ACCURATE ENGINEERING, PC
CONSULTING ENGINEERS

ENVIRONMENTAL IMPACT STATEMENT
FOR
BUNKER HILL DEVELPMENT

BLOCK 11.06, LOT 11.01
BLOCK 20.01, LOT 16.01

TOWNSHIP OF FRANKLIN
SOMERSET COUNTY, NEW JERSEY

July 21, 2021
Revised March 1, 2024

Prepared By:

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I. PROJECT DESCRIPTION

A. INTRODUCTION

This Environmental Impact Statement is being submitted as part of the Preliminary and Final Major Subdivision Plan application for existing Lot 11.01 in Block 11.06 and Lot 16.01 in Block 20.01. The project is located at 11 Bunker Hill Road and 3523 Route 27 in Franklin Township as shown on Sheet 16.02 and 23 of the official tax map of the Township of Franklin, Somerset County, New Jersey. The property is located in the R-10B (Residential) zone district and contains a total tract area of approximately 4.03 acres. Access to the property is provided via an existing Bunker Hill Road and Route 27.

The proposed development of the site includes a major subdivision with eight (8) new single family lots which will be connected to Bunker Hill Road via a new roadway. An Infiltration basin is proposed to address the stormwater management for this project. The eight (8) new lots will be serviced by public water through a connection to the existing water main along Bunker Hill Road. An 8" sanitary sewer line is proposed to connect to the existing 8" sanitary within Brookside Drive.

B. EXISTING SITE CONDITIONS

The subject properties encompass 4.03+ acres and currently consist of two (2) tax lots located in the R10B, Single – Family Residential District. The site is located on the west side of Bunker Hill Road and the north side of Route 27. Block 11.06, Lot 11.01 (11 Bunker Hill Road) is currently developed with a single-family dwelling, garage, and barn on the 2.915 acre property. Block 20.01, Lot 16.01 (3523 Route 27) is a 1.13 acre vacant lot. The existing site includes of two 1 1/2-story frame dwellings, a frame garage, a shed, paved driveways, and concrete walks. Currently, 17.48% of the lot consists of impervious surfaces. The site is surrounded by residential and commercial uses.

C. INTENDED USE

The site is intended to be developed as a single family residential development. As typical of a new residential development, other site improvements will be constructed to support the intended use, including parking areas and roadways, stormwater management facilities and landscaping and lighting.

D. SITE SUITABILITY

The site is located in the R10B zoning district adjacent to The Woodfields at Princeton Highlands development. The properties in The Woodfields at Princeton Highlands development are also zoned R10B. The site is directly across Bunker Hill Road from the Green Hill Luxury Rental apartments. Surrounding the properties are a variety or residential and mixed-use developments making the development an appropriate use for the subject sites.

II. SITE DESCRIPTION AND INVENTORY

A. SOILS

Soils are formed through the interaction of a variety of physical, chemical, and biological factors that include climate, parent material, topography, biological activities, and time. The degree to which any or all of these factors affects the local soil characteristics is quite variable, generally leading to the formation of a mosaic of soil types in any particular locality. The United States Department of Agriculture has, through the Soil Conservation Service, mapped soils in detail; for New Jersey, the results of these soil surveys are issued for each county.

According to the US Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), Web Soil Survey, soil data for Somerset County, the following soil types underlie the subject property

RorAt—Rowland silt loam, 0 to 2 percent slopes, frequently flooded
Component: Rowland, frequently flooded (85%)
The Rowland, frequently flooded component makes up 85 percent of the map unit. Slopes are 0 to 2 percent. This component is on flood plains on piedmonts. The parent material consists of red and brown fine-loamy alluvium derived from sandstone and shale and/or conglomerate. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches is moderate. Shrink-swell potential is low. This soil is frequently flooded. It is frequently ponded. A seasonal zone of water saturation is at 24 inches during January, February, March, April, May, November, and December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 5w. This soil does not meet hydric criteria.
Component: Raritan, rarely flooded (5%)
Generated brief soil descriptions are created for major components. The Raritan soil is a minor component.
Component: Birdsboro (5%)
Generated brief soil descriptions are created for major components. The Birdsboro soil is a minor component.
Component: Bowmansville, frequently flooded (5%)
Generated brief soil descriptions are created for major components. The Bowmansville soil is a minor component.

PeoB—Penn channery silt loam, 2 to 6 percent slopes
Component: Penn (85%)
The Penn component makes up 85 percent of the map unit. Slopes are 2 to 6 percent. This component is on hills on piedmonts. The parent material consists of fine-loamy residuum weathered from acid reddish shale, siltstone, and fine-grain sandstone. Depth to a root restrictive layer, bedrock, lithic, is 20 to 39 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.
Component: Klinesville (5%)
Generated brief soil descriptions are created for major soil components. The Klinesville soil is a minor component.
Component: Reaville (5%)
Generated brief soil descriptions are created for major soil components. The Reaville soil is a minor component.
Component: Bucks (5%)
Generated brief soil descriptions are created for major soil components. The Bucks soil is a minor component.

PeoC—Penn channery silt loam, 6 to 12 percent slopes
Component: Penn (85%)
The Penn component makes up 85 percent of the map unit. Slopes are 2 to 6 percent. This component is on hills on piedmonts. The parent material consists of fine-loamy

residuum weathered from acid reddish shale, siltstone, and fine-grain sandstone. Depth to a root restrictive layer, bedrock, lithic, is 20 to 39 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Klinesville (5%)

Generated brief soil descriptions are created for major soil components. The Klinesville soil is a minor component.

Component: Reaville (5%)

Generated brief soil descriptions are created for major soil components. The Reaville soil is a minor component.

Component: Bucks (5%)

Generated brief soil descriptions are created for major soil components. The Bucks soil is a minor component.

B. TOPOGRAPHY

The topographic relief within the property boundaries ranges from 166 to 178. The surface topography remains as moderately flat land throughout the majority of the property.

Stormwater run-off follows the surface topography and generally flows from west to east.

