

Engineering
& Design

Environmental Impact Statement

August 2023

Amaranth at North Brunswick, Phase 2

Block 148.11, Lot 1.01
Township of North Brunswick,
Middlesex County, New Jersey

Prepared for:

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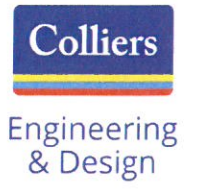
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Project No. 17001949B

Certificate of Authorization: 24GA27986500

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Aerial Map
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Introduction

This Environmental Impact Statement is being submitted as part of the Preliminary and Final Major Site Plans application for Amaranth at North Brunswick, Phase 2 located on Lot 1.01, Block 148.11 as shown on Sheet 58 of the Township of North Brunswick Tax Map. This report was prepared in accordance with Chapter 205 of the Township of North Brunswick Ordinance.

The Environmental Impact Statement shall give due consideration to an inventory of the following on-site environmental conditions and assessment of the probable impact of the development upon them:

- (1) Water supply
- (2) Water Quality
- (3) Flood Plain Protection
- (4) Wetlands and Wetland Transition Areas
- (5) Sewage Disposal
- (6) Topography
- (7) Slopes in excess of fifteen percent (15%)
- (8) Soil Erosion
- (9) Noise Characteristics and Levels
- (10) Air Quality
- (11) Existing wooded areas
- (12) Significant areas of wildlife habitat
- (13) Historic Sites

The proposed development will include the construction of two (2) three-story, multi-family buildings and two (2) one-story detached garages along with appurtenant site improvements typical of a residential development.

Site Description and Inventory

The subject property consists of approximately 11.055 acres. The property is bounded on the east by US Route 130, Renaissance Boulevard to the north, Morris Drive to the west, and the recently-constructed Amaranth at North Brunswick development to the south. The site is currently developed with a Walgreens pharmacy and a daycare facility. The remainder of the property being undeveloped and wooded with the exception of an unoccupied pad site originally approved for a bank. The property is currently contained within the PUD II Planned Unit Development zone, in which the proposed development is a permitted use.

Soil & Geology

The existing soil classifications for the site are based on the USDA NRCS Web Soil Survey. The survey is useful at the planning level to draw general conclusions about the suitability of a site for certain land uses. Based on the web site data, the site consists of the following soil types:

Soil Name	Hydrologic Group
FavAr Fallsington bedrock substratum variant loam, 0 to 2 percent slopes	B/D
NknA Nixon loam, 0 to 2 percent slopes	B
NkrB Nixon moderately well drained variant loam, 2 to 5 percent slopes	C

Topography

The site generally and consistently slopes to the west toward Morris Drive. The portion of the site along Route 130 is at the highest elevation on the property.

Hydrologic Features

There are stormwater management facilities on the property related to the developed portions of the site. The undeveloped area has no stormwater management facilities in the vicinity of the proposed development. Morris Drive contains a storm sewer system that captures much of the site's runoff.

Vegetation & Wildlife

The subject site is partially developed with a pharmacy and child care facility. The area to be developed currently exists as indigenous woods. The Per the NJDEP GIS database, there is no priority, threatened or endangered species identified on the subject site.

Distinctive Scenic and/or Historic Features

There are no known scenic and/or historic features associated with this property.

Predicted Impacts of Development

This section assesses the probably impacts of the development to the on-site environmental conditions.

Water quality

There are no predicted adverse impacts associated with a degradation of surface water quality. While the quantity of impervious coverage is proposed to be increased, stormwater detention and water quality measures will be designed to comply with water quality regulations. The site has been designed to comply with Township and NJDEP stormwater management standards.

Flood Plain Protection

The site is mapped within Zone X (other flood areas), areas determined to be within the 0.2% annual chance floodplain, as shown on the National Flood Insurance Program Flood Insurance Rate Map No. 34023C0136F with effective date July 6, 2010. There are no regulated waters within the 300 feet of the site boundary; therefore, there are no riparian zones affecting the site.

