

TOWN OF NEWBURGH PLANNING BOARD TECHNICAL REVIEW COMMENTS

PROJECT NAME:POSITIVE DEVPROJECT NO.:22-16PROJECT LOCATION:36 RACQUET FSECTION 86, BSECTION 86, BREVIEW DATE:12 MAY 2023MEETING DATE:18 MAY 2023

PROJECT REPRESENTATIVE:

POSITIVE DEVELOPERS WAREHOUSE 22-16 36 RACQUET ROAD SECTION 86, BLOCK 1, LOT 26.31 12 MAY 2023 18 MAY 2023 ENGINEERING AND SURVEYING PROPERTIES, PC

- 1. The Highway Superintendent's comments regarding the location of the access drive should be received.
- 2. A review of the Tree Preservation Plan submitted (Sheet 106) identifies the removal of 85.2% of the significant trees, 89.6% of specimen trees and 100% of the protected trees. A Mitigation Plan must be prepared for the percentage removals identified. A re-planting plan in compliance with the Tree Preservation Ordinance and/or monetary contribution must be identified. It is requested that the applicants Forestry Professional provide a Narrative Report on the Tree Preservation Plan and proposed mitigation.
- 3. All Stormwater Management Facilities which contain a permanent pool must be fenced in compliance with Town of Newburgh Stormwater Management Regulations.
- 4. A City of Newburgh Flow Acceptance Letter from the facility is required. Hydraulic loading should be identified in a short narrative letter.
- 5. Top and bottom elevations of retaining wall on the south side of the site should be identified in several locations.
- 6. It is suggested the applicants evaluate the pipe run between drainage and manhole #1 and catch basin #8 with regard to potentially connecting catch basing #8 to catch basin #9, eliminating a significant pipe run.
- County Planning Referral for the project is required. Board circulated for Lead Agency in October of 2022 and is now Lead Agency as no other agency objected to the Planning Board's Notice of Intent for Lead Agency.
- 8. The SWPPP is under review by this office.
- 9. Pump station Engineering Report and details should be provided. The location of the connection to the existing Town system within Racquet Road should be depicted on the plans.

NEW YORK OFFICE

PENNSYLVANIA OFFICE

- 10. The proprietary cul tech chamber system identifies ex-filtration of one half inch per hour. Soil testing should be provided to confirm permeability of the soils at the bottom of the proposed system.
- 11. Project is subject to ARB. ARB submission should be provided to the Planning Board.

Respectfully submitted,

MHE Engineering, D.P.C.

Pater & Alones

Patrick J. Hines Principal

PJH/kbw



Montgomery Office: 71 Clinton Street Montgomery, NY 12549 phone: (845) 457-7727

fax: (845) 457-1899

Warwick Office:

17 River Street Warwick, NY 10990 phone: (845) 986-7737 fax: (845) 986-0245

www.EngineeringPropertiesPC.com

July 1, 2022

Town of Newburgh Planning Board 21 Hudson Valley Professional Plaza Newburgh, NY 12550

ATTN: John Ewasutyn, Chairman

RE: W.O. # 1746.02 (PB #2022-16) POSITIVE DEVELOPERS WAREHOUSE SITE PLAN APPLICATION (86-1-26.31) **PROJECT NARRATIVE**

Dear Chairman Ewasutyn,

Raguet Road LLC is submitting a Site Plan application to the Town of Newburgh Planning Board for a proposed 42,000 s.f. warehouse. Their existing parcel is 3.94± acres, undeveloped, wooded, and located in the IB zoning district. The parcel is located at 36 Racquet Road to the north of the Gold's Gym building. The site is within the Town of Newburgh Crossroads Sewer District and a proposed private well will be used for the building's fire protection water tank and water service. Loading areas and employee parking spaces are also provided. The site will be utilizing stormwater management facilities to capture runoff.

I look forward to discussing this project with the Board at the next meeting.

Sincerely, Engineering & Surveying Properties, PC

Ross Winglovitz, P.E.

Principal

encl:

cc: file

James Martinez, E.I.T Staff Engineer

TOWN OF NEWBURGH PLANNING BOARD

APPLICATION PACKAGE for SUBDIVISIONS, SITE PLANS, LOT LINE CHANGES And SPECIAL EXCEPTION USE PERMITS

Procedures and Requirements

July 2013

TOWN OF NEWBURGH PLANNING BOARD 308 GARDNERTOWN ROAD NEWBURGH, NEW YORK 12550 (845) 564-7804 fax: (845) 564-7802 planningboard@hvc.rr.com

TO WHOM IT MAY CONCERN:

This package of information and forms is provided at assist the applicant in the preparation of a submission of a site plan, subdivision, lot line change or special exception use permit to the Town of Newburgh Planning Board. In most cases the application will be prepared initially by a licensed professional engineer, architect, surveyor or land planner. Since in almost every case such professional will be required for the process, they should be retained as early as possible.

Procedurally, the applicant should contact the Planning Board to discuss the potential project and obtain the necessary forms and regulations.

The Zoning and Subdivision Regulations of the Town of Newburgh require that the applicant must present plans to the Secretary of the Planning Board. When your application is complete, it will be placed on the next **AVAILABLE** agenda. Submittals must be handed in to the Planning Board Secretary at least 10 days prior to the next meeting, but the date of the appearance at a meeting will be determined by the next available time slot, not necessarily the next meeting. You will be notified of the date, time and place of your meeting.

A minimum of FOURTEEN (14) sets of FOLDED PLANS for a major or minor subdivision or a site plan must be submitted with a COMPLETED application, and FIFTEEN (15) sets of plans must be submitted if plans need to be submitted to the Town of Newburgh Traffic Consultant. This completed application must include a LONG FORM OR FULL EAF for every project except lot line changes, 2 lot subdivisions under 3 acres or site plans impacting less than one acre, along with a NARRATIVE of the proposed project. The narrative should include the action being taken, the size of the parcel, what zone the parcel is in, the water and sewer information, any Zoning Board of Appeals relief needed, and whether the parcel is on a private or town road. Complex or unusual projects should be discussed in greater detail.

Following the first meeting before the Planning Board the applicant is required to send an Adjoiner Notice to property owners within 500 feet of the parcels in question (please see final page of the package for full instructions). Upon initial review of a Short Form, the Planning Board may require specific additional environmental information or the preparation of a Long Form. Long Form part 1 should be completed by the applicant. The Board will review and may modify Part 2 prior to making a decision on the SEQRA aspect of the project.

All fees for consulting and professional services that the Planning Board incurs during the review of the applications will be the responsibility of the applicant. An advance deposit for these fees will be required and will be placed in an escrow account with the Town. If the escrow account falls below the 40% of the initial deposit, the applicant will be required to immediately make an additional deposit to the escrow account prior to any further review of the project application by the Planning Board.

Very truly yours,

JOHN P. EWASUTYN, Chairman Town of Newburgh Planning Board

TOWN OF NEWBURGH APPLICATION FOR SUBDIVISION/SITE PLAN REVIEW

RETURN TO: Town of Newburgh Planning Board 308 Gardnertown Road Newburgh, New York 12550

DA	TE RECEIVED:	TOWN FILE NO:	
	(Application fee re	turnable with this application)	
1.	Title of Subdivision/Site Plan (Project name):	

1. Title of Subdivision/Site Plan (Project name): Positive Developers Warehouse

2. Owner of Lands to be reviewed:

Name	Raquet Road LLC
Address	6 Balter Road
	New City, NY 10956
Phone	646-713-8779

3. Applicant Information (If different than owner):

	Name	Same as owner
	Address	
	Representati	ive Aron Rauch
	Phone	646-713-8779
	Fax	
	Email	positivebuildersny@gmail.com
	~	
4.	Subdivision/Sit	e Plan prepared by:
	Name	Engineering & Surveying Properties, PC
	Address	71 Clinton Street
		Montgomery, NY 12549
	Phone/Fax	845-457-7727
5.	Location of land	ds to be reviewed:
	36 Racquet R	oad, Newburgh, NY 12550
6.	Zone ^{IB}	Fire District Coldenham Fire District
	Acreage	
7.	Tax Map: Sect	ion <u>86</u> Block <u>1</u> Lot <u>26.31</u>

8.	Project Description and Purpose of Review:	
	Number of existing lots Number of proposed lots	1
	Lot line change	,
	Site plan review Construction of a 42,000 sf warehouse	
	Clearing and grading	
	Other	

PROVIDE A WRITTEN SINGLE PAGE DESCRIPTION OR NARRATIVE OF THE PROJECT

- 9. Easements or other restrictions on property: (Describe generally) _____
- 10. The undersigned hereby requests approval by the Planning Board of the above identified application and scheduling for an appearance on an agenda:

-	And SAW	Title Owner	
Date:	6/93/2095		

NOTE: If property abuts and has its access to a County or State Highway or road, the following information must be placed on the subdivision map or site plan: entrance location, entrance profile, sizing of pipe (minimum length of pipe to be 24 feet).

The applicant will also be required to submit an additional set of plans, narrative letter and EAF if referral to the Orange County Planning Department is required under General Municipal Law Section 239.

TOWN OF NEWBURGH PLANNING BOARD

PROJECT NAME

CHECKLIST FOR MAJOR/MINOR SUBDIVISION AND/OR SITE PLAN

I. The following items shall be submitted with a COMPLETED Planning Board Application Form.

- **1.** X Environmental Assessment Form As Required
- 2. X Proxy Statement
- 3. X Application Fees
- 4. X Completed Checklist (Automatic rejection of application without checklist)

II. The following checklist items shall be incorporated on the Subdivision Plat or Site Plan prior to consideration of being placed on the Planning Board Agenda. Non-submittal of the checklist will result in application rejection.

- 1. X Name and address of applicant
- 2. X Name and address of owner (if different from applicant)
- 3. \underline{X} Subdivision or Site Plan and Location
- 4. X Tax Map Data (Section-Block-Lot)
- 5.<u>X</u> Location map at a scale of 1" = 2,000 ft. or less on a tax map or USCGS map base only with property outlined
- 6. X Zoning table showing what is required in the particular zone and what applicant is proposing. A table is to be provided for each proposed lot
- 7. X Show zoning boundary if any portion of proposed site is within or adjacent to a different zone
- 8. X Date of plan preparation and/or plan revisions
- 9. X Scale the plan is drawn to (Max 1" = 100')
- 10. X North Arrow pointing generally up

- 11.<u>TBP</u> Surveyor,s Certification
- 12.<u>TBP</u> Surveyor's seal and signature
- 13. X Name of adjoining owners
- 14. <u>N/A</u> Wetlands and 100 ft. buffer zone with an appropriate note regarding D.E.C. or A.C.O.E. requirements
- 15.<u>N/A</u> Flood plain boundaries
- 16.<u>TBP</u> Certified sewerage system design and placement by a Licensed Professional Engineer must be shown on plans in accordance with Local Law #1 1989
- 17. X Metes and bounds of all lots
- 18. X Name and width of adjacent streets; the road boundary is to be a minimum of 25 ft. from the physical center line of the street
- **19.** $\frac{N/A}{A}$ Show existing or proposed easements (note restrictions)
- 20. X Right-of-way width and Rights of Access and Utility Placement
- $\begin{array}{c} \textbf{21.} \underline{N/A} \\ \textbf{Road profile and typical section (minimum traveled surface, excluding shoulders, is to be 18 ft. wide) } \end{array}$
- 22. X Lot area (in sq. ft. for each lot less than 2 acres)
- 23. \underline{X} Number of lots including residual lot
- 24. <u>N/A</u> Show any existing waterways
- 25.<u>N/A</u> A note stating a road maintenance agreement is to be filed in the County Clerk's Office where applicable
- 26.<u>TBP</u> Applicable note pertaining to owners review and concurrence with plat together with owner's signature
- 27. TBP Show any improvements, i.e. drainage systems, water lines, sewer lines, etc.
- 28. TBP Show all existing houses, accessory structures, wells and septic systems on and within 200 ft. of the parcel to be subdivided
- 29. X Show topographical data with 2 or 5 ft. contours on initial submission

- 30.<u>X</u> Indicate any reference to a previous subdivision, i.e. filed map number, date and previous lot number
- 31.<u>N/A</u> If a private road, Town Board approval of name is required, and notes on the plan that no town services will be provided and a street sign (per town specs) is to be furnished and installed
- 32. TBP Number of acres to be cleared or timber harvested
- 33. TBP Estimated or known cubic yards of material to be excavated and removed from the site
- 34.<u>TBP</u> Estimated or known cubic yards of fill required
- 35.<u>TBP</u> The amount of grading expected or known to be required to bring the site to readiness
- 36.<u>N/A</u> Type and amount of site preparation which falls within the 100 ft. buffer strip of wetlands or within the Critical Environmental Area. Please explain in sq. ft. or cubic yards.
- 37.<u>N/A</u> Any amount of site preparation within a 100 year floodplain or any water course on the site. Please explain in sq. ft. or cubic yards.
- 38. X List of property owners within 500 feet of all parcels to be developed (see attached statement).

The plan for the proposed subdivision or site has been prepared in accordance with this checklist.

By: Ross Winglovitz, PE

Licensed Professional

Date: ____07/01/2022

This list is designed to be a guide ONLY. The Town of Newburgh Planning Board may require additional notes or revisions prior to granting approval.

Prepared (insert date):

FEE LAW SUMMARY

PENDING APPLICATIONS

All applicants with matters pending before the Planning Board as of the effective date of this local law shall be required to post as escrow in the manner and upon the terms and conditions set forth below:

- (a) The Planning Board, in consultation with the applicant, shall compute the amount of the escrow to be posted with the Town. Such amount shall be reasonably related to the costs attendant to the Town's review of the application as of the effective date of this local law. Under no circumstances shall the escrow include amounts attributable to any costs incurred by the Town prior to the effective date of this local law.
- (b) Once computed and established by Resolution of the Planning Board, the applicant shall, within fifteen (15) days of said resolution, post escrow fees with the Secretary of the Planning Board. Failure to deliver the said escrow fees may result in delay of the further processing of the application.

SEVERABILITY

In the event a court of law determined that any provision of this chapter is unenforceable, then only that provision shall be affected and all other provisions shall be fully enforceable.

EFFECTIVE DATE:

This local law shall take effect immediately upon filing in the Office of the Secretary of State.

FEE ACKNOWLEDGEMENT

The town of Newburgh Municipal Code sets forth the schedule of fees for applications to the Planning Board. The signing of this application indicates your acknowledgement of responsibility for payment of these fees to the Planning Board for review of this application, including, but not limited to escrow fees for professional services (planner/consultant, engineering, legal), public hearing and site inspection. Applicant's submissions and resubmissions are not complete and will not be considered by the planning board or placed upon its agenda unless all outstanding fees have been paid. Fees incurred after the stamping of plans will remain the responsibility of the applicant prior to approval of a building permit or certificate of occupancy. Fee schedules are available from the Planning Board Secretary and are on the Town's website.

