STONEFIELD
engineering & design

ENVIRONMENTAL IMPACT STATEMENT

ELIZABETH 287 DISTRIBUTION CENTER
BLOCK 502, LOTS 2 & 4
425 & 429 ELIZABETH AVENUE
FRANKLIN TOWNSHIP
SOMERSET COUNTY, NEW JERSEY

PREPARED FOR:

ORION IV ELIZABETH LOGISTICS CENTER LLC

PREPARED BY:

STONEFIELD ENGINEERING & DESIGN, LLC
JUNE 18, 2021
PRI-210122

JAMES S. KINOSIAN, PE
NEW JERSEY PROFESSIONAL ENGINEER LICENSE # 51916

REPORT CONTENTS

APPENDICIES

1.0 SITE DESCRIPTION

Orion IV Elizabeth Logistics Center LLC is proposing the construction of 178,320 SF warehouse building. The subject property is designated Block 502, Lots 2 & 4, commonly known as 425 & 429 Elizabeth Avenue located along the north bound side of Elizabeth Avenue approximately 775 feet south from the intersection with Pierce Street. The subject property is located within the Township of Franklin Business and Industry zoning district and is bounded by office building to the north, banquet hall to the east, shopping center to the south and Elizabeth Avenue to the west. Site access is provided via an existing emergency access and temporary access easement that connects at Elizabeth Avenue and runs through the site to the rear property line. The total project area is 422,481 SF (9.70 acres). Project Figures can be found in Appendix A of this Report.

The site is predominately a wooded area with a residential building existing along Elizabeth Avenue and a concrete pad. A gravel roadway exists within an access easement running from Elizabeth Avenue to the rear property line. The proposed development includes the construction of a 178,320 SF warehouse facility and supporting improvements inclusive of parking facilities, landscape, utilities, site lighting, stormwater management facilities.

This Environmental Impact Statement has been prepared per the Township of Franklin requirements to investigate the existing conditions of the property, evaluate the potential impacts of the proposed redevelopment, and discuss the measures to mitigate environmental impacts, if any.

2.0 INVENTORY OF EXISTING ENVIRONMENTAL CONDITIONS

2.1 SOILS

The site is underlain by the following soil classifications, based upon the County Soil Survey (Appendix B), the Geotechnical Report, and the site survey:

TABLE 1: ON-SITE SOIL GROUPS

Soil Description	Hydrologic Soil Group	Permeability Rate (in/hr)	Approximate Project Coverage
Penn Silt Loam (PenB)	D	0.00 to 0.06 IN/HR	67.7%
Reaville Silt Loam (RehA)	D	0.06 to 0.20 IN/HR	25.6%
Rowland Silt Loam (RorAt)	D	0.20 to 2.00 IN/HR	6.6%

2.2 TOPOGRAPHY & HYDROLOGY

A high point exists on site near the southeast corner of the subject property. From the high point, the property slopes towards the unnamed tributary along Elizabeth Avenue and towards the wetlands in the southeast corner of the property. Slopes near the center of the site a generally around 3% and increase to 5.7% and 5.4% at the unnamed tributary and the southeast wetlands respectively. The site discharges from the unnamed tributary at a low point along the norther property line, approximately 470 FT east of the Elizabeth Avenue Right of way. Discharge from the wetlands at a low point near the southeast corner of the property. A large portion of the property discharges to the unnamed tributary.

The unnamed tributary is associated with a Zone A flood hazard area as identified by FEMA's Preliminary Flood Insurance Rate Map.

2.3 GEOLOGY

Per the Geotechnical Report prepared by Whitestone Associates dated December 31, 2020, topsoils on-site were encountered up to 14 inches below the surface. Additional layers encountered on-site include, residual deposits and weathered rock. Residual deposits encountered on site had depths ranging from two (2) to six (6) feet below ground surface. The residual deposit layer generally consisted of silt with gravel (USCS: ML) and had standard penetration testing N-values ranging between three (3) and thirty-nine (39) blows per foot. The weathered rock layer was found at depths between five (5) and ten and a half (10.5) feet below ground surface and had standard penetration testing N-values exceed 50 blows per six inches. No groundwater was encountered on-site during testing.

2.4 VEGETATION

The existing site is heavily wooded with an estimated 2,318 trees on-site. Species of trees encountered on-site were diverse with a majority found to be Cedar (Juniperus) trees. Other trees encountered include Maple (Acer), Oak (Quercus), Sassafras (Sassafras), Cherry (Prunus), Beech (Fagus), Hornbeam (Carpinus), Dogwood (Cornus), Locust (Robina), Fir (Abies), and Hackberry (Celtis).

Wetlands and riparian zones are located on-site. Wetlands are located within the unnamed tributary near Elizabeth Avenue and in the southeast corner of the property. Riparian zones are also located along the unnamed tributary.

2.5 WILDLIFE OR THREATENED & ENDANGERED SPECIES

Per the NJDEP's Natural Heritage Database (NHD), there are endangered or threatened fauna and habitats on-site. The species recorded on-site are summarized in the following table:

TABLE II: RARE WILDLIFE SPECIES OR WILDLIFE HABITAT ON-SITE

Scientific Name	*Common Name*	*Federal Protection*	*State Protection*	*Global Rank*	*State Rank*
Ardea herodias	Great Blue Heron	N/A	Special Concern	G5	S3B,S4N

A search for species within a one mile radius of the site detected ecological records as summarized in the following table:

TABLE III: RARE WILDLIFE SPECIES OR WILDLIFE HABITAT WITHIN A ONE MILE RADIUS OF THE SITE

Scientific Name	*Common Name*	*Federal Protection*	*State Protection*	*Global Rank*	*State Rank*
Ardea herodias	Great Blue Heron	N/A	Special Concern	G5	S3B,S4N

2.6 SCENIC OR HISTORIC FEATURES

There are no portions of the site which would be considered to have unique, scenic and/or historic qualities as per the NJDEP NJ GeoWeb application.

The existing property sits approximately 1,200 FT to the northwest from the historic Abraham Grossman House and approximately 1,650 FT to the northwest from the Garretson House and Barn.

2.7 UTILITIES

Water service for the project site is provided by Franklin Township Department of Public Works. A water main existing along the eastern portion of the Elizabeth Avenue right-of-way.

Wastewater collection is provided by the Franklin Township Sewerage Authority. An 8-inch PVC sanitary stub is located in the southeast corner of the property. Wastewater treatment is provided by the Middlesex County Utility Authority Trunk System and Central Treatment Plant.

2.8 COMMUNITY FACILITIES

The site is located within the Franklin Township Public School District. He site sits 1,275 FT east of the Elite Preparatory Academy and 2,250 FT south of the Elizabeth Avenue School.

The Franklin Township Police Department is located 2.1 miles to the south of the property.

The property is located within the Franklin Township Fire District 1 with the Elizabeth Avenue Volunteer Fire Company being located 400 FT to the north.

2.9 ENVIRONMENTAL CONCERNS

No instances of air quality violations have been found within available NJDEP records for the project site. There are currently no activities taking place on the project site therefore compliance with the NJDEP Air Quality Standards outlined in NJAC 7:27 is maintained.

As there is currently an absence of activity on the subject site, a study of the existing noise levels has not been performed. There is minimal noise generated and the largest contributor to decibel levels would be from the adjacent traffic along Elizabeth Avenue.

2.10 TRAFFIC

Under existing conditions, the property receives no traffic due to its lack of development. If developed, the site would handle traffic via a driveway connecting at the southern portion of the site along Elizabeth Avenue. Passenger vehicles will be serviced by 130 parking spaces and delivery vehicles, up to and including WB-67 trucks, will be serviced by 28 loading bays and 16 truck parking stalls.

2.11 SOCIAL / ECONOMIC

Under existing conditions, the property does not positively impact the municipality due to the undeveloped nature of the property.

4.0 ENVIRONMENTAL IMPACT ASSESSMENT

4.1 SOILS

Soils on-site will be unaffected by the proposed development, and existing soil conditions have been considered when designing the stormwater management practices to be utilized.

4.2 TOPOGRAPHY

Under proposed conditions, the existing drainage patterns to the unnamed tributary and the rear wetlands will be generally maintained. The proposed grading layout has been designed to maintain gentle slopes around the developed portions of the site per federal ADA regulations and to balance earthwork volumes.

A formal stormwater management design is proposed to mitigate the stormwater runoff volumes, runoff quality, and groundwater recharge impacts associated with the increase in impervious coverage in accordance with NJDEP and Township of Franklin regulations. Refer to the Stormwater Management Report prepared by our office for detailed hydrologic and hydraulic calculations of the various proposed facilities.

4.3 GEOLOGY

The geology on-site is to remain unchanged by the proposed development.

4.4 VEGETATION

Existing vegetation to be removed on-site will predominantly be located near the middle of the property. Vegetation associated with the existing unnamed tributary, wetlands, and riparian buffers is to remain generally undisturbed with the exception of a small portion being removed along the unnamed tributary to provide site access from Elizabeth Avenue. An open span bridge has been proposed over the wetlands and flood hazard area to limit the disturbance of vegetation within the unnamed tributary.

A landscaping plan has been designed for the proposed development. The landscaping plan has been prepared to replace trees of significance in accordance with Township of Franklin code. Any deficiencies in the tree replacement will be accounted for in a contribution to the tree fund.

4.5 WILDLIFE OR THREATENED & ENDANGERED SPECIES

Although natural habitats of special concern are documented on-site per the NHD Report, the proposed development occurs largely outside of these areas. As a result, native habitats will be minimally affected by the proposed development. In fact, the proposed landscaping enhances the existing natural habitat and provides a buffer between the proposed development and areas of documented species.