Wetlands and Wetland Transition Areas

The limits of freshwater wetlands were verified per NJDEP File No. 1215-10-002.1 and filled under General Permit 6, based on a plan entitled "PROPOSED AREA OF WETLANDS FILL FOR RENAISSANCE TOWN CENTER, LOT 1, BLOCK 148.11, TOWNSHIP OF NORTH BRUNSWICK, MIDDLESEX COUNTY, NEW JERSEY" prepared by KZA Engineering, P.A., dated May 12, 2010. No freshwater wetlands are presently known to exist on-site.

Topography

There are no predicted adverse impacts associated with the topography of this project. The developed portion of the site generally slopes in the same direction as the existing conditions. The grade of the property is generally between 1.5 – 5%.

Slopes in excess of fifteen percent (15%)

There are no predicted adverse impacts associated with areas with slopes in excess of fifteen percent (15). Proposed slopes will not exceed a maximum 3H:1V rate and any such areas will be stabilized in accordance with Soil Erosion and Sediment Control Standards.

Soil Erosion

There are no predicted adverse impacts associated with soil erosion for the subject site. During construction, temporary soil erosion measures will be maintained to prevent erosion on-site. Upon completion of the development, the proposed landscaping and grass areas will help prevent erosion of the on-site soil.

Noise Characteristics and Levels

There will be a minor impact on the noise characteristics and level. During construction there will be additional noise generated on-site consistent with construction sites. The majority of noise experienced on the subject site will come from traffic from adjoining roads, most notably Route 130, which is a 6-lane state highway along the site's frontage. The site will be designed with a mixture of evergreen and deciduous trees to help dampen sound, as well as other sound mitigating measures, such as trash enclosures.

Air Quality

There are no predicted adverse impacts associated with air quality with this project. The proposed development will not require any air permits from the New Jersey Department of Environmental Protection.

Existing wooded areas to be protected

The existing site is partially wooded. A portion of the existing woods will be cleared to construct the proposed improvements. Low maintenance landscaping will be proposed to offset to the maximum extent practicable, the forested areas being razed.

Significant areas of wildlife habitat

There will be minimal impacts associated with the disruption of wildlife with this project. Since there are wooded areas on-site, squirrels and birds might nest here. It is anticipated that any displaced wildlife would relocate to heavily wooded areas toward the west. There are no predicted adverse impacts associated with this project on endangered and threatened species. There is no priority, threatened or endangered species identified on the subject site.

Historic Sites

As there are no known historical features associated with this property, there are no predicted adverse impacts on historical sites associated with this project.

Acidic Soils

The subject site is located within the Potomac Formation bedrock geology region. This is not a bedrock geology that is known to be associated with acidic soils. Acidic soils should not impact the subject development.

Solid Waste Disposal

Solid waste management will occur both during construction and actual operations of the individual uses. During construction, wastes generated will be typical with that of construction waste and can include, but not be limited to, wooden pallets associated with deliveries, demolition debris associated with the razing of existing structures and/or improvements, and debris generated by the workers on-site which could include food related waste. All waste discussed above will be stored on-site within a dumpster until it is picked up and disposed of by a private hauler in accordance with all local, state and federal regulations. No burning or trash or on-site landfilling will occur during construction.

The solid waste generated at the development will be typical of a multifamily residential development. These materials will include typical household trash including food waste and paper products. The trash will be stored in a trash room within each building and moved to the proposed trash enclosure at designated intervals. The solid trash is picked up by a private

contractor approximately two (2) times per week, or, as necessary to dispose of the waste generated. Solid waste will be disposed of at a licensed facility in accordance with all applicable New Jersey laws and regulations.

The recyclable material generated at the proposed development will also be typical of the uses listed above. Some of these materials include, but are not limited to, mainly corrugated cardboard and aluminum cans, plastic bottles/containers, glass and mixed paper which may be deposited by residents or employees on staff.

Again, all waste removed from the subject site will be done so by a licensed hauler in accordance with all local, State and federal regulations.

