ENVIRONMENTAL IMPACT STATEMENT

Prepared for

Proposed Warehouse Building

Davidson Properties, LLC

Block 468.01; Lot 20.01 230 Davidson Avenue Township of Franklin Somerset County, NJ

Prepared by:



125 Half Mile Road, Suite 207 Red Bank, NJ 07701 732-825-6800

James Thaon, P.E. New Jersey Professional Engineer License No. 54376

> January 2023 Revised: October 2023 BENJ File No.: JS200729

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1.0 INTRODUCTION

This Environmental Impact Statement (EIS) has been prepared by Bohler Engineering NJ, LLC. at the request of Davidson Properties, LLC to satisfy the Site Plan application requirements of the Township of Franklin for the subject property. Specifically, we have prepared this report to satisfy the Environmental Impact Statement requirements of the Township of Franklin application checklist (Chapter 112-199 of the Township Franklin Code). This project proposes to construct an approximate 37,460 SF warehouse of which 1,950 SF consists of an office and maintain an existing building with 8,258 SF of office and a 9,425 SF of light manufacturing. The construction will also include associated parking, loading docks, landscaping, lighting, stormwater management, and utilities to be situated on Block 468.01, Lot 20.01 in the Township of Franklin, Somerset County, New Jersey.

This EIS has been prepared to describe and analyze all direct and indirect environmental effects that the proposed improvements will have on the site and adjacent areas. The report will also provide information and analysis pertaining to the project's location. This includes a description of the proposed developments, an inventory of the existing environmental conditions, the probable impact of the project on these conditions, and an assessment of the probable adverse environmental impacts that this project may cause on the environment. Furthermore, the EIS will provide alternatives to the proposed project and will present a discussion on the implications of the proposed project on the population, distribution, and concentration. Additionally, it will describe the relationship between the short-term uses of the environment and the maintenance and enhancement of long-term productivity.

2.0 PROJECT DESCRIPTION

The development project involves construction of a 37,460 SF warehouse with 70 proposed parking spaces, 5 loading docks, one drive in ramp and 11 trailer parking spaces. The related site amenities and improvements include parking, driveway access, lighting, landscaping, utilities, and stormwater management facilities on Block 468.01; Lot 20.01 in the Township of Franklin, Somerset County, New Jersey. Under the proposed conditions, access to the site will be provided by a two-way driveway on Davidson Avenue. A separate traffic analysis has been performed for the project provided under separate cover.

The subject site comprises approximately 4.88-acres of land and is located along Davidson Avenue in Franklin. Currently, the site is a constructed office and light manufacturing use. The site is bordered to the north with an office complex, to the south with an industrial use building, to the west by an office building on the opposite side of Davidson Avenue and to the east with an office building on the opposite side of Atrium Drive. The proposed improvements will require clearing a large portion of the site and re-grading for placement of the proposed improvements.

3.0 SITE DESCRIPTION AND INVENTORY

3.1 Air Quality

The existing property is located between Davidson Avenue and Atrium Drive. Heavy automobile traffic traveling around the surrounding commercial and residential parcels are the primary contributors to the air quality experienced around the subject site. It is anticipated that the increase in the levels of carbon monoxide, due to the increase in traffic from the proposed development, will be insignificant to what is presently produced by the surrounding uses.

3.2 Water Quality

The site is not impacted by any existing streams or state open waters. The onsite stormwater management facility is designed to achieve the following in accordance with NJDEP and Township stormwater management regulations:

- Decrease in peak rate of onsite storm runoff being discharged from the property.
- An increase in impervious cover on-site will be required to be mitigated by the proposed use of water quality BMP's such as porous pavement to address NJDEP and Municipal water quality control requirements for TSS removal.

To meet the required criteria, stormwater runoff from the roof, loading docks, and parking areas will be collected by roof leaders and inlets and conveyed by storm pipe to the porous pavement systems or above ground infiltration basins onsite. A small portion of the site near the driveway from Davidson Avenue is collected by inlets and storm pipe and routed through the existing system conveyance system.

In addition, to the above structural measures, on-structure stormwater management measures will be implemented by incorporating native vegetation.

The Site is located within Metropolitan Planning Area (PA1) and a portion of the site is not previously developed; therefore, groundwater recharge is proposed as part of the stormwater management facilities on site. The NJDEP Stormwater Management Regulations require that a proposed land development site utilize green infrastructure to comply with either of the following groundwater recharge requirements:

- 1. Demonstrate that 100% of the site's average annual pre-developed groundwater recharge volume will be maintained after development; or
- 2. Demonstrate that 100 percent of the difference between the site's predevelopment and post-development future adjusted 2-year runoff volume is infiltrated.

Proposed small-scale infiltration basins and porous pavement areas are designed to maximize groundwater recharge for the development. To be considered as green infrastructure, the small-scale infiltration basins are proposed with a maximum drainage area of 2.5 acres (excluding the basin area), and the porous pavement areas are proposed with a maximum additional inflow area of three times the area occupied by the pervious pavement.

There are no anticipated adverse impacts from generated stormwater as a result of this project. Therefore, it can be determined that development of the subject property will not have an adverse effect on any of the hydrological features onsite or in the vicinity of the site.

3.3 Water Supply

The new warehouse development requires a new connection to the existing main located on Davidson Avenue from the proposed warehouse building as well as a new connection for the existing building that is to remain. It is our understanding there is adequate pressure and volume within the system. The water supply is treated and distributed to the Township of Franklin by the Franklin Township DPW. The development of this project will not have an adverse impact on the water supply in this area.

3.4 Hydrology

Approximately 0.467 acres of isolated Freshwater wetlands are located on the eastern portion of the site. Proposed stormwater management measures will mitigate the stormwater runoff generated from new impervious surfaces. See the detailed Stormwater Management Report dated January 2023 for further details with regard to stormwater management measures proposed at the site. Based on the mitigation of stormwater runoff from the site due to the proposed porous pavement and green infrastructure, no adverse impacts to hydrology are anticipated due to this project.

3.5 Geology

A site-specific geotechnical report has been prepared and indicates that the site consists of clay loam, silt loam, loam and silt soils. Please refer to Appendix A for the relevant site location maps and Appendix B for the Stormwater Investigation performed by Melick-Tully dated October 29, 2021 which more specifically defines the soil properties from site specific field testing.

3.6 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 affect 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 Natural Resources Conservation Service (NRCS), mapped soils in details for New Jersey.

According to the NRCS Web Soil Survey (Appendix A), the onsite soils include Penn and Reaville soils over the majority of the site and within proposed disturbance areas. Specifically, Penn soils are defined as a silt loam with 2 to 6 percent slopes. This type of soil consists of moderately deep, well drained soils found on undulating and rolling uplands. Permeability is moderate throughout the profile. The available water capacity is moderate. This soil type generally has a water table that sits above the residual soils above the underlying shale bedrock. Seasonal high water table varies based on the rock content in the soil. A subsurface evaluation conducted by Melick-Tully did not encounter a consistent seasonal high groundwater

at the site. Water was observed at elevations as low as 65.5'. Please refer to the Stormwater Investigation performed by Melick-Tully dated October 29, 2021 which more specifically defines the soil properties from site specific field testing. This project is not anticipated to adversely affect the soil characteristics present on-site.

3.7 Topography

Based on an ALTA/NSPS Land Title Survey prepared by Brunswick Surveying, INC, dated January 13, 2023, the property currently slopes from the center of the site towards the northwest portion of the site near the Davidson Avenue driveway and to the southeast of the site toward the isolated wetlands. The topographic high point of the site is located at the center of the site near the southwestern property line at elevation ±76.01-ft. The topographic low point of the site is located at the northeast corner adjacent the larger isolated wetland area at elevation ±64.29-ft. The existing topography on-site maintains slopes ranging from less than 1% to 40% within the property. The proposed contours maintain the same drainage patterns with average slopes of approximately 2%.

Approximately all of the 4.88-acre site will be disturbed for the proposed warehouse development. Stormwater management measures involve the installation of porous pavement, collection inlets and conveyance piping. The stormwater management system is designed to connect to the existing system along the frontage of the property at Davidson Avenue and to the existing system on the adjacent site along the northeast property line, ultimately discharging into Raritan River tributary. Development of this property will not have an adverse impact on the topography of the site or the surrounding area. Furthermore, soil erosion measures will be put in place during construction to prevent deterioration of slopes during and after construction.

3.8 Vegetation

According to NJ-Geoweb, the Site lies within the Piedmont Plains Landscape Region. Two areas of isolated wetlands were observed on site. These items are shown on the proposed site plans for the project as well as the ALTA/NSPS Land Title Survey prepared by Brunswick Surveying, INC, dated January 13, 2023.

A Landscaping Plan and Tree Replacement Plan has been incorporated in the design of the proposed development, which addresses the removal of vegetation due to construction of the project. The Landscaping Plan has been designed to incorporate a wide range of species to further enhance the aesthetics of the site.

3.9 Wildlife

The existing land coverage is adequate to provide a habitat for any wildlife that may exist in this area and commonly found in the surrounding vicinity (squirrels, birds, deer, etc.). It appears that the proposed facilities will not displace any habitat for wildlife that cannot be supported by the surrounding area. Based upon the NJDEP Potential Threatened/Endangered Species Habitat Map, there are not any State endangered species on-site.

3.10 Aquatic Organisms

The existing site does not support aquatic organisms; therefore, the development will not pose an adverse impact on the aquatic characteristics of the site.

3.11 Ecology

Development of the warehouse will impact the ecology of the immediate subject site but will not be detrimental to the surrounding environment. The project will replace approximately 1.036 acres of existing construction and will occupy just over 80% of the property.

3.12 Demography

The existing uses of the surrounding areas consists of residential and commercial developments. Development of the property into a warehouse facility will create additional benefits to the existing residents of the surrounding communities.

3.13 Land Use

The subject site is currently a constructed office and light manufacturing use. The proposed development will consist of approximate 35,510 SF, one-story warehouse with a 1,950 SF office mezzanine, in addition to maintaining the existing office/manufacturing building. The construction will also include associated parking, loading docks, landscaping, lighting, stormwater management, and utilities. The site is located in the B-I District. A warehouse is a permitted use in this zone.

3.14 History

Based on the current survey, a site visit performed by our office, a review of the New Jersey and National Register of Historic Places, and review of NJ-GeoWeb Database, it does not appear that there are historical features of any significance on-site.

4.0 PERMITS AND APPROVALS

AGENCY	PERMITS	STATUS	
Franklin Township	Preliminary and Final Site Plan	Pending	
Planning Board	Approval	i ending	
Franklin Township	Tree Removal Permit	Pending	
Franklin Tayyadain	Air Conditioning and	Dan dia s	
Franklin Township	Refrigeration Equipment Permit	Pending	
Franklin Township	Certificate of Smoke Detector	Donding	
Franklin Township	Compliance	Pending	
Franklin Township	Road Opening Permit	Pending	
Franklin Township Sewage	Sanitary Sewer Approval	Ponding	
Authority	Samilary Sewer Approval	Pending	
New Jersey American Water	Water Allocation	Pending	
Somerset-Union Soil	Soil Erosion and Sediment	Donding	
Conservation District	Control Plan Certification	Pending	
Somerset County	Preliminary and Final Site Plan	Donding	
Planning Board	Approval	Pending	
NJDEP	Freshwater Wetlands General		
NJDEP	Permit 6	Pending	

5.0 PROBABLE ADVERSE ENVIRONMENTAL EFFECTS

5.1 Water Quality

In New Jersey, projects resulting in an increase of one quarter acre or more of regulated motor vehicle surface are required to comply with the NJDEP's Stormwater Management Rules at N.J.A.C. 7:8. As required by the regulations, municipal entities are responsible to ensure projects meet the required or applicable standards for stormwater runoff including quantity control, quality control, and groundwater recharge. Land disturbance exceeds 1 acre and new regulated motor vehicle surface exceeds 0.25 acres; therefore, stormwater quantity and quality control are required.

With regard to water quality control, the proposed stormwater management system will meet water quantity and quality control requirements set forth by the NJDEP and Franklin Township with regard to peak runoff reduction and TSS removal rates. Refer to the detailed Stormwater Management Report dated January 2023 for supporting documentation.

5.2 Air Quality

Currently, air quality at the site is anticipated to be primarily impacted in the existing condition by vehicular traffic along Davidson Avenue and Atrium Drive.

During construction, all possible measures to reduce air pollution from construction equipment emissions and control of dust will be taken. Post-construction, the warehouse development is anticipated to result in negligible increases in emissions resultant of vehicular traffic associated with patrons of the commercial facilities traveling along the Davidson Avenue corridor and residences. The proposed use will not be manufacturing any products and the existing light manufacturing use is not changing; therefore, no increase in direct emission sources are associated with the project. The proposed development is anticipated to slightly increase traffic.

Unpleasant odors can also be considered an adverse impact to air quality. No new manufacturing will be conducted onsite; therefore, far-reaching unpleasant odors and/or harmful emissions will not change from the current state of the site.

5.3 Noise

The State of New Jersey regulates noise under the New Jersey Noise Control Act, N.J.A.C. 7:29. This Act contains both protocols for assessing noise impacts as well as the allowable noise levels. Allowable noise levels differ for residential properties and industrial/commercial zoned areas. The regulations are as follows:

Industrial/Commercial:

65 DBA at the nearest property lines at all times.

During the construction phase, the noise levels will be slightly elevated as a result of construction activities, such as the operation of construction equipment. No blasting will occur.