Raquet Rd LLC APPLICANT'S NAME (printed)

APPLICANTS SIGNATURE

2022

Note: if the property abuts and has access to a County or State Highway or road, the following information must be place on the subdivision map: entrance location, entrance profile, sizing of drainage pipe (minimum length of pipe to be twenty-four (24) feet).

PLANNING BOARD DISCLAIMER STATEMENT TO APPLICANTS

The applicant is advised that the Town of Newburgh Municipal Code, which contains the Town's Zoning Law, is subject to amendment. Submission of an application to this Board does not grant the applicant any right to continued review under the Code's current standards and requirements. It is possible that the applicant will be required to meet changed standards or new Code requirements made while the application is pending.

An approval by this Board does not constitute permission, nor grant any right to connect to or use municipal services such as sewer, water or roads. It is the applicant's responsibility to apply for and obtain the Town of Newburgh and other agency approvals not within this Board's authority to grant.

The applicant hereby acknowledges, consents, and agrees to the above.

ULC T'S NAME (printed)

APPLICANT'S SIGNATURE

DISCLOSURE ADDENDUM STATEMENT TO APPLICATION, PETITION AND REQUEST

Mindful of the provisions of Section 809 of the General Municipal Law of the State of New York, and of the Penal provisions thereof as well, the undersigned applicant states that no State Officer, Officer or Employee of the Town of Newburgh, or Orange County, has any interest, financial or otherwise, in this application or with, or in the applicant as defined in said Statute, except the following person or persons who is or are represented to have only the following type of interest, in the nature and to the extent hereinafter indicated:

_X__ NONE

_____ NAME, ADDRESS, RELATIONSHIP OR INTEREST (financial or otherwise)

This disclosure addendum statement is annexed to and made a part of the petition, application and request made by the undersigned applicant to the following Board or Officer of the Town of Newburgh.



 TOWN BOARD

 X
 PLANNING BOARD

 ZONING BOARD OF APPEALS

 ZONING ENFORCEMENT OFFICER

 BUILDING INSPECTOR

 OTHER

IDUAL APPLICANT

CORPORATE OR PARTNERSHIP APPLICANT

BY: _

(Pres.) (Partner) (Vice-Pres.) (Sec.) (Treas.)

LIST OF ADJACENT PROPERTY OWNERS

Within ten business days following the applicant's first appearance before the Planning Board, the applicant shall forward a letter prepared by the Planning Board or an authorized agent of the Planning Board to all property owners within 500 feet of the land involved in the application, as the names of such owners appear on the last completed assessment roll of the Town, notifying the property owners of the receipt of the plat and application, by first class mail. **The list of property owners shall be provided to the applicant from the Planning Board, through the Town Assessor's office.** The applicant shall thereafter submit a duly executed, notarized affidavit of mailing to the Planning Board. Further appearances before the Planning Board shall be prohibited until an affidavit meeting the requirements has been delivered. In the event a modification to an application proposes an increase in the number of lots or the relocation of a proposed road or drainage basin to a location adjacent to an adjoining property, then a supplementary letter shall be required to be forwarded in the same manner advising of the modification.

PROXY

(OWNER) Raquet Road LLC, DEPOSES AND SAYS THAT HE/SHE
RESIDES AT 6 Baltor Rd
IN THE COUNTY OF $\frac{V_{\omega\omega}}{\omega} c_{t} + \frac{V_{\omega}}{\omega} c_{t} + V_{\omega$
AND STATE OF
AND THAT HE/SHE IS THE OWNER IN FEE OF
36 Racquet Road, Newburgh, NY 12550 (SBL: 86-1-26.31)
WHICH IS THE PREMISES DESCRIBED IN THE FOREGOING
APPLICATION AS DESCRIBED THEREIN TO THE TOWN OF NEWBURGH
PLANNING BOARD AND Engineering & Surveying Properties, PC IS AUTHORIZED
TO REPRESENT THEM AT MEETINGS OF SAID BOARD.

DATED: 742022

10.7 LLC Owners signature

OWNERS NAME (printed)

WITNESS' SIGNATURE

Goldy Rauch WITNESS' NAME (printed)

NAMES OF ADDITIONAL REPRESENTATIVES

TOWN OF NEWBURGH PLANNING BOARD NOTICE OF INTENT FOR DESIGNATION OF LEAD AGENCY

Please take notice that, according to the provisions of 6 NYCRR Part 617, the Town of Newburgh Planning Board has declared its intent to be lead agency for the purpose of review of and action on the project named below. If within 30 calendar days from the date of mailing this notification no involved agency submits a written objection to the Town of Newburgh Planning Board, the Town of Newburgh Planning Board shall act as lead agency and shall follow the provisions of 6NYCRR Part 617.7 governing determination of significance of the proposed action.

Contact Person/Address:	John P. Ewasutyn, Chairman
	Town of Newburgh Planning Board
	21 Hudson Valley Professional Plaza
	Newburgh, New York 12550
	(845) 564-7804

- Name of Project: Positive Developers Warehouse
- Location: 36 Racquet Road
- Tax Map Parcel:Section 86, Block 1, Lots 26.31Town of Newburgh, County of Orange, New York

Project Number: 2022-16

SEQRA Status: Unlisted Action- Coordinated Review

Project Description:

The project proposes the construction of a 42,000 square foot warehouse facility. The project site is a 3.94+/- acre parcel of property with frontage on Racquet Road. The project is proposed to be served by Town of Newburgh municipal sewer system. Proposed on-site well for potable water. A fire suppression water storage tank is proposed on the site. The site proposes 45 passenger vehicle parking spaces, 8 truck loading docks and associated trailer parking spaces. Traffic improvements are proposed at Racquet Road and NYS Route 17K as well as at Racquet Road and Rock Cut Road (County Highway). Buffers in compliance with Town of Newburgh residential to commercial buffer requirements are depicted on the plans

Date of Action: 20 October 2022

Date of Mailing: 25 October 2022

Involved Agencies:

Town of Newburgh Planning Board 21 Hudson Valley Professional Plaza Newburgh, NY 12550

NYS Department of Transportation SEQRA Unit Traffic Engineering and Safety Division 4 Burnett Blvd. Poughkeepsie, NY 12603 Positive Developers Warehouse (2022-16) NOI for Lead Agency

Orange County Dept. of Public Works PO Box 509 Goshen, NY 10924

NYS Department of Environmental Conservation 21 S. Putt Corners Road New Paltz, NY 12561 Attn: Environmental Permits/SEQRA Unit

Interested Agencies:

Orange County Planning Department 124 Main Street Goshen, NY 10924

Coldenham Fire District 511 Coldenham Road Walden, NY 12586

POSITIVE DEVELOPERS WAREHOUSE

EXPANDED PART 3 ENVIRONMENTAL ASSESSMENT FORM (EAF)

36 Racquet Road Town of Newburgh, Orange County New York

Town of Newburgh Tax Lots: Section 86 Block 1 Lot 26.31

Lead Agency: TOWN OF NEWBURGH PLANNING BOARD 21 Hudson Valley Professional Plaza Newburgh, NY 12550 Attention: John Ewasutyn, Chairman (845) 564-7804

Prepared By: Engineering & Surveying Properties, P.C. 71 Clinton Street, Montgomery, NY 12549 Contact: Ross Winglovitz, P.E. (845) 457-7727 www.EngineeringPropertiesPC.com



EP WO #1746.02

Town Project #22-16

Positive Developers Warehouse

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Positive Developers Warehouse

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Positive Developers Warehouse

APPENDICES

- Appendix A Project Application & SEQRA Documentation
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- Appendix D Full-size Set of Site Plans

Positive Developers Warehouse

1.0 Introduction

Racquet Road LLC, (the "Applicant") submitted Site Plan Applications, a Site Plan, and a Full Environmental Assessment Form (FEAF) for the Proposed Action, Positive Developers Warehouse, to the Town of Newburgh Planning Board ("Planning Board") in July 2022. The Planning Board subsequently declared its intent to be Lead Agency for the SEQRA (State Environmental Quality Review Act) review of the Project and issued a Notice of Intent for Designation of Lead Agency dated October 20, 2022, which was circulated to all Involved and Interested Agencies on October 25, 2022. No objections from any Involved or Interested Agencies were received in response to the Notice of Intent. The Planning Board Application, FEAF Parts 1 & 2, Lead Agency Notice of Intent, and Expanded Part 3 FEAF outline are attached as Appendix A1.

This Expanded Part 3 Environmental Assessment Form provides a description of the Proposed Action and examines the potential environmental impacts that may result. Potential impacts are identified, and mitigation measures are proposed as needed. This document, including the Appendices referenced herein, provides the Planning Board, as Lead Agency, with enough information to assist the Board in evaluating whether the Proposed Action will result in any potential significant adverse environmental impacts.

1.1 Site Location

The proposed Positive Developers Warehouse (the "Proposed Action", "Project Site", "Project", or "Site") is located at 36 Racquet Road to the north of the Gold's Gym building, in the Town of Newburgh, Orange County, New York. The Project is also situated north of NYS Route 17K and Interstate 84 near exit 34. The subject parcel is identified on Town of Newburgh Tax Map as Section 86 Block 1 Lot 26.31. The entire project is located within the Town of Newburgh IB – Interchange Business District. The existing land uses surrounding the Project Site consist of residential homes, commercial uses, and vacant lands. The Project Site location is shown on Figure 1.1A, and the zoning districts in the vicinity of the Project Site are depicted on Figure 1.1B.

1.2 Site Description

The Project Site is a 3.94-acre, undeveloped parcel. The Site is currently vacant and covered with vegetation consisting of approximately 3.94-acres of woods. No structures or uses currently exist on the Site. Figure 1.2A shows the existing conditions of the Site.

Topography on the Site generally slopes from south to north towards the low-lying area in the eastern portion of the Site. There is an elevation difference of roughly 36 feet across the Site. The highest elevation on the Site, which is approximately 550 feet above Mean Sea Level (MSL), is located in the southeast corner of the Site, on the southern boundary of the of the parcel near Gold's Gym. The lowest elevation, around 514 feet above MSL, is located in the northeastern portion of the Site on the eastern boundary of the Project Site along Racquet Road.

The Site contains three different soil types, ranging from well to moderately well drained. There are no visible bedrock outcroppings on the Site. Based on the Orange County Soils Survey, the depth to bedrock is greater than six feet.

The Site is privately owned and is not currently authorized for use by the community as open space or as a recreation area. According to the NYSDEC website, the Project Site is not listed as a Critical Environmental Area under Article 8 of the Environmental Conservation Law (ECL), or Chapter 6, Part 617 of the New York Codes, Rules, and Regulations (6NYCRR Part 617).



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	RR, Reservoir	R3, Residential
	AR, Agricultural	B, Business
	R1, Residential	IB, Interchange Business
	R2, Residential	I, Industrial
	Reference Office Overlay (O)	Dverlay (O)
	🔀 Marina Townhouse Overlay	Dverlay
	Self Storage Overlay	**Light and Heavy Equipment
	🔀 LHI Overlay**	and Recreational Vehicle Sales, Service and Repair
POSITIVE DEVELOPERS WAREHOUSE 36 RACQUET ROAD	DATE: JOB # 1746.02 108 # 1746.02	RUGINEERING MONTGOMERY OFFICE
	scale: 1" = 2000' F-1.1B	L
		©COPYRIGHT 2023 ENGINEERING & SURVEYING PROPERTIES, PC

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2.0 Project Description

The Project Site is currently owned by Racquet Road LLC. The Applicant and Project Sponsor of the Proposed Action is also Racquet Road LLC. The Project proposes a 40-foot tall, 40,050 square foot flex space / multi-use building containing space for warehouse and office uses on a 3.94-acre Project Site. The projected construction completion date is in the Fall of 2024. The proposed layout for the Project is depicted in Figure 2.0A and in the full-sized set of plans included as Appendix D.

The proposed entrances to the Project are located on Racquet Road, approximately 1,300 feet and 1,600 feet north of NYS Route 17K. Access to the Site will be provided by two 35-foot wide paved, private access driveways. The employee and guest parking lot for the warehouse/office will contain a total of 45 paved passenger vehicle parking spaces, including 4 ADA accessible spaces. There will be 8 truck loading docks and associated trailer parking spaces. The total number of on-site parking spaces exceeds the 19 parking spaces required by the Town Zoning Law.

The Proposed Action will be served by a private water system and public sewer. According to the Town Comprehensive Plan dated October 2005, the Site is located within the Town of Newburgh Consolidated Water District and served by the Crossroad Sewer District. Stormwater runoff will be collected on-site in a network of drainage structures and conveyed to treatment facilities before being discharged from the Site. All proposed utility improvements are shown on the full-sized Site Plans included as Appendix D.

The proposed development will disturb approximately 3.33 acres of the total 3.94-acre Project Site. The Proposed Action will construct 2.59 acres of proposed impervious surfaces, including the proposed buildings and structures, walkways, driveways, and parking area. The proposed improvements will not encroach into any streams or NYSDEC or ACOE designated wetlands or adjacent areas. Table 2.0A tabulates the land cover areas in both the existing and proposed conditions and calculates the change that will result from the Proposed Action. A total change in land cover of 6.05 acres is expected, which includes the new impervious surfaces, lawn, and landscaping areas.

Table 2.0A – Proposed Change in Land Cover Area (Acres)				
LAND COVER	EXISTING	PROPOSED	CHANGE*	
Woods	3.94	0.61	-3.33	
Meadows	0	0.56	+0.56	
Wetlands	0	0	0	
Impervious Surfaces	0	2.59	+2.59	
Surface Water Features	0	0.18	+0.18	
Total	3.94	3.94	-	

* Negative numbers indicate a decrease in area; positive numbers indicate an increase in area.

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3.0 Permits and Approvals Required

The Proposed Action will require permits or approvals from the following agencies:

INVOLVED AGENCIES

LOCAL:

TOWN OF NEWBURGH

- Town of Newburgh Planning Board –Site Plan Approval
- Town of Newburgh Highway Department Roadway Improvements

<u>COUNTY:</u>

- Orange County Health Department Non-transient, Non-community water systems (NTNCWS) Water Supply
- Orange County Planning Department GML 239 I, and m
- Orange County Department of Public Works Highway Work Permit

<u>STATE:</u>

- New York State Department of Environmental Conservation Stormwater Pollution Discharge Elimination System (SPDES) General Permit, Private/Commercial/Institutional Wastewater SPDES General Permit
- New York State Department of Transportation Highway Work Permit

INTERESTED AGENCIES

- Coldenham Fire District
- US Fish & Wildlife Service

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4.0 Evaluation of Environmental Impacts

Part 2 of the Environmental Assessment Form (EAF) lists a series of potential environmental concerns that may result from a Proposed Action. An evaluation of Part 2 of the EAF for this Project was undertaken in order to identify any potentially significant adverse environmental impacts. A completed Part 2 FEAF for the Proposed Action is attached in Appendix A1. According to the Part 2 FEAF the following areas of potential environmental concern are anticipated:

- 1. Impact on Land/Impact on Surface Water
- 2. Impact on Groundwater
- 3. Impact on Plants and Animals
- 4. Impact on Transportation
- 5. Impact on Light

The purpose of this Part 3 Expanded EAF is to provide adequate information to examine all potential environmental impacts identified in Part 2 of the EAF in terms of potential adverse and/or beneficial impacts that may result from the construction and operation of the proposed Project. Each of the identified areas of environmental concern are addressed in the subsections below. For each area of expected concern, existing conditions are described, potential environmental impacts are identified, and as necessary, mitigation measures are proposed to reduce to the greatest extent practical the expected adverse environmental impacts resulting from the Proposed Action.