4.6 SCENIC OR HISTORIC FEATURES

There are no portions of the site which would be considered to have unique, scenic and/or historic qualities per the NJDEP NJ GeoWeb application.

4.7 UTILITIES

The proposed development is to obtain water service via one (1) 12" looped system which connects to the existing main within the Elizabeth Avenue right-of-way. An additional 12" circular fire system with four (4) fire hydrant placed at each corner of the building will be provided for fire protection. The Franklin Township Department of Public Works has confirmed that water service will be provided.

Sanitary service will be provided to the proposed development via one (1) 6" sewer which connects to the existing manhole located in the southeast corner of the property. The Franklin Township Sanitary Authority and Middlesex County Utility Authority have confirmed that water service will be provided.

4.8 COMMUNITY FACILITIES

The site is located within the Franklin Township Public School District. He site sits 1,275 FT east of the Elite Preparatory Academy and 2,250 FT south of the Elizabeth Avenue School.

The Franklin Township Police Department is located 2.1 miles to the south of the property.

The property is located within the Franklin Township Fire District 1 with the Elizabeth Avenue Volunteer Fire Company being located 400 FT to the north.

4.9 ENVIRONMENTAL CONCERNS

Describe impacts to special environmental concerns per Municipality requirements. Itemize sections by environmental concern per existing conditions format above.

Air quality and noise on the developed site will likely be similar to that of the surrounding shopping centers and banquet halls. Proposed landscaping on-site positively impacts the air quality under post-development conditions. The potential negative air quality and noise impacts due to proposed uses on-site would be a result of industrial use and traffic.

4.10 TRAFFIC

Trip generation projections for the proposed warehouse development were prepared utilizing the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 10th Edition. Estimated traffic (trip) generation was calculated based on the proposed development to determine that the roadway network will operate at acceptable levels of service post-development. In summary, the proposed development would not have a significant impact on

the traffic operations of the adjacent roadway network. Refer to the Traffic Impact Assessment Report prepared by our office for additional information regarding the data collection and analyses.

2.11 SOCIAL / ECONOMIC

Under proposed conditions, the property would positively impact the municipality by generating revenue and providing employment opportunities to local residents.

5.0 LICENSES, PERMITS, AND APPROVALS REQUIRED

The following licenses, permits, and approvals are anticipated in conjunction with this application:

- Franklin Township
  - Preliminary & Final Major Site Plan Approval
  - Building Permit
- Somerset County
  - Site Plan Approval
- Somerset-Union Soil Conservation District
  - Soil Erosion and Sediment Control Plan Certification
- NJDEP
  - Land Use Permit
- Delaware & Raritan Canal Commission
  - Water Quality and Stormwater Management Approval
- Franklin Township Sewerage Authority
  - Sanitary Connection Approval

At the time of this Statement, all approvals are still pending.

6.0 STEPS TO MINIMIZE ENVIRONMENTAL IMPACTS

The development of the project and site plan design enhances the property and minimizes environmental damage by completing the following:

- Preservation of more than 5.5 acres of land throughout the property;
- Preservation of all existing vegetation along Elizabeth Avenue in order to maintain a visually natural aesthetic;

- Installation of a landscaping design that improves site aesthetics and enhances existing green spaces which utilizes a mix of native plantings;

- Protection of wetlands to the greatest extent possible in order to minimize disturbance of the natural environment;

- Incorporation of a formal stormwater management design that incorporates structural conveyance systems to mitigate the increase in impervious coverage;

- Minimize water quality and recharge impacts by designing the site with less than ¾ of the permitted impervious surface coverage;

- Implementation of soil erosion and sediment control measures during and after construction in accordance with Somerset-Union Soil Conservation District regulations;

- Adhering to the necessary restrictions during construction to mitigate noise, dust pollution, and soil compaction;

- Providing more than adequate vehicular parking facilities and drive aisle to mitigate traffic impacts; and

- Installation of LED lighting fixtures in appropriate locations on-site that mitigate light pollution and energy consumption.

7.0 CONCLUSION

The proposed project has been designed to strike the right balance between minimizing tree removal, increased impervious coverage, mitigating stormwater runoff, increased traffic, and disturbance of natural vegetation and wildlife systems. Understanding the need to provide employment opportunities within the municipality, it is in the opinion of our office that the impacts to the parcel are adequately mitigated.

APPENDIX A
PROJECT FIGURES

INVENTORY

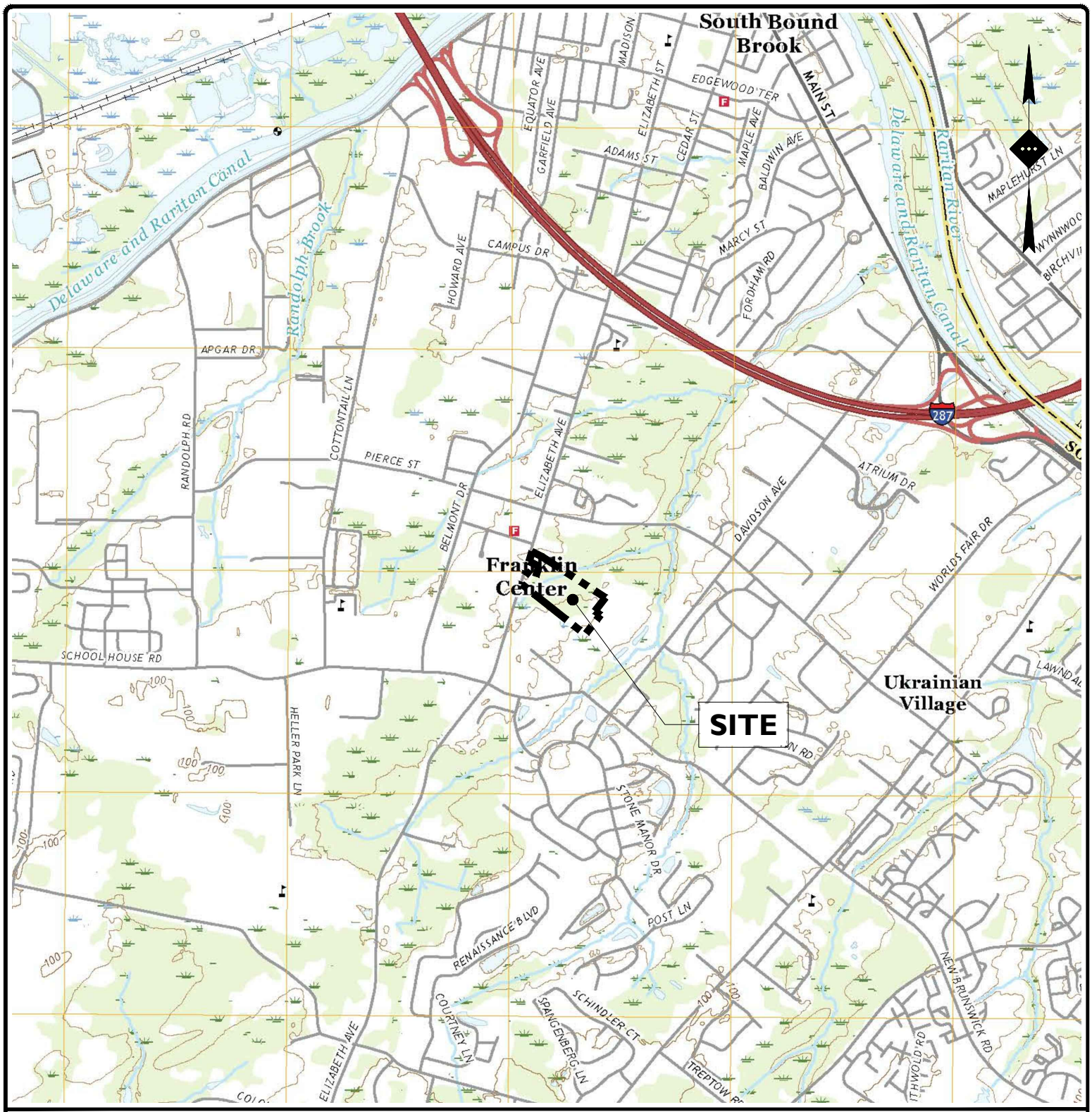
USGS QUADRANGLE MAPS

AERIAL MAP (2020 IMAGERY)

TAX & ZONING MAP

FEMA FLOOD MAP

OVERALL SITE PLAN (NOT TO SCALE)



USGS QUADRANGLE MAP

2,000' 0' 2,000' 4,000'

GRAPHIC SCALE IN FEET

1"= 2,000'

SOURCE: USGS BOUND BROOK QUADRANGLE, NEW JERSEY, 7.5 MINUTE SERIES

CAHILL PROPERTIES, LLC

PROPOSED WAREHOUSE

BLOCK 502.01 LOTS 2 & 4
425 & 429 ELIZABETH AVENUE
TOWNSHIP OF FRANKLIN, SOMERSET COUNTY, NEW JERSEY

DRAWN BY:	ERS
CHECKED BY:	JSK
DATE:	01/14/2020
SCALE:	1" = 2,000'
PROJECT ID:	RUT-200203

STONEFIELD engineering & design

Rutherford, NJ · New York, NY · Boston, MA
Princeton, NJ · Tampa, FL · Detroit, MI
www.stonefieldeng.com

Headquarters: 92 Park Avenue, Rutherford, NJ 07070
Phone 201.340.4468 · Fax 201.340.4472