These disturbances will be limited to the Site construction time period and normal working hours.

After completion of the Project, the noise level will be reduced to normal commercial levels. Noise generating operations that will occur onsite include vehicular traffic, pedestrian activities, mechanical equipment (air conditioners, etc.), and delivery activities. Noise levels are anticipated to be a level far below than those allowed by State regulations. The noise levels of the proposed development are anticipated to have a negligible impact on the Site and the surrounding vicinity, given the adjacent uses and the nature of the proposed use and its location in close vicinity to a State highway already impacted by heavy vehicular traffic.

5.4 Undesirable Land Use Patterns

The proposed development will add a positive service to the surrounding community by redeveloping construction with a warehouse distribution use to further support online retail businesses and other uses dependent on warehouse space. Therefore, construction of the project is not anticipated to create an undesirable land use pattern in the Township.

5.5 <u>Damage or Destruction of Significant Plants or Wildlife Systems</u>

Presently, it does not appear that any rare or significant plants or wildlife systems exist on-site. Therefore, construction of the proposed development will not have a detrimental impact. As noted in previous sections, a Landscaping Plan has been developed, which will be incorporated into the development of the proposed project. This plan will enhance much of the existing vegetation that is located on-site.

5.6 <u>Aesthetic Values</u>

Construction of the proposed development will complement surrounding commercial uses and architectural elements of the building and proposed landscaping incorporated into the development will increase the aesthetic value of the developed site. The development is not anticipated to pose an adverse impact to the aesthetic value of the site.

5.7 <u>Destruction of Natural Resources</u>

Every effort will be enforced in order to maintain the natural resources available on the site. Vegetated areas that are removed in order to make way for the development of the project will be replaced through implementation of a Landscaping Plan, which has been incorporated into the design of the proposed project. Soil erosion measures will be implemented to save topsoil that will be disturbed as part of this project.

5.8 <u>Displacement of People and Business</u>

There will be no displacement of people or businesses, due to the development of this project.

5.9 <u>Displacement of Viable Farms</u>

Farmland will not be displaced as a result of the development of this project.

5.10 **Employment and Property Tax**

Development of the site will provide an increase in the number of jobs available to the surrounding community. Construction of these facilities will provide employment for local craftsmen and workers during construction. Development of the existing property will increase its value and generate new tax revenues for the Township.

5.11 Destruction of Manmade Resources

Development of the subject property will not destroy any manmade resources available on the site.

5.12 <u>Disruption of Desirable Community and Regional Growth</u>

Development of the subject property will create a desirable service to residences within the community and will support the regional growth of the surrounding areas. The redevelopment of the constructed property will provide a beneficial service to the surrounding community by providing product and services for residences within the community and beyond.

5.13 Health, Safety, and Well-Being of the Public

No impact is expected on the health, safety, and well-being of the property and surrounding community. The proposed project shall be designed to be accessible to all fire and emergency services.

5.14 Traffic

A traffic analysis has been performed and will be supplied to the Township for review.

6.0 ENVIRONMENTALLY PROTECTIVE MEASURES

Certain measures will have to be followed in order to minimize the amount of environmental damage to the proposed site and region during construction of the proposed facilities. These measures will take the form of a Soil Erosion and Sediment Control Plan, which will be incorporated into the design of the project and will be initiated prior to the beginning of construction. The Soil Erosion and Sediment Control Plan established for this project involves the use of inlet protection devices, which reduce the amount of sediments allowed to drain away from the site, an anti-tracking pad that serves to control soil losses from driveway entrances/exits, and silt fencing. In order to facilitate the protection of the natural resources, measures will be established to control the amount of dust produced from the construction site. Temporary vegetative cover will be established and applied in accordance with all state standards for dust control. Any noise pollution produced from the site during construction due to construction and operation of machinery will take place within the hours of operation established by the Township of Franklin. Additionally, since the location of the site is in close proximity to Davidson Avenue and Atrium Drive, noise produced during construction and after construction is completed, should not pose a significant increase to what is currently being produced by vehicles on the roadways and surrounding areas.

7.0 ALTERNATIVES TO PROJECT

Alternatives to the proposed project include the following:

No development will allow the site to remain as it currently exists. The property will remain constructed and limited to existing resources. Taxes generated from the development would not be realized.

Development of the project as proposed will have a greater beneficial impact on the community and surrounding area by increasing the availability of services for local residents. Short term construction work, long-term commercial facility related job positions will be created.

8.0 IMPLICATIONS OF PROPOSED PROJECT ON POPULATION

The subject property has been designed in accordance with all local, state, and county standards. The site is accessible to all utilities including water and sewer. Access to water can be found in the right-of-way of Davidson Avenue and sanitary sewer service is available on-site. The surrounding area contains retail areas and professional offices. Development of the existing subject property will provide additional services to the surrounding area and community and will not impact or change the distribution of population from what exists at the present time. Water, sewer, police services, ambulance service, fire, and garbage collection services will not be burdened by the proposed development.

9.0 RELATIONSHIP BETWEEN SHORT-TERM EFFECTS AND LONG-TERM EFFECTS ON THE ENVIRONMENT

Development of the proposed project will enable the environment and the community to benefit from the overall design, which includes the stormwater management system, soil erosion and sediment control measures, the addition of landscaping, and the aesthetic value of the structure involved. It is not anticipated that the development of this project will produce any adverse impacts in the long term to the environment, nor to the surrounding areas and community.

10.0 PERTINENT PUBLISHED INFORMATION

At the time of preparation of this report, there were no published documents on this site that were available to our office.

11.0 OTHER REQUIREMENTS

11.1 Sewage Facilities

The proposed development will generate approximately 6,840.8 gallons of sewage flow per day. These flow rates are based on the criteria set forth by the NJDEP Rules and Regulations Treatment Works and Approvals (Section 7:14A-23). A proposed connection will be made to an existing main located in the immediate right-of-way along the property frontage operated by the

Franklin Township Sewerage Authority. All rules and regulations associated with the Franklin Township Sewerage Authority will be complied with during construction of this project.

11.2 Water Supply

The proposed development will have a water demand of approximately 4,647 gallons per day. The water demand calculation is based upon the criteria set forth by the NJDEP Save Drinking Water Act Rules (N.J.A.C. 7:10-12.6). Water service is available to the site via a water main located along Davidson Avenue. The water mains are maintained by Franklin Township Public Works Water Division and will be able to provide adequate service to the proposed development. All regulations, both state and local, will be complied with during construction.

11.3 Drainage

A report containing drainage calculations, pre and post development conditions, and a summary of the design criteria for the proposed stormwater management system has been developed for this project. Please refer to the Stormwater Management Report dated January 2023 for further information.

11.4 Solid Waste Disposal

The proposed development includes a trash compactor to be used for domestic solid waste. Trash from the proposed compactor will be hauled by a licensed private waste disposal contractor and disposed of in a licensed facility on a weekly basis. All trash and recycling disposal will be performed in accordance with all applicable regulations.

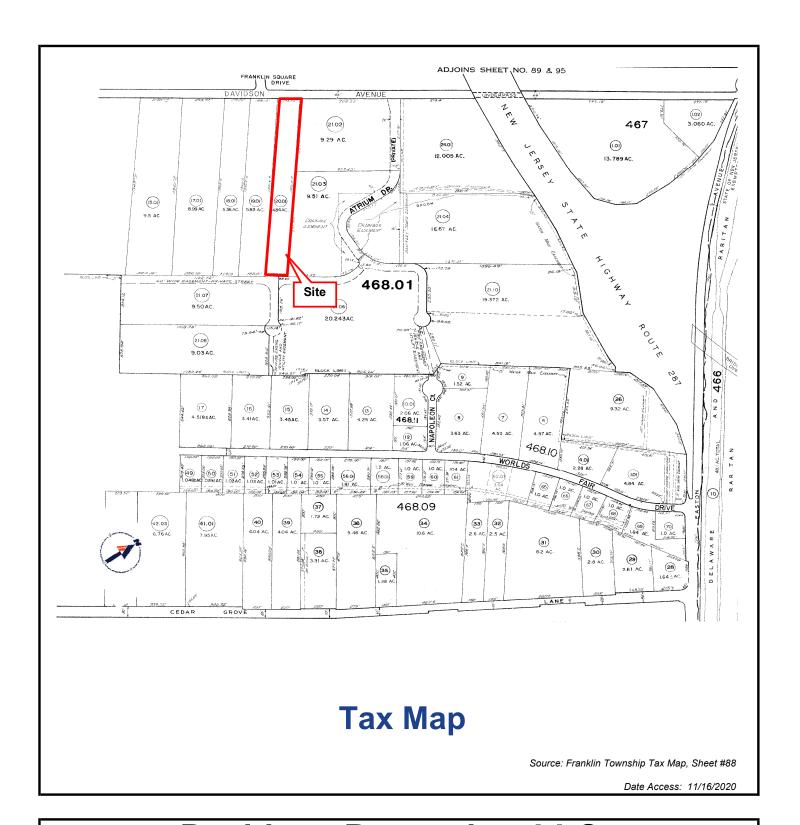
11.5 Air Pollution

The overall air quality of the site facilities and residential units, with specific reference to the carbon monoxide levels, is a function of the degree of the vehicular traffic demonstrated on the site and adjoining roadways. With respect to carbon monoxide levels, it is anticipated that the site will comply with all state air quality standards during and after construction activities.

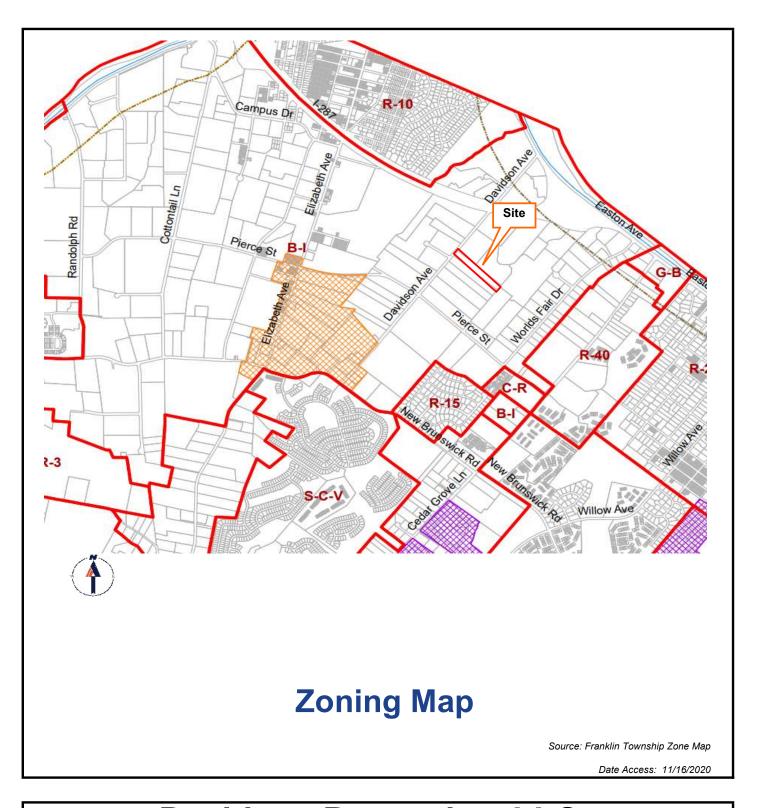
11.6 Critical Impact Areas

Development of the proposed project will not create an adverse impact on the environment or surrounding areas. Also, a Soil Erosion and Sediment Control Plan will be established for this project. This plan will be initiated prior to the beginning of construction in order to reduce the amount of sedimentation produced on-site and will control the amounts of dust and noise present on-site during construction. Maintenance of the Soil Erosion and Sediment Control Plan will tend to minimize the danger to any critical impact areas that may be present on-site.

