HAROLD GARY
Chairman

CRAIG PAEPRER
Vice Chairman

BOARD MEMBERS
ANTHONY GIANNICO
DAVE FURFARO
CARL STONE
KIM KUGLER
RAYMOND COTE

TOWN OF CARMEL
PLANNING BOARD

60 McAlpin Avenue
Mahopac, New York 10541
Tel. (845) 628-1500 – Ext.190
www.ci.carmel.ny.us

MICHAEL CARNAZZA
Director of Code Enforcement

RICHARD FRANZETTI, P.E.
Town Engineer

PATRICK CLEARY,
AICP,CEP, PP, LEED AP
Town Planner

VINCENT FRANZE
Architectural Consultant

PLANNING BOARD AGENDA
MAY 9, 2018 – 7:00 P.M.

MEETING ROOM #2

		TAX MAP #	PUB. HEARING	MAP DATE	COMMENTS
SITE PLAN					
1.	Angelo Senno Trust – 19 Fowler Ave, Carmel	44.13-2-2		4/27/18	Residential Site Plan
2.	Alexandrion Distillery – 39 Seminary Hill Rd, Carmel	55.10.1-1		3/29/18	Amended Site Plan
SUBDIVISION					
3.	Random Ridge Subdivison – Kennicut Hill Road	76,13-2-78-81		11/7/16	Amendment to Final Subdivision Plat
MISCELLANEOUS					
4.	Charry Subdivision – 85 Washington Road	54.19-1-1		10/2014	1st Extension of Final Subdivision Approval
5.	Minutes – 03/28/18				

ROY A. FREDRIKSEN, PE

DESIGN PLANNING CONSTRUCTION

266 SHEAR HILL ROAD
MAHOPAC, NEW YORK 10541
845-621-4000
RAYEXDESIGN@GMAIL.COM

April 30, 2018

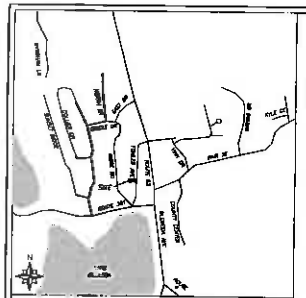
Re: Angelo A. Senno Trust, 19 Fowler Ave, Carmel, NY. T.M. # 44.13-2-2

Planning Board Town of Carmel.

Submitted is a revised site plan reflecting the granting of all variances needed for this project. Please note that variances were granted by the Town of Carmel ZBA during regular meeting on April 26, 2018.

If I could be of any further assistance, please do not hesitate to contact me.

Roy A. Fredriksen, PE



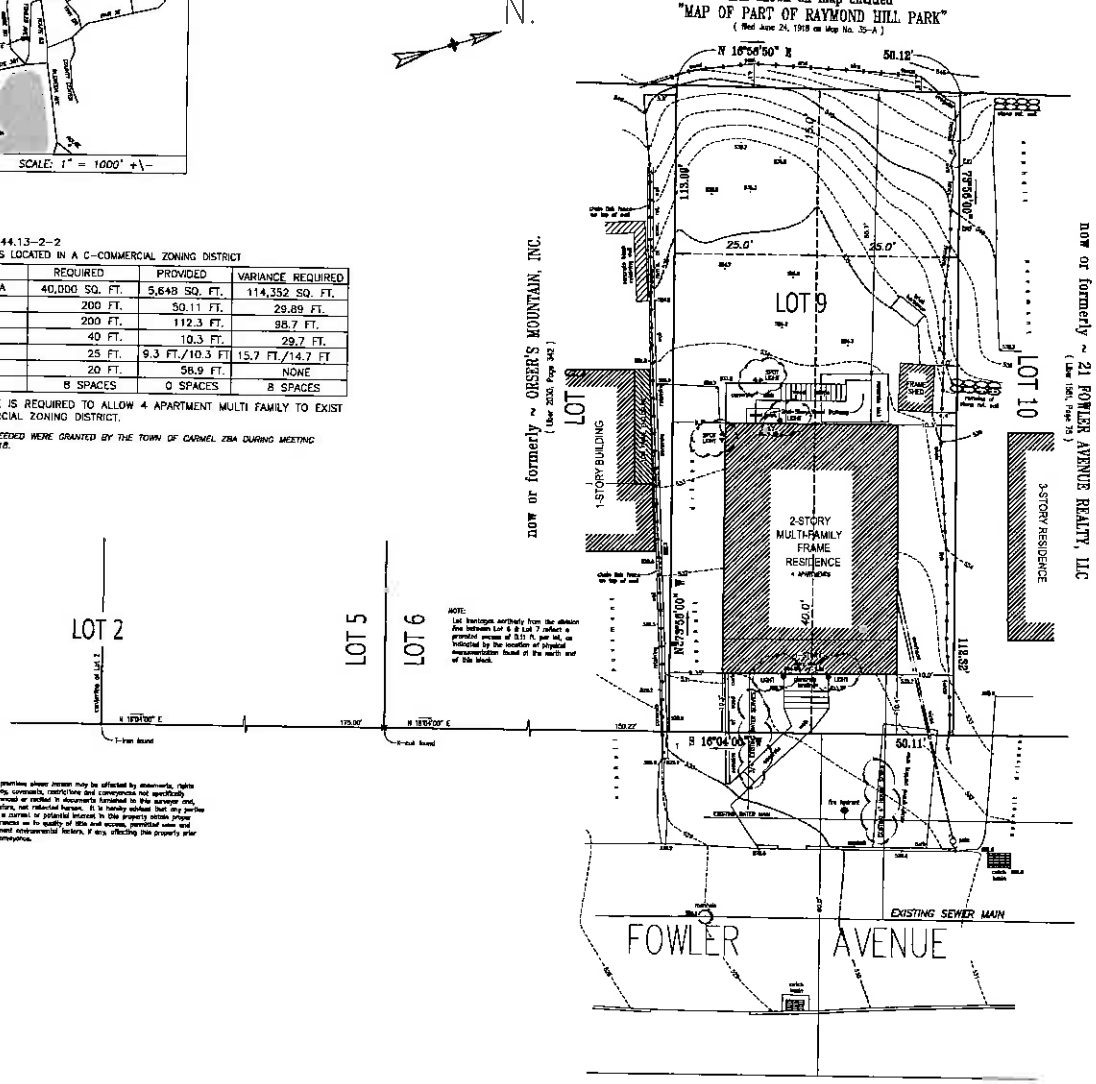
VICINITY MAP SCALE: 1" = 1000' +\-

ZONING DATA
TAX MAP No. 44.13-2-2
PROJECT SITE IS LOCATED IN A C-COMMERCIAL ZONING DISTRICT

	REQUIRED	PROVIDED	VARIANCE REQUIRED
MIN. LOT AREA	40,000 SQ. FT.	5,648 SQ. FT.	114,352 SQ. FT.
LOT WIDTH	200 FT.	50.11 FT.	29.89 FT.
LOT DEPTH	200 FT.	112.3 FT.	98.7 FT.
FRONT YARD	40 FT.	10.3 FT.	29.7 FT.
SIDE YARD	25 FT.	9.3 FT./10.3 FT	15.7 FT./14.7 FT
REAR YARD	20 FT.	58.9 FT.	NONE
PARKING	8 SPACES	0 SPACES	8 SPACES

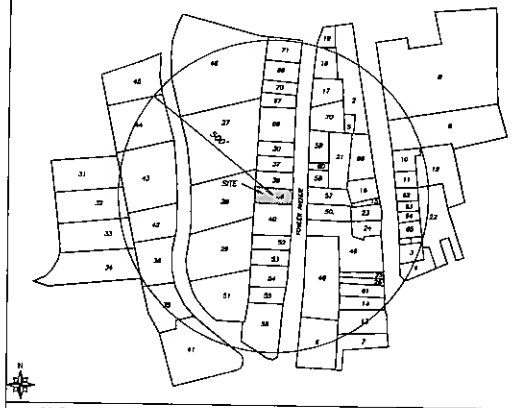
USE VARIANCE IS REQUIRED TO ALLOW 4 APARTMENT MULTI FAMILY TO EXIST IN C-COMMERCIAL ZONING DISTRICT.

ALL VARIANCES NEEDED WERE GRANTED BY THE TOWN OF CARMEL ZBA DURING MEETING ON APRIL 26, 2018.



NOTE:
Lot frontages and depth from the division line between Lot 9 & Lot 7 reflect a granted excess of 0.11 ft. per lot, as indicated by the location of physical improvements found at the north end of this block.

The premises shown hereon may be affected by easements, rights of way, covenants, restrictions and conveyances not specifically referenced or recited in documents furnished to the surveyor and, therefore, not referred hereon. It is hereby advised that any parties with a current or potential interest in this property obtain proper assurances as to quality of title and access, permitted uses and pertinent environmental factors, if any, affecting this property prior to conveyance.



LOCATION MAP NTS

TOPOGRAPHIC SURVEY PREPARED BY ROBERT BAKER, PLS DATED AUGUST 24, 2017

ALTERATION OF THIS DRAWING EXCEPT BY A LICENSED P.E. OR ARCHITECT OR LICENSED LAND SURVEYOR IS ILLEGAL. ANY ALTERATION BY A P.E. OR ARCHITECT OR SURVEYOR MUST BE INDICATED AND BEAR HIS SEAL SIGNATURE AND DATE OF ALTERATION.

ROY A. FREDRIKSEN, PE
CONSULTING ENGINEER
845-621-4000
266 SHEAR HILL ROAD MAHOPAC NY 10541

OWNER: ANGELO A. SENNO TRUST	JOB #
	DRN BY:
	CHKD BY:
PROJECT: SITE PLAN FOR THE PURPOSE OF OBTAINING CERTIFICATE OF OCCUPANCY FOR EXISTING FOUR FAMILY BUILDING LOCATED AT 19 FOWLER AVE. TOWN OF CARMEL	TAX MAP #: 44.13-2-2
SHEET TITLE: SITE PLAN	
REVISIONS: 4-27-18, 3-19-18, 3-9-18	DATE: 1-12-18

EPSTEIN

March 29, 2018

Planning Board c/o Rose Trombetta
Town of Carmel
60 McAlpin Avenue
Mahopac, New York 10541

RE: Alexandrion Distillery
39 Seminary Hill Road
Town of Carmel, NY

Site Plan Application

Architecture
Interiors
Engineering
Construction

Ms. Trombetta:

Hinkley Holdings, LLC on behalf of The Alexandrion Holdings LTD is seeking site plan approval from the Town of Carmel to renovate the existing Paladin Center at the above mentioned address for conversion into a distillery. The project being proposed by Alexandrion Holdings LTD, will be for the conversion of the existing building and site to a production facility for a premium spirits distillery along with associated functions and support services.

We have enclosed the necessary submittal documents for our Site Plan Application for the Planning Board's review and approval, with the goal to get on the April 11, 2018 Planning Board agenda.

If you have any questions, or need further information, please do not hesitate to contact Randy Tharp by phone at (312) 429-8409 or by e-mail at rtharp@epsteinglobal.com or you can also contact me at (312) 429-8395 or by e-mail at dhilty@epsteinglobal.com.

600 West Fulton Street
Chicago, Illinois
60661-1259

T (312) 454-9100
F (312) 559-1217

www.epsteinglobal.com

Sincerely,

David A. Hilty

David A. Hilty, PE
Civil Project Manager
Epstein

The proposed project will take place on Lot 1, being 13.003 acres, of the site of the former Guidepost Offices and Production Facility which has most recently and currently been occupied by the Paladin Center. The project being proposed by Alexandrion Holdings, will be for the conversion of the existing building and site to a production facility for a premium spirits distillery along with associated functions and support services.

As currently developed, the existing building and site lend themselves quite well for this conversion. In general the exterior envelope of the existing buildings will remain much as they are from an appearance standpoint, and physical changes will be primarily to enhance the exterior appearance of the facility and/or allow for the technical operations of the distillery production process. The details of the conversion and site improvements will be highlighted further below under "Project Outline".

Project Use

As introduced above, the primary function and use of the converted facility, as proposed, will be for the production of premium spirits including gin, vodka, whiskeys, single malt whiskey, cognacs, brandy, and potentially others. Production activities include a number of steps in the production of and distillation of the spirits. The first of these steps is the receipt of raw materials which primarily include various grains that are stored in silos outside the building. These grains are pneumatically fed into the building where they are processed through a milling machine and screened to remove any foreign material. Additional raw materials are also received from trucks on pallets including yeast and other ingredients used for the flavoring of the spirits. The milled grain mixture is processed with water to create a mash. This mash is pressed, and the liquid extracted is transferred to fermentation tanks where yeast is added to begin the production of alcohol. The solids from the pressed mash called "draff" are deposited in an exterior tank and periodically loaded into trucks for sale as animal feed.

The fermentation process in each tank will continue for 2-3 days and, following that, depending on the type of spirit being produced, will be transferred to the pot sills or distillation columns where the alcohol spirits are distilled to produce the alcohol that will be blended and/or reduced for bottling or casking. Unaged spirits will be bottled for distribution and sale and aged spirits such as whiskeys, cognacs, etc. will be casked and stored for aging.

In support of the direct production activities there will also be support services, offices and employee welfare areas. Support services include utility areas where steam and hot water are produced for use in the production process, cooling systems where water is chilled for processes, raw water storage, heat exchangers, electrical rooms, and evaporators. These support service areas are located throughout the production area. Offices for administration and management to support the distillery and other site activities will be located in the existing gable-roofed 3-story building on the site. Employee welfare areas including locker rooms, toilet facilities, showers, break rooms will be located within the existing building outside of the main production areas.

In addition to the distillery production and support activities, it is planned that this distillery would, as most do, host guided tours through the production process areas and have a Visitor Center. The Visitor

Center is an important part of any distillery as it helps to promote the brands produced there and provides an opportunity for aficionados and connoisseurs of spirits an opportunity to see first-hand the production process. Most importantly, for the operation of the distillery's inception and development, it provides a substantial portion of the income for the business as production and sales are ramped up and cask whiskey, cognacs, and single malts are being aged for later sale. The Visitor Center and tours will include areas for introduction of the distillery, the brands produced, as well as education regarding the distillation operations and processes. Also the Visitor Center will house a gift shop, tasting area, and bar/terrace area for enjoying the views of the lake and surrounding area of the site.

Alexandrion is also looking to operate as part of the distillery an Events Area where meeting, banquets, and various events could be held with food and beverage service provided from on-site facilities.

Project Outline

The proposed conversion of the existing building on the site for use as the distillery operation and associated Visitor Center, include a number of areas of work. These can be primarily broken into two categories; 1) New buildings and structures on the site, 2) Modifications/expansions to the existing buildings.

For the new buildings and structures on the site, these primarily are structures for elements that support the production operations. This includes four (4) storage silos for the receipt and holding of grains used in creating the mash as the "raw material" for the beginning the production process, one (1) draff holding vessel for holding the waste solid material from the mash process, one (1) large volume ground mounted water storage tank to provide storage of water as a buffer to the production process, a pre-treatment building and clarifier tank for the softening of water used in the production process as well as for pre-treating unconsumed water to the levels required by the Town of Carmel for receipt in their water treatment facility, a structure for the support of a water cooling system that will include evaporative coolers, and thirty (30) alcohol storage tanks that will be set on a concrete pad and partially enclosed with a concrete containment wall. The majority of the piping system connecting these systems to the building will be underground with the exception of piping to the alcohol tanks which will be on a "pipe bridge" connected to the building and then also running between the tanks.

Additionally on the site, there will be improvements made to existing access roads on the site. The driveway closest to Seminary Hill Road at the front of the site will be widened and improved so as to provide for access to a parcel of land to the south that will be developed by the current land owner as part of the agreement for the sale of this site. The widening and improvements to this road will extend to the support service buildings and structures along the southern most end of the existing building to provide better access for maintenance and fire department access to these areas.

The existing building will be increased in size in only two areas. The first will be to add a second floor level to the existing single level structure running in an east-west direction at the north end of the existing building complex. This second floor addition of approximately 12,700 square feet will serve as the Visitor Center and will be the primary point of access for visitors to the facility being located directly

adjacent to the existing visitor parking area. A short passage hallway will connect the Visitor Center to the existing 2nd floor of the main production area for touring the facility.

The second expansion is much more minor in nature and will include a slight expansion at the front of the existing 3-story main building facing Seminary Hill Road. The front area of this building will be converted to the Pot Still area where the large copper pots will be located for the distillation of whiskeys. At this location there is currently an overhang which will be enclosed with a new glass façade wall in order to fully show the pots stills in this area and create a strong visual impression of the distillery operations inside. This expansion is basically an in-fill of the area currently located between the existing exterior colonnade and building front line and the recessed "Kalwall" opaque wall system.

The other exterior modifications to the existing buildings will include the raising of the roof in several areas to allow for the installation of process equipment which requires greater clear height than the existing building structures currently provide. This roof raising will be done at the proposed fermentation area where a number of the fermentation tanks require a taller clear height, at the milling and mash press area where the equipment is multi-level and requires a higher roof, and at the evaporator area where additional clearance is required. In all cases the new roof heights will not exceed the allowed heights as allowed within the Commercial/Business Park zoning district for such limitations.

The existing building will also undergo a number of interior modifications in order to convert it to be appropriate for the planned use as a distillery production facility. The main area of the existing building will have a number of areas where sections of slab on grade, as well as upper level floors, will be removed in order to accommodate processing equipment and provide access and views to the various process areas. Nearly all existing partitioning within the buildings will be removed and new partitions for separating areas by function and for code compliance with differing occupancies will be constructed. All new lighting, mechanical and plumbing systems will also likely be installed as part of the full conversion for this new use. New interior construction will also be done for the fit-out of the Visitor and Events Center. Minor removal and/or renovation of the existing offices within the 3-story gable roofed building will be done to accommodate Alexandrion's office operations.

Operations

The planned operation of the facility for distilling and production is planned to be a 24-hour, 5 days per week operation (M-F). During this time there will be continuous flow of material in primarily batch processes through the various areas of the facility and steps in the distillation process. The facility will employ an estimated total of 60 workers between the distillery production operations, the office administrative functions and the Visitor Center. The Visitors Center is planned to operate 7 days per week with visiting hours being primary during the daytime period. The operation will have approximately a total of 6-8 inbound and outbound trucks per day that will utilize the eastern access drive to/from Route 6.

Site Utilities

The property is connected to public water services for potable and fire protection, this will not change. Due to the water demand for the production operations, a new water service may be required to accommodate the required demand. Depending on the ultimate layout of the interior space, fire exits and fire protection methods my need adjustment. These changes will be subject to Town Building Department review and approval. The site is also connected to the Town sanitary sewer system. Expected sewer flows will be increased due to the proposed production operations; however, the sanitary discharge will not exceed the capacity of the Town sewer main serving the site. Trash and recycling will continue. Trash containers will be located in the service area at the rear of the building.

Site Access and Parking

Existing parking on the overall Guidepost site is sufficient for the intended purposes of the proposed Alexandrion facility. Due to the lot line adjustment for this particular parcel, now known as Lot 1, some of this parking now resides in the proposed Lot 3 area. On the Lot 1 site, 97 parking spaces are provided, the remaining 102 spaces will be "off-site" parking. An agreement with the existing land owner will be made to allow use of these parking spaces. Since the facility will have a maximum of 60 employees, the remaining parking will be able to accommodate daily attendance at the Visitor Center. Any event parking required will be able to utilize the off-site parking that can be considered overflow parking. In summary, Alexandrion believes more than adequate parking exists on the site to meet the needs of the facility and, therefore, no additional parking is proposed.

TOWN OF CARMEL

SITE PLAN APPLICATION INSTRUCTIONS

The Town of Carmel Planning Board meetings are held twice a month, on the second and fourth Wednesday's, at 7:00 PM at Carmel Town Hall, 60 McAlpin Avenue, Carmel

The submission deadline is 10 days prior to the Planning Board meeting. New site plan applications that have been deemed complete will be placed on the agenda in the order they are received.

No application will be placed on the agenda that is incomplete

Pre-Submission:

Prior to the formal submission of the site plan, a pre-submission conference may be requested by the applicant to be conducted with representatives from the Town, which may include the Town Planner, Town Engineer, Director of Code Enforcement and/or the Planning Board Attorney. This conference will serve to educate the applicant on the process he/she must follow, clarify the information required to submit a complete site plan application, and to highlight any specific areas of concern. You may arrange a pre-submission conference through the Planning Board Secretary at (845) 628-1500 extension 190.

Submission Requirements:

At least 10 days prior to the Planning Board meeting, the site plan application shall be submitted to the Planning Board Secretary as follows:

All site plans shall be signed, sealed and folded with the title box legible. The application package shall include:

- ☑ 11 copies of the Site Plan Application Form, signed and notarized.
- ☑ 11 copies of the SEQR Environmental Assessment Form (use of short form or long form shall be determined at pre-submission conference).
- ☑ 5 full size sets of the Site Plan (including floor plans and elevations)
- ☑ 1 CD (in pdf. format) containing an electronic version of the Site Plan
- ☑ 2 copies of the Disclosure Statement
- ☑ 11 copies of the Site Plan Completeness Certification Form
- ☑ All supplemental studies, reports, plans and renderings.
- ☑ 2 copies of the current deed.
- ☑ 2 copies of all easements, covenants and restrictions.
- ☑ The appropriate fee, determined from the attached fee schedule. Make checks payable to the *Town of Carmel.*

Rose Yamlette 4/26/18
Planning Board Secretary; Date

4/26/18
Town Engineer; Date

TOWN OF CARMEL
SITE PLAN APPLICATION

Per Town of Carmel Code – Section 156 - Zoning

SITE IDENTIFICATION INFORMATION

Application Name: Alexandrion Distillery

Application # 18-0003

Date Submitted: 4/2/18

Site Address:
No. 39 *Street:* Seminary Hill Road *Hamlet:* Town of Carmel

Property Location: *(identify landmarks, distance from intersections, etc.)*
800' South of Church Street and 250' East of Route 6

Town of Carmel Tax Map Designation:
Section 55.1 *Block* 1 *Lot(s)* 1

Zoning Designation of Site: Commerce / Business Park

Property Deed Recorded in County Clerk's Office
Date *Liber* *Page*

Liens, Mortgages or other Encumbrances
Yes *No*

Existing Easements Relating to the Site
(No) *Yes* *Describe and attach copies:*

Are Easements Proposed?
No (Yes) *Describe and attach copies:*
#1-#5 Conservation
#6 Access, Utilities, Maintenance, Drainage

Have Property Owners within a 500' Radius of the Site Been Identified?
(Yes) *No* *Attached List to this Application Form*

APPLICANT/OWNER INFORMATION

Property Owner: Hinkley Holdings LLC, Harold Lepler
Phone #: (845) 279-9565
Fax#:
Email: haroldlepler@gmail.com

Owners Address:
No. 322 *Street:* Clock Tower Commons *Town:* Brewster *State:* NY *Zip:* 10509

Applicant (If different than owner): The Alexandrion Holdings LTD a Cyprus Law Co., Victor Savinims
Phone #: +4 021.405.11.00
Fax#:
Email: victor.savinims@nssgi.com

Applicant Address (If different than owner):
*No.*19A *Street:* Nicolae Grigorescu Street, 075100 *Town:* Otopeni, Ilfov, Romania

Individual/ Firm Responsible for Preparing Site Plan: Epstein, David Hilty, PE
Phone #: (312) 429-8395
Fax#:
Email: dhilty@epsteinglobal.com

Address:
No. 600 *Street:* West Fulton Street *Town:* Chicago *State:* IL *Zip:* 60661

Other Representatives: Epstein, Randy Tharp
Phone #: (312) 429-8409
Fax#:
Email: rtharp@epsteinglobal.com

Address:
No. 600 *Street:* West Fulton Street *Town:* Chicago *State:* IL *Zip:* 60661

PROJECT DESCRIPTION

Describe the project, proposed use and operation thereof:

See attached Project Description

TOWN OF CARMEL SITE PLAN APPLICATION

PROJECT INFORMATION

Lot size: *Acres:* 13.003 *Square Feet:*566,409	**Square footage of all existing structures (by floor):** See Building Area Table attached
# of existing parking spaces: 160 (Lot 1)	**# of proposed parking spaces:** 97 (Lot 1)
# of existing dwelling units: 1	**# of proposed dwelling units** 0

Is the site served by the following public utility infrastructure:

- **Is project in sewer district or will private septic system(s) be installed?** Yes
- **If yes to Sanitary Sewer answer the following:**
  - **Does approval exist to connect to sewer main? Yes:** ☒ **No:** ☐
  - **Is this an in-district connection?** Yes **Out-of district connection?** ____
  - **What is the total sewer capacity at time of application?** ____
  - **What is your anticipated average and maximum daily flow** 114,200 GPD (max)

For Town of Carmel Town Engineer

- *What is the sewer capacity* @ 100 gpd –

- **Water Supply** **Yes:** ☒ **No:** ☐

  If Yes:
  - **Does approval exist to connect to water main? Yes:** ☒ **No:** ☐
  - **What is the total water capacity at time of application?** ____
  - **What is your anticipated average and maximum daily demand** 150,000 GPD (max)
- **Storm Sewer** **Yes:** ☒ **No:** ☐
- **Electric Service** **Yes:** ☒ **No:** ☐
- **Gas Service** **Yes:** ☒ **No:** ☐
- **Telephone/Cable Lines** **Yes:** ☒ **No:** ☐

For Town of Carmel Town Engineer

Water Flows ____
Sewer Flows ____ 8/12/18 – STILL Under Review

____
Town Engineer; Date

What is the predominant soil type(s) on the site? Sandy Loam	**What is the approximate depth to water table?** Varies, 2' to over 7' deep

Site slope categories:	**15-25%** 0 %	**25-35%** 0 %	**>35%** 0 %
Estimated quantity of excavation:	**Cut (C.Y.)** 1,500	**Fill (C.Y.)** 1,500	
Is Blasting Proposed	**Yes:** ☐	**No:** ☒	**Unknown:** ☐
Is the site located in a designated Critical Environmental Area?		**Yes:** ☐	**No:** ☒

Does a curb cut exist on the site? Yes: ☒ **No:** ☐	**Are new curb cuts proposed? Yes:** ☐ **No:** ☒	**What is the sight distance? Left** 300'+ **Right** 300'+

Is the site located within 500' of:

- **The boundary of an adjoining city, town or village** **Yes:** ☐ **No:** ☒
- **The boundary of a state or county park, recreation area or road right-of-way** Route 6 **Yes:** ☒ **No:** ☐
- **A county drainage channel line.** **Yes:** ☐ **No:** ☒
- **The boundary of state or county owned land on which a building is located** **Yes:** ☐ **No:** ☒

TOWN OF CARMEL SITE PLAN APPLICATION

Is the site listed on the State or Federal Register of Historic Place (or substantially contiguous)
Yes: ☐ **No:** ☒

Is the site located in a designated floodplain?
Yes: ☐ **No:** ☒

Will the project require coverage under the Current NYSDEC Stormwater Regulations

Yes: ☒ **No:** ☐

Will the project require coverage under the Current NYCDEP Stormwater Regulations

Yes: ☐ **No:** ☒

Does the site disturb more than 5,000 sq ft **Yes:** ☒ **No:** ☐

Does the site disturb more than 1 acre **Yes:** ☐ **No:** ☒

Does the site contain freshwater wetlands?
Yes: ☐ **No:** ☒
Jurisdiction:
NYSDEC: ☐ **Town of Carmel:** ☐
If present, the wetlands must be delineated in the field by a Wetland Professional, and survey located on the Site Plan.
Are encroachments in regulated wetlands or wetland buffers proposed? **Yes:** ☐ **No:** ☒

Does this application require a referral to the Environmental Conservation Board? **Yes:** ☐ **No:** ☒

Does the site contain waterbodies, streams or watercourses? **Yes:** ☐ **No:** ☒

Are any encroachments, crossings or alterations proposed? **Yes:** ☐ **No:** ☒

Is the site located adjacent to New York City watershed lands? **Yes:** ☒ **No:** ☐

Is the project funded, partially or in total, by grants or loans from a public source?
Yes: ☒ **No:** ☐ Empire State Development

Will municipal or private solid waste disposal be utilized?
Public: ☒ **Private:** ☐

Has this application been referred to the Fire Department? **Yes:** ☒ **No:** ☐

What is the estimated time of construction for the project?

Approximately 9 months: June 2018 - March 2019

ZONING COMPLIANCE INFORMATION

Zoning Provision	Required	Existing	Proposed
Lot Area	3 ac (min)	13.00 ac	13.00 ac
Lot Coverage	40% (max)	19%	23%
Lot Width	200' (min)	430'	430'
Lot Depth	200' (min)	860'	860'
Front Yard	50' (min)	115'	115'
Side Yard	40' (min)	53'	41'
Rear Yard	40' (min)	147'	49'
Minimum Required Floor Area	5,000 sf	129,511 sf	132,129 sf
Floor Area Ratio			
Height	40' (max)	35'-6"	40'-0"
Off-Street Parking (Lot 1 only)	263	160	97
Off-Street Loading	8	7	8

TOWN OF CARMEL SITE PLAN APPLICATION

Will variances be required? Yes: ☐ No: ☒	If yes, identify variances:
PROPOSED BUILDING MATERIALS	
Foundation	Concrete
Structural System	Steel
Roof	EPDM and asphalt shingles
Exterior Walls	Masonry, brick, stone veneer, and vinyl siding

APPLICANTS ACKNOWLEDGEMENT

I hereby depose and certify that all the above statements and information, and all statements and information contained in the supporting documents and drawings attached hereto are true and correct.

HINCKLEY HOLDINGS, LLC
BY: HAROLD LEPLER, MEMBER
Applicants Name

Applicants Signature

Sworn before me this 28TH **day of** MARCH **20**18

Notary Public

TOWN OF CARMEL

SITE PLAN COMPLETENSS CERTIFICATION FORM

All Site Plans submitted to the Planning Board for review shall include the following information and details, as set forth in Section 156-61 B of the Town of Carmel Zoning Ordinance.

This form shall be included with the site plan submission

	Requirement Data	To Be Completed by the Applicant	Waived by the Town	
1	Name and title of person preparing the site plan	☒ ✓	☐	
2	Name of the applicant and owner (if different from applicant)	☒ ✓	☐	
3	Original drawing date, revision dates, scale and north arrow	☒ ✓	☐	
4	Tax map, block and lot number(s), zoning district	☒ ✓	☐	
5	All existing property lines, name of owner of each property within a 500' radius of the site	☒	☐	need drawing
6	Contour lines at two-foot intervals, grades of all roads, driveways, sanitary and storm sewers	☒ ✓	☐	
7	The location of all water bodies, streams, watercourses, wetland areas, wooded areas, rights-of-way, streets, roads, highways, railroads, buildings, structures	☒	☐	show entire lot
8	The location of all existing and proposed easements	☒	☐	need summary
9	The location of all existing and proposed structures, their use, setback dimensions, floor plans, front, side and rear elevations, buildable area.	☒	☐	
10	On site circulation systems, access, egress ways and service roads, emergency service access and traffic mitigation measures	☒ ✓	☐	
11	Sidewalks, paths and other means of pedestrian circulation	☒ ✓	☐	
12	On-site parking and loading spaces and travel aisles with dimensions	☒ ✓	☐	
13	The location, height and type of exterior lighting fixtures	☐ Existing to Remain ✓	☐	
14	Proposed signage	☒	☐	not provided
15	For non-residential uses, an estimate of the number of employees who will be using the site, description of the operation, types of products sold, types of machinery and equipment used	☒	☐	not prov

TOWN OF CARMEL

SITE PLAN COMPLETENSS CERTIFICATION FORM

	Requirement Data	To Be Completed by the Applicant	Waived by the Town
16	The location of clubhouses, swimming pools, open spaces, parks or other recreational areas, and identification of who is responsible for maintenance	NA ☐ ✓	☐
17	The location and design of buffer areas, screening or other landscaping, including grading and water management. A comprehensive landscaping plan in accordance with the Tree Conservation Law	☐ Existing landscaping to remain - no new proposed ✓	☐
18	The location of public and private utilities, maintenance responsibilities, trash and garbage areas	☒ ✓	☐
19	A list, certified by the Town Assessor, of all property owners within 500 feet of the site boundary	☒ ✓	☐
20	Any other information required by the Planning Board which is reasonably necessary to ascertain compliance with this chapter	☐	☐

Show easement

Applicants Certification (to be completed by the licensed professional preparing the site plan:

I David A. Hilty **hereby certify that the site plan to which I have attached my seal and signature, meets all of the requirements of §156-61B of the Town of Carmel Zoning Ordinance:**

STATE OF NEW YORK ★ DAVID A. HILTY ★ LICENSED PROFESSIONAL ENGINEER

Professionals Seal

David A. Hilty 3/28/18
Signature - Applicant **Date**

Signature - Owner **Date** 3/28/18

TOWN OF CARMEL

SITE PLAN COMPLETENSS CERTIFICATION FORM

	Requirement Data	To Be Completed by the Applicant	Waived by the Town
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18	The location of public and private utilities, maintenance responsibilities, trash and garbage areas	☒ ✓	☐
19	A list, certified by the Town Assessor, of all property owners within 500 feet of the site boundary	☒ ✓	☐
20	Any other information required by the Planning Board which is reasonably necessary to ascertain compliance with this chapter	☐	☐

Show easement

Applicants Certification (to be completed by the licensed professional preparing the site plan:

I David A. Hilty **hereby certify that the site plan to which I have attached my seal and signature, meets all of the requirements of §156-61B of the Town of Carmel Zoning Ordinance:**

STATE OF NEW YORK ★ DAVID A. HILTY ★ LICENSED PROFESSIONAL ENGINEER

Professionals Seal

David A. Hilty 3/28/18

Signature - Applicant **Date**

Signature - Owner **Date** 3/28/18

TOWN OF CARMEL

SITE PLAN COMPLETENSS CERTIFICATION FORM

Town Certification (to be completed by the Town)

I _____ hereby confirm that the site plan meets all of the requirements of §156-61B of the Town of Carmel Zoning Ordinance:

_____ 4/26/18

Signature - Planning Board Secretary **Date**

_____ 4/26/18

Signature - Town Engineer **Date**

Short Environmental Assessment Form
Part 1 - Project Information

Instructions for Completing

Part 1 - Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 - Project and Sponsor Information
Town of Carmel Planning Board - Lead Agency

Name of Action or Project:
Alexandrion Distillery

Project Location (describe, and attach a location map):
39 Seminary Hill Road, Town of Carmel, Putnam County, New York 10512

Brief Description of Proposed Action:
Alexandrion Holdings will be converting an existing building into a production facility for a premium spirits distillery along with associated functions and support services.

Name of Applicant or Sponsor:	Telephone: (845) 279-9565
Hinkley Holdings, LLC - Harold Lepler	E-Mail: haroldlepler@gmail.com

Address:
322 Clock Tower Commons

City/PO:	State:	Zip Code:
Brewster	New York	10509

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	☑	☐
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval: NYSDEC - SPDES General Permit for Stormwater Discharges from Construction Activity; Town of Carmel - Site Plan Approval and Building Permit	☐	☑

3.a. Total acreage of the site of the proposed action? 13.003 acres
b. Total acreage to be physically disturbed? _____ acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 49.897 acres

4. Check all land uses that occur on, adjoining and near the proposed action.
☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☑ Commercial ☑ Residential (suburban)
☑ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____
☐ Parkland

	NO	YES	N/A
5. Is the proposed action,			
a. A permitted use under the zoning regulations?	☐	☑	☐
b. Consistent with the adopted comprehensive plan?	☐	☑	☐

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?	☐	☑
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify: _____	☑	☐
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	☑	☐
b. Are public transportation service(s) available at or near the site of the proposed action?	☐	☑
c. Are any pedestrian accommodations or bicycle routes available on or near site of the proposed action?	☐	☑
9. Does the proposed action meet or exceed the state energy code requirements? If the proposed action will exceed requirements, describe design features and technologies: _____	☐	☑
10. Will the proposed action connect to an existing public/private water supply? If No, describe method for providing potable water: _____	☐	☑
11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment: _____	☐	☑
12. a. Does the site contain a structure that is listed on either the State or National Register of Historic Places?	☑	☐
b. Is the proposed action located in an archeological sensitive area?	☐	☑
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?	☐	☑
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody? If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: _____	☑	☐

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:

☐ Shoreline ☐ Forest ☐ Agricultural/grasslands ☐ Early mid-successional
☐ Wetland ☑ Urban ☐ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered? Northern Long-eared Bat	☐	☑
16. Is the project site located in the 100 year flood plain?	☑	☐
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes, a. Will storm water discharges flow to adjacent properties? ☐ NO ☑ YES	☐	☑
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe: ☐ NO ☑ YES Existing drainage swales and storm sewers		

	NO	YES
18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)? If Yes, explain purpose and size:	✔	
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe:	✔	
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe:	✔	

I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

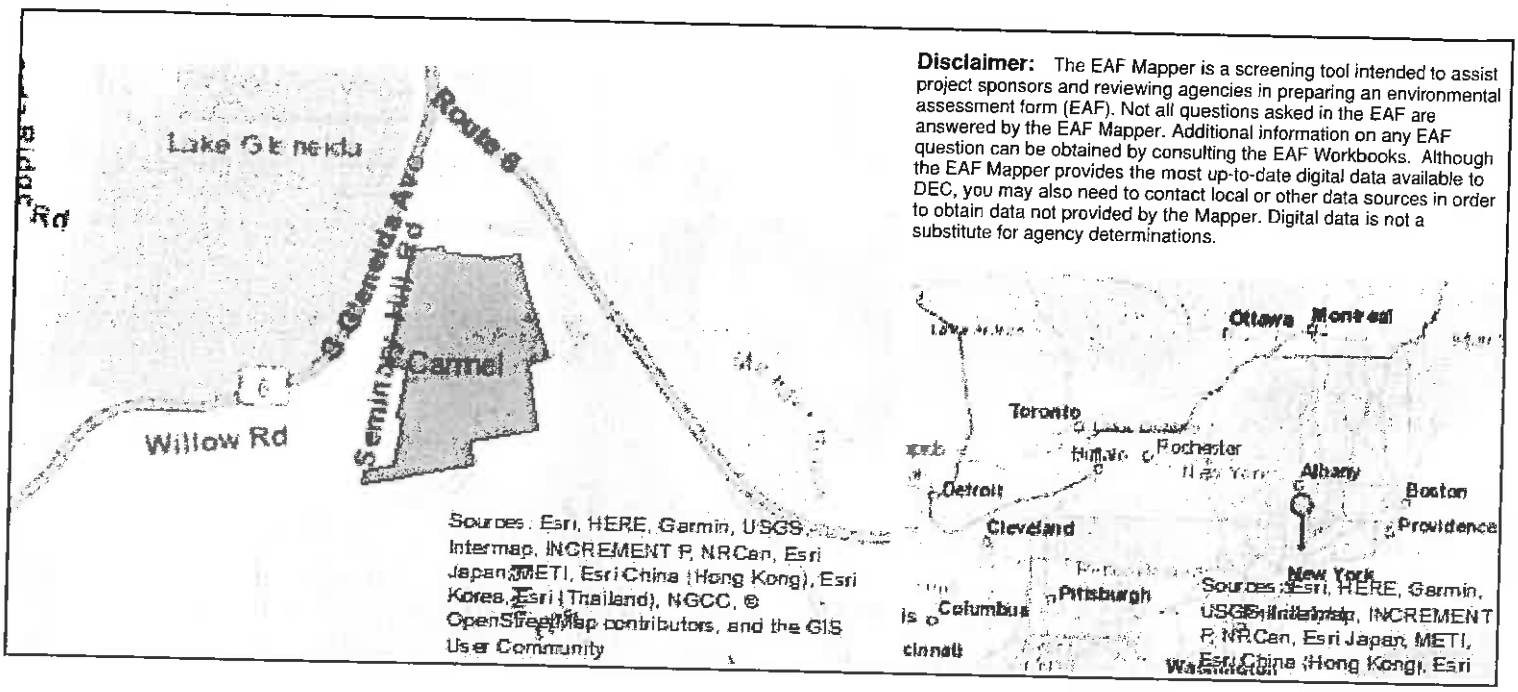
Applicant/sponsor name: Hinkley Holdings LLC, Harold Lepler Date: 03/29/2018

Signature: Harold Lepler

PRINT FORM

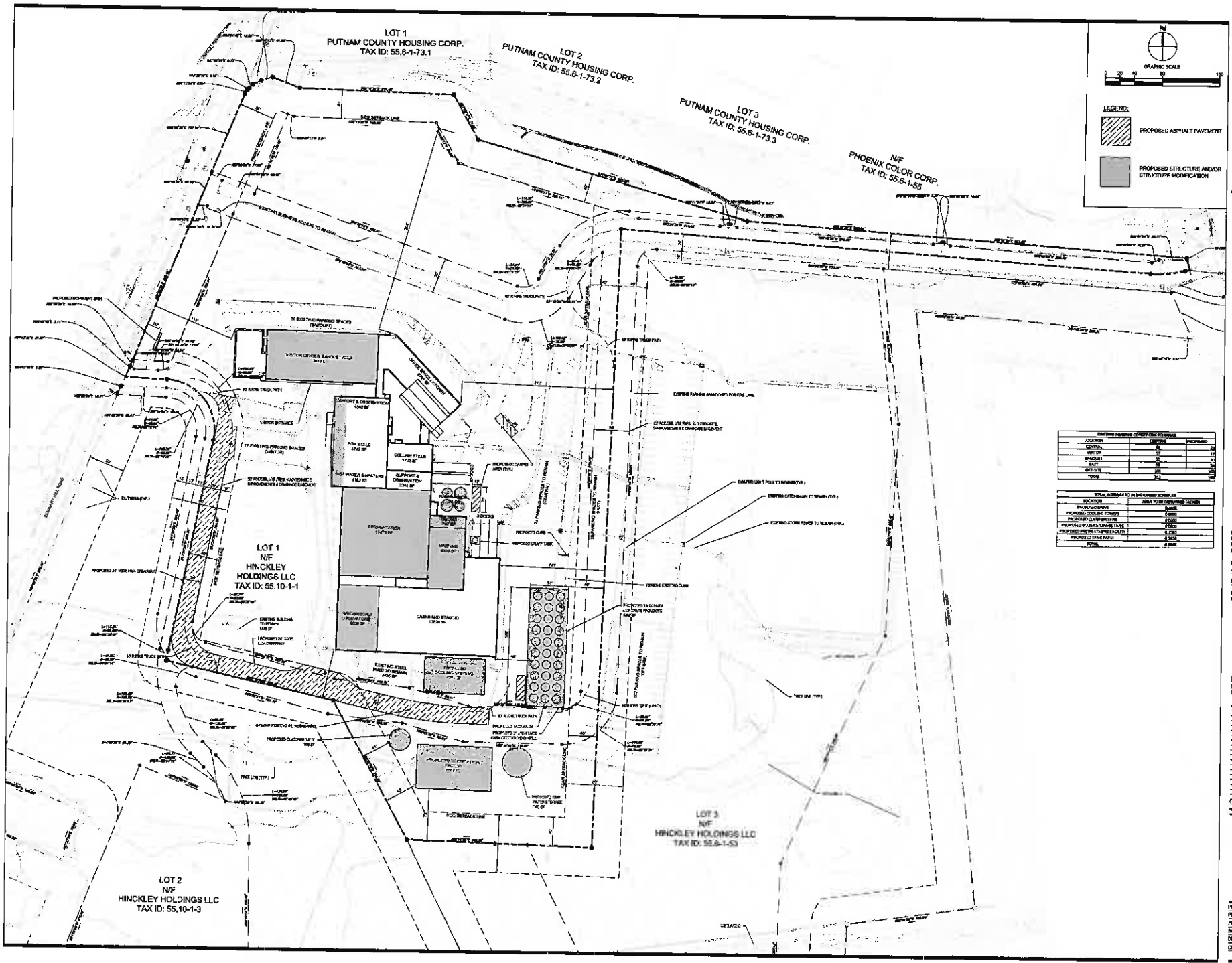
EAF Mapper Summary Report

Thursday, March 08, 2018 2:56 PM



Disclaimer: The EAF Mapper is a screening tool intended to assist project sponsors and reviewing agencies in preparing an environmental assessment form (EAF). Not all questions asked in the EAF are answered by the EAF Mapper. Additional information on any EAF question can be obtained by consulting the EAF Workbooks. Although the EAF Mapper provides the most up-to-date digital data available to DEC, you may also need to contact local or other data sources in order to obtain data not provided by the Mapper. Digital data is not a substitute for agency determinations.

Part 1 / Question 7 [Critical Environmental Area]	No
Part 1 / Question 12a [National Register of Historic Places]	No
Part 1 / Question 12b [Archeological Sites]	Yes
Part 1 / Question 13a [Wetlands or Other Regulated Waterbodies]	Yes - Digital mapping information on local and federal wetlands and waterbodies is known to be incomplete. Refer to EAF Workbook.
Part 1 / Question 15 [Threatened or Endangered Animal]	Yes
Part 1 / Question 15 [Threatened or Endangered Animal - Name]	Northern Long-eared Bat
Part 1 / Question 16 [100 Year Flood Plain]	No
Part 1 / Question 20 [Remediation Site]	No



NOTES:

1. ALL SITE LIGHTING WILL REMAIN AS IS UNCHANGED WITH PROPOSED SITE MODIFICATIONS. ANY ADDITIONAL LIGHTING WILL BE BUILDING MOUNTED.
2. OFF-SITE PARKING WILL REMAIN ACCESSIBLE TO LOT 1 DURING OPERATIONS OF THE BUILDING.
3. A STORMWATER POLLUTION PREVENTION PLAN CONSISTENT WITH THE REQUIREMENTS OF CHAPTER 138, NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION (NYSDEC), ARTICLE X OF THE TOWN OF CARMEL MUNICIPAL CODE AND APPLICABLE NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION (NYCDEP) CODES WILL BE PREPARED AND APPROVED PRIOR TO SITE PLAN APPROVAL.
4. ALL PROPOSED AREAS REFLECT THAT OF LOWEST LEVEL OF THE BUILDING OR STRUCTURE. PLEASE REFER TO THE ARCHITECTURAL PLANS FOR ALL OTHER FLOOR AREAS.

ZONING DISTRICT:
COMMERCIAL / BUSINESS PARK

LOT 1 AREA:
13.003 AC.

EXISTING PARKING CONDITIONS SCHEDULE		
LOCATION	EXISTING	PROPOSED
CENTRAL	91	91
VISITOR	17	17
BANQUET	30	30
EAST	98	98
OFF-SITE	108	108
TOTAL	343	343

TOTAL ACREAGE TO BE DISTURBED SCHEDULE	
LOCATION	AREA TO BE DISTURBED (ACRES)
PROPOSED BARN	0.4000
PROPOSED COOLING TOWERS	0.0900
PROPOSED CLASH BATHS	0.0300
PROPOSED WATER STORAGE TANK	0.0800
PROPOSED PRETREATMENT FACILITY	0.1300
PROPOSED TANK PADS	0.3000
TOTAL	0.8900

I CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR PREPARED UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF NEW YORK. LICENSE NUMBER 077086, EXPIRATION DATE 09/30/2019.

IT IS A VIOLATION FOR ANY PERSON TO ALTER THIS DOCUMENT OTHER THAN THE LICENSED PROFESSIONAL ENGINEER WHO PREPARED IT, UNLESS THE PERSON IS ACTING UNDER THE DIRECTION OF THE LICENSED PROFESSIONAL ENGINEER.

DAVID A. HILTY
LICENSE NO. 077086
EXP. 09/30/2019

NO.	DATE	REVISIONS/ISSUANCES
01	03/19/19	ISSUED FOR SITE PLAN APPROVAL

EPSTEIN

Architecture Chicago
Interiors New York
Engineering Kansas City
Construction Warsaw

600 W. Fulton Street
Chicago, IL 60661-1289
T 312.454.0100

www.epsteinglobal.com

PROJECT NUMBER:	17376
PROJECT MANAGER:	JC
ARCHITECT:	CL
SCALE:	1"=40'
DRAWN BY:	CL
CHECKED BY:	DH

OVERALL SITE PLAN

C-100

Civil Engineer
EPSTEIN
600 West Fulton
Chicago, IL 60661
312.454.0100

Design Architect
EPSTEIN
600 West Fulton
Chicago, IL 60661
312.454.0100

Owner
HINCKLEY HOLDINGS LLC
225 Gold Tower Commons
Brewster, NY 10509
845.279.3400

Applicant
THE ALEXANDRION HOLDINGS LTD A CYPRUS LAW CO.
128 Vasilas Stylianou Street
Limassol, Post Remedia 3076166
+357.25.821.120

ALEXANDRION GROUP
Experience brought together since 1989

39 Sanford Hill Rd, Carmel Hamlet, NY 10512

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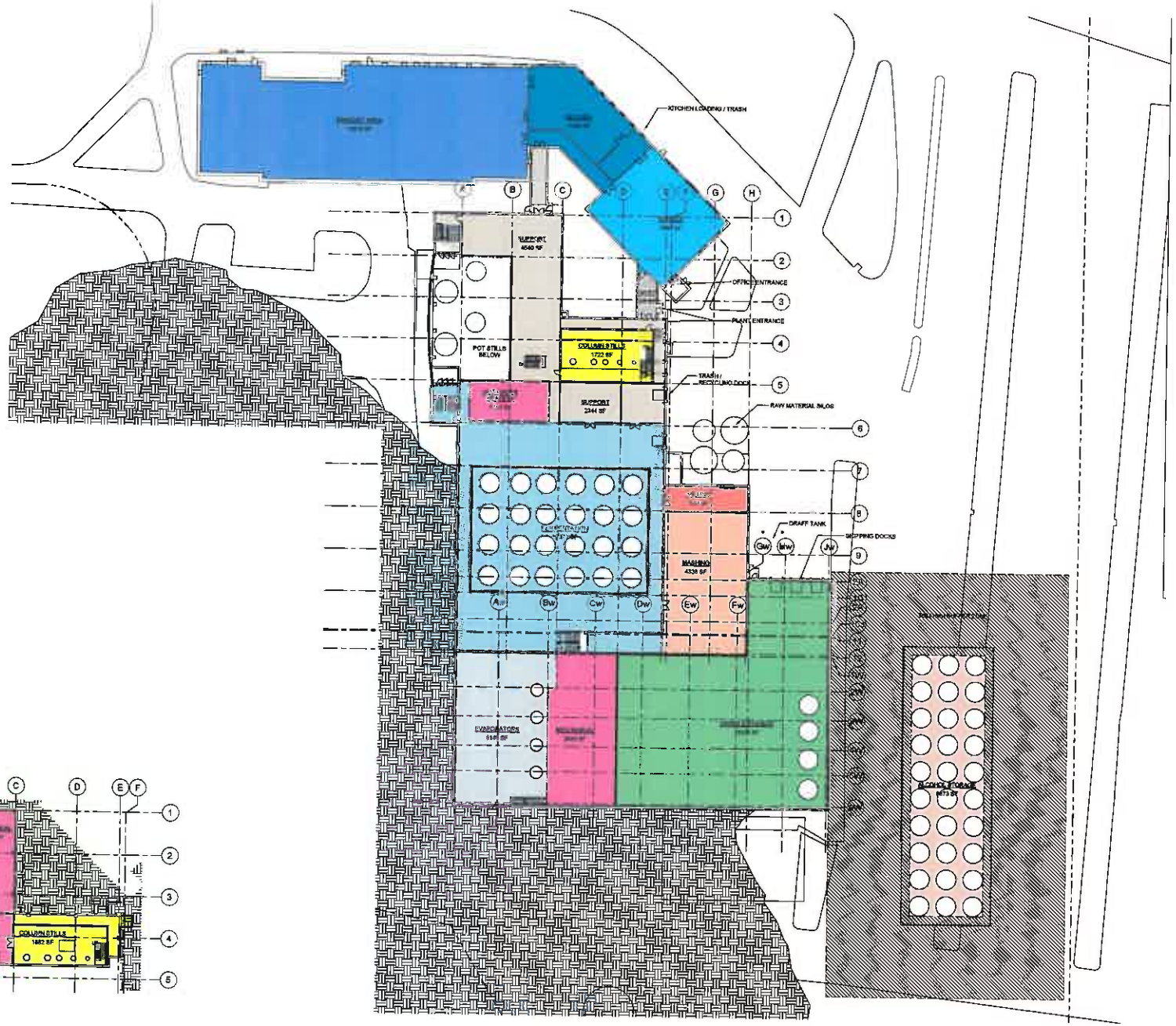
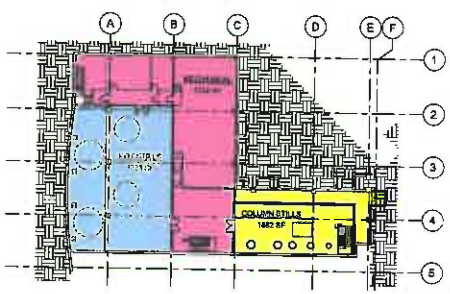


LEVEL 1 PLAN



BASEMENT PLAN

PROJECT NUMBER:	17326
PROJECT MANAGER	JC
DRAWING:	CM
SCALE:	1" = 20'-0"
DRAWN BY:	CM
CHECKED BY:	CM

LEVEL 1 BUILDING USE PLAN

A01

Civil Engineer

Design Architect

Owner

Applicant

ALEXANDERSON GROUP

LEVEL 2 PLAN

NO.	DATE	REVISIONS/ISSUES
1	[illegible]	ISSUED FOR SPR PLAN APPLIC

EPSTEIN

PROJECT NUMBER:	1733
PROJECT MANAGER:	JC
ARCHITECT:	CM
SCALE:	1"=20'-0"
DRAWN BY:	CM
CHECKED BY:	CM

LEVEL 2 BUILDING USE PLAN

A02

Civil Engineer

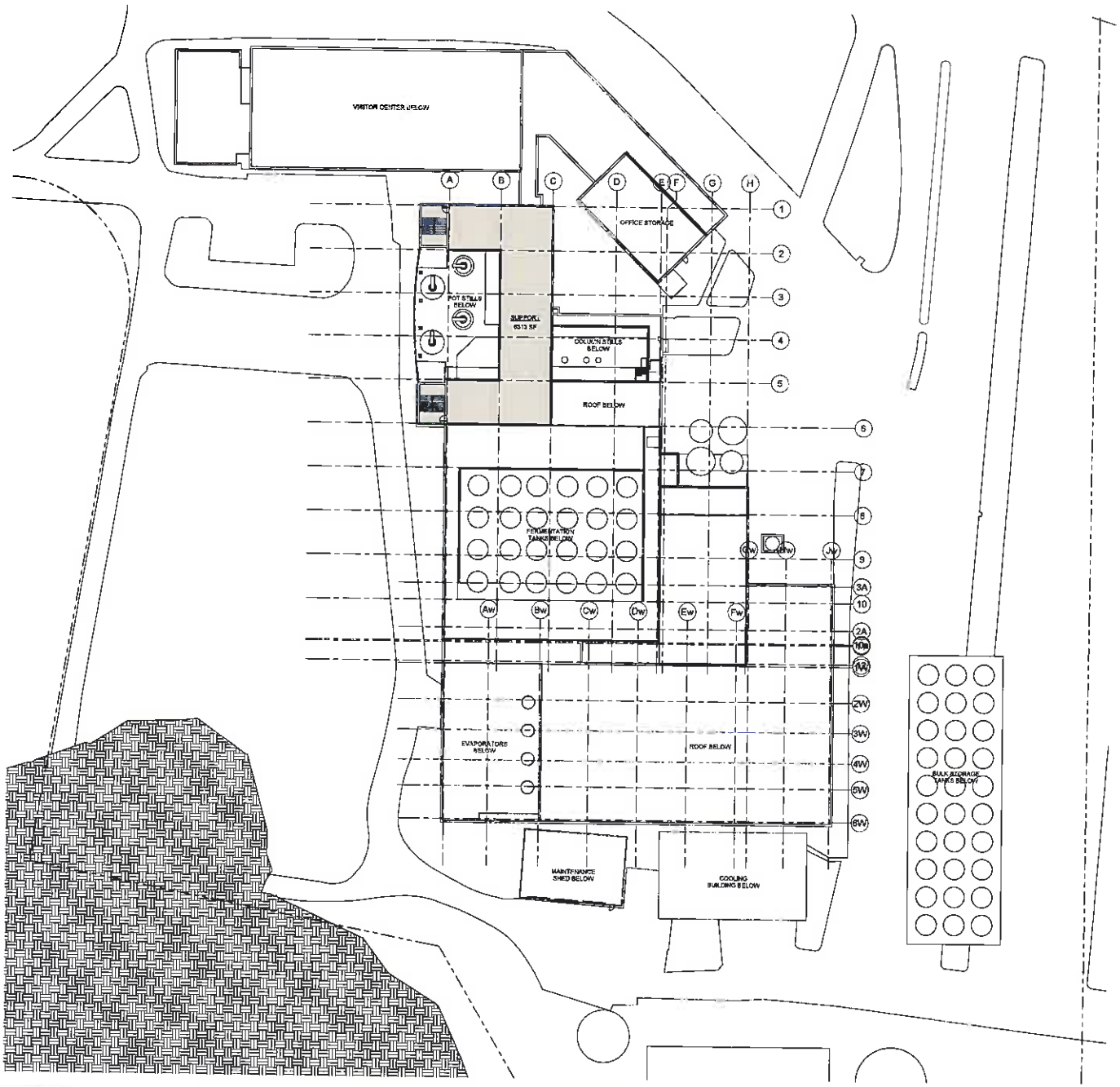
Design Architect

Owner

Applicant

ALEXANDRION GROUP

Expertise brought together. Year 2015



LEVEL 3 PLAN

Civil Engineer	Design Architect	Owner	Applicant
EPSTEIN 600 West Fulton Chicago, IL 60661 312.663.8100	EPSTEIN 600 West Fulton Chicago, IL 60661 312.663.8100	KIRCHER, HOLZBERG LLC 122 Gibbs Place Commons Glenview, IL 60025 847.724.8100	THE ALEXANDRION HOLDINGS LTD, A CYPRUS LIMITED 134 Andrea Papandreou Street, 3075 Limassol Cyprus, Mr. Polykarpos +4 25.345.51.00

ALEXANDRION GROUP

Digital Spirits Distillery Logistics Center

76 Bethany Rd Somerset NJ 08873

NES

1	05/24/2017	ISSUED FOR SITE PLAN APPLICATION
NO.	DATE	DESCRIPTION

EPSTEIN

Architecture
Interiors
Engineering
Construction

Chicago
Indianapolis
Bentonville
Washington

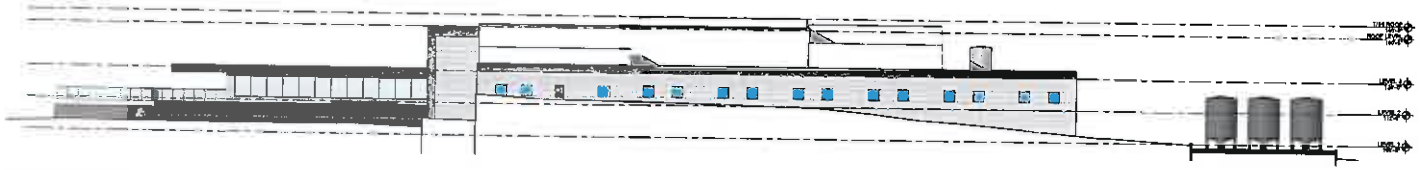
500 N. Fulton Street
Chicago, IL 60661-1283
T 312.663.8100

www.epsteinglobal.com

PROJECT NUMBER:	12133A
PROJECT MANAGER:	JC
ARCHITECT:	CM
SCALE:	1" = 20'-0"
DRAWN BY:	CM
CHECKED BY:	CM

LEVEL 3 BUILDING USE PLAN

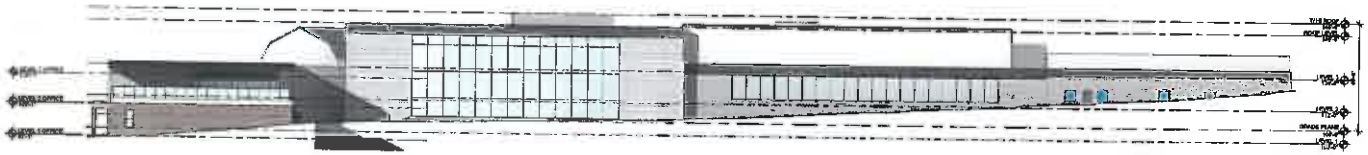
A03



SOUTH ELEVATION

EAST ELEVATION

NORTH ELEVATION



WEST ELEVATION

NO.	DATE	REVISIONS/ISSUES
1	03/09/08	ISSUED FOR SITE PLAN APPROVAL

EPSTEIN

PROJECT NUMBER:	17336
PROJECT MANAGER:	JC
ARCHEING:	CM
SCALE:	1/16" = 1'-0"
DRAWN BY:	CM
CHECKED BY:	CM

BUILDING ELEVATIONS

A04

Civil Engineer

Design Architect

Owner

Applicant

ALEXANDRION GROUP

VIEW FROM WEST AT TERRACE

FRONT VIEW AT POT STILLS

Civil Engineer

Design Architect

Owner

Applicant

ALEXANDRION GROUP

EPSTEIN

PROJECT NUMBER:	17326
PROJECT MANAGER:	JO
DRAWING:	CM
SCALE:	
DRAWN BY:	CM
CHECKED BY:	CM

RENDERINGS

A05

PUTNAM ENGINEERING, PLLC.
Engineers and Architects

April 16, 2018

Mr. Harold Gary, Chairman
Town of Carmel Planning Board
Carmel Town Hall
60 McAlpin Avenue
Mahopac, NY 10541

Re: Random Ridge Clustered Subdivision
Kennicut Hill Road

Dear Chairman Gary and Members of the Board:

The Random Ridge Clustered Subdivision received final approval on August 26, 2015. The project is currently under construction and can be seen at any time. The reason we are back before the Board is that we are looking to make a grading change on Lots 3, 4, 5 and 6, which are located on the western side of Road "A". During the course of the road construction bedrock was encountered which also extended into Lots 3 through 6.

We are looking to raise the grade for the building lots so that the garage will be at basement elevation, instead of halfway between finished first floor and basement as originally planned. Finish grade on Lots 3 through 6 will be 1 foot to 6 feet higher than originally presented in the site grading plan approved for the project.

Sincerely,

PUTNAM ENGINEERING, PLLC

Paul M. Lynch, P.E.

PML/jsp

(L1818)

4 Old Route 6, Brewster, New York 10509 • (845) 279-6789 • Fax (845) 279-6769

PUTNAM ENGINEERING, PLLC.
Engineers and Architects

April 23, 2018

Chief of Mahopac Fire Department
P.O. Box 267
Mahopac, NY 10541

Re: Random Ridge Subdivision
Amended Grading Plan

Dear Chief:

The Town of Carmel Planning Board requested that I submit a copy of our plans to your department. The project is currently under construction and we are amending our plan to accommodate grading changes on lots 2 through 6.

Should you have any questions or comments, please direct them to Mr. Richard Franzetti, Town Engineer.

Sincerely,

PUTNAM ENGINEERING, PLLC

Paul M. Lynch, P.E.

PML/jsp

Enclosure

(L1822)

4 Old Route 6, Brewster, New York 10509 • (845) 279-6789 • Fax (845) 279-6769

TOWN OF CARMEL
SUBDIVISION APPLICATION INSTRUCTIONS

The Town of Carmel Planning Board meetings are held twice a month, on the second and fourth Wednesday's, at 7:00 PM at Carmel Town Hall, 60 McAlpin Avenue, Carmel

The submission deadline is 10 days prior to the Planning Board meeting. New subdivision applications that have been deemed complete will be placed on the agenda in the order they are received.

Pre-Submission:

Prior to the formal submission of the subdivision, a pre-submission conference may be requested by the applicant to be conducted with representatives from the Town, which may include the Town Planner, Town Engineer, Director of Code Enforcement, Planning Board Attorney. This conference will serve to educate the applicant on the process he/she must follow, clarify the information required to submit a complete subdivision application, and to highlight any specific areas of concern. You may arrange a pre-submission conference through the Planning Board Secretary at (845) 628-1500.