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4.1 Impact on Land/Impact on Surface Water

4.1.1 Existing Conditions

The total parcel area of the Proposed Action is 3.94 acres and consists entirely of wooded areas. The parcel is currently undeveloped. Table 4.1A summarizes the existing land coverage conditions found on the Project Site.

Table 4.1A – Existing Site Coverage				
LAND COVER TYPE	AREA (ACRES)			
Woods	3.94			
Meadows	0.00			
Wetlands	0.00			
Impervious Surfaces	0.00			
Lawn/Landscaping	0.00			
Total	3.94			

<u>SOILS</u>

The Project Site contains four different soil groups according to the *Soil Survey of Orange County, New York*, a publication of the National Cooperative Soil Survey compiled by the U.S. Department of Agriculture, Soil Conservation Service and Cornell University Agricultural Experiment Station. The on-site soil groups include various series complexes including Bath-Nassau channery silt loams (BnB), Mardin gravelly silt loam (MdC) soils, and Swartswood and Mardin soils (SXC).

Table 4.1B lists the various soil types present on the Project Site, their on-site acreages, and associated characteristics. Figure 4.1A depicts the location of each soil type found on the Site.



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Table 4.1B – On-Site Soil Types						
SOIL	SYMBOL	ACRES	SLOPE RANGE	HYDROLOGIC GROUP	DEPTH TO ROCK	HIGH WATER TABLE
Bath-Nassau	BnB	0.7	3-8%	С	>60"	27"
Mardin	MdB	0.0	3-8%	D	>60"	17"
Mardin	MdC	0.0	8-15%	D	>60"	17"
Swartswood and Mardin	SXC	3.2	3-15%	С	>60"	27"

DEPTH TO GROUNDWATER

According to the *Soil Survey of Orange County, New York,* the depth to the high-water table is less than three feet for all soil groups found on the Site.

DEPTH TO BEDROCK

According to the *Soil Survey of Orange County, New York,* the depth to bedrock is greater than five feet for all soil groups found on the Site.

TOPOGRAPHY

Topography on the Site generally slopes from south to north towards the low-lying area in the eastern portion of the Site. There is an elevation difference of roughly 36 feet across the Site. The highest elevation on the Site, which is approximately 550 feet above Mean Sea Level (MSL), is located in the southeast corner of the Site, on the southern boundary of the of the parcel near Gold's Gym. The lowest elevation, around 514 feet above MSL, is located in the northeastern portion of the Site on the eastern boundary of the Project Site along Racquet Road. Topography of the Site is depicted in the full-sized set of plans attached in Appendix E.

Slopes on the Project vary from flat in the northwestern portion of the Site, to steeper in the eastern portion of the Site. Approximately 1.10 acres, or 28% of the Project Site's slopes exceed 10% in grade. Approximately 2.84 acres, or 72% of the Site contains slopes of less than 10%. Table 4.1C lists the existing slope range areas and Figure 4.1B depicts the slopes ranges found on the Project Site.

Table 4.1C – Existing Slopes					
SLOPE CATEGORY (%) AREA (ACRES) PERCENTAGE OF SITE (%					
0-10	2.84	72			
10-15	0.18	16			
> 15	0.92	12			
TOTAL:	3.94	100			

STORMWATER

A Stormwater Pollution Prevention Plan (SWPPP) has been prepared by Engineering & Surveying Properties, P.C to analyze existing stormwater runoff from the Site. The SWPPP is attached as Appendix B. The SWPPP identifies two existing watershed drainage areas that discharge from the Site at two distinct points. Discharge Point "A" is located along the northern property line. Discharge Point "B" is located at the existing catch basin at the northeastern corner of the Site within the Racquet Road right-of-way. The existing on-site drainage patterns follow the natural topographic features, which collect and convey stormwater runoff. Stormwater discharges into the existing stormwater system located within the Racquet Road right-of-way and eventually flows into the Quassaic Creek. The Project Site is located within a NYSDEC Division of Water's regulated Municipal Separate Storm Sewer System (MS4) area.

4.1.2 Potential Impacts on Land/Impacts on Surface Water <u>DISTURBANCE OF SOILS</u>

The greatest potential adverse impact to land resources is the disturbance of soils due to the physical movement of soils and alteration of topography resulting from the construction of driveways, parking lots, buildings, and utilities. A grading plan for the Proposed Action has been designed to slope all developed areas away from the proposed impervious surfaces



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towards stormwater collection and treatment facilities. It is estimated that 3.33 acres will be disturbed to construct the Project.

It is estimated that the volume of earthwork between the existing and finished grades is approximately 53,197 cubic yards of cut material and 208 cubic yards of fill material, resulting in a net cut of 52,989 cubic yards. Excess cut material will be removed from the Site and disposed of in a manner that meets state and local regulations. The largest earthwork cuts are located in the area of the proposed forebay on the eastern side of the Site. The largest fill area is located along the proposed swale on the western side of the Site. Figure 4.1C depicts the areas of proposed cuts and fills on the Project Site.

All topsoil within the disturbed area will be stockpiled for later use on-site. Cut soil generated by the Project will be reused on-site as fill material to the greatest extent practical. Any unusable material will be disposed of in accordance with all applicable Town of Newburgh and the New York State Department of Environmental Conservation regulations.

EROSION & SEDIMENTATION

It is anticipated that erosion and sedimentation may also have a potential impact due to the physical disturbance and vegetation removal during construction. Erosion is defined by the New York State Department of Environmental Conservation (NYSDEC) as the "wearing away of the land surface by running water, wind, ice or other geological agents", and sediment is defined as "solid material, both mineral and organic, that is in suspension, is being transported, or has been moved from its site of origin by air, water, gravity, or ice and has come to rest on the earth's surface either above or below sea level". While both erosion and sedimentation are intrinsic natural processes, in many places they are increased by human land use. A certain amount of erosion and sedimentation is natural and, in fact, healthy for the ecosystem. Excessive erosion, however, can cause problems, such as degradation of surface waters, ecosystem damage, and the outright loss of soil. Poor land use practices such as deforestation and unmanaged construction activity are the largest causes of excessive erosion. Construction of the Project will result in some amount of soil erosion and sedimentation when soil is disturbed and relocated on-site. This potential erosion can be in the form of sediment laden stormwater, or airborne dust from construction activities on exposed soil areas during dry weather.

The excavation of soils during long periods of construction has the potential to increase soil erosion and sedimentation. It is estimated that development of the Project will take approximately 1 year to complete and the total area of disturbance resulting from the Project will be a maximum of 3.33 acres, or approximately 85% of the entire Project Site. The potential for erosion can be exacerbated by large areas of disturbance, disturbance of steep slopes, disturbance of highly erodible soils, poor on-site management of soils, and erosion control techniques.

Table 4.1D – Proposed Disturbance by Slope Range				
SLOPE RANGE (%) AREA OF DISTURBANCE (ACRES				
0-10	1.87			
10-15	0.88			
> 15	0.90			
TOTAL:	3.65			

Disturbance by slope range category on the Project Site is listed in Table 4.1D.

While some disturbance of soils is unavoidable, the grading plan has been designed to minimize impacts due to the anticipated earthwork. A detailed grading plan for the proposed site improvements is included in Appendix E.

STORMWATER

The increased area of impervious surfaces proposed as part of the Proposed Action has the potential to degrade water quality both on-site and downstream from the Site. The

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Project will create approximately 2.59 acres of impervious surface area, primarily consisting of buildings, driveways, sidewalks, and parking lots. To analyze the post-development stormwater condition, the existing two watershed areas were redistributed as depicted in the SWPPP.

The SWPPP analyzes two stormwater practices that are incorporated into the Site's drainage design. There will be a forebay and a subsurface infiltration system constructed on-site. The facilities are designed to detain stormwater from developed areas and detain sediment and pollutants from proposed impervious surfaces by allowing sufficient time for pollutant settlement before the stormwater discharges from the facility. The stormwater facilities will be owned and maintained by the property owner. Regular inspection and maintenance of the proposed stormwater management practices (SMP's) are required to ensure their long-term function and effectiveness.

To ensure proper treatment of post-development sedimentation and pollutant loading resulting from the newly constructed impervious areas, the stormwater management practices have been designed to handle the required Water Quality Volume ("WQv") as defined by the NYSDEC. Each of the proposed practices provides adequate storage of the required WQv, ensuring that NYSDEC post-development pollutant removal goals are met.

Green Infrastructure is incorporated on the Project Site to effectively treat water quality and infiltrate runoff into the ground to the maximum extent possible. The type of green infrastructure technologies incorporated into the SWPPP is soil restoration. As the Project Site is located within a NYSDEC Division of Water regulated MS4 area, a Municipal Separate Storm Sewer System (MS4) permit will be required from Town of Newburgh on behalf of the NYSDEC.

4.1.3 Land/Surface Water Mitigation Measures <u>SCHEDULE OF CONSTRUCTION</u>

Although the total ground disturbance due to construction of the Project is estimated to be 3.33 acres, construction will be carried out in a way that minimizes impacts to land resources. It is estimated that the Project will be fully constructed over a one-year period of time. Assuming construction begins in the Fall of 2023, the anticipated completion date is Fall 2024. Construction activities will comply with the noise regulations in the Town of Newburgh Code §125-5. Construction will take place Monday through Friday from 8:00 AM to 9:00 PM, and weekends and holidays from 9:00 AM to 8:00 PM. The proposed general sequencing of construction activities within each Phase is as follows:

- 1. Installation of erosion control measures (i.e. silt fence, stabilized construction entrance, etc.);
- 2. Clearing and grubbing;
- 3. Stripping and stockpiling of topsoil for later use;
- 4. Excavation of temporary sediment basins and swales (permanent and temporary);
- 5. Excavation and grading for roadways, parking lots, utilities, building pads and storm water infrastructure;
- 6. Installation of utilities;
- 7. Fine grading of roadways, installation of sub-base, base and first course of asphalt, construction of sidewalks and curbs;
- 8. Building construction and utility service connections;
- 9. Spread stockpiled topsoil, landscaping and lawn installation; and
- 10. Removal of temporary erosion control measures after vegetation has been established.

EROSION AND SEDIMENT CONTROL PLAN

Some erosion due to soil disturbance is unavoidable and will be mitigated to the

greatest extent practical by the project design. To reduce the potential for soil erosion,

preventative measures will be implemented in conformance with NYSDEC standards. Detailed Erosion and Sediment Control Plans for the Project are designed and included in Appendix E.

When installing erosion control measures, the following sequence will be utilized.

- 1. Mark and delineate limits of clearing and grading by installing construction fence, and/or silt fence and install stabilized construction entrances.
- 2. Strip and stockpile topsoil after clearing and grubbing; stabilize topsoil stockpiles with temporary seeding and silt fence.
- 3. Install temporary erosion control devices (sediment traps, diversion swales, and check dams) prior to commencing earth moving activities.
- During and/or immediately after rough grading, install as necessary additional temporary erosion control measures including intermediate silt fences, diversion swales, and check dams.
- 5. Fine grade, spread topsoil and stabilize within two weeks of establishing final grade.

All construction activities will proceed in a manner that is designed to prevent sediment from entering any wetland, watercourse, water body, and/or conduit carrying water. Proposed measures to be employed during construction include the following:

- Stormwater runoff from the Site will be captured, stored, and treated in stormwater facilities to remove sediment prior to being discharged from the Site. Stormwater mitigation is discussed further in Section 4.2.
- Existing vegetation will be retained when possible. Following construction, permanent vegetation will be established on all exposed soils.
- Site preparation activities will be designed to minimize the area and duration of soil disturbance.
- Permanent traffic corridors will be established and routes of convenience through the Site ("shortcuts") shall be avoided.

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- Stabilized construction entrances will be installed at all points of entry into the Project Site and to each independent phase to minimize dust and tracking of soil material from construction areas.
- Storm drain sediment inlet filters will be constructed at storm drains as required.
 These measures will be maintained in good condition until the final vegetative cover is well established on all disturbed areas upstream of the inlet.
- No erodible materials will be stockpiled within 25 feet of any ditch, stream, or other surface water body.
- Removal of healthy trees along the limits of disturbance will be avoided, where possible. No construction materials will be stored, and no machinery operated outside the limits of disturbance, as shown on the Site Plans.
- All slopes of 2:1 or steeper will be stabilized with jute netting and hydro-seed.
- Any washouts will be immediately repaired, reseeded, and protected from further erosion.
- All accumulated sediments will be removed and contained in appropriate spoil areas.
- Water will be applied to newly seeded areas as needed until grass cover is established.
- To effectively control wind erosion, water will be applied to all exposed soils as necessary.

All erosion control measures will be inspected in accordance with NYSDEC standards by a qualified professional for the duration of the construction process. Specifically, the Site will be inspected twice every seven (7) days by a qualified inspector and proper logs and reports will be maintained. Proper maintenance of all erosion control items will ensure the optimum operation of the proposed erosion and sedimentation controls.

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With these mitigation measures in place, the potential for soil erosion and sedimentation to occur will be significantly reduced.

CONSTRUCTION BEST MANAGEMENT PRACTICES

To minimize the effect of undesirable soil compaction during construction, several best management practices will be employed during the construction of the Project. The limits of disturbance will be clearly delineated in the field prior to any earthwork. In critical areas, such as near surface waters and wetlands, fencing will be installed to prevent construction vehicles from erroneously entering areas that are not to be disturbed.

Furthermore, construction traffic will travel on designated construction routes throughout the Site. "Routes of convenience" through the Site will be avoided. By restricting construction traffic to designated areas, overly compacted soils in landscaped areas will be minimized. All areas to be re-vegetated upon completion of construction will be "decompacted" through soil restoration, including tilling and scarifying the underlying soil layer to mature root depths, and prepared to receive new plantings.

DEWATERING TECHNIQUES

To mitigate any groundwater that may be encountered during excavation of the Site, dewatering will be utilized in cut slopes and foundation excavations. Any water from these excavations will be directed to an appropriately sized erosion control structure capable of handling the water discharge (i.e., sediment trap or swale with check dams).