APPENDIX A SITE LOCATION MAPS



Davidson Properties, LLC		
230 Davidson Avenue Block 468.01; Lot 20.01		Township of Franklin, Somerset County, New Jersey
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Prepared by: gg	Date: 11/16/2020	BOHLER/
Checked by: vm Scale: nts		



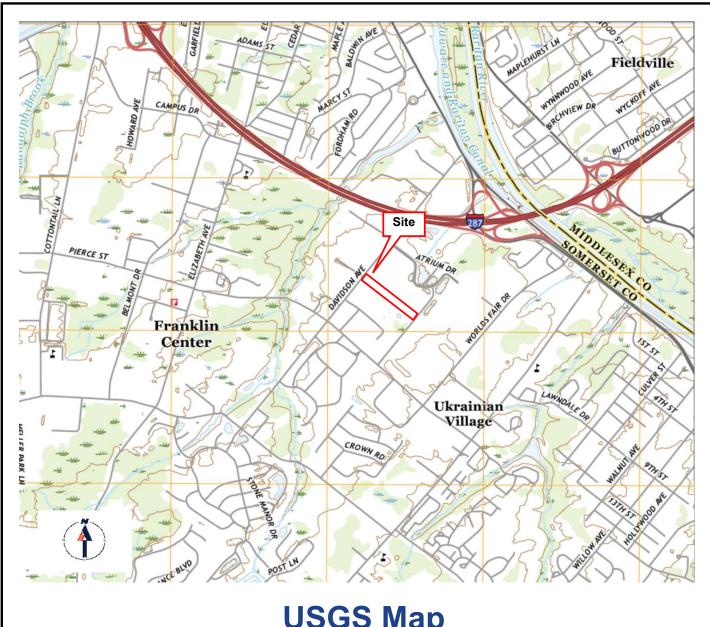
Davidson Properties, LLC 230 Davidson Avenue Block 468.01; Lot 20.01 BENJ# J200729 Prepared by: gg Date: 11/16/2020 Checked by: vm Scale: nts Township of Franklin, Somerset County, New Jersey BOHLER//



Aerial Map

Source: NJ GeoWeb

Davidson Properties, LLC		
230 Davidson Avenu Block 468.01; Lot 20		Township of Franklin, Somerset County, New Jersey
BEN	J# J200729	
Prepared by: gg Date: 11/16/2020		BOHLER/
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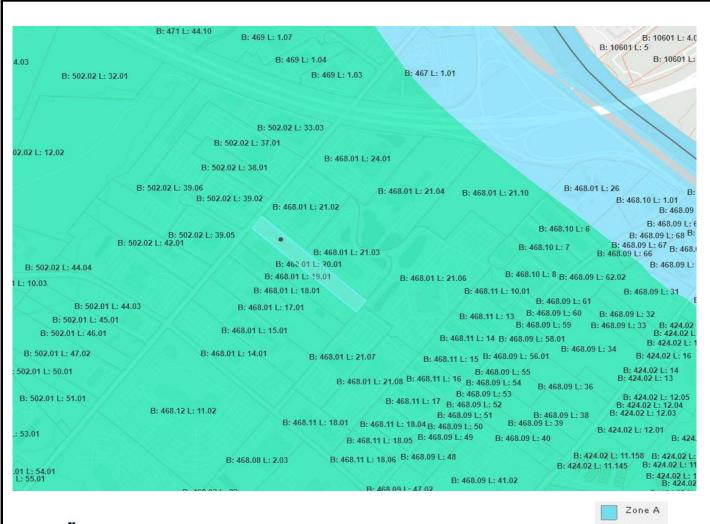
USGS Map 485,729-ft. E; 619,899-ft. N Bound Brook Quadrangle

Source: USGS, 1986

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Delaware Raritan Canal Commission Review Zone Map

Source: NJ GeoWeb

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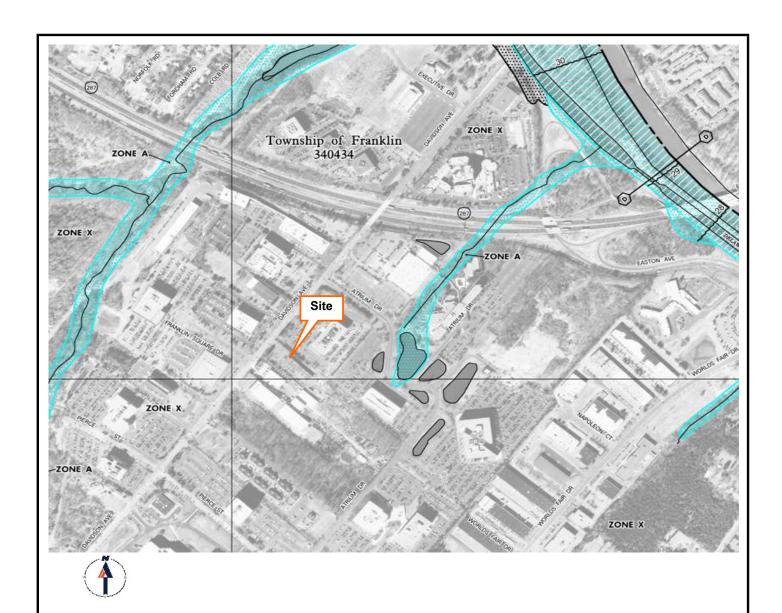




NJDEP Potential Freshwater Wetlands Map

Source: NJ GeoWeb

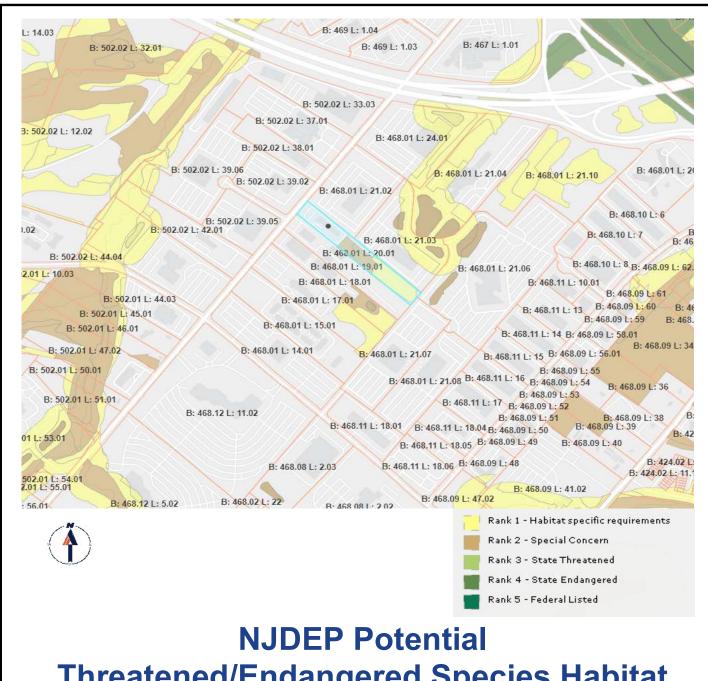
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FEMA Flood Map

Source:FEMA FIRM Map #34035C0167E, Effective 9/28/2007

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Threatened/Endangered Species Habitat

Source: NJ GeoWeb

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Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
PenB	Penn silt loam, 2 to 6 percent slopes	2.9	56.3%
RehB	Reaville silt loam, 2 to 6 percent slopes	2.2	43.7%
Totals for Area of Interest		5.1	100.0%

Soils Map

Source: NRCS Web Soil Survey, 2012

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APPENDIX B GEOTECHNICAL REPORT





STORMWATER INVESTIGATION

PROPOSED WAREHOUSE DEVELOPMENT
DAVIDSON PROPERTIES, LLC
FRANKLIN TOWNSHIP, SOMERSET COUNTY, NEW
JERSEY

October 29, 2021 File No. 26.0092440.01

PREPARED FOR:

Davidson Properties, LLC 100 Franklin Square Drive, Suite 207 Somerset, New Jersey 08873

Melick-Tully, A Division of GZA

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GEOTECHNICAL

ENVIRONMENTAL

ECOLOGICAL

MATER

CONSTRUCTION MANAGEMENT

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October 29, 2021 File No. 26.0092440.01

Davidson Properties, LLC 100 Franklin Square Drive, Suite 207 Somerset, New Jersey 08873

Attention: Mr. Aditya Mokkapati

Report
Stormwater Investigation
Proposed Warehouse Development
Franklin Township, Somerset County, New Jersey
Davidson Properties, LLC

Introduction

This report presents the results of a subsurface investigation performed by Melick-Tully and Associates, a Division of GZA GeoEnvironmental, Inc. (MTA) for proposed stormwater management facilities related to a proposed warehouse development which may be constructed in Franklin Township, Somerset County, New Jersey. The subject site is located at 230 Davidson Avenue and is identified as Block 468.01, Lot 20.01. The approximate location of the site is shown on the Site Location Map, Plate 1. This report was prepared in general accordance with our proposal dated July 14, 2021.

Proposed Construction

Current planning identified on a Grading & Drainage Plan dated June 18, 2021 indicates the proposed construction will consist of two warehouse buildings in the southern portion of the property approximately 35,559 square feet in footprint area each. The warehouses would be surrounded by on-site paved access roadways and loading dock areas. In addition, as part of the planned development, modifications to pavement areas in the northern portion of the site which is currently developed by an existing building are planned.



Two infiltration basins are proposed to be established east of the proposed warehouse buildings with bottom of stone elevations of +62.43 feet and +61.33 feet, respectively. Porous concrete pavements are proposed between the warehouse buildings in loading dock areas and porous asphalt pavements are proposed south of the new buildings near Atrium Drive.

Purpose and Scope of Work

The purpose of our services was to:

- 1) explore the subsurface soil, rock and groundwater conditions via test pits in accessible portions of the proposed stormwater management areas;
- 2) initiate basin flood testing in the bedrock at each test pit per Chapter 12 of the NJDEP Stormwater BMP manual; and
- 3) prepare a brief summary report of our findings for use by the basin designer in their evaluation of the stormwater improvements.

To accomplish these purposes, a subsurface exploration program consisting of 16 supervised test pit excavations was performed. The test pits were advanced using a Case CX 160 track-mounted excavator and extended to depths ranging from approximately 6 feet to 13 feet beneath the existing surface grades where refusal to further excavation was typically encountered. Basin flood tests were performed in Test Pits 1 through 8, 14, and 16. Basin flood tests could not be performed in the remaining test pits due to observed groundwater seepage above or within the fractured shale bedrock where the testing was to be performed. Therefore, tube samples were obtained from upper soils above the shale bedrock in these test pits to evaluate their permeability characteristics. The approximate locations of the test pits performed for this study are shown on the Plot Plan, Plate 2.

All field work was performed under the direct technical supervision of a geotechnical engineer from MTA. Our representative located the test pits in the field relative to existing surface features shown on the plan provided, maintained continuous logs of the test pits as the work proceeded, obtained samples of the encountered



materials, conducted the basin flood tests, and obtained relatively undisturbed tube samples of the subsoils above

bedrock for laboratory tube permeameter permeability testing.

Detailed descriptions of the subsurface conditions encountered in the test pits are presented on the Test Pits Logs,

Plates 3A through 3P. The soil samples from the test pits were visually described in general accordance with the

USDA Soil Textural Triangle shown on Plate 4.

All soil samples obtained from the test pits were brought to our office where they were further examined in our

soil mechanics laboratory. Tube samples obtained from some of the test pits were subjected to laboratory tube

permeameter permeability testing, the results of which are summarized later in this report.

The following discussions of our findings are subject to the Limitations attached as an Appendix to this report.

Site Conditions

Surface Features: The northern portion of the proposed development consists of an existing building to remain

and associated improvements. The southern half of the lot, where the new warehouses will be constructed, is

currently wooded. There are isolated mapped wetland areas within the proposed pavement and southern

warehouse building footprint. There also appears to be a drainage ditch which directs runoff from the existing

building/pavement areas into the wooded portion of the site.

Topographic information shown on the plans provided to us indicates the ground surface elevations within

proposed development areas generally slope downward from a high of Elevation +76 feet in the center of the

property to a low of Elevation +72 feet in the north near the existing parking lot and a low of Elevation +65 feet in

the south where the isolated wetlands are located.

Findings

The test pits encountered the following generalized strata listed in order of increasing depth:



- 1) <u>Surface Materials</u>: A layer of topsoil on the order of 5 to 13 inches in thickness was encountered in Test Pits 1, and 7 through 16. Asphalt pavement was encountered at the surface in Test Pits 2 through 6 which was generally 6 inches in thickness and typically underlain by 4 to 9 inches of a stone subbase.
- 2) <u>Fill</u>: Fill materials consisting of silt loam soils were encountered in Test Pits 9 and 10 which are located adjacent to one another in the center of the site, adjacent to the southern portion of Building 1. The fill extended to depths of approximately 4 to 5.5 feet below grade.
- 3) <u>Silty and Clayey Soils</u>: The surface and fill materials were underlain by silty and clayey soils described as clay loam, silt loam, loam, and silts in Test Pits 1, 2, 3, and 7 through 16 which extended to depths ranging from approximately 2 to 6 feet below grade. These soils are formed by the decomposition of the underlying shale and the transition to rock is gradual. Layers of sandy loam soils were observed in Test Pits 13, 14, 15, and 16 below the clayey/silty soils.
- 4) <u>Shale Bedrock</u>: The surficial soils were underlain by shale bedrock which extended to the completion depths of the explorations, about 4.5 to 13 feet below grade. In general, the shale was weathered near the surface and graded harder with depth and increasing fragment size. Refusal to further excavation was encountered in the shale bedrock with the equipment noted in all of the test pits.

Groundwater seepage was encountered in some of the test pits at depths of about 5 to 10 feet below the existing ground surface. Mottling, which is indicative of seasonally saturated conditions, was observed at depths of 5 to 66 inches below grade in Test Pits 9 through 16. The shallow mottling appears to be a result of shallow perched conditions caused by the poor infiltration and drainage characteristics of the surface silty and clayey soils. Where mottling was not encountered, the depth to seasonal high groundwater can be estimated based on the published mapped soil series or through direct readings between the months of January and April.

The test pits were initially dug to the surface of the shale bedrock. Once the fractured bedrock was encountered, the excavations were extended another foot or two into the fractured shale bedrock or to deeper depths depending on depth to proposed basin bottoms, where the basin flood test was then initiated. At least 375 gallons of water was introduced into the excavations during the tests. Once the basin flood testing was finished, the test pits were excavated further to their refusal depths.

Basin flood tests were performed within the shale bedrock below the upper soils in Test Pits 1 through 8, 14, and 16. At the remaining locations, basin flood tests could not be performed due to the presence of groundwater



seepage in the fractured shale bedrock at the intended test depths. Relatively undisturbed tube samples were obtained from those test pits to obtain permeability information on the upper soils. The table below provides a summary of the permeability test results for the basin flood and laboratory tube permeameter permeability testing.