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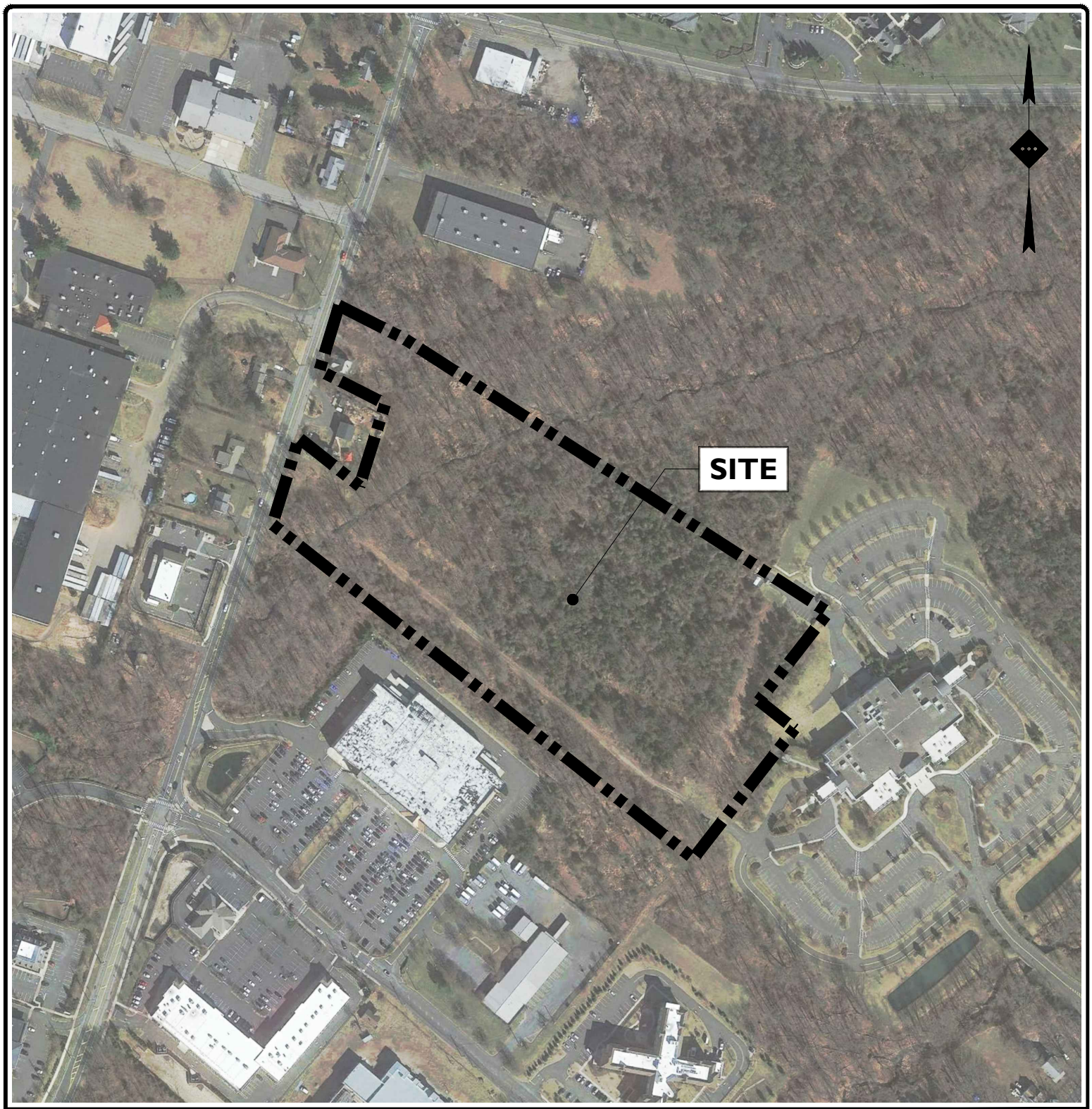

AERIAL MAP (2020 IMAGERY)

300' 0' 300' 600'

GRAPHIC SCALE IN FEET

1"= 300'

SOURCE: GOOGLE EARTH

DRAWN BY:	ERS
CHECKED BY:	JSK
DATE:	01/14/2020
SCALE:	1" = 300'
PROJECT ID:	RUT-200203

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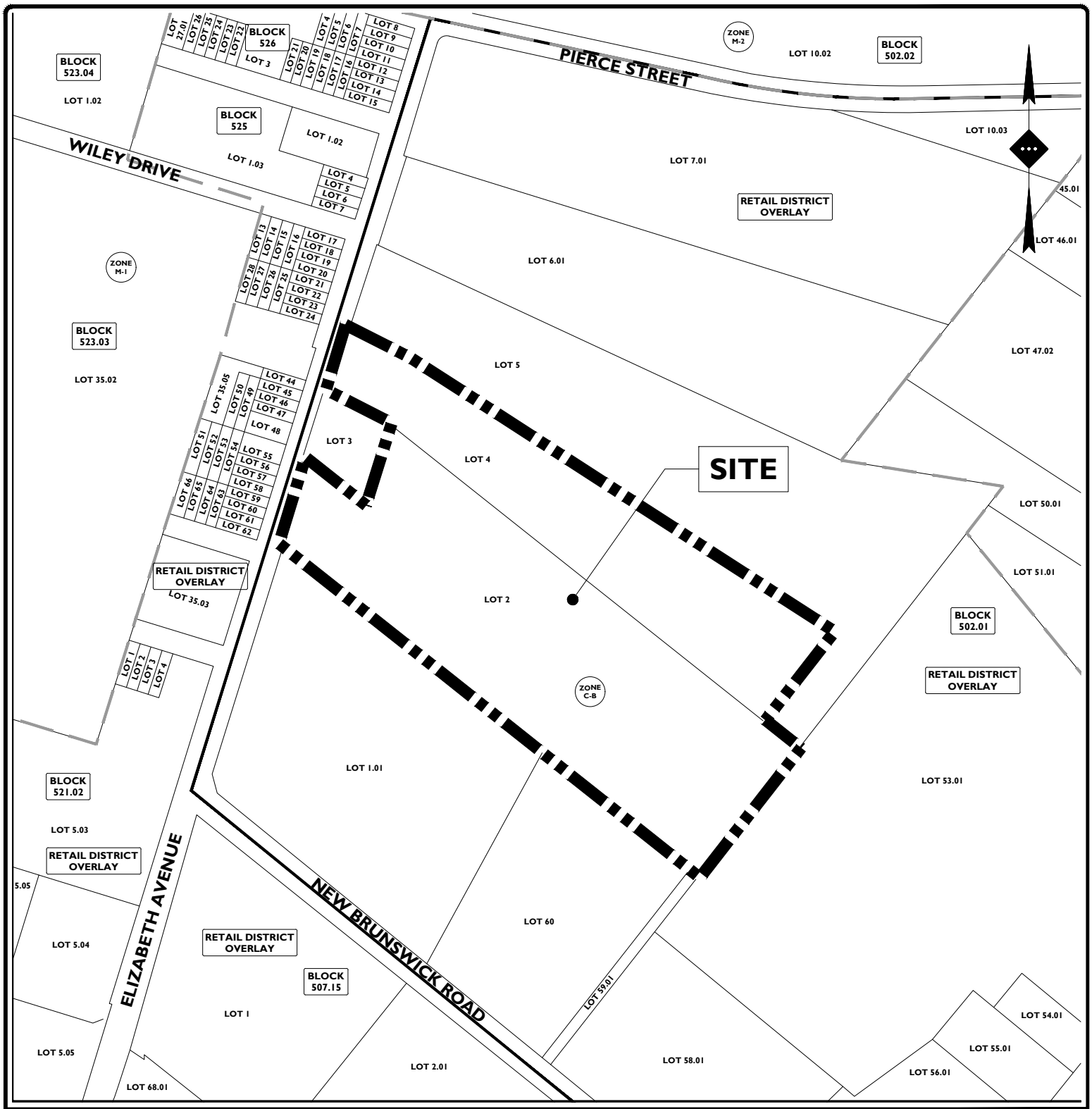

TAX & ZONING MAP

300' 0' 300' 600'

GRAPHIC SCALE IN FEET

1"= 300'