Submission Requirements:

At least 10 days prior to the Planning Board meeting, the subdivision application shall be submitted to the Planning Board Secretary as follows:

All subdivisions shall be signed, sealed and folded with the title box legible. The application package shall include:

- ☒ 11 copies of the Subdivision Application Form signed and notarized.
- ☒ 11 copies of the SEQR Environmental Assessment Form (use of short form or long form shall be determined at pre-submission conference).
- ☒ 5 full size sets of the Subdivision Plan
- ☒ 1 CD (in pdf. format) containing an electronic version of the Subdivision Plan
- ☒ 2 copies of the Disclosure Statement
- ☒ 11 copies of the Subdivision Completeness Certification Form
- ☐ All supplemental studies, reports, plans and renderings. ON FILE
- ☐ 2 copies of the current deed. ON FILE
- ☐ 2 copies of all easements, covenants and restrictions.
- ☒ The appropriate fee, determined from the attached fee schedule. Make checks payable to the *Town of Carmel.*

Rose Tomlinson 4/26/18
Planning Board Secretary; Date

Town Engineer; Date

TOWN OF CARMEL
SUBDIVISION APPLICATION

Per Town of Carmel Code – Section 131 – Subdivision of Land

SITE IDENTIFICATION INFORMATION

Application Name: RANDOM RIDGE SUBDIVISION
Application # 18-0004
Date Submitted: 4/25/18

Site Address:
No. Street: KENNICUT HILL RD Hamlet:

Property Location: *(Identify landmarks, distance from intersections, etc.)*
OPPOSITE OF MINERVA LANE

Town of Carmel Tax Map Designation: ATTACHED
Section Block Lot(s)

Zoning Designation of Site: R

Property Deed Recorded in County Clerk's Office
Date 12/19/2008 Liber 1822 Page 242

Liens, Mortgages or other Encumbrances
Yes (No)

Existing Easements Relating to the Site
No (Yes) Describe and attach copies:
ON FILED PLAT

Are Easements Proposed?
No (Yes) Describe and attach copies:
DRAINAGE EASEMENT BETWEEN LOT AND LOT

Have Property Owners within a 500' Radius of the Site Been Identified?
(Yes) No Attached List to this Application Form

APPLICANT/OWNER INFORMATION

Property Owner: BLITMAN WAHOPAC LLC
Phone #: 914-244-8600
Fax#: 914 244 8606
Email: gperesiperogmail.com

Owners Address:
No. 222 Street: BLOOMINGDALE ROAD Town: WHITE PLAINS State: NY Zip: 10605

Applicant (If different than owner):
Phone #:
Fax#:
Email:

Applicant Address (If different than owner):
No. Street: Town: State: Zip:

Individual/ Firm Responsible for Preparing Site Plan: PUTNAM ENGINEERING PLLC
Phone #: 279-6789
Fax#: 279 6769
Email: plynche putnameng.com

Address:
No. 4 Street: OLD ROUTE 6 Town: BREWSTER State: NY Zip: 10509

Other Representatives:
Phone #:
Fax#:
Email:

Owners Address:
No. Street: Town: State: Zip:

PROJECT DESCRIPTION

Describe the project, proposed use and operation thereof:
REVISIONS TO CLUSTER SUBDIVISION GRADING AT LOTS AS A RESULT OF ENCOUNTERING BEDROCK. RE ROUTE PORTION OF DRAINAGE BY-PASS TO AVOID BEDROCK AND NEED TO BLAST.

TOWN OF CARMEL SUBDIVISION APPLICATION

PROJECT INFORMATION

Size of existing parcel to be subdivided:
Acres: 106.5 *Square Feet:* 4,639,140

Major Subdivision ☒ | **Minor Subdivision** ☐

Number of proposed lots: 29 EXISTING

Size of ~~proposed~~ lots: 0.19 TO 0.23 ACRE

Conventional Subdivision ☐ | **Cluster Subdivision** ☒

Will a 10% open space set aside be provided? Yes: ☐ No: ☐ N.A

If no, will a payment in-lieu be provided? Yes: ☐ No: ☐ N.A.

Will all new lots have frontage on a mapped street? Yes: ☒ No: ☐

If not, how will this deficiency be addressed?

Is the site served by the following public utility infrastructure:

- **Sanitary Sewer** Yes: ☐ No: ☒

  If Yes:
  - Does approval exist to connect to sewer main? Yes: ☐ No: ☐
  - Is this an in-district connection? _____ Out-of district connection? _____
  - What is the total sewer capacity at time of application? _____
  - What is your anticipated average and maximum daily flow _____

For Town of Carmel Town Engineer
- *What is the sewer capacity* _____

- **Water Supply** Yes: ☒ No: ☐

  If Yes:
  - Does approval exist to connect to water main? Yes: ☒ No: ☐
  - What is the total water capacity at time of application? _____ NA
  - What is your anticipated average and maximum daily demand _____

PREVIOUSLY approved 4/26/16

- **Storm Sewer** Yes: ☒ No: ☐
- **Electric Service** Yes: ☒ No: ☐
- **Gas Service** Yes: ☐ No: ☒
- **Telephone/Cable Lines** Yes: ☒ No: ☐

Will any common areas be created outside of individual lots (road rights-of-way, recreation areas, stormwater management areas, etc.)? Yes: ☒ No: ☐

Is a homeowners association proposed? Yes: ☒ No: ☐

What is the predominant soil type(s) on the site? CnB, CnC, CID, CIE, CIF, CFC, CsD, HrF, PoC, PoD AND RhB

What is the approximate depth to water table? 10'

Site slope categories: 15-25% 20 % | 25-35% ___ % | >35% ___ %

Estimated quantity of excavation: Cut (C.Y.) 52,000 | Fill (C.Y.) 68,000

Is Blasting Proposed Yes: ☒ DONE No: ☐ Unknown: ☐

Is the site located ion a designated Critical Environmental Area? Yes: ☐ No: ☒

Does a curb cut exist on the site? Yes: ☒ No: ☐

Are new curb cuts proposed? Yes: ☐ No: ☒

What is the sight distance? Left 500' ⊕ Right 500' ⊕

Is the site located within 500' of:

- The boundary of an adjoining city, town or village Yes: ☐ No: ☒
- The boundary of a state or county park, recreation area or road right-of-way Yes: ☐ No: ☒
- A county drainage channel line. Yes: ☐ No: ☒

TOWN OF CARMEL SUBDIVISION APPLICATION

- The boundary of state or county owned land on which a building is located Yes: ☐ No: ☒

Is the site listed on the State or Federal Register of Historic Place (or substantially (contiguous)
Yes: ☐ No: ☒

Is the site located in a designated floodplain?
Yes: ☐ No: ☒

Does the site contain freshwater wetlands?
Yes: ☒ No: ☐

Jurisdiction:
NYSDEC: ☒ Town of Carmel: ☒

If present, the wetlands must be delineated in the field by a Wetland Professional, and survey located on the Site Plan.

TOWN - PERMIT ISSUED

Are encroachments in regulated wetlands or wetland buffers proposed? Yes: ☒ No: ☐

Does this application require a referral to the Environmental Conservation Board? Yes: ☐ No: ☒

Does the site contain waterbodies, streams or watercourses? Yes: ☒ No: ☐

Are any encroachments, crossings or alterations proposed? Yes: ☐ No: ☒

Is the site located adjacent to New York City watershed lands? Yes: ☐ No: ☒

Will municipal or private solid waste disposal be utilized?

Public: ☒ Private: ☐

Has this application been referred to the Fire Department? NA Yes: ☐ No: ☐

What is the estimated time of construction for the project?

PRESENTLY UNDER CONSTRUCTION

ZONING COMPLIANCE INFORMATION

Zoning Provision	Required	Existing	Lot 1	Lot 2	Lot 3	Lot 4	Lot 5
Lot Area							
Lot Coverage							
Lot Width	NA						
Front Yard							
Side Yard (minimum of 1)							
Side Yard (total of both)							
Rear Yard							
Habitable Floor Area							
Height							

(if more than 5 lots are proposed, include additional zoning compliance information on a separate sheet)

Will variances be required? Yes: ☐ No: ☒

If yes, identify variances required for each lot:

APPLICANTS ACKNOWLEDGEMENT

I hereby depose and certify that all the above statements and information, and all statements and information contained in the supporting documents and drawings attached hereto are true and correct.

BLITMAN MAHOPAC, LLC
Applicants Name

Applicants Signature

Sworn before me this 28th day of FEBRUARY 2015

Renee Collette-Ringler
Notary Public

RENEE COLLETTE RINGLER
NOTARY PUBLIC STATE OF NEW YORK
DUTCHESS COUNTY
LIC. #01CO6211884
COMM. EXP. 3/22/2018

TOWN OF CARMEL

SUBDIVISION COMPLETENESS CERTIFICATION FORM

All Subdivisions submitted to the Planning Board for review shall include the following information and details, as set forth in Section 131-11-14 of the Town of Carmel Subdivision Regulations.

This form shall be included with the subdivision submission

	Requirement Data	To Be Completed by the Applicant	Waived by the Town
General Requirements			
1	Key map at a scale of one inch equals 800 feet	☒ ✓	☐
2	Title block, including title of map; name of subdivision; name, address, seal and signature of professional engineer or land surveyor preparing the plat; written scale; date of original and all revisions.	☒ ✓	☐
3	A legend, including, names of all adjacent landowners and those within 500 feet of any property line; zoning district with the requirements of said zone; tax map, block and lot number; names and addresses of owner and subdivider; north point and graphic scale.	☒ ✓	☐
4	Location and identification of all zoning district boundaries.	☒ ✓	☐
5	Identification of all maps filed in the County Clerk's office affecting properties within 500 feet of the lot to be subdivided.	N.A. ☐	☐
Sketch Plan Requirements			
1	All General Requirements	☐	☐
2	Proposed subdivision layout at a scale of not less than one inch equals 100 feet.	☐	☐
3	All proposed lot lines, dimensions in feet and the areas of all lots in square feet and identifying numbers for each lot.	☐	☐
4	The location of existing and proposed setback lines, streets within 200 feet of the subdivision, buildings, watercourses, railroads and bridges, culverts, drainpipes and any natural features, such as wooded areas and rock formations.	☐	☐
5	Location and size of areas proposed to be reserved for recreation/open space.	☐	☐

TOWN OF CARMEL
SUBDIVISION COMPLETENESS CERTIFICATION FORM

	Requirement Data	To Be Completed by the Applicant	Waived by the Town
Preliminary Plat Requirements			
1	All General and Sketch Plan Requirements	N/A ☐	☐
2	The area included in the subdivision, by area of lots, roads, reservations if any, and total acreage.	☐ ON FILE ✓	☐
3	The existing and proposed contours (at an interval of not more than two feet), suitably designated to differentiate, with proposed first-floor elevations of the buildings.	☒	☐
4	Names of existing streets and proposed names of new streets.	NA ☐ ✓	☐
5	Preliminary profiles of all proposed roads.	NA ☐ ✓	☐
6	Location, type and size of curbs, sidewalks and bikeways.	NA ☐ ✓	☐
7	For subdivisions of five or more lots, front building elevation sketches and distribution of dissimilar building types on the site to avoid excessive similarity of exterior design.	☐ NA ✓	☐
8	Plans of proposed utility layouts and all facilities, unsized.	NA ☐	☐
9	The natural flow of surface drainage (indicated with arrows and the final disposal of surface waters); location of existing and proposed watercourses, culverts, bridges, drainpipes, lakes and ponds, detention or retention ponds; tentative location of storm drain inlets with the drainage areas tributary to each outlined and the area shown.	☐ ON FILE	☐
10	Existing or proposed covenants or deed restrictions applying to the site and a preliminary draft of homeowners' association documents, if applicable.	☐ ON FILE	☐
11	A stormwater pollution prevention plan (SWPPP) consistent with the requirements of Article X of Chapter 156 of the Code of the Town of Carmel.	☐ ON FILE	☐
Final Plat Requirements			
1	All General, Sketch and Preliminary Plat Requirements.	☒	☐

TOWN OF CARMEL

SUBDIVISION COMPLETENESS CERTIFICATION FORM

	Requirement Data	To Be Completed by the Applicant	Waived by the Town
2	Dimensions exactly with reference to monuments, bearings, distances in feet, radii, points of curvature and tangency of property lines, lot widths and depths and square feet of each lot.	☐ ON FILE	☐
3	Location of all proposed setback lines on each lot, with corner and irregular-shaped lots identified as to front, side and rear yards.	☐ ON FILE	☐
4	Location of all existing and proposed monuments.	☐ ON FILE	☐
5	All existing streets and streams within the subdivision and within 200 feet of the boundaries thereof, the width of the right-of-way of each street and existing public easements and municipal boundaries within 200 feet of the subdivision.	☐ ON FILE	☐
6	All proposed public easements or rights-of-way and the purposes thereof and proposed streets, identifying right-of-way width and names.	☐ ON FILE	☐
7	All parcels proposed for open space/recreation use, with a statement of the purpose of each.	☐ NA	☐
8	Construction plat, which shall include, in addition to the above: final first-floor elevations of dwellings and outside grades at their corner; proposed curb elevations at all lot corners; all existing structures, including a note indicating those to be removed and yard dimensions of those to remain; plans and profiles and proposed improvements and utility layouts; paving widths and locations, section and profiles; sidewalk widths and locations and sections; road alignment, complete with stations, center line curve data and existing and finished contours of the road and all regraded areas; details of manholes, catch basins, headwalls and any other required structure; locations of all street trees, lights and signs; maximum anticipated extent of the areas of cuts and fills where grade	☒	☐

TOWN OF CARMEL
SUBDIVISION COMPLETENESS CERTIFICATION FORM

	Requirement Data	To Be Completed by the Applicant	Waived by the Town
	changes are proposed; the natural flow of surface drainage and the final disposal of surface waters; slopes of banks of all watercourses, if defined, and boundaries of floodplains; specifications, locations, profiles and detailed cross sections of the proposed storm drains, including all inlets and size of the drainage area of the streets, including grades and all other improvements.		
9	Final copy of the homeowners' association documents, if applicable.	☐ ON FILE	☐
10	Deeds for land to be dedicated for road widening, recreation or other purposes.	☐	☐ ?
11	Erosion control standards.	ON FILE ☐	☐
12	A stormwater pollution prevention plan (SWPPP) consistent with the requirements of Article X of Chapter 156 of the Code of the Town of Carmel and with the terms of preliminary plan approval.	☐ ON FILE	☐

Applicants Certification (to be completed by the licensed professional preparing the subdivision plan:

I PAUL M. LYNCH **hereby certify that the site plan to which I have attached my seal and signature, meets all of the requirements of §156-61B of the Town of Carmel Zoning Ordinance:**

STATE OF NEW YORK
PAUL MICHAEL LYNCH
067446
LICENSED PROFESSIONAL ENGINEER

Professionals Seal

Signature - Applicant — **Date**

Signature - Owner — **Date** 4/19/18

TOWN OF CARMEL

SUBDIVISION COMPLETENESS CERTIFICATION FORM

Town Certification (to be completed by the Town)

I _____ hereby confirm that the site plan meets all of the requirements of §156-61B of the Town of Carmel Zoning Ordinance:

Signature - Planning Board Secretary — Date: 4/26/18

Signature - Town Engineer — Date: 4/26/18

617.20
Appendix B
Short Environmental Assessment Form

Instructions for Completing

Part 1 - Project Information. The applicant or project sponsor is responsible for the completion of Part 1. Responses become part of the application for approval or funding, are subject to public review, and may be subject to further verification. Complete Part 1 based on information currently available. If additional research or investigation would be needed to fully respond to any item, please answer as thoroughly as possible based on current information.

Complete all items in Part 1. You may also provide any additional information which you believe will be needed by or useful to the lead agency; attach additional pages as necessary to supplement any item.

Part 1 - Project and Sponsor Information

Name of Action or Project:
RANDOM RIDGE

Project Location (describe, and attach a location map):
KENNICUT HILL ROAD

Brief Description of Proposed Action:
RE GRADE LOTS TO DUE TO BEDROCK. PIPE STORMWATER DIVERSION DOWN SOUTH RIDGE ROAD AND CROSS BETWEEN LOTS AND BEFORE DISCHARGING INTO SWALE BECAUSE OF ROCK ENCOUNTERED IN ORIGINAL PROPOSED LOCATION.

Name of Applicant or Sponsor:
BLITMAN MAHOPAC LLC

Telephone: 914 - 244 - 8600
E-Mail: gperesiper@gmail.com

Address:
222 BLOOMINGDALE ROAD

City/PO:
WHITE PLAINS

State:
N.Y

Zip Code:
10605

	NO	YES
1. Does the proposed action only involve the legislative adoption of a plan, local law, ordinance, administrative rule, or regulation? If Yes, attach a narrative description of the intent of the proposed action and the environmental resources that may be affected in the municipality and proceed to Part 2. If no, continue to question 2.	X	
2. Does the proposed action require a permit, approval or funding from any other governmental Agency? If Yes, list agency(s) name and permit or approval:	X	

3.a. Total acreage of the site of the proposed action? 106.5 acres
b. Total acreage to be physically disturbed? _____ acres
c. Total acreage (project site and any contiguous properties) owned or controlled by the applicant or project sponsor? 106.5 acres

4. Check all land uses that occur on, adjoining and near the proposed action.
☐ Urban ☐ Rural (non-agriculture) ☐ Industrial ☐ Commercial ☒ Residential (suburban)
☒ Forest ☐ Agriculture ☐ Aquatic ☐ Other (specify): _____
☐ Parkland

	NO	YES	N/A
5. Is the proposed action, a. A permitted use under the zoning regulations?		X	
b. Consistent with the adopted comprehensive plan?		X	

	NO	YES
6. Is the proposed action consistent with the predominant character of the existing built or natural landscape?		X
7. Is the site of the proposed action located in, or does it adjoin, a state listed Critical Environmental Area? If Yes, identify:	X	
8. a. Will the proposed action result in a substantial increase in traffic above present levels?	X	
b. Are public transportation service(s) available at or near the site of the proposed action?	X	
c. Are any pedestrian accommodations or bicycle routes available on or near site of the proposed action?	X	
9. Does the proposed action meet or exceed the state energy code requirements? If the proposed action will exceed requirements, describe design features and technologies:	X	
10. Will the proposed action connect to an existing public/private water supply? If No, describe method for providing potable water:		X
11. Will the proposed action connect to existing wastewater utilities? If No, describe method for providing wastewater treatment: ON SITE SUBSURFACE SANITARY DISPOSAL FIELDS	X	
12. a. Does the site contain a structure that is listed on either the State or National Register of Historic Places?	X	
b. Is the proposed action located in an archeological sensitive area?		
13. a. Does any portion of the site of the proposed action, or lands adjoining the proposed action, contain wetlands or other waterbodies regulated by a federal, state or local agency?		X
b. Would the proposed action physically alter, or encroach into, any existing wetland or waterbody? If Yes, identify the wetland or waterbody and extent of alterations in square feet or acres: WORK WAS PERMITTED BY CARMEL ECB AND COMPLETED	X	

14. Identify the typical habitat types that occur on, or are likely to be found on the project site. Check all that apply:
☐ Shoreline ☒ Forest ☐ Agricultural/grasslands ☐ Early mid-successional
☒ Wetland ☐ Urban ☐ Suburban

	NO	YES
15. Does the site of the proposed action contain any species of animal, or associated habitats, listed by the State or Federal government as threatened or endangered?	X	
16. Is the project site located in the 100 year flood plain?	X	
17. Will the proposed action create storm water discharge, either from point or non-point sources? If Yes, a. Will storm water discharges flow to adjacent properties? ☐ NO ☒ YES		X
b. Will storm water discharges be directed to established conveyance systems (runoff and storm drains)? If Yes, briefly describe: ☐ NO ☒ YES STORM WATER WILL FLOW INTO ON SITE DETENTION POND THEN TO EXISTING WETLAND ( ) AND THE FLOW DOWN EXISTING STREAM TO WHERE IT ULTIMATELY REACHES THE CROTON FALLS RESERVOIR		

	NO	YES
18. Does the proposed action include construction or other activities that result in the impoundment of water or other liquids (e.g. retention pond, waste lagoon, dam)? If Yes, explain purpose and size: STORMWATER IS DETAINED IN ONSITE DETENTION POND BEFORE LEAVING SITE		X
19. Has the site of the proposed action or an adjoining property been the location of an active or closed solid waste management facility? If Yes, describe:	X	
20. Has the site of the proposed action or an adjoining property been the subject of remediation (ongoing or completed) for hazardous waste? If Yes, describe:	X	

I AFFIRM THAT THE INFORMATION PROVIDED ABOVE IS TRUE AND ACCURATE TO THE BEST OF MY KNOWLEDGE

Applicant/sponsor name: BLITMAN MANORAC LLC Date: 2/28/18

Signature: [illegible]

Part 2 - Impact Assessment. The Lead Agency is responsible for the completion of Part 2. Answer all of the following questions in Part 2 using the information contained in Part 1 and other materials submitted by the project sponsor or otherwise available to the reviewer. When answering the questions the reviewer should be guided by the concept "Have my responses been reasonable considering the scale and context of the proposed action?"

	No, or small impact may occur	Moderate to large impact may occur
1. Will the proposed action create a material conflict with an adopted land use plan or zoning regulations?		
2. Will the proposed action result in a change in the use or intensity of use of land?		
3. Will the proposed action impair the character or quality of the existing community?		
4. Will the proposed action have an impact on the environmental characteristics that caused the establishment of a Critical Environmental Area (CEA)?		
5. Will the proposed action result in an adverse change in the existing level of traffic or affect existing infrastructure for mass transit, biking or walkway?		
6. Will the proposed action cause an increase in the use of energy and it fails to incorporate reasonably available energy conservation or renewable energy opportunities?		
7. Will the proposed action impact existing: a. public / private water supplies?		
b. public / private wastewater treatment utilities?		
8. Will the proposed action impair the character or quality of important historic, archaeological, architectural or aesthetic resources?		
9. Will the proposed action result in an adverse change to natural resources (e.g., wetlands, waterbodies, groundwater, air quality, flora and fauna)?		

Random Ridge

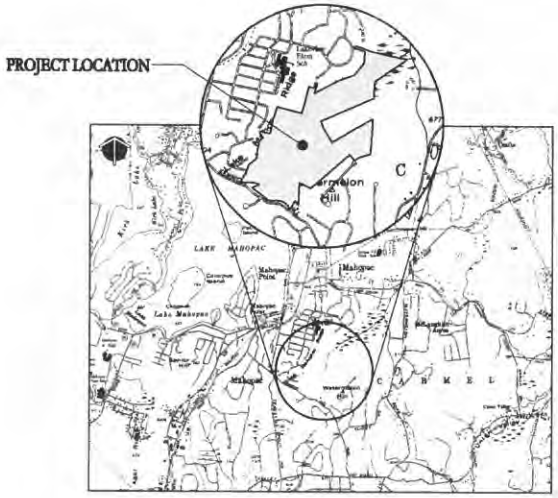
LOT #	GRID	ACREAGE	ADDRESS	Lot Dimensions	Lot Type
1	76.13-2-76	0.19	17 North Ridge Rd	72x115	
2	76.13-2-77	0.19	21 North Ridge Rd	72x115	
3	76.13-2-78	0.19	25 North Ridge Rd	72x115	
4	76.13-2-79	0.19	29 North Ridge Rd	72x115	
5	76.13-2-80	0.19	33 North Ridge Rd	72x115	
6	76.13-2-81	0.2	37 North Ridge Rd	75x115	
7	76.09-3-68	0.21	60 North Ridge Rd	66x107	* Walk Out
8	76.09-3-69	0.19	56 North Ridge Rd	75x115	Walk Out
9	76.09-3-70	0.2	52 North Ridge Rd	69x115	Walk Out
10	76.09-3-71	0.2	48 North Ridge Rd	65x115	Walk Out
11	76.13-2-82	0.23	44 North Ridge Rd	74x115	* Walk Out
12	76.13-2-83	0.23	38 North Ridge Rd	73x115	Day Lighted
13	76.13-2-84	0.19	36 North Ridge Rd	73x115	Walk Out
14	76.13-2-85	0.19	32 North Ridge Rd	73x115	Walk Out
15	76.13-2-86	0.19	28 North Ridge Rd	73x115	Walk Out
16	76.13-2-87	0.19	24 North Ridge Rd	72x115	* Walk Out
17	76.13-2-88	0.21	20 North Ridge Rd	70x115	* Walk Out
18	76.13-2-89	0.23	16 North Ridge Rd	75x115	Walk Out
19	76.13-2-90	0.22	12 North Ridge Rd	73x115	Walk Out
20	76.13-2-91	0.21	16 South Ridge Rd	52x115	*
21	76.13-2-92	0.19	18 South Ridge Rd	73x115	
22	76.13-2-93	0.19	22 South Ridge Rd	73x115	
23	76.13-2-94	0.19	26 South Ridge Rd	72x115	*
24	76.13-2-95	0.38	30 South Ridge Rd	Odd Shape	*
25	76.13-2-96	0.21	27 South Ridge Rd	46x115	
26	76.13-2-97	0.19	23 South Ridge Rd	72x115	
27	76.13-2-98	0.24	19 South Ridge Rd	73x115	Walk Out
28	76.13-2-99	0.24	15 South Ridge Rd	73x115	Walk Out
29	76.13-2-100	0.24	11 South Ridge Rd	73x115	Walk Out

** Odd lot shape or additional work needed to accomplish walk out*

A	76.13-2-101
B	76.13-2-102
C	76.13-2-103
D	76.09-3-72

RANDOM RIDGE

KENNICUT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK



LOCATION MAP

DRAWING SCHEDULE

DRAWING No.	SHEET No.	DRAWING TITLE
C-000	1	COVER SHEET
C-100	2	EXISTING CONDITIONS and REMOVALS PLAN
C-110	3	AMENDED SUBDIVISION PLAN
C-120	4	ENLARGED SITE LAYOUT PLAN
C-130	5	GRADING AND DRAINAGE PLAN
C-131	6	FIRE INSTALLATION WITHIN STREET R.O.W. PLAN
C-132	7	SWALE LAYOUT PLAN
C-140	8	UTILITIES PLAN
C-141	9	WATER MAIN RELOCATION PLAN
C-142	10	ENLARGED SSTS PLAN
C-143	11	ENLARGED SSTS PLAN
C-150	12	EROSION AND SEDIMENT CONTROL PLAN - PHASE 1
C-151	13	EROSION AND SEDIMENT CONTROL PLAN - PHASES 2 and 3
C-152	14	EROSION AND SEDIMENT CONTROL PLAN - PHASES 4 and 5
C-153	15	EROSION AND SEDIMENT CONTROL PLAN - PHASES 6 AND 7
C-154	16	EROSION AND SEDIMENT CONTROL PLAN - PHASES 8 AND 9
C-155	17	EROSION AND SEDIMENT CONTROL PLAN - PHASE 10
C-160	18	LANDSCAPE PLAN
C-161	19	STORMWATER STRUCTURES PLANTING PLAN
C-162	20	GREEN INFRASTRUCTURE ALLOCATION PLAN
C-200	21	ROAD PROFILES and ENLARGED PLANS
C-201	22	DRAINAGE PROFILES
C-202	23	DRAINAGE and SEWER PROFILES
C-203	24, 25	SSTS SECTIONS
C-204	26	SEWER FORCE MAIN PROFILES 1 PLAN of SEWER PUMP STATION
C-205	27, 28	WATERMAIN PROFILES
C-206	29, 30, 31	RETAINING WALL and MICROPOOL EXTENDED DETENTION POND PROFILES
C-300	32	EROSION CONTROL DETAILS
C-301	33, 34	DETAILS
C-302	35	DETAILS
C-303	36, 37	DETAILS
C-304	38, 39	DETAILS
C-305	40, 41	DETAILS
C-306	42	RETAINING WALL DETAILS

OWNER / APPLICANT

BUTNAM MAHOPAC, LLC.
222 BLOOMINGDALE ROAD, SUITE 404
WHITE PLAINS, NY 10605

CARMEL PLANNING BOARD APPROVAL

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE TOWN OF CARMEL, NEW YORK, ON THE _____ DAY OF _____, 20__, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20____, BY

_____

CHAIRMAN

PUTNAM ENGINEERING & DEVELOPMENT CORP.
ENGINEERS • ARCHITECTS
4 OLD ROUTE 6, BREWSTER, NEW YORK 10509
(845) 279-8384 FAX (845) 279-8391

REVISIONS

7	10.21.21	GENERAL PLAN UPDATES	N.T.P.	DESCRIPTION
6	8.24.21	REV PER 3.1 TOWN COMMENTS	N.T.P.	DESCRIPTION
5	3.24.21	REV PER 3.1 TOWN COMMENTS	N.T.P.	DESCRIPTION
4	3.24.21	REV PER 3.1 & 3.1 TOWN COMMENTS	N.T.P.	DESCRIPTION
3	3.24.21	REV PER 3.1 & 3.1 TOWN COMMENTS	N.T.P.	DESCRIPTION
2	11.20.20	FIRE INSTALLATION WITHIN STREET R.O.W.	N.T.P.	DESCRIPTION
1	10.21.20	SWALE LAYOUT PLAN	N.T.P.	DESCRIPTION
0	7.24.20	PRELIMINARY SUBMISSION	N.T.P.	DESCRIPTION

RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:

PROJECT

RANDOM RIDGE
KENNICUT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK

DATE: SEPT. 2, 2014
PROJECT MANAGER: PAL
DRAWN BY: PB
CHECKED BY: PAL
SCALE: AS NOTED

DRAWING:

COVER SHEET

PROJECT NUMBER: 005

DRAWING NUMBER: C-010

SHEET 1 OF 54

ADJOINERS:

TAX MAP	OWNER: (NON-PROPERTY)	TAX MAP	OWNER	TAX MAP	OWNER	TAX MAP	OWNER
76.9-1-32	JILIANI	76.9-1-48	BURDEN	76.9-1-64	KRUSEN	76.9-1-81	KRAUSS
76.9-1-33	FELICE	76.9-1-49	MONTEFUSCO	76.9-1-65	FERRERA	76.9-1-82	MARTINELLI
76.9-1-34	TRAN LE & TRI-QUANG	76.9-1-50	LANGUELLA	76.9-1-66	BYRNE	76.9-1-83	KREBS
76.9-1-35	GOLFUSINO & SEPTEMBRINI	76.9-1-51	HILLER & SUNBAKER	76.9-1-67	DUFFY	76.9-1-84	FIORINO
76.9-1-36	DAVIS	76.9-1-52	MARELLI	76.9-1-68	SHAW	76.9-1-85	PELLINI
76.9-1-37	BRAGG	76.9-1-53	ANALANDER	76.9-1-69	GOODRICH	76.9-1-86	SCARSINELLA
76.9-1-38	BRAGG & O'DONNELL	76.9-1-54	MARTIN	76.9-1-70	MARTIN	76.9-1-87	CLAVER
76.9-1-39	VISSELLA	76.9-1-55	BRIDGE	76.9-1-71	MARTIN	76.9-1-88	MORAN
76.9-1-40	FRANSE	76.9-1-56	BELL	76.9-1-72	MARTIN	76.9-1-89	CONNAUGHTON
76.9-1-41	HOUTS	76.9-1-57	CONGREGATIONAL CHRIST SCHOOL CHRIST	76.9-1-73	CONGREGATIONAL PROPERTIES LLC	76.9-1-90	GLAUBER
76.9-1-42	LUCAS	76.9-1-58	FERRERA	76.9-1-74	FERRERA	76.9-1-91	SHIELAN
76.9-1-43	CARDEL	76.9-1-59	CARNELL	76.9-1-75	LEONE	76.9-1-92	CARAGO
76.9-1-44	HOLDSWORTH	76.9-1-60	GOULDING	76.9-1-76	KERNOCHAN	76.9-1-93	BRACKEN
76.9-1-45	MOUNTAINSIDE CHURCH	76.9-1-61	MONTEFUSCO	76.9-1-77	SCHTTLANDLI	76.9-1-94	BRACKEN
76.9-1-46	TRUSTEES CHRIST SCHOOL CHRIST	76.9-1-62	BARNES	76.9-1-78	BURNS	76.9-1-95	PELLICANO
76.9-1-47	SAUNDERS	76.9-1-63	BARNES	76.9-1-79	SALVADORANDO	76.9-1-96	PELLICANO
76.9-1-48	BARNES	76.9-1-64	BARNES	76.9-1-80	KALVIN	76.9-1-97	VERRECT
76.9-1-49	KERSETTA & BRANDI	76.9-1-65	BARNES	76.9-1-81	BLUM	76.9-1-98	DEFRANCO
76.9-1-50	FRATTASIO	76.9-1-66	ELMES	76.9-1-82	FIORINI	76.9-1-99	CALLAHAN
76.9-1-51	BRUNO	76.9-1-67	LIN, JOSHUA & FIORINI	76.9-1-83	CONCORDETO	76.9-1-100	SULLIVAN
76.9-1-52	BRUNO	76.9-1-68	BRUNO	76.9-1-84	TOWN OF CARMEL	76.9-1-101	BELLANDERSON
76.9-1-53	VANDERELLI	76.9-1-69	CARNELLI	76.9-1-85	KEITH	76.9-1-102	BELLANDERSON
76.9-1-54	HERBERT	76.9-1-70	CHAMBERLAIN	76.9-1-86	KEITH	76.9-1-103	HILLER
76.9-1-55	HELGERSON	76.9-1-71	COFFEY	76.9-1-87	KABAGALLO	76.9-1-104	BRAGG
76.9-1-56	LEWERS	76.9-1-72	HORAN	76.9-1-88	SMALL	76.9-1-105	JUNE
76.9-1-57	CLAYTON	76.9-1-73	SHAW	76.9-1-89	GILBERT	76.9-1-106	HILLAT
76.9-1-58	BARNES	76.9-1-74	LAMBERT	76.9-1-90	MERCANTELLI	76.9-1-107	DEFRANCO
76.9-1-59	BAGLIERI	76.9-1-75	LAMBERT	76.9-1-91	SUGRUE	76.9-1-108	SANTOPIETRO
76.9-1-60	SPARKS & HYDE	76.9-1-76	LAMBERT	76.9-1-92	LEONARDO	76.9-1-109	DEFRANCO
76.9-1-61	TRYCHOSKINA	76.9-1-77	BILLY	76.9-1-93	LEONARDO	76.9-1-110	GILBERT
76.9-1-62	HARVEY	76.9-1-78	LAMBERT	76.9-1-94	HILLMAN & SPARROW	76.9-1-111	HERNANDEZ
76.9-1-63	DEMERCHANT	76.9-1-79	STRENGER & MCGALL	76.9-1-95	SILVA	76.9-1-112	MALDONADO
76.9-1-64	HERRERA	76.9-1-80	PATRICK	76.9-1-96	JENSEN	76.9-1-113	BRAINE
76.9-1-65	BAGBY & O'DONNELL	76.9-1-81	LAMBERT & SHAW	76.9-1-97	VIRGO	76.9-1-114	JONES
76.9-1-66		76.9-1-82	HERRAN	76.9-1-98	JACKSONER	76.9-1-115	MANN
76.9-1-67	TOWN OF CARMEL	76.9-1-83	HERRAN	76.9-1-99	FUNDERBURGH	76.9-1-116	BYRNE
76.9-1-68	HOSKINSONS	76.9-1-84	BRADY	76.9-1-100	FUNDERBURGH	76.9-1-117	BRAGG
76.9-1-69	SEFRED	76.9-1-85	PAYNE	76.9-1-101	RUSSELL & HUNTT	76.9-1-118	BRAGG
76.9-1-70	ZEPPOS PLAZAS, INC.	76.9-1-86	BRAGG	76.9-1-102	LUNA	76.9-1-119	BRAGG
76.9-1-71	BRAGG	76.9-1-87	HONEY BEE HEN LLC	76.9-1-103	HUDSON VALLEY BANK		
76.9-1-72	CALLANDER	76.9-1-88	BOYNE	76.9-1-104	LEMAN, LEMAN & PELTONO		
76.9-1-73	CALLANDER	76.9-1-89	BOYNE	76.9-1-105	MERGLER		
76.9-1-74	CALLANDER	76.9-1-90	CARMELENGO	76.9-1-106	TOWN OF CARMEL		
76.9-1-75	PARKER	76.9-1-91	SPAETH	76.9-1-107	BRAGG		
		76.9-1-92	PALMA				

EXISTING CONDITIONS NOTES:

1. BOUNDARY INFORMATION TAKEN FROM "AMENDED FINAL SUBDIVISION PLAT OF RANDOM RIDGE" DATED MARCH 12, 2006, LAST REVISED JANUARY 10, 2007 AS PREPARED BY BACEY & HATSON, 3065 ROUTE 9, GOLD SPRING, NY.

   ADDITIONAL BOUNDARY INFORMATION TAKEN FROM "FINAL SUBDIVISION PLAT PREPARED FOR TANNER FARMS" DATED FEBRUARY 18, 2010, LAST REVISED NOVEMBER 22, 2010 AS PREPARED BY BACEY & HATSON, 3065 ROUTE 9, GOLD SPRING, NY.

   TOPOGRAPHIC INFORMATION TAKEN FROM A PLAN ENTITLED "CONSTRUCTION DRAWINGS" FOR RANDOM RIDGE DATED SEPTEMBER 10, 1998, LAST REVISED AUGUST 1, 2005 AS PREPARED BY PUTNAM ENGINEERING, PLLC.
2. OWNER/APPLICANT: BLITMAN MANOPAC, LLC
   222 BLOOMINGDALE ROAD, SUITE 404
   WHITE PLAINS, NY 10605
3. PROPOSED USE: RESIDENTIAL CLUSTER DEVELOPMENT - 24 LOTS
4. SITE DATA: TOTAL LOT AREA = 4,489,283 S.F. (103.01 AC.)
   SEE PLAN BELOW FOR EXISTING LOT TAX MAP NUMBERS
5. ZONING DISTRICT: R - RESIDENTIAL
6. SCHOOL DISTRICT: MAHOPAC CENTRAL SCHOOL DISTRICT
7. FIRE DISTRICT: MAHOPAC VOLUNTEER FIRE DISTRICT

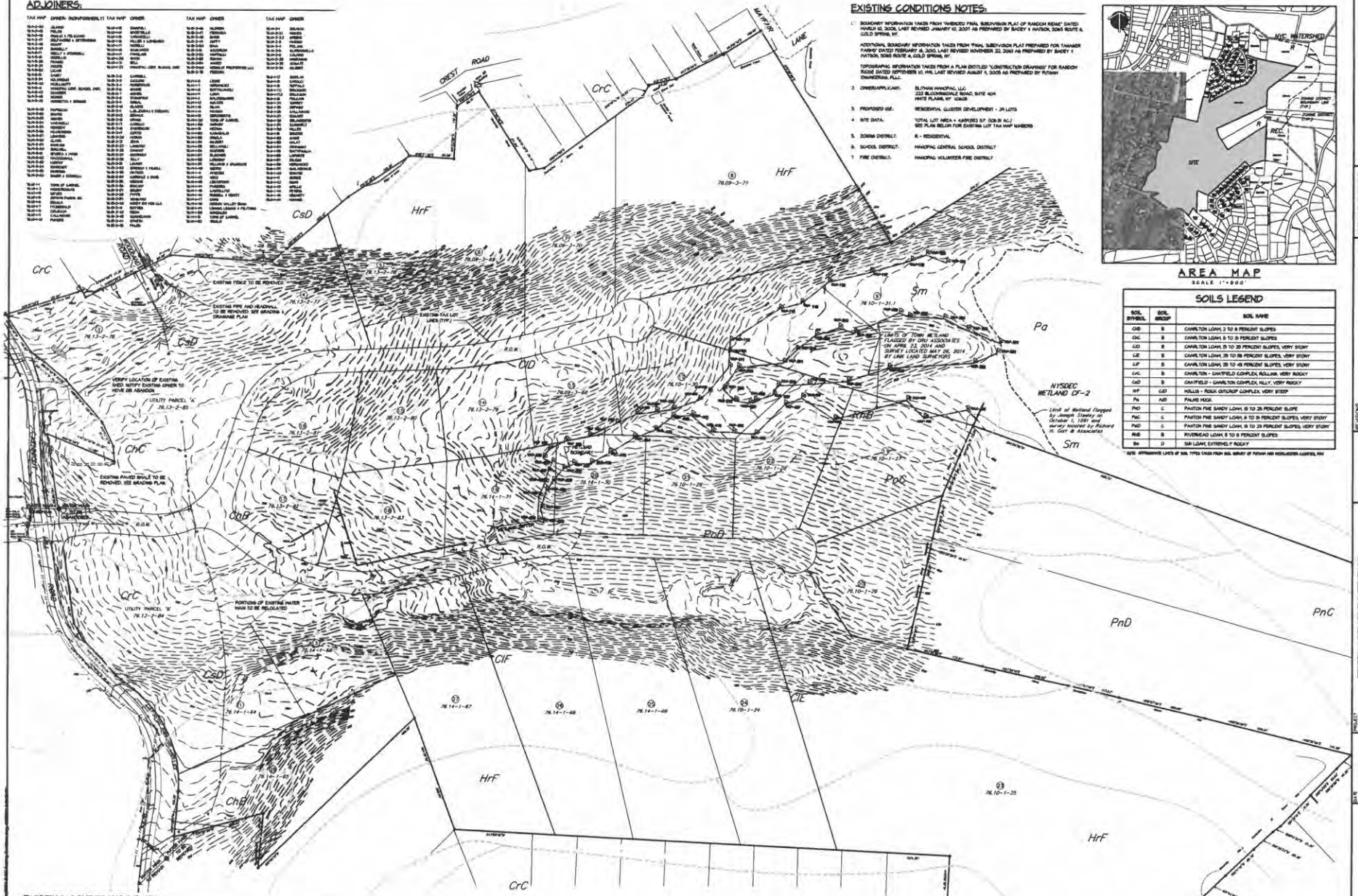
AREA MAP

SCALE 1"=200'

SOILS LEGEND

SOIL SYMBOL	SOIL GROUP	SOIL NAME
CrB	B	CHARLTON LOAM, 2 TO 8 PERCENT SLOPES
CrC	B	CHARLTON LOAM, 8 TO 15 PERCENT SLOPES
CrD	B	CHARLTON LOAM, 15 TO 25 PERCENT SLOPES, VERY STONY
CsE	B	CHARLTON LOAM, 25 TO 35 PERCENT SLOPES, VERY STONY
LrF	B	CHARLTON LOAM, 35 TO 45 PERCENT SLOPES, VERY STONY
CrG	B	CHARLTON - CHATFIELD COMPLEX, ROLLING, VERY ROCKY
CsD	B	CHATFIELD - CHARLTON COMPLEX, HILLY, VERY ROCKY
HrF	C/D	HOLLIS - ROCK OUTCROP COMPLEX, VERY STEEP
Pa	A/D	PALMS MUCK
PnD	C	PANTON FINE SANDY LOAM, 15 TO 25 PERCENT SLOPE
PnC	C	PANTON FINE SANDY LOAM, 8 TO 15 PERCENT SLOPES, VERY STONY
PnD	C	PANTON FINE SANDY LOAM, 15 TO 25 PERCENT SLOPES, VERY STONY
RhB	B	RIVERHEAD LOAM, 3 TO 8 PERCENT SLOPES
Sm	D	SUN LOAM, EXTREMELY ROCKY

NOTE: APPROXIMATE LIMITS OF SOIL TYPES TAKEN FROM SOIL SURVEY OF PUTNAM AND ROCKLAND COUNTIES, NY



EXISTING CONDITIONS LEGEND:

760	EXISTING CONTOURS
	EXISTING CATCH BASIN
	EXISTING DRAINAGE LINE
	EXISTING WATER LINE
	EXISTING WATER LINE TO BE REMOVED
	EXISTING UTILITY POLE
	EXISTING OVERHEAD WIRES
	EXISTING STONE WALL
	TOWN WETLAND BOUNDARY & FLAG
	NYSDEC WETLAND BOUNDARY
23 / 76.10-1-23	APPROVED SUBDIVISION LOT NUMBER / TAX MAP NUMBER
	100 FT. WETLAND BUFFER LINE
	SOIL BOUNDARY LINE
CsD	SOILS TYPE
	SLOPES 0% TO 15%
	SLOPES GREATER THAN 15%

EXISTING CONDITIONS PLAN

DRAWING SCALE

1 INCH = 50 FEET

PUTNAM ENGINEERING, PLLC
CIVIL ENGINEERS - ARCHITECTS
4 OLD ROUTE 9, PEEKSKILL, NEW YORK 10566
(845) 278-6291 FAX (845) 278-6291

REVISIONS

	DATE	DESCRIPTION
1	10.15.14	PER TOWN COMMENTS
2	11.13.14	PER TOWN COMMENTS
3	12.18.14	PER TOWN COMMENTS
4	1.15.15	PER TOWN COMMENTS
5	2.17.15	PER TOWN COMMENTS
6	3.17.15	PER TOWN COMMENTS
7	4.21.15	PER TOWN COMMENTS
8	5.18.15	PER TOWN COMMENTS
9	6.15.15	PER TOWN COMMENTS
10	9.15.15	PER TOWN COMMENTS

PROJECT: RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:

RANDOM RIDGE
KEMPSOTT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK

DATE: SEPT. 3, 2014
PROJECT MANAGER: PML
DRAWN BY: PM
CHECKED BY: PML
SCALE: AS NOTED

DRAWING: EXISTING CONDITIONS and REMOVALS PLAN

PROJECT NUMBER: 0425

DRAWING NUMBER: C-020

SHEET 3 OF 34

RESIDENTIAL CLUSTER DEVELOPMENT:

CONDITIONS PER CHAPTER 156-45 RESIDENTIAL CLUSTER DEVELOPMENT:

1. PERMITTED USES:
   A. DWELLING UNITS IN DETACHED, SEMIDETACHED, ATTACHED AND/OR GROUPS OF ATTACHED
   DETACHED DWELLING UNITS ARE PROPOSED
   B. QUASI-PUBLIC SOCIAL, RECREATIONAL AND CULTURAL FEATURES, SUCH AS NEIGHBORHOOD OR COMMUNITY CENTERS, GAME ROOMS, SWIMMING POOLS AND TENNIS COURTS
   NO SUCH USES ARE PROPOSED.
2. AREA: A RESIDENTIAL CLUSTER DEVELOPMENT SHALL HAVE A TOTAL SITE AREA OF AT LEAST 20 ACRES IN ONE AGGREGATE OR CONTIGUOUS PARCELS. 106.51 ACRES IN CONTIGUOUS PARCELS ARE PROVIDED
3. OVERALL RESIDENTIAL DENSITY: (PER CHAPTER 156-8 DEFINITIONS) "A RESIDENTIAL CLUSTER DEVELOPMENT THAT OBTAINS A LOT COUNT THROUGH CONVENTIONAL SUBDIVISION APPROVAL, THEN DEVELOPS THE PARCEL AT THE SAME DENSITY THAT WOULD BE ALLOWED IN THE ZONING DISTRICT IN WHICH THE SITE IS LOCATED, PROVIDED THAT THE REMAINING UNDEVELOPED LAND SHALL BE RESERVED AND IMPROVED FOR PERMANENT OPEN SPACE USE." PROPOSED CLUSTER DEVELOPMENT INCLUDES 29 DETACHED DWELLING UNITS.
4. OPEN SPACE: THERE SHALL BE PROVIDED AT LEAST 35 PERCENT OF THE GROSS AREA OF A RESIDENTIAL CLUSTER DEVELOPMENT FOR OPEN SPACE, EXCLUSIVE OF STREETS OR OTHER PAVED SURFACES. 84.84 ACRES OR 84 PERCENT OPEN SPACE IS PROPOSED
5. HEIGHTS, BULK COVERAGE, LOCATION AND LAND USES: IT IS REQUIRED THAT ALL STAGES OF A RESIDENTIAL CLUSTER DEVELOPMENT BE DEVELOPED ACCORDING TO A COMPREHENSIVE FINAL PLAN FOR THE OVERALL DEVELOPMENT, AS APPROVED BY THE PLANNING BOARD, WHICH SHALL CONFORM TO THE REQUIREMENTS OF THIS CHAPTER AND, IN ADDITION, SHALL BE COMPATIBLE WITH THE OTHER REQUIREMENTS OF THIS CHAPTER FOR RESIDENTIAL OR OTHER LAND USES CONTEMPLATED OR BY COMMON GOOD PRACTICE. REFER TO BULK SCHEDULE FOR PROPOSED REQUIREMENTS.

RESIDENTIAL CLUSTER DENSITY CALCULATION IN ACCORDANCE WITH 156-45E

THE ACREAGE OF THE PARCEL BEING DEVELOPED WILL BE REDUCED BY TEN (10) PERCENT TO ALLOW FOR ROADS AND UTILITIES. THE REMAINING ACREAGE SHALL THEN BE DIVIDED BY THE MINIMUM LOT AREA FOR THE ZONING DISTRICT IN WHICH THE PARCEL IS LOCATED. THEREFORE:

A. 106.51 ACRE LESS 10% (10.65 ACRES) = 95.86 ACRES

B. 95.86 ACRES × 43560 SF/ACRE/120,000 SF = 34.80 LOTS

THE PROPOSAL IS FOR 29 LOTS WHICH IS LESS THAN THE MAXIMUM OF 34 LOTS AS CALCULATED

RESIDENTIAL CLUSTER/ SUBDIVISION NOTES:

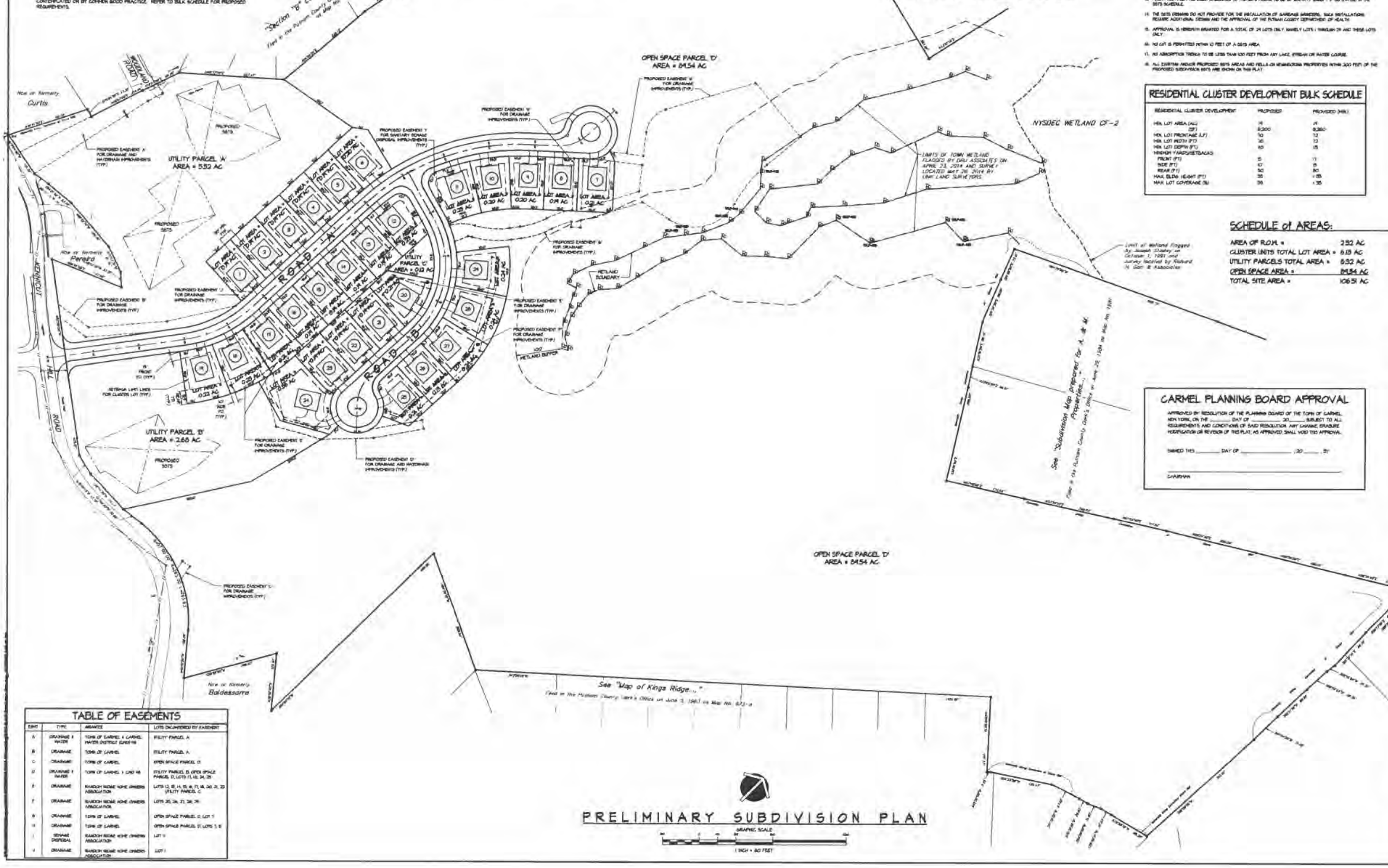
1. PROJECT SITE TO BE DEVELOPED IN ACCORDANCE WITH CHAPTER 156-45 "RESIDENTIAL CLUSTER DEVELOPMENT" OF THE TOWN OF CARMEL ZONING CODE.
2. BOUNDARY INFORMATION TAKEN FROM "AMENDED FINAL SUBDIVISION PLAT OF RANDOM RIDGE" DATED MARCH 10, 2006, LAST REVISED JANUARY 10, 2007 AS PREPARED BY BADEY & WATSON, 3063 ROUTE 9, COLD SPRING, NY.

   ADDITIONAL BOUNDARY INFORMATION TAKEN FROM "FINAL SUBDIVISION PLAT PREPARED FOR TANAGER FARMS" DATED FEBRUARY 16, 2010, LAST REVISED NOVEMBER 22, 2010 AS PREPARED BY BADEY & WATSON, 3063 ROUTE 9, COLD SPRING, NY.

   TOPOGRAPHIC INFORMATION TAKEN FROM A PLAN ENTITLED "CONSTRUCTION DRAWINGS" FOR RANDOM RIDGE DATED SEPTEMBER 10, 1998, LAST REVISED AUGUST 9, 2005 AS PREPARED BY PUTNAM ENGINEERING PLLC.
3. OWNER/APPLICANT: ELITMAN MANOFAC, LLC, 222 BLOOMINGDALE ROAD, SUITE 404, WHITE PLAINS, NY 10605
4. SITE DATA: TOTAL LOT AREA = 4,639,520 S.F. (106.51 AC.) SEE EXISTING PLAN FOR TAX MAP NUMBERS OF EXISTING LOTS
5. ZONING DISTRICT: R - RESIDENTIAL
6. ALL UTILITIES SHALL BE INSTALLED UNDERGROUND AND IN CONFORMANCE WITH LOCAL CODES AND UTILITY COMPANY REQUIREMENTS.
7. SEWER SERVICE SHALL BE PROVIDED BY COMMUNITY SUBSURFACE SEWAGE TREATMENT SYSTEM LOCATED ON-SITE AND MAINTAINED AND SERVICED BY HOMEOWNER'S ASSOCIATION. WATER SERVICE SHALL BE PROVIDED BY CONNECTION TO CARMEL WATER DISTRICT #8.
8. THERE ARE NO AREAS PROPOSED TO BE USED FOR OUTDOOR SELLING, DISPLAY OR STORAGE.
9. THE EXISTING LOTS (29) OF THE PRIOR 2004 AND 2010 SUBDIVISIONS SHALL BE COMBINED PRIOR TO COMMENCEMENT OF CONSTRUCTION OF THE RESIDENTIAL CLUSTER DEVELOPMENT PLAN.

PCHD REALTY SUBDIVISION GENERAL NOTES:

1. THE PUTNAM COUNTY DEPARTMENT OF HEALTH REQUIRES A CONSTRUCTION PERMIT APPLICATION BE SUBMITTED FOR APPROVAL FOR EACH INDIVIDUAL SUBSURFACE SEWAGE TREATMENT SYSTEM (SSTS) PRIOR TO THE ISSUANCE OF BUILDING PERMITS BY THE LOCAL MUNICIPALITY.
2. N.A.
3. N.A.
4. N.A.
5. THE PUTNAM COUNTY DEPARTMENT OF HEALTH APPROVAL IS BASED ON LOCATION OF SSTS, HOUSE AND DRIVEWAY LOCATIONS BEING MAINTAINED AS SHOWN. ALL MODIFICATIONS TO HAVE PRIOR PUTNAM COUNTY DEPARTMENT OF HEALTH APPROVAL.
6. UNAUTHORIZED MODIFICATIONS MADE TO THIS DRAWING AFTER THE DATE OF PUTNAM COUNTY DEPARTMENT OF HEALTH APPROVAL OR ANY MISINFORMATION AND/OR ERRONEOUS DATA VOIDS SAID APPROVAL.
7. NO CUT OR FILL IS PERMITTED IN THE SSTS AREA, EXCEPT IF SO SPECIFIED ON THE APPROVED PLAN.
8. ALL STONE WALLS IN AND WITHIN 10 FEET OF THE SSTS AREA SHALL BE REMOVED TO THEIR ENTIRE DEPTH AND THE RESULTING VOID REPLACED WITH SIMILAR ON SITE SOIL.
9. PURCHASERS OF LOTS TO BE FURNISHED WITH A TRUE COPY OF THIS PLAN AS APPROVED BY THE PUTNAM COUNTY DEPARTMENT OF HEALTH TOGETHER WITH A COPY OF THE CERTIFICATE OF APPROVAL.
10. THE CONDITIONS NOTED ON THE PUTNAM COUNTY DEPARTMENT OF HEALTH CERTIFICATE OF APPROVAL ARE AN INTEGRAL PART OF THIS SUBDIVISION APPROVAL AND COMPLIANCE IS REQUIRED.
11. THE AREAS DELINEATED FOR PRIMARY AND RESERVE SSTS AREAS ARE TO BE PHYSICALLY MARKED ON THE GROUND AND NO EARTH MOVING OR CONSTRUCTION EQUIPMENT, BUILDING EQUIPMENT OR EXCAVATED EARTH IS TO BE ALLOWED IN THESE AREAS EXCEPT AS REQUIRED FOR CONSTRUCTION OF THE SYSTEM.
12. IT IS THE INTENTION OF THIS PLAN THAT WELLS BE A MINIMUM OF 100 FEET FROM ABSORPTION TRENCHES, EXCEPT WHEN A WELL IS DOWNHILL AND IN DIRECT LINE OF DRAINAGE WITH THE SSTS, THEN THE MINIMUM DISTANCE SHALL BE 200 FEET.
13. FLOW FROM ALL PROPOSED DWELLINGS TO THE SSTS AREAS TO BE BY GRAVITY EXCEPT IF SO STATED IN THE SSTS SCHEDULE.
14. THE SSTS DESIGNS DO NOT PROVIDE FOR THE INSTALLATION OF GARBAGE GRINDERS. SUCH INSTALLATIONS REQUIRE ADDITIONAL DESIGN AND THE APPROVAL OF THE PUTNAM COUNTY DEPARTMENT OF HEALTH.
15. APPROVAL IS HEREWITH GRANTED FOR A TOTAL OF 29 LOTS ONLY, NAMELY LOTS 1 THROUGH 29 AND THESE LOTS ONLY.
16. NO CUT IS PERMITTED WITHIN 10 FEET OF A SSTS AREA.
17. NO ABSORPTION TRENCH TO BE LESS THAN 100 FEET FROM ANY LAKE, STREAM OR WATER COURSE.
18. ALL EXISTING AND/OR PROPOSED SSTS AREAS AND WELLS ON NEIGHBORING PROPERTIES WITHIN 200 FEET OF THE PROPOSED SUBDIVISION SSTS ARE SHOWN ON THIS PLAT.



RESIDENTIAL CLUSTER DEVELOPMENT BULK SCHEDULE

RESIDENTIAL CLUSTER DEVELOPMENT	PROPOSED	PROVIDED (MIN.)
MIN. LOT AREA (AC)	.19	.19
(SF)	8,200	8,260
MIN. LOT FRONTAGE (LF)	50	72
MIN. LOT WIDTH (FT)	30	72
MIN. LOT DEPTH (FT)	60	115
MINIMUM YARDS/SETBACKS		
FRONT (FT)	15	17
SIDE (FT)	10	15
REAR (FT)	50	50
MAX. BLDG. HEIGHT (FT)	35	< 35
MAX. LOT COVERAGE (%)	35	< 35

SCHEDULE of AREAS:

AREA OF R.O.W. =	2.52 AC
CLUSTER UNITS TOTAL LOT AREA =	6.13 AC
UTILITY PARCELS TOTAL AREA =	8.52 AC
OPEN SPACE AREA =	84.54 AC
TOTAL SITE AREA =	106.51 AC

CARMEL PLANNING BOARD APPROVAL

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE TOWN OF CARMEL, NEW YORK, ON THE ______ DAY OF __________ 20____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS ______ DAY OF __________ , 20____ , BY

CHAIRMAN

TABLE OF EASEMENTS

ESMT	TYPE	GRANTEE	LOTS ENCUMBERED BY EASEMENT
A	DRAINAGE & WATER	TOWN OF CARMEL & CARMEL WATER DISTRICT (CWD) #8	UTILITY PARCEL A
B	DRAINAGE	TOWN OF CARMEL	UTILITY PARCEL A
C	DRAINAGE	TOWN OF CARMEL	OPEN SPACE PARCEL D
D	DRAINAGE & WATER	TOWN OF CARMEL & CWD #8	UTILITY PARCEL B, OPEN SPACE PARCEL D, LOTS 17, 18, 24, 25
E	DRAINAGE	RANDOM RIDGE HOME OWNERS ASSOCIATION	LOTS 12, 13, 14, 15, 16, 17, 18, 20, 21, 22, UTILITY PARCEL C
F	DRAINAGE	RANDOM RIDGE HOME OWNERS ASSOCIATION	LOTS 25, 26, 27, 28, 29
G	DRAINAGE	TOWN OF CARMEL	OPEN SPACE PARCEL D, LOT 7
H	DRAINAGE	TOWN OF CARMEL	OPEN SPACE PARCEL D, LOTS 3, 8
I	SEWAGE DISPOSAL	RANDOM RIDGE HOME OWNERS ASSOCIATION	LOT 9
J	DRAINAGE	RANDOM RIDGE HOME OWNERS ASSOCIATION	LOT 1

PRELIMINARY SUBDIVISION PLAN

GRAPHIC SCALE

1 INCH = 80 FEET

PUTNAM ENGINEERING PLLC
ENGINEERS - ARCHITECTS
4 OLD ROUTE 6, BREWSTER, NEW YORK 10509
(845) 279-6789 FAX (845) 279-6784

NO.	DATE	DESCRIPTION
1	11 DEC 14	GENERAL PLAN / PROFILE REVISIONS
2	15 APR 15	REV. PER TC / PCHD REVIEW
3	24 APR 15	REV. PER TC / PB / CP REVIEW
4	24 JUN 15	PROGRESS PRINT TO CONTRACTOR
5	24 JUN 15	PCHD SUBMISSION
6	24 JUN 15	UPDATED DRAWING LIST
7	28 JUL 15	REVISED PER PCHD/PCDPW COMMENTS
8	30 JUL 15	REVISED PER PCDPW COMMENTS
9	24 MAR 16	REV. PER ROAD COMMENTS
10	25 APR 16	REV. PER PCDPW COMMENTS
11	28 APR 16	REV. PER PCDPW COMMENTS
12	25 MAY 16	RELOCATED WATER AND SEWER LINES
13	10 OCT 16	CHANGE TO DTL. REGS.
14	1 NOV 16	

PURSUANT TO NEW YORK STATE EDUCATION LAW, ARTICLE 145, SECTION 7209, SUBDIVISION 2, IT IS A VIOLATION OF THIS LAW FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ENGINEER IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

PROJECT: RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:

RANDOM RIDGE
KENNICUT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK

DATE	SEPT. 5, 2014
PROJECT MANAGER	PHE
DRAWN BY	RB
CHECKED BY	PHE
SCALE	AS NOTED

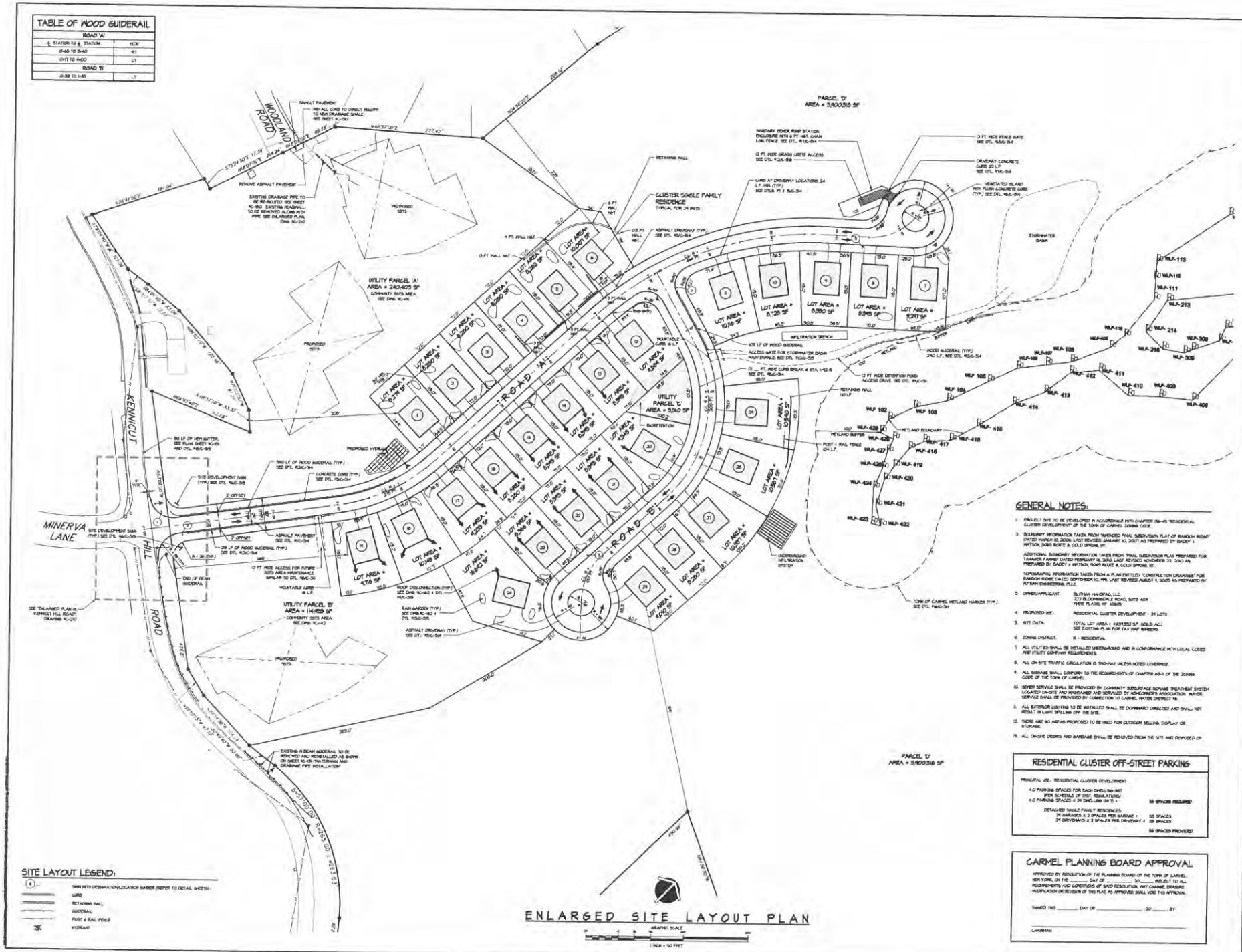
DRAWING: **AMENDED SUBDIVISION PLAN**

PROJECT NUMBER: 513

DRAWING NUMBER: **C-110**

SHEET 5 OF 54

TABLE OF WOOD GUIDERAIL	
ROAD 'A'	
℄ STATION TO ℄ STATION	SIDE
0+40 TO 3+40	RT
0+77 TO 4+00	LT
ROAD 'B'	
0+38 TO 1+85	LT



GENERAL NOTES:

1. PROJECT SITE TO BE DEVELOPED IN ACCORDANCE WITH CHAPTER 156-45 "RESIDENTIAL CLUSTER DEVELOPMENT" OF THE TOWN OF CARMEL ZONING CODE.
3. BOUNDARY INFORMATION TAKEN FROM "AMENDED FINAL SUBDIVISION PLAT OF RANDOM RIDGE" DATED MARCH 10, 2006, LAST REVISED JANUARY 10, 2007 AS PREPARED BY BADEY & WATSON, 5065 ROUTE 9, GOLD SPRING, NY.

