canopy and sparse underbrush habitat preferred by this species.

EMG requested a NJDEP Office of Natural Lands Management, Natural Heritage Database and Landscape Project Search for the subject property on April 30, 2026.

As of the publication of this report, EMG has not received the results of the Natural Heritage Database and Landscape Project Search. Upon receipt, the Natural Heritage Database Report will be reviewed and submitted with a summary under separate cover.

SECTION 4.6 WATER QUALITY

Potable water serving each of the proposed single-family dwellings will be drawn the Manchester Township Municipal Water Supply

Details regarding the stormwater management system designed for the subdivision, including calculations in support of the design, are provided in a Stormwater Management Report prepared by Two Rive Engineering dated April 20, 2026.

The Stormwater Management Report offers the following conclusions:

- The proposed development will comply with applicable stormwater quantity, quality and groundwater recharge measures as specified in NJAC 7:8. Three (3) small-scale infiltration basins are located on-site to treat the stormwater runoff before being infiltrated.

Through non-structural, stormwater management measures, the proposed development will mitigate the stormwater impacts from the proposed development. When considering infiltration, not only would the peak rate of runoff from the subject property be further reduced but the runoff volume discharged from the subject property would also be reduced thereby increasing runoff which will be recharged into the ground.

Through recharging all storms up to the 100-year storm event with infiltration, the proposed development complies N.J.A.C. 7:8 which requires through hydrologic and hydraulic analysis that the increase of stormwater runoff volume from pre-construction to post-construction for the two year storm is infiltrated. However, the basins have been designed to fully detain and infiltrate all storms up to the hundred (100) year storm so it can be assumed that the increase in stormwater runoff volume for the two (2) year storm is being infiltrated.

The proposed stormwater drainage system is detailed on the plan entitled, “Preliminary & Final Major Subdivision Plans, “Preliminary & Final Major Subdivision Plans, Preliminary & Final Major Subdivision Plans, “Hemingway Estates, Lot 1242, 1267, 1268, 1272, 1276 of Block 23, Lot 1134, 113, 1165, 1206, 1216, 1234 of Block 24, Lot 1286, Part of 1291 and Part of 1307 of Block 26, Lot 1201, 1204, Part of 1197 and Part of 1168 Block 27, Lots 1071, 1084 and Part of 1091 of Block 28, Manchester Township, Ocean County, New Jersey,” prepared by Two River Engineering dated April 17, 2026, Plan Sheet 4 of 12 (Grading, Drainage & Utilities Plan).

The Stormwater Management Report is submitted in support of this application under a separate cover.

SECTION 4.7 VEGETATION

The proposed single-family residential development of the subject property will result in the removal of approximately 7.9 ± acres of the 15.152 ± acres of forest and vegetation within the subject property.

The Landscape Plan design for this project is detailed on **Plan Sheet 7 of 12** on the Preliminary and Final Major Subdivision Site Plans submitted in support of this application.

SECTION 4.8 BUFFERS & COMPATIBILITY OF USE

The subject property is located in the R-40 Zone (Residential Zone). Single-family residential development is a permitted use in this zone.

Existing land use in the vicinity of the subject property is primarily single-family residential. Commercial operations occur to the east of the subject property along Highway Route 9.

SECTION 4.9 TRAFFIC

The development and occupation of the proposed Hemingway Estates, fourteen (14) single-family unit residential subdivision will result in 10.1 new traffic trips per day per dwelling with a total of 141.4 new vehicle trips daily.

The Traffic Generation Statement prepared in connection with the proposed single-family residential subdivision prepared by Two River Engineering provides an opinion that the proposed 141.4 new vehicle trips generated by the proposed subdivision will not have a negative impact.

The Traffic Generation Statement is submitted in support of this application under a separate cover.

SECTION 5.0 UNAVOIDABLE ADVERSE IMPACTS

The construction of the proposed residential subdivision will result in *unavoidable, short-term, temporary* as well as *long-term adverse impacts*. Short-term environmental impacts are discussed below.