C. GEOLOGY

The area geology is important for several reasons; mainly that the physical and chemical properties of the land determine the quantity and quality of ground water the aquifers yield. They also control how groundwater recharges and moves through the aquifers, how contaminants seep into and move through the soil and groundwater, and where natural hazard likes radon, sinkholes and seismic instability may occur. Finally, these properties establish where geologic resources such as sand, gravel, peat, clay, quarry rock and mineral ores are located. Geologic properties also determine the suitability of an area for the use of septic systems, the management of stormwater and surface runoff, and the stability of foundations for buildings, bridges, tunnels, and other structures. Franklin Township is located within the Piedmont Province.

Piedmont Province - The Piedmont Province is an area of about 1,600 square miles and makes up approximately one-fifth of the state. It occupies all of Essex, Hudson, and Union Counties, most of Bergen Hunterdon and Somerset, and parts of Mercer, Middlesex, Morris and Passaic. It is mainly underlain by slightly folded and faulted sedimentary rocks of Triassic and Jurassic age (240 to 140 million years old) and igneous rocks of Jurassic age. Highly folded and faulted lower Paleozoic sedimentary rocks along the northwestern margin in the Clinton and the Peapack areas, as well as at several smaller areas are included as part of the Piedmont. In the Trenton and Jersey City areas, along the southern margin of the province, there are small bands of highly metamorphosed rocks ranging in age from Middle Proterozoic to Cambrian that are also included.

The Piedmont is chiefly a low rolling plain divided by a series of higher ridges. Its width varies from about 16 miles at the New York border to over 30 miles at the Delaware River. Along the foot of the Highlands, the elevation of the Piedmont generally ranges from 300 to 400 feet above sea level. The highest point in the province, at 914 feet, is

Barren Ridge on the northern side of the Hunterdon Plateau. The major linear ridges are underlain by igneous rocks (lava flows and diabase intrusive rocks) and have steep front faces with long back slopes. Of these, the tallest is High Mountain at 885 feet. The most prominent feature in the eastern part of the province is The Palisades, which has a maximum elevation of 54 7 feet near Closter. The province slopes from the foot of the Highlands towards its southern boundary with the Coastal Plain Province. There its elevation is about 100 feet near Trenton and sea level at Newark Bay.

The boundary with the Coastal Plan Province is placed at the contact between the rock units of the Piedmont and the unconsolidated Cretaceous sediments. It is essentially a line from Carteret through Princeton Junction to Trenton. This boundary line is known as the Fall Line because it is marked by a series of waterfalls and rapids all along the East Coast. The Sand Hills are erosional remnants of Coastal Plain sediments that lie within the Piedmont.

Surficial and Bedrock Geology - Rocks of the Piedmont Province are separated from the rocks of Highlands Province by a series of major faults, including the Ramapo fault. The more resistant gneisses and granites on the upthrown northwest side of the faults make a prominent escarpment, 200 to 800 feet in height, extending from Mahwah through Boonton and Morristown to Gladstone, and from there westward in an irregular line to the Delaware River near Milford.

South and east of this escarpment, interbedded sandstone, shale, conglomerate, basalt, and diabase of the Piedmont Province underlie broad lowland interrupted by long, generally northeast-southwest trending ridges and uplands. The rocks of the Piedmont are of late-Triassic to early-Jurassic Age. They rest on large, elongate crustal block that dropped downward in the initial stages of the opening of the Atlantic Ocean - one of a series of such blocks in eastern North America. These down-dropped blocks formed valleys known as rift basins. Sediment eroded from adjacent uplands was deposited along rivers and lakes within the basins. These sediments become compacted and cemented to form conglomerate, sandstone, siltstone, and shale. They commonly have a distinctive reddish-brown color.

In the course of rifting, the rock layers of the Piedmont become tilted northwestward, gently folded, and cut by several major faults. Volcanic activity was also associated with the rifting, as indicated by the basalt and diabase interlayered with the sandstone and shale. Diabase is a rock formed by cooling of magma at some depth in the crust; basalt is formed by cooling of an identical magma that has been extruded onto the surface as lava. Both basalt and diabase are more resistant to erosion than the enclosing sandstone and shale and therefore they form ridges and uplands. The Palisades, Rocky Hill, Sourland Mountain, and Cushetunk Mountain are underlain by diabase layers. The Watchung Mountain, long Hill, and Hook Mountain are underlain by basalt layers. Valleys and lowlands between these ridges are underlain by shale and sandstone.

The basalt and diabase are extensively quarried for crushed stone. In the past, "brownstone" was widely quarried from sandstone units. Also, minor quantities of copper were extracted from sandstone and shale associated with the diabase and basalt. The basalt and diabase generally are poor aquifers but the sedimentary rocks, in places, capable of yielding large quantities of water.

D. VEGETATION

As part of the proposed improvements, site clearing of the existing vegetated areas is required. A survey of the existing trees on site was conducted and a Tree Replacement Plan was prepared. The project will require 140 replacement trees The Applicant is proposing 43 replacement trees and making a contribution to the Township's Tree Replacement fund for the deficit. In addition, the project encompasses landscaping to provide additional buffer/screening.

E. WILDLIFE

Based on NJDEP i-Map, there are no known threatened and endangered species within the project area. The construction activities could result in the temporary and permanent loss of habitat and possible mortality of less mobile, burrowing, and/or denning species of common wildlife such as small rodents and snakes. During the construction period, resident species and transient wildlife may seek refuge in adjacent habitats until the project is completed. Following construction, wildlife species are expected to resume their normal patterns of habitation consistent with post-construction habitat availability in and around the area.

F. SURFACE WATER

NJDEP's Surface Water Quality Standards (NJAC 7:9B) specifies classification codes and water quality standards for waterways within their jurisdiction. This section identifies those water resources in the project area that fall within the classifications established by NJDEP.

G. SUBSURFACE WATER

Sole-source aquifers are defined by the U.S. Environmental Protection Agency (USEPA) under regulations in the Safe Drinking Water Act of 1974 [Section 1424(e)]. Sole-source aquifers are those aquifers which contribute more than 50% of the drinking water to a specific area and the water would be impossible to replace if the aquifer were contaminated. The USEP A defines three different regions as part of its sole-source aquifer program. The three areas are the recharge zone, the stream-flow source zone, and the project review area. The recharge zone is the area through which water recharges the aquifer. The stream-flow source zone is an area upstream of the sole-source aquifer that contributes stream flow to the aquifer. The project review areas are areas in which all the federally funded projects are reviewed by the USEP.