Proposed Resource Consumption

Sanitary Sewer

Sanitary sewer service is provided by the Township of North Brunswick. The development will connect to an on-site gravity 8-inch gravity sewer main. Wastewater generated by the development is anticipated to be in accordance with N.J.A.C. 7:14-23.3 flow rates per the following table:

Description	Type of Establishment Under N.J.A.C. 7:14-23.3	Measurement Units	Gallons Per Day Per Unit	Number of Units	Average Daily Flow (GPD)
Apartment	2-bedroom	Per Bedroom	225	40	9,000
Apartment	1-bedroom	Per Bedroom	150	50	7,500
Total					16,500 GPD

Water

In accordance with the NJDEP's NJ-GeoWeb Service, the subject sites reside within the region of the Township of North Brunswick Water Department water purveyor which has a Water Supply Firm Capacity of 45.000 Million Gallons per Day. In accordance with the NJDEP's Division of Water Supply and Geoscience, the daily demand on this system is 38.961 Million Gallons per day, which indicates a surplus of 6.309 Million Gallons per Day. Adequate capacity exists within the existing water purveyor's facility. The development will connect to an existing on-site water main.

Environmental Performance Controls

This section is intended provide a description of the measures that will be employed to minimize adverse impacts during construction and operation associated with the following.

Drainage Plans

The proposed development will include a storm water management system. The storm water management system will: (1) reduce peak surface water runoff which will reduce potential downstream flooding, and (2) reduce non-point source loading as sediment will be retained by the system and periodically removed.

With respect to soil erosion and sediment control, silt fence and inlet sediment barriers will be installed prior to land disturbance on the property. These erosion control measures will be maintained throughout the course of construction. Subsequent to construction, disturbed surfaces will be stabilized through the use of impervious surfaces (i.e., pavement) and vegetation (i.e., grass and plants).

Sewage Disposal Techniques

Wastewater will be directly discharged to the existing public sewer main via 6" PVC SDR-35 laterals in compliance with local plumbing codes and standards. A Treatment Works Approval from NJDEP is required and will be obtained.

Water Supply and Water Conservation Proposals

Water will be supplied by the Township of North Brunswick. The proposed site will connect to an existing water main located on site. There are no specific water conservation proposals associated with this project.

Energy Conservation Measures

Several energy conservation measures will be employed typical of multi-family residential developments. Additionally, the equipment will be regularly cleaned and maintained to maximize efficiency.

Outdoor light fixtures use LED luminaries and indoor light fixtures use LED or fluorescent bulbs.

LED lights are the most efficient lighting sources available today. LED fixtures provide a more uniform distribution of light with less glare, and consume roughly 50% of the energy of traditional Metal Halide fixtures with 2-4 times longer life. The proposed light fixtures will produce little to no glare or light spillage. Pole mounted fixtures will be fitted with house-side shields. Building and canopy fixtures are full cutoff.

Fluorescent lights have high efficacy (the amount of light produced per watt of electricity), long life, and low surface luminance.

The building is climate controlled with energy management systems to monitor and control energy use throughout the building

The building controls air infiltration in heavily trafficked areas with energy-efficient doors and windows and the use of vestibules.

Noise Reduction Techniques

Several noise reduction measures are to be implemented for this project.

HVAC equipment is housed within a screened area atop the roofs of the structures. This reduces noises associated with compressors, etc. All trash and recyclable materials are placed in the containers housed within the enclosure. This eliminates noise associated with compaction and maneuvering of trash receptacles during trash/recyclables pick-up

Review Agencies

The following is a list of agencies from which approvals, permits and licenses must be obtained:

- Township of North Brunswick Planning Board
- Middlesex County Planning Board
- Freehold Soil Conservation District
- North Brunswick Water & Sewer Departments
- NJDEP – Treatment Works
- NJDEP – Bureau of Water Safety

Conclusion

The proposed project will consist of site improvements designed in accordance with nationally recognized standards which are consistent with the ordinance for the Township of Ewing.