Test Pit No.	Depth of Permeability/ Infiltration Test (ft)	Type of Test Performed	Permeability Test Result (in/hr)	USDA Visual Soil Description of Material Tested
1	4.5	Basin Flood	Fail	Shale Bedrock
2	5	Basin Flood	Fail	Shale Bedrock
3	5	Basin Flood	Fail	Shale Bedrock
4	4.5	Basin Flood	Fail	Shale Bedrock
5	5.5	Basin Flood	Fail	Shale Bedrock
6	4.5	Basin Flood	Fail	Shale Bedrock
7	2.5	Tube Permeameter	0.18	Shaley Clay Loam
7	7	Basin Flood	Fail	Shale Bedrock
8	2.5	Tube Permeameter	0.18	Shaley Clay Loam
8	11	Basin Flood	Fail	Shale Bedrock
9	2	Tube Permeameter	5.0	Fill – Gravelly Silt Loam
10	2	Tube Permeameter	0.20	Fill – Gravelly Silt Loam
11	1.5	Tube Permeameter	0.27	Silt Loam
12	2	Tube Permeameter	0.20	Loam
13	1.5	Tube Permeameter	0.20	Silt Loam
14	1	Tube Permeameter	0.17	Silt
14	7.5	Basin Flood	Fail	Shale Bedrock
15	1.5	Tube Permeameter	0.20	Silt
15	3	Tube Permeameter	0.31	Sandy Loam
16	1.5	Tube Permeameter	0.11	Silt Loam
16	6	Basin Flood	Pass	Shale Bedrock

Chapter 12 of the NJDEP Stormwater BMP Manual indicates a design permeability of 0.5 inches per hour is to be used when a basin flood test passes. Given that fractured shale bedrock is typically within 4 feet of the surface, that only 1 of the 10 basin flood tests drained within both the initial 24 hour soaking and the following 12 hour soaking, and that the majority of the upper silty/clayey soils exhibited permeabilities of less than 0.5 inches per hour, it is our opinion that infiltration of stormwater is not recommended at this site.

Zym May 21

Eugene M. Gallagher, Jr., P.E.

Principal



Please feel free to contact us if there are any questions regarding this report.

The following Plates and Appendix are attached and complete this report:

Plate 1 – Site Location Map Plate 2 – Plot Plan Plates 3A through 3P – Test Pit Logs Plate 4 – USDA Textural Triangle Appendix – Limitations

Respectfully submitted,

MELICK-TULLY and ASSOCIATES, a Division of GZA GeoEnvironmental, Inc.

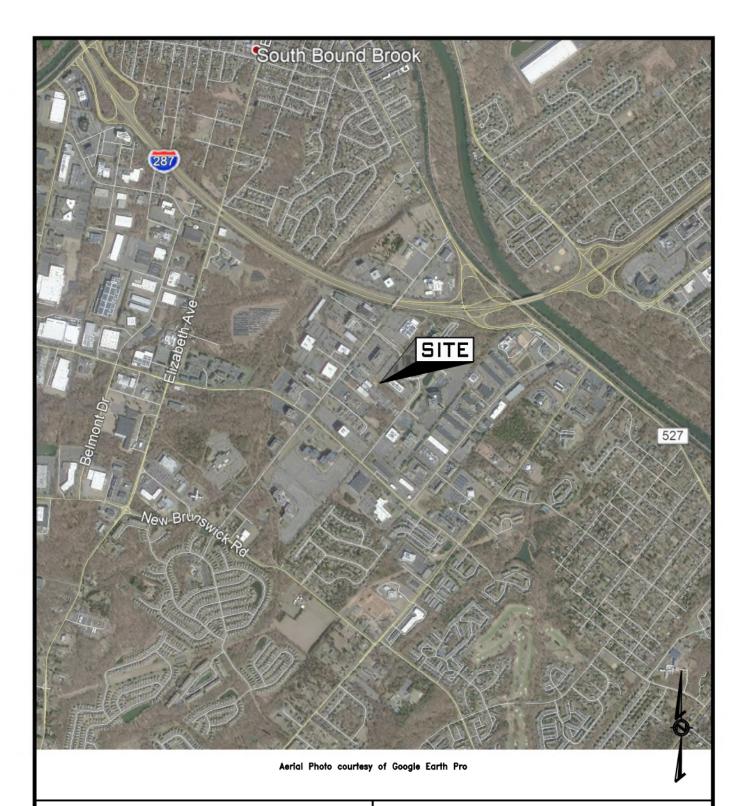
Cory S. Karinja, P.E. Project Manager

Mark R. Denno, P.E. Consultant/Reviewer

Naile Zoz

CSK:EMG/ck

(1 copy submitted via email)





MELICK-TULLY AND ASSOCIATES

A Division of GZA

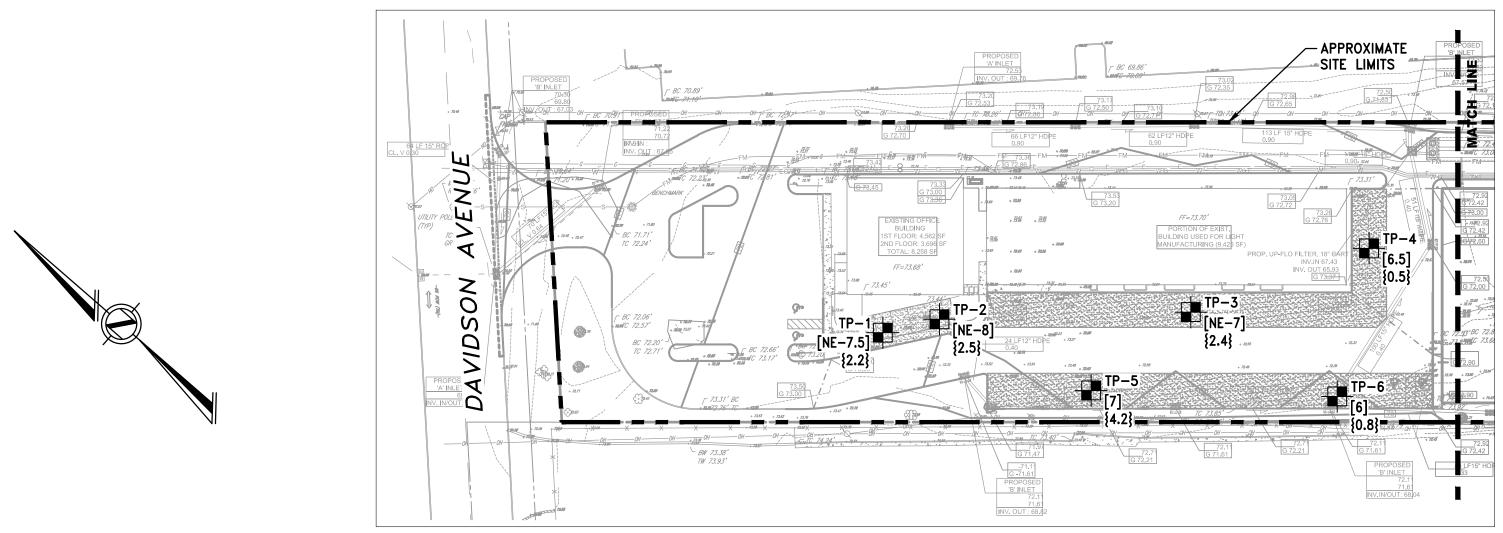
Geotechnical Engineers & Environmental Consultants
117 Canal Road

South Bound Brook, New Jersey 08880 (732) 356-3400

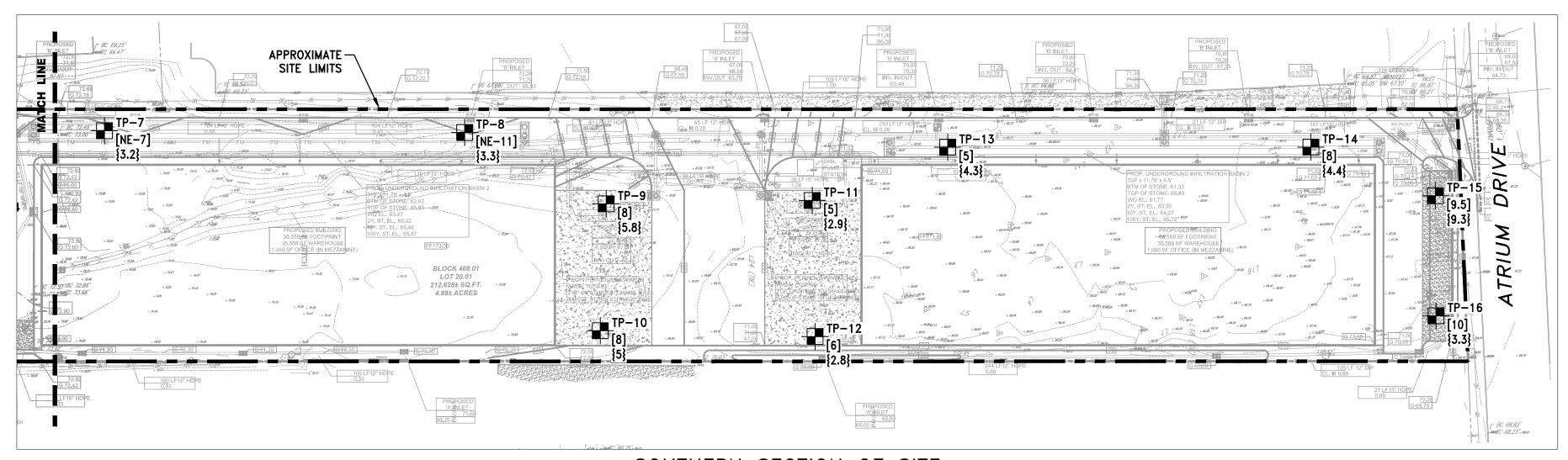
SITE LOCATION MAP

PROPOSED WAREHOUSE DEVELOPMENT FRANKLIN TOWNSHIP, NEW JERSEY DAVIDSON PROPERTIES, LLC

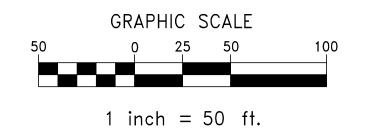
JOB NO.	FILE NO.	DR. BY	CHK. BY	DATE	SCALE	PLATE				
26.0092440.01	-	AND	CSK	10/28/21	1"=2,000'	1				



NORTHERN SECTION OF SITE SCALE: 1"= 50'



SOUTHERN SECTION OF SITE SCALE: 1"= 50"



KEY:

NUMBER AND APPROXIMATE LOCATION OF TEST PITS PERFORMED FOR THIS STUDY

APPROXIMATE DEPTH IN FEET TO GROUND WATER BELOW THE GROUND SURFACE

APPROXIMATE DEPTH IN FEET TO THE SURFACE OF SHALE BEDROCK BELOW THE GROUND SURFACE

NOT ENCOUNTERED

NOTES:

- This drawing is part of Melick—Tully and Associates, a
 Division of GZA, Report No. 26.0092440.01 and should be
 read together with the report for complete evaluation.
- 2. General layout was obtained from a drawing prepared by Bohler Eng., entitled "Grading and Drainage Plan" dated 6/18/21, scale 1"= 30'.

STORMWATER PLAN

PROPOSED WAREHOUSE DEVELOPMENT FRANKLIN TOWNSHIP, NEW JERSEY DAVIDSON PROPERTIES, LLC



MELICK-TULLY AND ASSOCIATES

A Division of GZA

Geotechnical Engineers & Environmental Consultants
117 Canal Road
South Bound Brook, New Jersey 08880
(732) 356-3400

JOB NO. 26.0092440.01			FILE NO.				
DR. BY VJD	CHK. BY CSK	DA 10/2		SCALE 1"= 50'	PLATE 2		

TEST PIT LOG



Logged By: Nick Pytlowany

Operator:

Contractor: Neary Excavating

Paul

Davidson Properties, LLC Proposed Warehouse Development Franklin Township, NJ EXPLORATION NO.: TP-1 SHEET: 1 of 1 PROJECT NO: 26.0092440.01 REVIEWED BY: Cory Karinja

Test Pit Location: See Plan

Final Test Pit Depth (ft.): 7.5

Ground Surface Elev. (ft.): 73

Date Start - Finish: 8/2/2021 - 8/2/2021

Depth (ft)	Sample No.	Sample Depth (ft.)	Stratum Depth (in.)	Sample Description and Identification	Depth (ft)	Water Content (%)	Remark
1	S1	1	0-8	Topsoil - Very dark grayish brown (10YR, 3/2) sandy loam, moderate medium granular, slightly moist, loose, abrupt smooth boundary, few medium roots	1 - 2 -	`	<u> </u>
2 = 3			8-26	Dark reddish brown (2.5YR, 3/4) clay loam, 60% gravel, moderate coarse angular blocky, slightly moist, firm, clear smooth boundary Dark reddish brown (2.5YR, 3/4) shale with 10% silty clay, slightly	2 = 3 = 3 = 3		
4 -				moist	4 -		
5 <u>-</u> 6 <u>-</u>			26-90		5 _		
7				material in which O 7.5!	6 - 7 - 7 - 7		
8 <u>-</u> - 9 -				- refusal in shale @ 7.5' End of exploration at 7.5 feet. Groundwater seepage not encountered			
10				Soil mottling not observed Note: Basin flood test performed @ 4.5'			
11 <u>-</u> 12 <u>-</u>							
13							
14 <u>-</u> 15 <u>-</u>							
16							
17 <u>-</u> 18 <u>-</u>							
19 _							
20 -							