The project area is not located in the New Jersey sole-source aquifers. Therefore, no adverse effect to the groundwater recourses is anticipated.

H. UNIQUE SCENIC AND/OR HISTORIC FEATURES

Franklin Township was incorporated as one of New Jersey's original 104 townships in 1798. The New Jersey and National Registers of Historic Places identify twenty-nine (29) places of historical significance throughout the Township. None of these places are within close proximity to the subject property.

III. ENVIRONMENTAL IMPACT

A. SANITARY SEWER

Sanitary sewer service to the property will be made by installing a new 8" PVC sanitary sewer pipe from an existing sewer main located within Brookside Drive. The total combined sanitary sewerage flows for the development equals 2,400 gallons per day. All sanitary sewer improvements will be constructed in accordance with the State of New Jersey and Franklin Township requirements.

B. POTABLE WATER

Potable water service to the property will be made by installing a new 8” water main from the existing water main on Bunker Hill Road. The total combined water demand for the development equals 3,200 gallons per day. All potable water improvements will be constructed in accordance with the State of New Jersey and Franklin Township requirements.

C. STORMWATER MANAGEMENT

In accordance with the NJDEP Stormwater Management Rules, N.J.A.C. 7:8, there are new means and methodology required to handle the conveyance, treatment, and discharge of Stormwater. Specifically all major developments (an ddition of more than ¼ acre of impervious surface and/or more than 1-acre of land disturbance) must meet four primary design requirements: nonstructural stormwater strategies, groundwater recharge standards, stormwater quality standards (Total Suspended Solid requirements) and peak reducation factors for stormwater quantity control options. Since the project is classified as a major development, the rules from N.J.A.C. apply. Therefore, the storm water management system for the project is designed to minimize the impacts of the developed areas on the downstream discharge points in accordance with the Franklin Township requirements and generally accepted engineering practices.

Refer to the Stormwater Management Report for details pertaining to the proposed drainage system.

D. ENVIRONMENTALLY SENSITIVE AREAS

Wetlands are defined under Federal regulations [33 CPR 328.3(b)] as, "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.” State open waters are defined as waters of the State, including springs, streams, natural and artificial, within the boundaries of the State of New Jersey.

Wetlands generally include swamps, marshes, bogs, and similar areas. The State regulatory definition, contained in NJAC 7:7A-1.4, is quite similar, identifying wetlands as those areas that are "inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, commonly known as hydrophytic vegetation .... " It is important to note that both definitions impart three necessary characteristics for an area to be considered a regulated wetland: hydrophytic vegetation, hydric soils, and wetland hydrology. These three parameters were utilized in identifying wetland resources on maps and in field investigations for the project.

The initial investigation of wetlands in the project area focused on identifying wetland systems utilizing secondary sources of information, such as New Jersey Freshwater Wetlands Quarter Quadrangles and NJDEP GIS information. These information sources do not identify some of the smaller wetland systems (e.g., drainage ditch wetlands too small to be depicted at the scale of the map), and they are not always accurate for identifying wetlands subject to Federal and State regulatory authority. Nevertheless, they are effective tools for focusing field efforts. The NJDEP GIS information did not indicated any presence of wetlands on the property.

An NJDEP NJ-Geo web data query for the project site was performed. Information regarding Category One Waterways, threatened and endangered species and forested and emergent wetlands are available through NJ-Geo web. The result of NJ-Geo web does not indicate the presence of wetlands, transition areas, streams, or threatened and endangered species within or nearby the property boundaries.

It is not anticipated that Freshwater Wetlands are present on the site. The applicant has applied to the NJDEP for a Freshwater Wetlands Letter of Interpretation (LOI) Presence/Absence. The applicant will comply with the requirements of the state and local regulations regarding these issues, and will obtain any necessary permits prior to the initiation of a regulated activity on the site.

E. AIR QUALITY

In accordance with the requirements of the Clean Air Act, State and National Air Quality Standards (AAQS) have been adopted for several pollutants to protect the public health and welfare, allowing for an adequate margin of safety. The proposed development conforms to all applicable air, and radiation emission and effluent standards and all applicable air quality standards. There will be no emission of radiation, nor point source air emissions. Air emissions will be limited to building mechanical equipment and exhaust from automobiles: from both temporary construction vehicles and the long-term use of motor vehicles. As a result of the increase in automobiles and motorized equipment during construction and long term, there will be a negligible impact to air quality at the site and in the surrounding area due to the project. Building equipment and vehicle emissions are strictly regulated by federal and state laws.

F. NOISE POLLUTION

The New Jersey Noise Control Code (N.J.A.C. 7:29-1.1 et seq.) provides standards and guidelines applicable to potential community impacts from developments like the one proposed on this property. There will be higher noise levels during construction, which will be mitigated by allowable working hours established by Municipal code. Following construction, all noise from the residential community and general activity will be commonplace for any pedestrian-oriented neighborhood.

G. HAZARDOUS MATERIALS

While construction operations generate waste that is atypical of a residential use, such as construction debris, trees, branches, and stumps from clearing, sanitary waste, etc., none of the construction materials would be considered hazardous to the public health or environment. The generated waste materials will be handled and disposed of in a proper fashion according to Township Ordinances and all applicable codes and laws.

H. TRAFFIC

The site-generated traffic would be distributed to multiple access points, reducing the site generated traffic impact at any single approach along the roadway network. As such, the proposed development is not anticipated to significantly impact the operations of the adjacent roadway network.

I. CONSTRUCTION

Construction activities for the proposed development will occur over an approximate 18-month timeframe, including tree clearing and earth moving, site improvements and infrastructure installation, followed by vertical building construction. While all site work

and building construction activities will follow applicable codes and regulations, construction activity in general has several minor environmental impacts, beyond the long-term impacts discussed throughout this report.

Construction activities create dust and noise through the operation of equipment and the moving of materials. Procedures will be implemented and followed in accordance with a rules and regulations of the Somerset-Union Soil Conservation District that will limit dust creation and the erosion of soil. Dust control measures include watering of exposed, dry soils, seeding and stabilizing open lawn areas. Noise control measures are also followed in accordance with Township codes limiting allowable work hours.