Appendix A

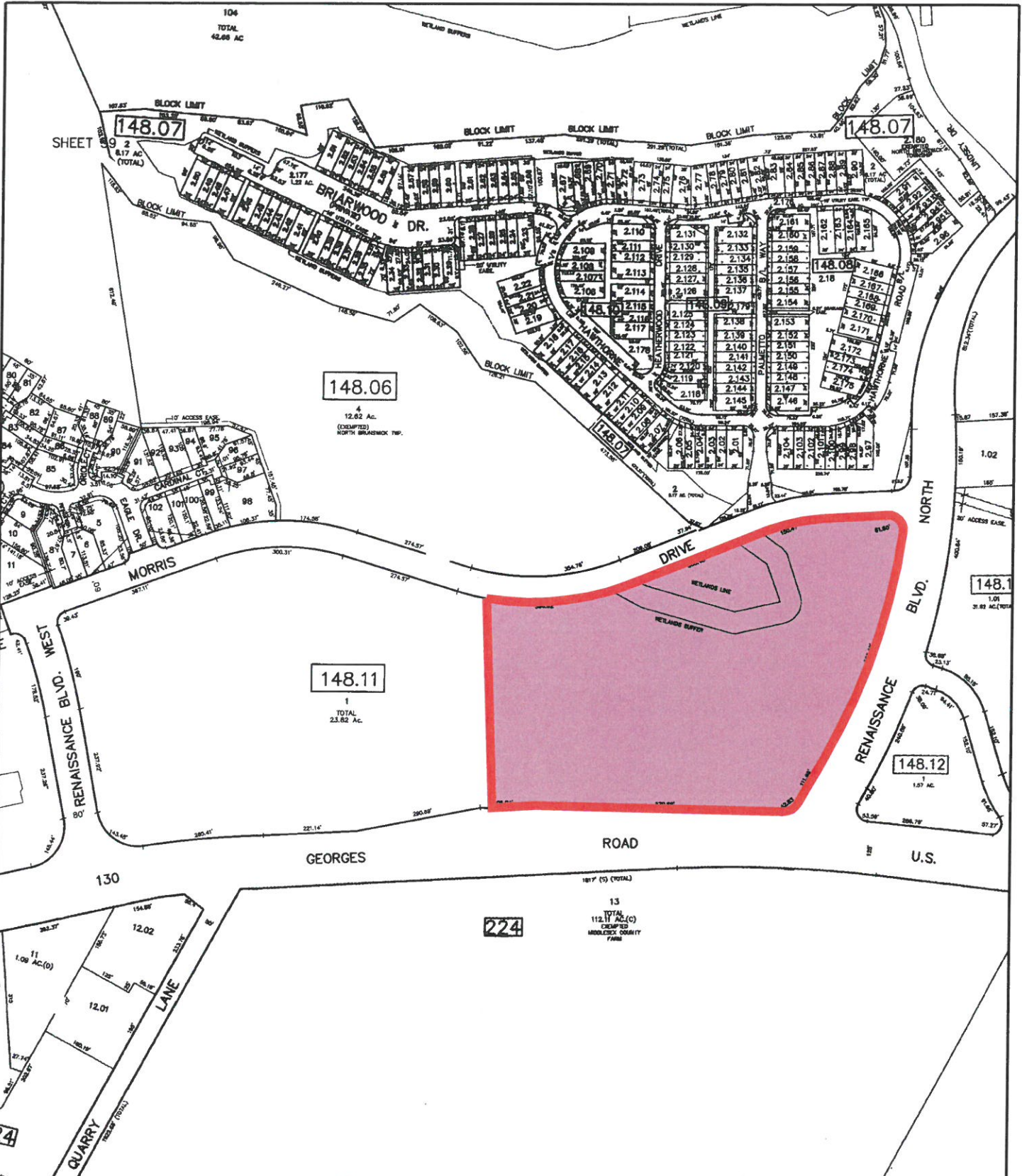
Tax Map

USGS Map

Aerial Map

Soil Map

FEMA Map



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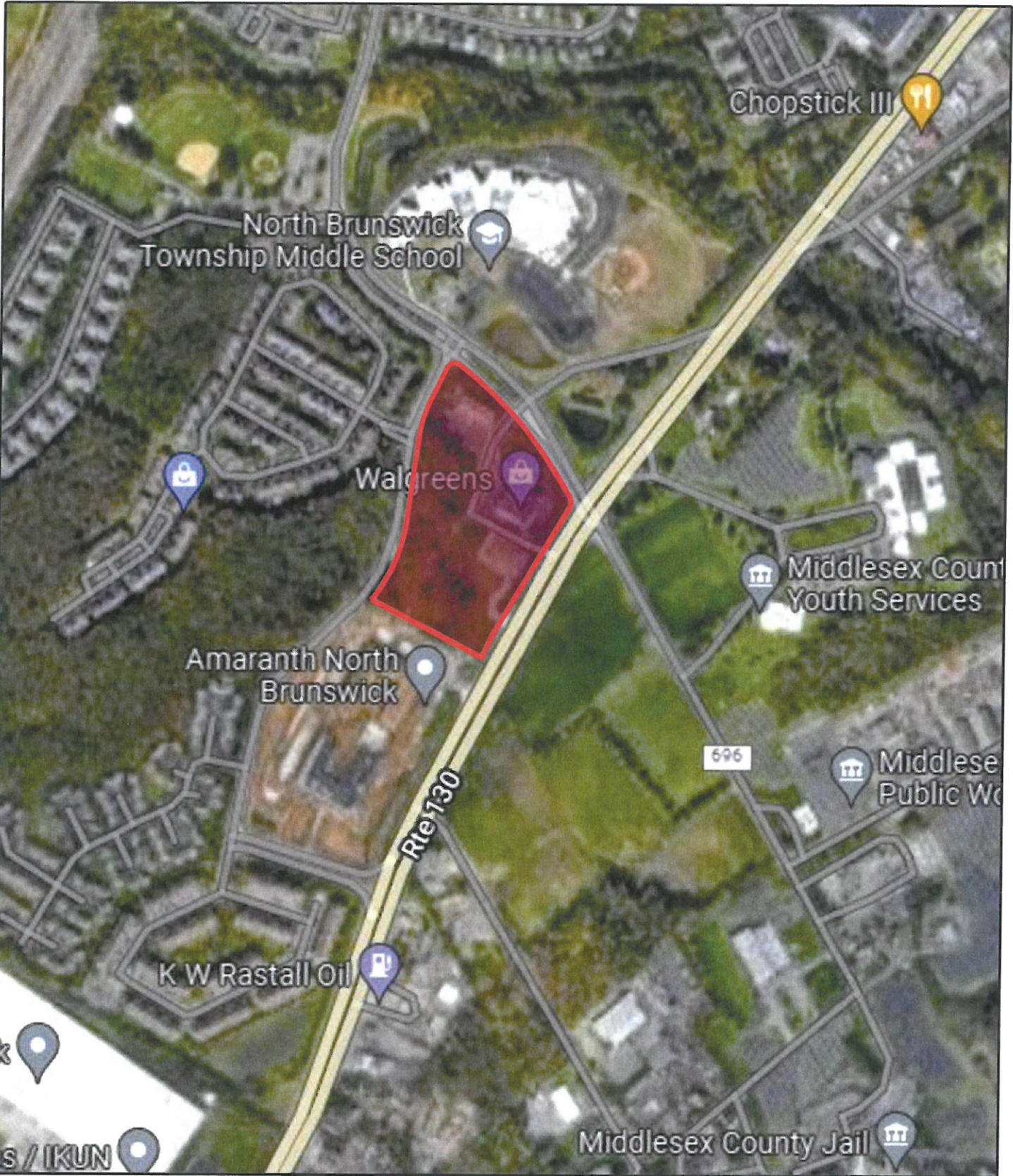
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