SOURCE: TOWNSHIP OF FRANKLIN MAP 75, 75.02, 75.03, 89, 90 & 94

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SCALE:	1" = 300'
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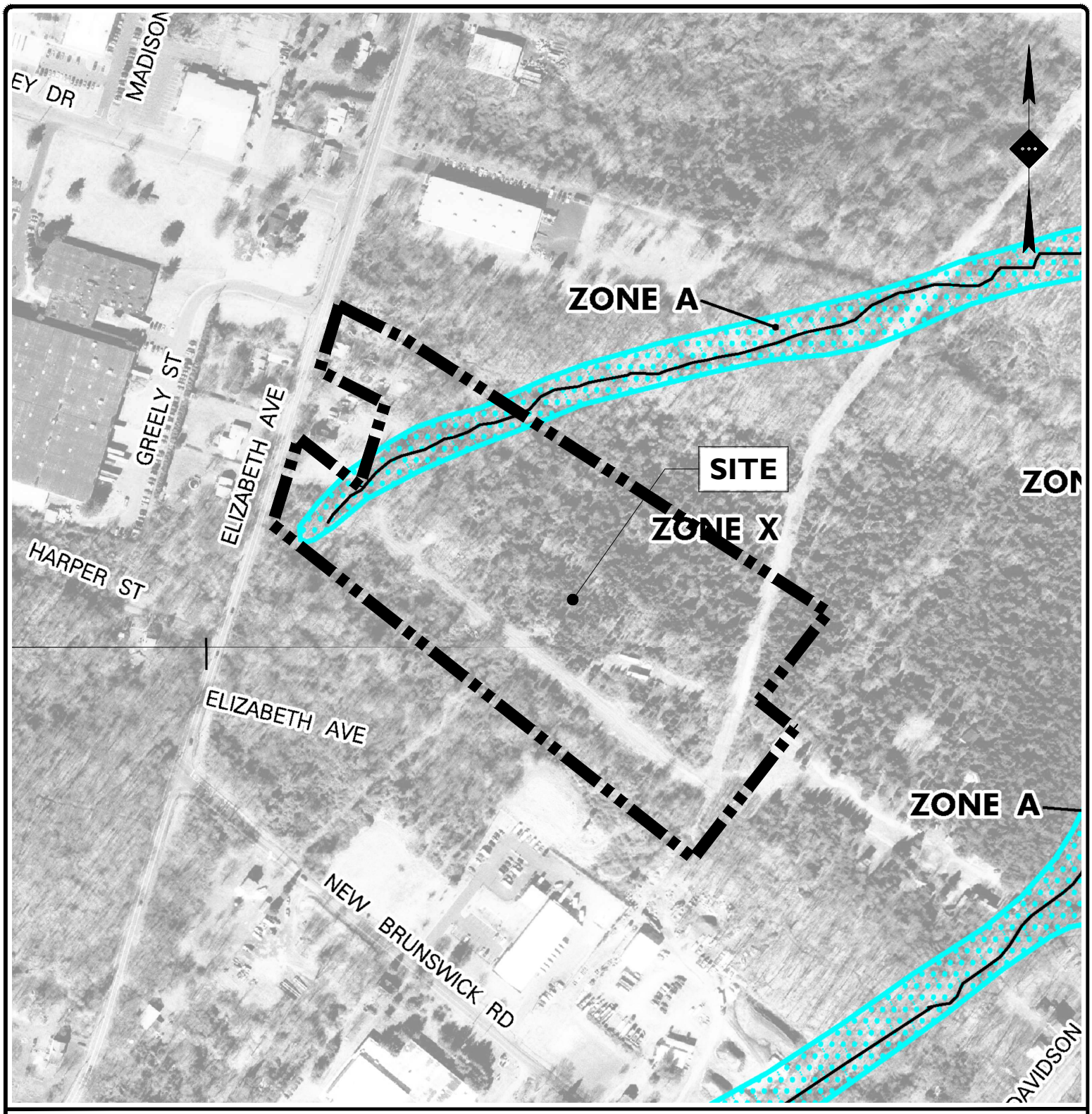

FEMA FLOOD MAP

300' 0' 300' 600'

GRAPHIC SCALE IN FEET

1"= 300'

SOURCE: FEMA FIRM NO 34035C0166E & 34035C0168E EFFECTIVE 09/20/2007

CAHILL PROPERTIES, LLC

PROPOSED WAREHOUSE

BLOCK 502.01 LOTS 2 & 4
425 & 429 ELIZABETH AVENUE
TOWNSHIP OF FRANKLIN, SOMERSET COUNTY, NEW JERSEY

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LAND USE AND ZONING

BLOCK 502.01, LOTS 2 & 4

BUSINESS AND INDUSTRY DISTRICT (B-1)

PROPOSED USE

WAREHOUSE

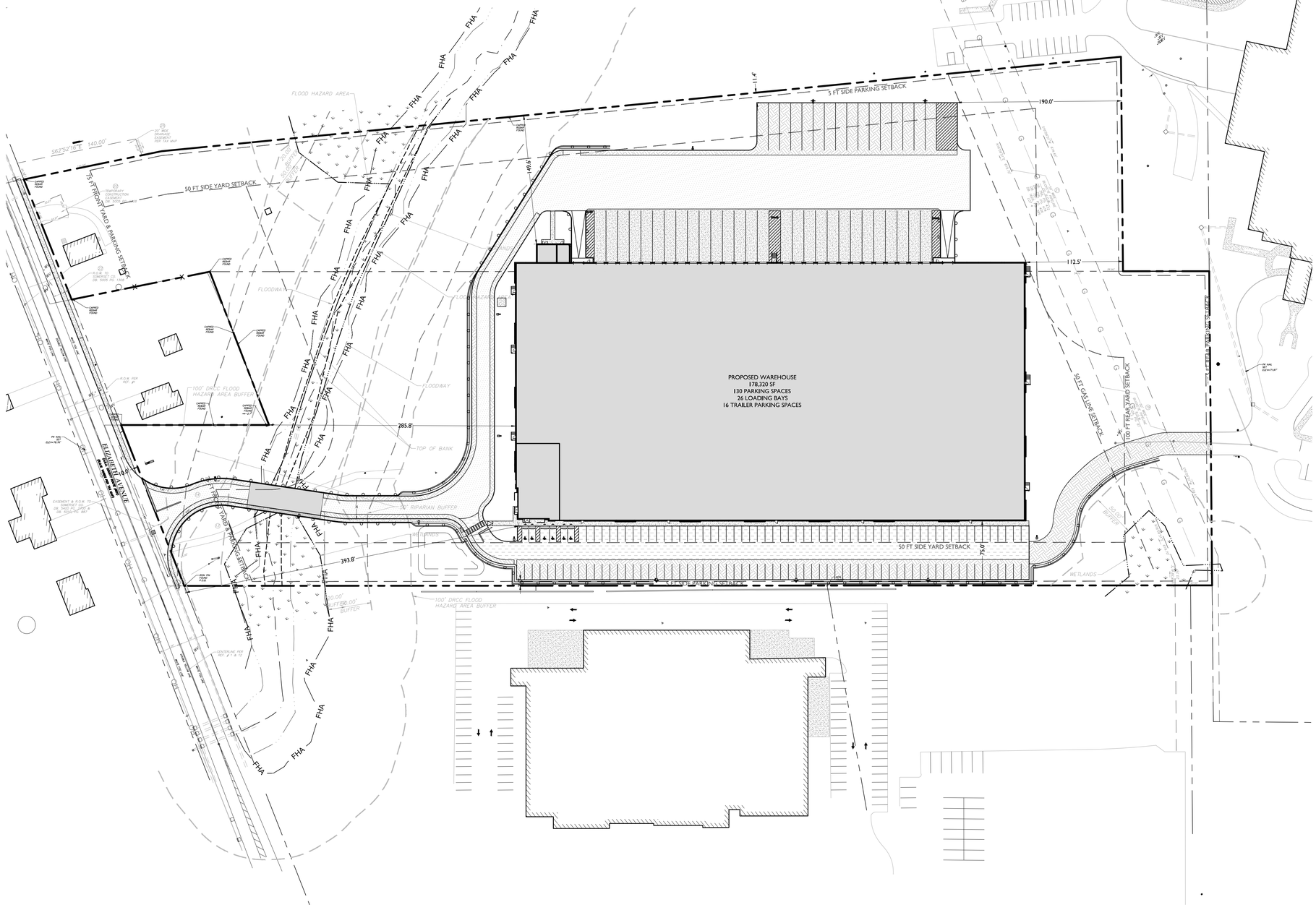
PERMITTED USE

ZONING REQUIREMENT	REQUIRED	EXISTING	PROPOSED	COMPLIES
MINIMUM LOT AREA	87,120 SF (2.0 AC)	666,042 SF (15.29 AC)	666,042 SF (15.29 AC)	YES
MAXIMUM IMPERVIOUS COVERAGE	65% (432,927.3 SF)	0.35% (2,322.8 SF)	49.7% (331,298 SF)	YES
MAXIMUM BUILDING COVERAGE	50% (333,021 SF)	0.17% (1,118.3 SF)	26.8% (178,320 SF)	YES
MAXIMUM BUILDING HEIGHT	65 FT	< 65 FT	65 FT	YES
MINIMUM FRONT YARD SETBACK	50 FT	13.6 FT	393.8 FT	YES
MINIMUM SIDE YARD SETBACK (ONE)	10 FT	37.5 FT	75.0 FT	YES
MINIMUM SIDE YARD SETBACK (BOTH)	50 FT	115.4 FT	224.6 FT	YES
MINIMUM REAR YARD SETBACK	25 FT	1,182.6 FT	112.5 FT	YES
SIDE PARKING SETBACK	5 FT	35.2 FT	7.0 FT	YES
REAR PARKING SETBACK	5 FT	1,171.5 FT	190.0 FT	YES

OFF-STREET PARKING REQUIREMENTS

CODE SECTION	REQUIRED	PROPOSED
SCHEDULE 4	WAREHOUSE: 1 SPACE PER 1,000 SF FOR FIRST 5,000 SF 1 SPACE PER 2,500 SF THEREAFTER (5,000 SF)(1 SPACE/1,000 SF) = 5 SPACES (173,320 SF)(1 SPACE/2,500 SF) = 69 SPACES **TOTAL: 5 + 69 = 74 SPACES**	130 SPACES
	90° PARKING: 9 FT X 18 FT WITH 26 FT AISLE	9 FT X 18 FT W/ 26 FT AISLE
§ 112.103	TRUCK LOADING DIMENSIONS: THE DISTANCE FROM BUILDING TO THE LIMITING BOUNDARY OF THE LOADING AREA SHALL BE TWICE THE LENGTH OF THE LONGEST DELIVERY VEHICLE (73.5 FT)(2) = 147.0 FT	130.0 FT (V)

(V) VARIANCE



SYMBOL / DESCRIPTION

- PROPERTY LINE
- SETBACK LINE
- SAWCUT LINE
- PROPOSED CURB
- PROPOSED DEPRESSED CURB
- PROPOSED FLUSH CURB
- PROPOSED SIGNS / BOLLARDS
- PROPOSED BUILDING
- PROPOSED CONCRETE
- PROPOSED PERVIOUS PAVER
- PROPOSED LIGHT DUTY ASPHALT
- PROPOSED HEAVY DUTY ASPHALT
- PROPOSED AREA LIGHT
- PROPOSED RETAINING WALL
- PROPOSED CHAINLINK FENCE
- PROPOSED GUARDRAIL
- PROPOSED BUILDING DOORS