SECTION 5.1 SHORT-TERM ENVIRONMENTAL IMPACTS

Air Quality

A temporary adverse impact to localized ambient air quality as a result of construction activities such as clearing, grading and operation of fuel burning construction equipment.

Noise

There will be an increase in ambient noise level throughout the subject property during the construction phase of this project.

Overall noise standard regulation is subject to the New Jersey Noise Control Act N.J.A.C. 7:29. The subject property is currently vacant. This project will comply with and not exceed the maximum sound level standards as outlined in the applicable State regulations.

Soil Erosion

There will be an increased risk of soil erosion as a result of clearing, earth moving and clearing and grading activities.

A Soil Erosion and Sediment Control Plan has been prepared for the proposed single-family residential subdivision. Soil erosion and sediment control measures will be in place prior to the commencement of any earth-working site activity.

SECTION 5.2 LONG-TERM ENVIRONMENTAL IMPACTS

The anticipated long-term impact associated with proposed improvements are as follows:

Aesthetic Value

A significant change in the character of the subject property as it is converted from vacant, unimproved and wooded to a single-family residential subdivision.

Impervious Coverage

The proposed residential subdivision will add/increase areas of impervious coverage throughout the subject property.

Vegetation & Habitat Loss

The removal of $7.9 \pm$ acres of existing $15.152 \pm$ acres of forest vegetation throughout the subject property will result in habitat loss for the common wildlife species that are anticipated to utilize and/or occupy the subject property

Common wildlife species that currently occupy or utilize the subject property may continue to utilize the $3.727 \pm$ acres of remaining forest vegetation as well as 3.49 acres dedicated open space parcel (Lot 15) (7.22 acres total) and existing forested habitat in the immediate vicinity and the site region.

A Landscape Plan prepared for the residential subdivision proposes the introduction of twenty five (25) deciduous trees.

Air Quality

Once developed and occupied, the proposed single-family residential subdivision may have a nominal impact on local air quality at the subject property as a result of natural gas burning heating equipment and vehicular traffic.

Water Quality

Details regarding the stormwater management system designed for the subdivision, including calculations in support of the design, are provided in a Stormwater Management Report prepared by Two River Engineering dated April 20, 2026.

A Soil Erosion & Sediment Control Plan has also been prepared for this project. Soil Conservation District approval will be obtained prior to the commencement of any construction-related activities.

Traffic Impacts

The development and occupation of the proposed Hemingway Estates, fourteen (14) single-family unit residential subdivision will result in 10.1 new traffic trips per day per dwelling with a total of 141.4 new vehicle trips daily.

The Traffic Generation Statement prepared in connection with the proposed single-family residential subdivision prepared by Two River Engineering provides an opinion that the proposed 141.4 new vehicle trips generated by the proposed subdivision will not have a negative impact.

Noise

Ambient noise levels will increase during the construction phase of this project. Site construction activities will be limited to weekdays and normal working hours in an effort to minimize inconvenience to the surrounding residential properties.

Post development, the occupied residential subdivision will result in a slight increase in ambient noise levels.

Overall noise standard regulation is subject to the New Jersey Noise Control Act N.J.A.C. 7:29. The subject property is currently vacant. This project will comply with and not exceed the maximum sound level standards as outlined in the applicable State regulations.

Buffers & Compatibility of Use

The character of the subject property will be changed from vacant, unimproved and wooded to a single-family residential subdivision.

Hemingway Estates is a permitted use in Manchester Township's R-40 (Residential) Zone. Existing land use in the immediate vicinity of the subject property is primarily single-family residential. Areas of woodland occur immediately to the east of the subject property and to the west/northwest.

Based upon the Subdivision Plan, a substantial area, 7.22 ± acres, of forested vegetation will remain.

Public Utilities

Potable water serving the proposed fourteen (14) single-family dwellings will be provided by Manchester Township (Public Water Supply ID #NJ1518005).

The Manchester Township Water Utility serves approximately 22,633 residents and is divided into two (2) main service areas (Eastern) east of Route 70/Lakehurst Circle and (Western) west of Route 70/Lakehurst Circle.

