

## ATTACHMENT 2

# **INLAND WETLANDS DELINEATION REPORT**

**Prepared for**

**North Atlantic Towers**

**For**

**Proposed Wireless Communication Facility**

**Route 198**

**Town of Woodstock**

**Windham County, Connecticut, 06282**

**Connecticut Siting Council Docket No. 423**

**Infinigy File No.: 226-064**



**INFINIGY ENGINEERING PLLC  
LATHAM, NEW YORK**

---

**ENGINEERS • SCIENTISTS**

**February 2012**

**PREPARED BY:**

---

**Mark Kiburz  
Professional Wetland Scientist  
Certified Professional in Erosion & Sediment Controls**

# Inland Wetlands Delineation Report

## Proposed Wireless Communication Facility Route 198 Town of Woodstock Windham County, Connecticut

### Table of Contents

1	Project Description.....	1
2	File Reviews .....	1
2.1	DEEP Review .....	1
2.1.1	Connecticut Hydric Soils .....	1
2.1.2	Connecticut DEEP Natural Diversity Database Mapping .....	1
2.2	Woodstock Online Wetland Review .....	2
2.3	FWS National Wetland Inventory Maps .....	2
2.4	Federally Listed Threatened and Endangered Species County Review .....	2
2.5	Online USDA Soils Mapping .....	2
2.5.1	Ridgebury, Leicester, and Whitman soils (3).....	3
3	Inland Wetlands. ....	3
3.1	Wetland 1 (Flags W1-1 through W1-9) .....	3
3.2	Wetland 2 (Flags W2-1 through W2-4) .....	4
3.3	Proposed Wetland Crossings .....	4
4	Wetland Assessment .....	5
4.1	Wetland Functions and Values .....	5
4.1.1	Wetland 1 .....	5
4.1.2	Wetland 2 .....	6
5	Amphibian Surveys .....	8
6	Summary .....	8

### Attachments

1	Location Map
2	Connecticut Mapped Hydric Soils
3	Connecticut Listed Threatened and Endangered Species
4	Woodstock Inland Wetland and Watercourse Map “13”
5	United States Fish and Wildlife Service, National Wetland Inventory Map
6	Federally Listed Threatened and Endangered Species
7	USDA Web Soil Survey
8	ACOE Wetland Delineation Data Form
9	Zoning Drawing (Revised 2/14/12)

## 1 PROJECT DESCRIPTION

Infinigy Engineering, PLLC (*Infinigy*) has prepared this *Inland Wetland Delineation Report* for submission to the Connecticut Siting Council (CSC) in connection with North Atlantic Towers' proposed wireless communication facility and associated access route, which is located on a parcel referred to herein as the Farley Property (Attachment 1-Site Location Map).

The proposed project entails the construction of an approximately 2,600-foot long, gravel access road along an existing logging road, and the installation of a 150-foot tall, monopole style wireless communication tower and associated ground-level equipment within a 75-foot by 75-foot fenced equipment compound.

## 2 FILE REVIEWS

Connecticut Department of Energy and Environmental Protection (DEEP) online database reviews were conducted for the following sources of information: Connecticut Mapped Hydric Soils (Attachment 2); Connecticut Listed Threatened and Endangered Species (Attachment 3); Woodstock Inland Wetlands and Watercourse Map/"Map 13" (Attachment 4); United States Fish and Wildlife Service (USFWS) National Wetland Inventory Maps (Attachment 5); Federally Listed Threatened and Endangered Species county review (Attachment 6); and USDA Web Soil Survey (Attachment 7).

### 2.1 DEEP Review

#### 2.1.1 Connecticut Hydric Soils

Review of the Connecticut Department of Energy and Environmental Protection (DEEP) online data indicated there are Connecticut mapped hydric soils (Attachment 2) located along the Farley Property access route. According to the Connecticut Inland Wetlands and Watercourse Act, CGS 22a-36, soils surveyed as poorly drained, very poorly drained, alluvial, or floodplain, as well as watercourses such as streams, brooks, rivers, lakes, ponds and marshes, swamps, bogs and vernal pools are classified as regulated wetlands by DEEP.

#### 2.1.2 Connecticut DEEP Natural Diversity Database Mapping

Based on review of the DEEP Natural Diversity Data Base (NDDB) mapping, the Farley Property access route intersects a wetland (identified during *Infinigy's* field delineation activities) which is within one-half of one mile upstream of an area containing a known NDDB recorded species (Attachment 3). The NDDB map states, "*This map is intended for use as a preliminary screening tool for conducting a Natural Diversity Data Base Review Request. To use the map, locate the project boundaries and any additional affected areas. If the project is within a shaded area; or overlapping a lake, pond or wetland that has shading; or upstream or downstream (by less than 1/2 mile) from a shaded area, the project may have*

*a potential conflict with a listed species. For more information, complete a Request for Natural Diversity Data Base State Listed Species Review form (DEP-APP-007), and submit it to the NDDB along with the required maps and information. More detailed instructions are provided with the request form on the DEP website.”* Based on this criteria and review of the NDDB Map dated December 10, 2010, **Infinigy** submitted a NDDB review request on January 6, 2012 (Attachment 3). A response was given by DEEP data February 14, 2012, which state “our records for this site indicate that there are no extant populations of Federal or State Endangered, Threatened or Special Concern Species that occur on this property.