   ADDITIONAL BOUNDARY INFORMATION TAKEN FROM "FINAL SUBDIVISION PLAT PREPARED FOR TANAKER FARMS" DATED FEBRUARY 16, 2010, LAST REVISED NOVEMBER 22, 2010 AS PREPARED BY BADEY & WATSON, 5065 ROUTE 9, GOLD SPRING, NY.

   TOPOGRAPHIC INFORMATION TAKEN FROM A PLAN ENTITLED "CONSTRUCTION DRAWINGS" FOR RANDOM RIDGE DATED SEPTEMBER 10, 1996, LAST REVISED AUGUST 4, 2005 AS PREPARED BY PUTNAM ENGINEERING, PLLC.
5. OWNER/APPLICANT: SILITHIAN MANOR, LLC
   227 BLOOMINGDALE ROAD, SUITE 404
   WHITE PLAINS, NY 10605
4. PROPOSED USE: RESIDENTIAL CLUSTER DEVELOPMENT - 24 LOTS
5. SITE DATA: TOTAL LOT AREA = 169,953 S.F. (3.9 AC.)
   SEE EXISTING PLAN FOR TAX MAP NUMBERS
6. ZONING DISTRICT: R - RESIDENTIAL
7. ALL UTILITIES SHALL BE INSTALLED UNDERGROUND AND IN CONFORMANCE WITH LOCAL CODES AND UTILITY COMPANY REQUIREMENTS.
8. ALL ON-SITE TRAFFIC CIRCULATION IS TWO-WAY UNLESS NOTED OTHERWISE.
9. ALL SIGNAGE SHALL CONFORM TO THE REQUIREMENTS OF CHAPTER 68-9 OF THE ZONING CODE OF THE TOWN OF CARMEL.
10. SEWER SERVICE SHALL BE PROVIDED BY COMMUNITY SUBSURFACE SEWAGE TREATMENT SYSTEM LOCATED ON-SITE AND MAINTAINED AND SERVICED BY HOMEOWNER'S ASSOCIATION. WATER SERVICE SHALL BE PROVIDED BY CONNECTION TO CARMEL WATER DISTRICT #8.
11. ALL EXTERIOR LIGHTING TO BE INSTALLED SHALL BE DOWNWARD DIRECTED AND SHALL NOT RESULT IN LIGHT SPILLING OFF THE SITE.
12. THERE ARE NO AREAS PROPOSED TO BE USED FOR OUTDOOR SELLING, DISPLAY OR STORAGE.
13. ALL ON-SITE DEBRIS AND GARBAGE SHALL BE REMOVED FROM THE SITE AND DISPOSED OF

RESIDENTIAL CLUSTER OFF-STREET PARKING

PRINCIPAL USE: RESIDENTIAL CLUSTER DEVELOPMENT

4.0 PARKING SPACES FOR EACH DWELLING UNIT (PER SCHEDULE OF DIST. REGULATIONS)	
4.0 PARKING SPACES x 24 DWELLING UNITS =	96 SPACES REQUIRED
DETACHED SINGLE FAMILY RESIDENCES:	
24 GARAGES x 2 SPACES PER GARAGE =	48 SPACES
24 DRIVEWAYS x 2 SPACES PER DRIVEWAY =	48 SPACES
	96 SPACES PROVIDED

CARMEL PLANNING BOARD APPROVAL

APPROVED BY RESOLUTION OF THE PLANNING BOARD OF THE TOWN OF CARMEL, NEW YORK, ON THE _____ DAY OF _____, 20_____, SUBJECT TO ALL REQUIREMENTS AND CONDITIONS OF SAID RESOLUTION. ANY CHANGE, ERASURE, MODIFICATION OR REVISION OF THIS PLAT, AS APPROVED, SHALL VOID THIS APPROVAL.

SIGNED THIS _____ DAY OF _____, 20_____, BY:

_____
CHAIRMAN

SITE LAYOUT LEGEND:

- (#) - SIGN WITH DESIGNATION/LOCATION NUMBER (REFER TO DETAIL SHEETS)
- LIGHT
- RETAINING WALL
- GUIDERAIL
- POST & RAIL FENCE
- HYDRANT

ENLARGED SITE LAYOUT PLAN

GRAPHIC SCALE
1 INCH = 50 FEET

PUTNAM ENGINEERING PLLC
ENGINEERS - ARCHITECTS
4 OLD ROUTE 9, BREWSTER, NEW YORK, 10509
(845) 279-0304 FAX (845) 279-8194

REVISIONS

NO.	DATE	DESCRIPTION
1	3-11-14	REVISED PER TOWN COMMENTS
2	4-14-14	REVISED PER TOWN COMMENTS
3	5-12-14	REVISED PER TOWN COMMENTS
4	6-16-14	REVISED PER TOWN COMMENTS
5	7-21-14	REVISED PER TOWN COMMENTS
6	8-18-14	REVISED PER TOWN COMMENTS
7	9-15-14	REVISED PER TOWN COMMENTS
8	10-6-14	REVISED PER TOWN COMMENTS
9	10-20-14	REVISED PER TOWN COMMENTS
10	11-17-14	REVISED PER TOWN COMMENTS
11	12-15-14	REVISED PER TOWN COMMENTS
12	1-12-15	REVISED PER TOWN COMMENTS
13	2-16-15	REVISED PER TOWN COMMENTS
14	3-16-15	REVISED PER TOWN COMMENTS
15	4-13-15	REVISED PER TOWN COMMENTS

PROJECT: RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:
RANDOM RIDGE
KENNICUT HILL ROAD
TOWN OF CARMEL
PUTNAM COUNTY, NEW YORK

DATE: SEPT. 3, 2014
PROJECT MANAGER: PAL
DRAWN BY: PM
CHECKED BY: PAL
SCALE: AS NOTED

DRAWING: ENLARGED SITE LAYOUT PLAN

PROJECT NUMBER: 2008
DRAWING NUMBER: C-120

SHEET 4 OF 34

DRAINAGE STRUCTURE SIZE TABLE

DRAIN No.	SIZE (I.D. - LENGTH x WIDTH OR INTERNAL DIA.)
DMH # 1, 2, 4, 5, 6, 7, 10, 11, 12, 13 14	5'-0"#
CB #2, 6 & 14	4'-0" x 4'-0"
CB #3	5'-0" x 5'-0"

UNLESS NOTED ABOVE, THE TYPICAL SIZE FOR A CATCH BASIN SHALL BE 5'-0" X 4'-0" I.D. AND A DRAINAGE MANHOLE SHALL BE 4'-0" I.D.

DRAINAGE STRUCTURE SCHEDULE LEGEND
CB - CATCH BASIN
CD - CURTAIN DRAIN
DMH - DRAINAGE MANHOLE
ES - END SECTION
FD - FOOTING DRAIN
HW - HEADWALL
OS - OUTLET OR OVERFLOW STRUCTURE
RD - ROOF DRAIN
YD - YARD DRAIN

GRADING & DRAINAGE LEGEND:

	EXISTING CONTOUR		PROPOSED DRAINAGE LINE
	PROPOSED CONTOUR		EXISTING DRAINAGE LINE
	PROPOSED SPOT ELEVATION		PROPOSED END SECTION
	PROPOSED OUTLET STRUCTURE		RIP RAP
	PROPOSED CATCH BASIN		EXISTING WATER MAIN
	EXISTING CATCH BASIN		CHECK DAM
	PROPOSED DRAINAGE MANHOLE		

GRADING & DRAINAGE PLAN

GRAPHIC SCALE
1 INCH = 50 FEET

GRADING NOTES:

1. BOUNDARY INFORMATION TAKEN FROM "AMENDED FINAL SUBDIVISION PLAT OF RANDOM RIDGE" DATED MARCH 13, 2006, LAST REVISED JANUARY 10, 2007 AS PREPARED BY BADEY & WATSON, 3063 ROUTE 9, COLD SPRING, NY

   ADDITIONAL BOUNDARY INFORMATION TAKEN FROM "FINAL SUBDIVISION PLAT PREPARED FOR TANAGER FARMS" DATED FEBRUARY 16, 2010 LAST REVISED NOVEMBER 22, 2010 AS PREPARED BY BADEY & WATSON.

   TOPOGRAPHIC INFORMATION TAKEN FROM A PLAN ENTITLED "CONSTRUCTION DRAWINGS" FOR RANDOM RIDGE DATED SEPTEMBER 10, 1998 LAST REVISED AUGUST 9, 2005 AS PREPARED BY PUTNAM ENGINEERING, PLLC.

2. PROVIDE 4" MINIMUM TOPSOIL, WITH SEED AND MULCH AT ALL DISTURBED AREAS.
3. CONTOUR INTERVAL = 2 FOOT. VERTICAL DATUM = NATIONAL GEODETIC SURVEY STANDARD VERTICAL DATUM OF 1929.
4. IF EXPLOSIVES ARE REQUIRED FOR BLASTING THEY SHALL BE OF SUCH CHARACTER AND STRENGTH AND IN SUCH AMOUNT AS IS PERMITTED BY THE STATE AND LOCAL LAWS AND ORDINANCES AND ALL RESPECTIVE AGENCIES HAVING JURISDICTION OVER THEM.

CONTRACTOR INSTALLATION- SEWER/WATER & DRAINAGE NOTES:

1. THE CONTRACTOR IS TO SET ALL STRUCTURES THAT ARE IN ROAD "A" AND "B" AT BINDER ELEVATION IN ORDER TO COMPLY WITH THE SWPPP. ALL STRUCTURES- DMH, SMH, VALVE COVERS ARE TO BE RAISED USING RINGS WHEN TIME COMES FOR TOP COAT ASPHALT. CB FRAME AND GRATES WILL HAVE TO BE MANUALLY RESET AT FINISH GRADE.

DRAINAGE STRUCTURE SCHEDULE

DRAIN NO.	EXIST. CB WOODLAND RD	ES #5	HW #2	CB #5	CB #6	DMH #1	DMH #2	DMH #3	DMH #4	DMH #5	DMH #6	YD #2
TYPE	CB	ES	HW	CB	CB	DMH	DMH	DMH	DMH	DMH	DMH	YD
DOWN STREAM DR. NO.	ES #5	—	CB #5	CB #6	DMH #1	DMH #2	DMH #3	DMH #4	DMH #5	DMH 6	DMH #7	DMH #10
LENGTH (LF)	51	—	81	125	48	99	171	158	151	101	104	30
T.G. / RIM	761.40	—	—	759.30	730.50	730.80	730.00	721.00	713.25	708.50	709.00	656.75
INV. IN / DR#	759.25	—	—	734.50/HW2	726.50/CB5	725.40/CB6	724.25/DMH1	717.40/DMH2	706.75/DMH3	705.00/DMH #4	703.75/DMH5	—
INV. IN / DR#	—	—	—	—	—	—	—	—	—	—	—	—
INV. OUT / DR#	759.05/ES5	756.50	745.00/CB5	733.25/CB6	726.40/DMH1	725.25/DMH2	724.00/DMH3	715.25/DMH4	706.50/DMH5	704.75/DMH6	703.50/DMH7	655.75/DMH10
STATION	—	—	21+74	2+16	19+84	18+06	0+55	3+68	4+20	—	—	—
OFFSET	—	—	27 R	18 R	15 R	31' R	44' L	35' L	21' L	—	—	—

DRAINAGE STRUCTURE SCHEDULE

DRAIN NO.	ES #7	DMH #7	DMH #8	DMH #20	CB #1	CB #2	CB #3	CB #4	CB #5	CB #6	YD #3	DMH #9	CB #7	CB #8	CB #9	CB #10	YD #5	DMH #10	ES #6
TYPE	ES	DMH	DMH	DMH	CB	CB	CB	CB	CB	CB	YD	DMH	CB	CB	CB	CB	YD	DMH	ES
DOWNSTREAM DR. NO.	—	DMH #8	DMH #20	DMH #21	CB #2	CB #3	CB #5	CB #5	DMH #9	CB #5	DMH #9	CB #7	CB #8	CB #11	DMH #11	CB #9	DMH #10	DMH #11	—
LENGTH (LF)	—	54	224	125	40	112	80	18	102	18	41	58	20	18	48	22	56	4	—
T.G. / RIM	—	707.00	699.78	684.25	748.84	744.84	728.49	728.49	718.04	718.04	708.50	708.25	699.75	699.75	684.00	688.42	687.00	687.00	—
INV. IN / DR#	—	700.50/DMH6	695.10/DMH7	683.50/DMH20	—	741.84/CB1	725.99/CB2	—	714.54/CB5	—	—	705.25/YD3	696.50/CB8	—	684.25/CB11	—	—	680.75/YD5	—
INV. IN / DR#	—	—	—	—	—	—	725.99/CB4	—	714.54/CB6	—	—	704.25/CB8	694.50/DMH9	—	685.00/CB10	—	—	—	—
INV. OUT / DR#	681.20	695.50/DMH8	695.60/DMH20	685.40/DMH21	745.84/CB2	741.14/CB3	725.74/CB5	730.50/CB5	715.74/DMH9	715.00/CB5	705.75/DMH9	703.00/CB7	694.25/CB8	698.75/CB7	684.00/DMH11	685.40/CB9	684.00/DMH10	680.50/DMH11	766.00
STATION	—	—	8+01	3+84	0+26	0+26	2+00	2+00	8+75	8+75	4+47	4+85	6+45	6+45	8+81	8+12	9+05	9+60	—
OFFSET	—	—	35 R	20' L	22 R	22 L	12' R	12' R	17 L	12' R	30' L	11' L	12' L	12' R	12' L	12' R	56' L	25' L	—

DRAINAGE STRUCTURE SCHEDULE

DRAIN NO.	DMH #1	CB #1	CB #2	CB #3	CB #4	DMH #2	DMH #3	DMH #4	ES #1	OS #1	ES #5	OS #2	DMH #5	DMH #6	ES #4	YD #4	DMH #20	OS #3	DMH #7A	DMH #2	OS #5	DMH #8	DMH #9	ES #2
TYPE	DMH	CB	CB	CB	CB	DMH	DMH	DMH	ES	OS	ES	YD	DMH	DMH	ES	YD	DMH	OS	DMH	DMH	OS	DMH	DMH	ES
DOWN STREAM DR. NO.	CB #1	CB #2	CB #3	CB #4	DMH #2	DMH #3	DMH #4	ES #1	—	ES #5	—	DMH #5	DMH #6	ES #4	—	DMH #20	OS #3	DMH #7A	DMH #8	DMH #20	DMH #10	DMH #9	ES #2	—
LENGTH (LF)	154	154	8	54	109	32	24	10	—	75	—	24	68	15	—	301	114	30	114	80	58	38	87	—
T.G. / RIM	684.00	676.25	676.25	671.18	671.50	684.00	684.00	644.00	—	645.50	—	664.75	671.80	672.25	—	704.00	684.00	680.42	682.00	662.50	660.00	662.00	652.00	—
INV. IN / DR#	680.00/CB1	672.75/CB2	—	667.14/CB3	662.38/CB5	661.25/CB4	655.25/DMH2	645.00/DMH3	—	SEE DETAIL RSC-51	—	—	662.05/OS2	658.50/DMH5	—	—	680.00/YD4	672.25/DMH20	671.50/OS3	662.15/DMH20	—	655.25/OS5 655.50/DMH7A 655.25/YD2	647.00/DMH8	—
INV. IN / DR#	680.00/DMH0	672.25/DMH8	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
INV. OUT / DR#	679.75/CB1	670.75/CB3	675.25/CB5	663.16/CB4	662.50/DMH2	658.00/DMH3	648.00/DMH4	644.75/ES1	644.50	651.50/ES5	655.00	665.00/DMH6	661.05/DMH6	658.25/ES4	654.00	705.00/DMH20	675.25/OS5	672.00/DMH7A	671.25/DMH8	662.00/ES7	656.75/DMH8	655.00/DMH9	646.50/ES2	645.00
STATION	9+60	11+15	11+15	12+75	12+75	—	—	—	—	—	—	12+44	13+04	12+80	—	—	—	1+75	1+81	—	—	—	—	—
OFFSET	11' L	12' L	12' R	23' L	16 R	—	—	—	—	—	—	37' L	15' L	51' R	—	—	—	47 R	38' L	—	—	—	—	—

PUTNAM ENGINEERING, PLLC
ENGINEERS - ARCHITECTS
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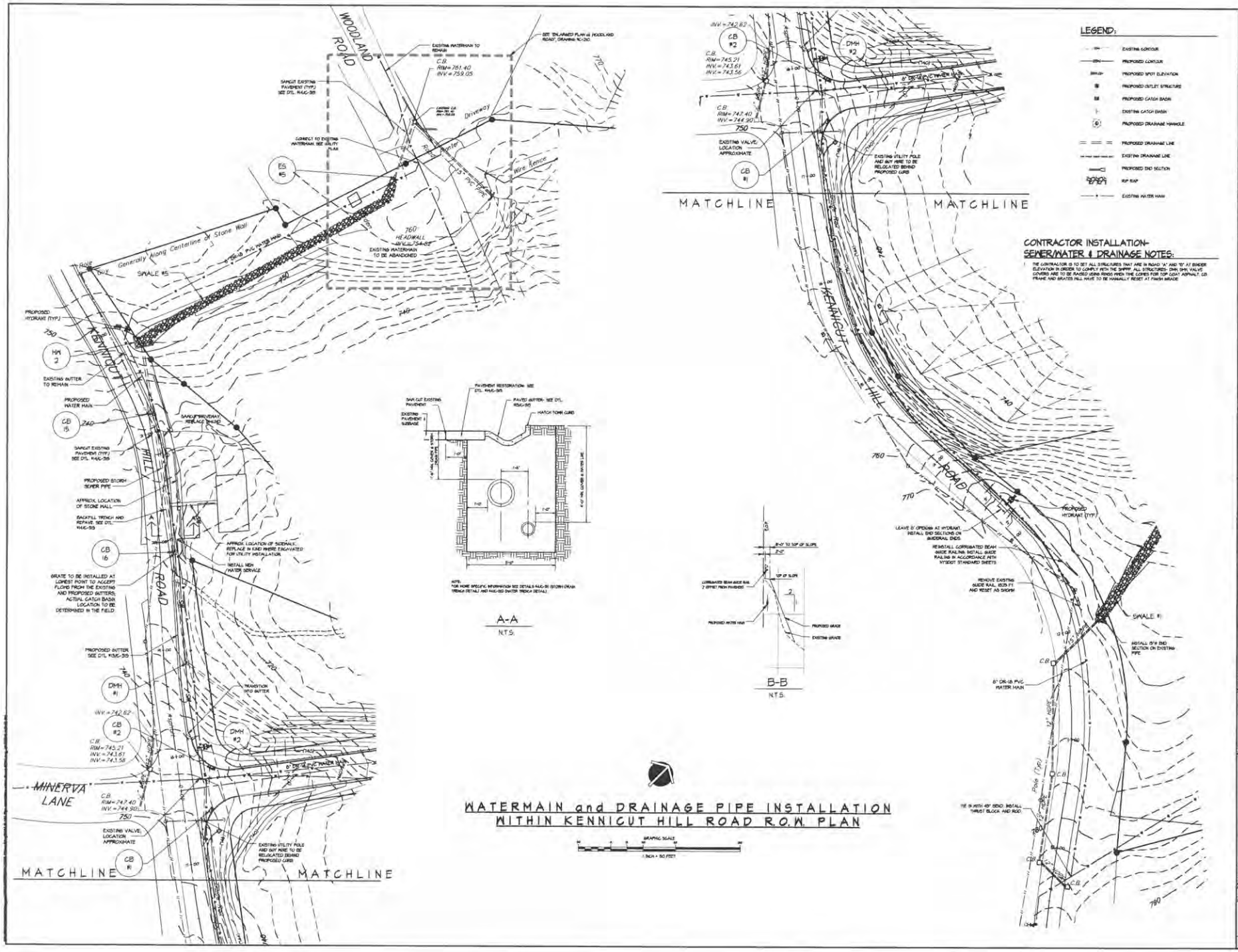
(845) 279-6709 FAX (845) 279-6704

RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:
RANDOM RIDGE
KENNICUT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK

DATE: SEPT. 5, 2014
PROJECT MANAGER: PHL
DRAWN BY: PB
CHECKED BY: PHL
SCALE: AS NOTED

DRAWING: AMENDED GRADING and DRAINAGE PLAN

PROJECT NUMBER: 805
DRAWING NUMBER: C-130
SHEET 5 OF 34



PUTNAM ENGINEERING
ENGINEERS - ARCHITECTS
4 OLD ROUTE 6, BREWSTER, NEW YORK 10509
(845) 279-4394 FAX (845) 279-4394

REVISIONS

					DESCRIPTION
1	12.18.14	GENERAL CLEAR, PROVIDE TO REVISIONS	PN	12.18.14	NO. PN REVISIONS
2	8.4.14	90' PVC & 1" PVC-PVCO	DP	8.4.14	NO. PN REVISIONS
3	8.4.14	90' PVC & 1" PVC-PVCO	DP	8.4.14	NO. PN REVISIONS
4	8.4.14	90' PVC & 1" PVC-PVCO	DP	8.4.14	NO. PN REVISIONS
5	7.31.14	PVC-PVCO & 1" PVC-PVCO	DP	7.31.14	NO. PN REVISIONS
6	7.31.14	PVC-PVCO & 1" PVC-PVCO	DP	7.31.14	NO. PN REVISIONS
7	3.4.14	PVC-PVCO	DP	3.4.14	NO. PN REVISIONS
8	3.4.14	REVISED DRAWING 3/4"	DP	3.4.14	NO. PN REVISIONS
9	3.3.14	REVISED DRAWING 3/4"	DP	3.3.14	NO. PN REVISIONS
10	3.3.14	REVISED DRAWING 3/4"	DP	3.3.14	NO. PN REVISIONS

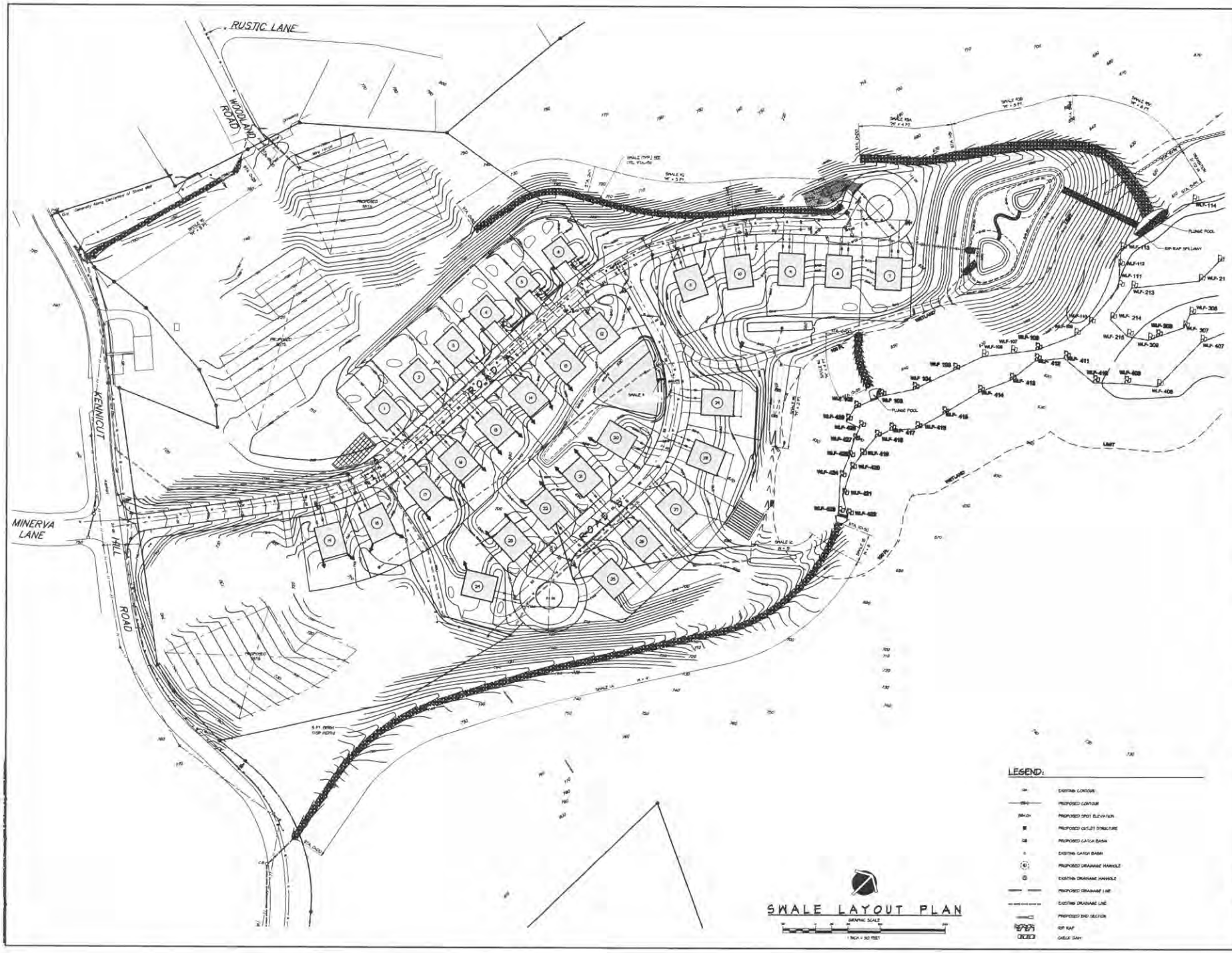
PROJECT: RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:
RANDOM RIDGE
KENNICUT HILL ROAD
TOWN OF CARMEL
PUTNAM COUNTY, NEW YORK

DATE: SEPT. 2, 2014
PROJECT MANAGER: PN
DRAWN BY: PN
CHECKED BY: PN
SCALE: AS NOTED

DRAWING: WATERMAIN and DRAINAGE PIPE INSTALLATION WITHIN KENNICUT HILL ROAD R.O.W. PLAN

PROJECT NUMBER: 520
DRAWING NUMBER: C-131

SHEET 8 OF 34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KENNICUT HILL ROAD
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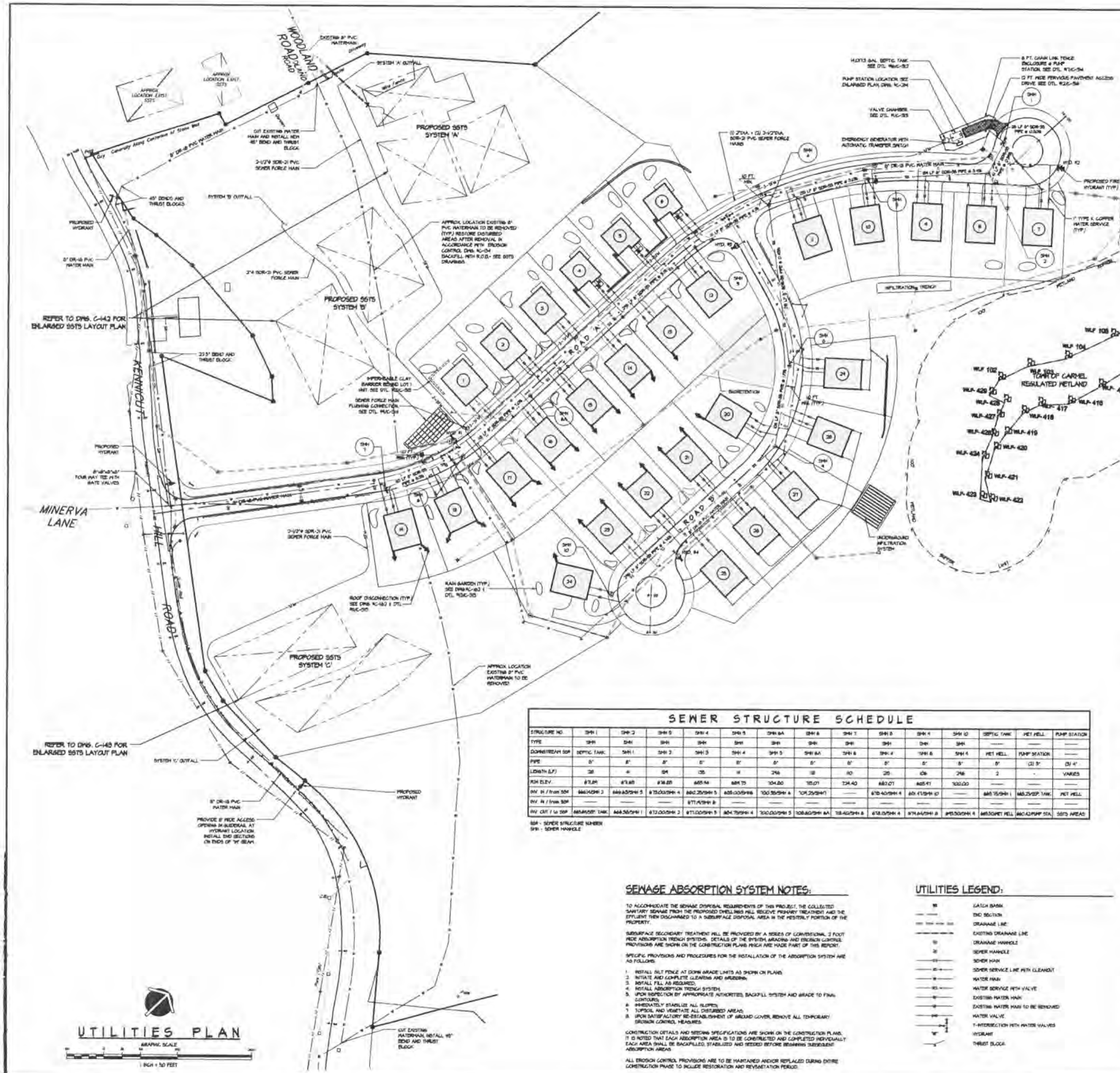
LEGEND:
EXISTING CONTOUR
PROPOSED CONTOUR
PROPOSED SPOT ELEVATION
PROPOSED OUTLET STRUCTURE
PROPOSED CATCH BASIN
EXISTING CATCH BASIN
PROPOSED DRAINAGE MANHOLE
EXISTING DRAINAGE MANHOLE
PROPOSED DRAINAGE LINE
EXISTING DRAINAGE LINE
PROPOSED END SECTION
RIP RAP
CHECK DAM
SWALE LAYOUT PLAN
GRAPHIC SCALE
1 INCH = 30 FEET
PUTNAM ENGINEERING PLLC
ENGINEERS - ARCHITECTS
4 OLD ROUTE 6, BREWSTER, NEW YORK 10509
(845) 279-9126 FAX (845) 279-4184
REVISIONS
PROJECT
RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:
RANDOM RIDGE
KENNICUT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK
DATE SEPT. 3, 2014
PROJECT MANAGER PML
DRAWN BY
CHECKED BY PML
SCALE AS NOTED
DRAWING
SWALE LAYOUT PLAN
PROJECT NUMBER 001
DRAWING NUMBER
C-132
SHEET 7 OF 84



SEWER STRUCTURE SCHEDULE														
STRUCTURE NO.	SMH 1	SMH 2	SMH 3	SMH 4	SMH 5	SMH 6A	SMH 6	SMH 7	SMH 8	SMH 9	SMH 10	SEPTIC TANK	WET WELL	PUMP STATION
TYPE	SMH	SMH	SMH	SMH	SMH	SMH	SMH	SMH	SMH	SMH	SMH	—	—	—
DOWNSTREAM SSN	SEPTIC TANK	SMH 1	SMH 2	SMH 3	SMH 4	SMH 5	SMH 6A	SMH 6	SMH 4	SMH 8	SMH 9	WET WELL	PUMP STATION	—
PIPE	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	8"	(2) 3"	(3) 4"
LENGTH (LF)	28	41	84	135	91	296	18	110	25	106	296	2	-	VARIES
RIM ELEV.	671.89	673.65	678.85	685.94	689.75	704.00	705.07	724.40	682.07	685.41	700.00	—	—	—
INV. IN / from SSN	666.14/SMH 2	669.63/SMH 3	675.00/SMH 4	682.25/SMH 5	685.00/SMH 6	700.35/SMH 6	701.25/SMH 7	—	678.40/SMH 9	681.47/SMH 10	—	665.75/SMH 1	665.25/SEP. TANK	WET WELL
INV. IN / from SSN	—	—	—	677.15/SMH 8	—	—	—	—	—	—	—	—	—	—
INV. OUT / to SSN	665.89/SEP. TANK	668.38/SMH 1	672.00/SMH 2	677.00/SMH 3	684.75/SMH 4	700.00/SMH 5	708.60/SMH 6A	718.40/SMH 6	678.13/SMH 4	679.64/SMH 8	695.50/SMH 9	665.50/WET WELL	660.42/PUMP STA.	SSTS AREAS

SSN - SEWER STRUCTURE NUMBER
SMH - SEWER MANHOLE

SEWAGE ABSORPTION SYSTEM NOTES:

TO ACCOMMODATE THE SEWAGE DISPOSAL REQUIREMENTS OF THIS PROJECT, THE COLLECTED SANITARY SEWAGE FROM THE PROPOSED DWELLINGS WILL RECEIVE PRIMARY TREATMENT AND THE EFFLUENT THEN DISCHARGED TO A SUBSURFACE DISPOSAL AREA IN THE WESTERLY PORTION OF THE PROPERTY.

SUBSURFACE SECONDARY TREATMENT WILL BE PROVIDED BY A SERIES OF CONVENTIONAL 2 FOOT WIDE ABSORPTION TRENCH SYSTEMS. DETAILS OF THE SYSTEM, GRADING AND EROSION CONTROL PROVISIONS ARE SHOWN ON THE CONSTRUCTION PLANS WHICH ARE MADE PART OF THIS REPORT.

SPECIFIC PROVISIONS AND PROCEDURES FOR THE INSTALLATION OF THE ABSORPTION SYSTEM ARE AS FOLLOWS:

1. INSTALL SILT FENCE AT DOWN GRADE LIMITS AS SHOWN ON PLANS;
2. INITIATE AND COMPLETE CLEARING AND GRUBBING;
3. INSTALL FILL AS REQUIRED;
4. INSTALL ABSORPTION TRENCH SYSTEM;
5. UPON INSPECTION BY APPROPRIATE AUTHORITIES, BACKFILL SYSTEM AND GRADE TO FINAL CONTOURS;
6. IMMEDIATELY STABILIZE ALL SLOPES;
7. TOPSOIL AND VEGETATE ALL DISTURBED AREAS;
8. UPON SATISFACTORY RE-ESTABLISHMENT OF GROUND COVER, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES.

CONSTRUCTION DETAILS AND SEEDING SPECIFICATIONS ARE SHOWN ON THE CONSTRUCTION PLANS. IT IS NOTED THAT EACH ABSORPTION AREA IS TO BE CONSTRUCTED AND COMPLETED INDIVIDUALLY. EACH AREA SHALL BE BACKFILLED, STABILIZED AND SEEDED BEFORE BEGINNING SUBSEQUENT ABSORPTION AREAS.

ALL EROSION CONTROL PROVISIONS ARE TO BE MAINTAINED AND/OR REPLACED DURING ENTIRE CONSTRUCTION PHASE TO INCLUDE RESTORATION AND REVEGETATION PERIOD.

UTILITIES LEGEND:

Symbol	Description
	CATCH BASIN
	END SECTION
	DRAINAGE LINE
	EXISTING DRAINAGE LINE
	DRAINAGE MANHOLE
	SEWER MANHOLE
	SEWER MAIN
	SEWER SERVICE LINE WITH CLEANOUT
	WATER MAIN
	WATER SERVICE WITH VALVE
	EXISTING WATER MAIN
	EXISTING WATER MAIN TO BE REMOVED
	WATER VALVE
	T-INTERSECTION WITH WATER VALVES
	HYDRANT
	THRUST BLOCK

STANDARD NOTES FOR A COMMERCIAL SSTS:

1. SSTS AREA TO BE FIELD STAKED AND CORDONED TO PREVENT THE OPERATION OF TRUCKS AND/OR MACHINERY OR STORAGE OF HEAVY EQUIPMENT, BUILDING EQUIPMENT, OR EXCAVATED EARTH IN THIS AREA.
2. SSTS SYSTEM TO BE INSPECTED BY THE DESIGN PROFESSIONAL AND THE PUTNAM COUNTY HEALTH DEPARTMENT AFTER INSTALLATION AND PRIOR TO BACKFILL.
3. N.A.
4. PUTNAM COUNTY HEALTH DEPARTMENT APPROVAL IS BASED ON THE LOCATION OF THE SEWAGE SYSTEM, WELL, BUILDING, SETBACKS, ROADS AND DRIVEWAYS AS WELL AS BUILDING SIZE AND USE AS SHOWN ON THE APPROVED DRAWING. ANY MODIFICATIONS OR REVISIONS ARE TO HAVE PRIOR PUTNAM COUNTY HEALTH DEPARTMENT APPROVAL.
5. UNAUTHORIZED MODIFICATIONS MADE TO THIS DRAWING AFTER THE DATE OF PUTNAM COUNTY HEALTH DEPARTMENT APPROVAL VOIDS SAID APPROVAL.
6. PUTNAM COUNTY HEALTH DEPARTMENT APPROVAL IS BASED ON A MAXIMUM FLOW OF 12,160 GALLONS PER DAY. AN INCREASE IN THE FLOW WILL REQUIRE PRIOR APPROVAL FROM THE DEPARTMENT.
7. N.A.
8. THE SSTS IS TO RECEIVE SANITARY WASTES ONLY. THE DISCHARGE OF INDUSTRIAL WASTES, CONTAMINATED COOLING WATER, OR OTHER DELETERIOUS SUBSTANCES INTO OR ONTO THE SURFACE OF THE GROUND IS PROHIBITED. THE PUTNAM COUNTY HEALTH DEPARTMENT RESERVES THE RIGHT OF INSPECTION OF THE PREMISES TO INSURE COMPLIANCE WITH THESE REQUIREMENTS.
9. PUTNAM COUNTY HEALTH DEPARTMENT SHALL BE PROMPTLY NOTIFIED IN THE EVENT THAT ANY WASTES OTHER THAN STRICTLY DOMESTIC SANITARY WASTES ARE PRODUCED AT THIS FACILITY.
10. OCCUPANCY OF THE BUILDING(S) WILL NOT BE PERMITTED UNTIL THE CONSTRUCTION COMPLIANCE APPLICATION HAS BEEN RECEIVED AND APPROVED BY THE PUTNAM COUNTY HEALTH DEPARTMENT AND FORWARDED TO THE BUILDING INSPECTOR OF THE RESPECTIVE MUNICIPALITY AS PART OF THE CERTIFICATE OF OCCUPANCY APPLICATION.
11. AFTER BACKFILLING THE SYSTEM, THE SSTS AREA SHALL BE COVERED WITH A MINIMUM OF 6 INCHES OF TOP SOIL, SEEDED AND MULCHED.
12. REMOVE ALL TREES WITHIN 10 FEET OF THE ABSORPTION SYSTEM.
13. ALL EXISTING AND/OR PROPOSED SUBSURFACE SEWAGE TREATMENT SYSTEMS AND WELLS ON NEIGHBORING PROPERTIES WITHIN 200 FEET OF PROPOSED SSTS ARE SHOWN ON THIS PLAN.
14. APPROXIMATELY 5,000 C.Y. OF R.O.B. GRAVEL FILL IS REQUIRED OVER THE ABSORPTION FIELD AREAS.
15. CUT OR FILL IS NOT PERMITTED IN THE SEWAGE TREATMENT AREA(S) EXCEPT AS SO SPECIFIED ON THIS PLAN.
16. ALL STONE WALLS IN AND WITHIN 10 FEET OF THE SSTS AREA SHALL BE REMOVED TO THEIR ENTIRE DEPTH AND RESULTING VOID REPLACED WITH SIMILAR ON-SITE SOIL.
17. IF ANY PRE-CAST CONCRETE TANK IS DELIVERED TO THE SITE IN SECTIONS, THEN IT SHALL BE DEMONSTRATED TO THE DEPARTMENT AND/OR CERTIFYING DESIGN PROFESSIONAL THAT THE TANK IS SEALED, WATERTIGHT AND ACCEPTABLE FOR USE. THIS SHALL REQUIRE, AS A MINIMUM, THE FILLING OF THE TANK WITH WATER AND OBSERVING THE WATER LEVEL AFTER A 24-HOUR PERIOD TO DEMONSTRATE IF IT IS IN FACT SEALED, WATERTIGHT AND ACCEPTABLE FOR USE.
18. ALL EROSION CONTROL MEASURES FOR BUILDING(S) AND SSTS(S) ARE TO BE INSTALLED PRIOR TO ANY CONSTRUCTION.
19. THE CONDITIONS NOTED ON THE PUTNAM COUNTY DEPARTMENT OF HEALTH LETTER OF APPROVAL ARE AN INTEGRAL PART OF THIS APPROVAL AND COMPLIANCE IS REQUIRED.
20. THIS PLAN IS APPROVED FOR SEWAGE TREATMENT AND/OR WATER SUPPLY ONLY, AND ALL OTHER PERMITS AND/OR APPROVALS ARE THE RESPONSIBILITY OF THE PERMITTEE.
21. THE PUTNAM COUNTY HEALTH DEPARTMENT APPROVAL EXPIRES TWO (2) YEARS FROM THE DATE ON THE APPROVAL STAMP AND IS REQUIRED TO BE RENEWED ON OR BEFORE THE EXPIRATION DATE. THE APPROVAL IS REVOCABLE FOR CAUSE OR MAY BE AMENDED OR MODIFIED WHEN CONSIDERED NECESSARY BY THE DEPARTMENT.
22. A COPY OF THE BUILDING PLANS ARE TO BE FORWARDED TO THE PUTNAM COUNTY DEPARTMENT OF HEALTH FOR APPROVAL BEFORE ISSUANCE OF A BUILDING PERMIT.

ALTERNATING SSTS FIELD PROCEDURE NOTE:

THE PROPOSED PUMP PIT WILL CONTAIN TWO (2) ALTERNATING PUMPS, CONNECTED TO THREE (3) DISCHARGE PIPES. EACH DISCHARGE PIPE WILL CONTAIN A 3-WAY PLUG VALVE AND EACH PIPE WILL BE DEDICATED TO ONE OF THE ABSORPTION FIELDS (A, B, AND C). A PLUG VALVE WILL BE MANUALLY ROTATED TO BLOCK THE FLOW TO THE RESTING SYSTEM. ONE SYSTEM WILL ALTERNATELY NOT BE USED FOR A PERIOD OF ONE YEAR. THIS CONFIGURATION WILL PRODUCE A RESTING OR RECOVERY PERIOD FOR EACH OF THE TWO (2) SYSTEMS BEING USED AT THAT TIME, OR APPROXIMATELY 8 HOURS.

UTILITIES NOTES:

1. PER NEW YORK STATE LAW, THE CONTRACTOR SHALL CALL THE UNDERGROUND FACILITIES PROTECTIVE ORGANIZATION (UFPO) AT 1-800-962-7962, TWO (2) FULL DAYS PRIOR TO PERFORMING ANY EXCAVATION WORK.
2. ALL UTILITIES SHALL BE INSTALLED UNDERGROUND AND IN CONFORMANCE WITH LOCAL CODES AND UTILITY COMPANY REQUIREMENTS.
3. SEWAGE TO BE DISPOSED OF IN COMMUNITY SSTS AREAS LOCATED ON-SITE AND MAINTAINED AND SERVICED BY A HOMEOWNER'S ASSOCIATION. WATER SERVICE SHALL BE PROVIDED BY CONNECTION TO CARMEL WATER DISTRICT #8.
4. JOINTS IN SANITARY, STORM AND WATER PIPES TO BE OFFSET AT ALL CROSSINGS.
5. WATER MAIN IS TO BE 8 INCH DIA., DR-18 PVC PIPE.
6. MINIMUM COVER OVER WATER MAIN SHALL BE 4'-0".
7. UNLESS INDICATED ON PLAN OTHERWISE, ALL WATER SERVICE CONNECTIONS SHALL BE 1 INCH DIA. COPPER PIPE, TYPE K.
8. A WATER METER SHALL BE INSTALLED FOR EACH BUILDING WITH REMOTE ON EXTERIOR OF THE BUILDING.
9. ALL DWELLINGS SHALL BE EQUIPPED WITH A PRESSURE REDUCING VALVE ON THE WATER SERVICE LINE AFTER IT ENTERS THE BUILDING TO LIMIT THE WORKING PRESSURE TO A MAXIMUM OF 70 PSI.
10. TRACER WIRE (14 GA.) TO BE PLACED IN ALL WATER MAIN TRENCHES AT A DEPTH OF 2'-0" BELOW FINISHED GRADE.
11. GRAVITY SEWER MAIN IS TO BE 8 INCH DIA., SDR-35 PVC PIPE. HOUSE SEWER SERVICE CONNECTION PIPES SHALL BE 4 INCH DIA., SDR-35 PVC WITH 2% MINIMUM SLOPE.
12. MINIMUM COVER OVER SEWER MAIN SHALL BE 3'-0". WHEN COVER OVER SEWER SERVICE CONNECTION TO THE BUILDINGS IS LESS THAN 3'-0", THE PIPE SHALL BE WRAPPED IN INSULATION TO PREVENT FREEZING.
13. SEWER FORCE MAINS SHALL BE SDR-21 PVC PIPE, SIZE AS NOTED ON THE PLAN.
14. MINIMUM COVER OVER SEWER FORCE MAIN SHALL BE 4'-0".
15. EXISTING UTILITIES (VALVE BOXES, MANHOLE FRAMES AND RIMS, CATCH BASIN FRAMES AND GRATES, ETC.) SHALL BE ADJUSTED AS REQUIRED TO MEET NEW FINISHED GRADES.
16. WHERE A 10 FOOT HORIZONTAL SEPARATION BETWEEN WATER AND SANITARY SEWER PIPES CANNOT BE ACHIEVED, 18 INCH VERTICAL SEPARATION SHALL BE PROVIDED.
17. GRAVITY SANITARY MAINS AND SANITARY FORCE MAINS SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM ANY EXISTING OR PROPOSED WATER DISTRIBUTION MAIN.
18. LOCATION OF EXISTING WATERMAIN TAKEN FROM PLANS ENTITLED "CARMEL WATER DISTRICT #8 WATER MAIN REPLACEMENT" PREPARED FOR THE TOWN OF CARMEL, DATED MARCH 30, 2012 AS PREPARED BY MASER CONSULTING, SUITE 105, 1607 ROUTE 300, NEWBURGH, NY. EXACT LOCATIONS TO BE VERIFIED IN FIELD.
19. REFER TO DRAWING NO. C-125 FOR ADDITIONAL FIRE HYDRANT AND WATER VALVE NOTES.

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REVISIONS

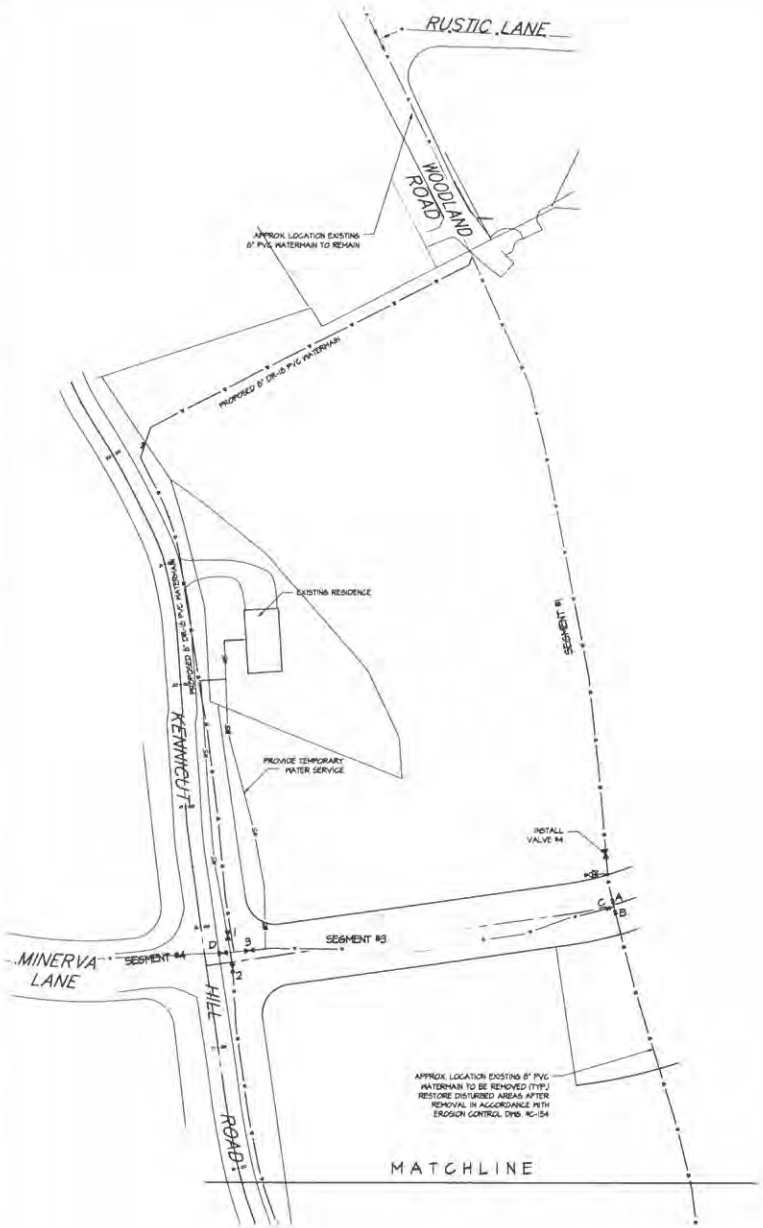
RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR
RANDOM RIDGE
KENNICUT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK

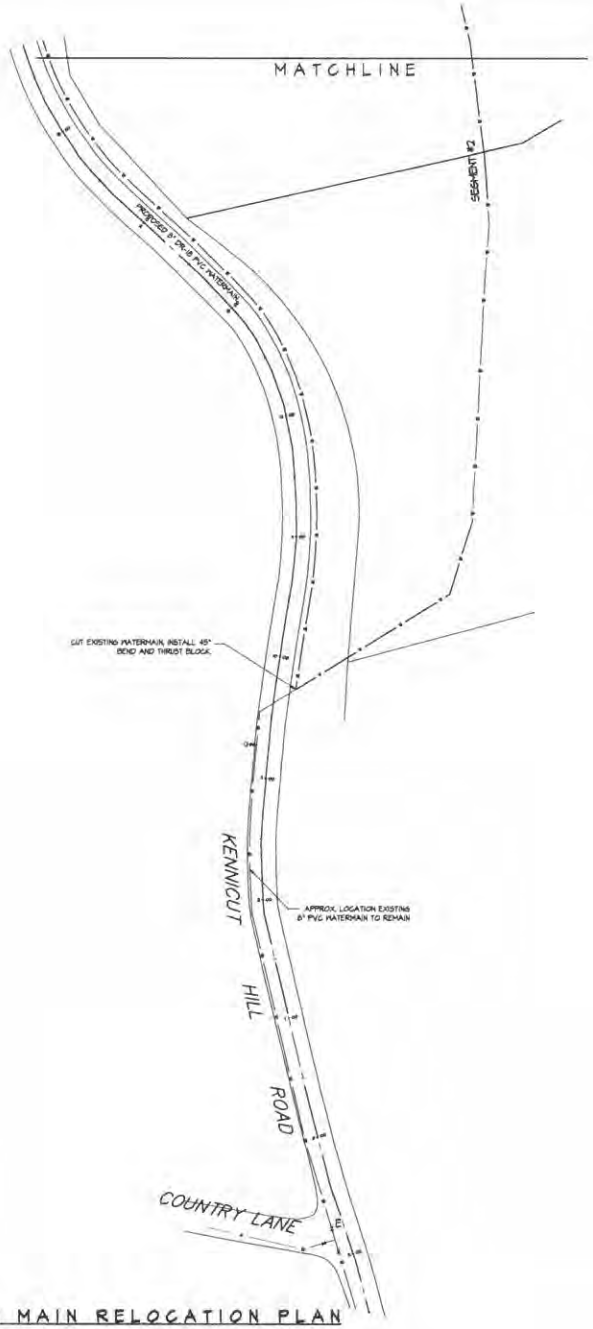
DATE: SEPT. 5, 2014
PROJECT MANAGER: PHL
DRAWN BY: PN
CHECKED BY: PHL
SCALE: AS NOTED

DRAWING: AMENDED UTILITIES PLAN

PROJECT NUMBER: 615
DRAWING NUMBER: C-140

SHEET 8 OF 34





WATER MAIN RELOCATION SEQUENCE:

1. SHUT DOWN SEGMENT #3, CLOSE EXISTING VALVES C & D. PROVIDE TEMPORARY WATER FOR MINERVA LANE RESIDENTS. CONNECT TANKER TRUCK TO HYDRANT LOCATED IN THE MINERVA LANE CUL-DE-SAC.
   A. PROVIDE TEMPORARY SERVICE TO THE RESIDENCE LOCATED IN KENNICUT HILL ROAD (ABOVE GRADE SERVICE) INSTALL NEW CURB STOP IN SEGMENT #3.
   B. CUT EXISTING WATERMAIN AND INSTALL 4 WAY TEE ALONG WITH 2 NEW LENGTHS OF PIPES ALONG KENNICUT HILL ROAD WITH VALVES E & D. CLOSE VALVES, CAP ENDS.
   C. INSTALL NEW VALVE #3 IN SEGMENT #3 TO THE WEST SIDE OF THE TEMPORARY WATER SERVICE. PRESSURE TEST AND CHLORINATE SEGMENT #3.
   D. RE-OPEN SEGMENT #3, FLUSH THE WATERLINE (3+4).
2. INSTALL NEW WATERMAIN FROM WOODLAND ROAD TO MINERVA LANE ALONG WITH DRAINAGE WORK. INSTALL NEW CORPORATION STOP AT RESIDENCE LOCATED ON KENNICUT HILL ROAD. CONTRACTOR TO PROVIDE MAINTENANCE AND PROTECTION OF TRAFFIC PLAN FOR THIS WORK.
   A. CAP END OF NEW WATERMAIN CONSTRUCTION AT WOODLAND ROAD AND TIE INTO PREVIOUSLY INSTALLED STUB AT VALVE #1.
   B. TEST LINES (PRESSURE AND CHLORINATION).
   C. FLUSH.
   D. CLOSE VALVE IN WOODLAND ROAD AT THE INTERSECTION WITH RUSTIC LANE AND VALVE LOCATED IN SEGMENT #1 (A) TO ALLOW FOR TIE IN. CLOSE VALVES B & C.
   E. OPEN HYDRANT AND DRAIN LINE. ADD VALVE #4 AS SHOWN. VALVE #4 TO BE CLOSED.
   F. CUT EXISTING WATERMAIN AT WOODLAND ROAD AND TIE IN NEW LINE USING 45° BENDS, THRUST BLOCKS AND RODDING.
   G. OPEN VALVE IN WOODLAND ROAD/RUSTIC LANE INTERSECTION AND VALVES #1, C AND A. FLUSH LINE AT HYDRANTS IN MINERVA LANE AND AT SEGMENT #1. AFTER FLUSHING IS COMPLETED CLOSE VALVE A AND OPEN VALVE B.
   H. PROVIDE NEW WATER SERVICE TO RESIDENCE ALONG KENNICUT HILL ROAD, TIE INTO EXISTING SHUT-OFF.
   I. SEGMENT #1 IS NOW OFF LINE.
3. INSTALL WATERMAIN FROM MINERVA LANE TO KENNICUT HILL ROAD TIE IN LOCATION.
   A. INSTALL WATERMAIN ON EAST SIDE OF KENNICUT HILL ROAD. CONTRACTOR TO PROVIDE MAINTENANCE AND PROTECTION OF TRAFFIC PLAN FOR THIS WORK.
   B. UPON COMPLETION OF INSTALLATION, CAP END AT LOCATION OF KENNICUT HILL ROAD TIE IN AND PRESSURE TEST AND CHLORINATE LINE.
   C. CLOSE VALVES AT B AND E AT COUNTRY LANE, OPEN HYDRANT AT SEGMENT #1 (A) ALLOW LINE TO DRAIN DOWN.
   D. CUT WATERMAIN AT TIE IN POINT AND CONNECT NEW TO OLD WITH 45° BEND AND ASSOCIATED FITTING- ROD AND THRUST BLOCKS. CLOSE VALVE #5.
   E. OPEN VALVE #2 AND FLUSH AT HYDRANT AT COUNTRY LANE.
   F. OPEN VALVE E AT COUNTRY LANE.
   G. SEGMENT #3 IS NOW OFF LINE.

UTILITIES LEGEND:

- PROPOSED WATER MAIN
- EXISTING WATER MAIN
- EXISTING WATER MAIN TO BE REMOVED
- WATER VALVE
- T-INTERSECTION WITH WATER VALVES
- HYDRANT

WATER MAIN RELOCATION PLAN

GRAPHIC SCALE
1 INCH = 40 FEET

PUTNAM ENGINEERING
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4 OLD ROUTE 6, BREWSTER, NEW YORK 10509
(845) 279-6784 FAX (845) 279-6784

REVISIONS

NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
1	10-14-13	GENERAL PLAN & PROFILE CHANGE	5	10-28-13	REV. PER PLANNING BOARD
2	10-14-13	REV. PER TOWN ENGINEER	6	11-14-13	REV. PER PLANNING BOARD
3	10-14-13	REV. PER TOWN ENGINEER	7	12-18-13	REV. PER PLANNING BOARD
4	10-21-13	REV. PER TOWN ENGINEER	8	1-13-14	CHANGE TO TYL HOLDER

PROJECT: RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:
RANDOM RIDGE
KENNICUT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK

DATE: SEPT. 9, 2011
PROJECT MANAGER: PAL
DRAWN BY: PAL
CHECKED BY: PAL
SCALE: AS NOTED

DRAWING: WATERMAIN RELOCATION PLAN

PROJECT NUMBER: 305
DRAWING NUMBER: C-141

SHEET 9 OF 52

SSTS TRENCH SCHEDULE:

SYSTEM	SUBSYSTEM	# OF LINES/LENGTH	TOTAL LENGTH OF TRENCHES
A	A1a	10 @ 165'	1650 L.F.
	A1b	12 @ 52'	624 L.F.
	A2	15 @ 84'	1260 L.F.
	A3	15 @ 84'	1260 L.F.
			4,534 L.F.
B	A4	8 @ 40'	320 L.F.
	A5	8 @ 40'	320 L.F.
	B3	8 @ 40'	320 L.F.
	B4	8 @ 40'	320 L.F.
			1,280 L.F.
C	C1	5 @ 66.5'	497.5 L.F.
	C2	5 @ 66.5'	497.5 L.F.
	C5	5 @ 66.5'	497.5 L.F.
	C4	5 @ 66.5'	497.5 L.F.
			3,980 L.F.

ABSORPTION FIELD ROTATION SCHEDULE:

	ABSORPTION AREA IN USE		
YEAR *	A	B	C
1	X	X	
3	X		X
5		X	X

* ROTATION SCHEDULE SHALL REPEAT IN (5) THREE YEAR CYCLES.

FILL (R.O.B.) PERCOLATION TEST RESULTS:

HOLE	MINS.	DATE
A1	12.0	8/30/11
A2	5.0	8/30/11
A5	10.5	8/30/11
A4	12.0	8/30/11
A3	12.0	8/30/11
A6	8.0	8/30/11
A7	8.0	8/30/11
A8	8.5	8/30/11
A9	12.0	7/28/11
B1	8.0	7/24/11
B2	8.0	7/24/11
B3	12.0	7/24/11
B4	8.0	7/24/11
B5	8.0	7/24/11
B6	8.0	7/24/11
B7	10.0	8/27/11
B8	8.5	8/27/11
B9	8.0	8/27/11
B10	12.0	7/28/15
B11	12.0	7/28/15

FILL CERTIFICATION NOTE:

THIS ENGINEER HAS INSPECTED THE R.O.B. FILL MATERIAL ON _____ AND DOES HEREBY CERTIFY THAT SUCH MATERIAL HAS BEEN PLACED AND STABILIZED IN ACCORDANCE WITH THE REQUIREMENTS OF THE N.Y.S. DEPARTMENT OF HEALTH, THE PUTNAM COUNTY DEPARTMENT OF HEALTH AND THE APPROVED FILL PLAN. THE MATERIAL ITSELF HAS BEEN TESTED AND AT THIS TIME AND IS CONSIDERED SUITABLE FOR USE IN A SUBSURFACE SEWAGE TREATMENT SYSTEM. THE SOIL PERCOLATION RATE IN THE SETTLED FILL BASED ON PERCOLATION TESTS AFTER STABILIZATION IS _____ MINUTE

NOTES:

1. SEE DRAWING RC-140 FOR "GENERAL NOTES" AND DRAWING RC-315 FOR "FILL NOTES".
2. SEE DRAWING RC-154 FOR EROSION AND SEDIMENT CONTROL REQUIREMENTS.
3. ORIGINAL PRE-EXISTING WATER MAIN REMOVED.

LEGEND:

- CATCH BASIN
- END SECTION
- DRAINAGE LINE
- EXISTING DRAINAGE LINE
- DRAINAGE MANHOLE
- SEWER MANHOLE
- SEWER MAIN
- SEWER SERVICE LINE WITH CLEANOUT
- SEWER FORCE MAIN
- WATER MAIN
- WATER SERVICE WITH VALVE
- EXISTING WATER MAIN
- WATER VALVE
- T-INTERSECTION WITH WATER VALVES
- HYDRANT
- THRUST BLOCK
- DEEP TEST HOLE
- PERCOLATION TEST HOLE
- 3 FT. WIDE ABSORPTION TRENCH (6 FT. O.C.)

ENLARGED SSTS PLAN

GRAPHIC SCALE

1 INCH = 30 FEET

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REVISIONS				DESCRIPTION
11	10.26.15	GENERAL PLAN UPDATES & REVISIONS	R.P.	
10	9.14.15	REV. PER 9.11.15 TOWN MEETING	R.P.	
9	8.12.15	REV. PER 8.11.15 TOWN MEETING	R.P.	
8	7.28.15	REVISED PER TOWN COMMENTS	R.P.	
7	7.13.15	REVISED PER 7.13.15 TOWN MEETING	R.P.	
6	7.7.15	REVISED PER TOWN COMMENTS	R.P.	
5	6.22.15	REVISED PER TOWN COMMENTS	R.P.	
4	5.11.15	REVISED PER TOWN COMMENTS	R.P.	
3	3.9.15	REVISED PER TOWN COMMENTS	R.P.	
2	2.9.15	REVISED PER TOWN COMMENTS	R.P.	
1	12.15.14	REVISED PER TOWN COMMENTS	R.P.	

PROJECT: RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:

RANDOM RIDGE
KNIGHT HILL ROAD
TOWN OF CARMEL
PUTNAM COUNTY, NEW YORK

DATE: SEPT. 3, 2014
PROJECT MANAGER: R.P.
DRAWN BY: R.P.
CHECKED BY: R.P.
SCALE: AS NOTED

DRAWING: ENLARGED SSTS PLAN SYSTEMS 'A' and 'B'

PROJECT NUMBER: 609
DRAWING NUMBER: C-142

SHEET 10 OF 14

SSTS TRENCH SCHEDULE:

SYSTEM	SUBSYSTEM	# OF LINES/LENGTH	TOTAL LENGTH OF TRENCHES
A	A1	10 @ 50.5'	505 L.F.
	A2	12 @ 52'	624 L.F.
	A3	15 @ 69'	1,035 L.F.
	A4	15 @ 69'	1,035 L.F.
			3,209 L.F.
B	B1	5 @ 41'	1,005 L.F.
	B2	5 @ 41'	1,005 L.F.
	B3	5 @ 41'	1,005 L.F.
	B4	5 @ 41'	1,005 L.F.
			4,024 L.F.
C	C1	15 @ 66.5'	997.5 L.F.
	C2	15 @ 66.5'	997.5 L.F.
	C3	15 @ 66.5'	997.5 L.F.
	C4	15 @ 66.5'	997.5 L.F.
			3,990 L.F.