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY AND FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS AND THE PROPOSED SCOPE OF WORK (INCLUDING DIMENSIONS, LAYOUT, ETC.) PRIOR TO INITIATING THE IMPROVEMENTS IDENTIFIED WITHIN THESE DOCUMENTS. SHOULD ANY DISCREPANCY BE FOUND BETWEEN THE EXISTING SITE CONDITIONS AND THE PROPOSED WORK THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. PRIOR TO THE START OF CONSTRUCTION.
2. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND ENSURE THAT ALL REQUIRED APPROVALS HAVE BEEN OBTAINED PRIOR TO THE START OF CONSTRUCTION. COPIES OF ALL REQUIRED PERMITS AND APPROVALS SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION.
3. ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS STONEFIELD ENGINEERING & DESIGN, LLC. AND ITS SUB-CONSULTANTS FROM AND AGAINST ANY DAMAGES AND LIABILITIES INCLUDING ATTORNEY'S FEES ARISING OUT OF CLAIMS BY EMPLOYEES OF THE CONTRACTOR IN ADDITION TO CLAIMS CONNECTED TO THE PROJECT AS A RESULT OF NOT CARRYING THE PROPER INSURANCE FOR WORKERS COMPENSATION, LIABILITY INSURANCE, AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE.
4. THE CONTRACTOR SHALL NOT DEVIATE FROM THE PROPOSED IMPROVEMENTS IDENTIFIED WITHIN THIS PLAN SET UNLESS APPROVAL IS PROVIDED IN WRITING BY STONEFIELD ENGINEERING & DESIGN, LLC.
5. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF CONSTRUCTION.
6. THE CONTRACTOR SHALL NOT PERFORM ANY WORK OR CAUSE DISTURBANCE ON A PRIVATE PROPERTY NOT CONTROLLED BY THE PERSON OR ENTITY WHO HAS AUTHORIZED THE WORK WITHOUT PRIOR WRITTEN CONSENT FROM THE OWNER OF THE PRIVATE PROPERTY.
7. THE CONTRACTOR IS RESPONSIBLE TO RESTORE ANY DAMAGED OR UNDERMINED STRUCTURE OR SITE FEATURE THAT IS IDENTIFIED TO REMAIN ON THE PLAN SET. ALL REPAIRS SHALL USE NEW MATERIALS TO RESTORE THE FEATURE TO ITS EXISTING CONDITION AT THE CONTRACTORS EXPENSE.
8. CONTRACTOR IS RESPONSIBLE TO PROVIDE THE APPROPRIATE SHOP DRAWINGS, PRODUCT DATA, AND OTHER REQUIRED SUBMITTALS FOR REVIEW. STONEFIELD ENGINEERING & DESIGN, LLC. WILL REVIEW THE SUBMITTALS IN ACCORDANCE WITH THE DESIGN INTENT AS REFLECTED WITHIN THE PLAN SET.
9. THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
10. THE CONTRACTOR IS REQUIRED TO PERFORM ALL WORK IN THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE APPROPRIATE GOVERNING AUTHORITY AND SHALL BE RESPONSIBLE FOR THE PROCUREMENT OF STREET OPENING PERMITS.
11. THE CONTRACTOR IS REQUIRED TO RETAIN AN OSHA CERTIFIED SAFETY INSPECTOR TO BE PRESENT ON SITE AT ALL TIMES DURING CONSTRUCTION & DEMOLITION ACTIVITIES.
12. SHOULD AN EMPLOYEE OF STONEFIELD ENGINEERING & DESIGN, LLC. BE PRESENT ON SITE AT ANY TIME DURING CONSTRUCTION, IT DOES NOT RELIEVE THE CONTRACTOR OF ANY OF THE RESPONSIBILITIES AND REQUIREMENTS LISTED IN THE NOTES WITHIN THIS PLAN SET.

60' 0' 60' 120'

GRAPHIC SCALE IN FEET

1" = 60'

ISSUE	DATE	BY	DESCRIPTION
02	06/17/2021	ERS	FOR NJDEP SUBMISSION
01	06/09/2021	ERS	FOR CLIENT REVIEW

NOT APPROVED FOR CONSTRUCTION

OWNER & APPLICANT

ORION IV ELIZABETH LOGISTICS CENTER LLC
250 VESEY STREET, 15TH FLOOR
NEW YORK, NEW YORK 10281

STONEFIELD engineering & design

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PRELIMINARY & FINAL MAJOR SITE PLAN

ELIZABETH 287 DISTRIBUTION CENTER

PROPOSED WAREHOUSE

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TOWNSHIP OF FRANKLIN
SOMERSET COUNTY, NEW JERSEY

JAMES S. KINOSIAN, P.E.
NEW JERSEY LICENSE No. 51916
LICENSED PROFESSIONAL ENGINEER

STONEFIELD engineering & design

SCALE:	1" = 60'	PROJECT ID:	PRI-210122

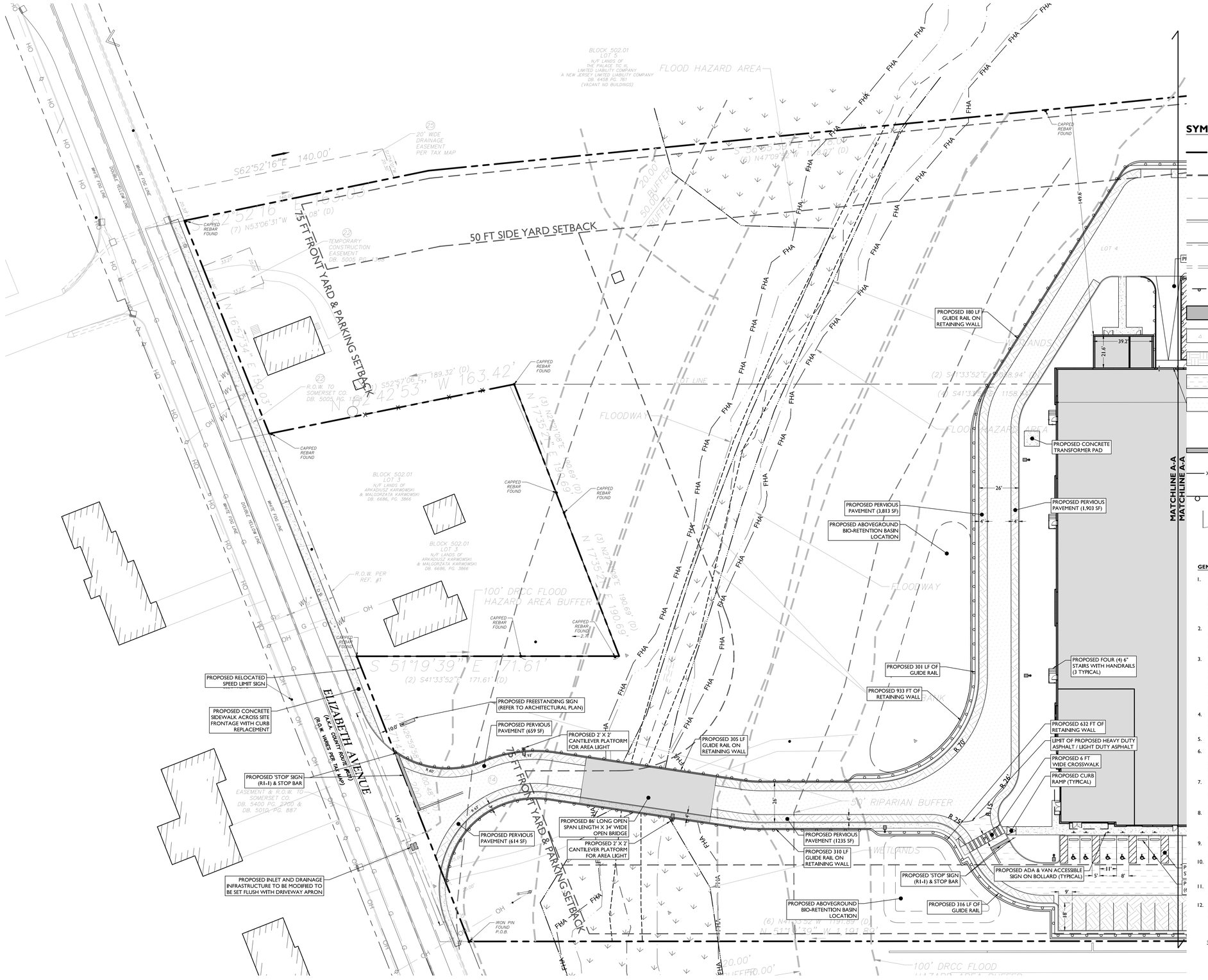
TITLE:

OVERALL SITE PLAN

DRAWING:

C-5

Z:\PROJECTS\PRI\2021\PRI-210122 BROOKFIELD PROPERTIES - 425 ELIZABETH AVENUE, FRANKLIN, NJ\CAD\PLOTS\LDP-05-06-07 SITE.DWG



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PRELIMINARY & FINAL MAJOR SITE PLAN

ELIZABETH 287 DISTRIBUTION CENTER

PROPOSED WAREHOUSE

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425 & 429 ELIZABETH AVENUE
TOWNSHIP OF FRANKLIN
SOMERSET COUNTY, NEW JERSEY