Buildings will be constructed with foundation drains established at the foundation subgrade level. The drains will extend around the outside perimeter of the footings. In addition, where ground water is encountered, a vertical drainage layer will be installed that will be hydraulically connected to the foundation drain and will discharge to daylight.

STORMWATER POLLUTION PREVENTION PLAN

NYSDEC regulations require that all construction activities involving one acre or more of land disturbance obtain a State Pollutant Discharge Elimination System (SPDES) General Permit for stormwater discharge from construction activities. The current General Permit issued to provide coverage for these activities is NYSDEC GP-0-20-001. To obtain coverage under the General Permit, a Stormwater Pollution Prevention Plan (SWPPP) has been prepared and is included as Appendix B. A Notice of Intent (NOI) will be filed with the NYSDEC before construction begins. The General Permit requires the incorporation of green infrastructure to reduce the volume of stormwater runoff and to treat a portion of the Water Quality Volume (WQ_v).

The SWPPP was prepared using the current *New York State Stormwater Management Design Manual* to assess existing and proposed drainage patterns, to design the stormwater facilities for the Site, and to mitigate potential stormwater impacts. The proposed stormwater facilities are designed to mitigate water quantity and quality impacts from proposed impervious surfaces and will be installed during the project's construction.

Maintenance of the on-site stormwater facilities is required to assure their long-term function and viability. The on-going maintenance of the facilities will be the responsibility of the owner. Maintenance shall include:

- Routine inspections of all stormwater facilities at least twice a year and after every storm event that exceeds 7 inches of precipitation in a 24-hour period.
- Mowing of stormwater basins at least once every other week during the growing season

- Maintaining all landscaping lawns, plants, shrubs and trees in good living condition. All dead landscaping shall be replaced during the next planting season with a plant of similar species and size.
- Removing accumulated sediment from stormwater facilities including basins, catch basins and swales. Sediment shall not be allowed to accumulate more than 50% of the facility's capacity.
- Pavement sweeping and removal of catch basin sump debris to prevent collected sediment from reaching and deteriorating the downstream surface waters.

4.1.4 Land/Surface Water Conclusion

With conformance to the engineered grading plan, schedule of construction, implementation of the erosion and sediment control plan, construction best management practices, groundwater dewatering techniques, and Stormwater Pollution Prevention Plan any adverse environmental impacts to land resources resulting from the construction of the Proposed Action will be mitigated such that impacts will not be significant.

4.2 Impact on Groundwater

4.2.1 Existing Conditions

There are no existing drilled wells located on the Project Site. The Project Site is located within the Town of Newburgh Consolidated Water District. The Project Site is also located within the Town of Newburgh Crossroads Sewer District, which conveys sewage to the City of Newburgh Wastewater Treatment Plant. The surrounding parcels either have their own private wells to supply domestic water or are connected to the Town of Newburgh Consolidated Water District.

4.2.1 Potential Impacts to Groundwater

Based on NYS Design Standards for Intermediate Sized Wastewater Treatment Systems, Table B-3 - Typical Per-Unit Hydraulic Loading Rates, the average domestic water demand for the proposed use is estimated to be 324 gallons per day (gpd) or 0.23 gallons per minute (gpm) as summarized in Table 4.2A

Table 4.2A – Estimated Water Demand					
Type of Use	ype of Use # of Units Demand Rate (gpd)				
Warehouse/Office	Varehouse/Office 27 Employees 15		405		
20% Reduction for water saving plumbing fixtures			-81		
		Total Demand:	324		

A new well to supply potable water for the Project will be drilled in conjunction with the construction of the proposed development. The new well will be considered Non-Transient Non-Community Water System (NTNCWS) and as such water samples from the well will be analyzed for the chemicals listed in the New York State Sanitary Code, Subpart 5-1 in accordance with OCHD standards.

Furthermore, the proposed well will undergo a pumping test in accordance with OCHD guidance. The well testing protocol will be provided to the Planning Board for review and approval before well testing begins. Once the well testing is complete, a Pumping Test Report will be provided to the Planning Board before final approval of the Proposed Action.

A proposed fire protection water storage tank is proposed in the southwest corner of the Site. The tank will be 30-feet in height and have a 26-foot diameter.

4.2.2 Groundwater Mitigation Measures

Although the Proposed Action is not expected to cause any adverse impacts to groundwater, mitigation measured will be proposed as required based on the results of the well water samples and pump test.

4.2.3 Groundwater Conclusion

The proposed water demand is estimated to be 324 gallons per day (gpd) or 0.23 gallons per minute (gpm). A comprehensive well pump test will be performed prior to final site plan approval to confirm that no impacts to groundwater resources result from the Proposed Action.

4.3 Impact on Plants and Animals

4.3.1 Existing Conditions

The Site is currently undeveloped and is entirely covered by high canopy forest with moderate undergrowth. The Site is bordered by residential homes, commercial buildings and wooded areas. Existing impacts, including noise and light, to plant and animal habitats near the Site are activities are produced by vehicular traffic on nearby State and Town roadways, commercial businesses, and residential homes.

The Project Site is located in an area noted as potentially having certain threatened or endangered plant and animal species. The New York State Department of Conservation (NYSDEC) EAF Mapper lists the Indiana Bat, an endangered species, as being potentially present on or near the Site according to the Part 1 FEAF, found in Appendix A1.

Additionally, according to the New York State Department of Conservation (NYSDEC) EAF Mapper and the Part 1 FEAF, the Project Site is located within 1/2 mile of the Red-Maple Hardwood Swamp significant natural communities. The New York National Heritage Program indicates that Red-Maple Hardwood Swamps are threatened by development (e.g., agriculture, residential, commercial, roads), habitat alteration (e.g., excessive logging, pollution), and recreational overuse (e.g., hiking trails, ATVs). Alteration to the natural hydrological regime is also a threat to this community (e.g., impoundments, blocked culverts, beaver). Some red maple-hardwood swamps are threatened by invasive species¹.

4.3.2 Potential Impacts to Plants and Animals

It is expected that some temporary displacement of on-site wildlife will occur during construction of the Proposed Action. The corridors for wildlife movement will remain

¹ <u>https://guides.nynhp.org/red-maple-hardwood-swamp/</u>

connected on adjacent off-site tracts of land allowing for free movement of species through the area.

Potential summer habitat for the Indiana Bat may exist within the Project area. The Indiana Bat species use trees greater than 5 inches diameter at breast height (DBH), especially trees containing dead wood and snags or even dead trees and trees with exfoliating bark. The NYSDEC recommends that in areas where potential summer habitat exists, clearing of trees over 5 inches DBH should occur between October 1 and March 31. If this recommendation is followed, then no impacts to these species will occur.

The Project is located outside of the Red-Maple Hardwood Swamp significant natural community boundary. Therefore, no impacts are expected.

4.3.3 Plants and Animals Mitigation Measures

By implementing the proposed mitigation measures of installing proposed landscaping and restricting the clearing of trees over 5 inches DBH between March 31 and October 1, the Proposed Action is not expected to cause any adverse impacts to threatened or endangered species.

4.3.4 Plants and Animals Conclusion

Wildlife species currently inhabiting the Site are expected to face temporary displacement during construction. The proposed mitigation of permitting the clearing of trees only between October 1 through March 31 will ensure that no significant adverse impacts the Indiana Bat will result from the Proposed Action.

4.4 Impact on Transportation

The traffic engineering and consulting firm Colliers Engineering & Design prepared a Traffic Impact Study (TIS), dated September 22, 2022, for the Proposed Action. The purpose of the study was to evaluate the existing road network and intersections in the immediate vicinity of the Project Site. The study considered the potential impacts the Proposed Action may have on the current transportation system. The Traffic Impact Study is included as Appendix C.

4.4.1 Existing Conditions <u>ROADWAYS SERVING THE SITE</u>

The current operating conditions of the surrounding road network were determined by analyzing the existing roadways in the vicinity of the Project Site. The road network surrounding the Project Site includes NYS Route 17K, Racquet Road, and Rock Cut Road (County Route 23).

NYS Route 17K is a major regional arterial roadway, which traverses in a generally east/west direction in the vicinity of the site. The roadway at Racquet Road has one lane in each direction with paved shoulders of varying widths and a double-yellow center line with a white edge/fog line. The posted speed limit in this area is 40 MPH. There are no sidewalks present.

Racquet Road is a two-lane local roadway that begins at its intersection with NYS Route 17K and terminates at its intersection with Rock Cut Road (CR 23). The roadway generally traverses in a north/south direction and is stop-sign controlled at either end. Sidewalks, striping and a posted speed limit are not present. The roadway currently provides access to Golds Gym, other offices, and light industrial uses and a few residential homes at its northwesterly end. **Rock Cut Road (CR 23)** is a two-lane County roadway that begins at its signalized intersection with NYS Route 17K. Rock Cut Road (CR 23) traverses in a north/south direction serving primarily residential areas. The roadway consists of two lanes with a double yellow centerline and narrow paved shoulders with white edge/fog line. There are no sidewalks present and no posted speed limit in the immediate area of the site.

STUDIED INTERSECTIONS

Three intersections were studied in the TIS, which are described below and depicted on Figure 4.4A.

<u>#1 - NYS Route 17K & Racquet Road</u>

NYS Route 17K and Racquet Road intersect at a "T" type intersection with Racquet Road being stop-sign controlled. All approaches consist of one lane with no sidewalks or crosswalks present.

<u>#2 - NYS Route 17K and Rock Cut Road (CR 23)</u>

NYS Route 17K and Rock Cut Road (CR 23) intersection at a "T" type signalized intersection. All approaches consist of one lane with no sidewalks or crosswalks present.

<u>#2 - Rock Cut Road (CR 23) and Racquet Road</u>

Rock Cut Road (CR 23) and Racquet Road intersect at a "T" type intersection with Racquet Road being stop-sign controlled. All approaches consist of one lane with no sidewalks or crosswalks present.

To determine the traffic volumes, representatives from Colliers performed manual traffic counts at the study intersections. Traffic Counts were performed on Thursday, September 8, 2022, for the AM and PM peak hours. Field observations were also performed to determine roadway geometry, lane widths, sight distance, and traffic control as well as

queueing. Based upon a review of the traffic counts, the peak hours were generally identified as follows:

Peak AM Roadway Hour - 7:30 AM to 8:30 AM

Peak PM Roadway Hour – 5:00 PM to 6:00 PM

2022 EXISTING TRAFFIC VOLUMES

Traffic operating conditions and level-of-service (LOS) were calculated for the studied intersections based on current Highway Capacity Manual (HCM) methodologies. LOS is reported on an "A" through "F" scale, where Levels "A" through "E" are generally acceptable conditions, and Level "F" describes an unacceptable condition. The LOS is based on the amount of control delay, or increased time of travel, a vehicle experiences approaching and passing through an intersection.

The LOS was calculated for each intersection approach and was found to be a "C" or better under existing traffic volume conditions, with the exception of the left-turns exiting from Racquet Road to NYS Route 17K during the weekday AM peak hour, which has a LOS "D", and PM peak hour, which has a LOS "F". Table 4.4A lists the 2022 Existing LOS for each intersection approach determined by the Traffic Impact Study.

Table 4.4A – 2022 Existing Level of Service					
	PEAK HOUR LEVEL OF SERVICE				
APPROACH	WEEKDAY AM	WEEKDAY PM			
NYS Route 17K & Rock Cut Road & Driveway	Signalized				
NYS Route 17K Eastbound – Left/Thru/Right Lanes	СВ				
NYS Route 17K Westbound – Left/Thru/Right Lanes	С	В			
Driveway Northbound – Left/Thru/Right Lanes	B B				
Rock Cut Road Southbound – Left/Thru/Right Lanes	B C				
Overall	С	В			
NYS Route 17K & Racquet Road	Unsignalized				
NYS Route 17K Eastbound – Left/Thru Lanes	А	В			
Racquet Road Southbound – Left/Right Lanes	D	F			
Rock Cut Road & Racquet Road	Unsignalized				
Racquet Road Westbound – Left/Right Lanes	С	В			
Rock Cut Road Southbound – Left/Thru Lane	A A				

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4.4.2 Potential Impact on Transportation 2025 NO-BUILD TRAFFIC VOLUMES

The existing traffic volumes were projected to the 2025 Design Year by applying a growth rate of 1.0% per year. In addition, traffic from other specific potential developments in the area including the potential Sunbelt Rentals and the recently approved Scannell – Newburgh Commerce Center as well as the balance of the Lakeside (Farrell) Housing were identified and added to the 2025 Projected Traffic Volumes to form the 2025 No-Build Traffic Volumes.

The 2025 No-Build traffic volumes represent the forecasted traffic volumes in the future without the Proposed Project. The LOS was calculated for each intersection approach and were again found to be LOS "C" or better, with the exception of the left-turns exiting from Racquet Road to NYS Route 17K during the weekday AM peak hour, which has a LOS "E", and PM peak hour, which has a LOS "F". Table 4.4B lists the LOS determined by the Traffic Impact Study for the No-Build condition for each intersection approach.

PROJECT GENERATED TRAFFIC

Trip generation is used to determine the quantity of traffic expected to travel to and from a proposed site. Colliers consulted the Institute of Transportation Engineers (ITE) Trip Generation Manual, 11th Edition, to estimate Site-generated traffic volumes attributable to the Proposed Project. Trips for the Proposed Project were estimated based on Land Use 150 (Warehouse) and Land Use 110 (Light Industrial) utilizing the Peak Hour of Adjacent Street Traffic.

During the weekday AM Peak Hour, the Project is expected to generate an average of 22 entering and 11 exiting trips per hour. During the weekday PM Peak Hour, the Project is expected to generate an average of 6 entering and 21 exiting trips per hour. The warehouse/office is proposed to be served by two driveway connections to Racquet Road, one at the southerly end of the site and one at the northerly end. At each of these intersections, double yellow center lines will be installed and stop-controlled on the exit approaches. In addition, at the northerly driveway, clearing of vegetation along Racquet Road is required within the right-of-way to provide adequate sight distances for exiting vehicles. Also, "Intersection Ahead" signs will be installed, and center striping will be installed along this section of Racquet Road. Furthermore, paved shoulders will be installed along the site frontage. The Applicant will be responsible for implementing the proposed improvements on Racquet Road.

2025 BUILD TRAFFIC VOLUMES

It is estimated that 85% of trips will arrive from the south via NYS Route 17K, with the remaining 15% of trips arriving from the north via Rock Cut Road and that 55% of trips will depart to the south via NYS Route 17K, with the remaining 45% of trips departing to the north via Rock Cut Road. The Project generated trips were then added to the 2025 No-Build traffic volumes, resulting in the 2025 Build traffic volumes for which a LOS was again determined for each intersection approach. Similar to the 2025 No-Build condition, the LOS for the 2025 Build traffic conditions were found to be LOS "C" or better, with the exception of the southbound approach of Racquet Road to NYS Route 17K during the weekday AM peak hour, which has a LOS "E", and PM peak hour, which has a LOS "F". Table 4.4B lists the LOS determined by the Traffic Impact Study for each intersection approach.