REMARKS THE

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Plate No.: 3A



Davidson Properties, LLC Proposed Warehouse Development Franklin Township, NJ EXPLORATION NO.: TP-2 SHEET: 1 of 1 PROJECT NO: 26.0092440.01 REVIEWED BY: Cory Karinja

Logged By: Nick Pytlowany

Contractor: Neary Excavating

Operator: Paul

Test Pit Location: See Plan

Final Test Pit Depth (ft.): 8

Ground Surface Elev. (ft.): 73.5

Date Start - Finish: 8/2/2021 - 8/2/2021

Type of Excavator:	ype of Excavator: Track Excavator xcavator Model: Case CX 160	Groundwater Depth (ft.)							
			Date	Time	Water Depth	Stab.	Time		
Excavator Model:	Case CX 160)	8/2/21		NE				

Depth (ft)	Sample No.	Sample Depth (ft.)	Stratum Depth (in.)	Sample Description and Identification	Depth (ft)	Water Content (%)	Remark
=			0-6	6" Asphalt	-		
1 =	S1	1.5	6-15	Dark gray (10YR, 4/1) loamy sand, 65% gravel, strong coarse angular blocky, slightly moist, firm, abrupt smooth boundary	1 =		
2 =	01	1.0	15-30	Dark reddish brown (7.5YR, 3/4) clay loam, 65% gravel, moderate medium subangular blocky, slightly moist, firm, clear smooth	2 =		
3 =				boundary	3 =		
4 =				Dark reddish brown (2.5YR, 3/4) shale with 15% clay loam, slightly moist	4 _		
5 _			30-96		5 _		
6 _			30-96		6 _		
7 =					7 =		
8 =				- refusal in shale @ 8'	8 -		
E				End of exploration at 8 feet.			
9 =				Groundwater seepage not encountered			
10				Soil mottling not observed			
11 _				Note: Basin flood test performed @ 5'			
12							
13 _							
14 =							
15 _							
16							
17							
18 _							
19 _							
20 -							$oxed{oxed}$

REMARKS

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Plate No.: 3B

3B - MTA TEST PIT USDA; 10/26/2021; 4:46:22 PM



Davidson Properties, LLC Proposed Warehouse Development Franklin Township, NJ EXPLORATION NO.: TP-3 SHEET: 1 of 1 PROJECT NO: 26.0092440.01 REVIEWED BY: Cory Karinja

Logged By: Nick Pytlowany

Contractor: Neary Excavating

Operator: Paul

Test Pit Location: See Plan **Ground Surface Elev. (ft.)**: 73

Final Test Pit Depth (ft.): 7

Date Start - Finish: 8/2/2021 - 8/2/2021

Type of Excavator: Track Excavator Groundwater Depth (ft.)

DateTimeWater DepthStab.TimeExcavator Model:Case CX 1608/2/21NE

Depth (ft)	Sample No.	Sample Depth (ft.)	Stratum Depth (in.)	Sample Description and Identification	Depth (ft)	Water Content (%)	Remark
=		. ,	0-6	6" Asphalt		`	
1 _			6-10	Dark gray (10YR, 4/1) sandy loam, 70% gravel, strong coarse	 		
2 =	S1	1.5	10-29	angular blocky, slightly moist, firm, abrupt smooth boundary Dark reddish brown (2.5YR, 3/4) clay loam, 60% gravel, strong	1 - 2 -		
3 =				coarse subangular blocky, slightly moist, firm, clear smooth boundary	3 =		
4 =				Dark reddish brown (2.5YR, 3/4) shale with 20% clay loam, slightly moist	3 - 4 - 5 - 5		
5 =			29-84		5 _		
6 =					6 _		
7 🚊				- refusal in shale @ 7'	7 =		
8				End of exploration at 7 feet. Groundwater seepage not encountered Soil mottling not observed			
9 =				Soft motuling not observed			
10 _				Note: Basin flood test performed @ 5'			
11 =							
12 _=							
13 =							
14 <u>-</u> 15 -							
16							
17 =							
18 _							
19 =							
20 =							

REMARKS

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Plate No.: 3C

3B - MTA TEST PIT USDA; 10/26/2021; 4:46:22 PM



Davidson Properties, LLC Proposed Warehouse Development Franklin Township, NJ EXPLORATION NO.: TP-4 SHEET: 1 of 1 PROJECT NO: 26.0092440.01 REVIEWED BY: Cory Karinja

Logged By: Nick Pytlowany Tes

Contractor: Neary Excavating

Operator: Paul

Test Pit Location: See Plan Final Test Pit Depth (ft.): 7.5

Ground Surface Elev. (ft.): 72.5 **Date Start - Finish:** 8/2/2021 - 8/2/2021

Type of Excavator: Track Excavator Groundwater Depth (ft.)

DateTimeWater DepthStab.TimeExcavator Model:Case CX 1608/2/216.5

Depth (ft)	Sample No.	Sample Depth (ft.)	Stratum Depth (in.)	Sample Description and Identification	Depth (ft)	Water Content (%)	Remark
Depth (ft) 1	Sample No.	Sample Depth (ft.)	Depth	Sample Description and Identification 6" Asphalt Dark reddish brown (2.5YR, 3/4) shale with 10% clay loam, slightly moist - refusal in shale @ 7.5' End of exploration at 7.5 feet. Moderate groundwater seepage encountered @ 6.5' Soil mottling not observed Note: Basin Flood test performed @ 4.5'	Depth (ft) 1	Content	Remark
16							

REMARKS

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Plate No.: 3D



Davidson Properties, LLC Proposed Warehouse Development Franklin Township, NJ EXPLORATION NO.: TP-5 SHEET: 1 of 1 PROJECT NO: 26.0092440.

PROJECT NO: 26.0092440.01 REVIEWED BY: Cory Karinja

Logged By: Nick Pytlowany

Contractor: Neary Excavating

Operator: Paul

Test Pit Location: See Plan

Final Test Pit Depth (ft.): 11

Ground Surface Elev. (ft.): 73.5 **Date Start - Finish:** 8/2/2021 - 8/2/2021

Type of Excavator: Track Excavator Groundwater Depth (ft.)

 Date
 Time
 Water Depth
 Stab.Time

 Excavator Model:
 Case CX 160
 8/2/21
 7

1 -					(ft)	(%)	Remark
1 =			0-6	6" Asphalt	=		
4			6-15	Dark gray (10YR, 4/1) loamy sand, 70% gravel, strong coarse	1 =		
				angular blocky, slightly moist, firm, abrupt smooth boundary			
2 =	S1	2		Dark reddish brown (2.5YR, 3/4) clay loam, 60% gravel, strong	2 =		
=			4==0	coarse angular blocky, moist, firm, clear smooth boundary			
3 =			15-50		3 =		
4 =					4 =		
				Dark reddish brown (2.5YR, 3/4) shale with 25% clay loam	3 _ 4 _ 5 _ 6 _		
5 _=				Dark reduistr brown (2.51K, 5/4) shale with 25 % day loan	5_		
=							
6 =					6 =		
_ =					_ =		
7 -					/ =		
8 =			50-132		7 - 8 -		
Ē					-		
9 =					9 =		
Ŧ					-		
10 _					10 _		
4.					1,, 3		
11 🚽				- refusal in shale @ 11'	11 -		
12 _=				End of exploration at 11 feet. Moderate groundwater seepage encountered @ 7'			
'				Soil mottling not observed			
13 🚊				- John Mottilling not observed			
=				Note: Basin Flood test performed @ 5.5'			
14 =				'			
🗐							
15 =							
16							
10 =							
17							
=							
18 _							
=							
19 =							
20							

REMARKS

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Plate No.: 3E



Davidson Properties, LLC Proposed Warehouse Development Franklin Township, NJ EXPLORATION NO.: TP-6 SHEET: 1 of 1 PROJECT NO: 26.0092440.01 REVIEWED BY: Cory Karinja

Logged By: Nick Pytlowany

Contractor: Neary Excavating

Operator: Paul

Test Pit Location: See Plan Final Test Pit Depth (ft.): 6

Ground Surface Elev. (ft.): 72.5 **Date Start - Finish:** 8/2/2021 - 8/2/2021

Type of Excavator: Track Excavator Groundwater Depth (ft.)

Date Time Water Depth Stab.Time

Excavator Model: Case CX 160 8/2/21 6

Depth (ft)	Sample No.	Sample Depth (ft.)	Stratum Depth (in.)	Sample Description and Identification	Depth (ft)	Water Content (%)	Remark
=		(***)	0-6	6" Asphalt	-		
1 =			6-10	Dark gray (10YR, 4/1) sandy loam, 75% gravel, strong coarse	1 1 =		
₫				angular blocky, slightly moist, firm, abrupt smooth boundary] =		
2 =				Dark reddish brown (2.5YR, 3/4) shale with 15% clay loam, slightly	2 =		
,]				moist			
3 =					3 -		
4 =			10-72		4		
=					3 _ 4 _ 5 _		
5 _					5 _		
=							
6 =				- refusal in shale @ 6'	6 -		
7				End of exploration at 6 feet. Moderate groundwater seepage encountered @ 6'			
. =				Soil mottling not observed			
8 =				John Mottaling Not observed			
=				Note: Basin flood test performed @ 4.5'			
9 =							
10 _							
, io =							
11							
=							
12 =							
42							
13 =							
14							
Ē							
15 _							
40							
16 =							
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18 _							
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19 =							
20 =							
20 -							L

REMARKS |

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Plate No.: 3F



Logged By: Nick Pytlowany

Operator:

Contractor: Neary Excavating

Paul

Davidson Properties, LLC Proposed Warehouse Development Franklin Township, NJ EXPLORATION NO.: TP-7 SHEET: 1 of 1 PROJECT NO: 26.0092440.01

REVIEWED BY: Cory Karinja

Test Pit Location: See Plan Final Test Pit Depth (ft.): 7

Ground Surface Elev. (ft.): 74.0

Date Start - Finish: 8/3/2021 - 8/3/2021

Depth (ft)	Sample No.	Sample Depth (ft.)	Stratum Depth (in.)	Sample Description and Identification	Depth (ft)	Water Content (%)	Remark
1			0-8	Topsoil - Black (10YR, 2/1) loam, moderate medium granular, slightly moist, loose, abrupt smooth boundary, common medium roots	1		
2 = 3 = 3	S1, T1	2.5	8-38	Dark reddish brown (2.5YR, 3/4) clay loam, 25% gravel, moderate coarse subangular blocky, moist, firm, clear smooth boundary	2 =		
4 -				Dark reddish brown (2.5YR, 3/4) shale, slightly moist	3 - 4 - 5 - 5		
5 6 -			38-84		5 _		
7 -				- refusal in shale @ 7'	7 -		
8 -				End of exploration at 7 feet. Groundwater seepage not encountered Soil mottling not observed			
9 -				Note: Basin flood test performed @ 7'			
11 =							
12 =							
14 =							
15 <u>-</u> 16 <u>-</u>							
17							
18 <u>-</u> 19 -							
20							

REMARKS THE

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Plate No.: 3G



Davidson Properties, LLC Proposed Warehouse Development Franklin Township, NJ EXPLORATION NO.: TP-8 SHEET: 1 of 1 PROJECT NO: 26.0092440.

PROJECT NO: 26.0092440.01 REVIEWED BY: Cory Karinja

Logged By: Nick Pytlowany

Contractor: Neary Excavating **Operator:** Paul

Ground Surface Elev. (ft.): 73.0

Test Pit Location: See Plan

Date Start - Finish: 8/3/2021 - 8/3/2021

Final Test Pit Depth (ft.): 11

Depth (ft)	Sample No.	Sample Depth (ft.)	Stratum Depth (in.)	Sample Description and Identification	Depth (ft)	Water Content (%)	Remark
=			0-8	Topsoil - Black (10YR, 2/1) loam, moderate medium granular,] =		
1 =				slightly moist, loose, abrupt smooth boundary, many medium roots Dark reddish brown (2.5YR, 3/4) clay loam, 30% gravel, moderate	1 =		
2 _	04 74	0.5	8-40	medium granular, slightly moist, firm, clear smooth boundary	2 =		
3 _	S1, T1	2.5			3 =		
4				Dark reddish brown (2.5YR, 3/4) shale, slightly moist	4 =		
5 _					5 _		
6 =					6 _		
7 =			40-132		7 =		
8 =					8 =		
9 -					9 =		
10 =					10 _		
11 =				- refusal in shale @ 11'	11 -		
12 <u>-</u> 13 <u>-</u>				End of exploration at 11 feet. Groundwater seepage not encountered Soil mottling not observed Note: Basin flood test performed @ 11'			
14 <u>-</u> - 15 -				The same and the s			
16 _							
17							
18							
19 =							
20 =							

REMARKS

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Plate No.: 3H



Logged By: Nick Pytlowany

Davidson Properties, LLC Proposed Warehouse Development Franklin Township, NJ EXPLORATION NO.: TP-9
SHEET: 1 of 1
PROJECT NO: 26.0092440.01

REVIEWED BY: Cory Karinja

Test Pit Location: See Plan Final Test Pit Depth (ft.): 10

Contractor: Neary Excavating

Operator: Paul

Ground Surface Elev. (ft.): 71.0

Date Start - Finish: 8/3/2021 - 8/3/2021

Operator: Paul Ground Surface Elev. (ft.): 71.0 Date Start - Finish: 8/3/2021 - 8/3/2

Type of Excavator: Track Excavator

Groundwater Depth (ft.)