The subject property is located within the Eastern Utility Service Area.

Manchester Township draws water from nine (9) active drilled wells between 75 and 1,150 feet into two (2) underground sources of water called the Cohansey and Upper Raritan aquifers.

Estimated potable water demand for the subdivision as per N.J.A.C. 7:10-12.6 and using a multiplier of 80-100 gallons a day per person and assuming a four (4) person occupation for each of the single-family dwellings is 4,480-5,600 gallons per day (GPD).

Each of the proposed single-family dwellings will be served by public sanitary sewer service provided by Manchester Township.

Estimated sewer demand for the proposed subdivision as per N.J.A.C. 7.14A-23.3 and based upon 300 gallons per day per dwelling is 4,200 gallons per day.

Generation of Solid Waste

Solid waste generated during site preparation and construction will be carted off-site to an appropriate disposal and/or recycling facility.

The proposed residential subdivision will result in the generation of non-hazardous, solid waste/common refuse and recyclable materials.

Household waste and recyclable materials will be collected at each dwelling curbside by the Manchester Township Department of Public Works.

Solid waste generated as a result of the proposed residential subdivision will reduce landfill capacity.

SECTION 6.0 MITIGATION MEASURES

Potential environmental impacts can be minimized through careful project planning and site management. Measures incorporated into this project designed to eliminate or minimize adverse environmental impacts have been discussed where applicable. This section provides a summarization of adverse environmental impact minimization/mitigation measures.

Minimizing Short and Long-Term Impacts

Construction activities will be limited to normal working hours on weekdays in order to minimize any inconvenience and disturbance to the surrounding properties.

On-site management controls will be implemented, as necessary, to control dust during initial site grading.

The Soil Erosion Control Plan designed for this project shall minimize the increased risk of soil erosion and sedimentation during site clearing and grading activities.

The proposed residential subdivision complies with the applicable Stormwater Quantity Quality and Groundwater Recharge Measures specified in N.J.A.C. 7:8.

The removal of approximately 7.9 ± acres of forest vegetation and the corresponding reduction of available wildlife habitat within the subject property will be partially mitigated by conserving 7.22 ± acres of existing woodland within the subject property and the planting of twenty five (25) deciduous trees.

Energy utilization and the commitment of natural resources can be minimized through the use of water conserving and energy efficient fixtures and appliances.

The proposed residential subdivision is not anticipated to result in a significant reduction in groundwater recharge capabilities.

The stormwater management system designed for this subdivision complies with all applicable stormwater quantity quality and groundwater recharge measures as per N.J.A.C. 7:8.

SECTION 7.0 CONCLUSION STATEMENT

This **Environmental Impact Statement (EIS)** has been prepared in support of a **Major Subdivision Application (Hemingway Estates)** submitted to the Manchester Township Land Use Board on behalf of **Ayra Properties, LLC**.

The EIS has been prepared in accordance with Article VI: Site Plan Requirements and Procedures, Section 245-50, of the Manchester Township Code.

The purpose of Article VI is to compile information that will assist the Planning Board or Board of Adjustment in conjunction with the Environmental Commission, in determining whether or not a proposed development may cause an adverse environmental impact. This information will also be useful to the applicant in planning and designing the project so as to minimize adverse effects on the environment.

Throughout the EIS, pertinent information and analysis are presented to provide a detailed and objective evaluation of the potential environmental impacts of the proposed single-family residential subdivision upon the natural and man-made environment.

It is submitted that the proposed Hemingway Estates residential subdivision will not result in any significant, unmitigated adverse impact upon the man-made or natural environment.

SECTION 8.0 REFERENCES AND DATA SOURCES

“Preliminary & Final Major Subdivision Plans, Preliminary & Final Major Subdivision Plans, “Hemingway Estates, Lot 1242, 1267, 1268, 1272, 1276 of Block 23, Lot 1134, 113, 1165, 1206, 1216, 1234 of Block 24, Lot 1286, Part of 1291 and Part of 1307 of Block 26, Lot 1201, 1204, Part of 1197 and Part of 1168 Block 27, Lots 1071, 1084 and Part of 1091 of Block 28, Manchester Township, Ocean County, New Jersey,” prepared by Two River Engineering dated April 17, 2026, consisting of sixteen (16) individual plan sheets.