The use of heavy equipment and construction vehicles also pose certain inherent risks such as damage to adjacent roadways, spills from defective hydraulic equipment, etc. The risks are mitigated by proper equipment and vehicle maintenance, by utilizing stone tracking pads and equipment wash areas, and through oversight and inspection by the Township and other
agencies.

J. PERMITTING

Before construction activities can begin for Phase I of this development, many approvals from
various agencies and authorities are required. A list of each approval and the corresponding
agency is listed below:

1. Franklin Township Planning/Zoning Board – Final Major Site Plan Approval
   Application Pending
2. New Jersey Department of Environmental Protection (DEP) – Freshwater Wetlands

Permitting for Presence/Absence
   Application Pending

3. Delaware & Raritan Canal Commission Application
   Application Pending
4. Somerset County Planning Board – Site Plan Approval
   Application Pending
5. Somerset-Union Soil Conservation District – Soil Erosion Certification
   Application Pending

IV. ENVIRONMENTAL PERFORMANCE CONTROLS

A. SITE DESIGN

The proposed development has been designed to minimize the environmental impacts.

B. STORMWATER STRATEGIES

The proposed development will feature a stormwater management basin for stormwater treatment and storage. Catch basins, both onsite and offsite, will be protected with sediment barriers during construction, in accordance with Soil Conservation Standards. This will ensure that new sediment, as a result of the proposed development, does not enter the new or existing drainage networks, which would compromise the storage capacity of the pipes.

C. SANITARY SEWER

The proposed sanitary sewer facilities will be constructed and tested in accordance with

Franklin Township rules, regulations and construction details. During construction, manholes shall remain plugged, using mechanical plugs, isolating all construction site sanitary sewer lines from Franklin Township's sanitary sewer collection system until all onsite infrastructure has been properly tested and inspected by the Utilities Department.

D. POTABLE WATER

Potable water service to the property is available from existing water mains in the adjacent roadways. All potable water improvements will be constructed in accordance with the State of New Jersey and Franklin Township requirements.

E. ENERGY CONSERVATION

The proposed construction and occupancy of the single-family dwellings will place energy demands upon the utility provider (PSE&G), coming building heating, cooling and ventilating, building maintenance and amenities, building and site lighting and landscaping and temporary power usage during construction.

F. POLLUTION CONTROL

During construction, pollution control measures will be implemented to ensure that the proposed activities do not negatively impact air and water quality as well as being mindful to limit noise disturbance to those surrounding the construction site. The standards established by the New Jersey Noise Control Code, Clean Air Act, State and National Air Quality Standards and the Stormwater Management Best Management Practices will be followed to mitigate potential community impacts before, during and after construction.

V. CONCLUSION

The subject sites are to be developed as a single-family residential development, consisting of 8 single-family dwellings, stormwater facilities and a dedicated open space lot. While development of a wooded/vacant properties results in certain unavoidable impacts, this report identifies and explains the projects impacts on the environment and the mitigation measures proposed to help reduce this impact to the maximum extent feasible. As outlined above, it is believed that this development will not have a significant negative to the surrounding natural and mad-made environment.

APPENDIX A

TAX MAP

SHEET No. 23

MAP REFERENCES
1. WOODFIELD ESTATES, FILED MAP No. 2803

THIS TAX MAP SHEET WAS PREPARED ELECTRONICALLY USING THE AUTOCAD DRAFTING PROGRAM BY GLEN J. LLOYD, P.L.S. ON MARCH 15, 2007. THE APPROVED ORIGINAL IS ON FILE IN THE FRANKLIN TOWNSHIP MUNICIPAL ENGINEER'S OFFICE.

TAX MAP
TOWNSHIP OF FRANKLI
SOMERSET COUNTY, NEW JERS
SCALE: 1"=100' MARCH 15,
GLEN J. LLOYD, N.J.P.L
SCHOOR DEPALMA P.O.
BOX 5192
CLINTON, NJ 08809-0192
TO SHOW CONDITIONS AS OF 3/15/07

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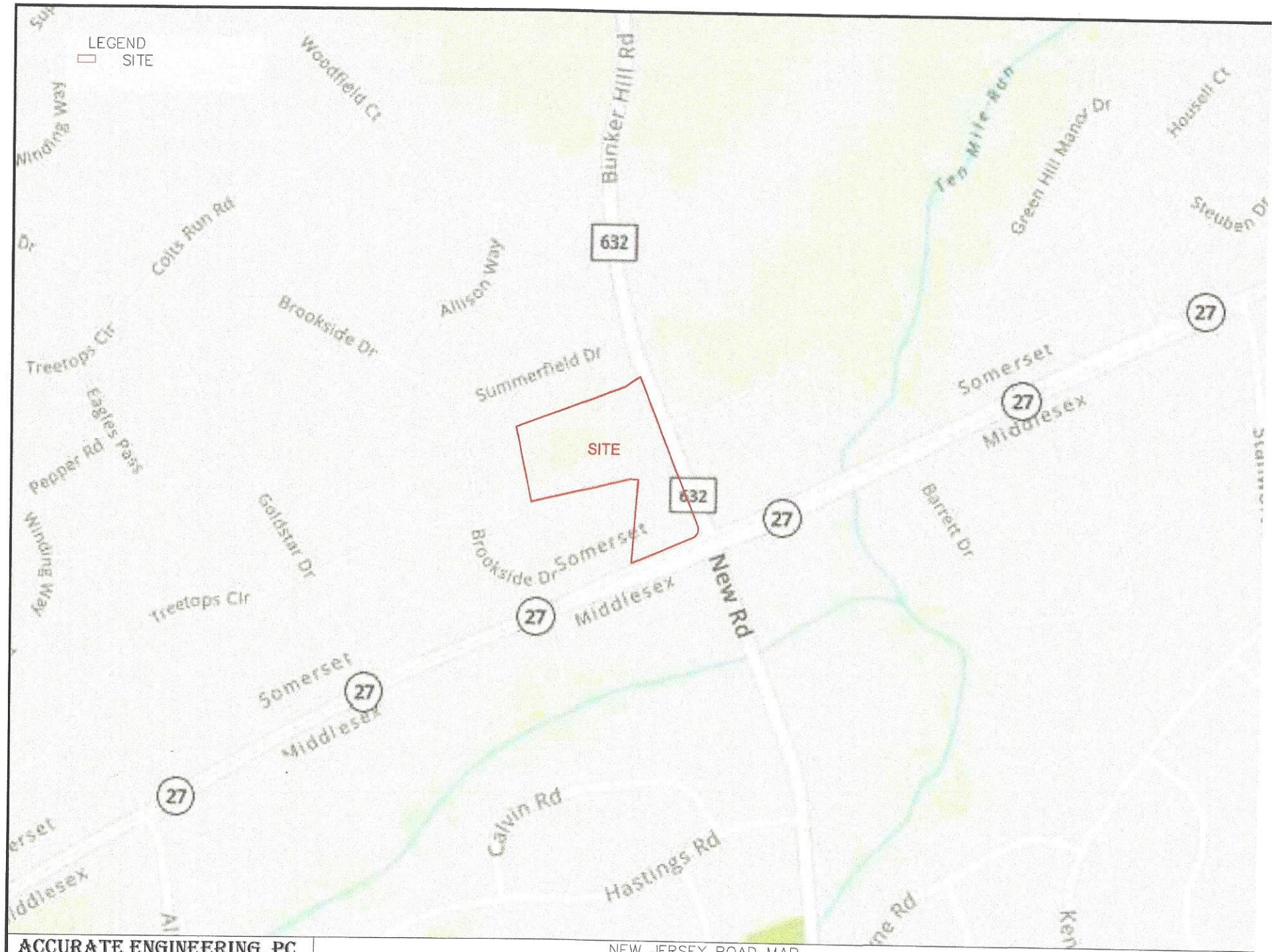
FRANKLIN TOWNSHIP TAX MAP
11 BUNKER HILL ROAD – BLOCK 11.06, LOT 11.01
3523 ROUTE 27 – BLOCK 20.01, LOT 16.01
FRANKLIN TOWNSHIP, SOMERSET COUNTY, NJ