Positive Developers Warehouse 4-27

Table 4.4B – 2025 No-Build & Build Level of Service					
	LEVEL OF SERVICE				
APPROACH	WEEKDAY AM PEAK HOUR		WEEKDAY PM PEAK HOUR		
		BUILD	NO- BUILD	BUILD	
NYS Route 17K & Rock Cut Road & Driveway	Signalized				
NYS Route 17K Eastbound – Left/Thru/Right Lanes	С	С	В	В	
NYS Route 17K Westbound – Left/Thru/Right Lanes	С	С	В	В	
Driveway Northbound – Left/Thru/Right Lanes	В	В	В	В	
Rock Cut Road Southbound – Left/Thru/Right Lanes	В	С	С	С	
Overall	C C B I		В		
NYS Route 17K & Racquet Road	Unsignalized				
NYS Route 17K Eastbound – Left/Thru Lanes	Α	Α	В	В	
Racquet Road Southbound – Left/Right Lanes	E	E	F	F	
Rock Cut Road & Racquet Road	Unsignalized				
Racquet Road Westbound – Left/Right Lanes	С	С	В	С	
Rock Cut Road Southbound – Left/Thru Lane	Α	Α	Α	Α	
Site Driveway	Unsignalized				
Site Access Eastbound – Left/Right Lanes	-	А	-	A	
Racquet Road Northbound – Left/Thru Lanes	-	Α	-	А	

The NYS Route 17K/Rock Cut Road/Driveway, Rock Cut Road/Racquet Road and Racquet Road/Proposed Site Driveway intersections each have ample capacity to accommodate the expected increases in traffic from the Project. As such, no capacity improvements are necessary at these intersections.

4.4.3 Transportation Mitigation Measures

The traffic volumes at the NYS Route 17K/Racquet Road intersection were reviewed in comparison to NYSDOT criteria for separate left turn lanes. Based on the existing traffic volumes, the levels warranting a separate left turn lane are satisfied. The capacity analysis was recomputed with this improvement and Table 4.4C lists the mitigated LOS. The Applicant has offered to make a fair share contribution for permitting and installation of the proposed left turn lane, as the majority of the site traffic is expected to arrive to and from the east on NYS Route 17K.

Table 4.4C – 2025 No-Build & Build Level of Service with Left Turn Lane Improvements					
LEVEL OF SERVICE				E	
APPROACH				KDAY PM K HOUR	
	NO- BUILD	BUILD	NO- BUILD	BUILD	
NYS Route 17K & Racquet Road	Unsignalized				
NYS Route 17K Eastbound – Left/Thru Lanes	Α	А	В	В	
Racquet Road Southbound – Left/Right Lanes	E	С	F	D	

Based on the capacity analysis, similar Levels of Service and delays will be experienced at the area intersections under the future No-Build and future Build Conditions. Based on the analysis, the following improvements are recommended at the intersections and adjacent roadway, pending Orange County Department of Public Works and Town of Newburgh Highway Department review and approval.

- Racquet Road currently has no centerline striping. It is recommended that a double yellow centerline be installed along Racquet Road at least for the area between the Site and NYS Route 17K.
- 2. Shoulder improvements should be installed along the site frontage to accommodate increased vehicle movements. In addition, there are some sections along Racquet Road where the shoulder should be upgraded to accommodate the increased traffic. These areas are primarily on the west side of the roadway south of the site where some erosion has occurred. These improvements should be coordinated with the Town Highway Superintendent.

- 3. The intersection of Racquet Road and NYS Route 17K currently satisfies the requirements to warrant a separate left turn lane without construction of the Project. As this need exists the developer does not believe that they should bear the burden of the cost of the left turn lane. As their fair share contribution towards this improvement, the development will widen Racquet Road to accommodate trucks turning right from NYS Route 17K as seen on sheet CP-1 in Appendix C and has performed a survey and created a concept design of the left turn lane. The concept plan, sheet CP-2 in Appendix C, depicts the extent of the improvements needed. It is noted that the majority of the site generated traffic is expected to arrive to and from the east on NYS Route 17K and will not require the use of the left turn lane.
- 4. At the intersection of Racquet Road and Rock Cut Road, a painted stop bar and double yellow centerline should be installed. In addition, the vegetative pruning within the right-of-way along the east side of Rock Cut Road north of the intersection should be completed to improve sight distance looking to the right when exiting Racquet Road.

With the completion of these improvements, traffic generated by the Proposed Action is not expected to have any significant impact in overall traffic operations.

4.4.4 Transportation Conclusion

The site is expected to generate 33 trips during the weekday AM peak hour and 27 trips during the weekday PM peak hour. Although the Proposed Action will increase the number of vehicles travelling on the surrounding roadways, with the proposed design of site entrance and installation of improvements on Racquet Road, the Proposed Action will not result in any significant adverse impact on traffic in the area.
4.5 Impacts on Light

4.5.1 Existing Conditions

Outdoor lights have the potential to cause light pollution and glare. Light pollution is defined as excessive and inappropriate artificial light by the NYS Department of Environmental Conservation. Problems associated with excessive or inappropriate outdoor lighting include sky glow (a brightening of the night sky over inhabited areas), light trespass (light falling where it is not intended, wanted, or needed), glare (excessive brightness which causes visual discomfort or decrease visibility) and clutter (bright, confusing, and excessive groupings of light sources).

As the Site is currently vacant, there are no existing light producing sources located on the Project Site. Night-time light producing sources in the surrounding area are limited to residential house lighting, commercial business lighting including signs, streetlights and vehicle headlamps. Traffic on NYS Route 17K, immediately south of the Site, is the greatest existing light producer from vehicle headlights and taillights. Some of the light emitted from these off-site sources is shielded from the Site by existing vegetation and topography.

The Town of Newburgh Code addresses lighting in Chapter 125 entitled "Noise and Illumination Control". The following are the Illumination standards listed in Section 125-8:

A. The area of brilliance, character, color, degree, density, intensity, location and type of illumination shall be the minimum necessary to provide for the security of the property and the safety and welfare of the public.

B. All sources of illumination on nonpublic property, including the lighting of signs, shall be shielded, or directed in such a manner that the direct rays therefrom are not cast upon any property used for residential purposes, other than the lot on which such illumination is situated.

C. Illumination shall be steady in nature, not flashing, moving or changing in brilliance, color or intensity, excluding the lighting of signs conveying information, such as time and temperature.

D. The duration, period, or time of illumination of nonresidential premises shall be the minimum necessary to provide for the security of the property and the safety and welfare of the public. For nonresidential premises open to the public, illumination shall be extinguished, except that necessary for the security of the property and safety of persons thereon, one hour after the premises are closed to the public.

E. Illumination connected or used with a sign or otherwise which competes for attention with or may be mistaken for a traffic signal or creates a distractive hazard to traffic by glare or movement is prohibited.

4.5.2 Potential Impacts from Light

The Proposed Action requires outdoor lighting for the safety and convenience of its employees, guests, and delivery personnel as they move around the Site during non-daylight hours. Driveways, parking areas, and walkways will all be illuminated from dusk until dawn. All outdoor lighting will utilize LED bulbs, reducing the amount of energy necessary to power them. The proposed outdoor lighting will consist of 25-foot high, pole-mounted site lighting fixtures along the driveway, and wall-mounted lighting fixtures along the sidewalks, parking lots and loading docks. The site lighting fixtures will be shielded and directed downward. The light fixture's type and placement have been chosen to minimize the amount of light at the Project boundary.

The closest residential neighbor is located on Rock Cut Circle Drive, approximately 60 feet from the Site boundary and at an elevation approximately 8-20 feet higher than the nearest lighting fixtures. Considering the existing amount of undisturbed mature vegetation

to be retained and proposed additional plantings within the required 75-foot wide, residential buffer zone located between the Project improvements and the shared property line with the residential lots, the proposed outdoor lighting from the Project will likely be well-screened from existing off-site residential locations. To determine the impact that the proposed site lighting will have on the surrounding area, a lighting plan was prepared. The goal of the lighting plan design is to safely illuminate the Project with even light distribution, without causing significant impacts to neighboring properties. The Lighting Plan is provided in the full-sized set of Site Plans in Appendix D.

4.5.3 Light Mitigation Measures

Outdoor lighting fixtures selected for the Site meet International Dark-Sky Association (www.darksky.org) requirements, which reduce negative impacts on the nighttime environment. Dark Sky Approved products minimize glare while reducing light trespass and skyglow. All products approved in the program are required to be fully shielded and minimize the amount of blue light in the nighttime environment. The Lighting Plan design proposes fully shielded light fixtures and limits the foot-candles at the boundary line. Since no off-site impacts to surrounding areas are expected from site lighting, no additional mitigation is proposed.

4.5.4 Light Conclusion

With conformance to an engineered lighting plan and specifications, and the preservation of existing screening vegetation around the buildings and parking lots, no significant adverse environmental impacts are anticipated.

5.0 Summary of Conclusions

As detailed above and summarized below, the Proposed Action as designed and with appropriate mitigation measures offered by the Applicant, and as incorporated into the Project, will not result in any significant adverse environmental impacts.

Land/Surface Water

- Implementation of an engineered Grading Plan & Schedule of Construction
- Employment of construction Best Management Practices
- Groundwater dewatering techniques, as needed
- Implementation of Erosion and Sediment Control Measures and a Stormwater Pollution Prevention Plan

Groundwater

• Perform a comprehensive well pump test, to be reviewed and approved by

OCDOH & Town of Newburgh

Plants and Animals

• Restrict the clearing of trees over 5 inches in diameter at breast height between

March 31 and October 1

Transportation

• Site entrance design and installation of improvements on Racquet Road

Light

- Implementation of engineered Lighting Plan and specifications, including Dark Sky Approved products that minimize glare and reduce light trespass and skyglow
- Preservation and installation of screening vegetation around the perimeter of the Site

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6.0 Appendices

Appendix A	Project Application & SEQRA Documentation
Appendix B	Stormwater Pollution Prevention Plan
Appendix C	Traffic Impact Study

Appendix D Full-size Set of Site Plans

Positive Developers Warehouse 6-35



Z:\1746.02 — Positive Builders — 36 Racquet Rd\1746.02 Site Plan.dwg Date Printed: Apr 21, 2023, 3:59pm

No.	DATE	DESCRIPTION	DRAWING
1	10/07/22	PB SUBMISSION	
2	12/22/22		THIS SHEET THE PLAN SET
3	04/28/23	PB SUBMISSION	
			CONCEPT APPROVAL
			PLANNING BOARD AP
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DRAWING #	TITLE	SHEET #
C-101	SITE PLAN	1
C-102	GRADING, DRAINAGE, & UTILITY PLAN	2
C-103	EROSION & SEDIMENT CONTROL PLAN	3
C-104	LANDSCAPE PLAN & DETAILS	4
C-105	LIGHTING PLAN	5
C-106	TREE PLAN	6
C-301	DETAILS	7
C-302	DETAILS	8
C-303	DETAILS	9
C-304	DETAILS	10
C-305	DETAILS	11



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THIS SHEET SHALL BE CONSIDERED INVALID UNLESS ACCOMPANIED BY ALL SHEETS OF THE DENOTED PLAN

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DMH 6 514.29 MH 5) (CB1) (CB1) (CB1) (CB1) (CB1) (CB1) (CB1) (CB1) (CB1)			
8" POND DRAIN WITH GATE VALVE 62 LF HDPE			
SEDIMENT SEDIMENT			
ADJ. DRIVE			
FOREBAY 57"E 353.55			
OAD 02957			
BACO ACO ACO ACO ACO ACO ACO ACO ACO ACO			
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No.	DATE	DESCRIPTION
1	10/07/22	PB SUBMISSION
2	12/22/22	REVISED PER PB COMMENTS
3	04/28/23	PB SUBMISSION

EDULE				
BOTANICAL / COMMON NAME	SIZE		<u>aty</u>	<u>REMARKS</u>
Acer rubrum 'October Glory' / October Glory Red Maple	3"-3-1/2" Cal.		11	B≰B
Quercus palustris / Pin Oak	3"-3-1/2" Cal.		Г	B≰B
Tilia cordata / Littleleaf Linden	3"-3-1/2" Cal.		4	B≰B
BOTANICAL / COMMON NAME	<u>SIZE</u>		<u>QTY</u>	<u>REMARKS</u>
Picea abies / Norway Spruce	7#-8# Ht.		8	B≰B
Thuja standishii x plicata 'Green Giant' / Green Giant Arborvitae	6#-7# Ht.		8	B≰B
BOTANICAL / COMMON NAME	<u>SIZE</u>	<u>SPACING</u>		<u>REMARKS</u>
Aronia arbutifolia / Red Chokeberry	24"-3Ø"	48" o.c.	32	CONT.
Cornus amomum / Silky Dogwood	3Ø"-34"	48" o.c.	25	CONT.
Forsythia x intermedia 'Spring Glory' / Spring Glory Forsythia	34"-36"	60" o.c.	27	B ₿
Spiraea x bumalda 'Little Princess' / Little Princess Spirea	24"-3Ø"	48" o.c.	14	B≰B
BOTANICAL / COMMON NAME	<u>SIZE</u>	<u>SPACING</u>	<u>aty</u>	<u>REMARKS</u>
Buxus microphylla japonica 'Winter Gem' / Winter Gem Japanese Boxwood	3Ø"-34"	48" o.c.	24	CONT.
llex glabra 'Shamrock' / Shamrock inkberry Holiy	34"-36"	48" o.c.	31	B≰B
Juniperus chinensis 'Gold Coast' / Gold Coast®Juniper	30"-34"	54" o.c.	10	CONT.
Viburnum rhytidophyllum / Leatherleaf Viburnum	34"-36"	60" o.c.	6	B≰B
BOTANICAL / COMMON NAME	<u>SIZE</u>	<u>SPACING</u>	<u>QTY</u>	REMARKS
Lavandula angustifolia / English Lavender	l gal.	24" <i>o.c.</i>	104	

ES & SHRUBS	SPRING PLANTING	FALL PLA
RGREEN	APRIL 1 - JUNE 30	SEPT. 1 - 0
IDUOUS	MARCH 1 - JUNE 30	OCT. 1 - D



SCHEDU	JLE									
Symbol	Label	Quantity	Manufacturer	Catalog Number	Description	Lamp	Number Lamps	Lumens Per Lamp	Light Loss Factor	v
\bowtie	А	4	LSI Industries	SLM-LED-18L-SIL- FT-30-70CRI	LSI Industries Slice Medium Outdoor LED Area Light. 18,000 Lumens with silicone lens, forward throw distribution, 3000K CCT and 70 CRI. 30' wall mounting height.	LED	1	18,526	135	1
	В	5	LSI Industries	SLM-LED-12L-SIL- 3-30-70CRI	LSI Industries Slice Medium Outdoor LED Area Light. 12,000 Lumens with silicone lens, Type 3 distribution, 3000K CCT and 70 CRI. 20' wall mounting height.	LED	1	12,714	85	8
	С	4	LSI Industries	SLM-LED-18L-SIL- 2-30-70CRI-IL	LSI Industries Slice Medium Outdoor LED Area Light. 18,000 Lumens with silicone lens, Type 2 distribution, 3000K CCT and 70 CRI with Integral Louver (Sharp Spill Light Cutoff) 25' pole mounting height, 2.5' base	LED	1	18,421	135	1

FOR ANY OTHER PURPOSE. THIS SHEET SHALL BE CONSIDERED INVALID UNLESS ACCOMPANIED BY ALL SHEETS OF THE DENOTED PLAN SET(S).