New Jersey Department of Environmental Protection, GeoWeb Mapping Program.

New Jersey Pinelands Commission GIS Mapping Program.

State of New Jersey Department of Environmental Protection, Division of Parks and Forestry, Office of Natural Lands Management, Natural Heritage Database and Landscape Project (*Version 3.4*) Search.

“Stormwater Management Report for a Preliminary and Final Major Subdivision of Hemingway Estates, Located on Wilbur Avenue, Lot 1242, 1267, 1268, 1272, 1276 of Block 23, Lot 1134, 113, 1165, 1206, 1216, 1234 of Block 24, Lot 1286, Part of 1291 and Part of 1307 of Block 26, Lot 1201, 1204, Part of 1197 and Part of 1168 Block 27, Lots 1071, 1084 and Part of 1091 of Block 28, Manchester Township, Ocean County, New Jersey,” prepared by Two River Engineering dated April 20, 2026.

“Stormwater Operation & Maintenance Report for a Preliminary and Final Major Subdivision of Hemingway Estates, Located on Wilbur Avenue, Lot 1242, 1267, 1268, 1272, 1276 of Block 23, Lot 1134, 113, 1165, 1206, 1216, 1234 of Block 24, Lot 1286, Part of 1291 and Part of 1307 of Block 26, Lot 1201, 1204, Part of 1197 and Part of 1168 Block 27, Lots 1071, 1084 and Part of 1091 of Block 28, Manchester Township, Ocean County, New Jersey,” prepared by Two River Engineering dated April 20, 2026.

“Traffic Generation Statement for a Preliminary and Final Major Subdivision of Hemingway Estates, Located on Wilbur Avenue, Lot 1242, 1267, 1268, 1272, 1276 of Block 23, Lot 1134, 113, 1165, 1206, 1216, 1234 of Block 24, Lot 1286, Part of 1291 and Part of 1307 of Block 26, Lot 1201, 1204, Part of 1197 and Part of 1168 Block 27, Lots 1071, 1084 and Part of 1091 of Block 28, Manchester Township, Ocean County, New Jersey,” prepared by Two River Engineering dated April 20, 2026.

United States Department of Agriculture, Soil Conservation Service, Soil Survey of Ocean County, New Jersey, issued April 1989.

U.S.G.S. Lakehurst, New Jersey Quad.

APPENDIX A
FIGURES



Figure 1 - Site Location Map

Block: + _____ Lot: + _____
 Municipality: Township of Manchester
 County / State: Ocean/New Jersey



Job: 25-195

Source: Google Earth

Scale (Approx.) N.T.S



ENVIRONMENTAL MANAGEMENT GROUP, INC.