APPENDIX B

COUNTY ROAD MAP



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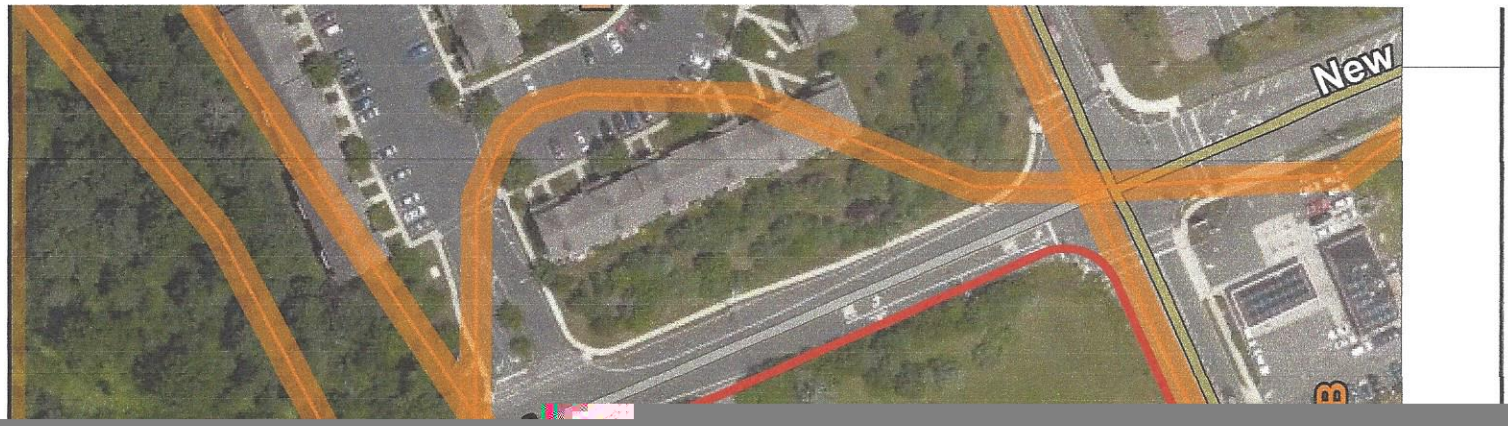
NEW JERSEY ROAD MAP
11 BUNKER HILL ROAD – BLOCK 11.06, LOT 11.01
3523 ROUTE 27 – BLOCK 20.01, LOT 16.01
FRANKLIN TOWNSHIP, SOMERSET COUNTY, NJ