Depth (ft)	Sample No.	Sample Depth (ft.)	Stratum Depth (in.)	Sample Description and Identification	Depth (ft)	Water Content (%)	Remark
=			0-6	Topsoil - Black (10YR, 2/1) loam, moderate medium granular,	_	,	
1 =				slightly moist, loose, abrupt smooth boundary, many medium roots	1 _		
2 _	T1	2		Fill - Dark reddish brown (2.5YR, 3/4) silt loam, 25% gravel, moderate medium subangular blocky, slightly moist, friable, abrupt smooth boundary	2 =		
3 =	S1	3.5	6-66		3 =		
4 <u>-</u> 5 <u>-</u>					4 <u>-</u> 5 <u>-</u>		
6			66-70	Very pale brown (10YR, 7/4) silt, moderate coarse subangular blocky, slightly moist, friable, clear smooth boundary, common	6		
7 _				medium distinct light gray (10YR, 7/1) mottles encountered from 66 inches to 70 inches	7 _		
8 <u>-</u> - 9 -			70-120	Dark reddish brown (2.5YR, 3/4) shale with 20% clay loam, slightly moist	8 -		
10 _				- refusal in shale @ 10'	10 -		
11 _				End of exploration at 10 feet. Moderate groundwater seepage encountered @ 8' Soil mottling observed @ 66"			
12 <u>-</u> 13 -				Note: Basin flood test could not be performed due to groundwater			
14 _				seepage			
15							
16 _							
17 <u>-</u> - 18 -							
19 _							
20							

REMARKS

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Plate No.: 3I



Davidson Properties, LLC Proposed Warehouse Development Franklin Township, NJ EXPLORATION NO.: TP-10 SHEET: 1 of 1

PROJECT NO: 26.0092440.01
REVIEWED BY: Cory Karinja

Logged By: Nick Pytlowany

Contractor: Neary Excavating

Test Pit Locat

Test Pit Location: See Plan Final Test Pit Depth (ft.): 11

Operator: Paul Ground Surface Elev. (ft.): 71.5

Date Start - Finish: 8/3/2021 - 8/3/2021

	Depth (ft)	Sample No.	Sample Depth (ft.)	Stratum Depth (in.)	Sample Description and Identification	Depth (ft)	Water Content (%)	Remark
t	=		,	0-6	Topsoil - Black (10YR, 2/1) loam, moderate medium granular,	=		
	1 =				slightly moist, loose, abrupt smooth boundary, many medium roots Fill - Dark reddish brown (2.5YR, 3/4) silt loam, 25% gravel, 10%	1 =		
	2 = 3 = 3	S1, T1	2	6-45	cobbles, moderate medium granular, moist, friable, clear smooth boundary, common medium roots	2 -		
	4	S2	4			4 -		
	5 _	32	4	45-60	Very pale brown (10YR, 7/4) silt loam, moderate medium subangular blocky, slightly moist, firm, clear smooth boundary, few fine faint light gray (10YR, 7/1) mottles encountered from 45 inches	5 -		
	6 =				to 60 inches Dark reddish brown (2.5YR, 3/4) shale, slightly moist	6 =		
	7 _					7 _		
	8 =			60-132		8 =		
	9 -					9 =		
	10 <u>-</u> 11 -				- refusal in shale @ 11'	10 =		
	12				End of exploration at 11 feet. Moderate groundwater seepage encountered @ 8'			
	13				Soil mottling observed @ 45"			
	14 _				Note: Basin flood test could not be performed due to groundwater seepage			
	15 _							
	16 _							
	17 _=							
	18 =							
	19 =							
, ,	20 -			1				

REMARKS

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Plate No.: 3J



Davidson Properties, LLC Proposed Warehouse Development Franklin Township, NJ

EXPLORATION NO.: TP-11 SHEET: 1 of 1

PROJECT NO: 26.0092440.01 REVIEWED BY: Cory Karinja

Date Start - Finish: 8/3/2021 - 8/3/2021

Logged By: Nick Pytlowany Contractor: Neary Excavating

Test Pit Location: See Plan

Final Test Pit Depth (ft.): 10

Operator: Paul Groundwater Depth (ft.) Type of Excavator: Track Excavator

Ground Surface Elev. (ft.): 66.5

Date Time **Water Depth** Stab.Time 8/3/21 **Excavator Model:** Case CX 160 5

Depth (ft)	Sample No.	Sample Depth (ft.)	Stratum Depth (in.)	Sample Description and Identification	Depth (ft)	Water Content (%)	Remark
1 _	S1, T1	1.5	0-6 6-25	Topsoil - Black (10YR, 2/1) loam, moderate medium granular, slightly moist, loose, abrupt smooth boundary, common medium roots	1 -		_
2 _	·		0-25	Brown (10YR, 6/3) silt loam, moderate medium granular, slightly	2 =		
3 _	S2	2.5	25-35	moist, friable, clear smooth boundary, few fine faint light gray (10YR, 7/1) mottles encountered from 6 inches to 25 inches	3 =		
4 _				Dark reddish brown (2.5YR, 3/4) loam, 75% gravel, moderate medium subangular blocky, slightly moist, firm, clear smooth boundary	4 =		
5 _				Dark reddish brown (2.5YR, 3/4) shale, slightly moist	5 =		
6 _					6 _		
7 _			35-120		7 _		
8 _					8 =		
9 _					9 =		
10 _				- refusal in shale @ 10'	10 =		
11 _				End of exploration at 10 feet. Moderate groundwater seepage encountered @ 5'			
12 _				Soil mottling observed @ 6"			
13 _				Note: Basin flood test could not be performed due to groundwater seepage			
14 _							
15							
16 _							
17							
18 _							
19 _							
20							

REMARKS

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made. Plate No.: 3K



Davidson Properties, LLC Proposed Warehouse Development Franklin Township, NJ EXPLORATION NO.: TP-12 SHEET: 1 of 1

PROJECT NO: 26.0092440.01 REVIEWED BY: Cory Karinja

Date Start - Finish: 8/3/2021 - 8/3/2021

Logged By: Nick Pytlowany

Contractor: Neary Excavating **Operator:** Paul

Test Pit Location: See Plan **Ground Surface Elev. (ft.):** 67.0

Final Test Pit Depth (ft.): 11

Type of Excavator: Track Excavator Groundwater Depth (ft.)

DateTimeWater DepthStab.TimeExcavator Model:Case CX 1608/3/216

	•					
Sample No.	Sample Depth (ft.)	Stratum Depth (in.)	Sample Description and Identification	Depth (ft)	Water Content (%)	Remark
		0-8	Topsoil - Black (10YR, 2/1) loam, moderate medium granular,			_
S1, T1	2	8-33	Brown (10YR, 6/3) loam, 15% gravel, moderate coarse granular, moist, friable, clear smooth boundary, few fine roots, few fine faint light gray (10YR, 7/1) mottles encountered from 12 inches to 33	2 =		
S2	3		inches	3 =		
			Dark reddish brown (2.5YR, 3/4) shale with 10% clay loam, slightly moist			
				6		
		33-132		-		
				9 -		
			refused in shade @ 441	10 _=		
				/''-		
			Moderate groundwater seepage encountered @ 6' Soil mottling observed @ 12"			
			Note: Basin flood test could not be performed due to groundwater seepage			
	No. S1, T1	Sample Depth (ft.) S1, T1 2	Sample No. Depth (ft.) Depth (in.) S1, T1 2 8-33 S2 3	Sample No. Depth (ft.) Depth (ft.) Sample Description and Identification (in.)	Sample No. Depth (ft.) Depth (ft.) Sample Description and Identification (ft.) (ft.)	Sample Depth (ft.) Depth (in.) O-8 Topsoil - Black (10YR, 2/1) loam, moderate medium granular, slightly moist, loose, abrupt smooth boundary, many medium roots Brown (10YR, 6/3) loam, 15% gravel, moderate coarse granular, moist, friable, clear smooth boundary, few fine roots, few fine faint light gray (10YR, 7/1) mottles encountered from 12 inches to 33 inches Dark reddish brown (2.5YR, 3/4) shale with 10% clay loam, slightly moist 4

REMARKS

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Plate No.: 3L

3B - MTA TEST PIT USDA; 10/26/2021; 4:46:26 PM



Davidson Properties, LLC Proposed Warehouse Development Franklin Township, NJ EXPLORATION NO.: TP-13 SHEET: 1 of 1

PROJECT NO: 26.0092440.01 REVIEWED BY: Cory Karinja

Date Start - Finish: 8/3/2021 - 8/3/2021

Logged By: Nick Pytlowany

Contractor: Neary Excavating **Operator:** Paul

Test Pit Location: See Plan
Ground Surface Elev. (ft.): 66

Final Test Pit Depth (ft.): 10

Type of Excavator: Track Excavator Groundwater Depth (ft.)

DateTimeWater DepthStab.TimeExcavator Model:Case CX 1608/3/215

Depth (ft)	Sample No.	Sample Depth (ft.)	Stratum Depth (in.)	Sample Description and Identification	Depth (ft)	Water Content (%)	Remark
1 _=		(11.7)	0-6	Topsoil - Black (10YR, 2/1) loam, moderate medium granular, slightly moist, loose, abrupt smooth boundary, many medium roots	1 _		Ľ
2 -	S1, T1	1.5	6-27	Very pale brown (10YR, 7/4) silt loam, moderate medium subangular blocky, slightly moist, friable, clear smooth boundary, common medium faint light gray (10YR, 7/1) mottles encountered	2 =		
3	S2, T2	3.5	27-52	from 6 inches to 27 inches Dark reddish brown (2.5YR, 3/4) sandy loam, 10% gravel, moderate coarse granular, slightly moist, firm, clear smooth boundary	3		
5 -				Dark reddish brown (2.5YR, 3/4) shale, slightly moist	5 -		
6 = 7 = -			52-120		6 -		
8 - 9 -					8 -		
10				- refusal in shale @ 10'	10 -		
11 <u>-</u> 12 <u>-</u>				End of exploration at 10 feet. Moderate groundwater seepage encountered @ 5' Soil mottling observed @ 6"			
13 _				Note: Basin flood test could not be performed due to groundwater seepage			
14 <u>-</u> 15 <u>-</u>							
16 <u>-</u> 17 <u>-</u>							
18 <u>-</u> 19 -							
20 -							

REMARKS

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Plate No.: 3M



Davidson Properties, LLC Proposed Warehouse Development Franklin Township, NJ EXPLORATION NO.: TP-14 SHEET: 1 of 1

PROJECT NO: 26.0092440.01 REVIEWED BY: Cory Karinja

Logged By: Nick Pytlowany

Contractor: Neary Excavating **Operator:** Paul

Test Pit Location: See Plan
Ground Surface Elev. (ft.): 67

Final Test Pit Depth (ft.): 11

Date Start - Finish: 8/2/2021 - 8/2/2021

Type of Excavator: Track Excavator Groundwater Depth (ft.)

DateTimeWater DepthStab.TimeExcavator Model:Case CX 1608/2/218

Depth (ft)	Sample No.	Sample Depth (ft.)	Stratum Depth (in.)	Sample Description and Identification	Depth (ft)	Water Content (%)	Remark
1 -	S1, T1	1	0-5 5-21	Topsoil - Black (10YR, 2/1) loam, moderate medium subangular blocky, slightly moist, friable, clear smooth boundary, common medium roots	1	(70)	<u> </u>
2 - 3 - 3 - 1	S2	3	21-53	Very pale brown (10YR, 7/4) silt, moderate medium subangular blocky, slightly moist, friable, clear smooth boundary, common medium distinct light gray (10YR, 7/1) mottles encountered from 5 inches to 21 inches	3 _		
4			53-132	Dark reddish brown (2.5YR, 3/4) sandy loam, 15% gravel, moderate medium subangular blocky, moist, friable, clear smooth boundary Dark reddish brown (2.5YR, 3/4) shale with 10% clay loam, slightly moist - refusal in shale @ 11'	4		
12 13 14 15 16 17 18 19 20				End of exploration at 11 feet. Moderate groundwater seepage encountered @ 8' Soil mottling observed @ 5" Note: Basin flood test performed @ 7.5'			

REMARKS

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Plate No.: 3N

TEST PIT LOG Davidson Properties, LLC



Proposed Warehouse Development Franklin Township, NJ

EXPLORATION NO.: TP-15

SHEET: 1 of 1 PROJECT NO: 26.0092440.01 REVIEWED BY: Cory Karinja

Logged By: Nick Pytlowany

Contractor: Neary Excavating

Test Pit Location: See Plan

Final Test Pit Depth (ft.): 13

Operator: Paul

Ground Surface Elev. (ft.): 68 **Date Start - Finish:** 8/2/2021 - 8/2/2021

Type of Excavator: Track Excavator Groundwater Depth (ft.)