JAMES S. KINOSIAN, P.E.
NEW JERSEY LICENSE No. 51916
LICENSED PROFESSIONAL ENGINEER

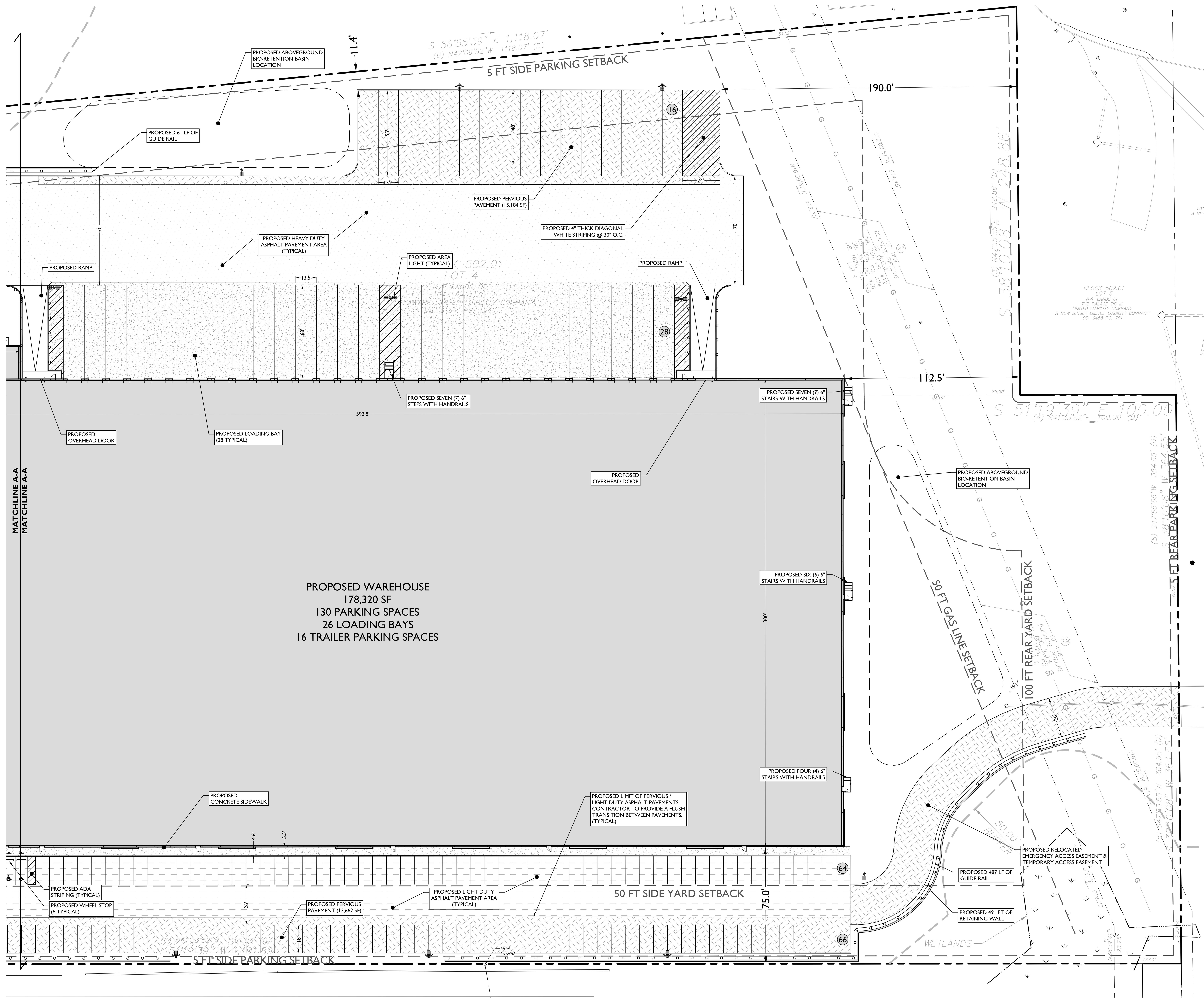
STONEFIELD engineering & design

SCALE: 1" = 30' | PROJECT ID: PRI-210122

TITLE: SITE PLAN

DRAWING: C-6

Z:\PROJECTS\PRI\2021\PRI-210122 BROOKFIELD PROPERTIES - 425 ELIZABETH AVENUE, FRANKLIN, NJ\CAD\PLOT\DP-05-04-SITE.DWG



SYMBOL	DESCRIPTION
	PROPERTY LINE
	SETBACK LINE
	SAWCUT LINE
	PROPOSED CURB
	PROPOSED DEPRESSED CURB
	PROPOSED FLUSH CURB
	PROPOSED SIGNS / BOLLARDS
	PROPOSED BUILDING
	PROPOSED CONCRETE
	PROPOSED PERVIOUS PAVER
	PROPOSED LIGHT DUTY ASPHALT
	PROPOSED HEAVY DUTY ASPHALT
	PROPOSED AREA LIGHT
	PROPOSED RETAINING WALL
	PROPOSED CHAINLINK FENCE
	PROPOSED GUARDRAIL
	PROPOSED BUILDING DOORS

GENERAL NOTES

1. THE CONTRACTOR SHALL VERIFY AND FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS AND THE PROPOSED SCOPE OF WORK (INCLUDING DIMENSIONS, LAYOUT, ETC.) PRIOR TO INITIATING THE IMPROVEMENTS IDENTIFIED WITHIN THESE DOCUMENTS. SHOULD ANY DISCREPANCY BE FOUND BETWEEN THE EXISTING SITE CONDITIONS AND THE PROPOSED WORK THE CONTRACTOR SHALL NOTIFY STONEFIELD ENGINEERING & DESIGN, LLC. PRIOR TO THE START OF CONSTRUCTION.
2. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS AND ENSURE THAT ALL REQUIRED APPROVALS HAVE BEEN OBTAINED PRIOR TO THE START OF CONSTRUCTION. COPIES OF ALL REQUIRED PERMITS AND APPROVALS SHALL BE KEPT ON SITE AT ALL TIMES DURING CONSTRUCTION.
3. ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS STONEFIELD ENGINEERING & DESIGN, LLC. AND IT'S SUB-CONSULTANTS FROM AND AGAINST ANY DAMAGES AND LIABILITIES INCLUDING ATTORNEY'S FEES ARISING OUT OF CLAIMS BY EMPLOYEES OF THE CONTRACTOR IN ADDITION TO CLAIMS CONNECTED TO THE PROJECT AS A RESULT OF NOT CARRYING THE PROPER INSURANCE FOR WORKERS COMPENSATION, LIABILITY INSURANCE, AND LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE.
4. THE CONTRACTOR SHALL NOT DEVIATE FROM THE PROPOSED IMPROVEMENTS IDENTIFIED WITHIN THIS PLAN SET UNLESS APPROVAL IS PROVIDED IN WRITING BY STONEFIELD ENGINEERING & DESIGN, LLC.
5. THE CONTRACTOR IS RESPONSIBLE TO DETERMINE THE MEANS AND METHODS OF CONSTRUCTION.
6. THE CONTRACTOR SHALL NOT PERFORM ANY WORK OR CAUSE DISTURBANCE ON A PRIVATE PROPERTY NOT CONTROLLED BY THE PERSON OR ENTITY WHO HAS AUTHORIZED THE WORK WITHOUT PRIOR WRITTEN CONSENT FROM THE OWNER OF THE PRIVATE PROPERTY.
7. THE CONTRACTOR IS RESPONSIBLE TO RESTORE ANY DAMAGED OR UNDERMINED STRUCTURE OR SITE FEATURE THAT IS IDENTIFIED TO REMAIN ON THE PLAN SET. ALL REPAIRS SHALL USE NEW MATERIALS TO RESTORE THE FEATURE TO ITS EXISTING CONDITION AT THE CONTRACTORS EXPENSE.
8. CONTRACTOR IS RESPONSIBLE TO PROVIDE THE APPROPRIATE SHOP DRAWINGS, PRODUCT DATA, AND OTHER REQUIRED SUBMITTALS FOR REVIEW. STONEFIELD ENGINEERING & DESIGN, LLC. WILL REVIEW THE SUBMITTALS IN ACCORDANCE WITH THE DESIGN INTENT AS REFLECTED WITHIN THE PLAN SET.
9. THE CONTRACTOR IS RESPONSIBLE FOR TRAFFIC CONTROL IN ACCORDANCE WITH MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION.
10. THE CONTRACTOR IS REQUIRED TO PERFORM ALL WORK IN THE PUBLIC RIGHT-OF-WAY IN ACCORDANCE WITH THE APPROPRIATE GOVERNING AUTHORITY AND SHALL BE RESPONSIBLE FOR THE PROCUREMENT OF STREET OPENING PERMITS.
11. THE CONTRACTOR IS REQUIRED TO RETAIN AN OSHA CERTIFIED SAFETY INSPECTOR TO BE PRESENT ON SITE AT ALL TIMES DURING CONSTRUCTION & DEMOLITION ACTIVITIES.
12. SHOULD AN EMPLOYEE OF STONEFIELD ENGINEERING & DESIGN, LLC. BE PRESENT ON SITE AT ANY TIME DURING CONSTRUCTION, IT DOES NOT RELIEVE THE CONTRACTOR OF ANY OF THE RESPONSIBILITIES AND REQUIREMENTS LISTED IN THE NOTES WITHIN THIS PLAN SET.