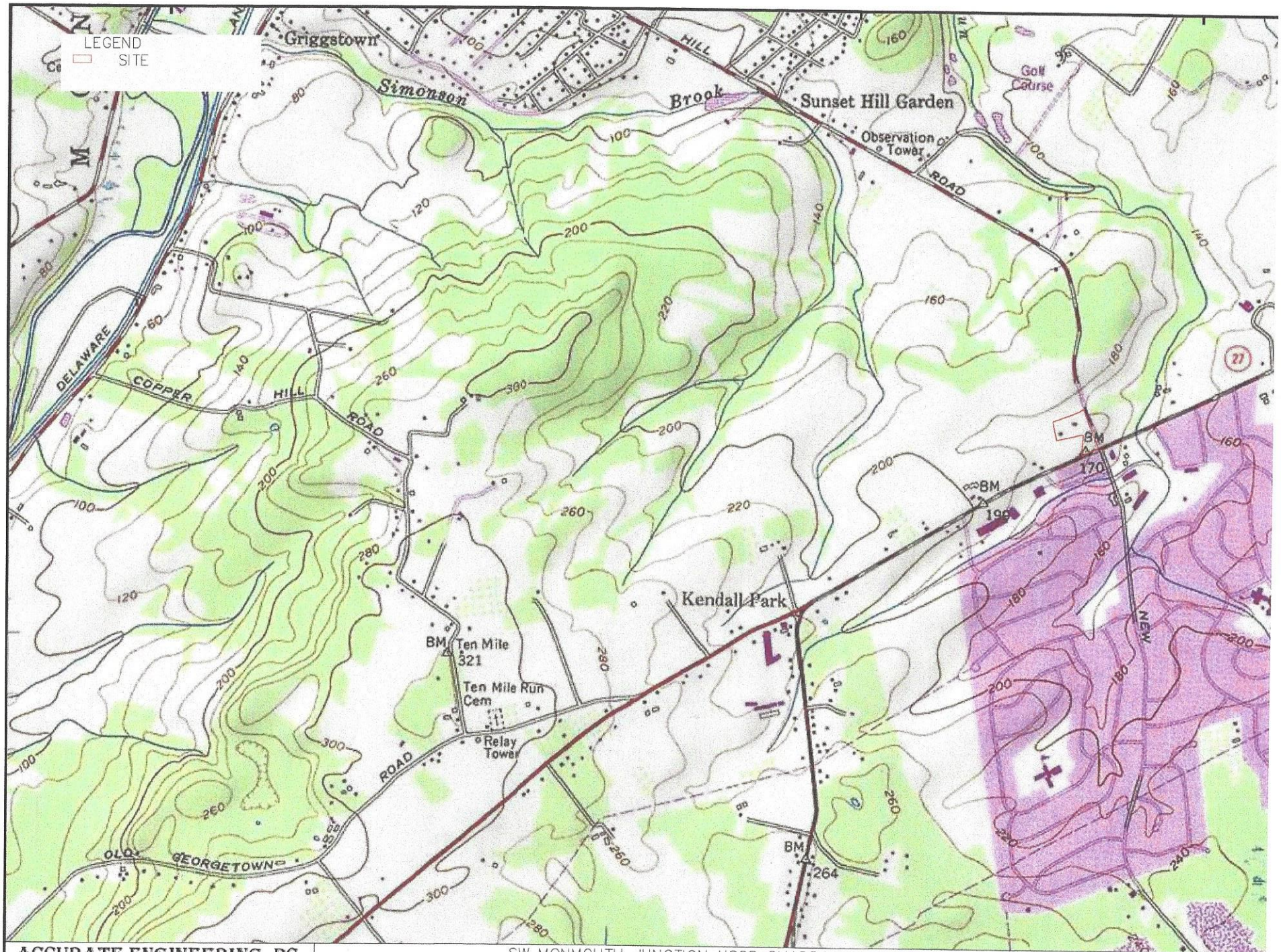
APPENDIX C

USDA SOILS MAP


New

APPENDIX D

USGS QUAD MAP



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SW MONMOUTH JUNCTION USGS QUADRANGLE MAP
11 BUNKER HILL ROAD – BLOCK 11.06, LOT 11.01
3523 ROUTE 27 – BLOCK 20.01, LOT 16.01
FRANKLIN TOWNSHIP, SOMERSET COUNTY, NJ

APPENDIX E

SITE PHOTOGRAPHS

Site Photographs
Block 11.06, Lot 11.01 – 11 Bunker Hill Road
Block 20.01, Lot 16.01 – 3523 Route 27
Franklin Township, Somerset County, NJ

Photo 1: View of existing driveway and Bunker Hill Road.

Photo 2: View of existing driveway and existing house.

Site Photographs
Block 11.06, Lot 11.01 – 11 Bunker Hill Road
Block 20.01, Lot 16.01 – 3523 Route 27
Franklin Township, Somerset County, NJ

Photo 3: View of existing house and garage in northwestern portion of the site.

Photo 4: View of existing barn in northwestern portion of the site.

Site Photographs
Block 11.06, Lot 11.01 – 11 Bunker Hill Road
Block 20.01, Lot 16.01 – 3523 Route 27
Franklin Township, Somerset County, NJ

Photo 5: View of northeastern portion of the site.

Photo 6: View of northeastern portion of the site.

Site Photographs
Block 11.06, Lot 11.01 – 11 Bunker Hill Road
Block 20.01, Lot 16.01 – 3523 Route 27
Franklin Township, Somerset County, NJ

Photo 7: View of southern portion of the site.

Photo 8: View of southern portion of the site.

APPENDIX F

EXISTING CONDITIONS PLAN

GRAPHIC SCALE

(IN FEET)
1 inch = 30 ft.

NO.	DESCRIPTION OF REVISION	DATE
2	REVISED SANITARY SEWER AND STORMWATER	3/1/24
1	PER 11/1/21 STAFF COMMENTS	11/22/21

EXISTING CONDITIONS PLAN
BUNKER HILL DEVELOPMENT
11 BUNKER HILL ROAD – BLOCK 11.06, LOT 11.01
3523 ROUTE 27 – BLOCK 20.01, LOT 16.01
FRANKLIN TOWNSHIP, SOMERSET COUNTY, NJ
PREPARED FOR
DEVIN DEVELOPERS, LLC