ABSORPTION FIELD ROTATION SCHEDULE:

YEAR *	ABSORPTION AREA IN USE		
	A	B	C
1	X	X	
2	X		X
3		X	X

* ROTATION SCHEDULE SHALL REPEAT IN (3) THREE YEAR CYCLES.

NOTES:

1. SEE DRAWING KC-1.00 FOR "GENERAL NOTES" AND DRAWING KC-3.0 FOR "FILL NOTES".
2. SEE DRAWING KC-0.4 FOR EROSION AND SEDIMENT CONTROL REQUIREMENTS.

LEGEND:

- CATCH BASIN
- END SECTION
- DRAINAGE LINE
- EXISTING DRAINAGE LINE
- DRAINAGE MANHOLE
- SEWER MANHOLE
- SEWER MAIN
- SEWER SERVICE LINE WITH CLEANOUT
- SEWER FORCE MAIN
- WATER MAIN
- WATER SERVICE WITH VALVE
- EXISTING WATER MAIN
- WATER VALVE
- T-INTERSECTION WITH WATER VALVES
- HYDRANT
- THRUST BLOCK
- DEEP TEST HOLE
- PERCOLATION TEST HOLE
- 3 FT. WIDE ABSORPTION TRENCH (8 FT. O.C.)

FILL CERTIFICATION NOTE:

THIS ENGINEER HAS INSPECTED THE R.O.B. FILL MATERIAL ON _____ AND DOES HEREBY CERTIFY THAT SUCH MATERIAL HAS BEEN PLACED AND STABILIZED IN ACCORDANCE WITH THE REQUIREMENTS OF THE N.Y.S. DEPARTMENT OF HEALTH, THE PUTNAM COUNTY DEPARTMENT OF HEALTH AND THE APPROVED FILL PLAN. THE MATERIAL ITSELF HAS BEEN TESTED AND AT THIS TIME AND IS CONSIDERED SUITABLE FOR USE IN A SUBSURFACE SEWAGE TREATMENT SYSTEM. THE SOIL PERCOLATION RATE IN THE SETTLED FILL BASED ON PERCOLATION TESTS AFTER STABILIZATION IS_____ MIN/IN.

FILL (R.O.B.) PERCOLATION TEST RESULTS:

HOLE	HRS/IN.	DATE
C1	15.0	8/29/11
C2	13.5	8/29/11
C3	15.0	8/29/11
C4	15.0	8/29/11
C5	13.5	8/29/11
C6	12.0	8/29/11
C7	12.0	8/29/11
C8	15.0	8/29/11

ENLARGED SSTS PLAN

GRAPHIC SCALE

1 INCH = 20 FEET

PUTNAM ENGINEERING & DEVELOPMENT LLC
ENGINEERS • ARCHITECTS
4 OLD ROUTE 6, PATTERSON, NEW YORK 12563
(845) 279-4294 FAX (845) 279-4294

REVISIONS

NO.	DATE	DESCRIPTION	INIT.	DATE	DESCRIPTION
1	3/14/11	GENERAL REVISIONS	KC	3/14/11	REV. PER COUNTY COMMENTS
2	5/4/11	REV. PER D.E. PERC. RESULTS	KC	4/18/11	REV. PER COUNTY COMMENTS
3	5/11/11	REV. PER D.E. & P.C. REVIEW	KC	5/11/11	REV. PER COUNTY COMMENTS
4	5/18/11	REV. PER COUNTY COMMENTS	KC	5/18/11	REV. PER COUNTY COMMENTS
5	7/11/11	REV. PER COUNTY COMMENTS	KC	7/11/11	REV. PER COUNTY COMMENTS
6	7/18/11	REV. PER COUNTY COMMENTS	KC	7/18/11	REV. PER COUNTY COMMENTS
7	8/29/11	REVISED DRAWING LIST	KC	8/29/11	REVISED PER COUNTY COMMENTS
8	9/14/11	REVISED DRAWING LIST	KC	9/14/11	REVISED PER COUNTY COMMENTS
9	10/4/11	REVISED PER COUNTY COMMENTS	KC	10/4/11	REVISED PER COUNTY COMMENTS

PROJECT: RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:

RANDOM RIDGE
KENNICUT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK

DRAWING: ENLARGED SSTS PLAN SYSTEM 'C'

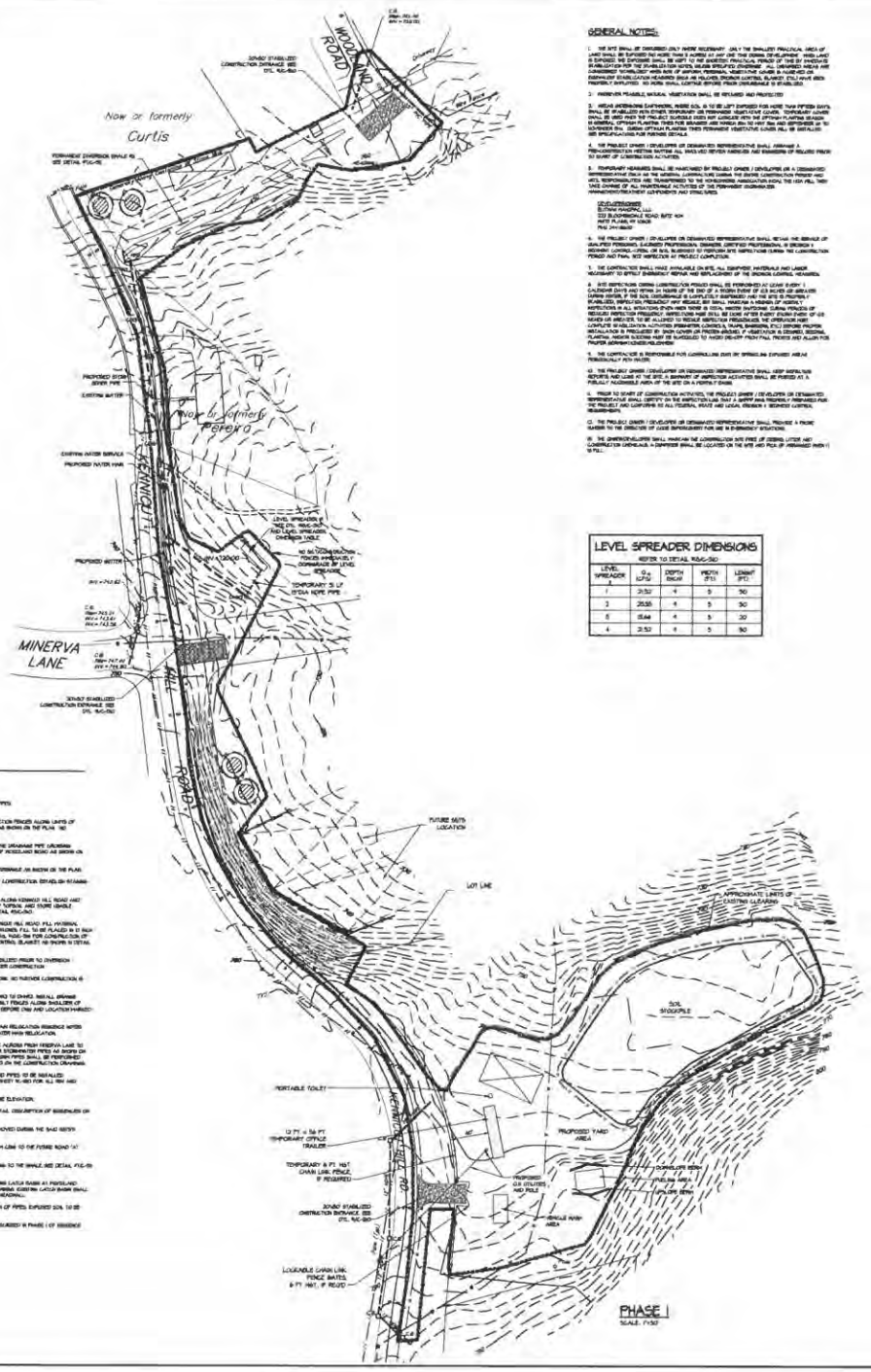
DATE: SEPT. 2, 2010
PROJECT NUMBER: PNE
DRAWN BY: PNE
CHECKED BY: PNE
SCALE: AS NOTED

PROJECT NUMBER: 2010
DRAWING NUMBER: C-143

SHEET 4 OF 34

EROSION CONTROL LEGEND:

- EXISTING DRAINAGE PIPE
- EXISTING CONTOURS
- PROPOSED CONTOURS
- STABILIZED CONSTRUCTION ENTRANCE
- TEMPORARY STAGING AREA
- LIMITS OF DISTURBANCE
- EARTH DIKE
- TEMPORARY SOIL STOCKPILE
- INLET PROTECTION
- SILT FENCE
- EROSION CONTROL BLANKET
- CONSTRUCTION FENCE
- ORANGE SAFETY FENCE
- CHECK DAM
- LEVEL SPREADER
- TEMPORARY SWALE
- SITE AREA
- TCP — PROPOSED YARD DRAIN
- COS — PROPOSED OUTLET STRUCTURE
- CB — PROPOSED CATCH BASIN
- BM — PROPOSED BMP SECTION
- HWS — PROPOSED ROAD WALL



GENERAL NOTES:

1. THE SITE SHALL BE DISTURBED ONLY WHERE NECESSARY. ONLY THE SMALLEST PRACTICAL AREA OF LAND SHALL BE DISTURBED AT ANY ONE TIME. AREAS OF CUT AND FILL SHALL BE STABILIZED AS SOON AS IS EXPEDIENT. THE EXPOSED SHALL BE KEPT TO THE SHORTEST PRACTICAL PERIOD OF TIME BY PROMPTLY STABILIZATION FOR THE STABILIZATION SITES, UNLESS SPECIFIED OTHERWISE. ALL DISTURBED AREAS ARE CONSIDERED "STABILIZED" WHEN THE FOLLOWING CONDITIONS PERSIST: VEGETATIVE COVER IS PLANTED OR EQUIVALENT STABILIZATION MEASURES SUCH AS MULCHES, BROWSE CONTROL BLANKET (TYL) HAVE BEEN PROPERLY INSTALLED. NO RUNS SHALL CONTINUE BEYOND FROM UNAVAILABLE TO STABILIZED.
2. PRESERVE MEANINGFUL NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED.
3. AREAS UNDERGOING EARTHWORK, WHERE SOIL IS TO BE LEFT EXPOSED FOR MORE THAN FIFTEEN DAYS, SHALL BE STABILIZED WITH EITHER TEMPORARY OR PERMANENT VEGETATIVE COVER. TEMPORARY COVER SHALL BE USED PRIOR THE PRELIMINARY SUBSOILS OVER ANY CONCERN WITH THE OPTIMUM PLANTING SEASON. PERMANENT COVER SHALL BE PLANTED FOR MEANINGS AND THREE (3) YEAR BAS AND REPRESENTS UP TO MAINTENANCE. CHECK LISTING FOR COVERAGE THIS PERMANENT VEGETATIVE COVER. FILL IN INSTALLED. SEE SPECIFICATION FOR FURTHER DETAILS.
4. THE PROJECT OWNER / DEVELOPER OR DESIGNATED REPRESENTATIVE SHALL ARRANGE A PRE-CONSTRUCTION MEETING WITH THE SWCD AND REVIEW MEMBERS AND ENGINEERS OF FAILURE PRIOR TO START OF CONSTRUCTION ACTIVITIES.
5. TEMPORARY MEANINGS SHALL BE MAINTAINED BY PROJECT OWNER / DEVELOPER OR A DESIGNATED REPRESENTATIVE SUCH AS THE GENERAL CONTRACTOR DURING THE ENTIRE CONSTRUCTION PERIOD AND WITH RESPONSIBILITIES ARE TRANSFERRED TO THE HOMEOWNERS ASSOCIATION UPON THE HOA FILL TAKE CHARGE OF ALL MAINTENANCE ACTIVITIES OF THE PERMANENT DRAINAGE AND IMPROVEMENTS (NEW DEVELOPMENTS AND STRUCTURES).

DEVELOPER/OWNER
BUTNAM MANOR, LLC
333 BLOOMINGDALE ROAD SUITE 404
WHITE PLAINS, NY 10605
914-241-0600

6. THE PROJECT OWNER / ON-SITE OR DESIGNATED REPRESENTATIVE SHALL RETAIN THE SERVICE OF QUALIFIED PERSONNEL (LICENSED PROFESSIONAL ENGINEER, CERTIFIED PROFESSIONAL, A DESIGNER & REPORT CONTROL LEVEL OF SOIL SUBSOIL TO PERFORM SITE INSPECTIONS DURING THE CONSTRUCTION PERIOD AND FINAL SITE INSPECTION AT PROJECT COMPLETION.
7. THE CONTRACTOR SHALL HAVE AVAILABLE ON SITE ALL EQUIPMENT, MATERIALS AND LABOR NECESSARY TO EFFECT EMERGENCY REPAIR AND REPLACEMENT OF THE DRAINAGE CONTROL MEASURES.
8. SITE INSPECTIONS DURING CONSTRUCTION PERIOD SHALL BE PERFORMED AT LEAST EVERY 7 CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A RAINFALL EVENT OF 0.5 INCHES OR GREATER (WITHIN PERIOD, IF THE SOIL DISTURBANCE IS COMPLETELY SUSPENDED AND THE SITE IS PROPERLY STABILIZED). INSPECTION FREQUENCY MAY REDUCE BUT SHALL MAINTAIN A MINIMUM OF MONTHLY INSPECTIONS IN ALL SITUATIONS EVEN WHEN THERE IS TOTAL WINTER SUSPENSION. DURING PERIODS OF WINTER SUSPENSION FREQUENCY INSPECTIONS MAY BE REDUCED AFTER EVERY EVENT EVERY 7 OF 10 DAYS OR GREATER, TO 10 IN ALLOWED TO REDUCE CONTROL PROCEDURES, THE INSPECTION MAY BE REDUCED TO ONE (1) INSPECTION PER MONTH. IF THE SITE IS STABILIZED, THE INSPECTION MAY BE REDUCED. INSTALLATION IS PROCEDED BY SNOW COVER OR FROZEN GROUND, IF VEGETATION IS DORMANT, SEEDING, PLANTING, MINOR SUCCESS MAY BE SUCCEEDED TO AVOID DELAYS FROM FALL PROBES AND ALLOW FOR PROPER GERMINATION/ESTABLISHMENT.
9. THE CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST BY SPRINKLING EXPOSED AREAS PERIODICALLY WITH WATER.
10. THE PROJECT OWNER / DEVELOPER OR DESIGNATED REPRESENTATIVE SHALL KEEP INSPECTION REPORTS AND LOGS AT THE SITE. A SUMMARY OF INSPECTION ACTIVITIES SHALL BE POSTED AT A PUBLICLY ACCESSIBLE AREA OF THE SITE ON A MONTHLY BASIS.
11. PRIOR TO START OF CONSTRUCTION ACTIVITIES, THE PROJECT OWNER / DEVELOPER OR DESIGNATED REPRESENTATIVE SHALL CERTIFY ON THE INSPECTION LOG THAT A SWPPP HAS BEEN PREPARED FOR THE PROJECT AND CONFORMS TO ALL FEDERAL, STATE AND LOCAL DRAINAGE & SEDIMENT CONTROL REQUIREMENTS.
12. THE PROJECT OWNER / DEVELOPER OR DESIGNATED REPRESENTATIVE SHALL PROVIDE A PHONE NUMBER TO THE DISPOSAL OF LOOSE SUPPRESSANT FOR USE IN EMERGENCY SITUATIONS.
13. THE CONTRACTOR/OWNER SHALL MAINTAIN THE CONSTRUCTION SITE FREE OF DEBRIS, LITTER AND CONSTRUCTION CHEMICALS. A DUMPSTER SHALL BE LOCATED ON THE SITE AND PICK UP PERIODICALLY WHEN IT IS FULL.

LEVEL SPREADER DIMENSIONS

REFER TO DETAIL RGC-SD

LEVEL SPREADER #	Q_{10} (CFS)	DEPTH (INCH)	WIDTH (FT)	LENGHT (FT)
1	2.52	4	5	50
2	20.56	4	5	50
3	15.44	4	5	30
4	2.52	4	5	50

STABILIZATION NOTES:

1. TEMPORARY VEGETATIVE COVER.
   A. SLURRY COMPACTED SOIL AREAS.
   B. LIME AS REQUIRED TO PH 6.5.
   C. FERTILIZE WITH 10-20-20 AT RATE 300 LB/AC.
   D. INCORPORATE AMENDMENTS INTO SOIL WITH DISC HARROW.
   E. SEED AS FOLLOWS:

   * SPRING/EARLY/MIDDLE FALL PLANTING: ANNUAL RYEGRASS AND CEREAL OATS AT 50 LB/ACRE.

   * LATE FALL/EARLY WINTER PLANTING: ANNUAL RYEGRASS WINTER RYE AT 100 LB/AC.

   MULCH SEEDS WITH 2 TONS OF STRAW PER ACRE. ANCHOR AS NEEDED.

   DURING WINTER CONSTRUCTION OR PERIODS OF WET WEATHER, TEMPORARY SLOPE STABILIZATION SHALL BE PROVIDED BY EITHER A ROLLED EROSION CONTROL PRODUCT OR A HEAVY MULCH LAYER SUITABLE ANCHORED. THE CONTRACTOR MUST REGRID THE AREA IN THE SPRING WITH THE APPROPRIATE SEEDING.

   DURING DRY WEATHER CONSTRUCTION, ALL SEEDED AREAS ARE TO BE ADEQUATELY WATERED TO ENSURE VEGETATED COVER.

2. PERMANENT VEGETATIVE COVER.
   A. GRADE TO FINISHED SLOPES.
   B. SLURRY COMPACTED SOIL AREAS.
   C. TOPSOIL WITH NOT LESS THAN FOUR (4) INCHES OF SUITABLE TOPSOIL MATERIAL.
   D. LIME AS REQUIRED TO PH 6.5.
   E. FERTILIZE WITH 10-20-20 AT RATE 300 LB/AC.
   D. SEED AS FOLLOWS:

   TYPE I FOR USE ON MOWED AREAS (INCLUDING SWALES)

SEED	LB/AC
KENTUCKY BLUE GRASS	50
CREEPING RED FESCUE	30
RED TOP OR RYE GRASS	5

   TYPE II FOR USE ON BASIN BOX SLOPES AND ON NON-MOWED AREAS (USE "BRAND-TIM" SEED MIX (SMART CONSERVATION SEEDS, LLC) OR EQUIVALENT. SEEDS INCLUDED IN THE MIX ARE LISTED BELOW. APPLICATION RATE IS 1 LB/ACRE.

GOLDENROD	INDIAN GRASS	ON EYE DAYFLOWER
BIG BLUESTEM	VIRGINIA WILD RYE	BLACK EYED SUSAN
LITTLE BLUESTEM	FOX SEDGE	SOFT RUSH
BLUE MONKS	PARTRIDGE PEA	RUDERSHIP WILDRYE
SILKY DOGWOOD	BLUE VERVAIN	LEERYCHAME

   MULCH/COVER AREAS TO BE MOWED ONCE PER YEAR IN LATE FALL.

   MULCH SEEDS WITH 2 TONS OF STRAW PER ACRE. ANCHOR AS NEEDED.

   FOR DISTURBED AREAS WITH SLOPE GREATER THAN 10:1 OR OVER SLOPES ARE EQUAL TO IN 3N AND WE HEIGHT OF THE SLOPE EXCEEDS 6', INSTEAD OF MULCHING, EROSION CONTROL BLANKET SHALL BE USED.

   FOR SEEDING AND PLANTING WITHIN THE HYDROPOOL EXTENDED DETENTION POND, REFER TO DRAWING RC-80 (STORMWATER STRUCTURES LANDSCAPING PLAN).

   AFTER ESTABLISHMENT OF DENSE, VIGOROUS VEGETATION, PHOSPHORUS BASED FERTILIZERS SHALL NOT BE USED. ONLY NON-PHOSPHORUS BASED FERTILIZER MAY BE APPLIED TO THE LAWNS AND BRANDED AREAS.

ON SITE POLLUTION CONTROL MEASURES

1. THERE SHALL BE A RECEPTACLE PLACED ON THE SITE TO TEMPORARILY STORE GARBAGE. DEBRIS OR CONSTRUCTION WASTE MATERIAL. THE CONTRACTOR SHALL NOT BE USED TO TRANSFER ANY GARBAGE FROM ANY OTHER OFF-SITE ACTIVITY.
2. THE RECORD OWNER SHALL BE RESPONSIBLE FOR KEEPING THE SITE FREE OF LITTER AT ALL TIMES. DURING CONSTRUCTION ACTIVITIES THE OWNER MAY DESIGNATE A CONTRACTOR IN CHARGE AS A RESPONSIBLE PARTY.
3. THE SITE SHALL BE INSPECTED AT THE END OF EACH WORKDAY AND TRASH, DEBRIS AND GARBAGE SHALL BE PLACED IN AND PLACED IN ON-SITE DUMPSTERS OR OTHERWISE REMOVED FROM THE SITE.
4. A PORTABLE TOILET FACILITY SHALL BE PROVIDED FOR CONSTRUCTION WORKERS AND AN ADDITIONAL FACILITY FOR EVERY 10 ON SITE WORKERS.
5. CONSTRUCTION VEHICLES SHALL BE SERVICED OFF-SITE AT A PROPER FACILITY. LEAKING OR ILL REPAIRED VEHICLES SHALL NOT BE LOCATED ON SITE. NO OIL CHANGES ARE PERMITTED ON SITE. FUELING OF VEHICLES ON SITE SHALL BE CAREFULLY PERFORMED WITH AN APPROVED DISPENSER NOZZLE HOSE AND PUMP. SPILLS SHALL PROMPTLY BE REPORTED TO THE OWNER AND TOWN. AN ABSORBENT PADS AND TOOLS SHALL BE USED TO TEMPORARILY CONTAIN ANY SPILLS.
6. CHEMICAL SOIL ADDITIVES OR HERBICIDES SHALL NOT BE USED ON SITE DURING CONSTRUCTION.
7. THE CONTAINERS SHALL BE OF SUFFICIENT SIZE FOR THE CONSTRUCTION ACTIVITY. CONTAINERS SHALL BE EMPTIED BY AN APPROVED CARRIER TO A PROPER FACILITY WHEN FULL. CONTAINERS SHALL BE COVERED TO PREVENT INFILTRATION OF RAIN AND TO PREVENT SOME DEBRIS REMOVAL.
8. PAINTS, CHEMICALS OR OTHER TOXIC SUBSTANCES SHALL NOT BE PLACED IN TRASH CONTAINERS. PAINTS, CHEMICALS OR TOXIC SUBSTANCES SHALL BE REMOVED FROM SITE BY AN APPROVED LICENSED CARRIER.
9. THERE SHALL BE NO OPEN FIRES OR BURNING. FIRES PERMITTED.
10. DEBRIS OR TRASH PILES ARE NOT PERMITTED. DEBRIS SHALL BE PLACED IN CONTAINERS. TEMPORARY PILES OF GRAVEL OR STRAWS SHALL BE PROTECTED BY SILT FENCE SWALLOW TO TOPSOIL STOCKPILES.

CONTRACTOR INSTALLATION-SEWER/WATER & DRAINAGE NOTES:

1. THE CONTRACTOR IS TO SET ALL STRUCTURES THAT ARE IN ROAD "A" AND "B" AT SAMEER ELEVATION IN ORDER TO COMPLY WITH THE SWPPP. ALL STRUCTURES- DMH, SWH, VALVE, CLEANING AND TO BE RAISED GRAM RAISED WHEN TIME COMES FOR TOP LOAT ASPHALT. LB FRAME AND GRATED HILL HAVE TO BE MANUALLY RESET AT FINISH GRADE.

VEHICLE & EQUIPMENT FUELING and WET NOZZLE REPORT:

DESCRIPTION AND PURPOSE

VEHICLE EQUIPMENT FUELING PROCEDURES AND PRACTICES ARE DESIGNED TO PREVENT FUEL SPILLS AND LEAKS, AND REDUCE OR ELIMINATE CONTAMINATION OF STORMWATER. THIS CAN BE ACCOMPLISHED BY FUELING IN DESIGNATED AREAS ONLY, IMPLEMENTING SPILL CONTROLS, AND TRAINING EMPLOYEES AND SUBCONTRACTORS IN PROPER FUELING PROCEDURES.

SUITABLE APPLICATIONS

THESE PROCEDURES ARE SUITABLE ON ALL CONSTRUCTION SITES WHERE VEHICLE AND EQUIPMENT FUELING TAKES PLACE.

LIMITATIONS

ON-SITE VEHICLE AND EQUIPMENT FUELING SHOULD ONLY BE USED WHERE IT IS IMPRACTICAL TO SEND VEHICLES AND EQUIPMENT OFFSITE FOR FUELING.

IMPLEMENTATION

- DISCOURAGE "TOPPING-OFF" OF FUEL TANKS.
- ABSORBENT SPILL CLEANUP MATERIALS AND SPILL KITS SHALL BE AVAILABLE IN FUELING AREAS AND ON FUELING TRUCKS, AND SHOULD BE DISPOSED OF PROPERLY AFTER USE.
- DRIP PANS OR ABSORBENT PADS SHOULD BE USED DURING VEHICLE AND EQUIPMENT FUELING UNLESS THE FUELING IS PERFORMED OVER AN IMPERMEABLE SURFACE IN A DEDICATED FUELING AREA.
- USE ABSORBENT MATERIALS ON SMALL SPILLS. DO NOT HOSE DOWN OR BURY THE SPILL. REMOVE THE ABSORBENT MATERIALS PROMPTLY AND DISPOSE OF PROPERLY.
- AVOID MOBILE FUELING OF MOBILE CONSTRUCTION EQUIPMENT AROUND THE SITE. RATHER, TRANSPORT THE EQUIPMENT TO DESIGNATED FUELING AREAS, WITH THE EXCEPTION OF TRACKED EQUIPMENT SUCH AS BULLDOZERS AND LARGE EXCAVATORS. MORE VEHICLES SHOULD BE ABLE TO TRAVEL TO A DESIGNATED AREA WITH LITTLE LOST TIME.
- EMPLOYEES AND SUBCONTRACTORS SHALL BE TRAINED IN PROPER FUELING AND CLEANUP PROCEDURES.
- AREA FUELING MUST TAKE PLACE OUTSIDE DESIGNATE AN AREA AWAY FROM DRAINAGE COURSES TO BE USED.
- DEDICATED FUELING AREAS SHOULD BE PROTECTED FROM STORMWATER RUNON AND RUNOFF, AND SHOULD BE LOCATED AT LEAST 50 FEET AWAY FROM DOWNSTREAM DRAINAGE FACILITIES AND WATERCOURSES. FUELING MUST BE PERFORMED ON LEVEL GRADE AREAS.
- PROTECT FUELING AREAS WITH BERMS AND DIKES TO PREVENT RUNON, RUNOFF, AND TO CONTAIN SPILLS.
- NOZZLE USED IN VEHICLE AND EQUIPMENT FUELING SHOULD BE EQUIPPED WITH AN AUTOMATIC SHUTOFF TO CONTROL DRIPS. FUELING OPERATIONS SHOULD NOT BE LEFT UNATTENDED.
- FEDERAL, STATE AND LOCAL REQUIREMENTS SHOULD BE OBSERVED FOR ANY STATIONARY ABOVE GROUND STORAGE TANKS.

INSPECTION AND MAINTENANCE

- VEHICLES AND EQUIPMENT SHOULD BE INSPECTED EACH DAY OF USE FOR LEAKS. LEAKS SHOULD BE REPAIRED IMMEDIATELY OR PROBLEM VEHICLES OR EQUIPMENT SHOULD BE REMOVED FROM THE PROJECT SITE.
- KEEP AMPLE SUPPLIES OF SPILL CLEANUP MATERIALS ON-SITE.
- IMMEDIATELY CLEAN UP SPILLS AND PROPERLY DISPOSE OF CONTAMINATED SOIL AND CLEANUP MATERIALS.

EROSION & SEDIMENT CONTROL PLAN - PHASE I

GRAPHIC SCALE
1 INCH = 50 FEET

PUTNAM ENGINEERING LLC
ENGINEERS - ARCHITECTS
4 OLD ROUTE 6, BREWSTER, NEW YORK 10509
(845) 279-6384 FAX (845) 279-6387

REVISIONS				
1	10/01/19	ADDRESS TO ALL PLANS & DETAILS	JS	PE
2	11/08/19	REVISED PLANS PER COMMENTS	JS	PE
3	12/06/19	REV PER SITE TO TOWN PERSO	JS	PE
4	01/21/20	REVISED PLANS PER COMMENTS	JS	PE
5	02/18/20	REVISED PLANS PER COMMENTS	JS	PE
6	03/18/20	REVISED PLANS PER COMMENTS	JS	PE
7	04/20/20	REVISED PLANS PER COMMENTS	JS	PE
8	05/18/20	REVISED PLANS PER COMMENTS	JS	PE
9	06/18/20	REVISED PLANS PER COMMENTS	JS	PE
10	07/20/20	REVISED PLANS PER COMMENTS	JS	PE
11	08/17/20	REVISED PLANS PER COMMENTS	JS	PE
12	09/18/20	REVISED PLANS PER COMMENTS	JS	PE
13	10/16/20	REVISED PLANS PER COMMENTS	JS	PE
14	11/18/20	REVISED PLANS PER COMMENTS	JS	PE
15	12/18/20	REVISED PLANS PER COMMENTS	JS	PE
16	01/18/21	REVISED PLANS PER COMMENTS	JS	PE
17	02/18/21	REVISED PLANS PER COMMENTS	JS	PE
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27	12/18/21	REVISED PLANS PER COMMENTS	JS	PE
28	01/18/22	REVISED PLANS PER COMMENTS	JS	PE
29	02/18/22	REVISED PLANS PER COMMENTS	JS	PE
30	03/18/22	REVISED PLANS PER COMMENTS	JS	PE
31	04/18/22	REVISED PLANS PER COMMENTS	JS	PE
32	05/18/22	REVISED PLANS PER COMMENTS	JS	PE
33	06/18/22	REVISED PLANS PER COMMENTS	JS	PE
34	07/18/22	REVISED PLANS PER COMMENTS	JS	PE
35	08/18/22	REVISED PLANS PER COMMENTS	JS	PE
36	09/18/22	REVISED PLANS PER COMMENTS	JS	PE
37	10/18/22	REVISED PLANS PER COMMENTS	JS	PE
38	11/18/22	REVISED PLANS PER COMMENTS	JS	PE
39	12/18/22	REVISED PLANS PER COMMENTS	JS	PE
40	01/18/23	REVISED PLANS PER COMMENTS	JS	PE
41	02/18/23	REVISED PLANS PER COMMENTS	JS	PE
42	03/18/23	REVISED PLANS PER COMMENTS	JS	PE
43	04/18/23	REVISED PLANS PER COMMENTS	JS	PE
44	05/18/23	REVISED PLANS PER COMMENTS	JS	PE
45	06/18/23	REVISED PLANS PER COMMENTS	JS	PE
46	07/18/23	REVISED PLANS PER COMMENTS	JS	PE
47	08/18/23	REVISED PLANS PER COMMENTS	JS	PE
48	09/18/23	REVISED PLANS PER COMMENTS	JS	PE
49	10/18/23	REVISED PLANS PER COMMENTS	JS	PE
50	11/18/23	REVISED PLANS PER COMMENTS	JS	PE
51	12/18/23	REVISED PLANS PER COMMENTS	JS	PE
52	01/18/24	REVISED PLANS PER COMMENTS	JS	PE
53	02/18/24	REVISED PLANS PER COMMENTS	JS	PE
54	03/18/24	REVISED PLANS PER COMMENTS	JS	PE

PURSUANT TO NY ARTS. 7 & 8 OF THE EDUCATION LAW, ONLY THE ENGINEER OR ARCHITECT LISTED ABOVE HAS PREPARED THE PLANS, SPECIFICATIONS, REPORTS OR OTHER DOCUMENTS TO WHICH THEIR SEAL OR STAMP IS AFFIXED. ALTERATIONS TO ANY SUCH DOCUMENTS BY OTHERS ARE PROHIBITED BY THE ABOVE REFERENCED LAW.

PROJECT: RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:
RANDOM RIDGE
KENNGOTT HILL ROAD
TOWN OF CARMEL
PUTNAM COUNTY, NEW YORK

DATE: SEPT. 2, 2014
PROJECT MANAGER: AL
DRAWN BY: TS
CHECKED BY: AL
SCALE: AS NOTED

DRAWING: EROSION and SEDIMENT CONTROL PLAN PHASE I

PROJECT NUMBER: N/A
DRAWING NUMBER: C-150

SHEET 12 OF 34

EROSION CONTROL LEGEND:

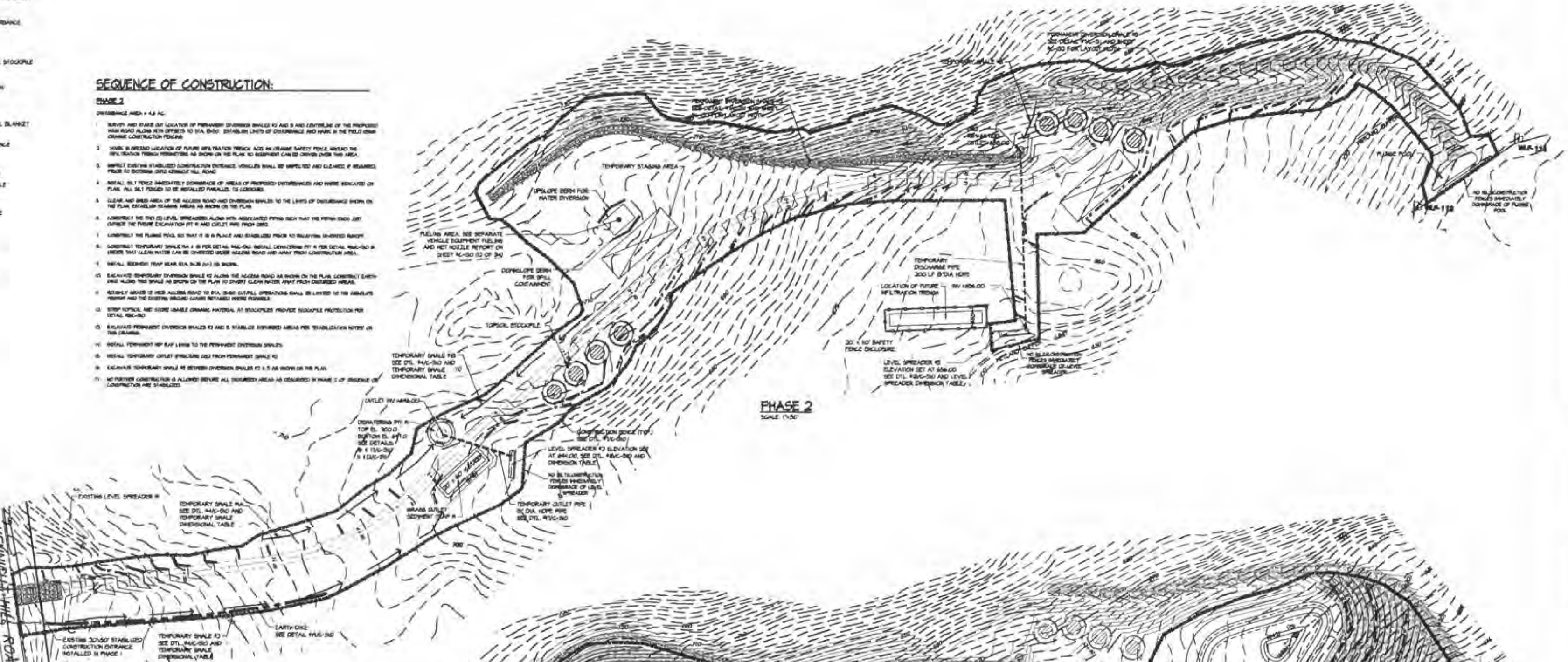
	EXISTING DRAINAGE PIPE
	EXISTING CONTOURS
—(414)—	PROPOSED CONTOURS
	STABILIZED CONSTRUCTION ENTRANCE
	TEMPORARY STAGING AREA
	LIMITS OF DISTURBANCE
	EARTH DIKE
	TEMPORARY SOIL STOCKPILE
	INLET PROTECTION
— SF —	SILT FENCE
	EROSION CONTROL BLANKET
	CONSTRUCTION FENCE
	CHECK DAM
	LEVEL SPREADER
	TEMPORARY SWALE
YD#	PROPOSED YARD DRAIN
OS#	PROPOSED OUTLET STRUCTURE
CB#	PROPOSED CATCH BASIN
ES#	PROPOSED END SECTION
SP#	PROPOSED STORMWATER PLANTER
RG#	PROPOSED RAIN GARDEN
SSTS	PROPOSED SUBSURFACE TREATMENT SYSTEM

SEQUENCE OF CONSTRUCTION:

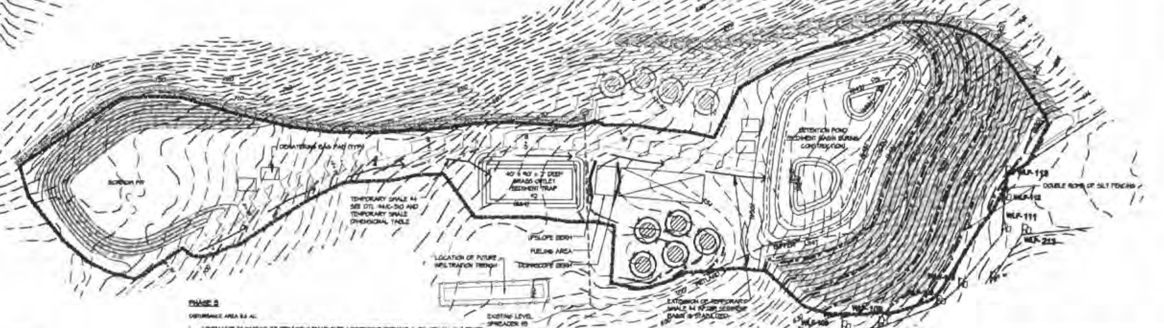
PHASE 2

DISTURBANCE AREA = 4.6 AC.

1. SURVEY AND STAKE OUT LOCATION OF PERMANENT DIVERSION SWALES #2 AND 3 AND CENTERLINE OF THE PROPOSED MAIN ROAD ALONG WITH OFFSETS TO STA. 15+00. ESTABLISH LIMITS OF DISTURBANCE AND MARK IN THE FIELD USING ORANGE CONSTRUCTION FENCING.
2. MARK IN GROUND LOCATION OF FUTURE INFILTRATION TRENCH. ADD AN ORANGE SAFETY FENCE AROUND THE INFILTRATION TRENCH PERIMETERS AS SHOWN ON THE PLAN SO EQUIPMENT CAN BE DRIVEN OVER THIS AREA.
3. INSPECT EXISTING STABILIZED CONSTRUCTION ENTRANCE. VEHICLES SHALL BE INSPECTED AND CLEANED, IF REQUIRED, PRIOR TO ENTERING ONTO KENNICUT HILL ROAD.
4. INSTALL SILT FENCE IMMEDIATELY DOWNGRADE OF AREAS OF PROPOSED DISTURBANCES AND WHERE INDICATED ON PLAN. ALL SILT FENCES TO BE INSTALLED PARALLEL TO CONTOURS.
5. CLEAR AND GRUB AREA OF THE ACCESS ROAD AND DIVERSION SWALES TO THE LIMITS OF DISTURBANCE SHOWN ON THE PLAN. ESTABLISH STAGING AREAS AS SHOWN ON THE PLAN.
6. CONSTRUCT THE TWO (2) LEVEL SPREADERS ALONG WITH ASSOCIATED PIPING SUCH THAT THE PIPING ENDS JUST OUTSIDE THE FUTURE EXCAVATION PIT [illegible] AND OUTLET PIPE FROM OS#2.
7. CONSTRUCT THE PLUNGE POOL SO THAT IT IS IN PLACE AND STABILIZED PRIOR TO RECEIVING DIVERTED RUNOFF.
8. CONSTRUCT TEMPORARY SWALE #1A & 1B PER DETAIL #4/C-510. INSTALL DEWATERING PIT [illegible] PER DETAIL [illegible] IN ORDER THAT CLEAN WATER CAN BE DIVERTED UNDER ACCESS ROAD AND AWAY FROM CONSTRUCTION AREA.
9. INSTALL SEDIMENT TRAP NEAR STA. [illegible] AS SHOWN.
10. EXCAVATE TEMPORARY DIVERSION SWALE #2 ALONG THE ACCESS ROAD AS SHOWN ON THE PLAN. CONSTRUCT EARTH DIKE ALONG THIS SWALE AS SHOWN ON THE PLAN TO DIVERT CLEAN WATER AWAY FROM DISTURBED AREAS.
11. ROUGHLY GRADE [illegible] ACCESS ROAD TO STA. 15+00. CUT/FILL OPERATIONS SHALL BE LIMITED TO THE ABSOLUTE MINIMUM AND THE EXISTING GROUND COVER RETAINED WHERE POSSIBLE.
12. STRIP TOPSOIL AND STORE USABLE ORGANIC MATERIAL AT STOCKPILES. PROVIDE STOCKPILE PROTECTION PER DETAIL [illegible]
13. EXCAVATE PERMANENT DIVERSION SWALES #2 AND 3. STABILIZE DISTURBED AREAS PER STABILIZATION NOTES ON THIS DRAWING.
14. INSTALL PERMANENT RIP RAP LINING TO THE PERMANENT DIVERSION SWALES.
15. INSTALL TEMPORARY OUTLET STRUCTURE OS2 FROM PERMANENT SWALE #2.
16. EXCAVATE TEMPORARY SWALE #2 BETWEEN DIVERSION SWALES #2 & 3 AS SHOWN ON THE PLAN.
17. NO FURTHER CONSTRUCTION IS ALLOWED BEFORE ALL DISTURBED AREAS AS DESCRIBED IN PHASE 2 OF SEQUENCE OF CONSTRUCTION ARE STABILIZED.



PHASE 2
SCALE: 1"=50'



PHASE 3
SCALE: 1"=50'

PHASE 3

DISTURBANCE AREA 8.6 AC.

1. CONTRACTOR TO MAINTAIN THE PREVIOUSLY ESTABLISHED CONSTRUCTION ENTRANCE ALONG WITH ALL SILT FENCES INSTALLED.
2. SURVEY AND STAKE OUT LOCATION OF THE PROPOSED DETENTION POND. ESTABLISH LIMITS OF DISTURBANCE AND MARK IN THE FIELD.
3. INSTALL ORANGE CONSTRUCTION FENCES ALONG LIMITS OF DISTURBANCE.
4. INSTALL SILT FENCES IMMEDIATELY DOWNGRADE OF AREAS OF PROPOSED DISTURBANCE. WHERE CONSTRUCTION IS IN CLOSE VICINITY OF WETLANDS INSTALL DOUBLE ROWS OF FENCES. ALL SILT FENCES TO BE INSTALLED PARALLEL TO CONTOURS.
5. CLEAR AND GRUB AREA OF PHASE 3 TO THE LIMITS OF DISTURBANCE SHOWN ON THE PLAN.
6. USING ACCESS ROAD CREATED IN PHASE 1 BRING IN ALL EQUIPMENT AND MATERIALS NECESSARY TO PERFORM PHASE 3 OF CONSTRUCTION. ESTABLISH STAGING AREAS AS SHOWN ON THE PLAN.
7. CLEAR AND PREPARE AREA FOR THE PROPOSED CONSTRUCTION. STRIP TOPSOIL AND STORE USABLE ORGANIC MATERIAL AT STOCKPILES. PROVIDE STOCKPILE PROTECTION PER DETAIL [illegible]
8. EXCAVATE GRASS OUTLET SEDIMENT TRAP WHERE SHOWN ON THE PLAN. THE SEDIMENT TRAP WILL REMAIN IN USE UNTIL DETENTION POND IS EXCAVATED AND FULLY STABILIZED.
9. EXCAVATE TEMPORARY SWALE #4 AS SHOWN ON THE PLAN.
10. THE SEDIMENT TRAP AND ALL DISTURBED AREAS MUST BE STABILIZED WITHIN ONE (1) WEEK FOLLOWING THE EARTHWORK. NO FURTHER CONSTRUCTION IS ALLOWED BEFORE THOSE AREAS ARE STABILIZED.
11. INSTALL SAND BEDS FOR PLACEMENT OF DEWATERING BAGS. SEE DETAIL [illegible]. THE DEWATERING BAGS WOULD BE NEEDED IF THE CONTRACTOR HAS STANDING WATER IN HIS BORROW PIT AFTER RAIN EVENTS.
12. EXCAVATE DETENTION POND TO ACT AS TEMPORARY SEDIMENT BASIN. EXCAVATE BASIN TO FINAL GRADES.
13. USING FILL EXCAVATED FROM "BORROW PIT" CREATE FINAL POND EMBANKMENTS. FILL MATERIAL SHALL BE FREE FROM ROOTS, VEGETATION AND OVERSIZED STONES. FILL TO BE PLACED IN [illegible] LIFTS AND COMPACTED TO [illegible] DRY DENSITY BY MECHANICAL MEANS.
14. THE EMBANKMENTS SHALL BE INSTALLED IN LIFTS NO MORE THAN [illegible]. AFTER COMPLETING EACH [illegible] FEET LIFT, THE EMBANKMENT SHALL BE STABILIZED AND A NEW ROW OF SILT FENCE ADDED AT TOP OF THE EMBANKMENT. NO EXPOSED SOIL SHALL REMAIN UNPROTECTED FOR MORE THAN ONE (1) WEEK.
15. INSTALL TEMPORARY OUTLET STRUCTURE [illegible] ALONG WITH DISCHARGE PIPE. PLUG OUTLET PIPE FROM THE TEMPORARY OUTLET STRUCTURE.
16. ONCE THE TEMPORARY SEDIMENT BASIN IS COMPLETED AND STABILIZED, PROCEED WITH WORK.
17. REMOVE PLUG FROM THE OUTLET PIPE FROM THE TEMPORARY OUTLET STRUCTURE OS[illegible]
18. CLEAN SEDIMENT FROM SEDIMENT TRAP #2. RESTORE GRADING AT THIS LOCATION.
19. EXTEND TEMPORARY SWALE #4 TO THE SEDIMENT BASIN.
20. STABILIZE ALL DISTURBED AREAS WITHIN ONE (1) WEEK FOLLOWING THE EARTHWORK PER STABILIZATION NOTES. NO FURTHER CONSTRUCTION IS ALLOWED BEFORE ALL DISTURBED AREAS AS DESCRIBED IN PHASE 3 OF SEQUENCE OF CONSTRUCTION IS STABILIZED.

TEMPORARY SEDIMENT TRAP & BASIN VOLUMES

1. SEDIMENT TRAP #1
   CONTRIBUTING AREA- 0.4 AC.
   REQUIRED VOLUME- 3600 CF PER ACRE X 0.4 ACRES = 1440 CF
   PROVIDED- 1480 CF
   SEDIMENT REMOVAL ELEVATION- 847.50
2. SEDIMENT TRAP #2
   CONTRIBUTING AREA- 1.5 AC.
   REQUIRED VOLUME- 3600 CF PER ACRE X 1.5 ACRES = 5400 CF
   VOLUME PROVIDED- 6400 CF
   SEDIMENT REMOVAL ELEVATION- 868.07
3. SEDIMENT BASIN
   CONTRIBUTING AREA- 2.5 AC.
   REQUIRED VOLUME- 3600 CF PER ACRE X 2.5 ACRES = 9000 CF
   VOLUME PROVIDED- 60,943 CF
   SEDIMENT REMOVAL ELEVATION- 848.5

TEMPORARY SWALE DIMENSIONAL CHART

REFER TO DETAIL #4/C-510

SWALE #	BOTTOM WIDTH (FT)	DEPTH (FT)	SIDE SLOPE (FT/FT)	LENGTH (FT)	SLOPE (%)
1A	2.0	1.0	2:1	345	6.1
1B	2.0	1.0	2:1	300	5.0
2	2.0	1.0	2:1	490	9.0
3	2.0	1.0	2:1	58	2.0
4	5.0	1.0	2:1	650	9.1
5	2.0	1.0	2:1	400	10.0
6	2.0	1.0	2:1	550	5.4
7	2.0	1.0	2:1	60	3.5
8	2.0	1.0	2:1	65	4.8
9	2.0	1.0	2:1	380	8.2
10	2.0	1.0	2:1	415	6.5
11	2.0	1.0	2:1	150	4.6
12A	2.0	1.0	2:1	18	5.4
12B	2.0	1.0	2:1	500	4.5
13A	2.0	1.0	2:1	80	8.5
13B	2.0	1.0	2:1	165	8.5

LEVEL SPREADER DIMENSIONS

REFER TO DETAIL #8/C-510

LEVEL SPREADER #	Q_{10} (CFS)	DEPTH (INCH)	WIDTH (FT)	LENGTH (FT)
1	21.52	4	5	50
2	20.35	4	5	50
3	13.66	4	5	30
4	21.52	4	5	50

CONTRACTOR INSTALLATION- SEWER/WATER & DRAINAGE NOTES:

1. THE CONTRACTOR IS TO SET ALL STRUCTURES THAT ARE IN ROAD "A" AND "B" AT BINDER ELEVATION IN ORDER TO COMPLY WITH THE SWPPP. ALL STRUCTURES- DMH, SMH, VALVE COVERS ARE TO BE RAISED USING RINGS WHEN THE COMES FOR TOP COAT ASPHALT. CB FRAME AND GRATES WILL HAVE TO BE MANUALLY RESET AT FINISH GRADE.

EROSION & SEDIMENT CONTROL PLAN - PHASES 2 and 3

GRAPHIC SCALE
1 INCH = 50 FEET

PUTNAM ENGINEERING, PLLC
ENGINEERS - ARCHITECTS
4 OLD ROUTE 6, BREWSTER, NEW YORK 10509
(845) 279-8724 FAX (845) 279-8734

PURSUANT TO NEW YORK STATE EDUCATION LAW, ARTICLE 145, SECTION 7209 SUBDIVISION 2, IT IS A VIOLATION OF THIS LAW FOR ANY PERSON UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ENGINEER IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS

NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
1	[illegible]	GENERAL PLAN / PROFILE REVISIONS	9	[illegible]	REV. PER PCHD COMMENTS
2	[illegible]	REV. PER [illegible] / ROAD REVISE	10	[illegible]	REV. PER NYCDEP COMMENTS
3	[illegible]	REV. PER [illegible]	11	[illegible]	REV. PER NYCDEP COMMENTS
4	[illegible]	[illegible]	12	[illegible]	RELOCATED WATER AND SEWER LINES
5	[illegible]	NYCDEP SUBMISSION	13	[illegible]	CHANGE TO DTL. [illegible]
6	[illegible]	UPDATED DRAWING LIST			
7	[illegible]	REVISED PER PCHD/NYCDEP COMMENTS			
8	[illegible]	REVISED PER NYCDEP COMMENTS			

PROJECT: RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR
RANDOM RIDGE
KENNICUT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK

DATE: SEPT. 3, 2014
PROJECT MANAGER: PHL
DRAWN BY: [illegible]
CHECKED BY: PHL
SCALE: AS NOTED

DRAWING: EROSION and SEDIMENT CONTROL PLAN PHASES 2 & 3

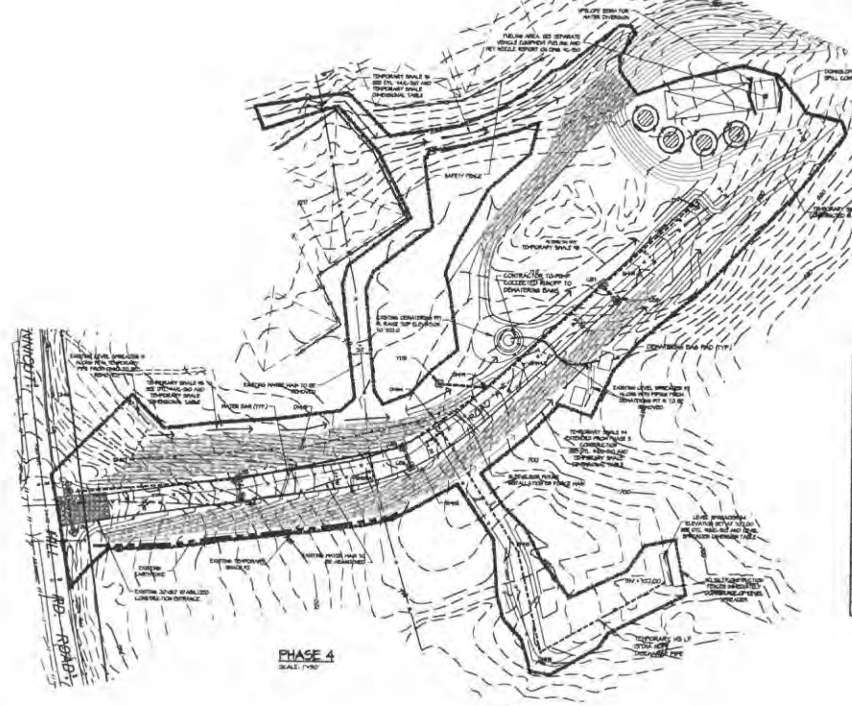
PROJECT NUMBER: [illegible]
DRAWING NUMBER: C-151

SHEET 15 OF 34

EROSION CONTROL LEGEND:

- EXISTING DRAINAGE PIPE
- EXISTING CONTOURS
- PROPOSED CONTOURS
- STABILIZED CONSTRUCTION ENTRANCE
- TEMPORARY STAGING AREA
- LIMITS OF DISTURBANCE
- EARTH DIKE
- TEMPORARY SOIL STOCKPILE
- INLET PROTECTION
- SILT FENCE
- EROSION CONTROL BLANKET
- CONSTRUCTION FENCE
- CHECK DAM
- LEVEL SPREADER
- TEMPORARY SWALE
- SSTS AREA

- YD# PROPOSED YARD DRAIN
- OS# PROPOSED OUTLET STRUCTURE
- CB# PROPOSED CATCH BASIN
- ES# PROPOSED END SECTION
- SP# PROPOSED STORMWATER PLANTER
- RG# PROPOSED RAIN GARDEN
- SSTS PROPOSED SUBSURFACE TREATMENT SYSTEM



PHASE 4
SCALE: 1"=50'

TEMPORARY SWALE DIMENSIONAL CHART

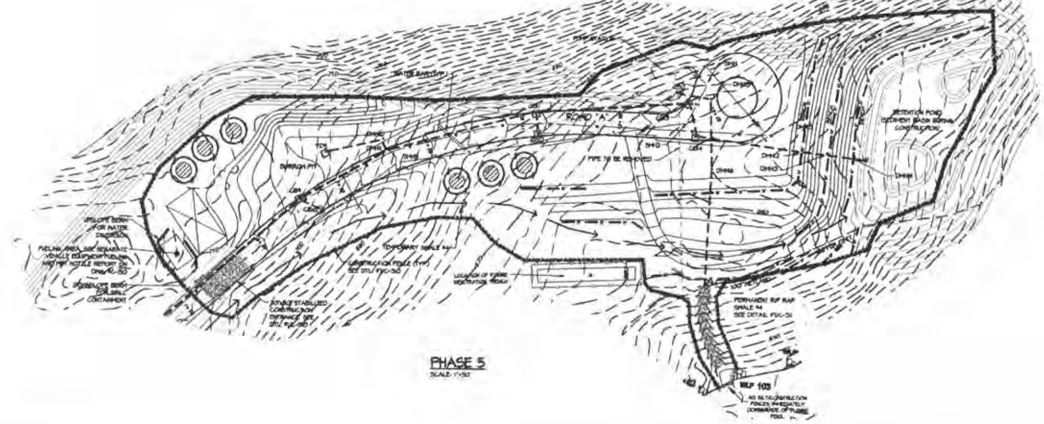
REFER TO DETAIL YUC-150

SWALE #	BOTTOM WIDTH (FT)	DEPTH (FT)	SIDE SLOPE (FT/FT)	LENGTH (FT)	SLOPE (%)
1A	2.0	1.0	2:1	345	8.1
1B	2.0	1.0	2:1	300	5.0
2	2.0	1.0	2:1	490	4.0
3	2.0	1.0	2:1	55	21.0
4	3.0	1.0	2:1	800	4.1
5	2.0	1.0	2:1	600	10.0
6	2.0	1.0	2:1	550	5.4
7	2.0	1.0	2:1	80	3.5
8	2.0	1.0	2:1	65	4.6
9	2.0	1.0	2:1	550	8.2
10	2.0	1.0	2:1	475	6.5
11	2.0	1.0	2:1	150	4.8
12A	2.0	1.0	2:1	15	5.4
12B	2.0	1.0	2:1	500	4.5
13A	2.0	1.0	2:1	80	6.5
13B	2.0	1.0	2:1	145	3.5

LEVEL SPREADER DIMENSIONS

REFER TO DETAIL YUC-150

LEVEL SPREADER #	Q_4 (CFS)	DEPTH (INCH)	WIDTH (FT)	LENGHT (FT)
1	21.50	4	5	50
2	26.55	4	5	60
3	15.66	4	5	30
4	21.82	4	5	50



PHASE 5
SCALE: 1"=50'

CONTRACTOR INSTALLATION- SEWER/WATER & DRAINAGE NOTES:

1. THE CONTRACTOR IS TO SET ALL STRUCTURES THAT ARE IN ROAD "A" AND "B" AT BINDER ELEVATION IN ORDER TO COMPLY WITH THE SWPPP. ALL STRUCTURES- DMH, SMH, VALVE COVERS ARE TO BE RAISED USING RINGS WHEN THE COMES FOR TOP COAT ASPHALT. CB FRAME AND GRATES WILL HAVE TO BE MANUALLY RESET AT FINISH GRADE.

SEQUENCE OF CONSTRUCTION:

PHASE 4

DEVELOPING ROAD TO STA. 5+35
DISTURBANCE AREA 3.5 AC.

1. CONTRACTOR TO MAINTAIN THE PREVIOUSLY ESTABLISHED CONSTRUCTION ENTRANCE ALONG WITH ALL SILT FENCES INSTALLED.
2. ESTABLISH LIMITS OF DISTURBANCE AND MARK IN THE FIELD. INSTALL CONSTRUCTION FENCES ALONG LIMITS OF DISTURBANCE.
3. INSTALL ADDITIONAL SILT FENCES IMMEDIATELY DOWNGRADE OF AREAS OF PROPOSED DISTURBANCE AS SHOWN ON THE PLAN.
4. CLEAR AND GRUB AREA OF PHASE 4 TO THE LIMITS OF DISTURBANCE SHOWN ON THE PLAN.
5. USING ACCESS ROAD CREATED IN PHASE 3 BRING IN ALL EQUIPMENT AND MATERIALS NECESSARY TO PERFORM PHASE 4 OF CONSTRUCTION. ESTABLISH STAGING AREA AS SHOWN ON THE PLAN.
6. CLEAR AND PREPARE AREA FOR THE PROPOSED CONSTRUCTION. STRIP TOPSOIL AND STORE USABLE ORGANIC MATERIAL AT STOCKPILES. PROVIDE STOCKPILE PROTECTION PER DETAIL YUC-150.
7. STAKE OUT CORNERS OF THE SEPTIC FIELDS SHOWN ON THE PLAN. INSTALL ORANGE SAFETY FENCE ALONG THE SEPTIC PERIMETERS AS SHOWN ON THE PLAN TO AVOID ENCROACHMENTS BY CONSTRUCTION EQUIPMENT. HEAVY MACHINERY CAN NOT BE DRIVEN OVER THESE AREAS.
8. TEMPORARY SWALE #3 CREATED IN PHASE 3 IS TO BE EXTENDED AND CONNECTED TO TEMPORARY SWALE #4, AS SHOWN ON THE PLAN.
9. EXCAVATE TEMPORARY SWALE #A.
10. EXCAVATE TEMPORARY SWALE #B.
11. EXCAVATE AND REMOVE PORTIONS OF THE ABANDONED WATERMAINS FROM PHASE 3 WITHIN LIMITS OF PHASE 4 CONSTRUCTION.
12. USING FILL EXCAVATED FROM "BORROW PIT" CREATE FILL PAD FOR THE PROPOSED ROAD. FILL MATERIAL SHALL BE FREE FROM ROOTS, VEGETATION AND OVERSIZED STONES. AS BUILDING OF THE ROAD PROGRESSES, REMOVE THE 12" PIPE FROM DEWATERING PIT #1 ALONG WITH THE LEVEL SPREADER #2. CONTRACTOR TO USE "WET" PUMP AND "DEWATERING BAGS" AS SHOWN. SHOULD RAIN EVENT OCCURS BEFORE FINISHING ROAD "A" CONSTRUCTION.
13. AS EXCAVATION IN THE BORROW PIT PROGRESSES, CREATE TEMPORARY SWALE #1.
14. ROUGHLY GRADE THE ROAD. FILL TO BE PLACED IN 12 INCH LIFTS AND COMPACTED TO 95% DRY DENSITY BY MECHANICAL MEANS.
15. INSTALL WATER BARS PER DETAIL YSUC-150.
16. STABILIZE ALL DISTURBED AREAS AS DESCRIBED IN "STABILIZATION NOTES" WITHIN ONE (1) WEEK FOLLOWING THE EARTHWORK. NO FURTHER CONSTRUCTION IS ALLOWED BEFORE THESE AREAS ARE STABILIZED.
17. EXCAVATE TRENCHES FOR INSTALLATION OF WATER, STORMWATER AND SEWER PIPES ALONG THE ROAD TO STA. 5+35. INSTALL SEWER MANHOLES SMH-1 & SMH-2. INSTALL CATCH BASINS CB-10 TO CB-11 AND DMH STRUCTURES TO BE INSTALLED STARTING FROM DOWNHILL STRUCTURE TO UPHILL STRUCTURE. TRENCHES TO BE BACKFILLED IMMEDIATELY UPON COMPLETION OF INSTALLATION OF PIPES AND MANHOLES. EXPOSED SOIL TO BE STABILIZED IMMEDIATELY AFTER BACKFILL. TEST SEWER MAIN AND MANHOLES.
18. RIMS OF STRUCTURES INSTALLED IN PAVED AREAS SHALL BE SET AT BINDER COURSE ELEVATION PER DETAIL YSUC-171. PROTECT CATCH BASIN PER CONSTRUCTION DETAIL. THE STRUCTURES ARE NOT TO RECEIVE ANY STORMWATER FLOW UNTIL ASPHALT BINDER COURSE IS PLACED.
19. STAKE OUT DRAINAGE DIVERSION SYSTEM FROM DMH-2 TO DMH-6. EXCAVATE TRENCH FOR INSTALLATION OF THE ABOVE MENTIONED STORM SEWER PIPES. STRUCTURES AND PIPES TO BE INSTALLED STARTING FROM DOWNHILL STRUCTURES TO UPHILL STRUCTURES. INSTALL TEMPORARY OUTLET PIPE FROM DMH-10 TO DAYLIGHT. EXCAVATE LEVEL SPREADER AT OUTLET OF THE PIPE. AFTER INSTALLATION OF THESE PIPES REMOVE THE TEMPORARY OUTLET PIPE FROM DMH-10 AND PLUG THE OPENING WITH BLOCK AND MORTAR.
20. EXCAVATE TRENCH FOR INSTALLATION OF WATER PIPES FROM THE "TEE" CONNECTION AT ROAD "A" STATION 4+10 UP TO VICINITY OF DMH-6. THIS MAY BE PERFORMED CONCURRENTLY WITH INSTALLATION OF STORMWATER PIPES FROM DMH-4 TO DMH-6. LAY THE PIPES.
21. TRENCHES TO BE BACKFILLED IMMEDIATELY UPON COMPLETION OF INSTALLATION OF PIPES AND MANHOLES. EXPOSED SOIL TO BE STABILIZED IMMEDIATELY AFTER.
22. INSTALL SLEEVE UNDER THE ROAD NEAR STA. 4+47 FOR FUTURE INSTALLATION OF SEWER FORCE MAIN.
23. AFTER THE TRENCH WORK IS COMPLETED INSTALL CONCRETE CURB. THE PROPOSED ROAD SHALL BE PAVED WITH BINDER COURSE PER DETAIL YUC-164 TO STA. 5+35.
24. NO FURTHER CONSTRUCTION IS ALLOWED BEFORE ALL DISTURBED AREAS AS DESCRIBED IN PHASE 4 OF SEQUENCE OF CONSTRUCTION ARE STABILIZED.

PHASE 5

DEVELOPING ROAD "A" FROM STA. 5+35 TO THE END
DISTURBANCE AREA 3.7 AC.