TAX LOT:

86-1-26.31

REVISION:

3 - 04/28/2023

1 inch = 30 ft.

0.	Species	DBH	Class	Damage	Description	No.	Species	DBH	Class	Damage	Description
1	Red oak Scarlet oak		SPECIMEN SIGNIFICANT				Red maple Red oak		SIGNIFICANT SIGNIFICANT		
3	B Red oak		SPECIMEN		Dead. Charding Coop		Red oak		SIGNIFICANT		
4 5	White oak Scarlet oak		DEAD PROTECTED	YES	Dead - Standing Snag		Pin oak Red oak		DAMAGED SIGNIFICANT	YES	Large dead limbs in crown <40' crown spread
6	5 Black cherry		SIGNIFICANT	YES	Heart rot, leaning		Pin oak		SIGNIFICANT		
7	7 Scarlet oak 8 Scarlet oak		SIGNIFICANT				Red oak Red oak	-	SIGNIFICANT		
	Red oak		SPECIMEN				Red oak		SIGNIFICANT		
) Scarlet oak		SIGNIFICANT SPECIMEN				Red oak Red oak		SIGNIFICANT SPECIMEN		
	2 Scarlet oak		PROTECTED			108	Scarlet oak	-	PROTECTED		
	B Red oak Scarlet oak		SIGNIFICANT				Red oak Red maple	-	SIGNIFICANT		
15	5 Red maple		SIGNIFICANT			111	Red oak		SIGNIFICANT		
	 Pin oak 7 Red oak 		SIGNIFICANT SIGNIFICANT				Red oak Pin oak		SIGNIFICANT		
	Red maple		SIGNIFICANT				Red oak		SIGNIFICANT		
-	Red maple		SIGNIFICANT				Red oak Red oak		SIGNIFICANT SPECIMEN		
20			SIGNIFICANT				Pin oak	-	SPECIMEN		
22			SIGNIFICANT				Red oak Red oak	-	SPECIMEN SPECIMEN		
	Bitternut hickory		SIGNIFICANT				Red oak		SPECIMEN		
	5 Black cherry		SIGNIFICANT	YES	Leaning		Red oak Red maple		SPECIMEN SPECIMEN		
	5 Scarlet oak 7 Pin oak		SIGNIFICANT SIGNIFICANT				Red oak		SPECIMEN		
	Red oak		SIGNICANT				Red oak				
	Red OakRed maple		SIGNIFICANT SIGNIFICANT				Black oak Red oak	-	SPECIMEN SPECIMEN		
	Red oak		SIGNIFICANT		Large dead branches in ground and an		Pin oak Red maple			YES	Large dead limbs in crown >40' crown sprea
	Pin oak B Red oak		DAMAGED SIGNIFICANT	YES	Large dead branches in crown < 40' crown spread		Pin oak	-	SPECIMEN SPECIMEN		
34	Red maple	14.80	DAMAGED	YES	Large dead branches in crown < 40' crown spread		Pin oak		SPECIMEN		
	5 Red maple		DAMAGED SIGNIFICANT		Extensive heart rot		Red oak Red oak		SPECIMEN SPECIMEN		
	7 Red oak	14.90	SIGNIFICANT				Red oak		SPECIMEN		
	8 Red oak 9 Red oak		SIGNIFICANT				Black oak White oak		SPECIMEN SPECIMEN		
) Red maple		SIGNIFICANT				Pin oak	-	SPECIMEN		
	Red maple 2 Pin oak		SIGNIFICANT				Red oak Red oak	-	SPECIMEN SPECIMEN		
	Red maple		SIGNIFICANT				Red oak	-	SPECIMEN		
	Elm		SIGNIFICANT				Red oak		SPECIMEN		
-	Red maple Red maple		SIGNIFICANT				Red oak Pin oak		SPECIMEN SPECIMEN		
	Red maple		SIGNIFICANT				Red oak	-	SPECIMEN		
	Red maple		DAMAGED SIGNIFICANT	YES	Most of crown dead and down <40' crown spread		Red maple Red oak		SPECIMEN SPECIMEN		
50	Red maple		SIGNIFICANT				Red oak		SPECIMEN		
	Red maple		SIGNIFICANT				Red oak Red maple		SPECIMEN SPECIMEN		
	Black cherry		SIGNIFICANT				Red maple	23.00	SPECIMEN		
	Red oak		SIGNIFICANT SIGNIFICANT				Red oak Black cherry	+	SPECIMEN SPECIMEN		
	6 White oak		SPECIMEN			*152	White oak		SPECIMEN		
	7 Black cherry B Pin oak		SIGNIFICANT SIGNIFICANT				Pin oak Black oak		SPECIMEN SPECIMEN		
	Pin oak		SIGNIFICANT				Pin oak		SPECIMEN		
) Red maple		SIGNIFICANT				Red oak Red maple				
	Pin oak		SIGNIFICANT SIGNIFICANT				Red maple		SPECIMEN DAMAGED	YES	Extensive heart rot
	Red maple		SIGNIFICANT		Solitator: 2004 tour bit bit		Red oak				
	Red maple		DAMAGED SIGNIFICANT	YES	Split stem <20% trunk dieback		Black oak Red oak		SPECIMEN SPECIMEN		
*66	Red maple	16.20	SIGNIFICANT			*162	White oak	27.00	DAMAGED	YES	Large dead branches in crown
	7 White ash 3 Red oak		DEAD SIGNIFICANT	YES	Dead		Red oak Red oak	-	SPECIMEN SPECIMEN		
69	Red maple	16.40	SIGNIFICANT			165	Black oak	28.60	SPECIMEN		
) Red maple		SIGNIFICANT				Red oak Red maple		SPECIMEN SIGNIFICANT		
	Red oak Red oak		SIGNIFICANT				Red maple		SIGNIFICANT		
	Red maple		SIGNIFICANT				Red maple	-	SIGNIFICANT		
	Red oak Red maple		SIGNIFICANT SIGNIFICANT				Red maple FOUND SURVEY		SIGNIFICANT		
	Red maple		SIGNIFICANT				PIN Black cherry		N/A SIGNIFICANT		
	7 Pin oak 8 Pin oak		SIGNIFICANT			173	Scarlet oak	15.80	SIGNIFICANT		
79	9 Pin oak	16.80	SIGNIFICANT				Scarlet oak Scarlet oak		PROTECTED PROTECTED		
	0 Red oak L Red maple		SIGNIFICANT			176	Pin oak	18.20	SIGNIFICANT		
*82	Red maple	16.90	SIGNIFICANT				Red oak	22.40	SPECIMEN		
	B Pin oak		SIGNIFICANT SIGNIFICANT				E PLAI		PTS		
*85	Red maple		SIGNIFICANT								
	Black cherry		SIGNIFICANT						ERE LOCATED AN ON FEBRUARY 16	ID CLASSIFIED BY , 2023.	
	7 Red oak 8 Scarlet oak		SIGNIFICANT PROTECTED				TAL TREES MEAS	<u>ES</u>			
*89	Red oak	17.50	SIGNIFICANT			-	1,413 / 1,656.	7 INCHES DBH W	ALING 1,656.7 INC ILL BE REMOVED		
) Red oak L Scarlet oak		SIGNIFICANT PROTECTED			-	1,134.6 / 1,26	N TREES TOTALI 5.8 INCHES DBH	NG 1,265.8 INCHES WILL BE REMOVE	S DBH D OR DISTURBED	
92	Pin oak	17.80	SIGNIFICANT			<u>F</u>	PROTECTED TREE 7 PROTECTE	<u>ES</u> ED TREES TOTAL	ING 147.4 INCHES	DBH	
	Scarlet oak		DEAD DEAD	YES YES	Dead - standing snag Dead - standing snag	<u>[</u>	DAMAGED TREES		L BE REMOVED O G 168.6 INCHES D		
54		10.00							L BE REMOVED O		



No.	DATE	DESCRIPTION
1	10/07/22	PB SUBMISSION
2	12/22/22	REVISED PER PB COMMENTS
3	04/28/23	PB SUBMISSION

DRAWING STATUS
THIS SHEET IS PART OF THE PLAN SET ISSUED FOR
CONCEPT APPROVAL
PLANNING BOARD APPROVAL
OCDOH REALTY SUBDIVISION APPROVAL
OCDOH WATERMAIN EXTENSION APPROV
NYSDEC APPROVAL
NYSDOT APPROVAL
OTHER
FOR BID
FOR CONSTRUCTION
THIS PLAN SET HAS BEEN ISSUED SPECIF. APPROVAL OR ACTION NOTED ABOVE AND FOR ANY OTHER PURPOSE. THIS SHEET SHALL BE CONSIDERED INVAL ACCOMPANIED BY ALL SHEETS OF THE DE





ISSUE DATE:

04/28/2023 SHEET NUMBER N/A OF N/A 7 |OF| 11 N/A OF N/A N/A OF N/A







Wait The Required Time Confirm Utility Response Respect The Marks Dig With Care Dial: 811

www.udigny.org





PIPE	А	В
6" [150 mm]	N/A	N/A
8" [200 mm]	N/A	N/A
10" [250 mm]	N/A	N/A
12" [300 mm]	29.50" [749 mm]	2.25" [57 mm]
15" [375 mm]	26.50" [673 mm]	2.25" [57 mm]
18" [450 mm]	23.50" [597 mm]	2.50" [64 mm]
24" [600 mm]	16.50" [420 mm]	3.00" [76 mm]





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CULTEC RECHARGER 902HD[®] SPECIFICATIONS

CONTROLLING THE FLOW OF ON-SITE STORMWATER RUNOFF.

BROOKFIELD, CT (CULTEC.COM, 203-775-4416).

B. MAXIMUM PERMANENT (50-YEAR) COVER LOAD

C. 1-WEEK PARKED AASHTO DESIGN TRUCK LOAD

CULTEC RECHARGER[®] 902HD CHAMBERS ARE DESIGNED FOR UNDERGROUND STORMWATER

MANAGEMENT. THE CHAMBERS MAY BE USED FOR RETENTION, RECHARGING, DETENTION OR

1. THE CHAMBERS SHALL BE MANUFACTURED IN THE U.S.A. OR CANADA BY CULTEC, INC. OF

"STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL

2. THE CHAMBERS SHALL BE DESIGNED AND TESTED IN ACCORDANCE WITH ASTM F2787

STORMWATER COLLECTION CHAMBERS". THE LOAD CONFIGURATION SHALL INCLUDE:

SPECIFICATION FOR CELLULAR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER

4. THE INSTALLED CHAMBER SYSTEM SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD

FACTORS AS DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION

12.12, WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION

INSTRUCTIONS. THE STRUCTURAL DESIGN OF THE CHAMBERS SHALL INCLUDE THE

5. THE CHAMBER SHALL BE STRUCTURAL FOAM INJECTION MOLDED OF BLUE VIRGIN HIGH

8. THE CHAMBER SHALL BE JOINED USING AN INTERLOCKING OVERLAPPING RIB METHOD

9. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC RECHARGER[®]902HD SHALL BE 48

INSTALLED LENGTH OF A JOINED RECHARGER 902HD SHALL BE 3.67 FEET (1.12 M).

10. MULTIPLE CHAMBERS MAY BE CONNECTED TO FORM DIFFERENT LENGTH ROWS. EACH

ROW SHALL BEGIN AND END WITH A SEPARATELY FORMED CULTEC RECHARGER[®] 902HD

END CAP. MAXIMUM INLET OPENING ON THE END CAP IS 30 INCHES (750 MM) HDPE OR 36

11. THE CHAMBER SHALL HAVE TWO SIDE PORTALS TO ACCEPT CULTEC HVLV™ FC-48 FEED

CONNECTORS TO CREATE AN INTERNAL MANIFOLD. MAXIMUM ALLOWABLE PIPE SIZE IN

12. THE NOMINAL CHAMBER DIMENSIONS OF THE CULTEC HVLV™ FC-48 FEED CONNECTOR

SHALL BE 12 INCHES (305 MM) TALL, 16 INCHES (406 MM) WIDE AND 49 INCHES (1245

13. THE NOMINAL STORAGE VOLUME OF THE RECHARGER 902HD CHAMBER SHALL BE 17.31

 FT^{3}/FT (1.61 M^{3}/M) - WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF A JOINED

16. THE CHAMBER SHALL BE CAPABLE OF ACCEPTING A 6 INCH (150 MM) INSPECTION PORT

17. THE CHAMBER SHALL BE MANUFACTURED IN A FACILITY EMPLOYING CULTEC'S QUALITY

18. MAXIMUM ALLOWABLE COVER OVER THE TOP OF THE CHAMBER SHALL BE 8.3 FEET (2.53

1. THE CULTEC RECHARGER^(K) 902HD END CAP (REFERRED TO AS 'END CAP') SHALL BE

2. THE END CAP SHALL BE TWIN-SHEET THERMOFORMED OF VIRGIN HIGH MOLECULAR

SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE COUPLINGS.

BE 2.76 FT^3 / UNIT (0.08 M^3 / UNIT) - WITHOUT STONE.

3. THE END CAP SHALL BE JOINED AT THE BEGINNING AND END OF EACH ROW OF CHAMBERS

USING AN INTERLOCKING OVERLAPPING RIB METHOD. CONNECTIONS MUST BE FULLY

4. THE NOMINAL DIMENSIONS OF THE END CAP SHALL BE 48.5 INCHES (1231 MM) TALL, 78

RECHARGER 902HD CHAMBER, THE INSTALLED LENGTH OF THE END CAP SHALL BE 6.2

5. THE NOMINAL STORAGE VOLUME OF THE END CAP SHALL BE 5.34 FT³/ FT (0.50 M³ / M) -

WITHOUT STONE. THE NOMINAL STORAGE VOLUME OF AN INTERLOCKED END CAP SHALL

6.MAXIMUM INLET OPENING ON THE END CAP IS 30 INCHES (750 MM) HDPE OR 36 INCHES

7. THE END CAP SHALL PROVIDE RESISTANCE TO THE LOADS AND LOAD FACTORS AS

DEFINED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS SECTION 12.12.