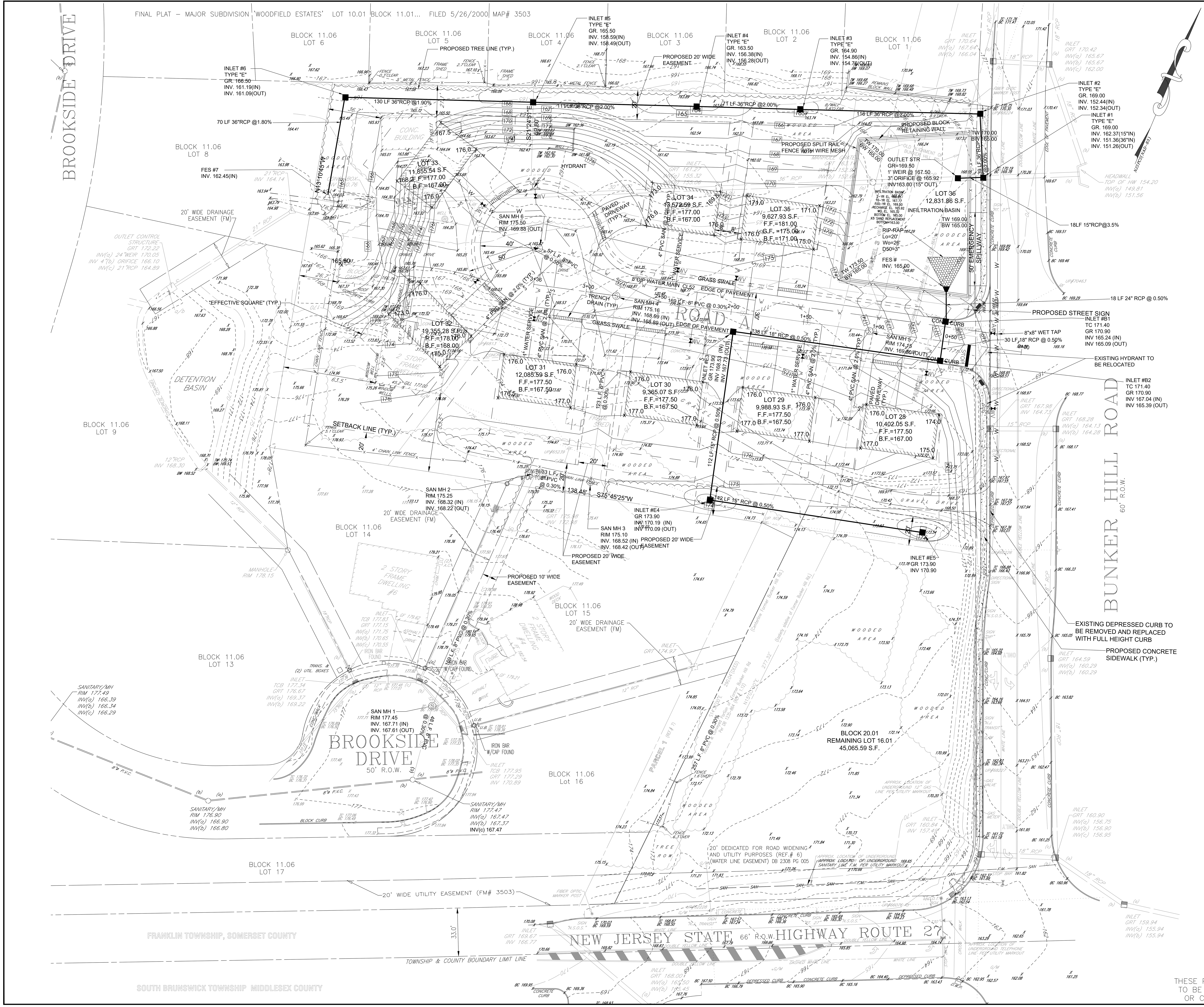
ACCURATE ENGINEERING, PC
12 Concord Drive
Kendall Park, New Jersey 08824
732–951–2385

Frank T. Antisell PROFESSIONAL ENGINEER
N.J. LICENSE No. 38739

Date: 7/21/2021	File: 2020–101
Scale: 1"=30'	Tax Map: 16.02
Revised To:	Sheet: 2 OF 12

APPENDIX G

PROPOSED CONDITIONS



GRADING AND DRAINAGE NOTES:

1. ALL GRADING, DRAINAGE, AND UTILITY INSTALLATION AND/OR CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS OR LOCAL REQUIREMENTS. SHOULD A DIFFERENCE IN REQUIREMENTS OCCUR, THE STRICTER OF THE TWO REGULATIONS WILL APPLY.
2. ALL DRAINAGE STRUCTURES AND STORM SEWER PIPES SHALL MEET HEAVY DUTY TRAFFIC LOADING AND BE INSTALLED ACCORDINGLY.
3. SITE GRADING SHALL NOT PROCEED UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
4. LENGTHS OF STORM PIPES SHOWN ARE CENTER-TO-CENTER LENGTHS BETWEEN DRAINAGE STRUCTURES.
5. CONTRACTOR SHALL REVIEW ALL DRAINAGE CONNECTIONS TO MANHOLES AND CATCH BASINS AND INCREASE THE INLET BOX SIZES AS NECESSARY TO ACCOMMODATE THE PROPOSED INLET AND OUTLET PIPES.
6. ALL GRADING IS TO PROMOTE POSITIVE DRAINAGE AWAY FROM THE BUILDING.
7. CURB ELEVATIONS INDICATED "BC" ARE BOTTOM OF CURB ELEVATIONS, CURB ELEVATIONS INDICATED AS "TC" ARE TOP OF CURB.
8. EXISTING FRAMES, COVERS, AND GRATES IN AREAS WHERE GRADES WILL BE REVISED BY FILLING OR CUTTING, OR PAVEMENT OVERLAY, MUST BE RESET TO MATCH FINAL GRADE. THIS INCLUDES MANHOLES, HANDHOLES, VALVE BOXES, INLETS, VAULT, ETC.). IN AREAS OF CUT, CONTRACTORS SHALL PROVIDE REQUIRED COVERAGE OF UTILITY AND STORMWATER LINES AS SPECIFIED BY THE UTILITY PURVEYOR. RELOCATION OF UTILITY AND STORMWATER LINES MAY BE REQUIRED.
9. A CLOSED-CIRCUIT TELEVISION INSPECTION (CCTV) OF THE DOWNSTREAM DRAINAGE PIPES SHALL BE CONDUCTED PRIOR TO CONSTRUCTION AND SUBMITTED TO THE CITY ENGINEER FOR REVIEW. IF THE PIPES ARE FOUND TO BE IN POOR CONDITION, THEY WILL BE CLEANED, REPAIRED, OR REPLACED AS REQUIRED BY THE CITY ENGINEER.
10. ALL STRUCTURES SHALL HAVE NJDEP-COMPLIANT ECO GRATES AS DEEMED NECESSARY BY THE TOWNSHIP ENGINEER.
11. IN ACCORDANCE WITH BMP MANUAL REQUIREMENTS, POST-CONSTRUCTION TESTING MUST BE PERFORMED ON THE AS-BUILT INFILTRATION BASINS TO ENSURE THAT THE INSTALLED BMP FUNCTIONS AS DESIGNED. WHERE AS-BUILT TESTING SHOWS A LONGER DRAIN TIME THAN DESIGNED, CORRECTIVE ACTION MUST BE TAKEN, AND THE BASIN SHOULD BE RETESTED.
12. THE MAINTENANCE AND OWNERSHIP OF THE INFILTRATION BASIN WILL BE THE RESPONSIBILITY OF THE HOMEOWNER'S ASSOCIATION.