1. CONTRACTOR TO MAINTAIN PREVIOUSLY ESTABLISHED EROSION CONTROL MEASURES ALONG WITH ALL SILT FENCES INSTALLED.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE FOR LIMIT DUTY ROAD AT THE END OF PAVED SECTION OF THE ROAD STA. 5+35, AS SHOWN ON THE PLAN. VEHICLES SHALL BE INSPECTED AND CLEANED IF REQUIRED, PRIOR TO ENTERING PAVED ROAD.
3. ESTABLISH LIMITS OF DISTURBANCE AND MARK IN THE FIELD.
4. INSTALL CONSTRUCTION FENCES ALONG LIMITS OF DISTURBANCE. ADD AN ORANGE SAFETY FENCE ALONG PROPOSED INFILTRATION TRENCH AS SHOWN ON THE PLAN. NO EQUIPMENT CAN BE DRIVEN OVER THIS AREA.
5. INSTALL SILT FENCES IMMEDIATELY DOWNGRADE OF AREAS OF PROPOSED DISTURBANCE. ALL SILT FENCES TO BE INSTALLED PARALLEL TO CONTOURS.
6. CLEAR AND GRUB AREA OF PHASE 5 TO THE LIMITS OF DISTURBANCE SHOWN ON THE PLAN.
7. ESTABLISH STAGING AREAS. BRING IN ALL EQUIPMENT AND MATERIALS NECESSARY TO PERFORM PHASE 5 OF CONSTRUCTION.
8. RELOCATE PORTION OF TEMPORARY SWALE #4 FROM STA. 7+35 ALL THE WAY TO THE SEDIMENT BASIN AS SHOWN ON THE PLAN.
9. CONTRACTOR TO START TO BUILD A FILL PAD FOR THE PROPOSED BUILDINGS AND CUL-DE-SAC.
10. EXCAVATE "BORROW PIT" TO GRADES SHOWN ON THE PLAN. AFTER EXHAUSTING ON-SITE FILL SOURCES, BRING IN SOIL FROM OFFSITE TO FINISH CONSTRUCTION OF THE PAD.
11. FILL MATERIAL SHALL BE FREE FROM ROOTS, VEGETATION AND OVERSIZED STONES. FILL TO BE PLACED IN 12 INCH LIFTS AND COMPACTED TO 95% DRY DENSITY BY MECHANICAL MEANS.
12. THE FILL PAD SHALL BE CONSTRUCTED IN 12" LIFTS TO A HEIGHT OF TEN FEET. AT THIS POINT THE EMBANKMENT WILL BE STABILIZED AND NEW SILT FENCE ADDED AT THE TOP OF EMBANKMENT. ONCE COMPLETED, THE NEXT 10 FEET SEGMENT CAN START WITH FILL BEING INSTALLED IN 12" LIFTS. THE SCENARIO IS TO CONTINUE UNTIL THE TOTAL EMBANKMENT HAS BEEN CONSTRUCTED. NO EXPOSED SOIL SHALL REMAIN UNPROTECTED FOR MORE THAN ONE (1) WEEK.
13. EXTEND TEMPORARY ACCESS TO THE SEDIMENT BASIN AFTER EVERY STAGE OF FILL PAD CREATION.
14. LEVEL OF SEDIMENT IN SEDIMENT BASIN SHALL BE OBSERVED AND SEDIMENT REMOVED WHEN REACHES INDICATED LEVEL ON SEDIMENT REMOVAL MARKER.
15. GRADE THE ROAD.
16. INSTALL WATER BARS PER DETAIL YSUC-150.
17. BUILD PUMP STATION NEAR CUL-DE-SAC.
18. EXCAVATE PERMANENT SWALE #4 ALONG WITH A PLUNGE POOL FROM EDGE OF WETLAND BACK UPGRADIENT TO THE EDGE OF WETLAND BUFFER AS SHOWN ON THE PLAN. INSTALL LINING AND RIP-RAP TO THE SWALE.
19. EXCAVATE TRENCHES FOR INSTALLATION OF WATER, STORMWATER AND SEWER PIPES ALONG THE ROAD. INSTALL SEWER MANHOLES SMH, SMH-3 & SMH-4. INSTALL CATCH BASINS CB-7 TO CB-14, YDS AND MANHOLES DMH-10 TO DMH-14 STRUCTURES TO BE INSTALLED STARTING FROM DOWNHILL STRUCTURE TO UPHILL STRUCTURE. TRENCHES TO BE BACKFILLED IMMEDIATELY UPON COMPLETION OF INSTALLATION OF PIPES AND MANHOLES. EXPOSED SOIL TO BE STABILIZED IMMEDIATELY AFTER BACKFILL. TEST WATERMAIN, SEWERMAIN AND SEWER MANHOLES.
20. AFTER INSTALLATION OF DMH-10 AND DMH-14 AND CONNECTING PIPES REMOVE THE TEMPORARY OUTLET PIPE FROM END AND PLUG THE OPENING WITH BLOCK AND MORTAR. REMOVE LEVEL SPREADER #4.
21. CONNECT SEWER LINE TO PUMP STATION.
22. RIMS OF STRUCTURES INSTALLED IN PAVED AREAS SHALL BE SET AT BINDER COURSE ELEVATION PER DETAIL YSUC-151. PROTECT CATCH BASIN PER CONSTRUCTION DETAIL. THE STRUCTURES ARE NOT TO RECEIVE ANY STORMWATER FLOW UNTIL ASPHALT BINDER COURSE IS PLACED.
23. EXCAVATE TRENCH ALONG THE ROAD AND LAY ELECTRIC CABLE AND TELEPHONE CABLES. FOLLOW PROCEDURE DESCRIBED ABOVE.
24. AFTER THE TRENCH WORK IS COMPLETED INSTALL CURBS. THE PROPOSED ROAD SHALL BE PAVED WITH BINDER COURSE PER DETAIL YUC-164.
25. NO FURTHER CONSTRUCTION IS ALLOWED BEFORE ALL DISTURBED AREAS AS DESCRIBED IN PHASE 5 OF SEQUENCE OF CONSTRUCTION ARE STABILIZED.

EROSION & SEDIMENT CONTROL PLAN - PHASES 4 & 5

GRAPHIC SCALE
1 INCH = 50 FEET

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PURSUANT TO NEW YORK STATE EDUCATION LAW, ARTICLE 145, SECTION 7209 SUBDIVISION 2, IT IS A VIOLATION OF THIS LAW FOR ANY PERSON UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ENGINEER IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS

PROJECT: RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:
RANDOM RIDGE
KENNICUT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK

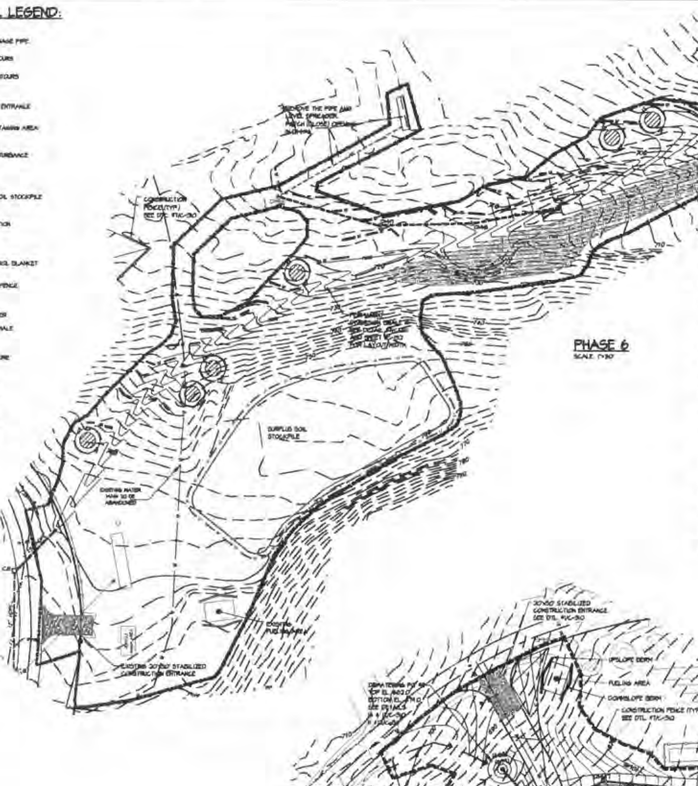
DATE: SEPT. 5, 2014
PROJECT MANAGER: PHL
DRAWN BY: PB
CHECKED BY: PHL
SCALE: AS NOTED

DRAWING: EROSION and SEDIMENT CONTROL PLAN PHASES 4 & 5

PROJECT NUMBER: 888
DRAWING NUMBER: C-152
SHEET 14 OF 34

EROSION CONTROL LEGEND:

- EXISTING DRAINAGE PIPE
- EXISTING CONTOURS
- PROPOSED CONTOURS
- STABILIZED CONSTRUCTION ENTRANCE
- TEMPORARY STAGING AREA
- LIMITS OF DISTURBANCE
- EARTH DIKE
- TEMPORARY SOIL STOCKPILE
- INLET PROTECTION
- SILT FENCE
- EROSION CONTROL BLANKET
- CONSTRUCTION FENCE
- CHECK DAM
- LEVEL SPREADER
- TEMPORARY SWALE
- YD# PROPOSED YARD DRAIN
- OS# PROPOSED OUTLET STRUCTURE
- CB# PROPOSED CATCH BASIN
- ES# PROPOSED END SECTION
- SP# PROPOSED STORMWATER PLANTER
- RG# PROPOSED RAIN GARDEN
- SSTS PROPOSED SUBSURFACE TREATMENT SYSTEM



PHASE 6
SCALE: 1"=50'

SEQUENCE OF CONSTRUCTION:

PHASE 6

DISTURBANCE AREA = 4.1 AC.

1. SURVEY AND STAKE OUT LOCATION OF PERMANENT DIVERSION SWALE #, AND DRAINAGE DIVERSION SYSTEM FROM DMH6 TO HW, ESTABLISH LIMITS OF DISTURBANCE AND MARK IN THE FIELD WITH ORANGE CONSTRUCTION FENCE. ADD AN ORANGE SAFETY FENCE AROUND FUTURE LOCATION OF UNDERGROUND INFILTRATION SYSTEM AS SHOWN ON THE PLAN. NO EQUIPMENT CAN BE DRIVEN OVER THIS AREA.
2. INSTALL SILT FENCE IMMEDIATELY DOWNGRADE OF AREAS OF PROPOSED DISTURBANCES AND WHERE INDICATED ON PLAN. ALL SILT FENCES TO BE INSTALLED PARALLEL TO CONTOURS.
3. USING STABILIZED CONSTRUCTION ENTRANCE INSTALLED IN PHASE 1 OF THIS DEVELOPMENT, CLEAR AND GRUB AREA TO THE LIMITS OF DISTURBANCE SHOWN ON THE PLAN. ESTABLISH STAGING AREAS.
4. STRIP TOPSOIL AND STORE USABLE ORGANIC MATERIAL AT STOCKPILES. PROVIDE STOCKPILE PROTECTION PER DETAIL #5/C-150.
5. EXCAVATE DIVERSION SWALE ALONG WITH PLUNGE POOL FROM EDGE OF WETLAND BACK UPGRADIENT TO THE LOCATION OF THE HEADWALL. STORE THE SURPLUS SOIL AT STOCKPILE. PROVIDE THE STOCKPILE PROTECTION PER DETAIL #5/C-150. INSTALL THE LINING AND RIP-RAP FROM EDGE OF WETLAND BACK UP TO THE HEADWALL.
6. STABILIZE DISTURBED AREAS PER "STABILIZATION NOTES" ON SHEET C-150.
7. EXCAVATE FOR HEADWALL CONSTRUCTION AS WELL AS THE DRAINAGE INSTALLATION FROM DMH TO HEADWALL. CONSTRUCT HEADWALL, INSTALL DMH AND DMH6 AS WELL AS PIPING. BACKFILL TRENCHES IMMEDIATELY UPON COMPLETION OF INSTALLATION OF PIPES AND MANHOLES. EXPOSED SOIL TO BE STABILIZED IMMEDIATELY AFTER BACKFILL.
8. EXCAVATE PERMANENT DIVERSION SWALE # FROM HEADWALL TO A POINT APPROXIMATELY 50 FEET EAST FROM THE "OLD WATERWAY" WHICH IS SHOWN ON THE DRAWING. THIS WILL ALLOW CONTRACTOR TO ACCESS THE AREA NEEDED LATER TO INSTALL THE REMAINDER OF THE DRAINAGE PIPE. EXCESS MATERIAL TO BE STORED IN THE STOCKPILE. INSTALL THE LINING AND RIP RAP FROM THE HEADWALL TO THIS LOCATION.
9. STABILIZE THE DISTURBED AREAS PER "STABILIZATION NOTES" ON SHEET C-150.
10. CONTRACTOR TO EXCAVATE FOR AND INSTALL DRAINAGE PIPE FROM DMH1 BACK UPHILL TO DMH6. REMOVE THE TEMPORARY OUTLET PIPE FROM DMH6 ALONG WITH LEVEL SPREADER #4. PLUG THE OPENING WITH BLOCK AND MORTAR. BACKFILL AND STABILIZE IN ACCORDANCE WITH "STABILIZATION NOTES" ON SHEET C-150.
11. CONTRACTOR CAN NOW COMPLETE EXCAVATION AND INSTALLATION OF THE REMAINDER OF THE DIVERSION SWALE. EXCAVATE, INSTALL LINING AND RIP RAP.
12. STABILIZE THE DISTURBED AREAS PER "STABILIZATION NOTES" ON SHEET C-150.
13. NO FURTHER CONSTRUCTION IS ALLOWED BEFORE ALL DISTURBED AREAS AS DESCRIBED IN PHASE 6 OF SEQUENCE OF ARE STABILIZED.

PHASE 7
SCALE: 1"=50'

PHASE 7
DEVELOPING ROAD "B"
DISTURBANCE AREA 3.1 AC.

1. CONTRACTOR TO MAINTAIN PREVIOUSLY ESTABLISHED EROSION CONTROL MEASURES ALONG WITH ALL SILT FENCES INSTALLED.
2. SURVEY AND STAKE OUT LOCATION OF ROAD "B" AND STORMWATER FACILITIES AS SHOWN ON THE PLAN. ESTABLISH LIMITS OF DISTURBANCE AND MARK IN THE FIELD.
3. INSTALL STABILIZED CONSTRUCTION ENTRANCE FOR ROAD "B" NEAR STA. 5+08 OF ROAD "A", AS SHOWN ON THE PLAN. VEHICLES SHALL BE INSPECTED AND CLEANED, IF REQUIRED, PRIOR TO ENTERING PAVED ROAD.
4. INSTALL CONSTRUCTION FENCES ALONG LIMITS OF DISTURBANCE. ADD AN ORANGE SAFETY FENCE AROUND FUTURE LOCATION OF BIORETENTION AS SHOWN ON THE PLAN. NO EQUIPMENT CAN BE DRIVEN OVER THIS AREA.
5. INSTALL SILT FENCES IMMEDIATELY DOWNGRADE OF AREAS OF PROPOSED DISTURBANCE. ALL SILT FENCES TO BE INSTALLED PARALLEL TO CONTOURS.
6. EXCAVATE TEMPORARY SWALE NO. INSTALL TEMPORARY EARTH DIKE ALONG THE SWALE TO SEPARATE FLOWS OF "CLEAN" AND SEDIMENT LOADED STORMWATER.
7. CLEAR AND GRUB AREA OF PHASE 7 TO THE LIMITS OF DISTURBANCE SHOWN ON THE PLAN.
8. ESTABLISH STAGING AREA. BRING IN ALL EQUIPMENT AND MATERIALS NECESSARY TO PERFORM PHASE 7 OF CONSTRUCTION.
9. INSTALL DRAINAGE LINE FROM SEDIMENT BASIN BACK UPGRADIENT TO DMH7A. INSTALL DMH, DMH6, DMH7, DMH7A AND CONNECTING PIPES. INSTALL TEMPORARY GRATE ON DMH6.
10. CONSTRUCT DEWATERING PITS #2 & #3. INSTALL TEMPORARY DMH AND CONNECTING PIPES. CONNECT THEM TO PERMANENT STRUCTURE DMH7A.
11. EXCAVATE TEMPORARY SWALES #3, 4, AND 5.
12. RELOCATE PORTION OF TEMPORARY SWALE #4 TO THE LOCATION SHOWN ON THE PLAN.
13. CONTRACTOR TO START CUT/FILL OPERATIONS TO BUILD PROPOSED ROAD "B".
14. AFTER EXCAVATING ON-SITE FILL, BRING IN FILL FROM OUTSIDE SOURCES. FILL MATERIAL SHALL BE FREE FROM ROOTS, VEGETATION AND OVERSIZED STONES. FILL TO BE PLACED IN 12 INCH LIFTS AND COMPACTED TO 95% DRY DENSITY BY MECHANICAL MEANS. PAY SPECIAL ATTENTION DURING CONSTRUCTION IN VICINITY OF THE FUTURE BIORETENTION LOCATION. NO EQUIPMENT SHALL BE DRIVEN OVER THE AREA MARKED WITH THE ORANGE SAFETY FENCE.
15. BUILD RETAINING WALL NEAR CUL-DE-SAC AS GRADING PROGRESSES.
16. LEVEL OF SEDIMENT IN SEDIMENT BASIN SHALL BE OBSERVED AND SEDIMENT REMOVED WHEN IT REACHES INDICATED LEVEL ON SEDIMENT REMOVAL MARKER.
17. GRADE THE ROAD.
18. EXCAVATE TRENCHES FOR INSTALLATION OF WATER AND SEWER PIPES ALONG THE ROAD. INSTALL SEWER MANHOLES SMH6, SMH7 & SMH8. STRUCTURES TO BE INSTALLED STARTING FROM DOWNHILL STRUCTURE TO UPHILL STRUCTURE. TRENCHES TO BE BACKFILLED IMMEDIATELY UPON COMPLETION OF INSTALLATION OF PIPES AND MANHOLES. EXPOSED SOIL TO BE STABILIZED IMMEDIATELY AFTER BACKFILL. TEST WATERMAIN, SEWERMAIN AND SEWER MANHOLES.
19. RIMS OF STRUCTURES INSTALLED IN PAVED AREAS SHALL BE SET AT BINDER COURSE ELEVATION PER DETAIL #1/C-151.
20. EXCAVATE TRENCH ALONG THE ROAD AND LAY ELECTRIC, CABLE AND TELEPHONE CABLES. FOLLOW PROCEDURE DESCRIBED ABOVE.
21. AFTER THE TRENCH WORK IS COMPLETED, THE PROPOSED ROAD SHALL BE PAVED WITH BINDER COURSE PER DETAIL #1/C-154.
22. NO FURTHER CONSTRUCTION IS ALLOWED BEFORE ALL DISTURBED AREAS AS DESCRIBED IN PHASE 7 OF SEQUENCE OF CONSTRUCTION ARE STABILIZED.

CONTRACTOR INSTALLATION- SEWER/WATER & DRAINAGE NOTES:

1. THE CONTRACTOR IS TO SET ALL STRUCTURES THAT ARE IN ROAD "A" AND "B" AT BINDER ELEVATION IN ORDER TO COMPLY WITH THE SWPPP. ALL STRUCTURES- DMH, SMH, VALVE COVERS ARE TO BE RAISED USING RINGS WHEN TIME COMES FOR TOP COAT ASPHALT. CB FRAME AND GRATES WILL HAVE TO BE MANUALLY RESET AT FINISH GRADE.

TEMPORARY SWALE DIMENSIONAL CHART

REFER TO DETAIL #4/C-150

SWALE #	BOTTOM WIDTH (FT)	DEPTH (FT)	SIDE SLOPE (FT:FT)	LENGTH (FT)	SLOPE (%)
1A	2.0	1.0	2:1	345	8.1
1B	2.0	1.0	2:1	200	3.0
2	2.0	1.0	2:1	440	4.0
3	2.0	1.0	2:1	35	21.0
4	3.0	1.0	2:1	880	4.1
5	2.0	1.0	2:1	400	10.0
6	2.0	1.0	2:1	390	5.4
7	2.0	1.0	2:1	60	5.5
8	2.0	1.0	2:1	85	4.6
9	2.0	1.0	2:1	560	8.2
10	2.0	1.0	2:1	475	6.5
11	2.0	1.0	2:1	150	4.8
12A	2.0	1.0	2:1	115	5.4
12B	2.0	1.0	2:1	300	4.5
13A	2.0	1.0	2:1	60	8.5
13B	2.0	1.0	2:1	185	8.5

LEVEL SPREADER DIMENSIONS

REFER TO DETAIL #4/C-150

LEVEL SPREADER #	Q (CFS)	DEPTH (INCH)	WIDTH (FT)	LENGHT (FT)
1	21.82	4	5	50
2	28.58	4	5	50
3	13.84	4	5	30
4	21.52	4	5	50

MAINTENANCE PROGRAM:

TEMPORARY MEASURES

A. SILT FENCE. SEDIMENTS SHALL BE REMOVED FROM BEHIND THE FENCE WHEN IT BECOMES 0.5 FEET DEEP AT THE FENCE. IT SHOULD ALSO BE INSPECTED WEEKLY AND PRIOR TO AND WITHIN 24 HOURS AFTER ALL FORECASTED STORM EVENTS. REPAIR SHALL BE PERFORMED AS NEEDED.

B. SWALES. PROPOSED SWALES ARE USED AS DIVERSION SWALES DURING THE CONSTRUCTION PHASE. THESE SWALES ARE TO BE INSPECTED WEEKLY AND PRIOR TO AND WITHIN 24 HOURS AFTER ALL FORECASTED STORM EVENTS FOR SCOUR AND EROSION. REMOVE DEPOSITS OR SEDIMENT OR OTHER OBSTRUCTIONS.

C. CONSTRUCTION ENTRANCE. CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. VISUAL INSPECTION SHALL BE PERFORMED DAILY THROUGHOUT THE PROJECT CONSTRUCTION. TOP DRESSING WITH ADDITIONAL STONE OR ADDITIONAL LENGTH 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.

D. SEDIMENT BASIN. VISUAL INSPECTION OF THE BASIN EMBANKMENT AND DEWATERING SPILLWAY SHALL BE PERFORMED WEEKLY, PRIOR TO AND WITHIN 24 HOURS AFTER ALL FORECASTED STORMS. REPAIRS SHALL BE MADE AS NEEDED. SEDIMENT SHOULD BE REMOVED EVERY SIX (6) MONTHS OR WHEN SEDIMENT ACCUMULATION REACHES THE DESIGN CLEANOUT LEVEL, IN ORDER TO PRESERVE THE AVAILABLE STORMWATER MANAGEMENT CAPACITY OF THE SEDIMENT BASIN. THE LEVEL OF SEDIMENT AT WHICH CLEANOUT IS REQUIRED SHALL BE MARKED ON A FIXED REFERENCE POINT (SEDIMENT REMOVAL MARKER OR MARK ON A RISER TYPE OUTLET).

E. CURB INLET PROTECTION. INLET PROTECTION SHALL BE INSPECTED WEEKLY AND PRIOR TO AND WITHIN 24 HOURS AFTER ALL FORECASTED STORM EVENTS. SEDIMENTS AND DEBRIS SHALL BE REMOVED FROM BEHIND THE FENCE IF PRESENT. REPAIR SHALL BE PERFORMED AS NEEDED.

F. LEVEL SPREADER. LEVEL SPREADER SHALL BE INSPECTED WEEKLY AND AFTER STORM EVENTS FOR CLOGGING, DENSITY OF VEGETATION, DAMAGES AND CHANNELIZATION. SEDIMENT AND DEBRIS SHALL BE REMOVED WHEN BUILDUP OCCURS. REGRADE AND RESEED WHEN NECESSARY.

PERMANENT MEASURES

STORMWATER POND/WETLAND MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
A. EMBANKMENT AND EMERGENCY SPILLWAY (ANNUAL, PRIOR TO AND WITHIN 24 HOURS AFTER ALL FORECASTED MAJOR STORMS) 1. VEGETATION AND GROUND COVER ADEQUATE 2. EMBANKMENT EROSION 3. ANIMAL BURROWS 4. UNAUTHORIZED PLANTING 5. CRACKING, BULGING, OR SLIDING OF DAM A) UPSTREAM FACE B) DOWNSTREAM FACE C) AT OR BEYOND TOE DOWNSTREAM UPSTREAM D) EMERGENCY SPILLWAY 6. POND, TOE & CHIMNEY DRAINS CLEAR AND FUNCTIONING 7. SEEPS/LEAKS ON DOWNSTREAM FACE 8. SLOPE PROTECTION OR RIPRAP FAILURE 9. VERTICAL/HORIZONTAL ALIGNMENT OF TOP OF DAM "AS-BUILT" 10. EMERGENCY SPILLWAY CLEAR OF OBSTRUCTIONS AND DEBRIS 11. OTHER (SPECIFY)		
B. RISER AND PRINCIPAL SPILLWAY (ANNUAL) TYPE: REINFORCED CONCRETE CORRUGATED PIPE MASONRY 1. LOW FLOW ORIFICE OBSTRUCTED 2. LOW FLOW TRASH RACK A) DEBRIS REMOVAL NECESSARY B) CORROSION CONTROL 3. WEIR TRASH RACK MAINTENANCE A) DEBRIS REMOVAL NECESSARY B) CORROSION CONTROL 4. EXCESSIVE SEDIMENT ACCUMULATION INSIDER RISER 5. CONCRETE/MASONRY CONDITION RISER AND BARRELS A) CRACKS OR DISPLACEMENT B) MINOR SPALLING (<1") C) MAJOR SPALLING (REBARS EXPOSED) D) JOINT FAILURES E) WATER TIGHTNESS 6. METAL PIPE CONDITION 7. CONTROL VALVE A) OPERATIONAL/EXERCISED B) CHAINED AND LOCKED 8. POND DRAIN VALVE A) OPERATIONAL/EXERCISED B) CHAINED AND LOCKED 9. OUTFALL CHANNELS FUNCTIONING 10. OTHER (SPECIFY)		
C. PERMANENT POOL (WET PONDS) (MONTHLY) 1. UNDESIRABLE VEGETATION GROWTH 2. FLOATING OR FLOATABLE DEBRIS REMOVAL REQUIRED 3. VISIBLE POLLUTION 4. SHORELINE PROBLEM 5. OTHER (SPECIFY)		
D. SEDIMENT FOREBAYS 1. SEDIMENTATION NOTED 2. SEDIMENT CLEANOUT WHEN DEPTH (50% DESIGN DEPTH)		
E. DRY POND AREAS 1. VEGETATION ADEQUATE 2. UNDESIRABLE VEGETATIVE GROWTH 3. UNDESIRABLE WOODY VEGETATION 4. LOW FLOW CHANNELS CLEAR OF OBSTRUCTIONS 5. STANDING WATER OR WET SPOTS 6. SEDIMENT AND/OR TRASH ACCUMULATION 7. OTHER (SPECIFY)		
F. CONDITION OF OUTFALLS (ANNUAL, AFTER MAJOR STORMS) 1. RIPRAP FAILURES 2. SLOPE EROSION 3. STORM DRAIN PIPES 4. ENDWALLS/HEADWALLS 5. OTHER (SPECIFY)		
G. OTHER (MONTHLY) 1. ENCROACHMENT ON POND, WETLAND OR EASEMENT AREA 2. COMPLAINTS FROM RESIDENTS 3. AESTHETICS A) GRASS GROWING REQUIRED B) GRAFFITI REMOVAL NEEDED C) OTHER (SPECIFY) 4. CONDITIONS OF MAINTENANCE ACCESS ROUTES 5. SIGNS OF HYDROCARBON BUILD-UP 6. ANY PUBLIC HAZARDS (SPECIFY)		
H. WETLAND VEGETATION (ANNUAL) 1. VEGETATION HEALTHY AND GROWING WETLAND MAINTAINING 50% SURFACE AREA COVERAGE OF WETLAND PLANTS AFTER THE SECOND GROWING SEASON. IF UNSATISFACTORY, REINFORCEMENT PLANTINGS NEEDED 2. DOMINANT WETLAND PLANTS: SURVIVAL OF DESIRED WETLAND PLANT SPECIES DISTRIBUTION ACCORDING TO LANDSCAPING PLANT 3. EVIDENCE OF INVASIVE SPECIES 4. MAINTENANCE OF ADEQUATE WATER DEPTHS FOR DESIRED WETLAND PLANT SPECIES 5. HARVESTING OF EMERGENT PLANTINGS NEEDED 6. HAVE SEDIMENT ACCUMULATIONS REDUCED POOL VOLUME SIGNIFICANTLY OR ARE PLANTS "CHOKED" WITH SEDIMENT 7. EUTROPHICATION LEVEL OF THE WETLAND 8. OTHER (SPECIFY)		

RIPRAP SWALE MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
DEBRIS CLEANOUT (MONTHLY) CONTRIBUTING AREAS TO CLEAN OF DEBRIS		
ANNUAL, PRIOR TO AND WITHIN 24 HOURS AFTER ALL FORECASTED MAJOR STORMS 1. DEWATERS BETWEEN STORMS 2. CLEAR OF SEDIMENT 3. NO EVIDENCE OF SCOUR HOLES 4. NO EVIDENCE OF DISPLACED STONES		

ROOF LEADERS DISCHARGE PLAN MAINTENANCE/INSPECTION ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
A. PIPES AND DRAINS (ANNUAL) DOWNSPOUTS PROVIDE STABLE CONVEYANCE TO THE DESIGNATED AREA NO EXISTENCE OF LEAKING GUTTERS		
B. DEWATERING (MONTHLY) NO EXISTENCE OF STANDING WATER		
C. SEDIMENT DEPOSITION (SEMI-ANNUAL) SEDIMENT ACCUMULATION DOESN'T YET REQUIRE CLEANOUT		
D. OVERALL FUNCTION OF FACILITY (ANNUAL) GOOD CONDITION, NO NEED FOR REPAIR NO EVIDENCE OF EROSION		

BIORETENTION MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
A. DEBRIS CLEANOUT (MONTHLY) 1. BIORETENTION AND CONTRIBUTING AREAS CLEAN OF DEBRIS 2. NO DUMPING OF YARD WASTES INTO PRACTICE 3. LITTER (BRANCHES, ETC.) HAVE BEEN REMOVED		
B. VEGETATION (MONTHLY) 1. PLANT HEIGHT NOT LESS THAN DESIGN WATER DEPTH 2. FERTILIZED PER SPECIFICATION 3. PLANT COMPOSITION ACCORDING TO APPROVED PLANS 4. NO PLACEMENT OF INAPPROPRIATE PLANTS 5. GRASS HEIGHT NOT GREATER THAN 6 INCHES 6. NO EVIDENCE OF EROSION		
C. CHECK DAMS/ENERGY DISSIPATORS/SUMPS (ANNUAL, AFTER MAJOR STORMS) 1. NO EVIDENCE OF SEDIMENT BUILDUP 2. SUMPS SHOULD NOT BE MORE THAN 50% FULL OF SEDIMENT 3. NO EVIDENCE OF EROSION AT DOWNSTREAM TOE OF DROP STRUCTURE		
D. DEWATERING (MONTHLY) 1. DEWATERS BETWEEN STORMS 2. NO EVIDENCE OF STANDING WATER		
E. SEDIMENT DEPOSITION (ANNUAL) 1. SWALE CLEAN OF SEDIMENT 2. SEDIMENT SHOULD NOT BE >20% OF DESIGN DEPTH		
F. OUTLET/OVERFLOW SPILLWAY (ANNUAL, AFTER MAJOR STORMS) 1. GOOD CONDITION, NO NEED FOR REPAIR 2. NO EVIDENCE OF EROSION 3. NO EVIDENCE OF ANY BLOCKAGES		
G. INTEGRITY OF FILTER BED (ANNUAL) 1. FILTER BED HAS NOT BEEN BLOCKED OR FILLED INAPPROPRIATELY		

RAIN GARDEN/STORMWATER PLANTER MAINTENANCE/INSPECTION ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
A. DEBRIS CLEANOUT (MONTHLY, AFTER MAJOR STORMS) CONTRIBUTING AREAS CLEAN OF DEBRIS INLET AND OUTLETS CLEAN OF DEBRIS		
B. VEGETATION (MONTHLY) VEGETATION HEALTHY AND GROWING EVIDENCE OF INVASIVE SPECIES ADEQUATE LAYER OF MULCH EVIDENCE OF STANDING WATER		

GRASS SWALE MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
A. DEBRIS CLEANOUT (MONTHLY) CONTRIBUTING AREAS TO CLEAN OF DEBRIS		
B. CHECK DAMS OR ENERGY DISSIPATORS (ANNUAL, PRIOR TO AND WITHIN 24 HOURS AFTER ALL FORECASTED MAJOR STORMS) NO EVIDENCE OF FLOW GOING AROUND STRUCTURES NO EVIDENCE OF EROSION AT DOWNSTREAM TOE SOIL PERMEABILITY GROUNDWATER/BEDROCK		
C. VEGETATION (MONTHLY) MOWING DONE WHEN NEEDED 3" MINIMUM MOWING DEPTH NOT EXCEEDED NO EVIDENCE OF EROSION AT DOWNSTREAM TOE FERTILIZED PER SPECIFICATION		
D. DEWATERING (MONTHLY) DEWATERS BETWEEN STORMS		
E. SEDIMENT DEPOSITION (ANNUAL) REMOVE SEDIMENT WHEN SWALE IS 20% FULL WITH SEDIMENT		
F. OUTLET/OVERFLOW SPILLWAY (ANNUAL) GOOD LOCATION, NO NEED FOR REPAIRS NO EVIDENCE OF EROSION		

CATCH BASIN / YARD DRAIN / MANHOLE MAINTENANCE ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
A. VISUAL INSPECTION (EVERY 3 MONTHS) 1. SEDIMENT ACCUMULATION AT: A) RIM B) SUMP 2. SIGN OF EROSION AROUND STRUCTURE 3. SIGN OF STORMWATER BYPASS		
B. MAINTENANCE (EVERY 3 MONTHS) 1. REMOVE SEDIMENT IN SUMP IF GREATER THAN 12" DEEP 2. CLEAR RIM OF DEBRIS AND LEAVES 3. CLEAR DEBRIS IN INLET CHANNEL 4. REPAIR ERODED PORTION OF INLET CHANNEL (IF ANY)		
STORM PIPES (TWICE A YEAR AND BEFORE ALL MAJOR FORECASTED STORMS) MAINTENANCE ITEM		
A. STRUCTURAL INTEGRITY B. SIGN OF CLOGGING		
RIP RAP OUTLET PROTECTION (ONCE A YEAR AND AFTER MAJOR STORMS) MAINTENANCE ITEM		
A. CHECK FOR SCOUR AND INTEGRITY B. REPAIR IF NEEDED		

INFILTRATION TRENCH MAINTENANCE/INSPECTION ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
A. DEBRIS CLEANOUT (MONTHLY) CONTRIBUTING AREAS CLEAN OF DEBRIS OUTLETS CLEAN OF DEBRIS		
B. DEWATERING (MONTHLY) DEWATERS BETWEEN STORMS		
C. SEDIMENT DEPOSITION (ANNUAL) NO EVIDENCE OF SEDIMENT DEPOSITION SEDIMENT ACCUMULATION DOESN'T YET REQUIRE CLEANOUT		
D. OVERALL FUNCTION OF FACILITY (ANNUAL) GOOD CONDITION, NO NEED FOR REPAIR NO EVIDENCE OF EROSION		

UNDERGROUND INFILTRATION SYSTEM MAINTENANCE/INSPECTION ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
A. DEBRIS CLEANOUT (MONTHLY) CONTRIBUTING AREAS CLEAN OF DEBRIS OUTLETS CLEAN OF DEBRIS		
B. DEWATERING (MONTHLY) DEWATERS BETWEEN STORMS		
C. SEDIMENT DEPOSITION (ANNUAL) NO EVIDENCE OF SEDIMENT DEPOSITION SEDIMENT ACCUMULATION DOESN'T YET REQUIRE CLEANOUT		
D. OVERALL FUNCTION OF FACILITY (ANNUAL) GOOD CONDITION, NO NEED FOR REPAIR NO EVIDENCE OF EROSION		

PERVIOUS PAVEMENT MAINTENANCE/INSPECTION ITEM	SATISFACTORY / UNSATISFACTORY	COMMENTS
A. DEBRIS CLEANOUT (MONTHLY) CONTRIBUTING AREAS CLEAN OF DEBRIS		
B. DEWATERING (MONTHLY) DEWATERS BETWEEN STORMS		
C. SEDIMENT DEPOSITION (SEMI-ANNUAL) VACUUM SEDIMENT DEPOSITION SEDIMENT ACCUMULATION DOESN'T YET REQUIRE CLEANOUT		
D. OVERALL FUNCTION OF FACILITY (ANNUAL) GOOD CONDITION, NO NEED FOR REPAIR NO EVIDENCE OF EROSION		

EROSION & SEDIMENT CONTROL PLAN - PHASES 6 & 7

GRAPHIC SCALE
1 INCH = 50 FEET

PUTNAM ENGINEERING PLLC
ENGINEERS - ARCHITECTS
4 OLD ROUTE 6, BREWSTER, NEW YORK 10509
(845) 279-6789 FAX (845) 279-6784

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REVISIONS

NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
1	17 DEC 14	GENERAL PLAN / PROFILE REVISIONS	9	24 MAR 16	REV. PER ROAD COMMENTS
2	8 APR 15	REV. PER TE / ROAD MEMOS	10	24 APR 16	REV. PER NYCDEP COMMENTS
3	24 MAY 15	REV. PER TE / ROAD MEMOS	11	26 MAY 16	REV. PER NYCDEP COMMENTS
4	24 JUN 15	REV. PER TE / TE / TP MEMOS	12	17 OCT 16	RELOCATED WATER AND SEWER LINES
5	05 JUL 15	PROGRESS DWGS TO CONTRACTOR	13	1 NOV 16	CHANGE TO ZFL, ROAD-A
6	05 JUL 15	NYCDEP SUBMISSION			
7	26 JUL 15	UPDATED DRAWING LIST			
8	26 DEC 15	REVISED PER TOWN/NYCDEP COMMENTS			

PROJECT: RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:
RANDOM RIDGE
KENECUT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK

DATE: SEPT. 5, 2014
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DRAWN BY: PH
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SCALE: AS NOTED

DRAWING: EROSION and SEDIMENT CONTROL PLAN PHASES 6 & 7

PROJECT NUMBER: 0101
DRAWING NUMBER: C-153

SHEET 8 OF 54

EROSION CONTROL LEGEND:

- EXISTING DRAINAGE PIPE
- EXISTING CONTOURS
- PROPOSED CONTOURS
- STABILIZED CONSTRUCTION ENTRANCE
- TEMPORARY STAGING AREA
- LIMITS OF DISTURBANCE
- EARTH DIKE
- TEMPORARY SOIL STOCKPILE
- INLET PROTECTION
- SILT FENCE
- EROSION CONTROL BLANKET
- CONSTRUCTION FENCE
- CHECK DAM
- LEVEL SPREADER
- TEMPORARY SWALE
- SSTS AREA

YD# PROPOSED YARD DRAIN
OS# PROPOSED OUTLET STRUCTURE
CB# PROPOSED CATCH BASIN
ES# PROPOSED END SECTION
SP# PROPOSED STORMWATER PLANTER
RG# PROPOSED RAIN GARDEN
SSTS PROPOSED SUBSURFACE TREATMENT SYSTEM

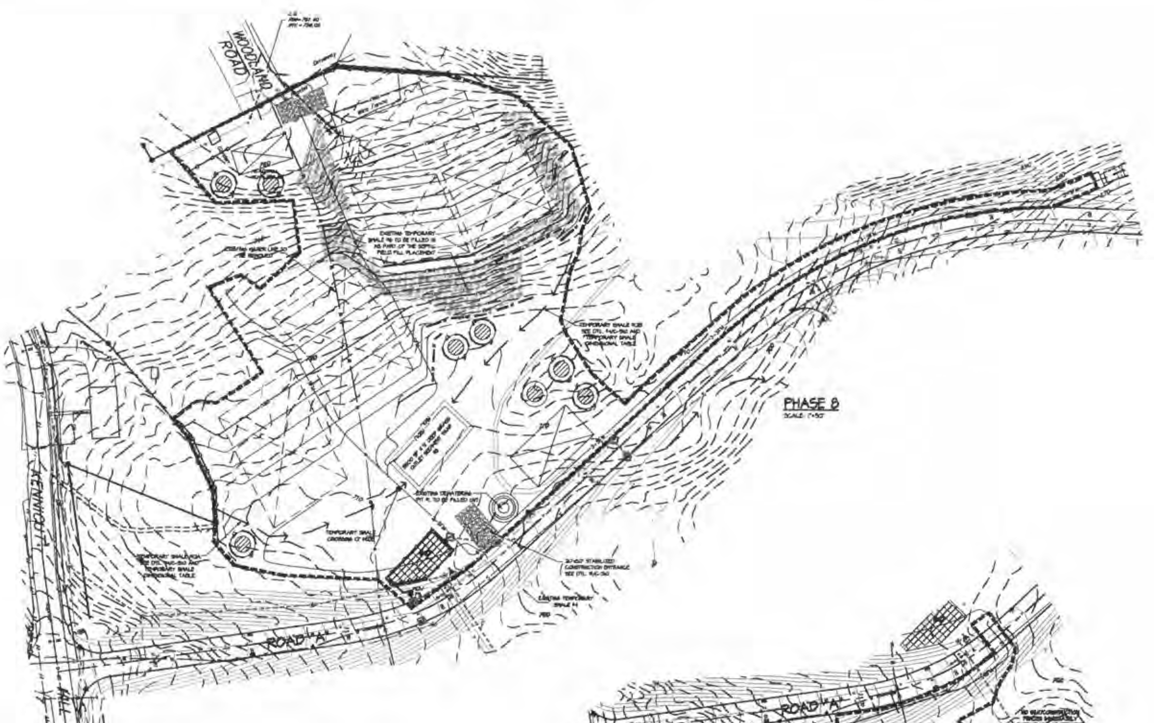
SEQUENCE OF CONSTRUCTION:

PHASE 8
DISTURBANCE AREA 4.8 AC.

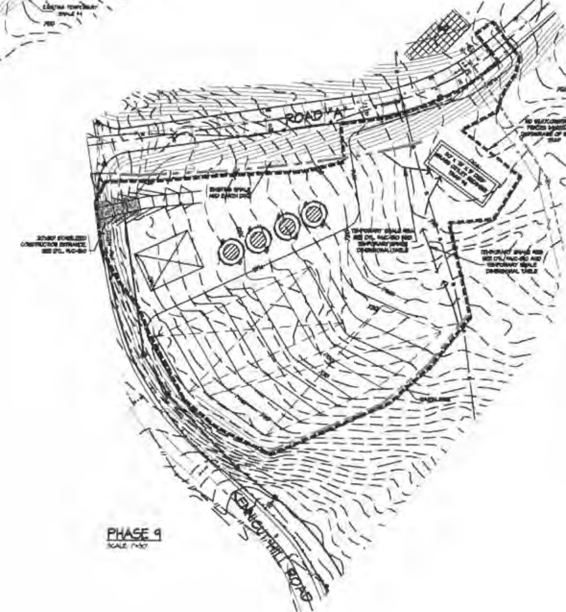
1. CONTRACTOR TO MAINTAIN PREVIOUSLY ESTABLISHED EROSION CONTROL MEASURES ALONG WITH ALL SILT FENCES INSTALLED.
2. EXTEND STABILIZED CONSTRUCTION ENTRANCE CREATED IN PHASE 1 OF THIS DEVELOPMENT AT THE END OF PAVEMENT OF WOODLAND ROAD, AS SHOWN ON THE PLAN. VEHICLES SHALL BE INSPECTED AND CLEANED, IF REQUIRED, PRIOR TO ENTERING PAVED ROAD. CHECK INTEGRITY OF PREVIOUSLY INSTALLED ORANGE SAFETY FENCE AROUND PROPOSED UNDERGROUND INFILTRATION SYSTEM UG-2. REPAIR IF NECESSARY.
3. ESTABLISH LIMITS OF DISTURBANCE AND MARK IN THE FIELD.
4. INSTALL CONSTRUCTION FENCES ALONG LIMITS OF DISTURBANCE. ADD AN ORANGE SAFETY FENCE ALONG PROPERTY LINES WHERE SHOWN ON THE PLAN.
5. ESTABLISH ADDITIONAL STABILIZED CONSTRUCTION ENTRANCE NEAR THE EXISTING DEWATERING PIT 1 AS SHOWN ON THE PLAN. THE PIT TO BE FILLED DURING FILL OPERATIONS.
6. INSTALL SILT FENCES IMMEDIATELY DOWNGRADE OF AREAS OF PROPOSED DISTURBANCE. ALL SILT FENCES TO BE INSTALLED PARALLEL TO CONTOURS.
7. CLEAR AND GRUB AREA OF PHASE 8 TO THE LIMITS OF DISTURBANCE SHOWN ON THE PLAN. STRIP TOPSOIL AND STORE USABLE ORGANIC MATERIAL AT STOCKPILES. PROVIDE STOCKPILE PROTECTION AS DETAILED.
8. ESTABLISH STAGING AREA. BRING IN ALL EQUIPMENT AND MATERIALS NECESSARY TO PERFORM PHASE 8 OF CONSTRUCTION.
9. EXCAVATE GRAVEL OUTLET SEDIMENT TRAP WHERE SHOWN ON THE PLAN TO THE DIMENSIONS INDICATED. EXCAVATE DIVERSION SWALES FOR [illegible] TO DIRECT RUNOFF TO THE TRAPS.
10. EXCAVATE AND REMOVE PORTION OF THE [illegible] ABANDONED IN PHASE 1 OF THIS CONSTRUCTION TRAVERSING THE PROPOSED SSTS FIELD AS SHOWN ON THE PLAN. BACKFILL TRENCH BELOW SSTS FILL LIMITS WITH R.O.B. GRAVEL. FILL PLACED IN 12 INCH LIFTS AND COMPACTED TO 95% DRY DENSITY BY MECHANICAL MEANS.
11. CONTRACTOR TO START TO BUILD A FILL PAD FOR THE PROPOSED SSTS. BRING IN R.O.B. FILL FROM OFFSITE SOURCES VIA TEMPORARY ENTRANCES AT WOODLAND ROAD AND ROAD "A".
12. LEVEL OF SEDIMENT IN SEDIMENT BASIN SHALL BE OBSERVED AND SEDIMENT REMOVED WHEN REACHES INDICATED LEVEL ON SEDIMENT REMOVAL MARKER.
13. SEED AND STABILIZE DISTURBED AREAS WITHIN ONE (1) WEEK AFTER GRADING. INSTALL EROSION CONTROL BLANKET AT LOCATIONS SHOWN ON THE PLAN.
14. EXCAVATE TRENCH ALONG ROAD "A" FOR FORCE MAIN INSTALLATION. CONNECT PIPES TO THE PUMP STATION NEAR CUL-DE-SAC.
15. EXCAVATE TRENCH ACROSS THE SITE FOR FORCE MAIN INSTALLATION. SPECIAL ATTENTION SHALL BE PROVIDED TO EXCAVATION NEAR SAFETY FENCE AROUND UG-2. EXCAVATE BY HAND IF NECESSARY. INSTALL THE PIPES. TEST FORCE MAINS.
16. TRENCHES TO BE BACKFILLED IMMEDIATELY UPON COMPLETION OF INSTALLATION OF PIPES. EXPOSED SOIL TO BE STABILIZED IMMEDIATELY AFTER BACKFILL.
17. CONTRACTOR TO INSTALL SEPTIC FIELD COMPONENTS PER SPECIFICATION ON SHEETS [illegible] AND C-[illegible].
18. SEED AND STABILIZE DISTURBED AREAS WITHIN ONE (1) WEEK AFTER GRADING. INSTALL EROSION CONTROL BLANKET AT LOCATIONS SHOWN ON THE PLAN.
19. AFTER PERMANENT STABILIZATION OF SSTS AREAS, CONTRACTOR MAY REMOVE STABILIZED CONSTRUCTION ENTRANCE AT THE END OF WOODLAND ROAD.
20. EXCAVATE FOR AND INSTALL WATER QUALITY VAULT [illegible] AND ALL COMPONENTS OF UNDERGROUND INFILTRATION SYSTEM UG-2. REFER TO DRAWINGS [illegible] FOR DETAILS. [illegible]
21. NO FURTHER CONSTRUCTION IS ALLOWED BEFORE ALL DISTURBED AREAS AS DESCRIBED IN PHASE 8 OF SEQUENCE OF CONSTRUCTION ARE STABILIZED.
22. REPAVE DISTURBED SECTION OF WOODLAND ROAD PAVEMENT. INSTALL CURBING AT THE END OF PAVEMENT AS SHOWN ON THE PLAN.

PHASE 9
DISTURBANCE AREA 2.8 AC.

1. CONTRACTOR TO MAINTAIN PREVIOUSLY ESTABLISHED EROSION CONTROL MEASURES ALONG WITH ALL SILT FENCES INSTALLED.
2. INSTALL STABILIZED CONSTRUCTION ENTRANCE AT KENNICUT HILL ROAD, AS SHOWN ON THE PLAN. VEHICLES SHALL BE INSPECTED AND CLEANED, IF REQUIRED, PRIOR TO ENTERING PAVED ROAD.
3. ESTABLISH LIMITS OF DISTURBANCE AND MARK IN THE FIELD.
4. INSTALL CONSTRUCTION FENCES ALONG LIMITS OF DISTURBANCE.
5. INSTALL SILT FENCES IMMEDIATELY DOWNGRADE OF AREAS OF PROPOSED DISTURBANCE. ALL SILT FENCES TO BE INSTALLED PARALLEL TO CONTOURS.
6. CLEAR AND GRUB AREA OF PHASE 9 TO THE LIMITS OF DISTURBANCE SHOWN ON THE PLAN. STRIP TOPSOIL AND STORE USABLE ORGANIC MATERIAL AT STOCKPILES. PROVIDE STOCKPILE PROTECTION AS DETAILED.
7. ESTABLISH STAGING AREA. BRING IN ALL EQUIPMENT AND MATERIALS NECESSARY TO PERFORM PHASE 9 OF CONSTRUCTION.
8. EXCAVATE AND REMOVE PORTIONS OF THE [illegible] ABANDONED IN PHASE 1 [illegible] WITHIN LIMITS OF PHASE 9 OF CONSTRUCTION.
9. EXCAVATE [illegible] GRAVEL OUTLET SEDIMENT TRAP WHERE SHOWN ON THE PLAN. EXCAVATE DIVERSION SWALES TO DIRECT RUNOFF TO THE TRAP.
10. INSTALL TEMPORARY EARTH DIKE ALONG EASTERN LIMITS OF CONSTRUCTION TO DIVERT CLEAN WATER AWAY FROM DISTURBED AREAS.
11. EXCAVATE TRENCH FOR FORCE MAIN INSTALLATION. INSTALL THE PIPE USING SLEEVE UNDER ROAD "A" INSTALLED AT PHASE 4 OF THIS CONSTRUCTION. CONNECT FORCE MAIN PIPES TO THE PIPES INSTALLED DURING PHASE 8. TRENCHES TO BE BACKFILLED IMMEDIATELY UPON COMPLETION OF INSTALLATION OF PIPES. EXPOSED SOIL TO BE STABILIZED IMMEDIATELY AFTER BACKFILL.
12. TEST FORCE MAINS.
13. CONTRACTOR TO START TO BUILD A FILL PAD FOR THE PROPOSED SSTS. BRING IN R.O.B. FILL FROM OFFSITE SOURCES.
14. LEVEL OF SEDIMENT IN SEDIMENT BASIN SHALL BE OBSERVED AND SEDIMENT REMOVED WHEN REACHES INDICATED LEVEL ON SEDIMENT REMOVAL MARKER.
15. SEED AND STABILIZE DISTURBED AREAS WITHIN ONE (1) WEEK AFTER GRADING. INSTALL EROSION CONTROL BLANKET AT LOCATIONS SHOWN ON THE PLAN.
16. CONTRACTOR TO INSTALL SEPTIC FIELD COMPONENTS PER SPECIFICATION ON SHEETS [illegible] AND C-[illegible].
17. CONVERT TEMPORARY SEDIMENT BASIN TO PERMANENT MICROPOOL EXTENDED DETENTION POND PER "BASIN CONVERSION NOTES".
18. NO FURTHER CONSTRUCTION IS ALLOWED BEFORE ALL DISTURBED AREAS AS DESCRIBED IN PHASE 9 OF SEQUENCE OF CONSTRUCTION ARE STABILIZED.



PHASE 8
SCALE: 1"=50'



PHASE 9
SCALE: 1"=50'

BASIN CONVERSION NOTES:

CONVERSION CAN ONLY TAKE PLACE AFTER ALL ACTIVITIES LISTED IN SEQUENCE OF CONSTRUCTION PHASES [illegible] TO [illegible] HAVE BEEN COMPLETED, DISTURBED AREAS STABILIZED TO THE SATISFACTION OF THE INSPECTION AUTHORITY AND STORM DRAINS HAVE BEEN FLUSHED.

1. CONSULT WITH THE EROSION AND SEDIMENT CONTROL INSPECTOR PRIOR TO BEGINNING THE CONVERSION TO ENSURE THAT THE TIMING IS APPROPRIATE FOR THE CONVERSION TO TAKE PLACE.
2. BE CERTAIN THAT THE POND IS COMPLETELY DEWATERED.
3. EXCAVATE SHORED SEDIMENT TO PROPOSED BASIN BOTTOM.
4. CHECK PERMANENT OUTLET STRUCTURES FOR ANY DAMAGE AND REPAIR IF NECESSARY. VERIFY EACH STRUCTURE WITH RESPECTIVE DETAIL.
5. REMOVE TEMPORARY DEWATERING DEVICES. INSTALL PERMANENT TRASH RACKS ON THE OUTLET STRUCTURES.
6. TOP SOIL THE BASIN WITH NO LESS THAN FOUR (4) INCHES OF SUITABLE TOP SOIL.
7. NO HEAVY EQUIPMENT SHALL BE ALLOWED IN THE BASIN.
8. SEED AND PLANT THE BASIN PER POND PLANTING PLANS.
9. DURING CONSTRUCTION LISTED IN PHASES [illegible] TO [illegible], THE BASIN SHALL BE INSPECTED DAILY AND ANY SPILL OF SEDIMENT TO THE BASIN REMOVED IMMEDIATELY. CONTACT EROSION AND SEDIMENT CONTROL INSPECTOR TO IDENTIFY SOURCE OF SEDIMENT AND WAYS TO PROTECT FROM ANY FURTHER SPILLS.

TEMPORARY SEDIMENT TRAP VOLUMES

1. SEDIMENT TRAP #[illegible]
CONTRIBUTING AREA- [illegible] AC.
REQUIRED VOLUME- 3600 CF PER ACRE X [illegible] ACRES = [illegible] CF
PROVIDED- [illegible] CF
SEDIMENT REMOVAL ELEVATION [illegible]
2. SEDIMENT TRAP #[illegible]
CONTRIBUTING AREA- [illegible] AC.
REQUIRED VOLUME- 3600 CF PER ACRE X [illegible] ACRES = [illegible] CF
VOLUME PROVIDED- [illegible] CF
SEDIMENT REMOVAL ELEVATION- [illegible]

CONTRACTOR INSTALLATION- SEWER/WATER & DRAINAGE NOTES:

1. THE CONTRACTOR IS TO SET ALL STRUCTURES THAT ARE IN ROAD "A" AND "B" AT BINDER ELEVATION IN ORDER TO COMPLY WITH THE SWPPP. ALL STRUCTURES- DMH, SMH, VALVE COVERS ARE TO BE RAISED USING RINGS WHEN THE COMES FOR TOP COAT ASPHALT. CB FRAME AND GRATES WILL HAVE TO BE MANUALLY RESET AT FINISH GRADE.

TEMPORARY SWALE DIMENSIONAL CHART

REFER TO DETAIL #4C-510

SWALE #	BOTTOM WIDTH (FT)	DEPTH (FT)	SIDE SLOPE (FT/FT)	LENGTH (FT)	SLOPE (%)
1A	2.0	1.0	2:1	245	8.1
1B	2.0	1.0	2:1	200	5.0
2	2.0	1.0	2:1	490	4.0
3	2.0	1.0	2:1	55	21.0
4	2.0	1.0	2:1	680	5.7
5	2.0	1.0	2:1	400	10.0
6	2.0	1.0	2:1	550	5.4
7	2.0	1.0	2:1	60	5.5
8	2.0	1.0	2:1	85	4.6
9	2.0	1.0	2:1	380	6.2
10	2.0	1.0	2:1	475	6.5
11	2.0	1.0	2:1	150	4.6
12A	2.0	1.0	2:1	230	5.4
12B	2.0	1.0	2:1	500	4.5
13A	2.0	1.0	2:1	60	8.5
13B	2.0	1.0	2:1	65	8.5

EROSION & SEDIMENT CONTROL PLAN - PHASES 8 & 9

GRAPHIC SCALE
1 INCH = 50 FEET

PUTNAM ENGINEERING PLLC
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PURSUANT TO NEW YORK STATE EDUCATION LAW, ARTICLE 145, SECTION 7209 SUBDIVISION 2, "IT IS A VIOLATION OF THIS LAW FOR ANY PERSON UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ENGINEER IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION."

REVISIONS

NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
1	[illegible]	GENERAL PLAN / PROFILE REVISIONS	9	[illegible]	REV. PER PCHD COMMENTS
2	[illegible]	REV. PER TE / PCHD MEMOS	10	[illegible]	REV. PER NYCDEP COMMENTS
3	[illegible]	REV. PER TE / [illegible] MEMOS	11	[illegible]	REV. PER NYCDEP COMMENTS
4	[illegible]	PROGRESS DWGS TO CONTRACTOR	12	[illegible]	RELOCATED WATER AND SEWER LINES
5	[illegible]	NYCDEP SUBMISSION	13	[illegible]	CHANGE TO DTL. [illegible]
6	[illegible]	UPDATED DRAWING LIST	14	[illegible]	ADDING UG-2 TO SEQUENCE OF CONSTR.
7	[illegible]	REVISED PER PCHD/NYCDEP COMMENTS			
8	[illegible]	REVISED PER NYCDEP COMMENTS			

PROJECT: RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:
RANDOM RIDGE
KENNICUT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK

DATE: SEPT. 3, 2014
PROJECT MANAGER: PHL
DRAWN BY: [illegible]
CHECKED BY: PHL
SCALE: AS NOTED

DRAWING: EROSION and SEDIMENT CONTROL PLAN PHASES 8 & 9

PROJECT NUMBER: [illegible]
DRAWING NUMBER: **C-154**
SHEET [illegible] OF 84

EROSION CONTROL LEGEND:

- EXISTING DRAINAGE PIPE
- EXISTING CONTOURS
- PROPOSED CONTOURS
- STABILIZED CONSTRUCTION ENTRANCE
- TEMPORARY STAGING AREA
- LIMITS OF DISTURBANCE
- EARTH DIKE
- TEMPORARY SOIL STOCKPILE
- INLET PROTECTION
- SILT FENCE
- EROSION CONTROL BLANKET
- CONSTRUCTION FENCE
- CHECK DAM
- LEVEL SPREADER
- TEMPORARY SWALE
- YCP — PROPOSED YARD DRAIN
- OCP — PROPOSED OUTLET STRUCTURE
- CCB — PROPOSED CATCH BASIN
- ECP — PROPOSED END SECTION
- SPP — PROPOSED STORMWATER PLANTER
- RGG — PROPOSED RAIN GARDEN
- SSTS — PROPOSED SUBSURFACE TREATMENT SYSTEM

TEMPORARY SWALE DIMENSIONAL CHART

REFER TO DETAIL 9-6.C-5.0

SWALE #	BOTTOM WIDTH (FT)	DEPTH (FT)	SIDE SLOPE (FT:FT)	LENGTH (FT)	SLOPE (%)
1A	2.0	1.0	3:1	245	8.1
1B	2.0	1.0	3:1	200	5.0
2	2.0	1.0	3:1	440	9.0
3	2.0	1.0	3:1	185	3.0
4	3.0	1.0	3:1	680	4.7
5	2.0	1.0	3:1	400	10.0
6	2.0	1.0	3:1	350	3.4
7	2.0	1.0	3:1	60	3.3
8	2.0	1.0	3:1	65	4.6
9	2.0	1.0	3:1	380	8.2
10	2.0	1.0	3:1	475	8.5
11	2.0	1.0	3:1	350	4.6
12A	2.0	1.0	3:1	65	3.4
12B	2.0	1.0	3:1	300	4.5
13A	2.0	1.0	3:1	60	5.7
13B	2.0	1.0	3:1	68	8.8

SEQUENCE OF CONSTRUCTION:

PHASE 10A, 10B, 10C AND 10D
DISTURBABLE AREA: PHASE 10A=1.7 AC.
PHASE 10B=1.4 AC.
PHASE 10C=3.6 AC.
PHASE 10D=1.7 AC.

DURING CONSTRUCTION LISTED IN PHASES 10A TO 10D THE DETENTION BASIN SHALL BE INSPECTED DAILY AND ANY SPILL OF SEDIMENT TO THE BASIN REMOVED IMMEDIATELY. CONTACT ENGINEER AND SEDIMENT CONTROL INSPECTOR TO IDENTIFY SOURCE OF SEDIMENT AND HAVE TO PROTECT FROM ANY FURTHER SPILLS.

SEQUENCE OF PHASES 10A, 10B, 10C AND 10D IS NOT PREDETERMINED. THE UNDERDEVELOPER MAY BEGIN WITH ANY OF THE LISTED PHASES. HOWEVER THEY ALSO START CONSTRUCTION OF TWO PHASES SIMULTANEOUSLY HOWEVER THAT THE TOTAL DISTURBANCE AREA WILL NOT EXCEED 5 ACRES. CONSTRUCTION SHALL FOLLOW STEPS LISTED BELOW

1. CONTRACTOR TO MAINTAIN ALL SILT AND SAFETY FENCES PREVIOUSLY INSTALLED.
2. SURVEY AND STAKE OUT PROPOSED ROADS, DRIVEWAYS AND STORMWATER SWP LOCATIONS. ESTABLISH LIMITS OF DISTURBANCE AND MARK IN THE FIELD. INSTALL CONSTRUCTION FENCE ALONG PERIMETERS OF THE PROPOSED DISTURBANCE.
3. INSTALL STABILIZED CONSTRUCTION ENTRANCE PER UNIT 2017 REVISED AS SHOWN. VEHICLES SHALL BE INSPECTED AND CLEANED, IF REQUIRED, PRIOR TO ENTERING PAVED ROAD.
4. INSTALL SILT FENCES IMMEDIATELY DOWNRANGE OF AREAS OF PROPOSED DISTURBANCE. WHERE CONSTRUCTION IS IN CLOSE PROXIMITY OF WETLANDS (PHASE 10B), INSTALL DOUBLE ROWS OF FENCES. ALL SILT FENCES TO BE INSTALLED PARALLEL TO CONTOURS.
5. INSTALL SAFETY FENCES INSTALLED AROUND INFILTRATION PRACTICES. REPAIR IF NECESSARY
6. BUILD RETAINING WALLS (PHASE 10A OR 10D)
7. ROUGH GRADE SITE. INSTALL TOPS AND CHECKS ALONG WITH CONNECTING PIPE (PHASE 10C)
8. EXCAVATE PERMANENT SWALE WHERE USED (CREATE BERM UPSTREAM THE BAD SWALE TO DIVERT RUNOFF FROM DISTURBED AREAS TO THE SWALE. INSTALL THIRD DRAIN #3, ALONG WITH CONNECTING PIPE TO DETENTION. PROTECT NEWLY INSTALLED INLET PER DETAIL 9-6.C-4.0)
9. DEWATERING BAGS SHALL BE AVAILABLE ON THE SITE IN CASE DEWATERING AFTER RAIN EVENT IS NECESSARY
10. BUILD HOUSES. INSTALL ROOF DRAINS. CONNECT HOUSE TO ALL UTILITY LINES. TRENCHES TO BE BACKFILLED IMMEDIATELY UPON COMPLETION OF INSTALLATION OF PIPES AND CABLES. EXPOSED SOIL TO BE STABILIZED AFTER BACKFILL.
11. COMPLETE GRADING. SEED AND STABILIZE DISTURBED AREAS WITHIN 30 (3) WEEKS FOLLOWING CONSTRUCTION

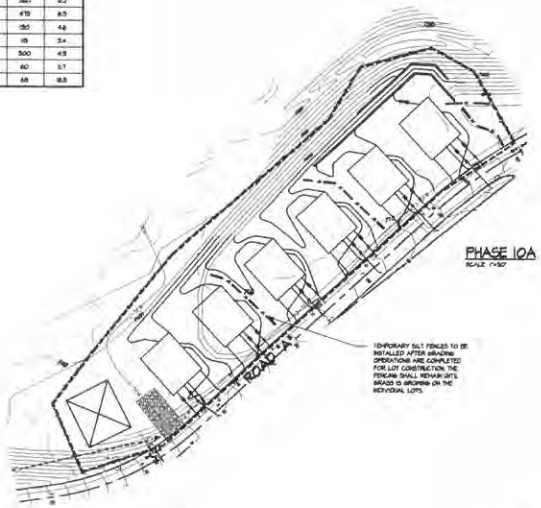
AFTER COMPLETING THE ABOVE LISTED ACTIVITIES FOR EACH PHASE, THE CONTRACTOR MAY CONTINUE INTO THE FOLLOWING.

a. INSTALL SUB-COURSE PAVEMENT ON INDIVIDUAL DRIVEWAYS, ROAD "A" AND ROAD "B". CLEAN ALL DRAINAGE STRUCTURES.
b. CLEAN ACCUMULATED SEDIMENT IN THE SWALES, REMOVE BERMS AT TEMPORARY SWALE LOCATIONS.
c. COMPLETE PLANTING AND STABILIZE PERMANENTLY ALL DISTURBED AREAS.
d. EXCAVATE PIPE AND INSTALL INFILTRATION TRENCH ALONG WITH OUTLET STRUCTURE OS 5 AS SHOWN ON PLAN AND DETAILS. CONNECT OUTLET STRUCTURE TO DETENTION (PHASE 10B).
e. EXCAVATE PIPE AND INSTALL INFILTRATION ALONG WITH OUTLET STRUCTURE OS 3 AS SHOWN ON PLAN AND DETAILS. REMOVE TEMPORARY DIKES AND PIPES INSTALLED AT PHASE 1 OF THIS SEQUENCE OF CONSTRUCTION. INSTALL PIPES CONNECTING OUTLET STRUCTURE OS5 TO DETENTION. CONNECT AND CHANGE PHASE 10A2 EXCAVATION FOR PIPES WITHIN THE DETENTION. THE DETENTION SHALL BE DONE FROM OUTSIDE OF THE DETENTION PERIMETERS OR BY HAND TO AVOID SOIL COMPACTION.
f. EXCAVATE PIPE AND INSTALL UNDERGROUND INFILTRATION SYSTEM BASIN. CONNECT ROOF LEADERS TO THE OS AS SHOWN ON THE PLAN AND DETAILS.
g. EXCAVATE PIPE AND INSTALL RAIN GARDENS AS SHOWN ON PLAN AND DETAILS.
h. CONSTRUCTION OF FACILITIES LISTED IN ITEMS d, e, f AND g ABOVE IS NOT ALLOWED UNTIL ALL CONTRIBUTING DRAINAGE AREAS HAVE BEEN STABILIZED.
i. REMOVE ALL TEMPORARY EROSION CONTROL MEASURES TO INCLUDE SILT FENCE.
j. UPON COMPLETION OF ALL ABOVE ACTIVITIES AND SATISFACTORY ESTABLISHMENT OF VEGETATION OR ALL DISTURBED AREAS, CONTRACTOR TO PERFORM FINAL CLEANING OF THE PROJECT SITE.