1705 Bay Avenue, Suite 6

Point Pleasant, New Jersey 08742-4505

Email: Info@EMG-Environmental.com

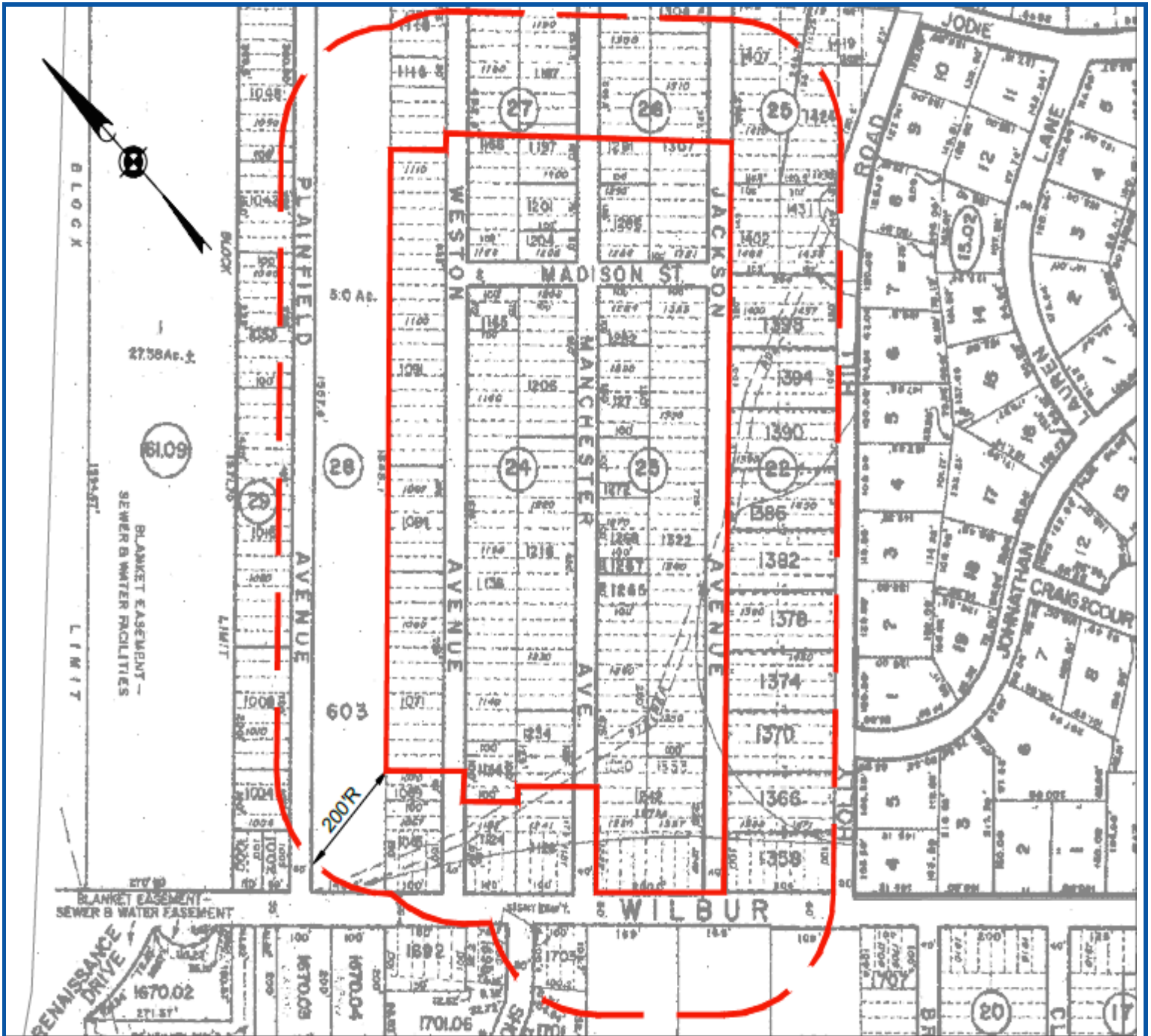


Figure 2 – Tax Map

Block: + _____ Lot: + _____

Municipality: Township of Manchester

County / State: Ocean/New Jersey



Job: 25-195

Source: Manchester Township Tax Map

Scale (Approx.) 1" N.T.S



ENVIRONMENTAL MANAGEMENT GROUP, INC.