30' 0' 30' 60'

GRAPHIC SCALE IN FEET
1" = 30'

ISSUE	DATE	BY	DESCRIPTION
02	06/17/2021	ERS	FOR NJDEP SUBMISSION
01	06/09/2021	ERS	FOR CLIENT REVIEW

NOT APPROVED FOR CONSTRUCTION

OWNER & APPLICANT
ORION IV ELIZABETH LOGISTICS CENTER LLC
250 VESEY STREET, 15TH FLOOR
NEW YORK, NEW YORK 10281

STONEFIELD engineering & design
Rutherford, NJ · New York, NY · Boston, MA
Princeton, NJ · Tampa, FL · Detroit, MI
www.stonefieldeng.com
15 Spring Street, Princeton, NJ 08542
Phone 609.362.6900

PRELIMINARY & FINAL MAJOR SITE PLAN

ELIZABETH 287 DISTRIBUTION CENTER

PROPOSED WAREHOUSE

BLOCK 502.01, LOT 2 & 4
425 & 429 ELIZABETH AVENUE
TOWNSHIP OF FRANKLIN
SOMERSET COUNTY, NEW JERSEY

JAMES S. KINOSIAN, P.E.
NEW JERSEY LICENSE No. 51916
LICENSED PROFESSIONAL ENGINEER

STONEFIELD engineering & design

SCALE: 1" = 30' | PROJECT ID: PRI-210122

TITLE: SITE PLAN

DRAWING: C-7

APPENDIX B
NRCS COUNTY SOIL SURVEY

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Somerset County, New Jersey

December 26, 2020

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, age, disability, and where applicable, sex, marital status, familial status, parental status, religion, sexual orientation, genetic information, political beliefs, reprisal, or because all or a part of an individual's income is derived from any public assistance program. (Not all prohibited bases apply to all programs.) Persons with disabilities who require

alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact USDA's TARGET Center at (202) 720-2600 (voice and TDD). To file a complaint of discrimination, write to USDA, Director, Office of Civil Rights, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 or call (800) 795-3272 (voice) or (202) 720-6382 (TDD). USDA is an equal opportunity provider and employer.

Contents

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

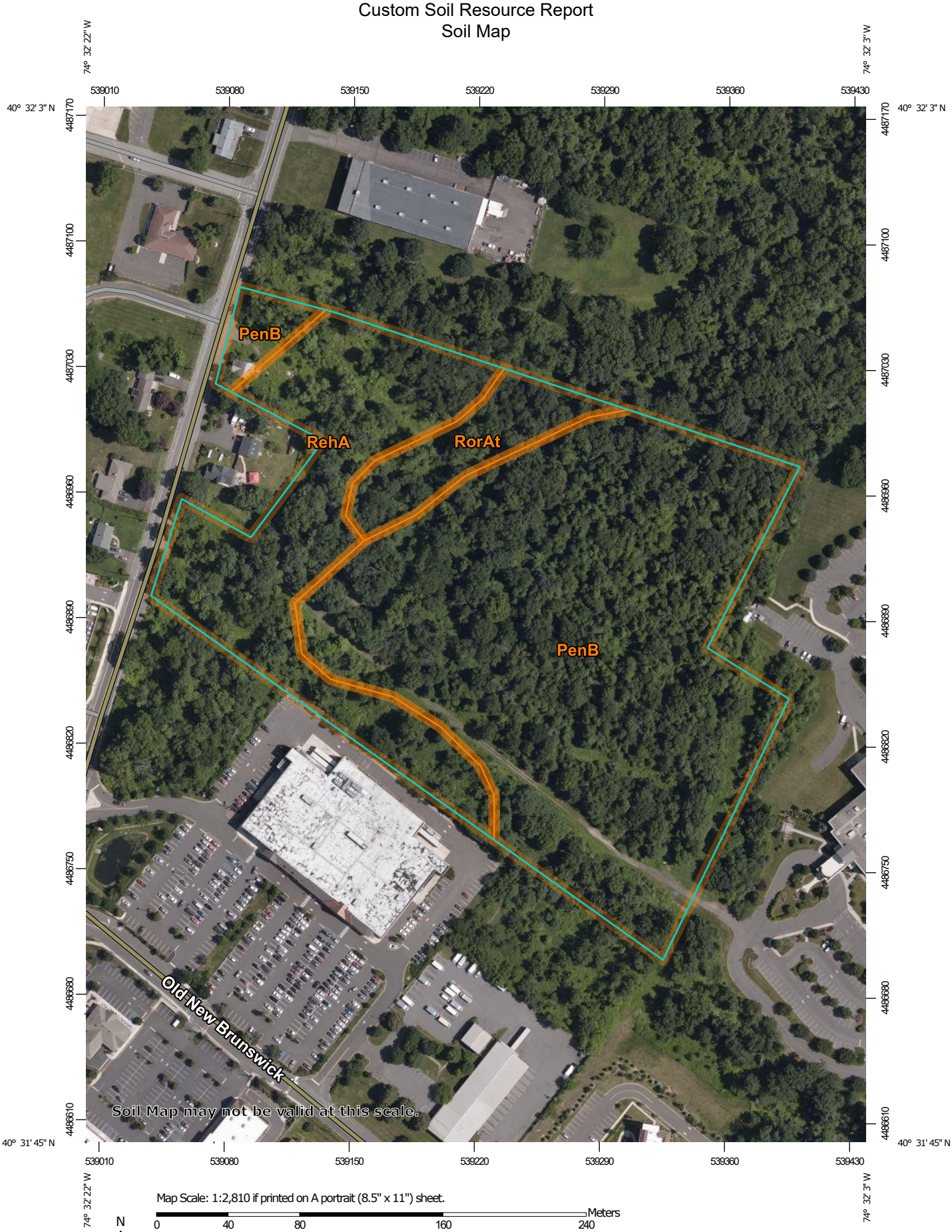
After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map



Map Scale: 1:2,810 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 40 80 160 240

Feet: 0 100 200 400 600

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 18N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Somerset County, New Jersey
Survey Area Data: Version 18, Jun 1, 2020

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 22, 2019—Jul 13, 2019

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
PenB	Penn silt loam, 2 to 6 percent slopes	12.5	67.8%
RehA	Reaville silt loam, 0 to 2 percent slopes	4.7	25.6%
RorAt	Rowland silt loam, 0 to 2 percent slopes, frequently flooded	1.2	6.6%
Totals for Area of Interest		**18.4**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or

landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Somerset County, New Jersey

PenB—Penn silt loam, 2 to 6 percent slopes

Map Unit Setting

National map unit symbol: 2w05z
Elevation: 100 to 250 feet
Mean annual precipitation: 30 to 64 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 131 to 178 days
Farmland classification: All areas are prime farmland

Map Unit Composition

Penn and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Penn

Setting

Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Interfluve
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Fine-loamy residuum weathered from acid reddish shale, siltstone, and fine-grain sandstone

Typical profile

Ap - 0 to 8 inches: silt loam
Bt1 - 8 to 12 inches: silt loam
Bt2 - 12 to 25 inches: channery silt loam
C - 25 to 30 inches: very channery silt loam
R - 30 to 40 inches: bedrock

Properties and qualities

Slope: 2 to 6 percent
Depth to restrictive feature: 20 to 40 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 4.5 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Readington
Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Klinesville
Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Norton
Percent of map unit: 5 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

RehA—Reaville silt loam, 0 to 2 percent slopes

Map Unit Setting
National map unit symbol: 1j535
Elevation: 300 to 1,000 feet
Mean annual precipitation: 30 to 64 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 131 to 178 days
Farmland classification: Farmland of statewide importance

Map Unit Composition
Reaville and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Reaville

Setting
Landform: Interfluves
Down-slope shape: Convex
Across-slope shape: Linear

Parent material: Interbedded fine-grained fine-loamy residuum weathered from sandstone and siltstone and/or shale

Typical profile

A - 0 to 10 inches: silt loam
BA - 10 to 15 inches: channery silt loam
Bt - 15 to 22 inches: channery silt loam
C - 22 to 28 inches: very channery silt loam
R - 28 to 80 inches: weathered bedrock

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: 20 to 39 inches to lithic bedrock
Drainage class: Somewhat poorly drained
Runoff class: Very high
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.06 to 0.20 in/hr)
Depth to water table: About 12 to 24 inches
Frequency of flooding: None
Frequency of ponding: None
Available water capacity: Low (about 3.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3w
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Readington

Percent of map unit: 4 percent
Landform: Hillsides
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Bucks

Percent of map unit: 4 percent
Landform: Hills
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Reaville, poorly drained

Percent of map unit: 4 percent
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

Croton

Percent of map unit: 3 percent
Landform: Depressions
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Concave
Across-slope shape: Concave
Hydric soil rating: Yes

RorAt—Rowland silt loam, 0 to 2 percent slopes, frequently flooded

Map Unit Setting

National map unit symbol: 1j504
Elevation: 200 to 1,000 feet
Mean annual precipitation: 30 to 64 inches
Mean annual air temperature: 46 to 79 degrees F
Frost-free period: 131 to 178 days
Farmland classification: Farmland of local importance

Map Unit Composition

Rowland, frequently flooded, and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Rowland, Frequently Flooded

Setting

Landform: Flood plains
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Red and brown fine-loamy alluvium derived from sandstone and shale and/or conglomerate

Typical profile

A1 - 0 to 3 inches: silt loam
A2 - 3 to 10 inches: silt loam
B - 10 to 40 inches: silt loam
2C - 40 to 65 inches: Error

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.20 to 2.00 in/hr)
Depth to water table: About 12 to 36 inches
Frequency of flooding: FrequentNone
Frequency of ponding: Frequent
Available water capacity: Moderate (about 7.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2w
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Birdsboro

Percent of map unit: 5 percent
Landform: Stream terraces
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Riser
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

Raritan, rarely flooded

Percent of map unit: 5 percent
Landform: Stream terraces
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Bowmansville, frequently flooded

Percent of map unit: 5 percent
Landform: Flood plains
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: Yes

References

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APPENDIX C
NATURAL HERITAGE DATABASE REPORT

State of New Jersey
MAIL CODE 501-04
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF PARKS & FORESTRY
NEW JERSEY FOREST SERVICE
OFFICE OF NATURAL LANDS MANAGEMENT
P.O. BOX 420
TRENTON, NJ 08625-0420
Tel. (609) 984-1339 Fax (609) 984-0427

PHILIP D. MURPHY
Governor

SHEILA Y. OLIVER
Lt. Governor

SHAWN M. LATOURETTE
Acting Commissioner

March 16, 2021

Nafen Bachkhaz
Stonefield Engineering & Design, LLC
92 Park Avenue
Rutherford, NJ 07070

Re: Franklin Township Warehouse
Block(s) - 502.01, Lot(s) - 2 & 4
Franklin Township, Somerset County

Dear Nafen Bachkhaz:

Thank you for your data request regarding rare species information for the above referenced project site.