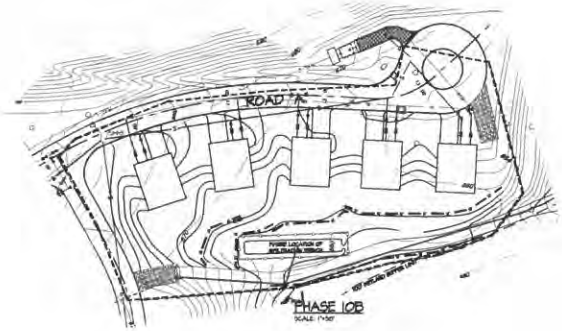
SOIL RESTORATION NOTES:

PRIOR TO SOIL RESTORATION ALL CONSTRUCTION ACTIVITIES INCLUDING CONSTRUCTION EQUIPMENT AND MATERIAL STORAGE, SITE CLEANUP AND TRAFFICKING SHOULD BE FINISHED AND THE SITE CLOSED OFF TO FURTHER DISTURBANCE.

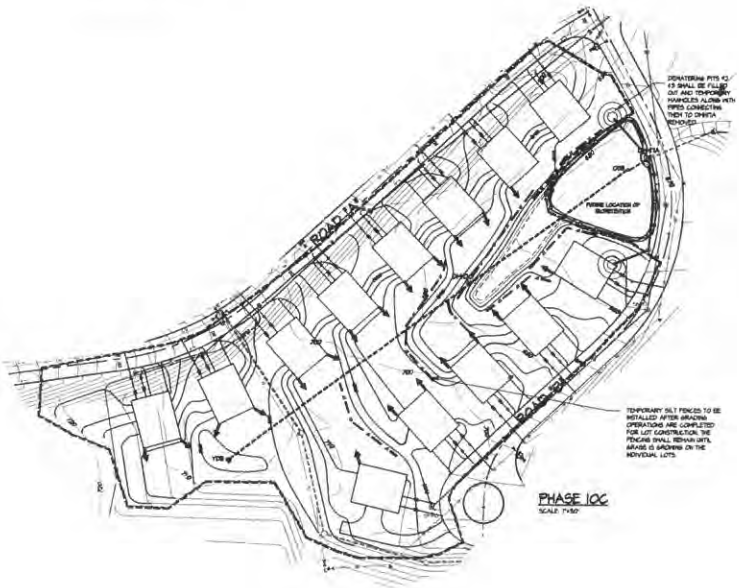
1. AREAS WHERE TOPSOIL IS STRIPPED ONLY, NO CHANGE IN GRADE.
   APPLY 6" OF TOPSOIL.
2. AREAS OF CUT AND FILL.
   REPLATE AND APPLY 6" OF TOPSOIL.
3. HEAVY TRAFFIC AREA (ESPECIALLY ZONE DISTURB B TO CB FROM FOUNDATION)
   THE PROCEDURE CAN BE PERFORMED DURING LOW TO MODERATE SOIL MOISTURE CONDITION.
   A) WHEN APPLICABLE, GRADE DEEP RIPPER, DEEP RIP THE APPLICED THICKNESS OF EXPOSED SUBSOIL HORIZONTAL, UNIDIRECTIONALLY TRACTORS IT BEFORE THE PROTECTED TOPSOIL IS SUPPLIED ON THE SITE.
   B) SPREAD TOPSOIL IN FINALIZE SHAPE.
   C) WHEN PRACTICE SUB-SOILER OR AN EXCAVATOR EQUIPPED WITH A SUBSOILING SHAPPLE RAKE, DECOMPACT APPROPRIATE PART OF THE AFFECTED SOIL, PREFERABLY DURING THE PREVIOUS PHASES. ADD COMPOST (INGREDIENT).



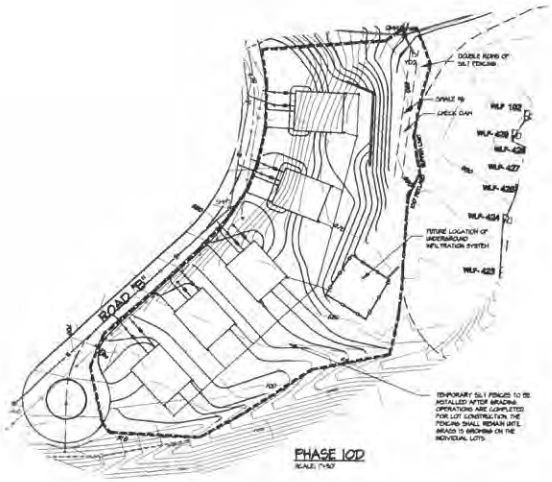
PHASE 10A
SCALE 1"=50'



PHASE 10B
SCALE 1"=50'



PHASE 10C
SCALE 1"=50'



PHASE 10D
SCALE 1"=50'

EROSION & SEDIMENT CONTROL PLAN - PHASE 10

GRAPHIC SCALE
1 INCH = 50 FEET

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REVISIONS

NO.	DATE	DESCRIPTION	BY	CHK'D	DESCRIPTION
1	5-14-18	ADDED SWALE #6 & CHECK DAMS	PL	PL	ADD SWALE #6 & CHECK DAMS
2	6-14-18	REV PER SITE & FIELD CHANGES	PL	PL	REV PER SITE & FIELD CHANGES
3	10-15-18	REV PER SITE & FIELD CHANGES	PL	PL	REV PER SITE & FIELD CHANGES
4	11-14-18	REV PER SITE & FIELD CHANGES	PL	PL	REV PER SITE & FIELD CHANGES
5	12-14-18	REVISED DRAINAGE	PL	PL	REVISED DRAINAGE
6	1-14-19	REVISED DRAINAGE	PL	PL	REVISED DRAINAGE
7	2-14-19	REVISED DRAINAGE	PL	PL	REVISED DRAINAGE
8	3-14-19	REVISED PER SITE & FIELD CHANGES	PL	PL	REVISED PER SITE & FIELD CHANGES
9	4-14-19	REVISED PER SITE & FIELD CHANGES	PL	PL	REVISED PER SITE & FIELD CHANGES

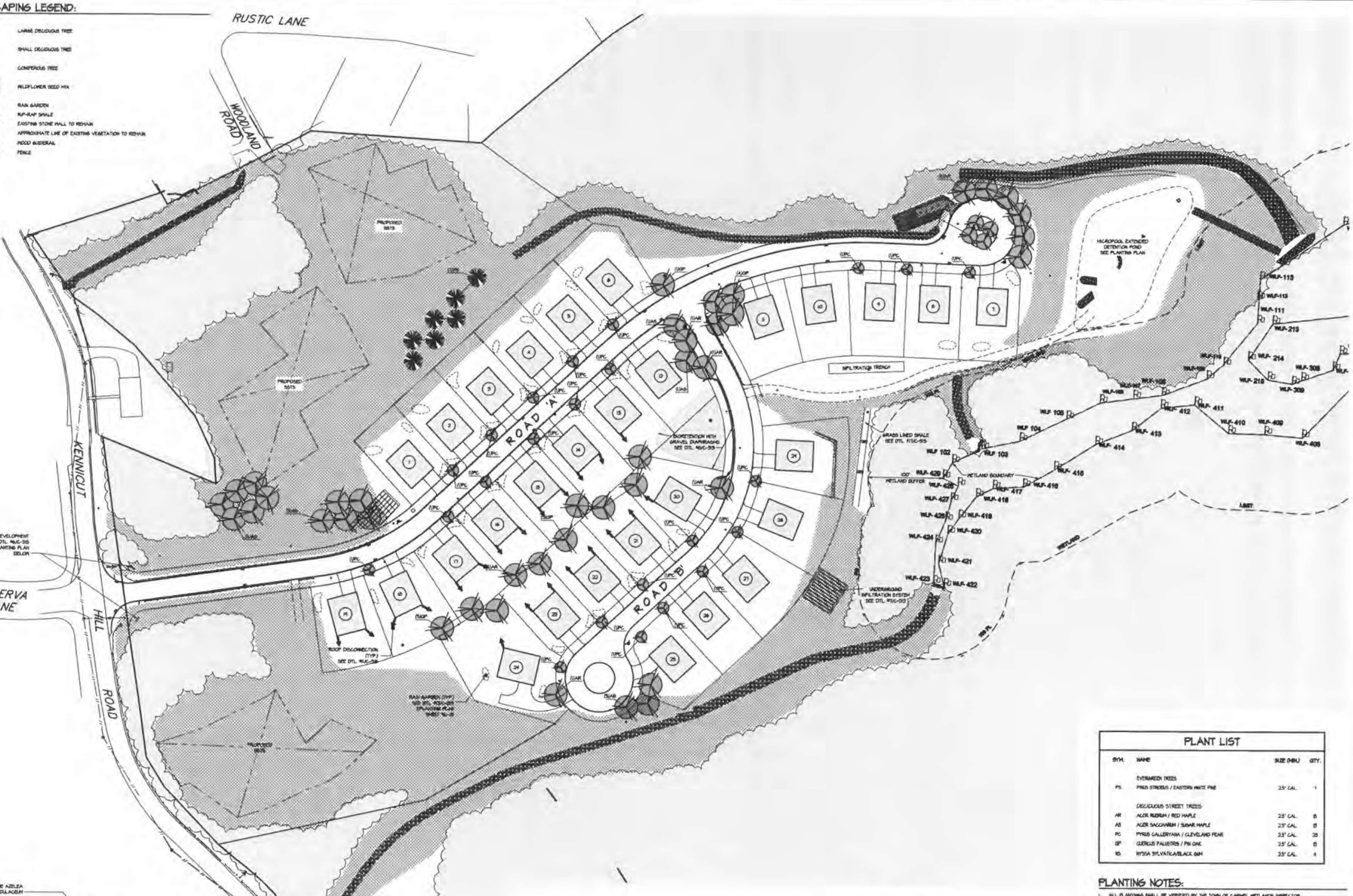
PROJECT: RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:
RANDOM RIDGE
TENIGUIT HILL ROAD
TOWN OF CARMEL
PUTNAM COUNTY, NEW YORK

DATE: SEPT. 2, 2017
PROJECT MANAGER: PAL
DRAWN BY: PAL
CHECKED BY: PAL
SCALE: AS NOTED

DRAWING: EROSION and SEDIMENT CONTROL PLAN PHASE 10

PROJECT NUMBER: 1501
DRAWING NUMBER: C-155

SHEET 17 OF 34



PLANT LIST

SYM.	NAME	SIZE (MIN.)	QTY.
	EVERGREEN TREES		
PS	PINUS STROBUS / EASTERN WHITE PINE	2.5" CAL.	1
	DECIDUOUS STREET TREES		
AR	ACER RUBRUM / RED MAPLE	2.5" CAL.	8
AS	ACER SACCHARUM / SUGAR MAPLE	2.5" CAL.	8
PC	PYRUS CALLERYANA / CLEVELAND PEAR	2.5" CAL.	25
QP	QUERCUS PALUSTRIS / PIN OAK	2.5" CAL.	6
NS	NYSSA SYLVATICA/BLACK GUM	2.5" CAL.	4

PLANTING NOTES:

1. ALL PLANTINGS SHALL BE VERIFIED BY THE TOWN OF CARMEL WETLANDS INSPECTOR.
2. ALL PLANTINGS SHALL BE INSTALLED PER CHAPTER 143 OF THE TOWN OF CARMEL CODE.
3. NO PARKING OR STORAGE OF MATERIALS WILL BE PERMITTED UNDER DRIP LINE OF EXISTING TREES AND SHRUBS TO REMAIN.
4. ALL PLANT MATERIALS SHALL BE NURSERY GROWN, FULLY FORMED AND IN A HEALTHY CONDITION FREE OF INSECTS, PESTS, DISEASE OR DAMAGE AT THE TIME OF INSTALLATION.
5. ALL PLANTS SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN.
6. ALL LANDSCAPING SHOWN SHALL BE MAINTAINED IN A HEALTHY GROWING CONDITION THROUGHOUT THE DURATION OF THE USE BEING SERVED. PLANTS NOT SO MAINTAINED SHALL BE REPLACED WITH HEALTHY NEW PLANTS OF COMPARABLE SIZE, TYPE AND QUANTITY AT THE BEGINNING OF THE IMMEDIATELY FOLLOWING GROWING SEASON.
7. TOPSOIL ALL DISTURBED AREAS WITH NOT LESS THAN FOUR (4) INCHES OF SUITABLE TOPSOIL MATERIAL.
8. SEED ALL OTHER DISTURBED AREAS IN ACCORDANCE WITH THE "SLOPE STABILIZATION NOTES"
9. MULCH ALL AREAS WITH STRAW AT THE RATE OF TWO TONS PER ACRE.
10. ALL UTILITIES MAY NOT BE SHOWN. CONTRACTOR SHALL VERIFY LOCATIONS OF UTILITIES BEFORE PROCEEDING WITH WORK.
11. SEE "EROSION AND SEDIMENT CONTROL PLAN", DWG. 4C-150 FOR MAINTENANCE AND ESTABLISHMENT OF GROWTH.
12. AFTER ESTABLISHMENT OF DENSE, VIGOROUS VEGETATION, PHOSPHORUS BASED FERTILIZERS SHALL NOT BE USED. ONLY NON-PHOSPHORUS BASED FERTILIZER MAY BE APPLIED TO THE LAWN AND GRASSED AREAS.

SEED AS FOLLOWS:

TEMPORARY STABILIZATION:

AREAS WHERE TEMPORARY STABILIZATION IS NEEDED, SUCH AS GRADED AREAS TO BE STABILIZED UNTIL START OF NEXT CONSTRUCTION PHASE OR SEASON, ARE TO BE IMMEDIATELY STABILIZED AS FOLLOWS UNLESS OTHERWISE SPECIFIED:

SPRING/SUMMER/EARLY FALL PLANTING:
ANNUAL RYEGRASS + CEREAL OATS (LOLIUM MULTIFLORUM) — 50 LBS/AC

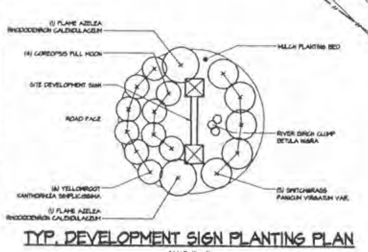
LATE FALL/EARLY WINTER:
AROOSTOOK WINTER RYE (LOLIUM PERENNE VAR. ARISTATUM) — 100 LBS/AC

PERMANENT STABILIZATION:

ALL DISTURBED AREAS, CUT SLOPES AND EMBANKMENT FILL AREAS ARE TO BE IMMEDIATELY STABILIZED AS FOLLOWS, UNLESS OTHERWISE SPECIFIED:

	SEED	LBS/AC
MAINTAINED TURF GRASS:	KENTUCKY BLUE GRASS	20
	CREEPING RED FESCUE	20
	RED TOP OR RYE GRASS	5

WILDFLOWER AREAS: "NATIVE STEEP SLOPE MIX WITH ANNUAL RYEGRASS" SEED MIX ERNMX-181 AS MFR. BY ERNST CONSERVATION SEEDS, WITH AN APPLICATION RATE OF 60 LBS/ACRE.



TYP. DEVELOPMENT SIGN PLANTING PLAN

SCALE: 1" = 4'

LANDSCAPE PLAN

GRAPHIC SCALE

1 INCH = 50 FEET

PUTNAM ENGINEERING PLLC
ENGINEERS - ARCHITECTS
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REVISIONS

RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:

RANDOM RIDGE

KENNICUT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK

DATE: SEPT. 5, 2014
PROJECT MANAGER: PHL
DRAWN BY: PB
CHECKED BY: PHL
SCALE: AS NOTED

DRAWING: LANDSCAPE PLAN

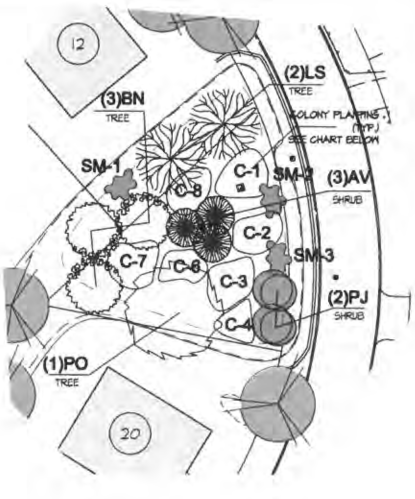
PROJECT NUMBER: 8101

DRAWING NUMBER: C-160

SHEET 18 OF 34

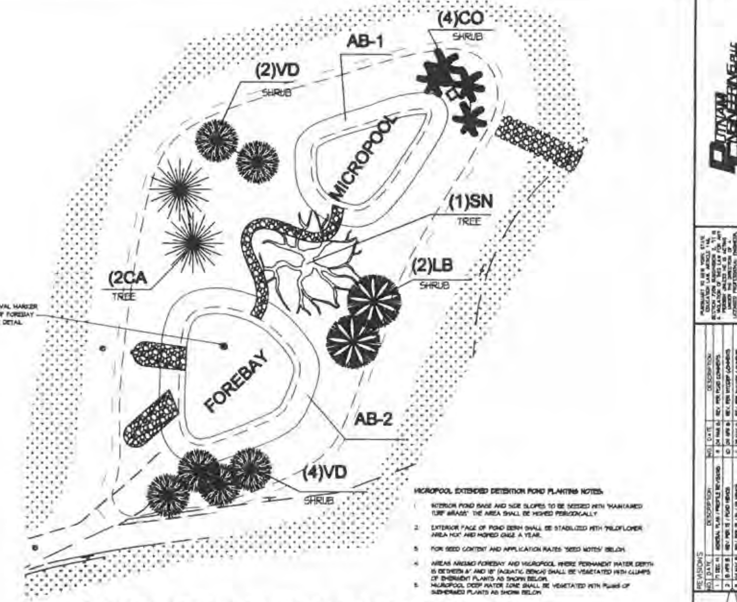
PLANT LIST FOR BIORETENTION AND MICROPOOL EXTENDED DETENTION POND

Abbr.	Botanical Name	Common Name	Size	# of Plants
Deciduous Trees				
BN	Betula nigra	River Birch	3'-4' ht.	3
CA	Cornus amomum	Silky Dogwood	1.5-2' ht. (1 gal.)	2
LS	Liquidambar styraciflua	Sweetgum	2'-3' ht.	2
PO	Platanus occidentalis	Sycamore	2-3' ht.	1
SN	Salix nigra	Black Willow	1-2' ht. (1 gal.)	1
Shrubs				
AV	Azalea viscosum	Swamp Azalea	1 gal. pot	3
CO	Cephalanthus occidentalis	Buttonbush	1 gal. pot	4
LB	Lindera benzoin	Common Spice Bush	1 gal. pot	2
PJ	Pieris japonica	Japanese Andromeda	1 gal. pot	2
VD	Viburnum dentatum	Arrowwood Viburnum	1 gal. pot	6
Shrubs and Perennial Masses				
SM-1				1
MS	Miscanthus Sinensis	Silver Feather Maiden Grass	1 gal. pot	
RF	Rudbeckia Fulgida	Black Eye Susan	1 gal. pot	
SM-2				1
HQ	Hydrangea Quercifolia	Oakleaf Hydrangea	1 gal. pot	
MF	Monarda Fistulosa	Wild Bergamot	4" pots	
SM-3				1
IC	Ilex Glabra Compacta	Compact Inkberry	1 gal. pot	
PF	Potentilla Fruticosa	Potentilla 'Goldfinger'	1 gal. pot	
Perennial Masses (Bioretention)				
C-1	Iris versicolor	Blue Flag	2"x2"x5" plug	40
C-2	Lobelia cardinalis	Cardinal Flower	2"x2"x5" plug	35
C-3	Phlox maculata	Meadow Phlox	2"x2"x5" plug	40
C-4	Eupatorium purpureum	Joe Pye Weed	2"x2"x5" plug	25
C-5	Mertensia virginica	Virginia Bluebells	2"x2"x5" plug	0
C-6	Mimulus ringens	Monkey Flower	2"x2"x5" plug	25
C-7	Aquilegia canadensis	Columbine	2"x2"x5" plug	42
C-8	Onoclea sensibilis	Sensitive Fern	2"x2"x5" plug	50
Aquatic Bench Planting (Micropool Extended Detention Pond)				
AB-1 & AB-2				
B1	Peltandra virginica	Arrow Arum	2"x2"x5" plug	10
B2	Pontederia cordata	Pickerelweed	2"x2"x5" plug	8
B3	Andropogon virginicus	Broomsedge	2"x2"x5" plug	8
B4	Juncus effusus	Soft Rush	2"x2"x5" plug	8
B5	Zizania aquatica	Wild Rice	2"x2"x5" plug	10
Micropool Planting				
P1	Lemna sp.	Duckweed	2"x2"x5" plug	100
P2	Potamogeton pectinatus	Sago pondweed	2"x2"x5" plug	100
P3	Vallisneria americana	Wild celery	2"x2"x5" plug	100



BIORETENTION PLANTING PLAN

SCALE: 1" = 20'

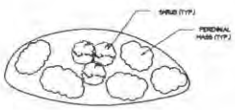


MICROPOOL EXTENDED DETENTION POND PLANTING NOTES:

1. INTERIOR POND BASE AND SIDE SLOPES TO BE SEEDED WITH "MAINTAINED TURF GRASS". THE AREA SHALL BE MOWED PERIODICALLY.
2. EXTERIOR FACE OF POND BERM SHALL BE STABILIZED WITH "WILDFLOWER AREA MIX" AND MOWED ONCE A YEAR.
3. FOR SEED CONTENT AND APPLICATION RATES "SEED NOTES" BELOW.
4. AREAS AROUND FOREBAY AND MICROPOOL WHERE PERMANENT WATER DEPTH IS BETWEEN 6" AND 18" (AQUATIC BENCH) SHALL BE VEGETATED WITH CLUMPS OF EMERGENT PLANTS AS SHOWN BELOW.
5. MICROPOOL DEEP WATER ZONE SHALL BE VEGETATED WITH PLUGS OF SUBMERGED PLANTS AS SHOWN BELOW.

MICROPOOL EXTENDED DETENTION POND PLANTING PLAN

SCALE: 1" = 30'



RAIN GARDEN PLANTS

SYMBOL	TYPE	PLANTINGS TO SELECT FROM
	SHRUB	ILEX VERTICILLATA (WINTERBERRY) VIBURNUM DENTATUM (ARROWWOOD) CLETHRA ALNIFOLIA (SWEET PEPPERBUSH)
	PERENNIAL MASS	CINNAMON FERN (OSMUNDA CINNAMOMEA) CUTLEAF CONEFLOWER (RUDBECKIA LACINIATA) GREAT BLUE LOBELIA (LOBELIA SIPHATICA) WILD BERGAMOT (MONARDA FISTULOSA) NEW ENGLAND ASTER (ASTER NOVAE-ANGLIAE) WOOLGRASS (SCIRPUS CYPERINUS) BUTTERFLY WEED (ASCLEPIAS TUBEROSA) WOOD LILY (LILIUM PHILADELPHICUM) SOLOMON'S SEAL (POLYGONATUM BIFLORUM)

NOTES:

1. THERE IS TOTAL OF 48 RAIN GARDENS PROPOSED FOR THE DEVELOPMENT. THEY VARY BY SIZE AND SUN EXPOSURE. FOR LOCATION REFER TO DRAWING KC-160 (GREEN INFRASTRUCTURE ALLOCATION PLAN). TO DIVERSIFY LANDSCAPE APPEARANCE AND TO PROVIDE PLANTS BEST SUITABLE FOR THE SUN EXPOSURE AT THE SITE, ONLY GENERAL PLANTING INSTRUCTIONS ARE PROVIDED. EACH RAIN GARDEN SHALL HAVE NUMBER OF SHRUBS AND PERENNIAL AS LISTED BELOW. THE LANDSCAPER WILL BE RESPONSIBLE FOR THE PLANT SELECTION.
2. PLANTS SHALL BE CONTAINER-GROWN WITH A WELL ESTABLISHED ROOT SYSTEM.
3. SHREDDED HARDWOOD MULCH SHOULD BE APPLIED UP TO 2" TO KEEP SOIL IN PLACE.

RAIN GARDEN ID	AREA (SF)	NUMBER OF GARDENS	# OF SHRUBS PER GARDEN	TOTAL # OF SHRUBS	# OF PERENNIALS PER GARDEN	TOTAL # OF PERENNIALS
RG1	220	10	3	30	40	400
RG2	110	38	2	76	25	950
RG3	60	0	1	0	12	0

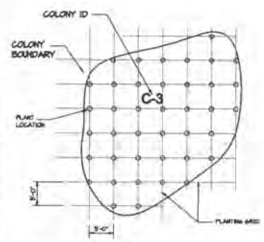
RAIN GARDEN PLANTING (TYP.)

N.T.S.

LANDSCAPING LEGEND:

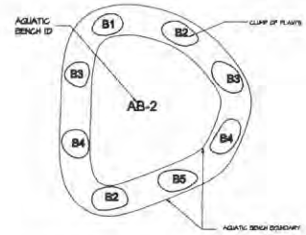
- STREET TREE - SEE DRAWING KC-160
- WILDFLOWER AREA - SEE DRAWING KC-160
- RIP-RAP SWALE
- PROPOSED TREE - SEE TABLE ABOVE
- PROPOSED SHRUB - SEE TABLE ABOVE
- PROPOSED SHRUB AND PERENNIAL MASS - SEE TABLE ABOVE
- PROPOSED PERENNIAL COLONY - SEE TABLE ABOVE

COLONY ID	COLONY AREA (SF)	# OF PLANTS PER COLONY
C-1	320	40
C-2	280	35
C-3	320	40
C-4	210	25
C-5		
C-6	210	25
C-7	350	42
C-8	250	50

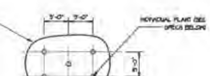


COLONY PLANTING (TYP.)

1" = 8'



AQUATIC BENCH ID	AREA (SF)	# OF CLUMPS PER AQUATIC BENCH B1	B2	B3	B4	B5
AB-1	1200	1	1	1	1	1
AB-2	1800	1	2	2	2	1

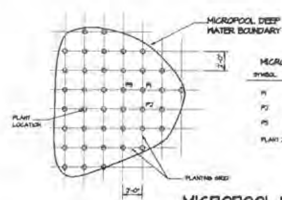


CLUMP PLANTING (TYP.)

1" = 8'

EXTENDED DETENTION BASIN PLANTINS LEGEND:

SYMBOL	PLANTINGS
B1	PELTANDRA VIRGINICA (ARROW ARUM), FIVE 1 GAL. CONTAINER INDIVIDUALS PER CLUMP
B2	PONTEDERIA CORDATA (PICKERELWEED), FIVE 12"-18" HIGH INDIVIDUALS PER CLUMP
B3	ANDROPOGON VIRGINICUS (BROOMSEDGE), FIVE 1 GAL. CONTAINER INDIVIDUALS PER CLUMP
B4	JUNCUS EFFUSUS (SOFT RUSH), FIVE 1 GAL. CONTAINER INDIVIDUALS PER CLUMP
B5	ZIZANIA AQUATICA (WILD RICE), FIVE 1 GAL. CONTAINER INDIVIDUALS PER CLUMP



MICROPOOL PLANTING LEGEND:

SYMBOL	PLANTINGS	SIZE
P1	LEMNA SP. (DUCKWEED)	2" PLUG
P2	POTAMOGETON PECTINATUS (SAGO PONDWEED)	2" PLUG
P3	VALLISNERIA AMERICANA (WILD CELERY)	2" PLUG

PLANT 2" PLUG SPECIES ALTERNATELY AT 24" O.C.

MICROPOOL PLANTING (TYP.)

N.T.S.

STORMWATER STRUCTURES PLANTING PLAN

SEED NOTES:

TEMPORARY STABILIZATION:

AREAS WHERE TEMPORARY STABILIZATION IS NEEDED, SUCH AS GRADED AREAS TO BE STABILIZED UNTIL START OF NEXT CONSTRUCTION PHASE OR SEASON, ARE TO BE IMMEDIATELY STABILIZED AS FOLLOWS UNLESS OTHERWISE SPECIFIED:

SPRING/SUMMER/EARLY FALL PLANTING:
ANNUAL RYEGRASS & CEREAL OATS (LOLIUM MULTIFLORUM) — 30 LBS/AC

LATE FALL/EARLY WINTER:
AROOSTOOK WINTER RYE (LOLIUM PERENNE VAR. ARISTATUM) — 100 LBS/AC

PERMANENT STABILIZATION:

ALL DISTURBED AREAS, CUT SLOPES AND EMBANKMENT FILL AREAS ARE TO BE IMMEDIATELY STABILIZED AS FOLLOWS UNLESS OTHERWISE SPECIFIED:

	SEED	LBS/AC
MAINTAINED TURF GRASS:	KENTUCKY BLUE GRASS	30
	CREEPING RED FESCUE	28
	RED TOP OR RYE GRASS	5
WILDFLOWER AREAS:	"LOW-GROWING WILDFLOWER & GRASS MIX" SEED MIX ERNMX-108 AS MFR. BY ERNST CONSERVATION SEEDS, WITH AN APPLICATION RATE OF 30-40 LBS/ACRE.	

PLANTING NOTES:

1. ALL PLANTINGS SHALL BE VERIFIED BY THE TOWN OF CARMEL WETLANDS INSPECTOR.
2. ALL PLANTINGS SHALL BE INSTALLED PER CHAPTER 142 OF THE TOWN OF CARMEL CODE.
3. NO PARKING OR STORAGE OF MATERIALS WILL BE PERMITTED UNDER DRIP LINE OF EXISTING TREES AND SHRUBS TO REMAIN.
4. ALL PLANT MATERIALS SHALL BE NURSERY GROWN, FULLY FORMED AND IN A HEALTHY CONDITION FREE OF INSECTS, PESTS, DISEASE OR DAMAGE AT THE TIME OF INSTALLATION.
5. ALL PLANTS SHALL BE BALLED AND BURLAPPED OR CONTAINER GROWN.
6. ALL LANDSCAPING SHOWN SHALL BE MAINTAINED IN A HEALTHY GROWING CONDITION THROUGHOUT THE DURATION OF THE USE BEING SERVED. PLANTS NOT SO MAINTAINED SHALL BE REPLACED WITH HEALTHY NEW PLANTS OF COMPARABLE SIZE, TYPE AND QUANTITY AT THE BEGINNING OF THE IMMEDIATELY FOLLOWING GROWING SEASON.
7. TOPSOIL ALL DISTURBED AREAS WITH NOT LESS THAN FOUR (4) INCHES OF SUITABLE TOPSOIL MATERIAL.
8. SEED ALL OTHER DISTURBED AREAS IN ACCORDANCE WITH THE "SLOPE STABILIZATION NOTES"
9. MULCH ALL AREAS WITH STRAW AT THE RATE OF TWO TONS PER ACRE.
10. ALL UTILITIES MAY NOT BE SHOWN. CONTRACTOR SHALL VERIFY LOCATIONS OF UTILITIES BEFORE PROCEEDING WITH WORK.
11. SEE "EROSION AND SEDIMENT CONTROL PLAN" DWG KC-150 FOR MAINTENANCE AND ESTABLISHMENT OF GROWTH.
12. AFTER ESTABLISHMENT OF DENSE, VIGOROUS VEGETATION, PHOSPHORUS BASED FERTILIZERS SHALL NOT BE USED. ONLY NON-PHOSPHORUS BASED FERTILIZER MAY BE APPLIED TO THE LAWNS AND GRASSED AREAS.

PUTNAM ENGINEERING PLLC
ENGINEERS - ARCHITECTS
4 OLD ROUTE 6, BREWSTER, NEW YORK 10509
(845) 279-6724 FAX (845) 279-9734

PURSUANT TO NEW YORK STATE EDUCATION LAW, ARTICLE 145, SECTION 7209 SUBDIVISION 2, IT IS A VIOLATION OF THIS LAW FOR ANY PERSON UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ENGINEER IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS

NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION
1	17 DEC 14	GENERAL PLAN / PROFILE REVISIONS	9	24 MAR 15	REV. PER PLNG COMMENTS
2	9 APR 15	REV. PER TE / PLNG MEMOS	10	24 APR 15	REV. PER NYCDEP COMMENTS
3	26 MAY 15	REV. PER TE / 25 / 19 MEMOS	11	28 MAY 15	REV. PER NYCDEP COMMENTS
4	28 JUN 15	PRESENTATION DWGS TO CONTRACTOR	12	15 OCT 15	RELOCATED WATER AND SEWER LINES
5	29 JUN 15	NYCDEP SUBMISSION	13	1 NOV 15	CHANGE TO ZTL PLACAGH
6	29 JUL 15	UPDATED DRAWING LIST			
7	13 DEC 15	REVISED PER PLANNING/DEP COMMENTS			
8	30 DEC 15	REVISED PER NYCDEP COMMENTS			

PROJECT: RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR
RANDOM RIDGE
KENNICUT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK

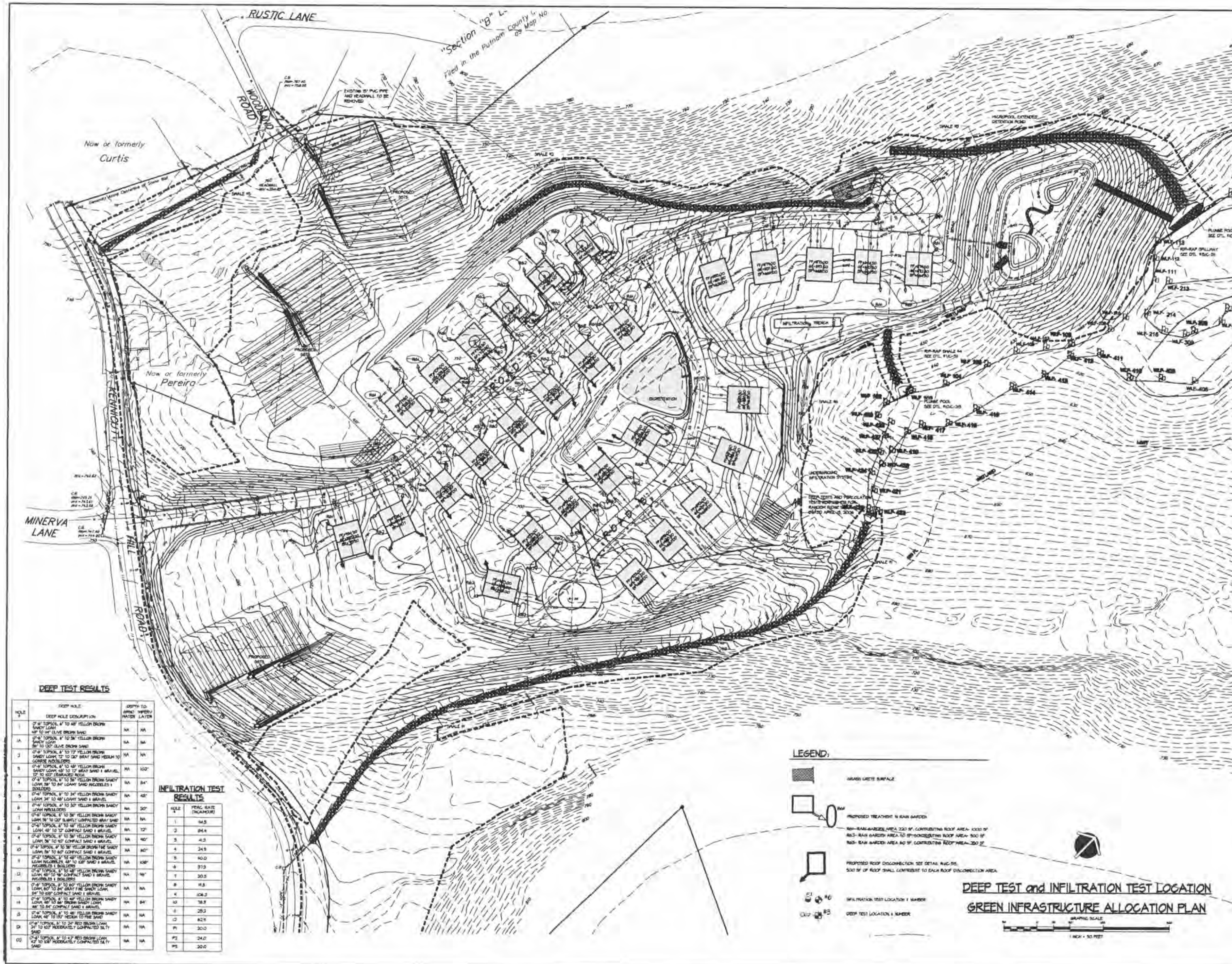
DATE	PROJECT MANAGER	DRAWN BY	CHECKED BY	SCALE
SEPT. 5, 2014	PHL	PM	PHL	AS NOTED

DRAWING: STORMWATER STRUCTURES PLANTING PLAN

PROJECT NUMBER: 601

DRAWING NUMBER: C-161

SHEET 61 OF 54



DEEP TEST RESULTS

HOLE #	DEEP HOLE DESCRIPTION	DEPTH TO GRND WATER	DEPTH TO IMPERV LAYER
1	0"-6" TOPSOIL, 6" TO 48" YELLOW BROWN SANDY LOAM 48" TO 114" OLIVE BROWN SAND	NA	NA
1A	0"-6" TOPSOIL, 6" TO 56" YELLOW BROWN SANDY LOAM 56" TO 120" OLIVE BROWN SAND	NA	NA
2	0"-6" TOPSOIL, 6" TO 72" YELLOW BROWN SANDY LOAM, 72" TO 120" GRAY SAND MEDIUM TO COARSE W/BOULDERS	NA	NA
3	0"-6" TOPSOIL, 6" TO 48" YELLOW BROWN SANDY LOAM, 48" TO 72" GRAY SAND & GRAVEL, 72" TO 100" DEGRADED ROCK	NA	100"
4	0"-6" TOPSOIL, 6" TO 56" YELLOW BROWN SANDY LOAM, 56" TO 84" LOAMY SAND W/COBBLES & BOULDERS	NA	84"
5	0"-6" TOPSOIL, 6" TO 24" YELLOW BROWN SANDY LOAM 24" TO 48" LOAMY SAND & GRAVEL	NA	48"
6	0"-6" TOPSOIL, 6" TO 30" YELLOW BROWN SANDY LOAM W/BOULDERS	NA	30"
7	0"-6" TOPSOIL, 6" TO 56" YELLOW BROWN SANDY LOAM, 56" TO 120" SLIGHTLY COMPACTED GRAY SAND	NA	NA
8	0"-6" TOPSOIL, 6" TO 48" YELLOW BROWN SANDY LOAM, 48" TO 72" COMPACT SAND & GRAVEL	NA	72"
9	0"-6" TOPSOIL, 6" TO 56" YELLOW BROWN SANDY LOAM, 56" TO 90" COMPACT SAND & GRAVEL	NA	90"
10	0"-6" TOPSOIL, 6" TO 56" YELLOW BROWN FINE SANDY LOAM, 56" TO 60" COMPACT SAND & GRAVEL	NA	60"
11	0"-6" TOPSOIL, 6" TO 48" YELLOW BROWN SANDY LOAM W/COBBLES, 48" TO 108" SAND & GRAVEL W/COBBLES & BOULDERS	NA	108"
12	0"-6" TOPSOIL, 6" TO 48" YELLOW BROWN SANDY LOAM, 48" TO 98" COMPACT SAND & GRAVEL W/COBBLES & BOULDERS	NA	98"
13	0"-6" TOPSOIL, 6" TO 60" YELLOW BROWN SANDY LOAM, 60" TO 84" GRAY FINE SANDY LOAM, 84" TO 108" COMPACT SAND & GRAVEL	NA	NA
14	0"-6" TOPSOIL, 6" TO 48" YELLOW BROWN SANDY LOAM, 48" TO 66" BROWN SANDY LOAM, 66" TO 84" COMPACT SAND & GRAVEL	NA	84"
15	0"-6" TOPSOIL, 6" TO 48" YELLOW BROWN SANDY LOAM, 48" TO 120" MEDIUM TO FINE SAND	NA	NA
D1	0"-6" TOPSOIL, 6" TO 24" RED BROWN LOAM, 24" TO 102" MODERATELY COMPACTED SILTY SAND	NA	NA
D2	0"-6" TOPSOIL, 6" TO 42" RED BROWN LOAM, 42" TO 108" MODERATELY COMPACTED SILTY SAND	NA	NA

INFILTRATION TEST RESULTS

HOLE #	PERC. RATE (IN/HOUR)
1	94.5
2	84.4
3	41.5
4	34.5
5	40.0
6	37.5
7	30.5
8	19.5
9	106.3
10	78.5
11	25.2
12	62.5
P1	20.0
P2	24.0
P3	20.0

DEEP TEST and INFILTRATION TEST LOCATION
GREEN INFRASTRUCTURE ALLOCATION PLAN

PUTNAM ENGINEERING, PLLC
ENGINEERS - ARCHITECTS
4 OLD ROUTE 6, BREWSTER, NEW YORK 10509
(845) 279-6789 FAX (845) 279-6784

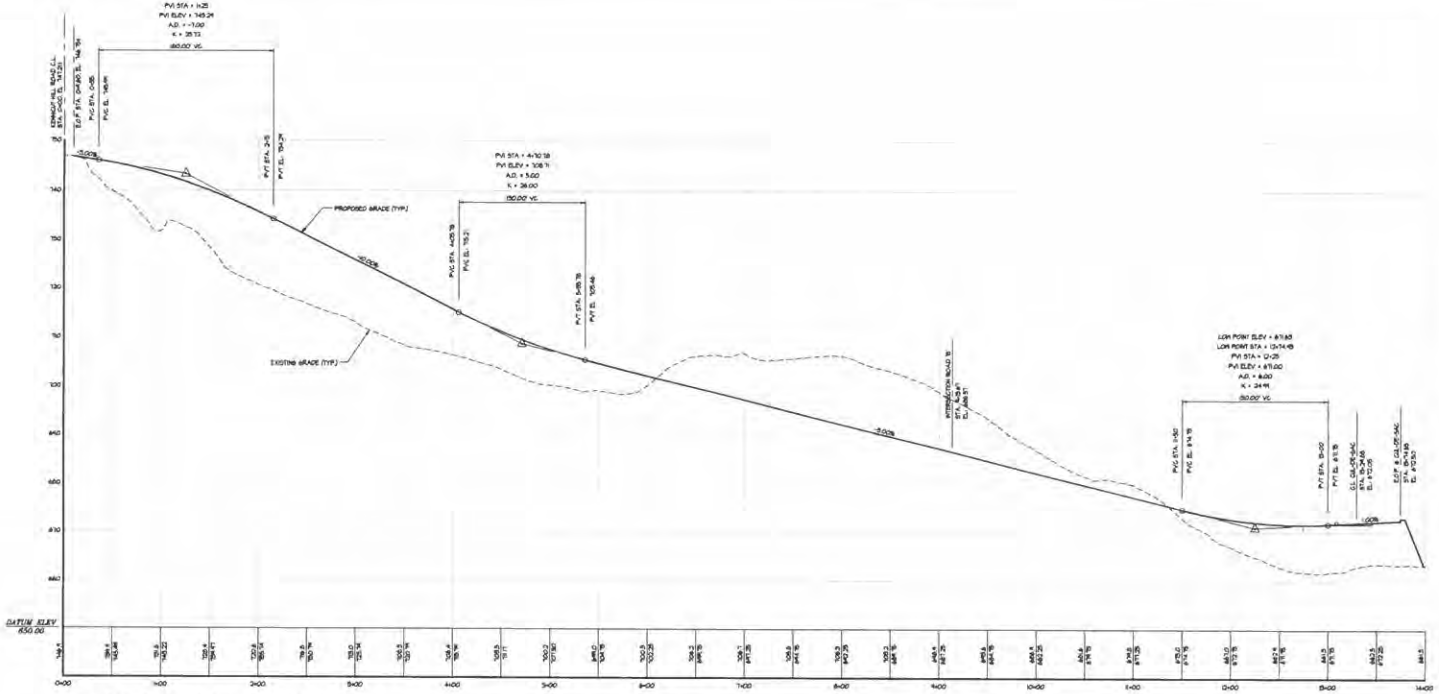
PROJECT: RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR
RANDOM RIDGE
KENNICUTT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK

DRAWING: DEEP TEST and INFILTRATION TEST LOCATION GREEN INFRASTRUCTURE ALLOCATION PLAN

DATE: SEPT. 3, 2014
SCALE: AS NOTED

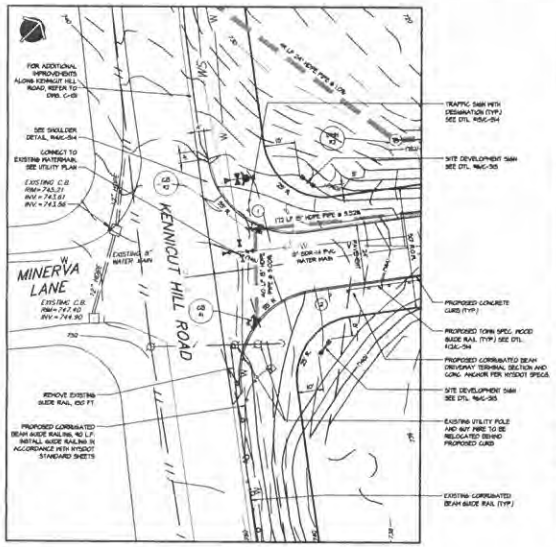
DRAWING NUMBER: C-162

SHEET 30 OF 34



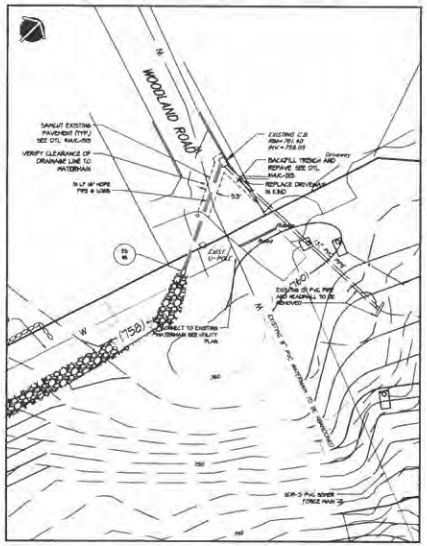
A C-210 ROAD 'A' PROFILE

SCALE: HORIZ 1" = 50', VERT 1" = 10'



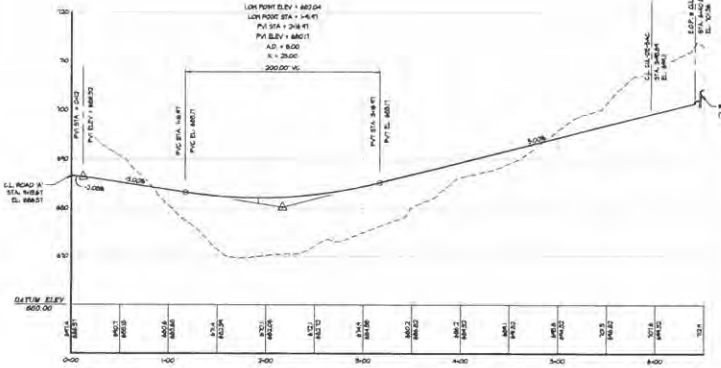
C C-210 ENLARGED PLAN at KENNICUT HILL ROAD ENTRANCE

GRAPHIC SCALE: 1" = 20'



D C-210 ENLARGED PLAN at WOODLAND ROAD

GRAPHIC SCALE: 1" = 20'



B C-210 ROAD 'B' PROFILE

SCALE: HORIZ 1" = 50', VERT 1" = 10'

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ENGINEERS • ARCHITECTS
4 OLD ROUTE 6, BREWSTER, NEW YORK 10509
(845) 279-2007 FAX (845) 279-2071

REVISIONS

NO.	DATE	DESCRIPTION	BY	CHK
1	3-14-14	REVISED PER PLANNING COMMENTS	PM	PJ
2	3-31-14	REV. PER N.Y.S. DOT COMMENTS	PM	PJ
3	5-12-14	REV. PER N.Y.S. DOT COMMENTS	PM	PJ
4	6-12-14	REV. PER N.Y.S. DOT COMMENTS	PM	PJ
5	7-17-14	REVISED PER NYSDOT COMMENTS	PM	PJ
6	10-15-14	REVISED PER NYSDOT COMMENTS	PM	PJ
7	11-17-14	REVISED PER NYSDOT COMMENTS	PM	PJ
8	12-8-14	REVISED DRAWING LIST	PM	PJ
9	12-15-14	REVISED PER NYSDOT COMMENTS	PM	PJ
10	12-18-14	REVISED PER NYSDOT COMMENTS	PM	PJ

PROJECT: RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:

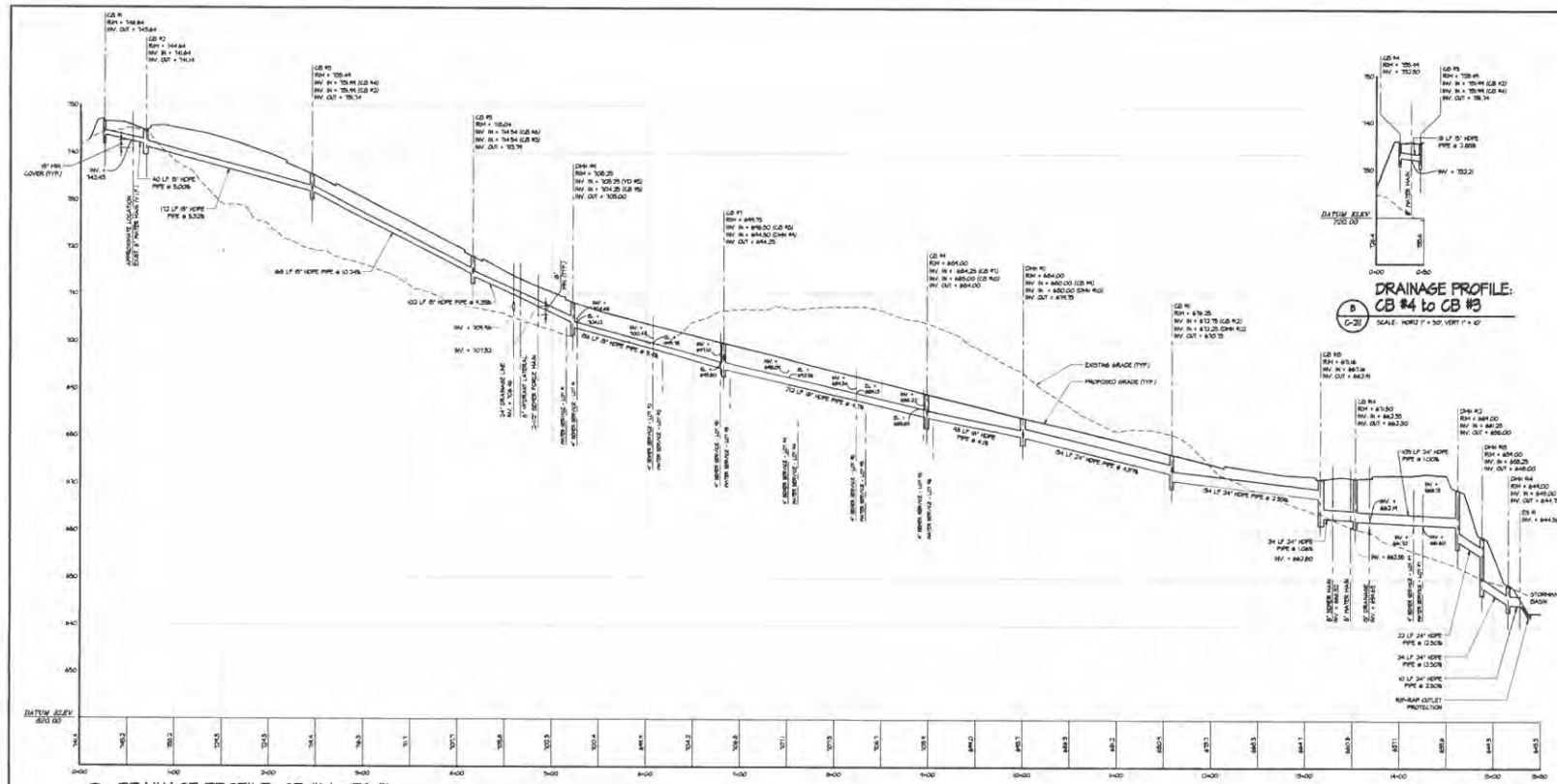
RANDOM RIDGE
KENNICUT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK

DATE: SEPT. 13, 2014
PROJECT MANAGER: PJ
DRAWN BY: PM
CHECKED BY: PJ
SCALE: AS NOTED

DRAWING: ROAD PROFILES and ENLARGED PLANS

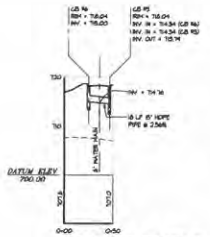
PROJECT NUMBER: 809
DRAWING NUMBER: C-210

SHEET 3 OF 34

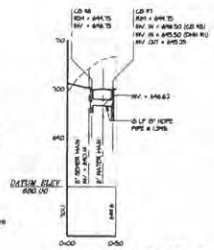


A C-211 DRAINAGE PROFILE: CB #1 to ES #1
SCALE: HORIZ 1" = 50', VERT 1" = 10'

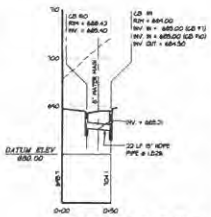
B C-211 DRAINAGE PROFILE: CB #4 to CB #3
SCALE: HORIZ 1" = 50', VERT 1" = 10'



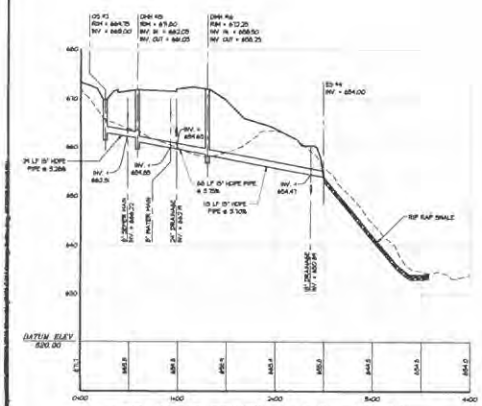
G C-211 DRAINAGE PROFILE: CB #8 to CB #5
SCALE: HORIZ 1" = 50', VERT 1" = 10'



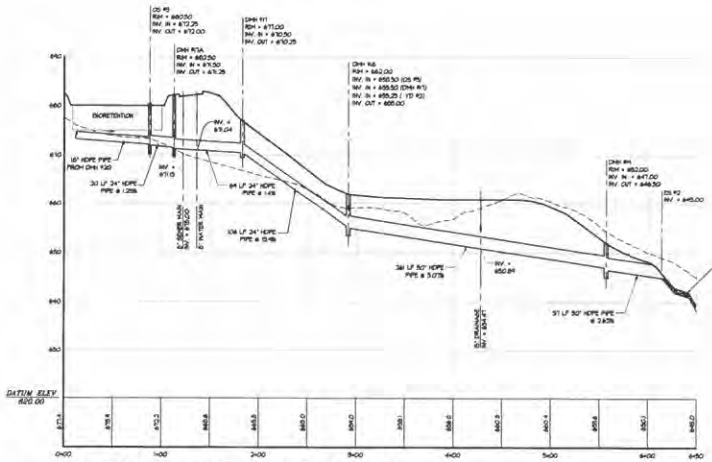
D C-211 DRAINAGE PROFILE: CB #8 to CB #7
SCALE: HORIZ 1" = 50', VERT 1" = 10'



E C-211 DRAINAGE PROFILE: CB #10 to CB #9
SCALE: HORIZ 1" = 50', VERT 1" = 10'

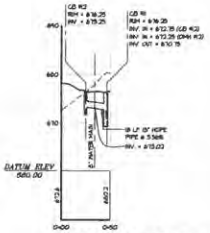


G C-211 DRAINAGE PROFILE: OS #2 - ES #4
SCALE: HORIZ 1" = 50', VERT 1" = 10'



H C-211 DRAINAGE PROFILE: OS #3 to ES #2
SCALE: HORIZ 1" = 50', VERT 1" = 10'

I C-211 DRAINAGE PROFILE: YD #3 to DMH #4
SCALE: HORIZ 1" = 50', VERT 1" = 10'

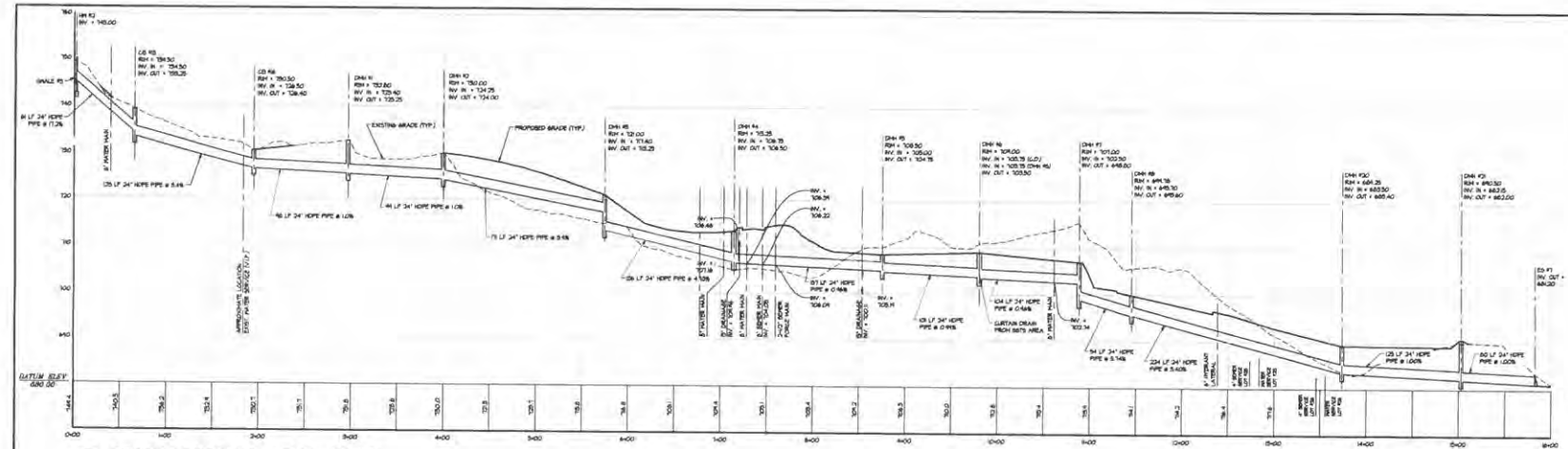


F C-211 DRAINAGE PROFILE: CB #12 to CB #11
SCALE: HORIZ 1" = 50', VERT 1" = 10'

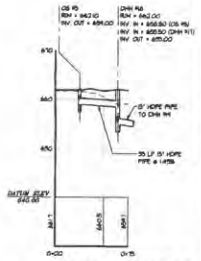
PUTNAM ENGINEERING & LAND SURVEYING
ENGINEERS - ARCHITECTS
4 OLD ROUTE 6, BREWSTER, NEW YORK 10509
(845) 279-6304 FAX (845) 279-6194

REVISIONS				DESCRIPTION
1	10-30-14			GENERAL PLAN PROFILE REVISIONS
2	3-4-15			REV PER TC FIRE MARSHAL
3	4-20-15			REVISED PER TC COMMENTS
4	6-22-15			REVISED PER TC COMMENTS
5	7-21-15			REVISED PER TC COMMENTS
6	10-21-15			REVISED PER PLANNING BOARD COMMENTS
7	12-16-15			REVISED PER PLANNING BOARD COMMENTS
8	12-21-15			REVISED PER PLANNING BOARD COMMENTS

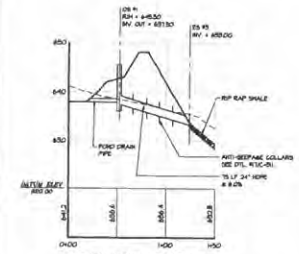
SHT. LIST	DESCRIPTION
C-101	SITE PLAN
C-102	SITE PLAN
C-103	SITE PLAN
C-104	SITE PLAN
C-105	SITE PLAN
C-106	SITE PLAN



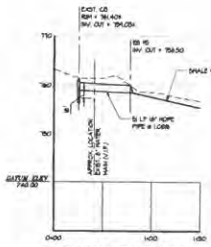
A C-212 DRAINAGE PROFILE: YD #1 - ES #7
SCALE: HORIZ 1" = 50', VERT 1" = 10'



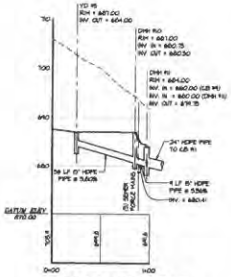
E C-212 DRAINAGE PROFILE: OS #5 to DMH #19
SCALE: HORIZ 1" = 50', VERT 1" = 10'



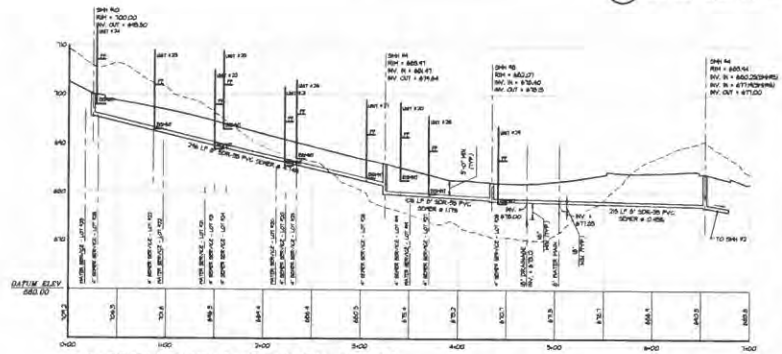
B C-212 DRAINAGE PROFILE: OS #1 to ES #3
SCALE: HORIZ 1" = 50', VERT 1" = 10'



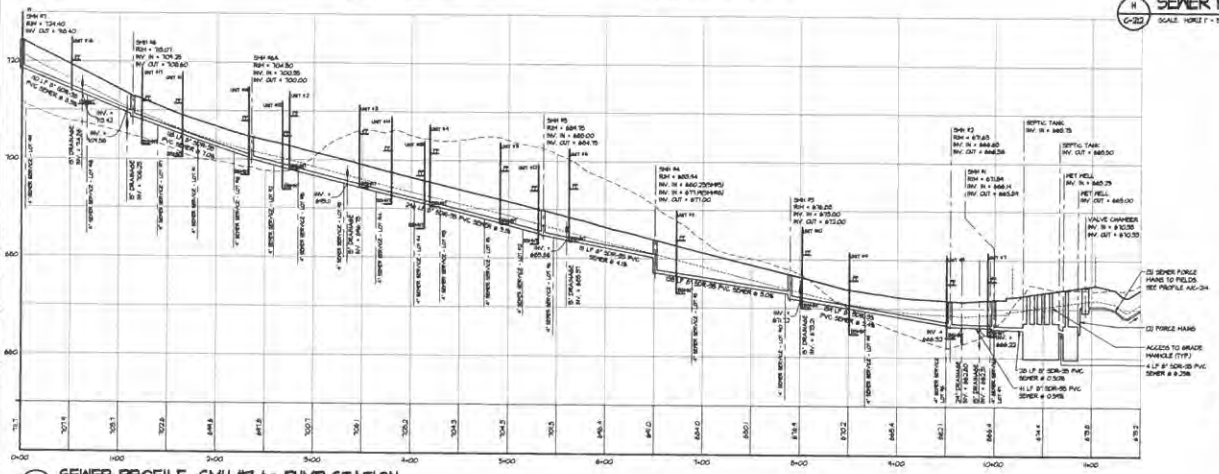
C C-212 DRAINAGE PROFILE: EXST. CB to ES #5
SCALE: HORIZ 1" = 50', VERT 1" = 10'