DateTimeWater DepthStab.TimeExcavator Model:Case CX 1608/2/219.5

Depth (ft)	Sample No.	Sample Depth (ft.)	Stratum Depth (in.)	Sample Description and Identification	Depth (ft)	Water Content (%)	Remark
1 -	S1, T1	1.5	0-13	Topsoil - Black (10YR, 2/1) sandy loam, moderate coarse crumb, slightly moist, loose, abrupt smooth boundary, common medium roots	1 _		
2 =	- 1, 1 1		13-28	Very pale brown (10YR, 7/4) silt, strong coarse subangular blocky, slightly moist, friable, clear smooth boundary, common medium	2 =		
3 _	S2, T2	3		distinct light gray (10YR, 7/1) mottles encountered from 13 inches to 28 inches	3 =		
4 =			28-64	Dark reddish brown (2.5YR, 3/4) sandy loam, moderate medium subangular blocky, slightly moist, friable	4 =		
5 <u>-</u> - 6 -	00.70			Dark reddish brown (2.5YR, 3/4) sandy loam, 15% gravel, moderate	5 =		
7 -	S3, T3	6		medium granular, slightly moist, friable, clear smooth boundary, common coarse prominent light gray (10YR, 7/1) mottles	7 -		
8 _			64-112	encountered from 67 inches to 112 inches	8 _		
9 =					9 _		
10				Dark reddish brown (10YR, 3/4) shale, wet	10 _		
11			112-156		11 _		
12 _=					12 _=		
13 =				- refusal in shale @ 13'	13 -		
14 _				End of exploration at 13 feet. Moderate groundwater seepage encountered @ 9.5' Soil mottling observed @ 13"			
15 _				Note: Basin flood test could not be performed due to groundwater			
16 _=				seepage			
17 =							
18 <u>-</u> 19 -							
20							

REMARKS

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Plate No.: 30



Davidson Properties, LLC Proposed Warehouse Development Franklin Township, NJ EXPLORATION NO.: TP-16 SHEET: 1 of 1

PROJECT NO: 26.0092440.01 REVIEWED BY: Cory Karinja

Logged By: Nick Pytlowany **Contractor:** Neary Excavating

Operator: Neary Excavating

Operator: Paul

Test Pit Location: See Plan

Final Test Pit Depth (ft.): 10

Ground Surface Elev. (ft.): 68 **Date Start - Finish:** 8/3/2021 - 8/3/2021

 Type of Excavator:
 Track Excavator
 Groundwater Depth (ft.)

 Date
 Time
 Water Depth
 Stab.Time

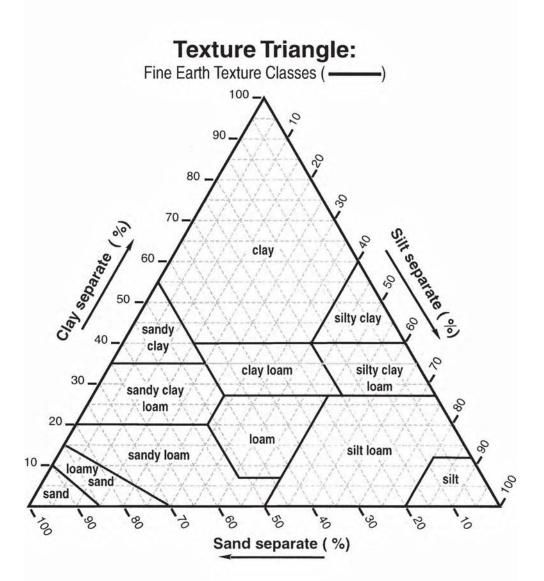
 Excavator Model:
 Case CX 160
 8/3/21
 10

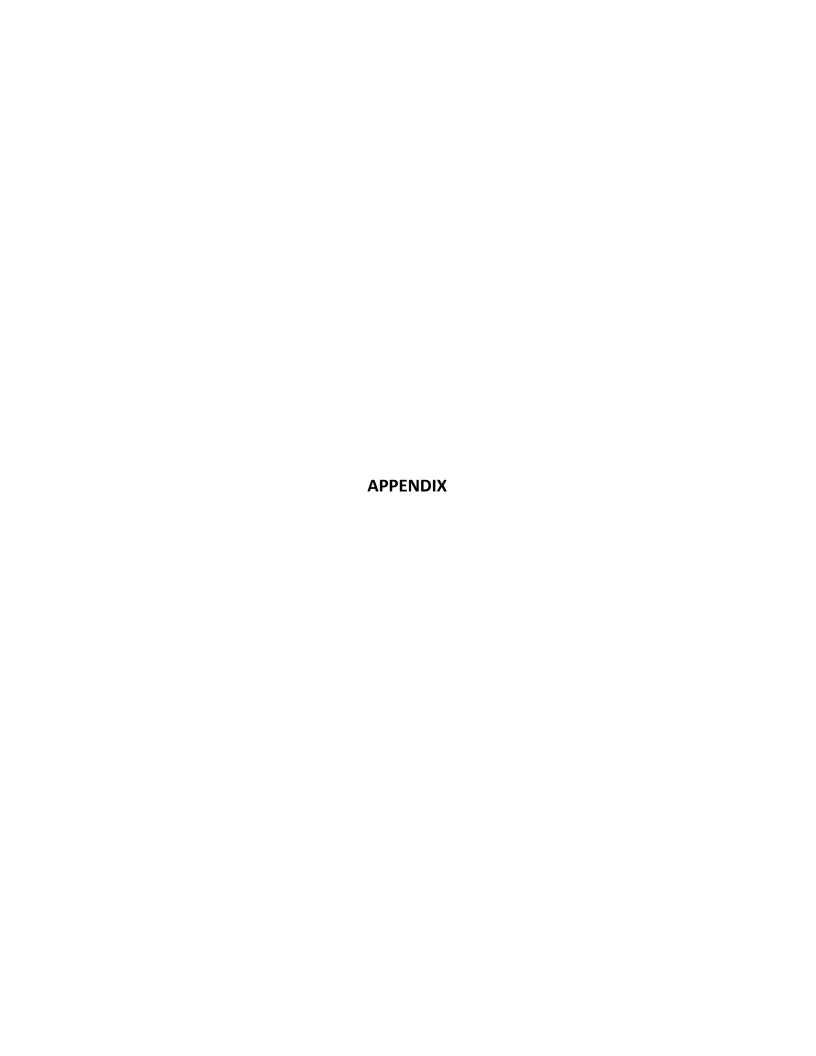
Depth (ft)	Sample No.	Sample Depth (ft.)	Stratum Depth (in.)	Sample Description and Identification	Depth (ft)	Water Content (%)	Remark
1 -	04.74	4.5	0-10	Topsoil - Black (10YR, 2/1) loam, 10% gravel, moderate medium subangular blocky, slightly moist, loose, abrupt smooth boundary, many medium roots	1 =		
2 _	S1, T1	1.5	10-28	Pale brown (10YR, 7/4) silt loam, moderate medium subangular blocky, slightly moist, firm, clear smooth boundary, few fine roots,	2 =		
3 =	S2	3	28-40	few fine faint light gray (10YR, 7/1) mottles encountered from 18 inches to 28 inches	3 =		
4 = 5 = 5				Dark reddish brown (2.5YR, 3/4) sandy loam, 10% gravel, strong coarse crumb, slightly moist, firm, clear smooth boundary Dark reddish brown (2.5YR, 3/4) shale, slightly moist	4 -		
6 -				Dark reddish brown (2.51K, 5/4) shale, slightly moist	6 _		
7_			40-120		7 _		
8 _					8 _		
9 -				੍ਰ - refusal in shale @ 10'	9 -		
11				End of exploration at 10 feet. Moderate groundwater seepage encountered @ 10' Soil mottling observed @ 18" Note: Basin flood test performed @ 6'			

REMARKS

See Log Key for exploration of sample description and identification procedures. Stratification lines represent approximate boundaries between soil and bedrock types. Actual transitions may be gradual. Water level readings have been made at the times and under the conditions stated. Fluctuations of groundwater may occur due to other factors than those present at the times the measurements were made.

Plate No.: 3P





APPENDIX

Limitations

A. Subsurface Information

<u>Locations</u>: The locations of the explorations were approximately determined by tape measurement from existing site features. Elevations of the explorations were approximately determined by interpolation between contours shown on topographic plans provided to us. The locations and elevations of the explorations should be considered accurate only to the degree implied by the method used.

<u>Interface of Strata:</u> The stratification lines shown on the individual logs of the subsurface explorations represent the approximate boundaries between soil types, and the transitions may be gradual.

<u>Field Logs/Final Logs:</u> A field log was prepared for each exploration by a member of our staff. The field log contains factual information and interpretation of the soil conditions between samples. Our recommendations are based on the final logs as shown in this report and the information contained therein, and not on the field logs. The final logs represent our interpretation of the contents of the field logs, and the results of the laboratory observations and/or tests of the field samples.

<u>Water Levels</u>: Water level readings have been made in the explorations at times and under conditions stated on the individual logs. These data have been reviewed and interpretations made in the text of this report. However, it must be noted that fluctuations in the level of the groundwater will occur due to variations in rainfall, temperature, and other factors.

<u>Pollution/Contamination:</u> Unless specifically indicated to the contrary in this report, the scope of our services was limited only to investigation and evaluation of the geotechnical engineering aspects of the site conditions, and did not include any consideration of potential site pollution or contamination resulting from the presence of chemicals, metals, radioactive elements, etc. This report offers no facts or opinions related to potential pollution/contamination of the site.

<u>Environmental Considerations</u>: Unless specifically indicated to the contrary in this report, this report does not address environmental considerations which may affect the site development, e.g., wetlands determinations, flora and fauna, wildlife, etc. The findings and recommendations of this report are not intended to supersede any environmental conditions which should be reflected in the site planning.

B. Applicability of Report

This report has been prepared in accordance with generally accepted soils engineering practices for the exclusive use of Davidson Properties, LLC for specific application to the design of the proposed warehouse development. No other warranty, expressed or implied, is made.

This report may be referred to in the project specifications for general information purposes only, but should not be used as the technical specifications for the work, as it was prepared for design purposes exclusively.

C. Reinterpretation of Recommendations

<u>Change in Location or Nature of Facilities:</u> In the event that any changes in the nature, design or location of the facilities are planned, the findings and recommendations contained in this report shall not be considered valid unless the changes are reviewed and the findings of this report modified or verified in writing.

<u>Changed Conditions During Construction</u>: The analyses and recommendations submitted in this report are based in part upon the data obtained from 16 widely-spaced test pit excavations performed for this study. The nature and extent of variations between the explorations may not become evident until construction. If variations then appear evident, it will be necessary to reevaluate the recommendations of this report.

<u>Changes in State-of-the-Art:</u> The findings and recommendations contained in this report are based upon the applicable standards of our profession at the time this report was prepared.

D. Use of Report by Prospective Bidders

This soil report was prepared for the project by Melick-Tully and Associates, a Division of GZA GeoEnvironmental Inc. (MTA) for design purposes and may not be sufficient to prepare an accurate bid. Contractors utilizing the information in the report should do so with the express understanding that its scope was developed to address design considerations. Prospective bidders should obtain the owner's permission to perform whatever additional explorations or data gathering they deem necessary to prepare their bid accurately.

E. Construction Observation

We recommend that MTA be retained to provide on-site soils engineering services during the earthwork construction phase of the work. This is to observe compliance with the design concepts and to allow changes in the event that subsurface conditions differ from those anticipated prior to the start of construction.

APPENDIX C NATURAL HERITAGE RESPONSE LETTER



DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF PARKS & FORESTRY
NEW JERSEY FOREST SERVICE
OFFICE OF NATURAL LANDS MANAGEMENT
P.O. BOX 420
TRENTON NI 08625-0420

TRENTON, NJ 08625-0420 Tel. (609) 984-1339 Fax (609) 984-0427

December 21, 2020

CATHERINE R. McCABE

Commissioner

Gabriela Goncalves Bohler Engineering 30 Independence Boulevard Warren, NJ 07059

Re: Franklin

PHILIP D. MURPHY

SHEILA Y. OLIVER

Lt. Governor

Governor

Block(s) - 468.01, Lot(s) - 20.01 Franklin Township, Somerset County

Dear Ms. Goncalves:

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 topographic map(s) submitted with the Natural Heritage Data Request Form into our Geographic Information System. 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.