1705 Bay Avenue, Suite 6

Point Pleasant, New Jersey 08742-4505

Email: Info@EMG-Environmental.com

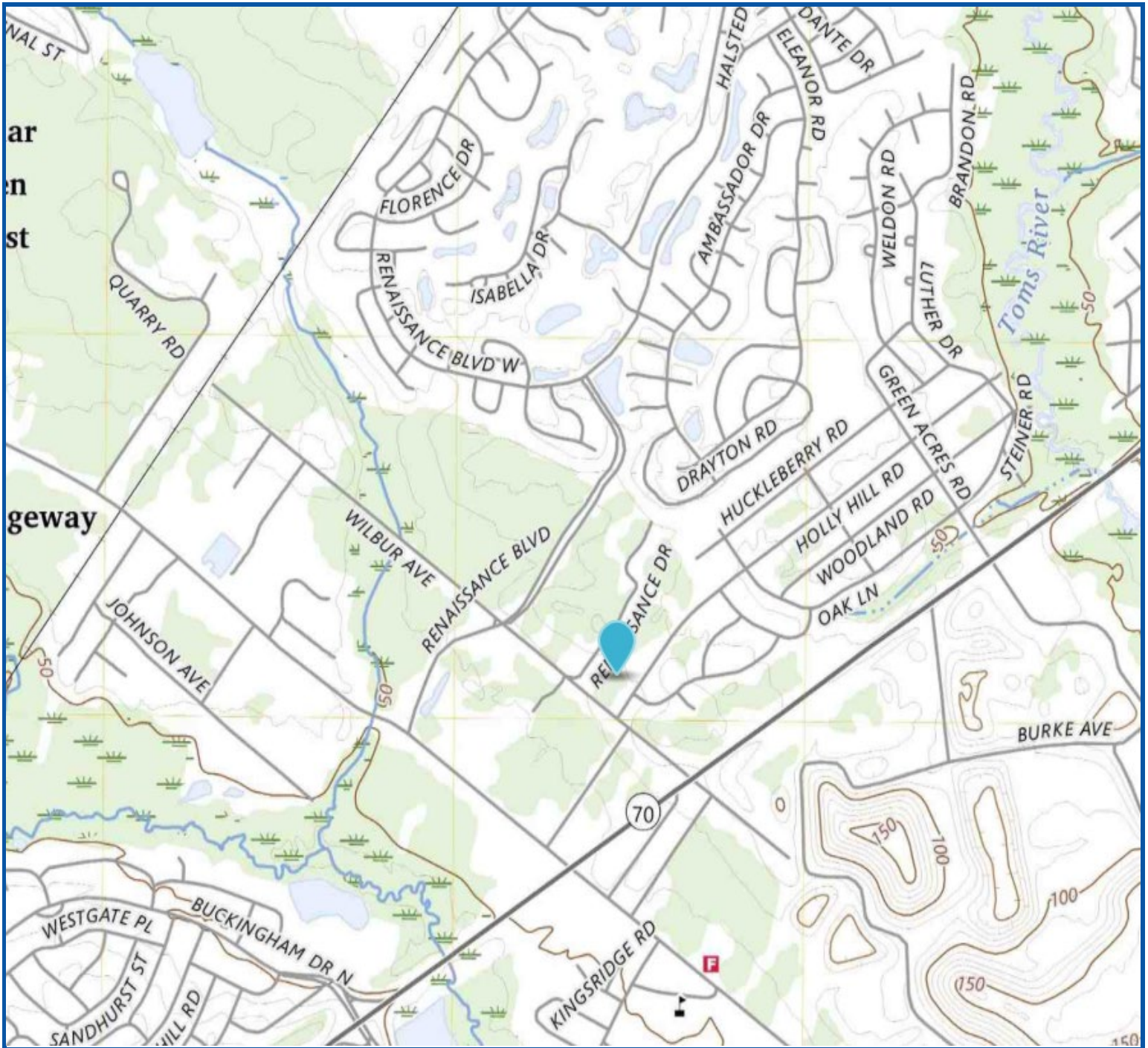


Figure 3 – U.S.G.S. Topographic Map

Block: + _____ Lot: + _____

Municipality: Township of Manchester

County / State: Ocean/New Jersey



Job: 25-195

Source: U.S.G.S. Lakehurst, NJ Quad

Scale (Approx.) 1" N.T.S



ENVIRONMENTAL MANAGEMENT GROUP, INC.

1705 Bay Avenue, Suite 6
 Point Pleasant, New Jersey 08742-4505
 Email: Info@EMG-Environmental.com



Figure 4 - Soils Map

Block: + Lot: +

Municipality: Township of Manchester

County / State: Ocean/New Jersey



Job: 25-195

Source: USDA Soil Mapping

Scale (Approx.) N.T.S



ENVIRONMENTAL MANAGEMENT GROUP, INC.