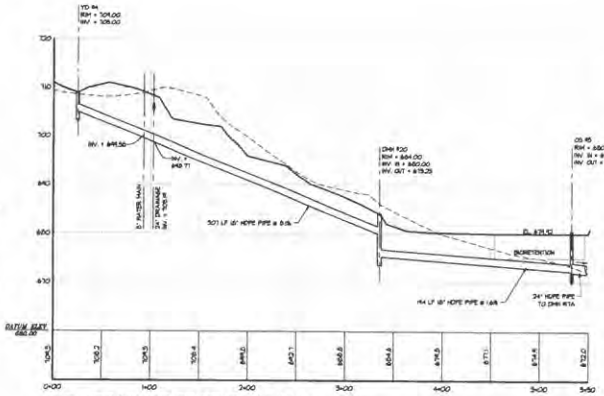
D C-212 DRAINAGE PROFILE: YD #5 to DMH #11
SCALE: HORIZ 1" = 50', VERT 1" = 10'



H C-212 SEWER PROFILE: SMH #10 to SMH #4
SCALE: HORIZ 1" = 50', VERT 1" = 10'



G C-212 SEWER PROFILE: SMH #7 to PUMP STATION
SCALE: HORIZ 1" = 50', VERT 1" = 10'



F C-212 DRAINAGE PROFILE: YD #4 to OS #3
SCALE: HORIZ 1" = 50', VERT 1" = 10'

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ENGINEERS - ARCHITECTS
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(845) 279-0471 FAX (845) 279-6841
www.putnamengineering.com

REVISIONS			
NO.	DATE	BY	DESCRIPTION
1	2-14-13	BC	REV. PER PLANNING COMMENTS
2	3-14-13	BC	REV. PER PLANNING COMMENTS
3	5-14-13	BC	REV. PER PLANNING COMMENTS
4	6-20-13	BC	REV. PER PLANNING COMMENTS
5	8-20-13	BC	REV. PER COUNTY COMMENTS
6	11-20-13	BC	REVISED PER PLANNING BOARD
7	12-20-13	BC	REVISED PER PLANNING BOARD
8	2-20-14	BC	REVISED PER PLANNING BOARD
9	3-20-14	BC	REVISED PER PLANNING BOARD
10	4-20-14	BC	REVISED PER PLANNING BOARD
11	5-20-14	BC	REVISED PER PLANNING BOARD
12	6-20-14	BC	REVISED PER PLANNING BOARD
13	7-20-14	BC	REVISED PER PLANNING BOARD
14	8-20-14	BC	REVISED PER PLANNING BOARD

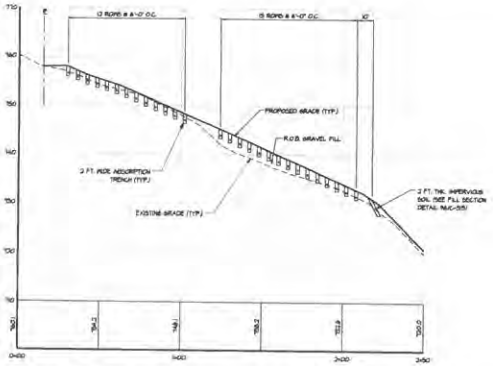
PROJECT
RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:
RANDOM RIDGE
KENSCOTT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK

DRAWING
AMENDED DRAINAGE and SEWER PROFILES

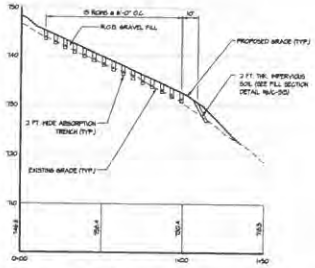
DATE: SEPT. 3, 2014
PROJECT MANAGER: PAL
DRAWN BY: PAL
CHECKED BY: PAL
SCALE: NO NOTED

PROJECT NUMBER: 826
DRAWING NUMBER: C-212

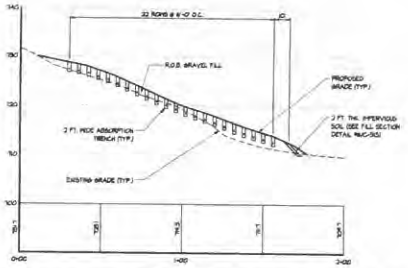
SHEET 28 OF 34



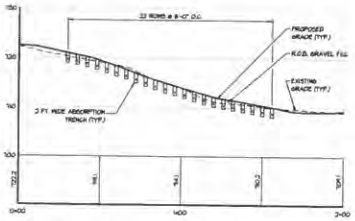
A C-213 SSTS SECTION 'A-A' (SYSTEM 'A')
SCALE: HORIZ 1" = 50', VERT 1" = 10'



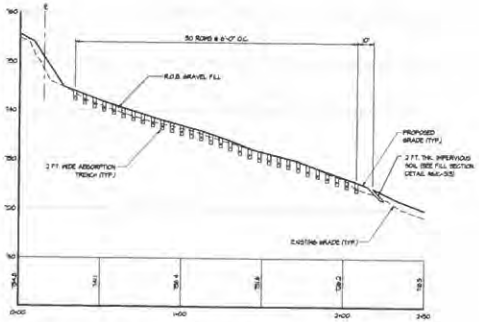
B C-213 SSTS SECTION 'B-B' (SYSTEM 'A')
SCALE: HORIZ 1" = 50', VERT 1" = 10'



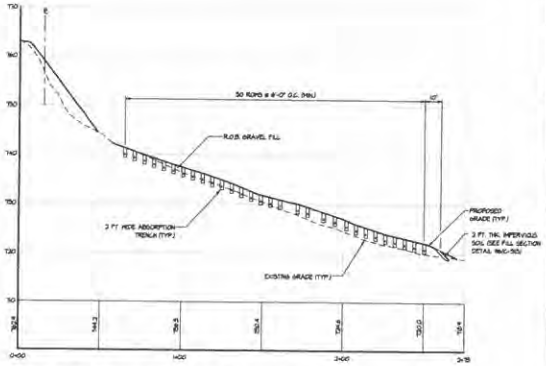
C C-213 SSTS SECTION 'C-C' (SYSTEM 'B')
SCALE: HORIZ 1" = 50', VERT 1" = 10'



D C-213 SSTS SECTION 'D-D' (SYSTEM 'B')
SCALE: HORIZ 1" = 50', VERT 1" = 10'



E C-213 SSTS SECTION 'E-E'
SCALE: HORIZ 1" = 50', VERT 1" = 10'



F C-213 SSTS SECTION 'F-F'
SCALE: HORIZ 1" = 50', VERT 1" = 10'

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ENGINEERS - ARCHITECTS
4 OLD ROUTE 6, BREWSTER, NEW YORK 10509
(845) 279-6124 FAX (845) 279-6184

REVISIONS

NO.	DATE	DESCRIPTION
1	11-15-04	REVISED PER COMMENTS
2	11-29-04	REV. PER PLAN CHANGES
3	12-14-04	REV. PER PLAN CHANGES
4	12-20-04	REV. PER PLAN CHANGES
5	1-10-05	REV. PER PLAN CHANGES
6	2-14-05	REV. PER PLAN CHANGES
7	3-21-05	REVISED PER PLAN CHANGES
8	4-18-05	REVISED PER PLAN CHANGES
9	5-18-05	REVISED PER PLAN CHANGES
10	6-20-05	REVISED PER PLAN CHANGES
11	7-21-05	REVISED PER PLAN CHANGES
12	8-18-05	REVISED PER PLAN CHANGES
13	10-20-05	REVISED PER PLAN CHANGES
14	11-10-05	REVISED PER PLAN CHANGES
15	12-20-05	REVISED PER PLAN CHANGES
16	1-18-06	REVISED PER PLAN CHANGES
17	2-20-06	REVISED PER PLAN CHANGES
18	3-20-06	REVISED PER PLAN CHANGES

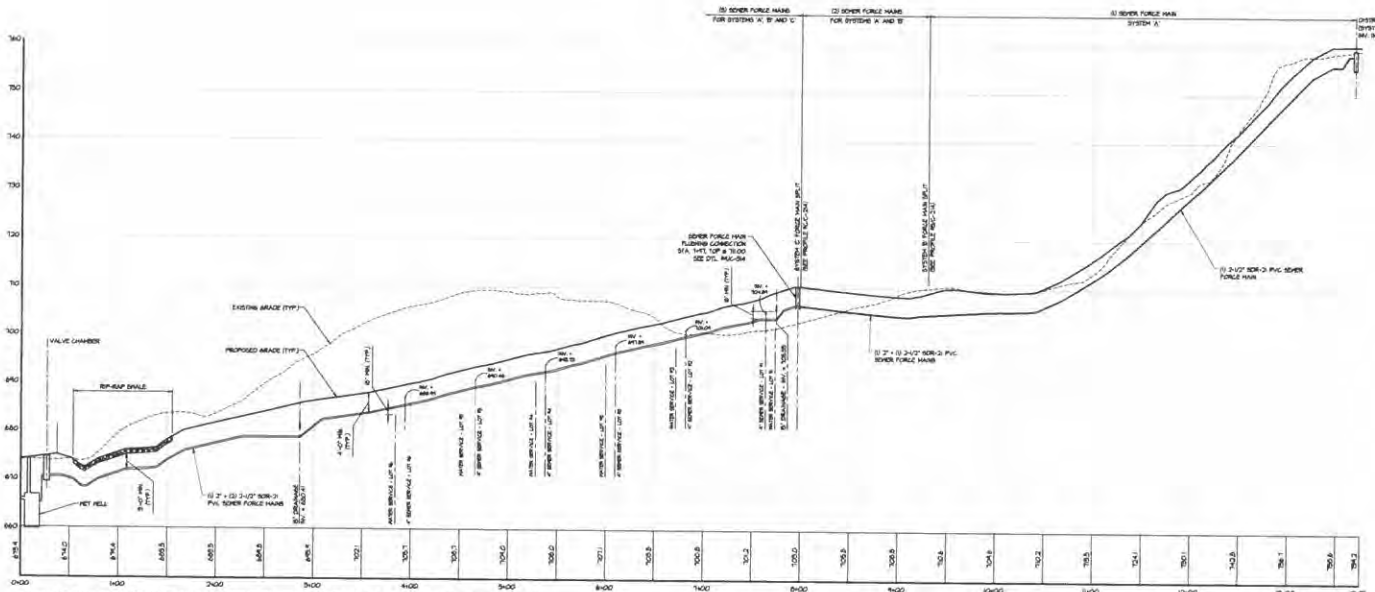
PROJECT
RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:
RANDOM RIDGE
KENGOTT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK

DATE: SEPT. 3, 2004
PROJECT MANAGER: PML
DRAWN BY: PN
CHECKED BY: PML
SCALE: AS NOTED

DRAWING
SSTS SECTIONS

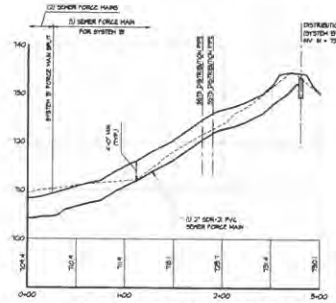
PROJECT NUMBER: 0201
DRAWING NUMBER: C-213

SHEET 24 OF 54



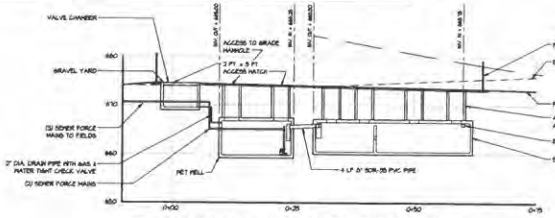
A C-214 SEWER FORCE MAIN PROFILE: PUMP STATION to SYSTEM 'A'

SCALE: HORIZ. 1" = 50', VERT. 1" = 10'



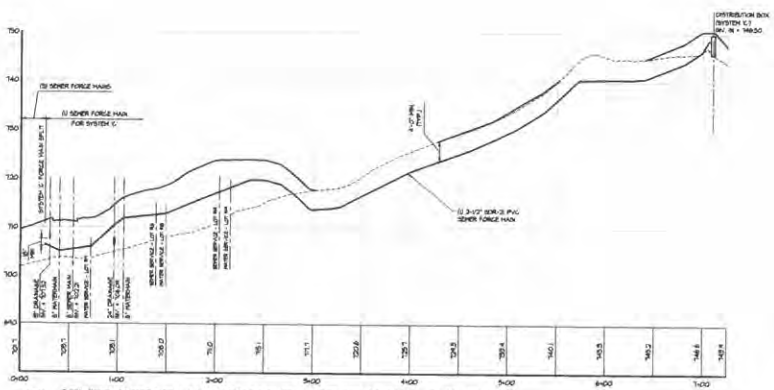
B C-214 SEWER FORCE MAIN PROFILE: FORCEMAIN to SYSTEM 'B'

SCALE: HORIZ. 1" = 50', VERT. 1" = 10'



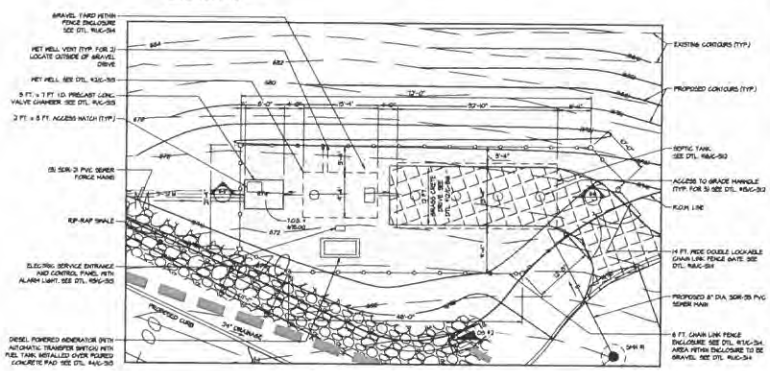
E SECTION thru SEWER PUMP STATION

DRAWING SCALE: 1" = 10'



C C-214 SEWER FORCE MAIN PROFILE: FORCEMAIN to SYSTEM 'C'

SCALE: HORIZ. 1" = 50', VERT. 1" = 10'



D C-214 ENLARGED PLAN at SEWER PUMP STATION

DRAWING SCALE: 1" = 10'

PUTNAM ENGINEERING PLLC
ENGINEERS - ARCHITECTS
4 OLD ROUTE 6, BREWSTER, NEW YORK 10509
(845) 279-6194 FAX (845) 279-6194

REVISIONS

NO.	DATE	DESCRIPTION
1	7/30/14	ADDED 1-HT FLUSHING CONNECTION
2	8/28/14	REVISED PROFILE TO REFLECT 1-HT FLUSHING CONNECTION
3	9/24/14	REVISED PROFILE TO REFLECT 1-HT FLUSHING CONNECTION
4	10/28/14	REVISED PROFILE TO REFLECT 1-HT FLUSHING CONNECTION
5	11/18/14	REVISED PROFILE TO REFLECT 1-HT FLUSHING CONNECTION
6	12/18/14	REVISED PROFILE TO REFLECT 1-HT FLUSHING CONNECTION
7	2/20/15	REVISED PROFILE TO REFLECT 1-HT FLUSHING CONNECTION
8	3/20/15	REVISED PROFILE TO REFLECT 1-HT FLUSHING CONNECTION

PROJECT: RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:
RANDOM RIDGE
KOMSCIT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK

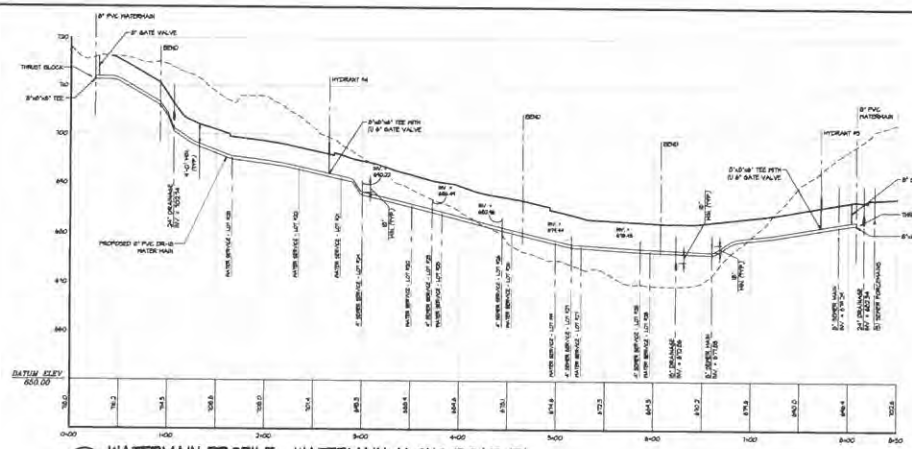
DATE: MAY 3, 2014
PROJECT MANAGER: PHL
DRAWN BY: PHL
CHECKED BY: PHL
SCALE: AS NOTED

DRAWING: AMENDED SEWER FORCE MAIN PROFILES & ENLARGED PLAN at SEWER PUMP STATION

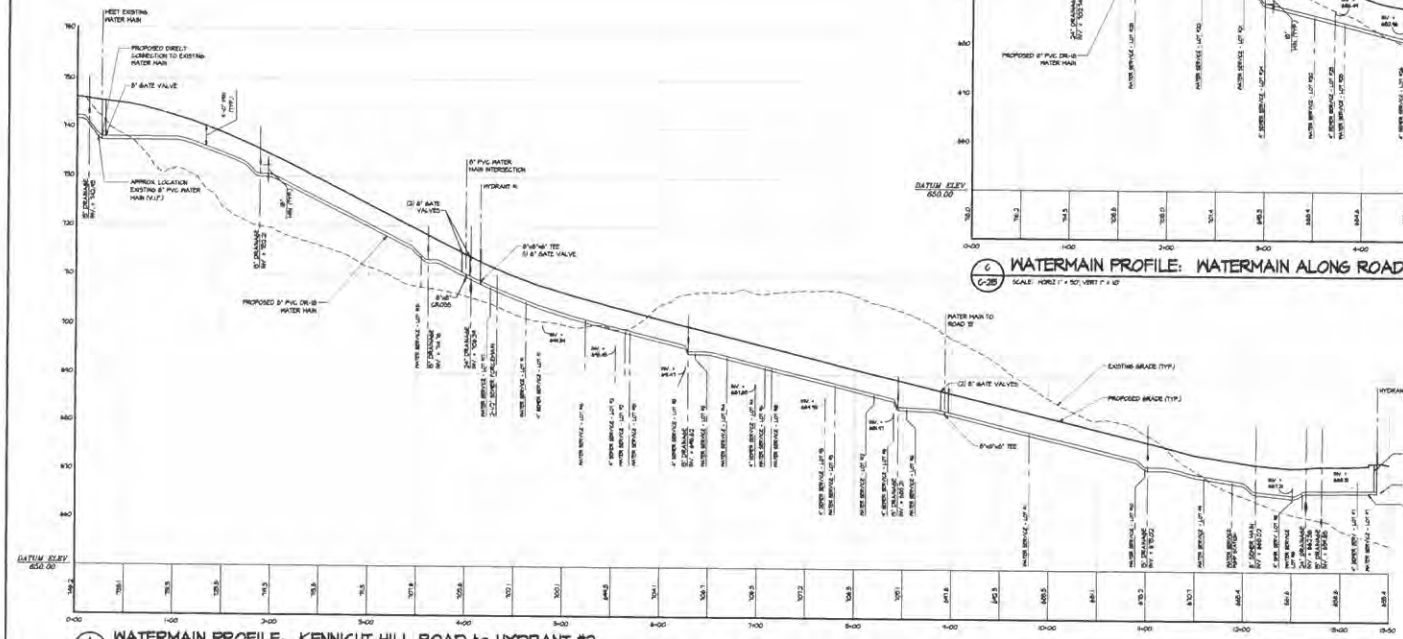
PROJECT NUMBER: 505

DRAWING NUMBER: C-214

SHEET: 25 OF 34



G-2B WATERMAIN PROFILE: WATERMAIN ALONG ROAD 'B'
SCALE: HORIZ 1" = 50', VERT 1" = 10'



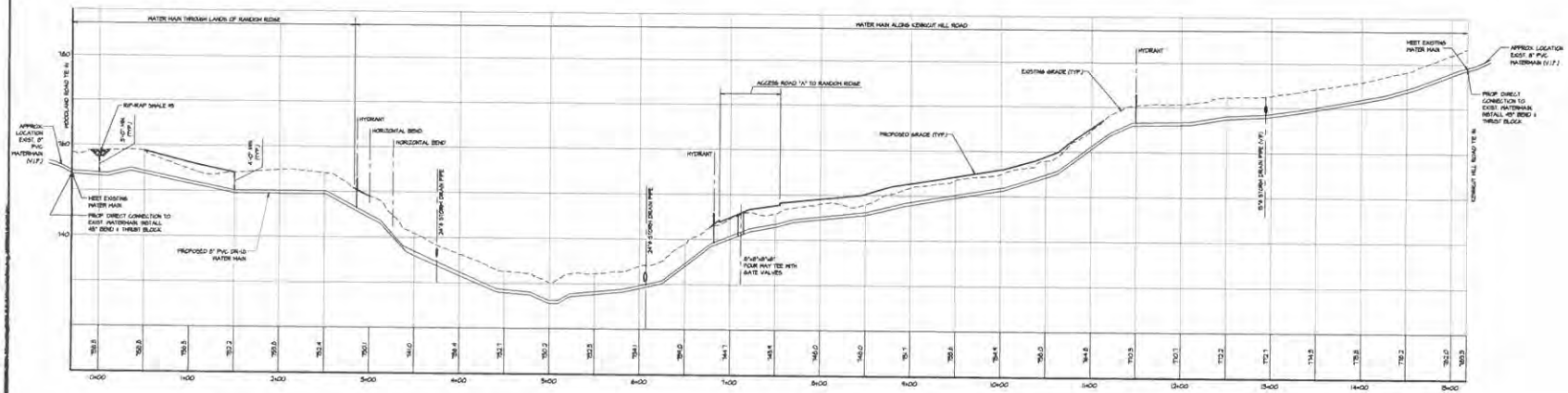
A G-2B WATERMAIN PROFILE: KENNICUT HILL ROAD to HYDRANT #2
SCALE: HORIZ 1" = 50', VERT 1" = 10'

FIRE HYDRANT NOTES:

1. ALL FIRE HYDRANTS SHALL BE THE APPROVED AWWA TYPE FIRE HYDRANTS IN CONFORMANCE WITH THE AMERICAN WATER WORKS ASSOCIATION STANDARD FOR FIRE HYDRANTS FOR ORDINARY WATER WORKS SERVICE, AWWA DESIGNATION C502, AND SHALL HAVE A 5-1/4 INCH VALVE OPENING, A 6 INCH MECHANICAL JOINT INLET COMPLETE WITH AN AUXILIARY GATE VALVE (CLOSE COUPLED), A 6 INCH MECHANICAL SHOE, AND ALL APPURTENANCES.
2. FIRE HYDRANTS SHALL BE RATED FOR A WORKING PRESSURE OF 250 PSI. FIRE HYDRANTS SHALL BE SIZED FOR A 4'-6" BURY.

VALVE NOTES:

1. GATE VALVES SHALL BE AWWA NON-RISING STEM TYPE AS MANUFACTURED BY "MUELLER CO.", MODEL #-2360-20, OR APPROVED EQUAL, CONFORMING TO THE LATEST AWWA STANDARD FOR GATE VALVES - 3" THROUGH 48" - FOR WATER AND OTHER LIQUIDS, AWWA DESIGNATION C509.
2. SIZES UP TO AND INCLUDING 12 INCHES SHALL BE 250 PSI WORKING PRESSURE. THE VALVE BODY AND BONNET SHALL BE DUCTILE IRON. ALL INTERIOR AND EXTERIOR METAL SURFACES SHALL BE COATED WITH A TWO-PART THERMOSETTING EPOXY COMPLYING WITH AWWA C550.
3. VALVES SHALL HAVE DUAL "O" RING SEALS, INSIDE SCREW, RESILIENT WEDGE SEATS IN ACCORDANCE WITH AWWA DESIGNATION C509 AND SHALL BE CONSTRUCTED SO AS TO PROVIDE UNOBSTRUCTED FULL PORT CLEARANCE WHEN FULLY OPEN AND IMMEDIATE COMPLETE CLOSURE WHEN CLOSED. THE ENDS OF THE VALVES SHALL BE MECHANICAL JOINT.
4. ALL VALVES SHALL BE ARRANGED TO OPEN IN COUNTER CLOCKWISE DIRECTION UNLESS OTHERWISE SPECIFICALLY INDICATED AND OPERATING NUTS SHALL BE 2 INCH SQUARE.
5. VALVES SHALL BE TESTED TO A PRESSURE OF NOT LESS THAN TWO TIMES THE WORKING PRESSURE.



D G-2B WATERMAIN PROFILE: FROM EXISTING WATERMAIN on RANDOM RIDGE near WOODLAND ROAD, along KENNICUT HILL ROAD to EXISTING WATERMAIN at KENNICUT HILL ROAD
SCALE: HORIZ 1" = 50', VERT 1" = 10'

PUTNAM ENGINEERING
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REVISIONS

NO.	DATE	DESCRIPTION
1	JAN 8, 2004	REVISED PER COMMENTS
2	JAN 8, 2004	RE: TITLE BLOCK
3	JAN 8, 2004	RE: TITLE BLOCK
4	JAN 8, 2004	RE: TITLE BLOCK
5	JAN 8, 2004	RE: TITLE BLOCK
6	JAN 8, 2004	RE: TITLE BLOCK
7	JAN 8, 2004	REVISED PER SUBMITTAL COMMENTS
8	JAN 8, 2004	REVISED PER SUBMITTAL COMMENTS
9	JAN 8, 2004	REVISED PER SUBMITTAL COMMENTS

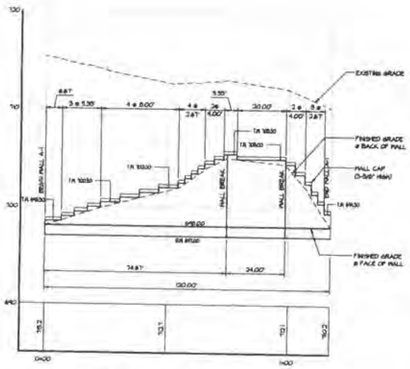
PROJECT: RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:
RANDOM RIDGE
KENNICUT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK

DATE: SEPT 3, 2004
PROJECT MANAGER: PHL
DRAWN BY: PM
CHECKED BY: PHL
SCALE: AS NOTED

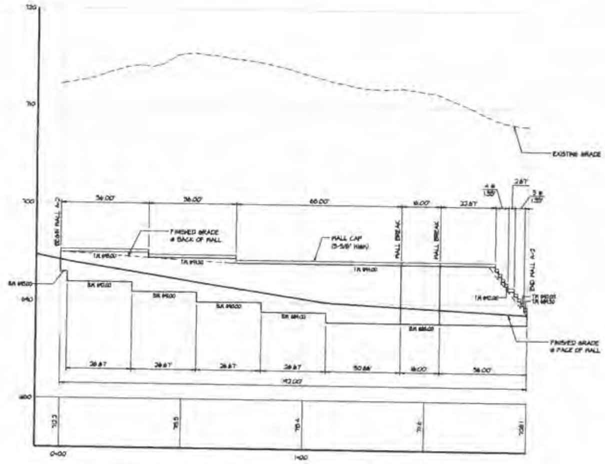
DRAWING: WATERMAIN PROFILES

PROJECT NUMBER: 515
DRAWING NUMBER: C-215

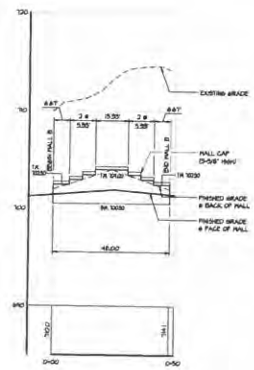
SHEET 36 OF 54



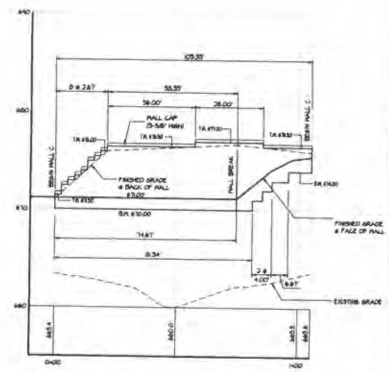
A1 / C-28 RETAINING WALL "A-1" PROFILE
SCALE: HORIZ 1" = 20', VERT 1" = 5'



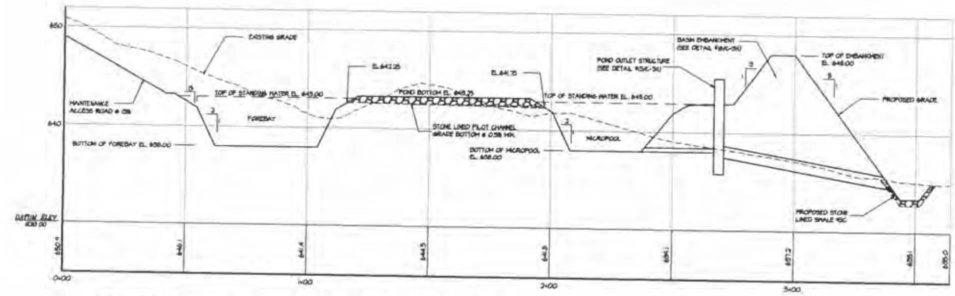
A2 / C-28 RETAINING WALL "A-2" PROFILE
SCALE: HORIZ 1" = 20', VERT 1" = 5'



B / C-28 RETAINING WALL "B" PROFILE
SCALE: HORIZ 1" = 20', VERT 1" = 5'



C / C-28 RETAINING WALL "C" PROFILE
SCALE: HORIZ 1" = 20', VERT 1" = 5'



D / C-28 MICROPOOL EXTENDED DETENTION POND PROFILE
SCALE: HORIZ 1" = 20', VERT 1" = 5'

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PROJECT
RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:
RANDOM RIDGE
KENNICUT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK

DATE: SEPT. 3, 2014
PROJECT MANAGER: P.L
DRAWN BY: PO
CHECKED BY: P.L
SCALE: AS NOTED

DRAWING
RETAINING WALL and MICROPOOL EXTENDED DETENTION POND PROFILES

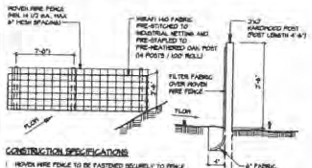
PROJECT NUMBER
DRAWING NUMBER
C-216

SHEET 71 OF 94

CONSTRUCTION SPECIFICATIONS:

1. STONE SIZE - USE 1-4 INCH STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 50 FEET (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30 FOOT MINIMUM LENGTH WOULD APPLY).
3. THICKNESS - NOT LESS THAN SIX (6) INCHES FOR LIGHT DUTY ROADS AND SINGLE FAMILY RESIDENCES, NOT LESS THAN TEN (10) INCHES FOR HEAVY DUTY ROADS.
4. WIDTH - TWELVE (12) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. TWENTY-FOUR (24) FOOT IF SINGLE ENTRANCE TO SITE.
5. FILTER CLOTH - WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE. "MIRAFI 600X, OR APPROVED EQUAL.
6. SURFACE WATER - ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING - WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

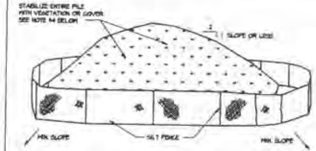
1 STABILIZED CONSTRUCTION ENTRANCE DTL.
C-310 N.T.S.



CONSTRUCTION SPECIFICATIONS

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. WOVEN WIRE SHALL BE 14 1/2 GA., 6" MAX. MESH OPENING.
2. FILTER FABRIC TO BE EMBEDDED IN SOIL A MIN. OF 6". FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
3. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
4. SILT FENCE TO BE REMOVED AT END OF CONSTRUCTION BUT NOT BEFORE ALL DISTURBED AREAS ARE STABILIZED AND VEGETATED.
5. FOR SILT FENCE INSTALLATION ON PAVED AREAS, REMOVE PORTION OF ASPHALT NECESSARY TO TOE-IN THE FABRIC AND TO INSTALL THE POSTS. THE PAVEMENT SHALL BE RESTORED BEFORE FINAL SITE CLEANING.

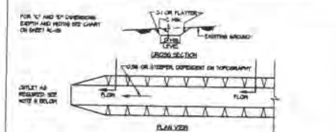
2 SILT FENCE DETAILS
C-310 N.T.S.



INSTALLATION NOTES

1. AREA CHOSEN FOR STOCKPILING OPERATIONS SHALL BE DRY AND STABLE.
2. MAXIMUM SLOPE OF STOCKPILE SHALL BE 1:2.
3. UPON COMPLETION OF SOIL STOCKPILING EACH PILE SHALL BE SURROUNDED WITH SILT FENCING.
4. SPRING/SUMMER/FALL SEEDING: SEED WITH PERENNIAL RYE GRASS @ 40 LBS/AC. STABILIZATION FROM NOVEMBER 1 THROUGH MARCH 31 SHALL BE BY A ROLLED EROSION CONTROL PRODUCT OR MAY BE HYDROSEEDED WITH WINTER RYE WITH A HEAVY MULCH LAYER. RESEED STOCKPILE IN SPRING AS NOTED ABOVE.
5. SEE SILT FENCE DETAIL FOR SILT FENCE INSTALLATION SPECIFICATIONS.

3 TOPSOIL STOCKPILE DETAIL
C-310 N.T.S.



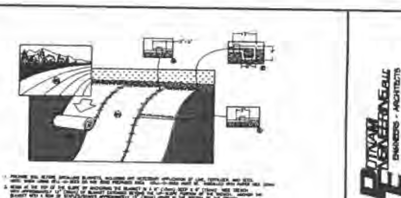
CONSTRUCTION SPECIFICATIONS

1. ALL TEMPORARY SWALES SHALL HAVE UNINTERRUPTED POSITIVE GRADE TO AN OUTLET.
2. DIVERTED RUNOFF FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE.
3. DIVERTED RUNOFF FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED STABILIZED AREA AT NON-EROSIVE VELOCITY.
4. ALL TREES, BRUSH, STUMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF SO AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE SWALE.
5. THE SWALE 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.
6. FILLS SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
7. ALL EARTH REMOVED AND NOT NEEDED IN CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE SWALE.
8. STABILIZATION SHALL BE AS PER THE CHART BELOW.

TYPE OF TREATMENT	CHANNEL GRADE	A (5 AC. OR LESS)
1	0.5%-3.0%	SEED AND STRAW MULCH
2	3.1%-5.0%	SEED AND STRAW MULCH
3	5.1%-8.0%	SEED WITH JUTE OR EXCELSIOR, SOD
4	8.1%-20%	LINED 4-8" RIP-RAP

9. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

4 TEMPORARY SWALE DETAILS
C-310 N.T.S.

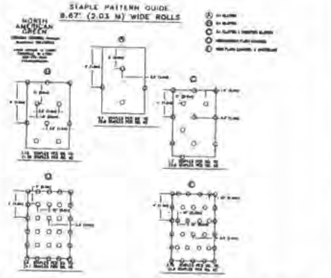


1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY APPLICATION OF LIME, FERTILIZER, AND SEED.
2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6" (15cm) DEEP X 6" (15cm) WIDE TRENCH.
3. ROLL THE BLANKETS DOWN OR HORIZONTALLY ACROSS THE SLOPE.
4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2"-5" (5cm-12.5cm) OVERLAP.
5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END OVER END (SHINGLE STYLE).

NOTE:
IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS GREATER THAN 6" (15cm) MAY BE NECESSARY TO PROPERLY SECURE THE BLANKETS.

NORTH AMERICAN GREEN

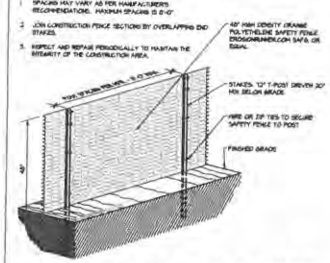
5 EROSION CONTROL BLANKET INSTAL DTL.
C-310 N.T.S.



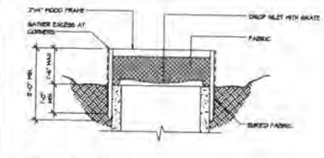
6 EROSION CONTROL BLANKET STAPLE PATTERNS
C-310 N.T.S.

NOTES:

1. SPACING MAY VARY AS PER MANUFACTURER'S RECOMMENDATIONS. MAXIMUM SPACING IS 8'-0".
2. JOIN CONSTRUCTION FENCE SECTIONS BY OVERLAPPING END STAKES.
3. INSPECT AND REPAIR PERIODICALLY TO MAINTAIN THE INTEGRITY OF THE CONSTRUCTION AREA.



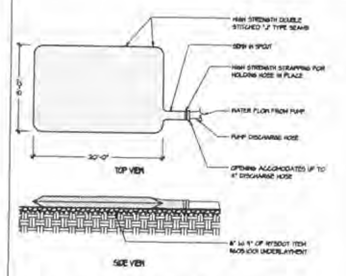
7 CONSTRUCTION SAFETY FENCE DTL.
C-310 N.T.S.



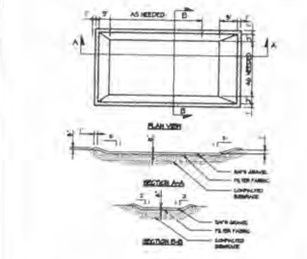
CONSTRUCTION SPECIFICATIONS

1. FILTER FABRIC SHALL HAVE AN E.O.S. OF 40-85. BURLAP MAY BE USED FOR SHORT TERM APPLICATIONS.
2. CUT FABRIC FROM A CONTINUOUS ROLL TO ELIMINATE JOINTS. IF JOINTS ARE NEEDED THEY WILL BE OVERLAPPED TO THE NEXT STAKE.
3. STAKE MATERIALS WILL BE STANDARD 2"x4" WOOD OR EQUIVALENT METAL WITH A MINIMUM LENGTH OF 3 FEET.
4. SPACE STAKES EVENLY AROUND INLET 3 FEET APART AND DRIVE A MINIMUM OF 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 WILL BE EMBEDDED 1 FOOT MINIMUM BELOW GROUND AND BACKFILLED. IT SHALL BE SECURELY FASTENED TO THE STAKES AND FRAME.
6. A 2"x4" WOOD FRAME SHALL BE COMPLETED AROUND THE CREST OF THE FABRIC FOR OVER FLOW STABILITY.
7. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRED AS NEEDED.

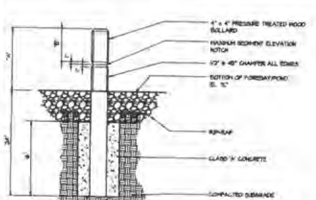
8 CURB INLET PROTECTION
C-310 N.T.S.



9 DEWATERING BAG DETAIL
C-310 N.T.S.

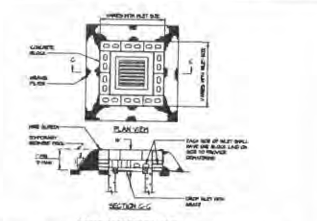


10 STABILIZED STAGING AREA DETAILS
C-310 N.T.S.



SEDIMENT BASIN/TRAP ID	A (MIN)	B (MAX)	EL. C
P1	30	4.2	645.00
T1	15	3.2	646.50
T2	15	2.2	662.00
T3	36	5.5	708.00
T4	20	4.6	708.00

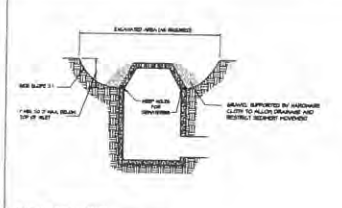
11 SEDIMENT REMOVAL MARKER DTL.
C-310 N.T.S.



CONSTRUCTION SPECIFICATIONS:

1. LAY ONE BLOCK ON EACH SIDE OF THE STRUCTURE ON ITS SIDE FOR DEWATERING. FOUNDATION SHALL BE 2 INCHES MINIMUM BELOW REST OF INLET AND BLOCKS SHALL BE PLACED AGAINST INLET FOR SUPPORT.
2. HARDWARE CLOTH OR 1/2 INCH WIRE MESH SHALL BE PLACED OVER BLOCK OPENINGS TO SUPPORT STONE.
3. USE CLEAN STONE OR GRAVEL, 1/2-3/4 INCH IN DIAMETER PLACED 2 INCHES BELOW THE TOP OF THE BLOCK ON A 2:1 SLOPE OR FLATTER.
4. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
5. THE SEDIMENT TRAP SHALL BE REMOVED AND THE AREA STABILIZED WHEN THE CONSTRUCTED DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.

12 STONE & BLOCK DROP INLET PROTECTION DTL.
C-310 N.T.S.

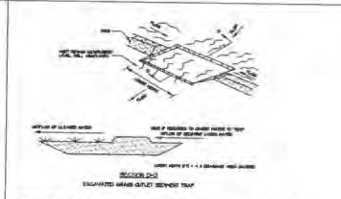


CONSTRUCTION SPECIFICATIONS

1. CLEAR THE AREA OF ALL DEBRIS THAT WILL HINDER EXCAVATION.
2. GRADE APPROACH TO THE INLET UNIFORMLY AROUND THE BASIN.
3. WEEP HOLES SHALL BE PROTECTED BY GRAVEL.
4. UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA, SEAL WEEP HOLES, FILL BASIN WITH STABLE SOIL TO FINAL GRADE, COMPACT IT PROPERLY AND STABILIZE WITH PERMANENT SEEDING.

MAX. DRAINAGE AREA 1 ACRE

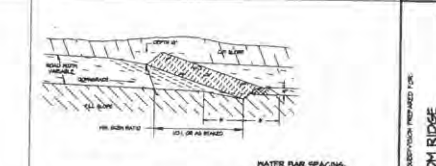
13 INLET PROTECTION DETAIL
C-310 N.T.S.



1. VOLUME OF SEDIMENT STORAGE SHALL BE 3600 CUBIC FEET PER ACRE OF CONTRIBUTORY DRAINAGE AREA.
2. MINIMUM CREST WIDTH SHALL BE 4 X DRAINAGE AREA.
3. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/2 THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
4. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
5. CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION SHALL BE MINIMIZED.
6. THE SEDIMENT TRAP SHALL BE REMOVED AND AREA STABILIZED WHEN THE REMAINING DRAINAGE AREA HAS BEEN PROPERLY STABILIZED.
7. ALL CUT SLOPES SHALL BE 1:1 OR FLATTER.

MAXIMUM DRAINAGE AREA 1.5 ACRES

14 GRASS OUTLET SEDIMENT TRAP DTL.
C-310 N.T.S.



NOTES

1. ALL WATER BARS SHALL BEGIN AT THE INTERSECTION OF THE ROADBED AND CUT SLOPE AND RUN ACROSS THE ENTIRE WIDTH OF THE ROADBED.
2. ALL WATER BARS SHALL HAVE FREE FLOWING OUTLETS.
3. WHEN STAKES ARE USED, THEY DESIGNATE THE OUTLET LOCATION.

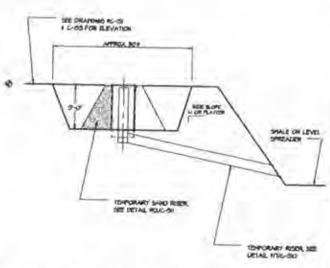
WATER BAR SPACING:

SLOPE (%)	SPACING (FT)
<5	125
5 TO 10	100
10 TO 20	75
20 TO 35	50
>35	25

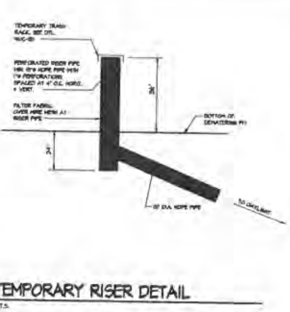
CONSTRUCTION SPECIFICATIONS

1. INSTALL THE WATER BAR AS SOON AS THE RIGHT OF WAY IS CLEARED AND GRADED.
2. DISK OR STRIP THE SOD FROM THE BASE FOR THE CONSTRUCTED RIDGE BEFORE PLACING FILL.
3. TRACK THE RIDGE TO COMPACT IT TO THE DESIGN CROSS SECTION.
4. THE OUTLET SHALL BE LOCATED ON AN UNDISTURBED AREA. FIELD SPACING WILL BE ADJUSTED TO USE THE MOST STABLE OUTLET AREAS. OUTLET PROTECTION WILL BE PROVIDED WHEN NATURAL AREAS ARE NOT ADEQUATE.
5. VEHICLE CROSSING SHALL BE STABILIZED WITH GRAVEL. EXPOSED AREAS SHALL BE IMMEDIATELY SEEDED AND MULCHED.
6. PERIODICALLY INSPECT WATER BARS FOR EROSION DAMAGE AND SEDIMENT. CHECK OUTLET AREAS AND MAKE REPAIRS AS NEEDED TO RESTORE OPERATION.

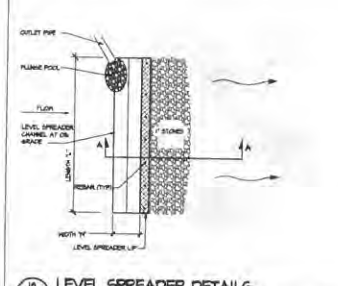
15 WATER BAR DETAIL
C-310 N.T.S.



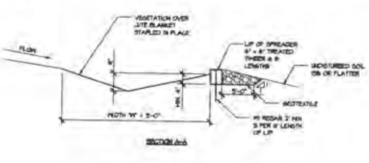
16 SEDIMENT TRAP/DEWATERING PIT DTL.
C-310 N.T.S.



17 TEMPORARY RISER DETAIL
C-310 N.T.S.

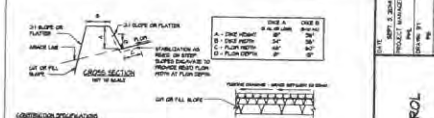


18 LEVEL SPREADER DETAILS
C-310 N.T.S.



LEVEL SPREADER DIMENSIONS
REFER TO DETAIL 18/C-310

LEVEL SPREADER #	Q_{10} (CFS)	DEPTH (INCH)	WIDTH (FT)	LENGHT (FT)
1	21.53	4	5	50
2	25.50	4	5	50
3	15.84	4	5	30
4	21.52	4	5	50



	DIKE A	DIKE B
A - DIKE HEIGHT	18"	36"
B - DIKE WIDTH	24"	36"
C - FLOW WIDTH	48"	60"
D - FLOW DEPTH	8"	15"

CONSTRUCTION SPECIFICATIONS

1. ALL DIKES SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT.
2. ALL DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
3. TOP WIDTH MAY BE WIDER AND SIDE SLOPES BE FLATTER IF DESIRED TO FACILITATE CROSSING BY CONSTRUCTION TRAFFIC.
4. FIELD LOCATION SHOULD BE ADJUSTED AS NEEDED TO UTILIZE A STABILIZED SAFE OUTLET.
5. EARTH DIKES SHALL HAVE AN OUTLET THAT FUNCTIONS WITH A MINIMUM OF EROSION. RUNOFF SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A SEDIMENT TRAP OR SEDIMENT BASIN WHERE EITHER THE DIKE CHANNEL OR THE DRAINAGE AREA ABOVE THE DIKE ARE NOT ADEQUATELY STABILIZED.
6. STABILIZATION SHALL BE: (A) IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SEED AND STRAW MULCH IF NOT IN SEEDING SEASON, (B) FLOW CHANNEL AS PER THE CHART BELOW.

FLOW CHANNEL STABILIZATION

TYPE OF TREATMENT	TYPE OF GRADE	DIKE A	DIKE B
1	0.5-3.0%	SEED AND STRAW MULCH	SEED AND STRAW MULCH
2	3.1-5.0%	SEED AND STRAW MULCH	SEED USING JUTE OR EXCELSIOR, SOD, 2" STONE
3	5.1-8.0%	SEED WITH JUTE OR SOD, 2" STONE	LINED RIP RAP 4-8"
4	8.1-20%	LINED RIP RAP 4-8"	ENGINEERING DESIGN

A. STONE TO BE 2 INCH STONE OR RECYCLED CONCRETE EQUIVALENT IN A LAYER AT LEAST 3 INCHES IN THICKNESS AND BE PRESSED INTO THE SOIL WITH CONSTRUCTION EQUIPMENT.
B. RIP RAP TO BE 4-8 INCHES IN A LAYER AT LEAST 8 INCHES THICK AND PRESSED INTO THE SOIL.
C. APPROVED EQUIVALENTS CAN BE SUBSTITUTED FOR ANY OF THE ABOVE MATERIALS.

7. PERIODIC INSPECTION AND REQUIRED MAINTENANCE MUST BE PROVIDED AFTER EACH RAIN EVENT.

19 EARTH DIKE DETAILS
C-310 N.T.S.

PUTNAM ENGINEERING, PLLC
ENGINEERS - ARCHITECTS
4 OLD ROUTE 6, BREWSTER, NEW YORK 10509
(845) 279-6784 FAX (845) 279-6784

PURSUANT TO NEW YORK STATE EDUCATION LAW, ARTICLE 145, SECTION 7209, SUBDIVISION 2, IT IS A VIOLATION OF THIS LAW FOR ANY PERSON, UNLESS HE IS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, TO ALTER AN ITEM IN ANY WAY. IF AN ITEM BEARING THE SEAL OF AN ENGINEER IS ALTERED, THE ALTERING ENGINEER SHALL AFFIX TO THE ITEM HIS SEAL AND THE NOTATION "ALTERED BY" FOLLOWED BY HIS SIGNATURE AND THE DATE OF SUCH ALTERATION, AND A SPECIFIC DESCRIPTION OF THE ALTERATION.

REVISIONS

NO.	DATE	DESCRIPTION
1	17 DEC 14	ADDRESS PLAN / PROFILE REVISIONS
2	3 APR 15	REV. PER TE / ROAD REVISION
3	24 MAY 15	REV. PER TE / DB / TP REVIEW
4	28 JAN 16	PROGRESS SUBMISSION TO CONTRACTOR
5	29 JAN 16	NYCDEP SUBMISSION
6	28 JUL 16	UPDATED DRAWING LIST
7	18 DEC 16	REVISED PER PCNYCDEP COMMENTS
8	10 DEC 16	REVISED PER NYCDEP COMMENTS

NO.	DATE	DESCRIPTION
9	24 MAR 16	REV. PER PCNDP COMMENTS
10	27 APR 16	REV. PER NYCDEP COMMENTS
11	28 MAY 16	REV. PER NYCDEP COMMENTS
12	10 OCT 16	RELOCATED WATER AND SEWER LINES
13	7 NOV 16	CHANGE TO DTL. RC/C-04

PROJECT: RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:

RANDOM RIDGE
KENNICUT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK

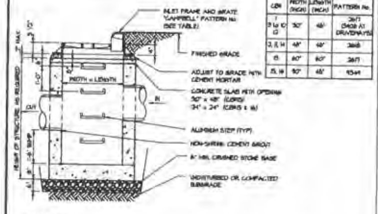
DATE	PROJECT MANAGER	DRAWN BY	CHECKED BY	SCALE
SEPT. 5, 2014	PHL	PB	PHL	AS NOTED

DRAWING: EROSION CONTROL DETAILS

PROJECT NUMBER: 805

DRAWING NUMBER: C-310

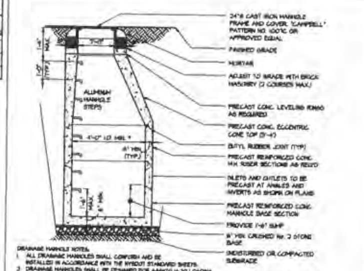
SHEET 38 OF 54



CATCH BASIN NOTES:

1. WALL THICKNESS: 8" POURED CONCRETE OR PRECAST CONC. SECTIONS, CLASS A CONCRETE.
2. ALL CATCH BASINS SHALL CONFORM AND BE INSTALLED IN ACCORDANCE WITH THE NYSDOT STANDARD SHEETS.
3. POURED OR PRECAST WALLS SHALL BE REINFORCED WITH 6x6/W6xW6 WWM. BOTTOM SHALL BE SIMILAR.
4. CATCH BASINS SHALL BE DESIGNED FOR AASHTO H-20 LOADING.
5. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION.

1 / C-311 CATCH BASIN DETAIL
N.T.S.

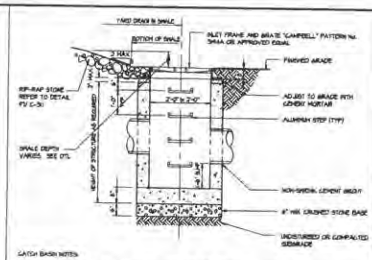


DRAINAGE MANHOLE NOTES:

1. ALL DRAINAGE MANHOLES SHALL CONFORM AND BE INSTALLED IN ACCORDANCE WITH THE NYSDOT STANDARD SHEETS.
2. DRAINAGE MANHOLES SHALL BE DESIGNED FOR AASHTO H-20 LOADING.
3. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION.

* - REFER TO GRADING PLAN FOR ADDITIONAL REQUIRED SIZES.

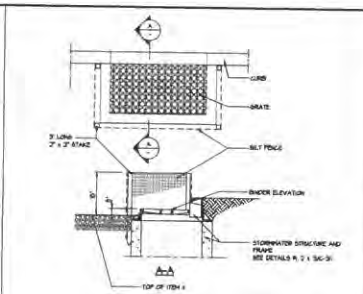
2 / C-311 DRAINAGE MANHOLE DETAIL
N.T.S.



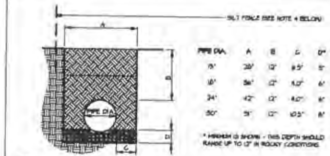
CATCH BASIN NOTES:

1. WALL THICKNESS: 6" POURED CONCRETE OR PRECAST CONC. SECTIONS, CLASS A CONCRETE.
2. ALL CATCH BASINS SHALL CONFORM WITH AND BE INSTALLED IN ACCORDANCE WITH THE NYSDOT STANDARD SHEETS.
3. POURED OR PRECAST WALLS SHALL BE REINFORCED WITH 6x6/W6xW6 WWM. BOTTOM SHALL BE SIMILAR.

3 / C-311 YARD DRAIN DETAIL
N.T.S.



3a / C-311 INSTALLATION OF STORMWATER STRUCTURES IN PAVEMENT DETAIL
N.T.S.

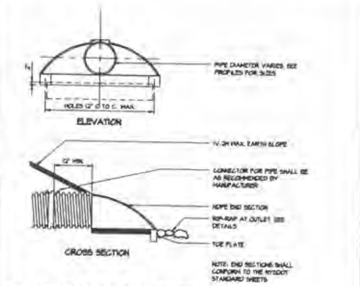


* MINIMUM IS SHOWN - THIS DEPTH SHOULD RANGE UP TO 12" IN ROCKY CONDITIONS.

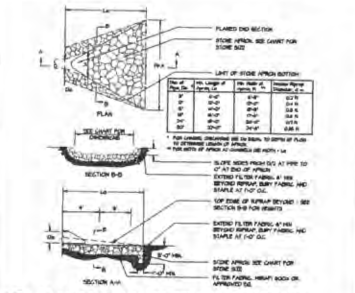
NOTES:

1. BACKFILL BELOW AND AROUND THE PIPE SHALL BE R.O.B. GRAVEL, OR SAND UP TO A POINT 12" ABOVE THE PIPE. R.O.B. GRAVEL, SAND OR NATIVE TRENCH MATERIAL IS ACCEPTABLE FROM THAT POINT TO THE SURFACE.
2. A COMPACTION LEVEL OF 90 PERCENT (MODIFIED PROCTOR) FOR THE BACKFILL IS REQUIRED AND SHOULD BE ACHIEVED USING A MECHANICAL TAMPER.
3. NO SECTION OF PIPE SHALL BE BACKFILLED UNTIL INSPECTED AND APPROVED BY THE MUNICIPAL ENGINEER.
4. INSTALL SILT FENCE AT DOWN GRADIENT SIDE OF ALL TRENCHING AT CROSS SLOPES AND AT 50 FOOT INTERVALS WHERE TRENCHING IS PERPENDICULAR TO SLOPES. SEE DETAIL #2/C-310 FOR SILT FENCE DETAIL.
5. HANCOR HI-Q, ADS N-12, OR EQUAL SMOOTHWALL CORRUGATED PLASTIC PIPE.

4 / C-311 STORM DRAIN TRENCH DETAIL
N.T.S.

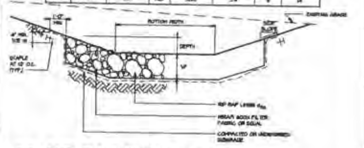


5 / C-311 END SECTION DETAILS
N.T.S.

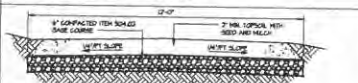


6 / C-311 RIP-RAP OUTLET PROTECTION DTLS.
N.T.S.

SWALE #	PROFILE SIDE SLOPE (H:V)	BOTTOM WIDTH (FT)	DEPTH (FT)	SWALE LENGTH (FT)	SWALE SLOPE %	D_{50} (INCH)	THICKNESS "d" (INCH)
1A	2:1	4.0	2.0	606	10.7	12	27
1B	2:1	6.0	2.0	214	1.9	12	27
1C	2:1	8.0	2.0	107	8.6	18	33
2A	2:1	8.0	2.0	217	4.6	4	6
2B	2:1	8.0	2.0	238	14.9	6	14
2C	2:1	5.0	2.0	[illegible]	5.1	4	20
3A	2:1	4.0	2.0	[illegible]	8.8	4	20
3B	2:1	5.0	2.0	[illegible]	13.2	4	20
3C	2:1	8.0	2.0	145	14.0	12	27
3D	3:1	10.0-4.0	2.0	60	16.1	8	12
4	2:1	4.0	2.0	88	24.7	12	27
5	2:1	5.0	1.25	300	5.4	4	14



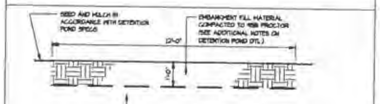
7 / C-311 RIP-RAP SWALE DETAIL
N.T.S.



NOTES:

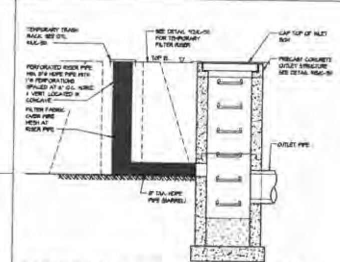
1. ALL ACCESS DRIVES TO BE CONSTRUCTED WITH 6" NYSDOT ITEM 304.03 (COMPACTED) SUB BASE DURING CONSTRUCTION. UPON COMPLETION OF CONSTRUCTION, THE DRIVES ARE TO BE COVERED WITH 2" MIN. TOPSOIL AND SEEDED AND MULCHED.
2. THIS DETAIL SHALL APPLY TO ACCESS DRIVES LOCATED OUTSIDE OF THE DETENTION PONDS.

8 / C-311 DETENTION POND ACCESS DRIVE DTL.
N.T.S.



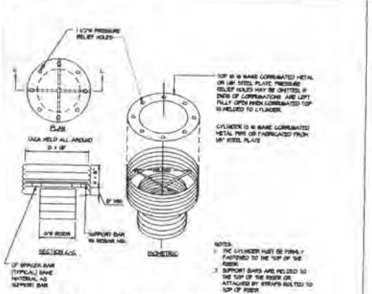
NOTE: THIS DETAIL APPLIES TO MAINTENANCE ACCESS DRIVES LOCATED WITHIN THE DETENTION PONDS.

9 / C-311 DETENTION POND MAINTENANCE ACCESS DETAIL
N.T.S.

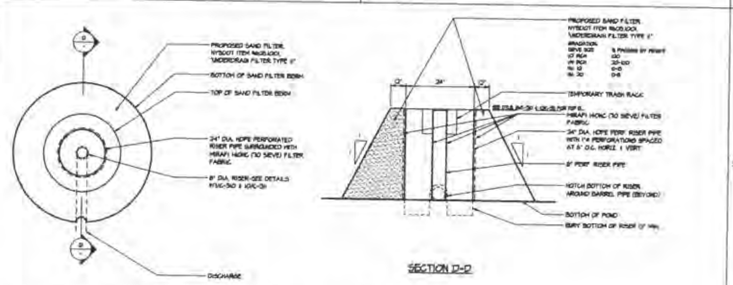


NOTE: PERFORATED STANDPIPE SHALL BE USED UNTIL ALL DISTURBED AREAS OF THE SITE ARE COMPLETELY STABILIZED. AT SUCH TIME, THE STANDPIPE SHALL BE REMOVED AND THE OPENING IN THE OUTLET STRUCTURE CONVERTED TO THE REQUIRED OPENINGS AS SHOWN @ THE PERMANENT OUTLET STRUCTURE DETAIL.

10 / C-311 TEMPORARY OUTLET STRUCTURE DTL.
N.T.S.

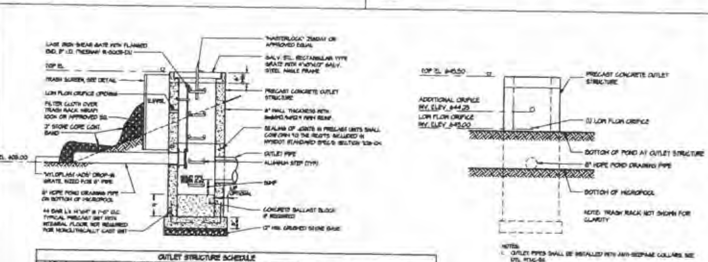


11 / C-311 TEMPORARY TRASH RACK DETAILS
N.T.S.



SECTION D-D

12 / C-311 TEMPORARY RISER @ OUTLET STRUCTURE DETAILS
N.T.S.

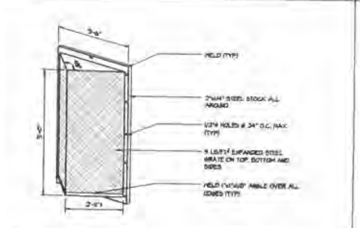


NOTE: TRASH RACK NOT SHOWN FOR CLARITY

NOTES:

1. OUTLET PIPES SHALL BE INSTALLED WITH ANTI-SEEPAGE COLLARS. SEE DTL. #17/C-311.
2. ALL PIPE CONNECTIONS TO THE OUTLET STRUCTURE SHALL BE FLUSH WITH THE INSIDE OF THE WALL AND BE A WATERTIGHT SEAL FOR ALL THE CONNECTIONS.
3. ALL JOINTS SHALL BE WATERTIGHT.
4. CUT GRATE AS REQUIRED FOR INSTALLATION OF LOCK ASSEMBLY.

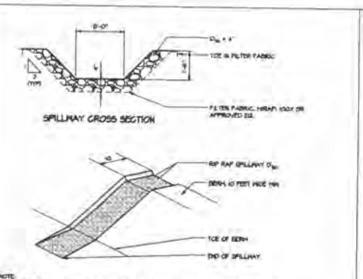
13 / C-311 PERMANENT OUTLET STRUCTURE (OS #1) DETAILS
N.T.S.



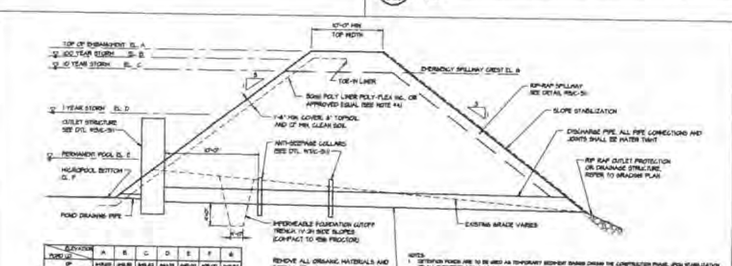
NOTES:

1. TRASH RACK TO BE CENTERED OVER OPENINGS.
2. STEEL TO CONFORM TO ASTM A-36.
3. ALL SURFACES ARE TO BE COATED WITH ZINC COLD GALVANIZING COMPOUND AFTER WELDING.

14 / C-311 PERMANENT TRASH RACK PROTECTION DTL.
N.T.S.



15 / C-311 RIP-RAP SPILLWAY DETAILS
N.T.S.



16 / C-311 TYPICAL DETENTION POND BERM SECTION
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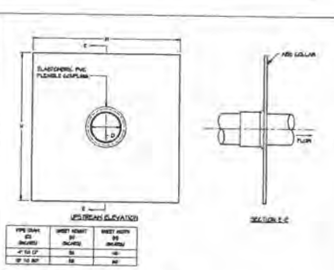


17 / C-311 ABS ANTISEEP COLLAR for 4"-24" DIA. PIPE
N.T.S.