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 and 2 (attached) to determine if any priority sites are located on or in the immediate vicinity of the 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

NHP File No. 20-4007455-20777

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. 20-4007455-20777

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

Report Name	<u>Included</u>	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

Monday, December 21, 2020 NHP File No.: 20-4007455-20777

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					

Monday, December 21, 2020 NHP File No.: 20-4007455-20777

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

Report Name	<u>Included</u>	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

Page 1 of 1

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					

Page 1 of 1

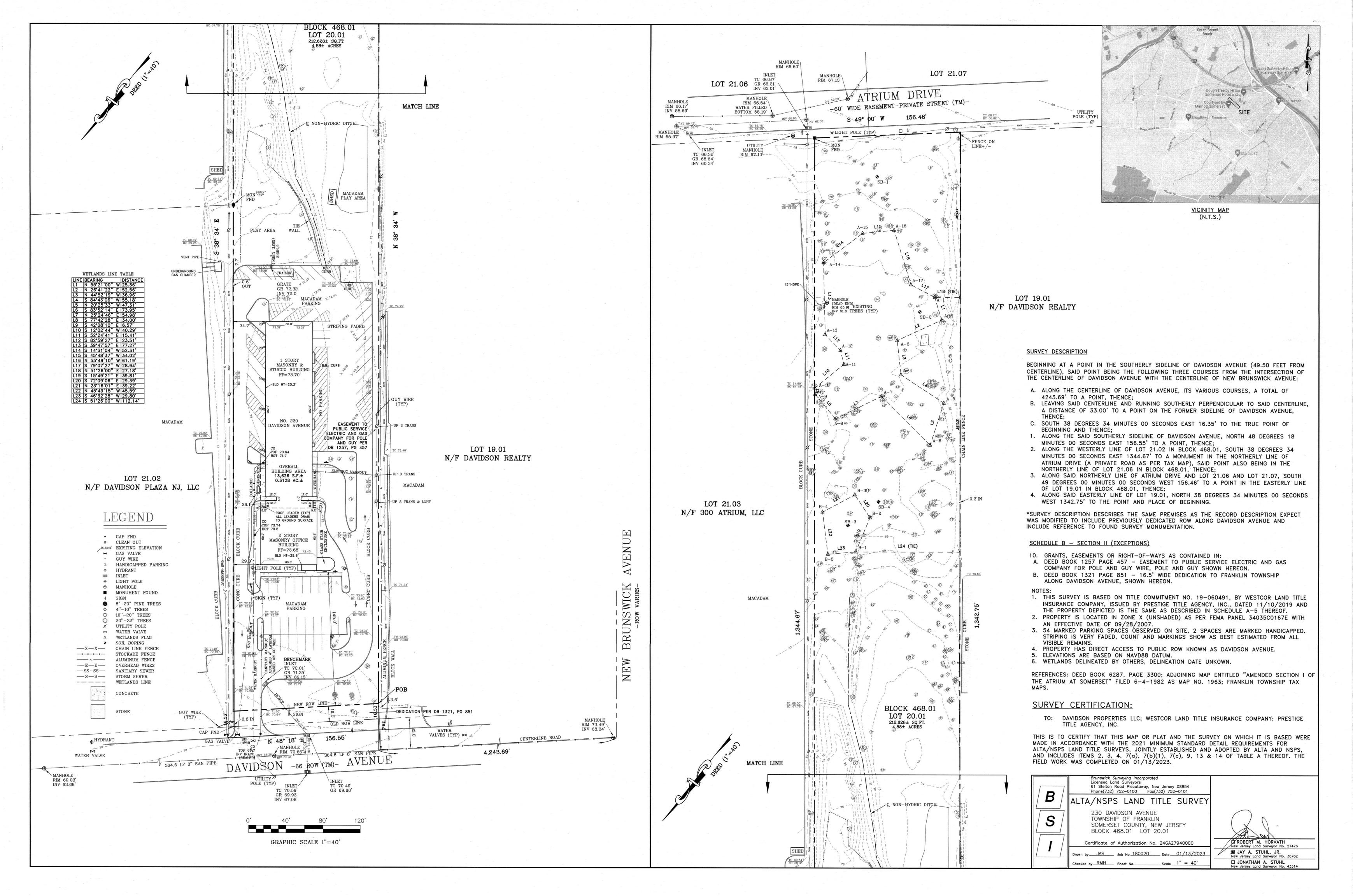
Monday, December 21, 2020 NHP File No.: 20-4007455-20777

Mail Code 501-04 Department of Environmental Protection New Jersey Forest Service Office of Natural Lands Management P.O. Box 420 Trenton, New Jersey 08625-0420 Tel. (609) 984-1339 Fax. (609) 984-1427

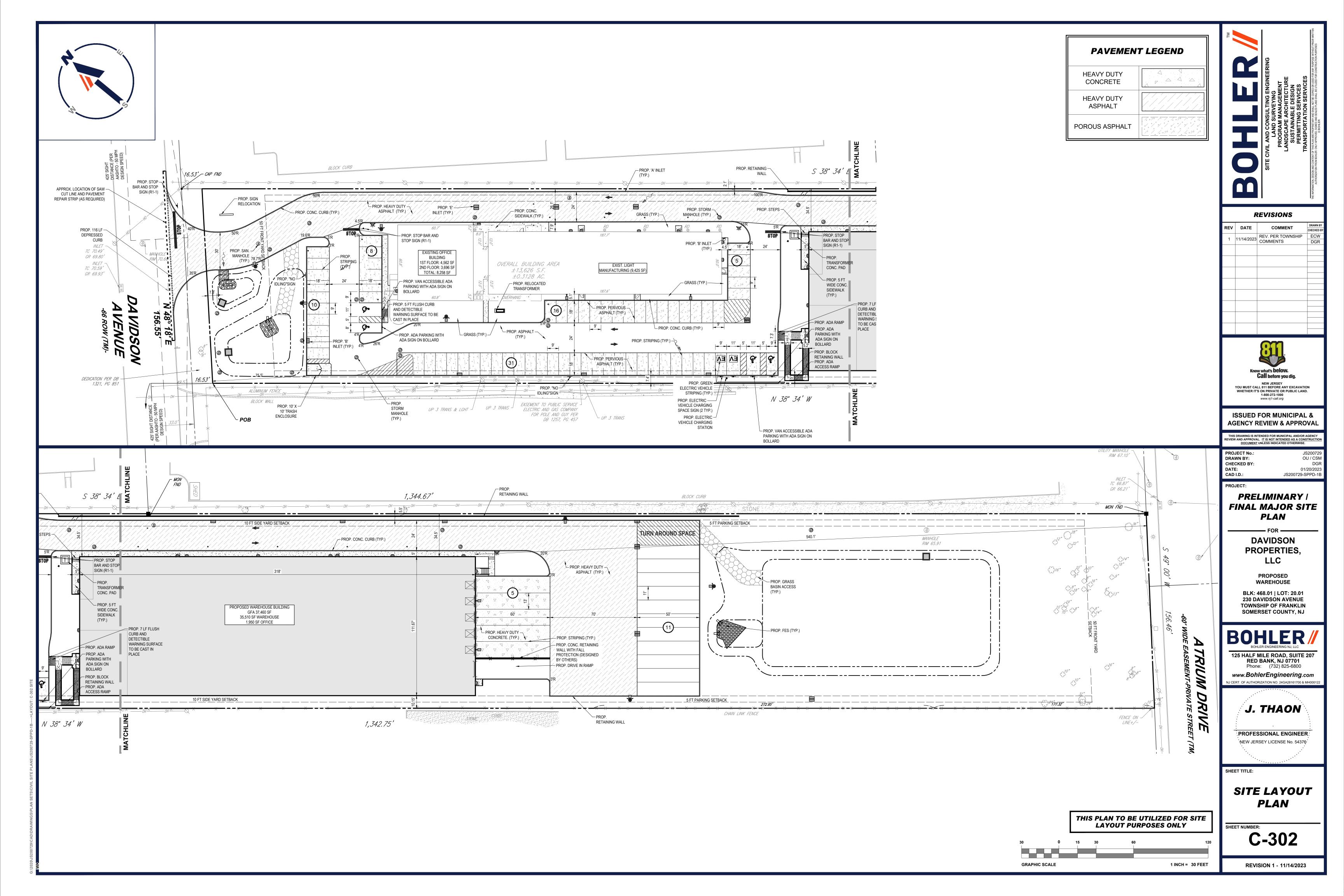
Invoice

		Date		Invoice #
		12/21/2020		20777
Bill to:		Make check		
Bohler Engineer		DEP - Offic	e of Natural Land	ls Management
30 Independent				
Warren, NJ 070	59		<u>ith a copy of this</u>	statement to:
		Mail Code !		
			atural Lands Man	
		P.O. Box 42	20 Trenton, New	Jersey 08625-0420
Quantity (hrs.)	Description		Rate (per hr.)	Amount
1	Natural Heritage Database search for	locational	\$ 70.00	\$ 70.00
	information of rare species and ecolog		Ψ 7 0.00	φ 7 0.00
	communities.	,		
	Project: 20-4007455-20777			
Gabriela Goncal			Total	¢ 70.00
Project Name: F	-гапкііп		Total	\$ 70.00

APPENDIX D EXISTING CONDITIONS PLAN



APPENDIX E OVERALL PROPOSED CONDITIONS PLAN



APPENDIX F
WETLANDS LOI



State of New Jersey

PHILIP D. MURPHY Governor

SHEILA Y. OLIVER
Lt. Governor

DEPARTMENT OF ENVIRONMENTAL PROTECTION

SHAWN M. LATOURETTE Acting Commissioner

Division of Land Resource Protection Mail Code 501-02A P.O. Box 420 Trenton, New Jersey 08625-0420 www.nj.gov/dep/landuse

February 16, 2021

Aditya Mokkapati Davidson Properties, LLC 100 Franklin Square Drive, Suite 207 Somerset, New Jersey 08873

RE: Freshwater Wetlands Letter of Interpretation: Line Verification

File No.: 1808-20-0001.1 Activity Number: LLI200001

Applicant: DAVIDSON PROPERTIES, LLC

Block and Lot: [468.01, 20.01] Franklin Township, Somerset County

Dear Mr. Mokkapati:

This letter is in response to your request for a Letter of Interpretation to have Division of Land Resource Protection (Division) staff verify the boundary of the freshwater wetlands and/or State open waters on the referenced property.

In accordance with agreements between the State of New Jersey Department of Environmental Protection (NJDEP), the U.S. Army Corps of Engineers (USACOE) Philadelphia and New York Districts, and the U.S. Environmental Protection Agency (USEPA), the Division is the lead agency for establishing the extent of State and Federally regulated wetlands and waters. The USEPA and/or USACOE retain the right to reevaluate and modify the jurisdictional determination at any time should the information prove to be incomplete or inaccurate.

Based upon the information submitted, and upon a site inspection conducted by Division staff on January 28, 2021, the Division has determined that the wetlands and waters boundary line(s) as shown on the plan map entitled: "LEGAL TOPOGRAPHIC SURVEY DAVIDSON PROPERTIES LLC TOWNSHIP OF FRANKLIN SOMERSET COUNTY, NEW JERSEY BLOCK 468.01 LOT 20.01", consisting of one (1) sheet, dated November 20, 2020, last revised February 12, 2021, and prepared by Jonathan A. Stuhl, N.J. PLS, of Brunswick Surveying Incorporated, is accurate as shown.

The freshwater wetlands and waters boundary line(s), as determined in this letter, must be shown on any future site development plans. The line(s) should be labeled with the above DLUR file number and the following note:

"Freshwater Wetlands/Waters Boundary Line as verified by NJDEP"

Wetlands Resource Value Classification ("RVC")

In addition, the Division has determined that the resource value and the standard transition area or buffer required adjacent to the delineated wetlands are as follows:

Intermediate: All wetlands on site. [50 foot wetland buffer]

Wetlands delineated by points [A-1 through A-17] and [B-1 through B-5] are considered by the Department to be isolated wetlands and not part of a surface water tributary system. RVC may affect requirements for wetland and/or transition area permitting. This classification may affect the requirements for an Individual Wetlands Permit (see N.J.A.C. 7:7A-7), the types of Statewide General Permits available for the property (see N.J.A.C. 7:7A-4) and any modification available through a transition area waiver (see N.J.A.C. 7:7A-6). Please refer to the Freshwater Wetlands Protection Act (N.J.S.A. 13:9B-1 et seq.) and implementing rules for additional information.

Wetlands resource value classification is based on the best information available to the Department. The classification is subject to reevaluation at any time if additional or updated information is made available, including, but not limited to, information supplied by the applicant.

General Information

Pursuant to the Freshwater Wetlands Protection Act Rules, you are entitled to rely upon this jurisdictional determination for a period of five years from the date of this letter unless it is determined that the letter is based on inaccurate or incomplete information. Should additional information be disclosed or discovered, the Division reserves the right to void the original letter of interpretation and issue a revised letter of interpretation.

Regulated activities proposed within a wetland, wetland transition area or water area, as defined by N.J.A.C. 7:7A-2.2 and 2.6 of the Freshwater Wetlands Protection Act rules, require a permit from this office unless specifically exempted at N.J.A.C. 7:7A-2.8. The approved plan and supporting jurisdictional limit information are now part of the Division's public records.

This letter in no way legalizes any fill which may have been placed, or other regulated activities which may have occurred on-site. This determination of jurisdiction extent or presence does not make a finding that wetlands or water areas are "isolated" or part of a surface water tributary system unless specifically called out in this letter as such. Furthermore, obtaining this determination does not affect your responsibility to obtain any local, State, or Federal permits which may be required.

Appeal Process

In accordance with N.J.A.C. 7:7A-1.7, any person who is aggrieved by this decision may request a hearing within 30 days of the date the decision is published in the DEP Bulletin by writing to: New Jersey Department of Environmental Protection, Office of Legal Affairs, Attention: Adjudicatory Hearing Requests, P.O. Box 402, Trenton, NJ 08625-0402. This request must include a completed copy of the Administrative Hearing Request Checklist found at www.state.nj.us/dep/landuse/forms. Hearing requests received after 30 days of publication notice may be denied. The DEP Bulletin is available on the Department's website at www.state.nj.us/dep/bulletin. In addition to your hearing request, you may file a request with the

Office of Dispute Resolution to engage in alternative dispute resolution. Please see the website www.nj.gov/dep/odr for more information on this process.

Please contact of our staff by e-mail at <u>Jessica.palilonis@dep.nj.gov</u> or (609) 777-0454 should you have any questions regarding this letter. Be sure to indicate the Department's file number in all communication.

Sincerely,

Tina Wolff, Environmental Specialist 3 Division of Land Resource Protection

c: Franklin Township Municipal Clerk Franklin Township Municipal Construction Official Agent (original), Tung-To Lam of Bohler