UTILITY NOTES:

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND, WHERE POSSIBLE MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANY AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS IN A MANNER WHICH WILL NOT NEGATIVELY AFFECT ANY EXISTING USERS OF THESE UTILITIES.
2. CONTRACTOR SHALL REFER TO ARCHITECTURAL PLANS AND SPECIFICATIONS FOR ACTUAL LOCATIONS OF ALL UTILITY ENTRANCES TO INCLUDE SANITARY SEWER LATERALS, WATER SERVICE, ELECTRICAL, TELEPHONE, GAS AND CABLE SERVICE. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND ASSURE PROPER DEPTHS ARE ACHIEVED AS WELL AS COORDINATING WITH THE REGULATORY AGENCY AS TO LOCATION AND SCHEDULING OF CONNECTIONS TO THEIR FACILITIES.
3. THE CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS, UTILITY LOCATIONS AND INVERTS PRIOR TO CONSTRUCTION. ANY CONDITIONS FOUND TO DIFFER FROM THOSE SHOWN BY THE DRAWINGS SHALL BE IMMEDIATELY BROUGHT TO THE ATTENTION OF THE ENGINEER.
4. ALL SANITARY SEWER AND WATER LINE WORK SHALL BE IN ACCORDANCE WITH MUNICIPAL REQUIREMENTS AND SPECIFICATIONS OF THE TOWNSHIP OF FRANKLIN.
5. ALL WATER MAINS AND SANITARY OR INDUSTRIAL SEWER LINES SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF 10 FEET. IF SUCH LATERAL SEPARATION IS NOT POSSIBLE, THE WATER AND SEWER LINES SHALL BE IN SEPARATE TRENCHES (STEP TRENCHES ARE PROHIBITED) WITH THE TOP OF THE SEWER LINE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN OR WITH SUCH OTHER SEPARATION EXPRESSLY APPROVED BY THE DEPARTMENT. AT CROSSINGS OF SEWER LINES AND WATER MAINS, THE TOP OF THE SEWER LINES SHALL BE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER MAIN (SEWER SERVICE LATERALS ARE NOT SUBJECT TO THIS REQUIREMENT). IF SUCH VERTICAL SEPARATION IS NOT POSSIBLE, THE SEWER LINE SHALL BE OF WATERTIGHT CONSTRUCTION (THAT IS, DUCTILE IRON OR REINFORCED CONCRETE PIPE), WITH WATERTIGHT JOINTS THAT ARE A MINIMUM OF 10 FEET FROM THE WATER MAIN.
6. EXISTING FRAMES, COVERS, AND GRATES IN AREAS WHERE GRADES WILL BE REVISED BY FILLING OR CUTTING, OR PAVEMENT OVERLAY, MUST BE RESET TO MATCH FINAL GRADE. THIS INCLUDES MANHOLES, HANDHOLES, VALVE BOXES, INLETS, ETC.). IN AREAS OF CUT, CONTRACTORS SHALL PROVIDE REQUIRED COVERAGE OF UTILITY AND STORMWATER LINES AS SPECIFIED BY THE UTILITY PURVEYOR. LIMITED RELOCATION OF UTILITY AND STORMWATER LINES MAY BE REQUIRED.
7. ALL CONSTRUCTION SHALL COMPLY WITH THE CURRENT RULES AND REGULATIONS OR ORDINANCES OF FRANKLIN TOWNSHIP, NJDEP, AWWA AND ALL APPLICABLE REGULATORY AGENCIES HAVING JURISDICTION.
8. THE MINIMUM CLEARANCES BETWEEN WATER MAINS AND SANITARY SEWERS SHALL BE IN ACCORDANCE WITH THE STATE STANDARDS, I.E. MINIMUM HORIZONTAL CLEARANCE BETWEEN WATER MAIN AND SANITARY SEWER IN PARALLEL SHALL BE TEN FT. (10'), MINIMUM VERTICAL CLEARANCE BETWEEN PIPE CROSSING SHALL BE EIGHTEEN INCHES (18") WITH THE SANITARY SEWER BELOW THE WATER LINE. LF SUCH MINIMUM VERTICAL CLEARANCE CANNOT BE PROVIDED, THE SANITARY SEWER SHALL BE ENCASED IN CONCRETE TEN FT. (10') FROM EACH SIDE OF THE CROSSING OR A TOTAL OF TWENTY FT. (20').
9. WATER MAINS CROSSING STORM SEWERS OR DRAINS WHERE THE CLEARANCE BETWEEN THE PIPES IS LESS THAN EIGHTEEN (18") INCHES, PIER SUPPORTS FOR THE STORM LINE SHALL BE PROVIDED IN ORDER TO PREVENT THE LOAD TRANSFER TO THE AFFECTED UTILITY.

LEGEND:

- OVERHEAD WIRES
- EXISTING MANHOLE
- EXISTING INLET
- UTILITY POLE W/ID #
- GUY WIRE (G/W)
- HYDRANT
- UNDERGROUND WATER LINE
- WATER VALVE
- UNDERGROUND GAS LINE
- GV GAS VALVE
- G/M GAS METER
- D/C DEPRESSED CURB
- IRON PIPE FOUND
- SIGN
- LIGHT POLE
- CLEAN-OUT
- 3' WIRE FENCE
- UNDERGROUND SEWER LINE
- UNDERGROUND ELECTRIC

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

NO.	DESCRIPTION OF REVISION	DATE
2	REVISED SANITARY SEWER AND STORMWATER	3/1/24
1	PER 11/1/21 STAFF COMMENTS	11/22/21

GRADING AND UTILITY PLAN
BUNKER HILL DEVELOPMENT
11 BUNKER HILL ROAD – BLOCK 11.06, LOT 11.01
3523 ROUTE 27 – BLOCK 20.01, LOT 16.01
FRANKLIN TOWNSHIP, SOMERSET COUNTY, NJ

PREPARED FOR
DEVIN DEVELOPERS, LLC

ACCURATE ENGINEERING, PC
12 Concord Drive
Kendall Park, New Jersey 08824
732-951-2385

THESE PLANS ARE NOT TO BE USED FOR BID OR CONSTRUCTION

Frank T. Antisell PROFESSIONAL ENGINEER N.J. LICENSE No. 38739

Date: 7/21/2021	File: 2021-011
Scale: 1"=30'	Tax Map: 16.02
Revised To:	Sheet: 5 OF 12