Searches of the Natural Heritage Database and the Landscape Project (Version 3.3) are based on a representation of the boundaries of your project site in our Geographic Information System (GIS). We make every effort to accurately transfer your project bounds from the map(s) submitted with the Natural Heritage Data Request Form into our GIS. We do not typically verify that your project bounds are accurate, or check them against other sources.

We have checked the Landscape Project habitat mapping and the Biotics Database for occurrences of any rare wildlife species or wildlife habitat on the referenced site. The Natural Heritage Database was searched for occurrences of rare plant species or ecological communities that may be on the project site. Please refer to Table 1 (attached) to determine if any rare plant species, ecological communities, or rare wildlife species or wildlife habitat are documented on site. A detailed report is provided for each category coded as 'Yes' in Table 1.

We have also checked the Landscape Project habitat mapping and Biotics Database for occurrences of rare wildlife species or wildlife habitat in the immediate vicinity (within ¼ mile) of the referenced site. Additionally, the Natural Heritage Database was checked for occurrences of rare plant species or ecological communities within ¼ mile of the site. Please refer to Table 2 (attached) to determine if any rare plant species, ecological communities, or rare wildlife species or wildlife habitat are documented within the immediate vicinity of the site. Detailed reports are provided for all categories coded as 'Yes' in Table 2. These reports may include species that have also been documented on the project site.

We have also checked the Landscape Project habitat mapping and Biotics Database for all occurrences of rare wildlife species or wildlife habitat within one mile of the referenced site. Please refer to Table 3 (attached) to determine if any rare wildlife species or wildlife habitat is documented within one mile of the project site. Detailed reports are provided for each category coded as 'Yes' in Table 3. These reports may include species that have also been documented on the project site.

For requests submitted in order to make a riparian zone width determination as part of a Flood Hazard Area Control Act (FHACA) rule application, we report records for all rare plant species and ecological communities tracked by the Natural Heritage Program that may be on, or in the immediate vicinity of, your project site. A subset of these plant species is also covered by the FHACA rules when the records are located within one mile of the project site. One mile searches for FHACA plant species will only report precisely located occurrences for those wetland plant species identified under the FHACA regulations as being critically dependent on the watercourse. Please refer to Table 3 (attached) to determine if any precisely located rare wetland plant species covered by the FHACA rules have been documented. Detailed reports are

provided for each category coded as 'Yes' in Table 3. These reports may include species that have also been documented on, or in the immediate vicinity of, the project site.

The Natural Heritage Program reviews its data periodically to identify priority sites for natural diversity in the State. Included as priority sites are some of the State's best habitats for rare and endangered species and ecological communities. Please refer to Tables 1, 2 and 3 (attached) to determine if any priority sites are located on, in the immediate vicinity, or within one mile of the project site.

A list of rare plant species and ecological communities that have been documented from the county (or counties), referenced above, can be downloaded from http://www.state.nj.us/dep/parksandforests/natural/heritage/countylist.html. If suitable habitat is present at the project site, the species in that list have potential to be present.

Status and rank codes used in the tables and lists are defined in EXPLANATION OF CODES USED IN NATURAL HERITAGE REPORTS, which can be downloaded from http://www.state.nj.us/dep/parksandforests/natural/heritage/nhpcodes_2010.pdf.

Beginning May 9, 2017, the Natural Heritage Program reports for wildlife species will utilize data from Landscape Project Version 3.3. If you have questions concerning the wildlife records or wildlife species mentioned in this response, we recommend that you visit the interactive web application at the following URL, https://njdep.maps.arcgis.com/apps/webappviewer/index.html?id=0e6a44098c524ed99bf739953cb4d4c7, or contact the Division of Fish and Wildlife, Endangered and Nongame Species Program at (609) 292-9400.

For additional information regarding any Federally listed plant or animal species, please contact the U.S. Fish & Wildlife Service, New Jersey Field Office at http://www.fws.gov/northeast/njfieldoffice/endangered/consultation.html.

PLEASE SEE 'CAUTIONS AND RESTRICTIONS ON NHP DATA', which can be downloaded from http://www.state.nj.us/dep/parksandforests/natural/heritage/newcaution2008.pdf.

Thank you for consulting the Natural Heritage Program. The attached invoice details the payment due for processing this data request. Feel free to contact us again regarding any future data requests.

Sincerely,

Robert J. Cartica
Administrator

c: NHP File No. 21-4007455-21498

Table 1: On Site Data Request Search Results (6 Possible Reports)

Report Name	Included	Number of Pages
1. Possibly on Project Site Based on Search of Natural Heritage Database: Rare Plant Species and Ecological Communities Currently Recorded in the New Jersey Natural Heritage Database	No	0 pages included
2. Natural Heritage Priority Sites On Site	No	0 pages included
3. Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.3 Species Based Patches	Yes	1 page(s) included
4. Vernal Pool Habitat on the Project Site Based on Search of Landscape Project 3.3	No	0 pages included
5. Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.3 Stream Habitat File	No	0 pages included
6. Other Animal Species On the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program	Yes	1 page(s) included

Rare Wildlife Species or Wildlife Habitat on the Project Site Based on Search of Landscape Project 3.3 Species Based Patches

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
Aves								
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N

Other Animal Species On the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program

Scientific Name	Common Name	Federal Protection Status	State Protection Status	Grank	Srank
Invertebrate Animals					
Metarranthis pilosaria	Coastal Bog Metarranthis			G3G4	S3S4

Total number of records: 1

Table 2: Vicinity Data Request Search Results (6 possible reports)

Report Name	Included	Number of Pages
1. Immediate Vicinity of the Project Site Based on Search of Natural Heritage Database: Rare Plant Species and Ecological Communities Currently Recorded in the New Jersey Natural Heritage Database	No	0 pages included
2. Natural Heritage Priority Sites within the Immediate Vicinity	No	0 pages included
3. Rare Wildlife Species or Wildlife Habitat Within the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches	Yes	1 page(s) included
4. Vernal Pool Habitat In the Immediate Vicinity of Project Site Based on Search of Landscape Project 3.3	No	0 pages included
5. Rare Wildlife Species or Wildlife Habitat In the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.3 Stream Habitat File	No	0 pages included
6. Other Animal Species In the Immediate Vicinity of the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program	Yes	1 page(s) included

Rare Wildlife Species or Wildlife Habitat Within the Immediate Vicinity of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
Aves								
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N

Other Animal Species
In the Immediate Vicinity of the Project Site Based on
Additional Species Tracked by
Endangered and Nongame Species Program

Scientific Name	Common Name	Federal Protection Status	State Protection Status	Grank	Srank
Invertebrate Animals					
Metarranthis pilosaria	Coastal Bog Metarranthis			G3G4	S3S4

Total number of records: 1

Table 3: Within 1 Mile for Riparian Zone Width Determination
(6 possible reports)

Report Name	**Included**	**Number of Pages**
1. Rare Plant Species Occurrences for Riparian Zone Width Determination (Flood Hazard Area Control Act Rule Appplication) - Within One Mile of the Project Site Based on Search of Natural Heritage Database	No	0 pages included
2. Natural Heritage Priority Sites for Riparian Zone Width Determination - Within One Mile of the Project Site	No	0 pages included
3. Rare Wildlife Species or Wildlife Habitat for Riparian Zone Width Determination - Within One Mile of the Project Site Based on Search of Landscape Project 3.3 Species Based Patches	Yes	1 page(s) included
4. Vernal Pool Habitat for Riparian Zone Width Determination - Within One Mile of the Project Site Based on Search of Landscape Project 3.3	Yes	1 page(s) included
5. Rare Wildlife Species or Wildlife Habitat for Riparian Zone Width Determination - Within One Mile of the Project Site Based on Search of Landscape Project 3.3 Stream Habitat File	No	0 pages included
6. Other Animal Species for Riparian Zone Width Determination - Within One Mile of the Project Site Based on Additional Species Tracked by Endangered and Nongame Species Program	Yes	1 page(s) included

Rare Wildlife Species or Wildlife Habitat for Riparian Zone Width Determination
Within One Mile of the Project Site
Based on Search of Landscape Project 3.3 Species Based Patches

Class	Common Name	Scientific Name	Feature Type	Rank	Federal Protection Status	State Protection Status	Grank	Srank
Aves								
	Bald Eagle	Haliaeetus leucocephalus	Foraging	4	NA	State Endangered	G5	S1B,S2N
	Bald Eagle	Haliaeetus leucocephalus	Nest	4	NA	State Endangered	G5	S1B,S2N
	Cooper's Hawk	Accipiter cooperii	Breeding Sighting	2	NA	Special Concern	G5	S3B,S4N
	Great Blue Heron	Ardea herodias	Foraging	2	NA	Special Concern	G5	S3B,S4N

Vernal Pool Habitat for Riparian Zone Width Determination
Within One Mile of the Project Site
Based on Search of Landscape Project 3.3

Vernal Pool Habitat Type	Vernal Pool Habitat ID
Potential vernal habitat area	1817

Total number of records: 1

Monday, March 15, 2021

NHP File No.: 21-4007455-21498

Other Animal Species for Riparian Zone Width Determination
Within One Mile of the Project Site
Based on Additional Species Tracked by
Endangered and Nongame Species Program

Scientific Name	Common Name	Federal Protection Status	State Protection Status	Grank	Srank
Invertebrate Animals					
Metarranthis pilosaria	Coastal Bog Metarranthis			G3G4	S3S4

Total number of records: 1