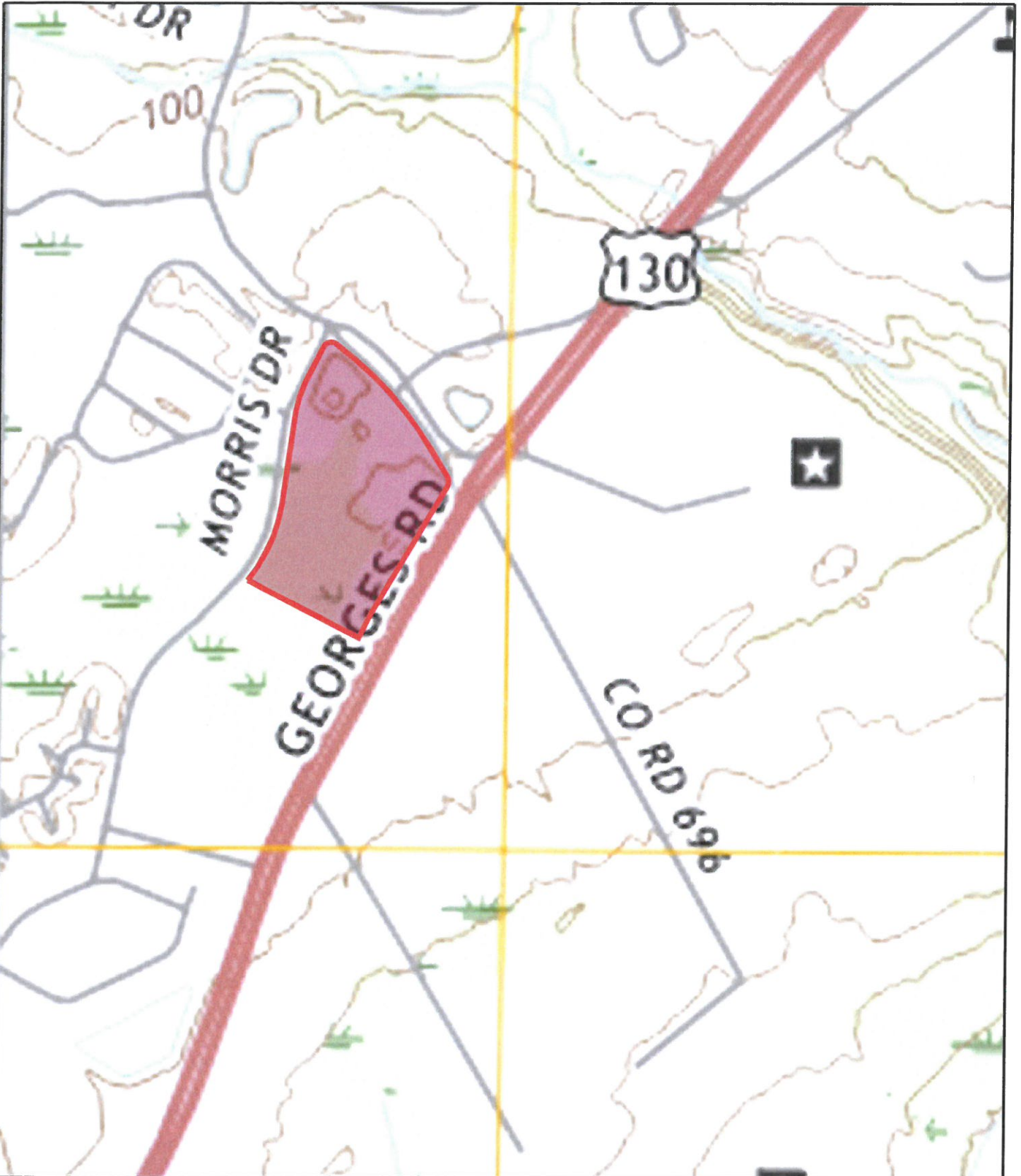
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SHEET NUMBER:
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Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
FavAr	Fallsington bedrock substratum variant loam, 0 to 2 percent slopes, rarely flooded	B/D	1.0	9.4%
NknA	Nixon loam, 0 to 2 percent slopes	B	1.5	13.4%
NkrB	Nixon moderately well drained variant loam, 2 to 5 percent slopes	C	8.5	77.2%
Totals for Area of Interest			11.1	100.0%