PUTNAM ENGINEERING, PLLC
ENGINEERS - ARCHITECTS
4 OLD ROUTE 6, BREWSTER, NEW YORK 10509
(845) 279-8784 FAX (845) 279-8184

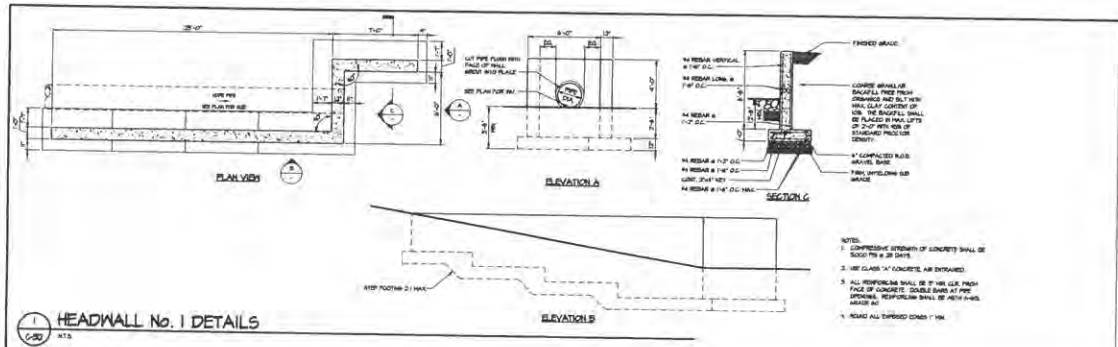
RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:
RANDOM RIDGE
KENNICUT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK

DATE: SEPT. 5, 2014
SCALE: AS NOTED

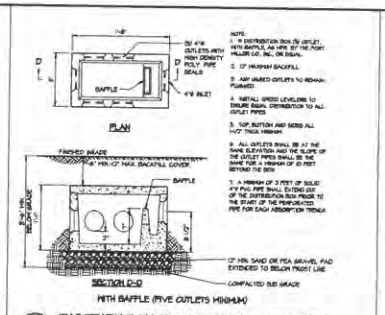
DRAWING: DETAILS

DRAWING NUMBER: C-311

SHEET 31 OF 34



1 C-312 HEADWALL No. 1 DETAILS
N.T.S.



2 C-312 DISTRIBUTION BOX DETAIL - TYPE 'D'
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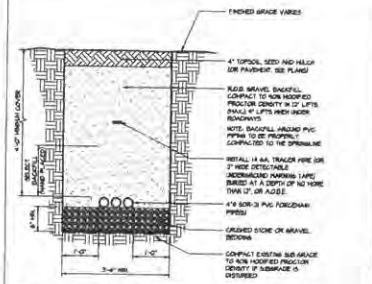
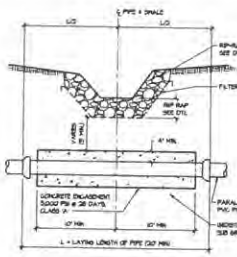


3 C-312 SEWER FORCEMAIN TRENCH DETAIL
N.T.S.

4 C-312 SEWER and WATER TRENCH DETAILS
N.T.S.



5 C-312 SWALE CROSSING SEWER PIPE DETAIL
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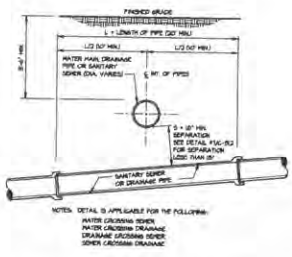
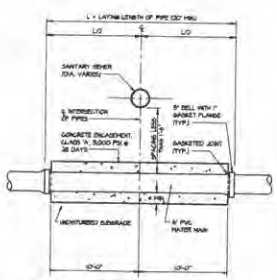
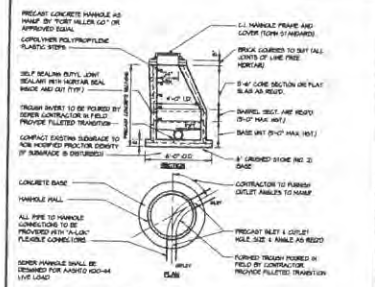


6 C-312 UTILITY PIPE CROSSING DETAIL
N.T.S.
SEPARATION GREATER THAN OR EQUAL TO 18"



7 C-312 UTILITY CROSSING DETAIL
N.T.S.
SEPARATION LESS THAN 18"



8 C-312 SEWER MANHOLE DETAILS
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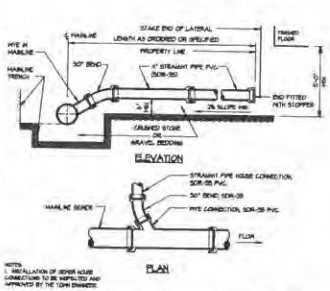

9 C-312 SEWER SERVICE CONNECTION DETAIL
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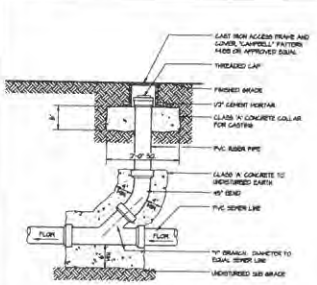
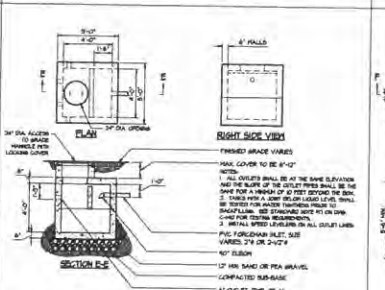
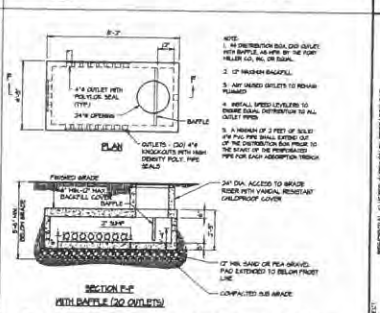


10 C-312 SEWER CLEANOUT DETAIL
N.T.S.



11 C-312 DISTRIBUTION BOX DETAIL - TYPE 'A'
N.T.S.



12 C-312 DISTRIBUTION BOX DETAIL - TYPE 'B'
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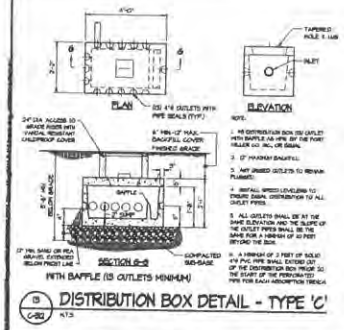

13 C-312 DISTRIBUTION BOX DETAIL - TYPE 'C'
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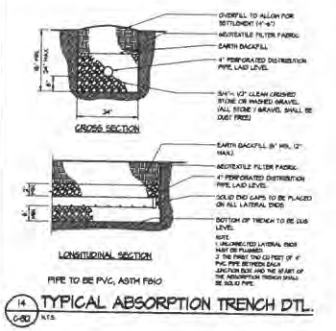
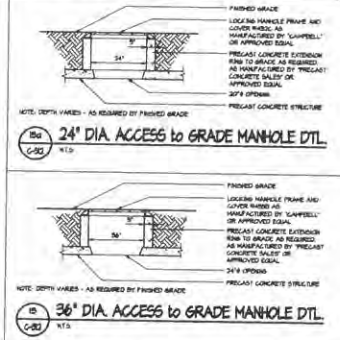
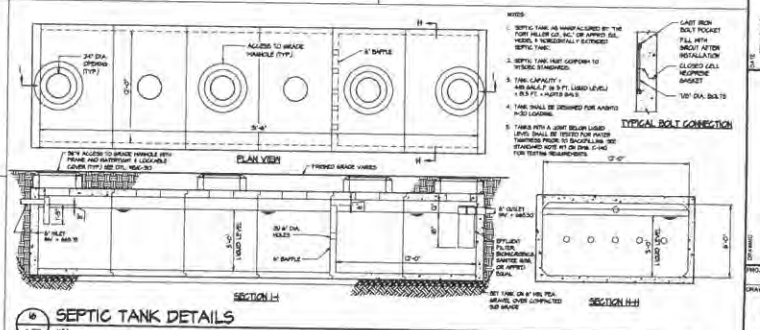


14 C-312 TYPICAL ABSORPTION TRENCH DTL.
N.T.S.



15a C-312 24" DIA. ACCESS to GRADE MANHOLE DTL.
N.T.S.

15 C-312 36" DIA. ACCESS to GRADE MANHOLE DTL.
N.T.S.



16 C-312 SEPTIC TANK DETAILS
N.T.S.

PUTNAM ENGINEERING PC
ENGINEERS - ARCHITECTS
4 OLD ROUTE 6, BREWSTER, NEW YORK, 10509
(845) 279-8194 FAX (845) 279-8194

NO.	DATE	DESCRIPTION	BY	CHK.
1	11/08/11	REVISED PER TOWN COMMENTS	PML	
2	11/08/11	REVISED PER TOWN COMMENTS	PML	
3	11/08/11	REVISED PER TOWN COMMENTS	PML	
4	11/08/11	REVISED PER TOWN COMMENTS	PML	
5	11/08/11	REVISED PER TOWN COMMENTS	PML	
6	11/08/11	REVISED PER TOWN COMMENTS	PML	
7	11/08/11	REVISED PER TOWN COMMENTS	PML	
8	11/08/11	REVISED PER TOWN COMMENTS	PML	
9	11/08/11	REVISED PER TOWN COMMENTS	PML	
10	11/08/11	REVISED PER TOWN COMMENTS	PML	
11	11/08/11	REVISED PER TOWN COMMENTS	PML	
12	11/08/11	REVISED PER TOWN COMMENTS	PML	
13	11/08/11	REVISED PER TOWN COMMENTS	PML	
14	11/08/11	REVISED PER TOWN COMMENTS	PML	
15	11/08/11	REVISED PER TOWN COMMENTS	PML	
16	11/08/11	REVISED PER TOWN COMMENTS	PML	

RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:

RANDOM RIDGE
KENNEDY HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK

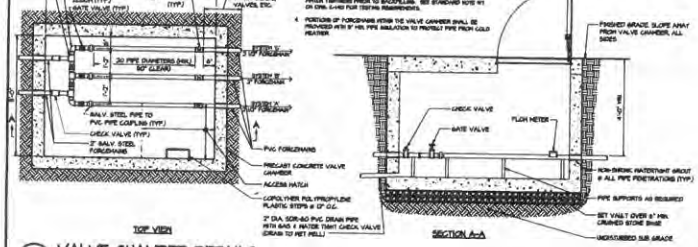
DATE: 8 JUNE 2010
PROJECT ENGINEER: PML
DRAWN BY: PML
CHECKED BY: PML
SCALE: AS NOTED

DETAILS

PROJECT NUMBER: 905
DRAWING NUMBER: C-312
SHEET 30 of 34

NOTES:

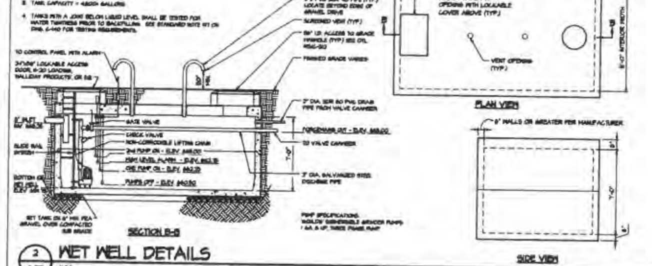
1. VALVE CHAMBER SHALL BE 5'-0" x 7'-0" I.D. PRECAST CONCRETE, DESIGNED FOR AASHTO H-20 LOADING.
2. VALVE CHAMBER MUST CONFORM TO NYSDEC STANDARDS.
3. TANKS WITH A JOINT BELOW LIQUID LEVEL SHALL BE TESTED FOR WATER TIGHTNESS PRIOR TO BACKFILLING. SEE STANDARD NOTE #1 ON DWG. C-140 FOR TESTING REQUIREMENTS.
4. PORTIONS OF FORCEMAINS WITHIN THE VALVE CHAMBER SHALL BE PROVIDED WITH 3" MIN. PIPE INSULATION TO PROTECT PIPE FROM COLD WEATHER.



1 VALVE CHAMBER DETAILS
C-88 N.T.S.

NOTES:

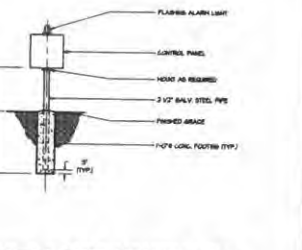
1. WET WELL SHALL BE PRECAST CONCRETE, DESIGNED FOR AASHTO H-20 LOADING.
2. HOLDING TANK MUST CONFORM TO NYSDEC STANDARDS.
3. TANK CAPACITY = 4,800 GALLONS.
4. TANKS WITH A JOINT BELOW LIQUID LEVEL SHALL BE TESTED FOR WATER TIGHTNESS PRIOR TO BACKFILLING. SEE STANDARD NOTE #1 ON DWG. C-140 FOR TESTING REQUIREMENTS.



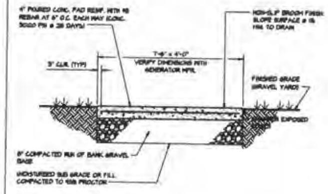
2 WET WELL DETAILS
C-88 N.T.S.

WET WELL GENERAL NOTES:

1. PUMPS ARE TO BE PLACED IN 2 SYSTEMS. SYSTEMS ARE TO ALTERNATE AUTOMATICALLY.
2. PUMPS SHALL BE GOULDS PUMPS (OR APPROVED EQUAL) SUBMERSIBLE GRINDER PUMPS 1 HP, 3 PHASE PUMPS.
3. ALL ELECTRICAL WORK AND MATERIALS FOR PUMP INSTALLATION SHALL CONFORM TO THE NATIONAL ELECTRIC CODE (NEC), LATEST EDITION, AND THE LATEST REQUIREMENTS OF THE APPROPRIATE REGULATORY AGENCY. ALL ELECTRICAL SERVICES SHALL BE INSTALLED UNDERGROUND.
4. ALL POWER AND CONTROL WIRING SHALL BE MADE DIRECTLY TO THE CONTROL PANEL WITHOUT ANY OUTSIDE SPLICES.
5. SEPTIC TANK TO BE 5'-4"x12'-0"x6'-0" (I.D.) 4,000 GALLON PRECAST SEPTIC TANK AS MANUFACTURED BY "FORT MILLER CO. INC." OR APPROVED EQUAL, DESIGNED FOR AASHTO H-20 LOADING. ALL CONSTRUCTION JOINTS ARE TO BE SEALED WITH BUTYL RUBBER GASKETS AND BOLTED IN CHAMFERED CORNERS WITH 1/2" DIAMETER BOLTS (AS PER DETAIL).
6. WET WELL TO BE 14'-0"x8'-0"x7'-0" (I.D.) PRECAST CONCRETE, DESIGNED FOR AASHTO H-20 LOADING. DOSING VOLUME TO BE 1,450 GALLONS.
7. DOSING VOLUMES SHALL BE RE-CALCULATED WHEN SWITCHING RESTING ABSORPTION AREAS INTO USE BASED ON ACTUAL FLOW DATA.
8. PUMP RATE TESTS ARE TO BE PERFORMED AFTER SYSTEM INSTALLATION TO DETERMINE ACTUAL PUMPING RATES TO ABSORPTION FIELDS.
9. 277/480 VOLT POWER SHALL BE SUPPLIED TO THE PUMP STATION.
10. AN ELECTRICAL UNDERWRITER'S CERTIFICATE FOR THE PUMP STATION MUST BE PROVIDED TO THE HEALTH DEPARTMENT PRIOR TO THE HEALTH DEPARTMENT CONDUCTING A FINAL INSPECTION ON THE PUMP STATION.
11. PRIOR TO INSTALLATION OF PUMP STATION, CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND REQUIREMENTS WITH THE MANUFACTURER'S MOST RECENT PRINTED INSTRUCTIONS.
12. NON-SHRINK WATERTIGHT GROUT TO BE USED AT ALL PIPE ENTRANCES AND EXITS AT THE WET WELL AND THE VALVE CHAMBER.
13. THE PUMP STATION SHALL INCLUDE SEPARATE RADIO EQUIPMENT TO BE PROVIDED AND MONITORED 24 HOURS A DAY BY AN ALARM COMPANY. THE EQUIPMENT IS TO BE MOUNTED WITH THE CONTROL PANEL ON THE SERVICE POLE. POWER SUPPLY WIRING TO THE RADIO EQUIPMENT FROM THE CONTROL PANEL AND DRY CONTACT TO BE INCLUDED AS PART OF THE CONTROL PANEL PACKAGE.



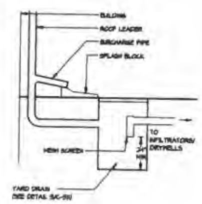
3 CONTROL PANEL MOUNTING DETAIL
C-88 N.T.S.



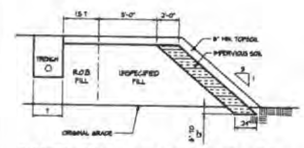
NOTES:

1. THE CONTRACTOR SHALL ATTACH THE GENERATOR/FUEL TANK TO THE CONCRETE PAD AS INSTRUCTED BY THE GENERATOR MANUFACTURER.
2. VERIFY WITH GENERATOR MANUFACTURER ALL REQUIRED SLAB PENETRATIONS AND LOCATIONS.
3. ALL CONCRETE SHALL BE 3500 PSI, AIR ENTRAINED 5% TO 7%.

4 GENERATOR PAD DETAIL
C-88 N.T.S.



5 ROOF LEADER DTL
C-88 N.T.S.

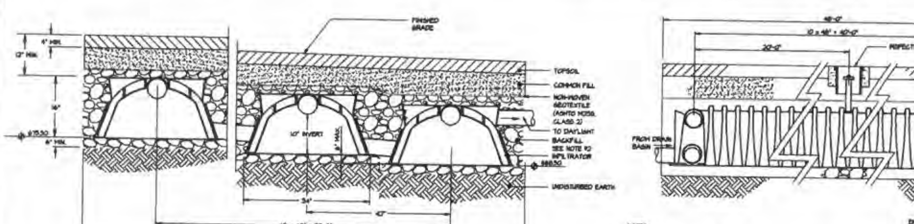


FILL PAD MATERIAL (R.O.B. GRAVEL) MUST EXTEND A MINIMUM DISTANCE EQUAL TO OR GREATER THAN 1.5 TIMES THE TRENCH WIDTH BEYOND THE SIDEWALL OF THE TRENCH. AFTER FILL PAD MATERIAL, THERE MUST BE FIVE (5) FEET OF ADDITIONAL UNCLASSIFIED PERVIOUS SOIL, WITH THE FINAL TWO (2) FEET BEING IMPERVIOUS SOIL WITH A ONE (1) VERTICAL TO THREE (3) HORIZONTAL SLOPE. THE TOE OF THE SLOPE SHALL EXTEND INTO THE VIRGIN SOIL 6 TO 12 INCHES DEEP AND 24 INCHES WIDE. TOPSOIL SHALL BE APPLIED IN ACCORDANCE WITH APPENDIX 75-A, SECTION 75-A.9 (b-4-iv)

6 FILL SECTION DETAIL and NOTES
C-88 N.T.S.

FILL NOTES:

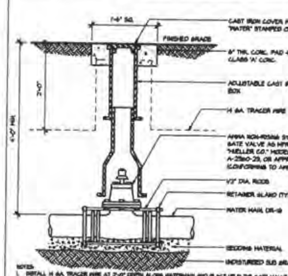
1. R.O.B. GRAVEL FILL MUST BE STABILIZED BY ALLOWING THE FILL MATERIAL TO SETTLE NATURALLY FOR A PERIOD OF AT LEAST 6 MONTHS AND INCLUDE AT LEAST ONE (1) FREEZE-THAW CYCLE OR FILL STABILIZATION MAY BE ACHIEVED BY MECHANICAL COMPACTION IN APPROXIMATELY 6 INCH LIFTS TO THE APPROXIMATE DENSITY OF THE UNDISTURBED UNDERLYING GRANULAR SOIL.
2. THE REQUIRED DEPTH OF R.O.B. FILL WITHIN THE SEWAGE TREATMENT AREA VARIES (SEE DWGS. SC-142 AND SC-143) WITH AN APPROXIMATE REQUIRED VOLUME OF 5,000 CUBIC YARDS.
3. SITE MODIFICATION ACTIVITIES INVOLVING PLACEMENT OF FILL ARE TO BE CONDUCTED DURING RELATIVELY DRY PERIODS TO MINIMIZE SOIL SHEARING AND EXCESSIVE SOIL COMPACTION.
4. FILL SHALL BE RUN OF BANK GRAVEL SUITABLE FOR SEWAGE ABSORPTION, BE FREE OF FINES OR OTHER UNSUITABLE MATERIAL AND SHALL HAVE AN IN-PLACE PERCOLATION RATE AT LEAST EQUAL TO THE NATURAL SOIL AFTER THE REQUIRED STABILIZATION PERIOD. THE DESIGN PROFESSIONAL SHALL PERFORM FINAL PERCOLATION TESTS IN THE FILL AFTER STABILIZATION.
5. FILL SUITABLE FOR SEWAGE ABSORPTION SHOULD CONTAIN NO MORE THAN 5 PERCENT AND PREFERABLY NO MORE THAN 3 PERCENT FINES BY WEIGHT. FINES ARE CLAY AND SILT PARTICLES THAT PASS A #200 SIEVE. NO MORE THAN 10 PERCENT BY WEIGHT OF THE FILL MATERIAL SHOULD PASS A #100 SIEVE.
6. THE IMPERVIOUS FILL, CLAY BARRIER, SHALL BE A DENSE CLAYEY SOIL WITH LITTLE OR NO SEWAGE ABSORPTION CAPACITY.
7. ALL EXPANSION ABSORPTION AREAS, CONTIGUOUS TO ALL PRIMARY ABSORPTION AREAS, SHALL HAVE R.O.B. FILL INSTALLED IN ACCORDANCE WITH DRAWINGS SC-141, C-143 AND C-215, SIMULTANEOUSLY WITH THE PRIMARY ABSORPTION AREA FILL INSTALLATION.



NOTES:

1. MINIMUM 12" OF COVER TO MEET H-10 LOADING.
2. UNITS MUST BE BACKFILLED WITH SELECT BACKFILL MATERIAL OR 1" WASHED BROKEN STONE OR SCREENED GRAVEL.
3. 11 ROWS AT 3'-6" O.C. EACH ROW IS 40'-0" (END CAPS NOT INCLUDED)

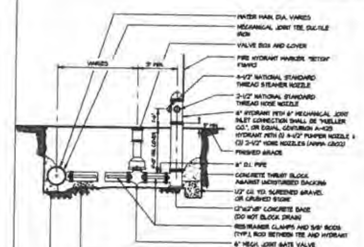
7 INFILTRATION SYSTEM DETAILS
C-88



NOTES:

1. INSTALL 14 GA. TRACER WIRE AT 2'-0" DEPTH ALONG WATERMAIN AND PLACE UP IN THE GATE VALVE BOX TO FACILITATE CONNECTION.
2. REFER TO DWG. NO. C-35 FOR VALVE NOTES.

8 WATER VALVE DETAIL
C-88 N.T.S.



NOTES:

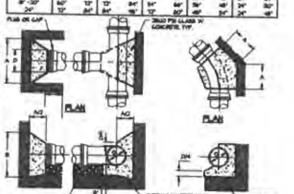
1. CONTINUE TIE RODS TO MAIN OR AT LEAST 20 FEET ALONG HYDRANT LATERAL.
2. REFER TO DWG. NO. C-35 FOR FIRE HYDRANT NOTES.

9 HYDRANT DETAIL
C-88 N.T.S.

NOTES:

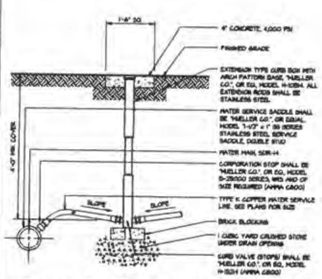
1. TIE RODS MUST BE USED IN CONJUNCTION WITH CONCRETE THRUST BLOCKS FOR HYDRANTS, VALVES OR TEES, AND WHEREVER REQUIRED BY ENGINEER FOR MECHANICAL JOINT, TYTON AND PVC PIPE.

HORIZONTAL THRUST BLOCK SCHEDULE										
PIPE SIZE	TEE		90		45		22 1/2		11 1/4	
DIAMETER (D)	A	B	A	B	A	B	A	B	A	B
6" - 8"	30"	36"	24"	48"	12"	24"	12"	18"	12"	12"
10" - 12"	36"	48"	44"	48"	24"	48"	24"	24"	12"	24"
14" - 16"	42"	60"	60"	72"	36"	60"	34"	48"	24"	24"
18" - 20"	60"	72"	72"	84"	54"	66"	56"	48"	24"	30"
24"	72"	84"	84"	96"	72"	80"	48"	54"	24"	48"

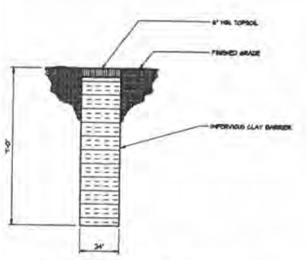


10 HORIZONTAL THRUST BLOCK DETAILS
C-88 N.T.S.

NOTE: ALTERNATE RESTRAINING MECHANISMS FOR PVC PIPE AND FITTINGS MAY BE UTILIZED AS ORDERED BY ENGINEER. RESTRAINING MECHANISMS SHALL BE TESTED AND PRESSURE RATED IN ACCORDANCE WITH ASTM F1674.



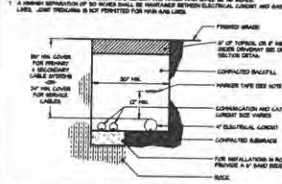
11 WATER SERVICE CONNECTION DETAIL
C-88 N.T.S.



12 IMPERMEABLE BARRIER DETAIL
C-88 N.T.S.

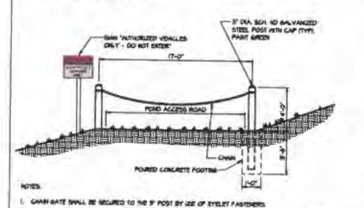
NOTES:

1. PER NEW YORK STATE LAW, THE CONTRACTOR SHALL CALL THE UNDERGROUND FACILITIES PROTECTIVE ORGANIZATION (UFPO) AT 1-800-962-7962, TWO (2) FULL DAYS PRIOR TO PERFORMING ANY EXCAVATION WORK.
2. PROVIDE P.V.C. CONDUIT WITH NYLON PULL CORD AS REQUIRED FOR EACH INDIVIDUAL UTILITY LINE. CONTRACTOR TO COORDINATE WITH INDIVIDUAL UTILITY COMPANIES THE DIAMETER OF CONDUIT REQUIRED.
3. CONTRACTOR TO COORDINATE WITH EACH INDIVIDUAL UTILITY COMPANY AND THE DESIGN ENGINEER, ALL REQUIRED INSPECTIONS.
4. MACHINE DIGGING SHALL STOP NOT LESS THAN 18 INCHES FROM VAULTS, FOUNDATIONS, EQUIPMENT, CABLES AND POLES. TRENCHING SHALL BE COMPLETED BY HAND THEREAFTER.
5. ALL ELECTRICAL BURIED CONDUITS SHALL BE IDENTIFIED BY A RED PLASTIC FILM MARKER TAPE, AS SPECIFIED BY THE UTILITY COMPANY. THE MARKER TAPE SHALL RUN DIRECTLY ABOVE THE ENTIRE LENGTH OF EACH CONDUIT SECTION AND SHALL HAVE A MINIMUM VERTICAL SEPARATION OF 12 INCHES.
6. A MINIMUM SEPARATION OF 30 INCHES SHALL BE MAINTAINED BETWEEN ELECTRICAL CONDUIT AND WATER SERVICE LINES. SEPARATION BETWEEN ELECTRICAL CONDUIT AND WATER MAIN SHALL BE 36 INCHES.
7. A MINIMUM SEPARATION OF 30 INCHES SHALL BE MAINTAINED BETWEEN ELECTRICAL CONDUIT AND GAS SERVICE LINES. JOINT TRENCHING IS NOT PERMITTED FOR MAIN GAS LINES.



13 ELECTRIC/CABLE/TELCO TRENCH DTL.
C-88 N.T.S.

NOTE: CONTINUE TIE RODS TO MAIN OR AT LEAST 20 FEET ALONG HYDRANT LATERAL.



NOTES:

1. CHAIN GATE SHALL BE SECURED TO THE 3" POST BY USE OF EYELET FASTENERS.
2. A LOCK SHALL BE USED TO SECURE THE CHAIN GATE. INDIVIDUAL KEYS ARE TO BE DISTRIBUTED TO THE APPROPRIATE MUNICIPAL EMERGENCY DEPARTMENTS AS WELL AS THE HOMEOWNER'S ASSOCIATION AND THE LANDSCAPER.

14 POND ACCESS ROAD ENTRANCE DTL
C-88 N.T.S.

PUTNAM ENGINEERING PLLC
ENGINEERS - ARCHITECTS
4 OLD ROUTE 6, BREWSTER, NEW YORK 10509
(845) 279-8789 FAX (845) 279-8791

REVISIONS

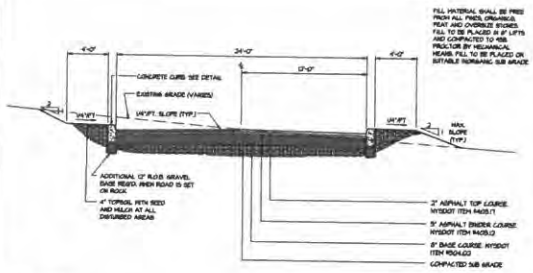
PROJECT: RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:
RANDOM RIDGE
KENNICUT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK

DATE: SEPT. 8, 2014
PROJECT MANAGER: PHL
DRAWN BY: PW
CHECKED BY: PHL
SCALE: AS NOTED

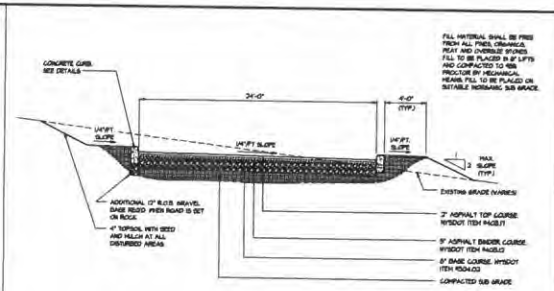
DRAWING: DETAILS

PROJECT NUMBER: 865
DRAWING NUMBER: C-313

SHEET 51 OF 54



1 C-314 TYPICAL ROAD 'A' CROSS SECTION
N.T.S.



2 C-314 TYPICAL ROAD 'B' CROSS SECTION
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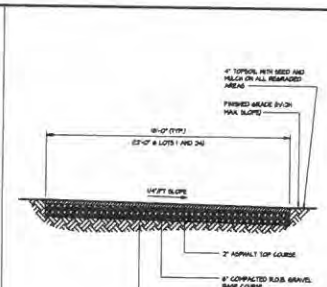
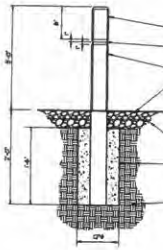
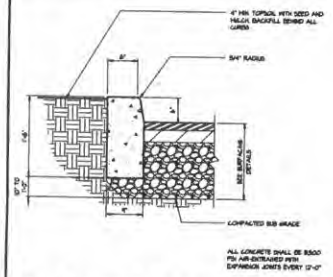


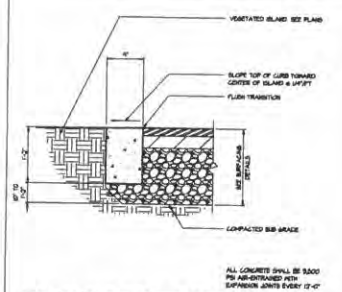
3 C-314 SINGLE FAMILY ASPHALT DRIVEWAY DTL.
N.T.S.



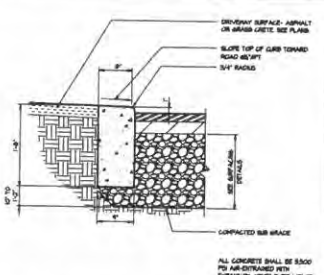
4 C-314 SEDIMENT REMOVAL MARKER DETAIL
N.T.S.



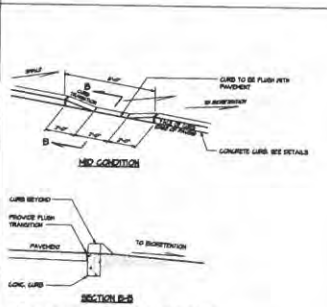
5 C-314 CONCRETE CURB DETAIL
SCALE: 3/4"=1'-0"



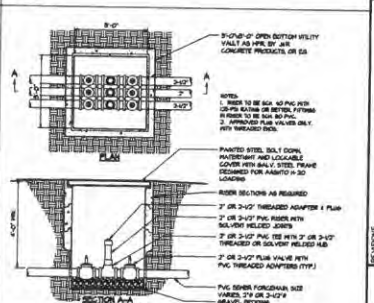
6 C-314 FLUSH CONCRETE CURB DETAIL
N.T.S.



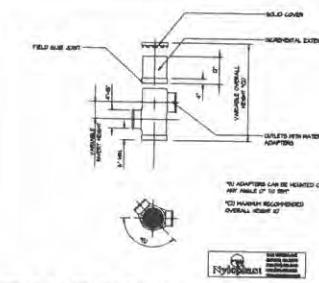
7 C-314 DRIVEWAY CONCRETE CURB DETAIL
N.T.S.



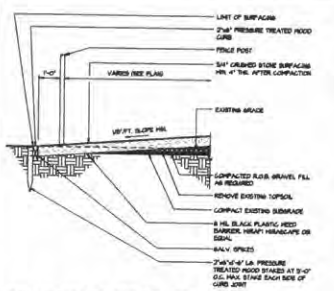
8 C-314 CURB BREAK DETAILS
N.T.S.



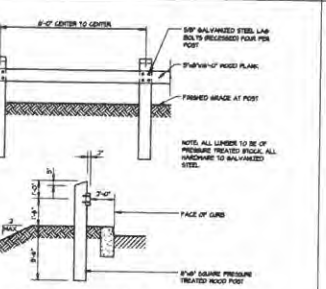
9 C-314 SEWER FORCE MAIN FLUSHING CONNECTION DTL.
N.T.S.



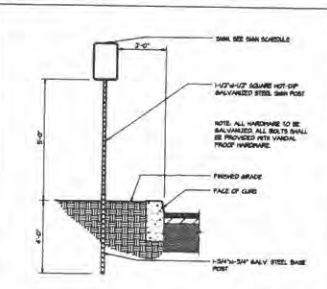
10 C-314 TEMPORARY 24" DRAINAGE MANHOLE DETAIL
N.T.S.



11 C-314 GRAVEL YARD DETAIL
N.T.S.

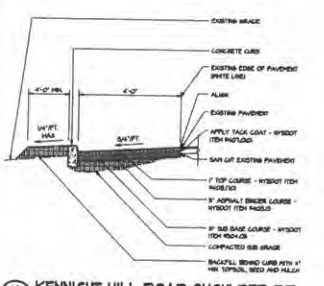


12 C-314 WOOD GUIDE RAIL DETAILS
SCALE: 1/2"=1'-0"



LOC. NO.	TEXT NO.	SIGN	NYSDOT MUTCD NUMBER	SIZE	DESCRIPTION
-	1	STOP	R1-1	24"x24"	WHITE LETTERS RED BACKGROUND
-	2	SPEED LIMIT 25	-	18"x24"	BLACK LETTERS WHITE BACKGROUND
-	3		R4-7L	12"x18"	BLACK SYMBOL WHITE BACKGROUND
-	-		-	-	-
-	-		-	-	-

13 C-314 TRAFFIC SIGN DETAILS
N.T.S.



14 C-314 KENNICUT HILL ROAD SHOULDER DTL.
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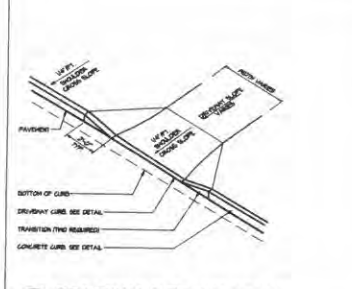

15 C-314 DRIVEWAY CURB CUT DETAIL
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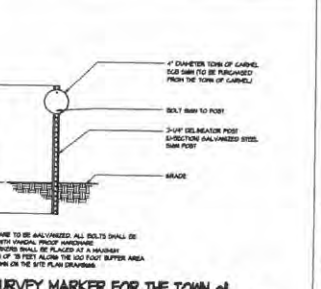
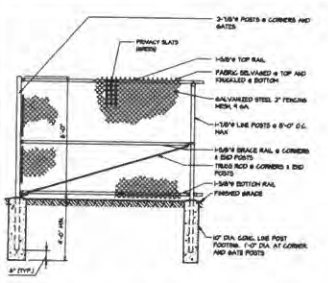


16 C-314 SURVEY MARKER FOR THE TOWN of CARMEL FRESHWATER WETLAND BUFFER
N.T.S.



17 C-314 CHAIN LINK FENCE DETAIL
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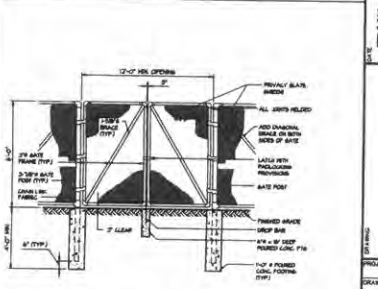


18 C-314 CHAIN LINK GATE DETAIL
N.T.S.

PRELIMINARY
ENGINEERING
DESIGNERS - PROJECTS
4 OLD ROUTE 6, BREWSTER, NEW YORK 10509
(845) 279-9391 FAX (845) 279-9391

REVISIONS				
NO.	DATE	DESCRIPTION		
1	10.08.14	ADDED PLAN TRIANGLE REVISIONS		
2	11.06.14	ADDED PLAN TRIANGLE REVISIONS		
3	12.18.14	REV. PER PLANNING COMMENTS		
4	01.14.15	REV. PER PLANNING COMMENTS		
5	02.18.15	REV. PER PLANNING COMMENTS		
6	03.18.15	REV. PER PLANNING COMMENTS		
7	04.15.15	REV. PER PLANNING COMMENTS		
8	05.20.15	REV. PER PLANNING COMMENTS		
9	06.17.15	REV. PER PLANNING COMMENTS		
10	07.15.15	REV. PER PLANNING COMMENTS		
11	08.19.15	REV. PER PLANNING COMMENTS		
12	09.16.15	REV. PER PLANNING COMMENTS		
13	10.21.15	REV. PER PLANNING COMMENTS		
14	11.18.15	REV. PER PLANNING COMMENTS		
15	12.16.15	REV. PER PLANNING COMMENTS		
16	01.20.16	REV. PER PLANNING COMMENTS		

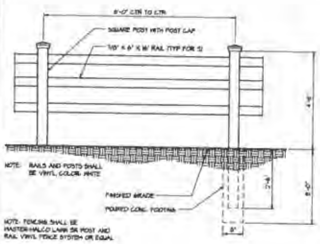
PROJECT: RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:
RANDOM RIDGE
KENNICUT HILL ROAD
TOWN OF CARMEL
PUTNAM COUNTY, NEW YORK

DATE: 3.3.2014
PROJ. EST. COMPLETION: TBD
DRAWN BY: PML
CHECKED BY: PML
SCALE: AS NOTED

DETAILS

DRAWING
PROJECT NUMBER: 8.00
DRAWING NUMBER: C-314

SHEET 22 OF 34



(1/C-315) POST and RAIL FENCE DETAIL
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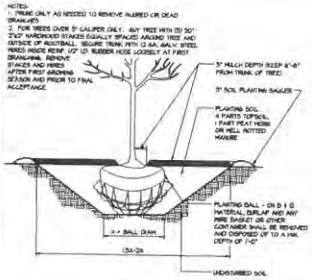

(2/C-315) TREE PLANTING DETAIL
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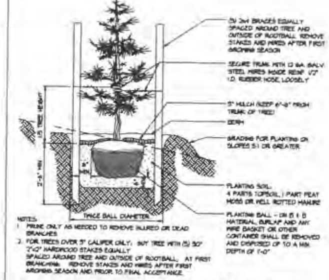
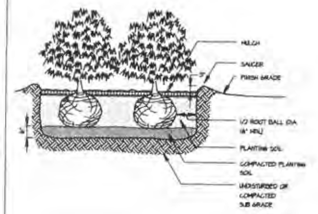
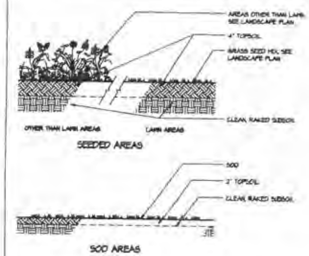


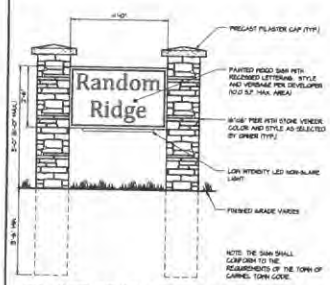
(5/C-315) EVERGREEN PLANTING DETAIL
N.T.S.



(4/C-315) SHRUB PLANTING DETAIL
N.T.S.



(5/C-315) SEEDING DETAILS
N.T.S.



(6/C-315) SITE DEVELOPMENT SIGN DETAIL
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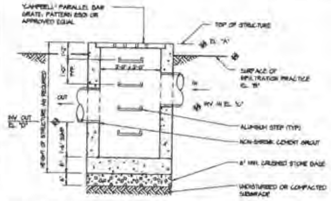
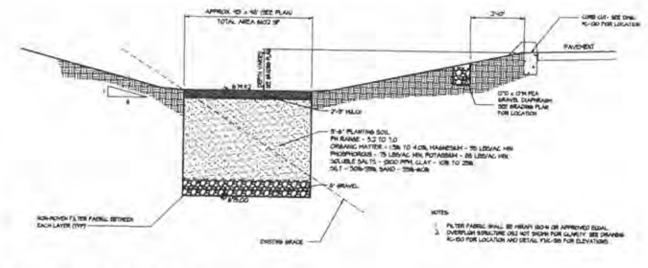


OVERFLOW STRUCTURE SCHEDULE

INFILTRATION PRACTICE	OVERFLOW STRUCT. ID	ELEVATIONS A	B	C	D
BIORETENTION	OS3	860.43	879.42	872.25	873.00
INFILTR. TRENCH	OS5	862.10	862.00	-	856.75
-	-	-	-	-	-

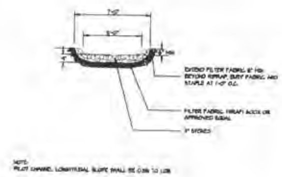
NOTES:
1. WALL THICKNESS: 6" POURED CONCRETE OR PRECAST CONC. SECTIONS, CLASS A CONCRETE
2. POURED OR PRECAST WALLS SHALL BE REINFORCED WITH 6x6-W4xW4 WWM. BOTTOM AND TOP SHALL BE SIMILAR.

(7/C-315) OVERFLOW STRUCTURES OS#3 & 5 DTL.
N.T.S.



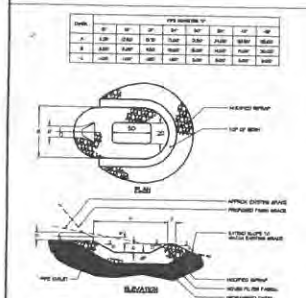
NOTES:
1. FILTER FABRIC SHALL BE MIRAFI 160-N OR APPROVED EQUAL.
2. OVERFLOW STRUCTURE OS3 NOT SHOWN FOR CLARITY. SEE DRAWING KC-130 FOR LOCATION AND DETAIL 7/C-315 FOR ELEVATIONS.

(8/C-315) BIORETENTION DETAIL
N.T.S.

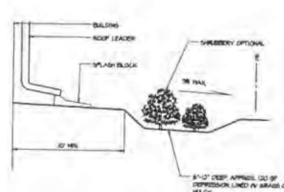


NOTE:
PILOT CHANNEL LONGITUDINAL SLOPE SHALL BE 0.5% TO 1.0%

(9/C-315) DETENTION POND PILOT CHANNEL DTL.

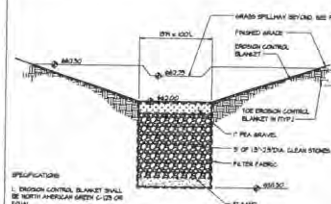


(10/C-315) PLUNGE POOL DETAILS
N.T.S.



NOTE:
RUNOFF FROM MAX. 500 SF OF ROOF AREA MAY BE DIRECTED TO EACH VEGETATED AREA DESIGNATED TO RECEIVE THE STORMWATER.

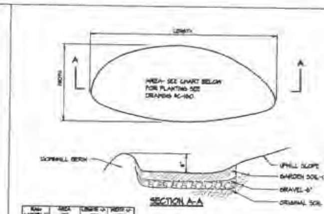
(11/C-315) ROOF LEADER DISCONNECTION DTL.
N.T.S.



SPECIFICATIONS:
1. EROSION CONTROL BLANKET SHALL BE NORTH AMERICAN GREEN C-125 OR EQUAL.
2. FILTER FABRIC SHALL BE MIRAFI 160-N OR APPROVED EQUAL.

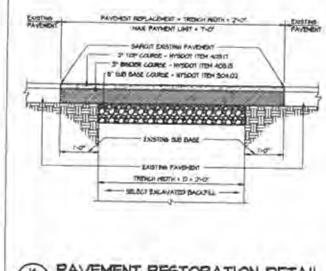
NOTE:
OVERFLOW OUTLET STRUCTURE OS-5 NOT SHOWN FOR CLARITY. SEE GRADING PLAN (DWG. KC-130) FOR LOCATION AND DETAIL 7/C-315 FOR ELEVATIONS.

(12/C-315) INFILTRATION TRENCH DETAIL
N.T.S.

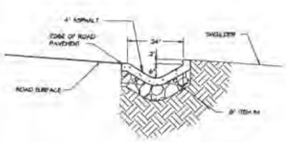


NOTES:
1. THIS IS A GENERIC RAIN GARDEN DETAIL. THE LENGTH AND WIDTH OF THE GARDEN AS WELL AS SHAPE MAY DIFFER. THE TOTAL SURFACE AREA SHALL BE AS LISTED ABOVE.
2. GARDEN SOIL SHALL BE 50%-70% SAND (LESS THAN 5% CLAY CONTENT) AND 30%-50% TOPSOIL WITH AN AVERAGE OF 5% ORGANIC MATERIAL AND FREE OF STONES, ROOTS AND WOOD DEBRIS AND ANIMAL WASTE.
3. GRAVEL SHALL BE CLEANED WASHED GRAVEL APPROXIMATELY 1.5-2.0 INCHES DIAMETER ROCK.

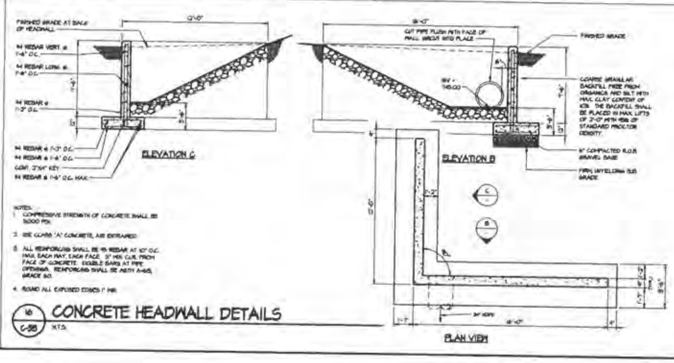
(13/C-315) RAIN GARDEN DETAILS
N.T.S.



(14/C-315) PAVEMENT RESTORATION DETAIL
N.T.S.

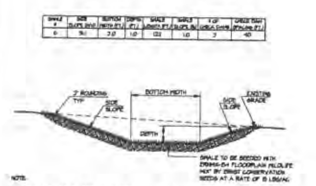


(15/C-315) PAVED GUTTER DETAIL
N.T.S.



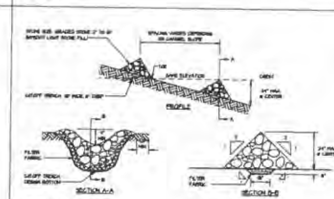
NOTES:
1. COMPRESSIVE STRENGTH OF CONCRETE SHALL BE 5000 PSI.
2. USE CLASS "A" CONCRETE, AIR ENTRAINED.
3. ALL REINFORCING SHALL BE #5 REBAR AT 10" O.C. MAX. EACH WAY, EACH FACE. 3" MIN. CLR. FROM FACE OF CONCRETE. DOUBLE BARS AT PIPE OPENINGS. REINFORCING SHALL BE ASTM A-615, GRADE 60.
4. ROUND ALL EXPOSED EDGES 1" MIN.

(16/C-315) CONCRETE HEADWALL DETAILS
N.T.S.



NOTE:
1. GRASS SWALE TO BE LINED WITH CHANNEL LINER C-125 AS MANUFACTURED BY NORTH AMERICAN GREEN OR APPROVED EQUAL. INSTALL CHANNEL LINER PER MANUFACTURERS INSTRUCTIONS.
2. PROVIDE CHECK DAMS ALONG LENGTH OF SWALE.
3. ALL GRASS SWALES MUST BE RESTORED/REPAIRED AND RESEEDED AS NEEDED AT THE END OF THE CONSTRUCTION PHASE.

(17/C-315) GRASS SWALE DETAIL
N.T.S.



CONSTRUCTION SPECIFICATIONS:
1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION TO THE LINES, GRADES AND LOCATION SHOWN IN THE PLAN.
2. SET SPACING OF CHECK DAM TO ASSURE THAT THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS AT THE THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 1.5 FEET BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
5. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONES.

(18/C-315) CHECK DAM DETAILS
N.T.S.

PUTNAM ENGINEERING PLLC
ENGINEERS - ARCHITECTS
4 OLD ROUTE 6, BREWSTER, NEW YORK 10509
(845) 279-6759 FAX (845) 279-6769

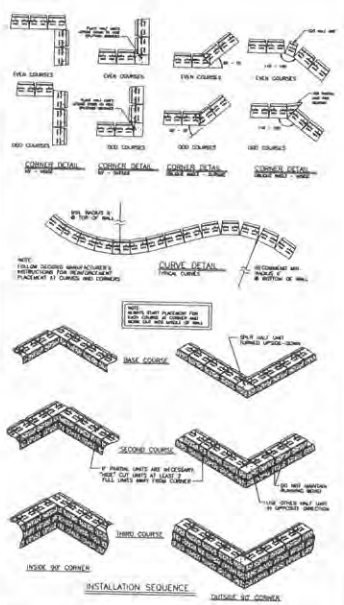
REVISIONS

PROJECT: RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:
RANDOM RIDGE
KENNICUT HILL ROAD
TOWN of CARMEL
PUTNAM COUNTY, NEW YORK

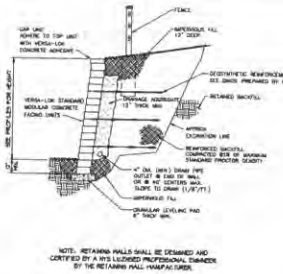
DATE: SEPT. 5, 2014
PROJECT MANAGER: P.H.L.
DRAWN BY: P.B.
CHECKED BY: P.H.L.
SCALE: AS NOTED

DRAWING: DETAILS

PROJECT NUMBER: 0515
DRAWING NUMBER: C-315
SHEET 35 OF 34

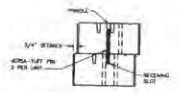


1 C-316 CURVE and CORNER DETAILS
NTS

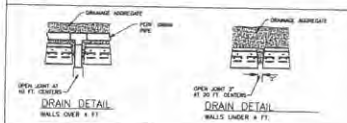


NOTE: RETAINING WALLS SHALL BE DESIGNED AND CERTIFIED BY A NYS LICENSED PROFESSIONAL ENGINEER BY THE RETAINING WALL MANUFACTURER.

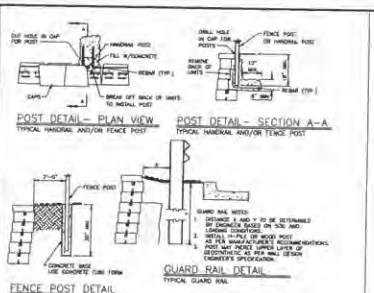
3 C-316 TYP. REINF. RETAINING WALL SECTION
NTS



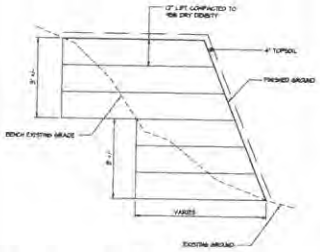
5 C-316 PINNING DETAIL
NTS



6 C-316 DRAIN DETAILS
NTS



4 C-316 POST DETAILS
NTS

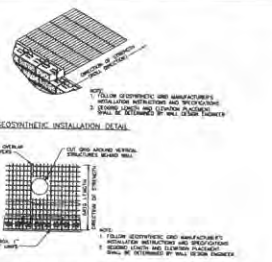


10 C-316 FILL PLACEMENT DETAIL
NTS

7 C-316 STEPPING BASE DETAIL
NTS

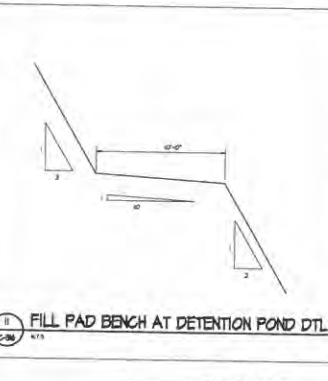
GENERAL NOTES FOR CAPPING:
1. CAPS SHALL BE ADHERED TO WALL USING VERSA-LOK CONCRETE ADHESIVE.
2. CAPS MAY BE PLACED WITH A 1/2" TO 3/4" OVERHANG OF TOP COURSE.
3. WHEN SPLITTING CAP UNIT FOR WALL END DO NOT USE A CAP SECTION LESS THAN 8" WIDE.
4. DO NOT OVERHANG CAP AT END OF COURSE MORE THAN 1".

4 C-316 CAPPING DETAILS
NTS

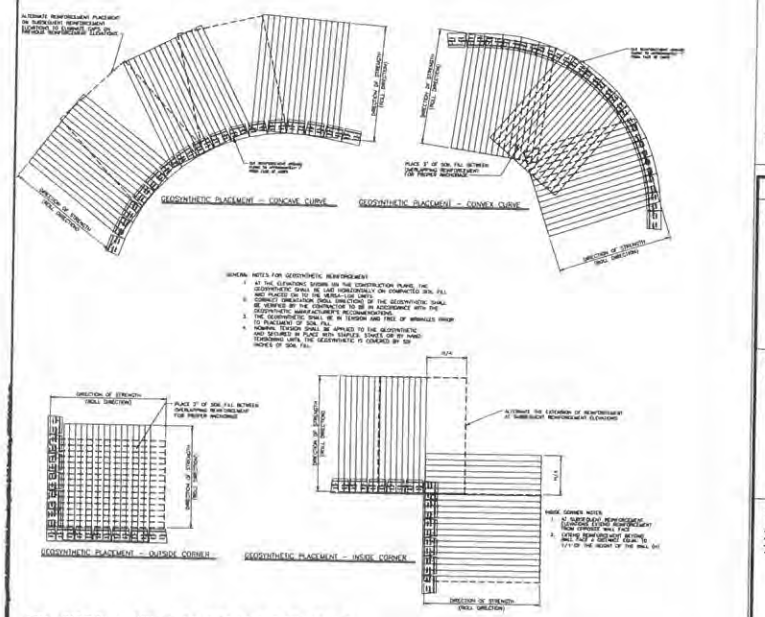


8 C-316 GEOSYNTHETIC INSTALLATION DTLS.
NTS

GEOGRID TABLE



11 C-316 FILL PAD BENCH AT DETENTION POND DTL.
NTS

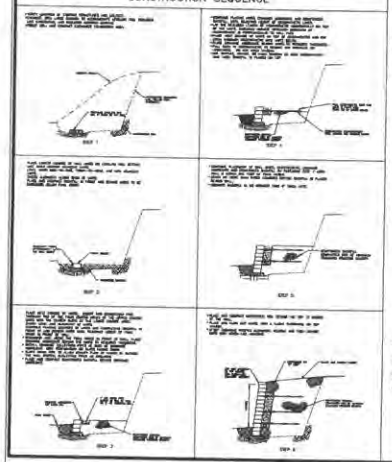


GENERAL NOTES FOR GEOSYNTHETIC REINFORCEMENT
1. AT THE ELEVATIONS SHOWN ON THE CONSTRUCTION PLANS, THE GEOSYNTHETIC SHALL BE LAID HORIZONTALLY ON COMPACTED SOIL FILL SUBSEQUENT TO THE VERSA-LOK UNITS.
2. CORRECT GRADE FOR THE GEOSYNTHETIC SHALL BE VERIFIED BY THE CONTRACTOR TO BE IN THE GEOSYNTHETIC SHALL GEOSYNTHETIC MANUFACTURER'S RECOMMENDATIONS.
3. THE GEOSYNTHETIC SHALL BE IN TENSION AND FREE OF WRINKLES PRIOR TO PLACING SOIL FILL.
4. NORMAL TENSION SHALL BE APPLIED TO THE GEOSYNTHETIC AND SECURED IN PLACE WITH STAPLES, PINNED OR BY HAND TENSIONING UNITS. THE GEOSYNTHETIC IS COVERED BY 50 INCHES OF SOIL FILL.

INSIDE CORNER NOTES
1. ALTERNATE THE LOCATION OF REINFORCEMENT FROM OPPOSITE WALL FACE.
2. LAYING REINFORCEMENT BEYOND WALL BY 50% OF REINFORCEMENT LENGTH TO 1/2 OF THE HEIGHT OF THE WALL (H).

2 C-316 GEOSYNTHETIC PLACEMENT DETAILS
NTS

CONSTRUCTION SEQUENCE



INSTALLATION NOTES

- STRIP VEGETATION AND ORGANIC SOIL FROM WALL AND GEOSYNTHETIC ALIGNMENT.
- BENCH OUT ALL EXCAVATED SLOPES.
- DO NOT EXCAVATE BEYOND EXCAVATION LINES SHOWN ON PLAN UNLESS DIRECTED BY SITE SOILS ENGINEER TO REMOVE UNSUITABLE SOIL.
- CONTRACTOR SHALL ENSURE TEMPORARY EXCAVATIONS ARE STABLE AND PROVIDE EXCAVATION SUPPORT IF NEEDED.
- SITE SOILS ENGINEER SHALL VERIFY FOUNDATION SOILS AS BEING COMPETENT PER THE DESIGN PARAMETERS.
- LEVELING PAD SHALL CONSIST OF WELL GRADED ROAD BASE AGGREGATE, 3/4" CRUSHED, ANGULAR GRAVEL WITH SOME FINES.
- CONTRACTOR MAY OPT FOR A LEAN CONCRETE LEVELING PAD. PAD SHALL BE UNREINFORCED LEAN CONCRETE, 2000-3000 PSI, 3" THICK MAXIMUM.
- DRAINAGE AGGREGATE SHALL CONSIST OF CLEAN ANGULAR GRAVEL, 3/4" DIAMETER WITH LESS THAN 5% FINES.
- DRAINAGE PIPE SHALL BE PERFORATED OR SLOTTED PVC OR CORRUGATED HDPE PIPE.
- REINFORCED BACKFILL SHALL BE FREE OF DEBRIS, ORGANIC SOIL AND DRAINAGE SOILS.
- FOR UNITS TO BE EMBEDDED, COMPACT FILL IN FRONT OF UNITS AT THE SAME TIME FILL BEHIND UNITS IS COMPACTED.
- COMPACTION SHALL BE TO 95% OF MAXIMUM STANDARD PROCTOR DENSITY. (ASTM D-698).
- COMPACTION TESTS SHALL TAKE PLACE AS THE WALL IS INSTALLED. THE MINIMUM NUMBER OF TESTS SHALL BE DETERMINED BY THE SITE SOILS ENGINEER.
- COMPACTION WITHIN 3 FT. OF WALL SHALL BE LIMITED TO HAND OPERATED EQUIPMENT.
- CONTRACTOR SHALL SLOPE SITE GRADES TO DIRECT SURFACE RUNOFF AWAY FROM WALL AT END OF EACH DAY TO AVOID WATER DAMAGING THE WALL WHILE UNDER CONSTRUCTION.
- ANY SURFACE DRAINAGE FEATURES, FINISH GRADING, PAVEMENT, OR TURF SHALL BE INSTALLED IMMEDIATELY AFTER WALL IS COMPLETED.
- FOLLOW APPLICABLE PROVISIONS OF THE WALL UNIT AND GEOSYNTHETIC MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WRITTEN SPECIFICATIONS.
- IF SITE AND SOIL CONDITIONS, WALL GEOMETRY, OR WALL LOADINGS ARE DIFFERENT THAN IN THE DRAWINGS AND THE DESIGN PARAMETERS, THE CONTRACTOR MUST CONTACT DESIGN ENGINEER PRIOR TO PROCEEDING WITH THE CONSTRUCTION OF THE WALL.

DESIGN PARAMETERS AND PROVISIONS

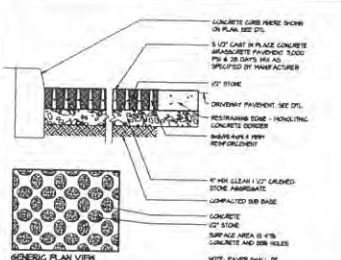
- THE DESIGN OF THE WALL SYSTEM ASSUMES THE FOLLOWING PARAMETERS:

	FRICTION ANGLE	UNIT WEIGHT
SOIL CONDITIONS		
REINFORCED BACKFILL	---.---	---.---
RETAINED BACKFILL	---.---	---.---
FOUNDATION SOIL	---.---	---.---

HYDROSTATIC LOADING = NONE
SURCHARGE LOAD AT TOP OF WALL = ---.---
ALLOWABLE BEARING CAPACITY = ---.---

- THE WALL DESIGN ENGINEER ASSUMES NO LIABILITY FOR INTERPRETATION OF SUBSURFACE CONDITIONS, SUITABILITY OF SOIL DESIGN PARAMETERS AND INTERPRETATIONS OF SUBSURFACE GROUNDWATER CONDITIONS.
- THE OWNER OR OWNER'S REPRESENTATIVE IS RESPONSIBLE FOR ENSURING THE CONDITIONS STATED ABOVE ARE ACCURATE PRIOR TO AND DURING CONSTRUCTION.
- THE OWNER OR OWNER'S REPRESENTATIVE IS RESPONSIBLE FOR ENSURING THE WALL DESIGN ENGINEER IS CONTACTED IF CONDITIONS VARY.
- IT IS THE OWNER OR THE OWNER'S REPRESENTATIVE'S RESPONSIBILITY TO ENSURE EXTERNAL STABILITY OF THE WALL, INCLUDING BEARING CAPACITY AND SLOPE STABILITY, IS PROPERLY REVIEWED AND EVALUATED BY A QUALIFIED CIVIL ENGINEER. THE WALL DESIGN SHOWN IN THESE DRAWINGS DOES NOT ADDRESS THE SUFFICIENCY OF THE BEARING CAPACITY NOR THE SLOPE STABILITY OF THE WALL SYSTEM AND SURROUNDING SOIL.

VERSA-LOK



FINAL DESIGN AND SPECIFICATION OF GRASSCRETE PAVEMENT MUST BE SUBMITTED TO THE ENGINEER FOR REVIEW AND APPROVAL. THE SUBMITTED DESIGN AND SUBSTITUTION OF GRASSCRETE SYSTEM SHALL BE APPROVED BY ENGINEER.

NOTE: PAVER SHALL BE GRASSCRETE AS MANUFACTURED BY BONAITE (914) 315-3141 OR APPROVED EQUAL

12 C-316 POROUS PAVEMENT DETAIL
NTS

REVISIONS					
1	11/29/06	BGR	RC	RC	REVISED PER COUNTY COMMENTS
2	12/04/06	BGR	RC	RC	REVISED PER COUNTY COMMENTS
3	12/18/06	BGR	RC	RC	REVISED PER COUNTY COMMENTS
4	01/22/07	BGR	RC	RC	REVISED PER COUNTY COMMENTS
5	02/12/07	BGR	RC	RC	REVISED PER COUNTY COMMENTS
6	03/12/07	BGR	RC	RC	REVISED PER COUNTY COMMENTS
7	03/26/07	BGR	RC	RC	REVISED PER COUNTY COMMENTS
8	05/16/07	BGR	RC	RC	REVISED PER COUNTY COMMENTS
9	07/25/07	BGR	RC	RC	REVISED PER COUNTY COMMENTS

PUTNAM ENGINEERING PLLC
CIVIL ENGINEERS - ARCHITECTS
4 OLD TOWN SITE & BREWSTER, NEW YORK 10509
(845) 279-8110 FAX: (845) 279-8181

RESIDENTIAL CLUSTER SUBDIVISION PREPARED FOR:

RANDOM RIDGE
KENNICOTT HILL ROAD
PUTNAM COUNTY, NEW YORK

PROJECT

DATE	SEPT. 3, 2004
PROJECT MANAGER	PML
DRAWN BY	BGR
CHECKED BY	PML
SCALE	AS NOTED

DRAWING

RETAINING WALL DETAILS

PROJECT NUMBER 04-01

DRAWING NUMBER C-316

SHEET 54 OF 54

PUTNAM ENGINEERING, PLLC.
Engineers and Architects

April 30, 2018

Mr. Harold Gary, Chairman
Town of Carmel Planning Board
Carmel Town Hall
60 McAlpin Ave
Mahopac, NY 10541

Re: Charry 2 Lot Subdivision
85 Washington Road
Extension of Final Approval

Dear Chairman Gary and Members of the Board:

We request being placed on the next available agenda to ask the Board to vote on granting an extension of Final Subdivision Approval.

Mr. Charry last appeared before the Board on November 8, 2017 and received a re-approval of Final Subdivision at that time.

Sincerely,

PUTNAM ENGINEERING, PLLC

Paul M. Lynch, P.E.

PML/jsp

(L1827)

4 Old Route 6, Brewster, New York 10509 • (845) 279-6789 • Fax (845) 279-6769