INCHES (1982 MM) WIDE AND 9.7 INCHES (246 MM) LONG. WHEN JOINED WITH A

MANUFACTURED IN THE U.S.A. BY CULTEC, INC. OF BROOKFIELD, CT (CULTEC.COM,

OPENING AT THE TOP CENTER OF EACH CHAMBER, CENTERED ON THE CORRUGATION

RECHARGER 902HD SHALL BE 63.47 FT³ / UNIT (1.80 M³ / UNIT) - WITHOUT STONE.

14. THE NOMINAL STORAGE VOLUME OF THE HVLV™ FC-48 FEED CONNECTOR SHALL BE

THE SIDE PORTAL IS 10 INCHES (250 MM) HDPE AND 12 INCHES (300 MM) PVC.

INCHES (1219 MM) TALL, 78 INCHES (1981 MM) WIDE AND 4.25 FEET (1.30 M) LONG. THE

A. THE CREEP MODULUS SHALL BE 50-YEAR AS SPECIFIED IN ASTM F3430

B. THE MINIMUM SAFETY FACTOR FOR LIVE LOADS SHALL BE 1.75

C. THE MINIMUM SAFETY FACTOR FOR DEAD LOADS SHALL BE 1.95

MOLECULAR WEIGHT IMPACT-MODIFIED POLYPROPYLENE.

6. THE CHAMBER SHALL BE ARCHED IN SHAPE.

7. THE CHAMBER SHALL BE OPEN-BOTTOMED.

0.913 FT³ / FT (0.085 M³ / M) - WITHOUT STONE.

CONTROL AND ASSURANCE PROCEDURES.

15. THE RECHARGER 902HD CHAMBER SHALL HAVE 5 CORRUGATIONS.

A. INSTANTANEOUS AASHTO DESIGN TRUCK LIVE LOAD AT MINIMUM COVER

3. THE CHAMBERS SHALL MEET THE REQUIREMENTS OF ASTM F3430-20 "STANDARD

GENERAL

CHAMBER PARAMETERS

COLLECTION CHAMBERS

FOLLOWING:

COUPLINGS.

MM) LONG.

CREST

END CAP PARAMETERS

203-775-4416)

WEIGHT POLYETHYLENE.

INCHES (157 MM).

(900 MM) PVC.

902HD 7.0

INCHES (900 MM) PVC.

SIDEWALK DETAIL

- 3. ALL CONCRETE FOR SIDEWALKS SHALL BE 4000 PSI AT WITH TRANSVERSE BROOM FINISH AND CROSS SLOPE.
- 2. SIDEWALK EXPANSION JOINTS SHALL BE SPACED AT 20' INTERVALS AND SHALL BE 4" DEEP, EDGED WITH 1/4" RADIUS.

- MATERIAL AT TEN FOOT INTERVALS.

- NOTES 1. CURB EXPANSION JOINTS OF 1/4" PREFORMED BITUMINOUS COATED CELLULOSE OR SIMILAR



HANDICAP RAMP SCALE: N.T.S.



GENERAL NOTES

D4355 TESTING METHOD.

(0.425 MM) PER ASTM D4751 TESTING METHOD. 12. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY RATING OF 0.15 SEC-1 PER ASTM D4491 TESTING METHOD. 13. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATING OF 11.5 GPM/FT2 (470 LPM/M2) PER ASTM D4491 TESTING METHOD.

14. THE GEOTEXTILE SHALL HAVE A UV RESISTANCE OF 80% @ 500 HRS. PER ASTM

- 11. THE GEOTEXTILE SHALL HAVE AN APPARENT OPENING SIZE OF 40 US STD. SIEVE
- LBS (801 X 801 N) PER ASTM D4533 TESTING METHOD.
- 10. THE GEOTEXTILE SHALL HAVE A TRAPEZOIDAL TEAR RESISTANCE OF 180 X 180
- 9. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE RESISTANCE OF 1,700 LBS (7,560 N) PER ASTM D6241 TESTING METHOD.
- METHOD.
- STRAIN OF 4,800 X 4,800 LBS/FT (70 X 70 KN/M) PER ASTM D4595 TESTING

- 8. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 10%
- OF 2,740 X 2, 740 LBS/FT (40 X 40 KN/M) PER ASTM D4595 TESTING METHOD.
- (14 X 16 KN/M) PER ASTM D4595 TESTING METHOD. 7. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 5% STRAIN
- OF 960 X 1,096 LBS/FT
- (74 X 74 KN/M) PER ASTM D4595 TESTING METHOD. 6. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE @ 2% STRAIN
- 5,070 LBS/FT
- 5. THE GEOTEXTILE SHALL HAVE A WIDE WIDTH TENSILE RESISTANCE OF 5,070 X

- PER ASTM D4632 TESTING METHOD.

- 4. THE GEOTEXTILE SHALL HAVE A ELONGATION @ BREAK RESISTANCE OF 20 X 20%
- 3. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH OF 550 X 550 LBS (2,448 X 2,448 N) PER ASTM D4632 TESTING METHOD.
- 2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE.
- CONNECTORS UTILIZING THE CULTEC MANIFOLD FEATURE. IT MAY ALSO BE USED AS A COMPONENT OF THE CULTEC SEPARATOR ROW TO ACT AS A BARRIER TO PREVENT SOIL/CONTAMINANT INTRUSION INTO THE STONE WHILE ALLOWING FOR MAINTENANCE. **GEOTEXTILE PARAMETERS**

1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, INC. OF BROOKFIELD, CT.

CULTEC NO. 4800 WOVEN GEOTEXTILE IS DESIGNED AS A UNDERLAYMENT TO PREVENT

SCOURING CAUSED BY WATER MOVEMENT WITHIN THE CULTEC CHAMBERS AND FEED

11. THE GEOTEXTILE SHALL HAVE A PERMITTIVITY VALUE OF 1.7 SEC-1 PER ASTM D4491 TESTING METHOD. 12. THE GEOTEXTILE SHALL HAVE A WATER FLOW RATE VALUE OF 135 GAL/MIN/SF (5500 L/MIN/SM) PER ASTM D4491 TESTING METHOD. 13. THE GEOTEXTILE SHALL HAVE A UV STABILITY @ 500 HOURS VALUE OF 70% PER ASTM

5. THE GEOTEXTILE SHALL HAVE AN ELONGATION @ BREAK VALUE OF 50% PER ASTM D4632 TESTING METHOD. 6. THE GEOTEXTILE SHALL HAVE A MULLEN BURST VALUE OF 225 PSI (1551 KPA) PER ASTM D3786 TESTING METHOD.

3. THE GEOTEXTILE SHALL HAVE A TYPICAL WEIGHT OF 4.5 OZ/SY (142 G/M). 4. THE GEOTEXTILE SHALL HAVE A TENSILE STRENGTH VALUE OF 120 LBS (533 N) PER ASTM D4632 TESTING METHOD.

7. THE GEOTEXTILE SHALL HAVE A PUNCTURE STRENGTH VALUE OF 65 LBS (289 N) PER ASTM

8. THE GEOTEXTILE SHALL HAVE A CBR PUNCTURE VALUE OF 340 LBS (1513 N) PER ASTM

9. THE GEOTEXTILE SHALL HAVE A TRAPEZOID TEAR VALUE OF 50 LBS (222 N) PER ASTM

10. THE GEOTEXTILE SHALL HAVE A AOS VALUE OF 70 U.S. SIEVE (0.212 MM) PER ASTM D4751

- OR 1-800-428-5832) 2. THE GEOTEXTILE SHALL BE BLACK IN APPEARANCE.

CULTEC HVLV FC-48 FEED CONNECTOR PRODUCT SPECIFICATIONS

CULTEC RECHARGER MODEL 902HD STORMWATER CHAMBERS.

WEIGHT HIGH DENSITY POLYETHYLENE (HMWHDPE).

7. THE HVLV FC-48 FEED CONNECTOR SHALL HAVE 4 CORRUGATIONS.

3. THE FEED CONNECTOR SHALL BE ARCHED IN SHAPE.

4. THE FEED CONNECTOR SHALL BE OPEN-BOTTOMED.

FEED CONNECTOR PARAMETERS

(203-775-4416 OR 1-800-428-5832)

FT (0.085 m³ / m) - WITHOUT STONE.

CULTEC HVLV FC-48 FEED CONNECTORS ARE DESIGNED TO CREATE AN INTERNAL MANIFOLD FOR

1. THE FEED CONNECTOR SHALL BE MANUFACTURED BY CULTEC, INC. OF BROOKFIELD, CT.

2. THE FEED CONNECTOR SHALL BE VACUUM THERMOFORMED OF BLACK HIGH MOLECULAR

5. THE NOMINAL DIMENSIONS OF THE CULTEC HVLV FC-48 FEED CONNECTOR SHALL BE 12

INCHES (305 mm) TALL, 16 INCHES (406 mm) WIDE AND 49 INCHES (1245 mm) LONG.

6. THE NOMINAL STORAGE VOLUME OF THE HVLV FC-48 FEED CONNECTOR SHALL BE 0.913 FT 3 /

8. THE HVLV FC-48 FEED CONNECTOR MUST BE FORMED AS A WHOLE UNIT HAVING TWO OPEN

END WALLS AND HAVING NO SEPARATE END PLATES OR SEPARATE END WALLS. THE UNIT

SHALL FIT INTO THE SIDE PORTALS OF THE CULTEC RECHARGER STORMWATER CHAMBER

9. THE FEED CONNECTOR SHALL BE DESIGNED TO WITHSTAND AASHTO HS-25 DEFINED LOADS

WHEN INSTALLED ACCORDING TO CULTEC'S RECOMMENDED INSTALLATION INSTRUCTIONS.

10. THE FEED CONNECTOR SHALL BE MANUFACTURED IN AN ISO 9001:2008 CERTIFIED FACILITY.

AND ACT AS CROSS FEED CONNECTIONS CREATING AN INTERNAL MANIFOLD.

- 1. THE GEOTEXTILE SHALL BE PROVIDED BY CULTEC, INC. OF BROOKFIELD, CT. (203-775-4416
- CULTEC NO. 410™ NON-WOVEN GEOTEXTILE MAY BE USED WITH CULTEC CONTACTOR® AND RECHARGER® STORMWATER INSTALLATIONS TO PROVIDE A BARRIER THAT PREVENTS SOIL

D4833 TESTING METHOD.

D6241 TESTING METHOD.

D4533 TESTING METHOD.

D4355 TESTING METHOD.

CULTEC NO. 4800[™] WOVEN GEOTEXTILE

(203-775-4416 OR 1-800-428-5832)

TESTING METHOD.

CULTEC NO. 410[™] NON-WOVEN GEOTEXTILE

INTRUSION INTO THE STONE CONNECTIONS MUST BE FULLY SHOULDERED OVERLAPPING RIBS, HAVING NO SEPARATE

GENERAL

- GEOTEXTILE PARAMETERS



SOIL STOCKPILING

SCALE: NTS

4. SEE SPECIFICATIONS (THIS MANUAL) FOR INSTALLATION OF SILTFENCE.

3. UPON COMPLETION OF SOIL STOCKPILING, EACH PILE SHALL BE SURROUNDED A WITH EITHER SILT FENCING OR STRAWBALES, THEN STABILIZED WITH VEGETATION OR COVERED.

- 2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
- NOTES: 1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.



VEGETATED SWALE SCALE: NTS

- 5. STABILIZATION SHALL BE DONE ACCORDING TO THE APPROPRIATE STANDARD AND SPECIFICATIONS FOR VEGETATIVE PRACTICES. A. FOR DESIGN VELOCITIES OF LESS THAN 3.5 FT. PER SEC., SEEDING AND MULCHING MAY BE USED FOR THE ESTABLISHMENT OF THE VEGETATION. IT IS RECOMMENDED THAT, WHEN CONDITIONS PERMIT, TEMPORARY DIVERSIONS OR OTHER MEANS SHOULD BE USED TO PREVENT WATER FROM ENTERING THE WATERWAY DURING THE ESTABLISHMENT OF THE VEGETATION. B. FOR DESIGN VELOCITIES OF MORE THAN 3,5 FT. PER SEC., THE WATERWAY SHALL BE STABILIZED WITH SOD, WITH SEEDING PROTECTED BY JUTE OR EXCELSIOR MATTING OR WITH SEEDING AND MULCHING INCLUDING TEMPORARY DIVERSION OF THE WATER UNTIL THE VEGETATION IS ESTABLISHED.
- WOULD CAUSE DAMAGE IN THE COMPLETED WATERWAY.
- SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE WATERWAY.
- THE WATERWAY SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE AND CROSS SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN, AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPEDE NORMAL FLOW.
- CONSTRUCTION SPECIFICATIONS: 1. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS AND OTHER OBJECTIONABLE SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE WATERWAY.

2'-0" 8'-0"

CHANNEL CROSS-SECTION

TEMPORARY SEDIMENT BASIN OUTLET STRUCTURE

- 2. DISSIMILAR PIPE COUPLER AS MANUFACTURED BY MAR MAC CONSTRUCTION PRODUCTS CO., INC. OR APPROVED EQUAL.
- 1. TEMPORARY SEDIMENT BASIN SHALL BE EXCAVATED AS SHOWN ON THE EROSION CONTROL PLAN WHICH MAY NOT MATCH PERMANENT FACILITY SIZE, SHAPE OR DEPTH.



STABILIZED CONSTRUCTION ENTRANCE SCALE: NT

SLOPE STABILIZATION (ROLLED EROSION CONTROL PRODUCT)

- 6. CONSECUTIVE RECP'S SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE) WITH AN APPROXIAMATE 3" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS THE ENTIRE RECP'S WIDTH.

- 5. THE EDGES OF PARALLEL RECP'S MUST BE STAPLED WITH APPROXIMATELY 2" TO 5" OVERLAP DEPENDING ON RECP'S TYPE.

- GUIDE.
- SOIL SURFACE BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN THE PRODUCT'S STAPLE PATTERN
- 4. ROLL THE RECP'S DOWN THE SLOPE OR HORZONTALLY ACROSS THE SLOPE. ALL RECP'S MUST BE SECURLY FASTENED TO

- THE BOTTON OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12" PORTION OF RECP'S BACK OVER SEED AND COMPACTED SOIL. SECURE RECP'S OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACE APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE RECP'S.
- PRIOR TO INSTALLATION OF ANY RECP'S. 3. INSTALL RECP - NORTH AMERICAN GREEN BIONET \$150BN OR APPROVED EQUAL. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE RECP'S IN A 6" DEEP BY 6" WIDE TRENCH WITH APPROXIMATELY 12" OF RECP'S EXTENDED REYOND THE

TO 1 VERTICAL.





SECTION A-A

2. WIDTH - 24 FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS

3. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD

WHERE INGRESS OR EGRESS OCCURS.

AN APPROVED SEDIMENT TRAPPING DEVICE.

EACH RAIN.

1. STONE SIZE - USE 2" STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.

CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING

SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-

IS IMPRACTICAL A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.

MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH

WAY THIS MAY REQUIRED PERIODIC TOP DRESSING WITH ADDITIONAL STONE

AS CONDITIONS DEMAND AND REPAIR AND/OR CLEANOUT OF ANY MEASURES

USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR

TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.

ENTRANCE ONTO PUBLIC RIGHTS-OF-WAY, WHEN WASHING IS REQUIRED. IT

6. PERIODIC INSPECTIONS AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER

SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO

WASHING - WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO

NOTES:

TOP OF SLOPE FILTER FABRIC 1. ROLLED EROSION CONTROL PRODUCT (RECP'S) SHALL BE USED ON ALL CONSTRUCTED SLOPES GREATER THAN 3 HORIZONTAL

2. PREPARATION OF THE SOIL INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED SHALL BE COMPLETED

UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE RECP'S WITH A ROW OF STAPLES/STAKES APPROXIAMTELY 12" APART IN

SEQUENCE OF CONSTRUCTION ACTIVTY

1. A MEETING WITH TOWN REPRESENTATIVES, INCLUDING TOWN ENGINEER, DESIGN ENGINEER, AS WELL AS CONTRACTORS, PROJECT MANAGER AND FOREMAN, IS TO TAKE PLACE A MINIMUM OF ONE WEEK PRIOR TO CONSTRUCTION. CONSTRUCTION STAGING: STAKE OUT LIMIT OF DISTURBANCE. INSTALL SILT FENCE DOWN HILL OF PROPOSED CONSTRUCTION. INSTALL STABILIZED CONSTRUCTION ENTRANCE AND STABLIZE CONSTRUCTION ROAD(S). INSTALL

CLEARING AND GRUBBING: REMOVE VEGETATION FROM AREA OF CONSTRUCTION. STRIP TOPSOIL AND STOCKPILE IN AREAS SHOWN ON THE PLAN. INSTALL SEDIMENT BARRIERS AROUND AND ESTABLISH TEMPORARY VEGETATION ON TOPSOIL STOCKPILES.

ROUGH GRADING: CUT AND FILL SITE TO APPROXIMATE ELEVATIONS SHOWN ON THE PLAN. IMPLEMENT DUST CONTROL MEASURES AS NECESSARY. ESTABLISH PERMANENT STABLIZATION IN AREAS THAT ARE COMPLETE. ESTABLISH TEMPORARY STABLIZATION ON AREAS THAT WILL BE GRADED AGAIN MORE THAN 21 DAYS FROM LAST DISTURBANCE.

ROAD/BUILDING CONSTRUCTION AND UTILITY INSTALLATION: FINAL GRADING AND CONSTRUCTION OF ROADWAYS. BUILDING EXCAVATION AND CONSTRUCTION. INSTALL UTILITIES. INSTALL DRAINAGE INLET AND OUTLET PROTECTION AS EACH INLET/OUTLET IS CONSTRUCTED. ENSURE ALL EROSION CONTROL MEASURES ARE IN WORKING ORDER.

FINAL GRADING AND LANDSCAPING: REMOVE TEMPORARY SEDIMENT TRAPS AND INSTALL PERMANENT WATER QUALITY/QUANTITY FACILITIES. COMPLETE FINE GRADING OF SITE. SPREAD TOPSOIL AND PREPARE FOR PERMANENT SEEDING AND PLANTING. ESTABLISH PERMANENT VEGETATION IN ALL REMAINING UNSTABILIZED AREAS. INSTALL ALL SITE LANDSCAPING AND PI ANTINGS

7. POST CONSTRUCTION: UPON STABILIZATION OF THE SITE AND ESTABLISHMENT OF ALL VEGETATION COVER, REMOVE ALL REMAINING TEMPORARY EROSION CONTROL MEASURES SUCH AS SILT FENCE. REMOVE ALL SILT AND DEBRIS FROM THE SITE INCLUDING ROADWAYS, CATCH BASINS AND STORM DRAINS.



DISTURBANCE FOR GRADING AND CONSTRUCTION. ALL DISTURBED AREAS SHALL BE SEEDED AND MULCHED AS SOON AS PRACTICAL FOLLOWING DISTURBANCE TO STABILIZE BARE SOIL AND PROMOTE THE PROMPT RE-ESTABLISHMENT OF VEGETATION: 4.1. AN ADEQUATE SEEDBED SHALL BE PREPARED BY SCARIFYING COMPACTED SOIL AND REMOVING TEMPORARY SEDIMENT TRAP. INSTALL PERMANENT/TEMPORARY GRASSED SURFACE DEBRIS AND OBSTACLES.

- 4.2. LIME SHALL BE APPLIED SUFFICIENTLY TO ATTAIN A SOIL ACIDITY PH OF 6.0 TO 7.0. 4.3. FERTILIZER (5-10-10 MIXTURE OR EQUIVALENT) SHALL BE APPLIED PER SOIL TEST RESULTS OR AT A RATE OF 600 LBS. PER ACRE. 4.4. DISTURBED AREAS WHICH WILL REMAIN TEMPORARILY FALLOW FOR PERIODS GREATER THAN 30
 - DAYS SHALL BE SEEDED AT THE FOLLOWING RATE TO PRODUCE TEMPORARY GROUND COVER: 30 LBS. RYEGRASS (ANNUAL OR PERENNIAL) PER ACRE. DURING THE WINTER, USE 100 LBS. CERTIFIED "AROOSTOOK" WINTER RYE (CEREAL RYE) PER ACRE. 4.5. PERMANENT SEEDING SHALL BE APPLIED ON 4" MIN TOPSOIL AT THE FOLLOWING RATE: 8 LBS EMPIRE BIRDSFOOT TREFOIL OR COMMON WHITE CLOVER PER ACRE PLUS

SPACING VARIES DEPENDING ON CHANNEL SLOPE

PROFILE

TOF

SECTION A-A

CONSTRUCTION SPECIFICATIONS:

CUTTING AROUND THE DAM.

WITH STONE OR LINER AS APPROPRIATE.

CONTROL NOTES

REMOVAL REQUIRED FOR CONSTRUCTION.

STABILIZATION OF ALL AREAS WITHIN 125 FEET OF FENCING.

THAN 6" AND 0 TO 10 PERCENT SMALLER THAN 1/2".

1. STONE SHALL BE MAXIMUM SIZE OF 12" WITH 50 TO 100 PERCENT BY WEIGHT LARGER

2. FILTER FABRIC SHALL BE POLY-FILTER X CLOTH AS MANUFACTURED BY CARTHAGE MILLS

4. SET SPACING OF CHECK DAMS TO ASSURE THAT THE ELEVATIONS OF THE CREST OF THE

5. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT

ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.

EROSION AND SEDIMENTATION

DOWNSTREAM DAM IS AT THE SAME ELEVATION AS THE TOE OF THE UPSTREAM DAM.

3. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION AT LOCATIONS SHOWN ON THE PLAN.

6. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION

7. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS

STONE CHECK DAM

SCALE: NTS

SITE DISTURBANCE SHALL BE LIMITED TO THE MINIMUM NECESSARY GRADING AND VEGETATION

ORANGE CONSTRUCTION FENCE LOCATIONS SHALL BE STAKED BY A SURVEYOR AND INSTALLATION

EXISTING WETLAND AND IN AREAS WHERE TREES AND STONE WALLS ARE TO BE PRESERVED. ALL ORANGE CONSTRUCTION FENCING SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION TO

PROTECT SENSITIVE AREAS. THE ORANGE CONSTRUCTION FENCING WILL BE REMOVED UPON FINAL

TEMPORARY EROSION CONTROL MEASURES, INCLUDING SILT FENCES AND/OR STRAW BALE DIKES,

DRAINAGE STRUCTURES, AND RIP-RAP PROTECTION SHALL BE INSTALLED PRIOR TO GROUND

SHALL BE CONFIRMED BY THE ENGINEER PRIOR TO ANY LAND DISTURBANCE WITHIN 125 FEET OF AN

SAME ELEVATION

FILTER FABRIC

SECTION B-B

- 20 LBS TALL FESCUE PER ACRE PLUS 2 LBS REDTOP OR 5 LBS RYEGRASS (PERENNIAL) PER ACRE 4.6. ALL SEEDING SHALL BE PERFORMED USING THE BROADCAST METHOD OR HYDROSEEDING,
- UNLESS OTHERWISE APPROVED. 4.7. ALL DISTURBED AREAS SHALL BE STABILIZED SUBSEQUENT TO SEEDING BY APPLYING 2 TONS OF STRAW MULCH PER ACRE. STRAW MULCH SHALL BE ANCHORED BY APPLYING 750 LBS OF WOOD FIBER MULCH PER ACRE WITH A HYDROSEEDER, OR TUCKING THE MULCH WITH SMOOTH DISCS OR OTHER MULCH ANCHORING TOOLS TO A DEPTH OF 3". MULCH ANCHORING TOOLS SHALL BE PULLED ACROSS SLOPES ALONG TOPOGRAPHIC CONTOURS.
- ALL EROSION AND SEDIMENTATION CONTROL MEASURES AND DRAINAGE STRUCTURES SHALL BE INSPECTED FOLLOWING EVERY RAIN EVENT, AND MAINTENANCE AND REPAIRS SHALL BE PERFORMED PROMPTLY TO MAINTAIN PROPER FUNCTION. TRAPPED SEDIMENT SHALL BE REMOVED AND DEPOSITED IN A PROTECTED AREA IN A PROPER MANNER WHICH WILL NOT RESULT IN EROSION.
- TEMPORARY CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL DISTURBED AREAS ARE PERMANENTLY STABILIZED AND GROUND COVER IS COMPLETELY REESTABLISHED. FOLLOWING STABILIZATION, TEMPORARY MEASURES SHALL BE REMOVED TO AVOID INTERFERENCE WITH DRAINAGE
- 7. ALL STORM INLETS TO BE PROTECTED FROM SEDIMENTATION DURING CONSTRUCTION
- 8. SYNTHETIC OR ORGANIC SOIL STABILIZERS MAY BE USED UNDER SUITABLE CONDITIONS AND IN SUFFICIENT QUANTITIES.
- 9. MULCH NETTING SUCH AS PAPER, JUTE, EXCELSIOR, COTTON OR PLASTIC MAY BE USED. STAPLE IN PLACE. OVER HAY OR STRAW MULCH. USE A DEGRADABLE NETTING IN AREAS TO BE MOWED.
- 10. STABILIZATION OF STEEP SLOPES SHALL BE ACHIEVED BY APPLYING LIME AND FERTILIZER AS
- SPECIFIED ABOVE AND SEEDING WITH THE FOLLOWING MIXTURE: PERENNIAL RYE GRASS CROWN VETCH
- SPREADING FESCUE

11. OPTIMUM SEEDING PERIODS ARE 3/15-6/1 AND 8/1-10/15.

3. ALL EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE SPREAD OR DISPOSED OF

4. FILL SHALL BE COMPACTED AS NEEDED IN CONSTRUCTION TO PREVENT UNEQUAL SETTLEMENT THAT

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HIS SHEET SHALL BE CONSIDERED INVALID UNLESS ACCOMPANIED BY ALL SHEETS OF THE DENOTED PLAN SET(S).



METAL WITH A MINIMUM LENGTH OF 3 FEET. 4. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A

MINIMUM 18 INCHES DEEP. SPANS GREATER THAN 3 FEET MAY BE BRIDGED WITH THE USE OF WIRE MESH BEHIND THE FILTER FABRIC FOR SUPPORT. 5. FABRIC SHALL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.

6. A 2" x 4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY. MAXIMUN DRAINAGE AREA 1 ACRE

FILTER FABRIC DROP INLET PROTECTION NOT TO SCALE

EARTHWORK CONSTRUCTION NOTES

1. ALL TOPSOIL, ROOTS, STUMPS AND OTHER DELETERIOUS MATERIAL SHALL BE REMOVED FROM ALL CONSTRUCTION AREAS.

2. ALL FILL FOR POND CONSTRUCTION, BELOW BUILDINGS AND PAVEMENT TO BE COMPACTED TO 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY MODIFIED PROCTOR COMPACTION TEST ASTM D1557. 3. CELLAR, ROOF AND FOOTING DRAINS SHALL CONNECT TO THE STORM DRAINAGE SYSTEM OR OTHER

FREE-FLOWING OUTLET AT A MINIMUM SLOPE OF 0.5% 4. COMPLETION OF GRADING AND BASIN, BERMS AFTER OCTOBER 15 SHALL REQUIRE MULCHING AND

ANCHORING IN ACCORDANCE WITH NOTES ENTITLED "SEDIMENTATION EROSION CONTROL". 5. ALL SLOPES IN EXCESS OF 3H:1V SHALL BE CONSTRUCTED WITH LOCALLY AVAILABLE GLACIAL TILL. THE EMBANKMENT FILL SHALL BE PLACED IN SIX-INCHTHICK LIFTS. EACH LIFT SHALL BE PLACED AND COMPACTED TO 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY MODIFIED PROCTOR COMPACTION TEST ASTM D1557

6. CONSTRUCT POND EMBANKMENT WITH LOCALLY AVAILABLE GLACIAL TILL WITH 3H:1V SIDE SLOPES OR AS NOTED ON PLAN. THE EMBANKMENT FILL SHALL BE PLACED IN A SIX-INCH THICK CONTINUOUS LAYER OVER THE ENTIRE LENGTH.EACH LIFT SHALL BE PLACED AT OPTIMUM MOISTURE CONTENT AND COMPACTED TO 95% OF MAXIMUM DRY DENSITY AS DETERMINED BY MODIFIED PROCTOR COMPACTION TEST ASTM D1557

7. STABILIZATION OF POND BERMS, AND ALL SLOPES IN EXCESS OF 3H:1V IN ACCORDANCE WITH "EROSION AND SEDIMENTATION CONTROL NOTES".

8. SOIL RESTORATION SHALL BE APPLIED TO ALL DISTURBED AREAS THAT WILL REMAIN AS PERVIOUS SURFACES. SOIL RESTORATION SHALL CONSIST OF THE FOLLOWING:

8.A. APPLY 3 INCHES OF COMPOST OVER SUBSOIL

8.B. TILL COMPOST INTO SUBSOIL TO A DEPTH OF AT LEAST 12 INCHES USING A CAT-MOUNTED RIPPER, TRACTOR MOUNTED DISC, OR TILLER, MIXING, AND CIRCULATING AIR AND COMPOST INTO SUB-SOILS.

8.C. ROCK-PICK UNTIL UPLIFTED STONE/ROCK MATERIALS OF FOUR INCHES AND LARGER SIZE ARE CLEANED OFF THE SITE.

8.D. APPLY TOPSOIL TO A DEPTH OF 6 INCHES.

8.E. VEGETATE IN ACCORDANCE WITH LANDSCAPE PLAN.









NOTES:

1. SILT FENCE TO BE MAINTAINED IN PLACE DURING CONSTRUCTION AND SOIL STABILIZATION PERIOD.

SILT FENCE