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V:\Publishing_14180\C-EXBT-PROJ\MAPS.dwg\C-04-SOIL MAP



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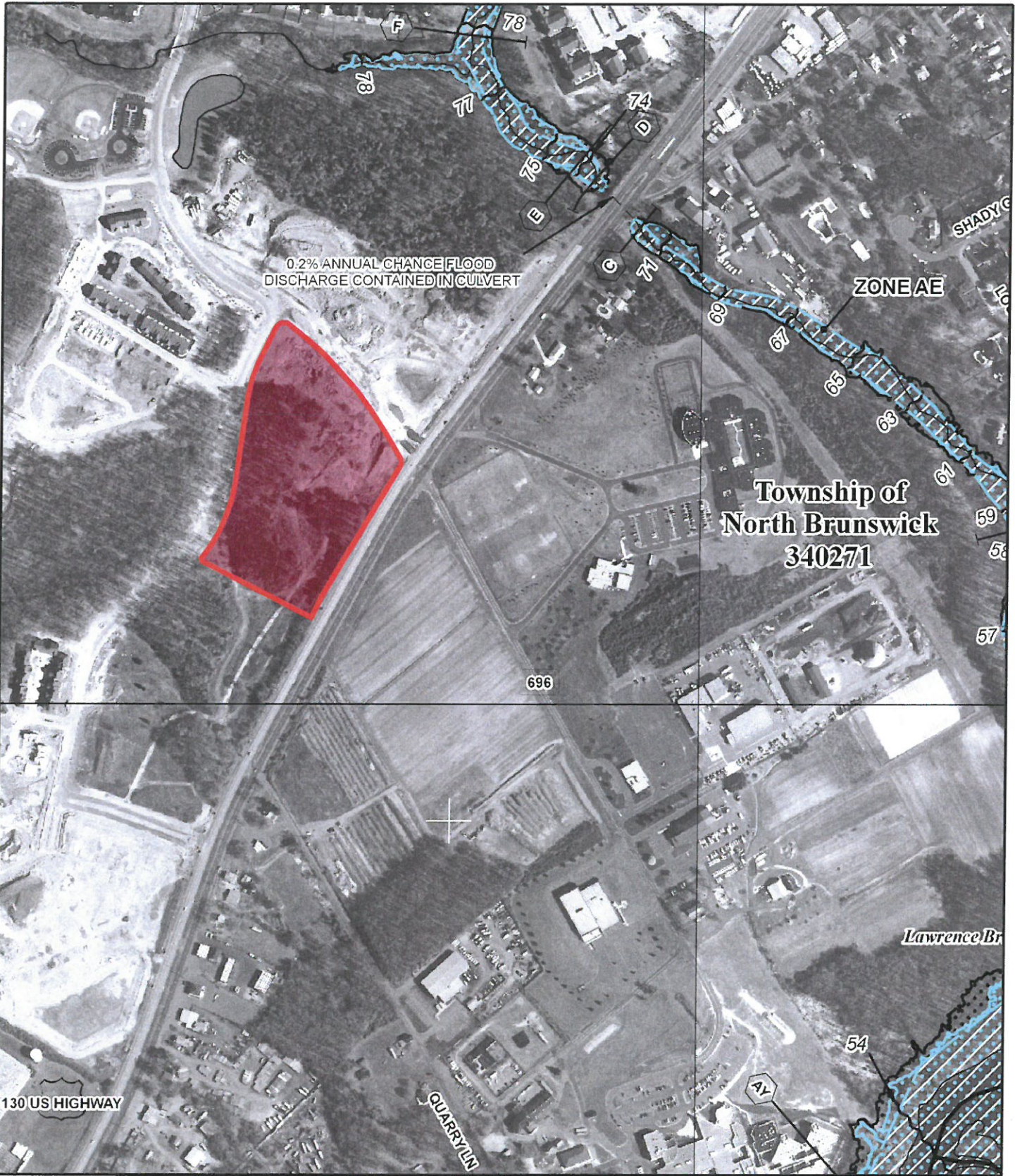
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SHEET TITLE:	
SOIL MAP	
SHEET NUMBER:	
1 of 1	



0.2% ANNUAL CHANGE FLOOD DISCHARGE CONTAINED IN CULVERT

ZONE AE

Township of North Brunswick 340271

696

Lawrence Br

54

130 US HIGHWAY

QUARRY LN

SHADY C

V:\Publish_14180\C-EXBT-PROJ-MAPS.dwg\C-05-FEMA MAP By: AURBANO



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