1705 Bay Avenue, Suite 6
 Point Pleasant, New Jersey 08742-4505
 Email: Info@EMG-Environmental.com

APPENDIX B
SITE PHOTOGRAPHS

Photograph 1



This photograph taken near Wilbur Avenue is facing in an easterly direction looking onto the subject property.

Photograph 2



Shown is Oak and Pitch pine dominated forest prevalent throughout the subject property.

Photograph 3



Shown is Oak and Pitch pine dominated forest prevalent throughout the subject property.

Photograph 4



Narrow foot trails extend through portions of the subject property.

Photograph 5



Narrow foot trails extend through portions of the subject property.

Photograph 6



These photographs taken in May of 2026 show the composition of vegetation throughout the subject property.

Photograph 7



These photographs taken in May of 2026 show the composition of vegetation throughout the subject property.

Photograph 8



The view is of a portion of the proposed open space parcel, Lot 15.

APPENDIX C
QUALIFICATIONS OF PREPARER



**ENVIRONMENTAL
MANAGEMENT
G R O U P**

1705 Bay Avenue, Suite 6
Pt. Pleasant, NJ 08742-4505
Phone: (732) 282-2222
E-mail: Info@EMG-Environmental.com

**PROFESSIONAL HISTORY/QUALIFICATIONS
MR. PETER RITCHINGS
PRESIDENT**

Peter Ritchings is President and founder of *Environmental Management Group, Inc.* As President, Director of Operations and Senior Environmental Biologist, Mr. Ritchings has developed, directed and taken part in *thousands* of environmental assignments related to natural resource inventory, environmental impact assessment, wetlands identification and delineation, coastal projects, land use regulation and permitting and environmental site assessment/investigation.

Mr. Ritchings professional environmental consulting career began in 1984.

In over 40 years as a professional environmental consultant, Mr. Ritchings has attained considerable experience in the following areas:

- Coastal/Waterfront Development Permitting
- Delineation of Freshwater and Coastal Wetlands
- Wetland Permitting/Approvals
- Wetland Mitigation
- Natural Resource Inventory
- Environmental Impact Assessment
- Wildlife Inventory/Habitat Evaluation
- Threatened and Endangered Species Evaluation
- Phase I & II Environmental Site Assessments
- Industrial Site Recovery Act (ISRA)

Over the last 40 years, Mr. Ritchings has been retained to provide expert environmental assessment/evaluation and permitting services on behalf a diverse clientele consisting of public and private corporations, professional organizations, real estate investors and developers, Municipal, County and State governmental agencies and boards, private citizens and public interest groups.

Mr. Ritchings has represented his clients' interests before local, State and Federal Review Boards and Agencies and is experienced in providing expert testimony before local Environmental Commissions and Planning Boards and State and Federal regulatory agencies.

EDUCATION

Mr. Ritchings earned a B.S. in Forest and Environmental Biology from the College of Environmental Science and Forestry at Syracuse.

Mr. Ritchings has augmented his college education by completing a number of continuing education courses and certification seminars involving a wide variety of environmental topics.

PROFESSIONAL HISTORY

Mr. Ritchings' professional environmental career began in 1982 at Wave Hill, New York City owned and operated Cultural Institution in Riverdale, New York. At Wave Hill, Mr. Ritchings held positions in the Natural History and Environmental Education Departments.

For the period 1984 through 1988, Mr. Ritchings was Project Manager and Senior Environmental Biologist for a multi-disciplinary engineering, planning and environmental consulting firm.

President Environmental Management Group, Inc. (EMG) 1988 – Present.

COMMUNITY INVOLVEMENT

As a **community volunteer**, Mr. Ritchings presently serves as the Environmental Commission Chair, the Dune Inspector, a member of Shade Tree Commission, Open Space Committee and Flood Plain Committee member and Chair of the Planning Board in his hometown.