## **2.2 Woodstock Online Wetland Review**

According to the Woodstock Inland Wetlands and Watercourse Map (dated August 12, 2002), the proposed access road crosses one soil type that is classified as wetland (Attachment 4). Refer to Section 2.5.1 Ridgebury, Leicester, and Whitman Soils for additional information.

## **2.3 FWS National Wetland Inventory Maps**

Review of National Wetland Inventory mapping does not show NWI mapped wetlands within the proposed project access road or lease area (Attachment 5).

## **2.4 Federally Listed Threatened and Endangered Species County Review**

According to the United States Fish and Wildlife Service (USFWS), New England Field Office webpage ([http://www.fws.gov/newengland/Endangered\\_Spec-Consultation\\_Project\\_Review.htm](http://www.fws.gov/newengland/Endangered_Spec-Consultation_Project_Review.htm)), there are no known federally listed threatened or endangered species in Windham County (Attachment 6).

## **2.5 Online USDA Soils Mapping**

According to a review of the United States Department of Agriculture Natural Resources Conservation Service USDA web soil survey, there are five (5) soil series in the vicinity of the access road and tower location: Ridgebury, Leicester and Whitman soils (3); Sutton fine sandy loam (52C); Canton and Charlton soils (62C); Charlton-Chatfield complex (73C); and Paxton and Montak fine sandy loams (85C).

One (1) soil (Ridgebury, Leicester, and Whitman) was identified within the proposed access road which is classified as poorly drained. Poorly drained soils are considered to be regulated wetlands by the Connecticut Inlands Wetlands and Watercourse Act. Two (2) locations along the Farley Property access route cross the Ridgebury, Leicester, and Whitman soils. These crossings will be discussed in Section 3 (Attachment 6).

Non-hydric upland soils were identified as:

- Sutton fine sandy loam (52C)- Moderately Well Drained
- Canton and Charlton soils (62C)- Moderately Well Drained
- Charlton-Chatfield complex (73C)- Well Drained
- Paxton and Montak fine sandy loams (85C)- Well Drained

### 2.5.1 Ridgebury, Leicester, and Whitman soils (3)

Ridgebury, Leicester, and Whitman soils series consist of poorly drained, fine sandy loam soils, located in depressions or drainage ways with a depth to restrictive features approximately 30 inches. The parent material of Ridgebury, Leicester, and Whitman soils is coarse-loamy lodgment till, derived from granite and/or schist and/or gneiss. The water table is typically at the surface to a depth of 18 inches, and the soils are typically at a slope between 0 and 5 percent.

## 3 INLAND WETLANDS.

Wetland 1 and Wetland 2 were identified on the DEEP mapping (Attachment 2), Woodstock Inland Wetlands and Water Course Map (Attachments 4) and the USDA Online Soils Map (Attachment 7), in accordance with the Connecticut Inlands Wetlands and Watercourse Act.

The Farley Property access route wetland delineations were conducted on January 21, 2012 by an *Infinigy* representative, Mark Kiburz, Certified Professional Wetland Scientist. Upon inspection of the existing access road, it was determined that previous logging activities created disturbed soil conditions. The soil disturbance is considered to be an atypical situation with respect to determination of wetland boundaries. As such, *Infinigy* utilized the ACOE 1987 “*Wetland Delineation Manual*” and “*ACOE Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*” (2009) to determine the wetland boundary using the methodology for atypical situations. Typically, the ACOE wetland delineation technique uses three criteria (hydric soils, hydrology, and dominant hydric vegetation) to determine the wetland boundaries. In the case of atypical situations, only one of three criteria is needed to identify the wetland boundary. In the case of Wetland 1 and Wetland 2, hydrology and topography were used to identify the wetland boundaries.

### 3.1 Wetland 1 (Flags W1-1 through W1-9)

Wetland 1 is located at coordinates 41° 56' 11.88" North, -72° 04' 49.53" West, approximately 0.24 miles west of Route 171. A small natural seep flows into the existing logging road. Flowing water approximately 3 inches deep at the deepest point flows down the skidder ruts to a drainage swale, which drains the water from the logging road.

*Infinigy* utilized the ACOE atypical delineation techniques to delineate Wetland 1. Hydric vegetation was not observed within the proposed access route due to winter conditions and existing disturbance. Wetland data sheets are included in Attachment 8.

Disturbed soils and frozen soil conditions precluded soil sampling. Normally, soils to a depth of 24 inches are inspected to determine soil layering and features. Soil layers would be identified and soil features such as mottling, color, and physical properties would be catalogued. Wetland 1 flows easterly into Bungee Brook.

### **3.2 Wetland 2 (Flags W2-1 through W2-4)**

Wetland 2 is located at coordinates 41° 56' 9.78" North, -72° 04' 38.15" West, approximately 0.07 miles west of Route 171. Wetland 2 is identified on the Woodstock Inland Wetlands and Water Course Map and on the USDA soils map as an area containing wetlands. Wetland 2 is identified on the soils map as Ridgeburg, Leicester and Whitman Soil series. Ridgeburg, Leicester and Whitman Soil series has a drainage classification as poorly drained.

Wetland 2 is classified as a palustrine, needle-leaved forest wetland (Cowardin, et al., 1979). Wetland 2 contains a scrub shrub/emergent understory with various vegetation densities. Vegetation within Wetland 2 was identified as eastern hemlock (*Thuja canadensis*), red maple (*Acer rubrum*), sensitive fern (*Onoclea sensibilis*), green ash (*Fraxinus pennsylvanica*), soft rush (*Juncus effuses*), moss species (*Sphagnum spp.*) and purple willow-herb (*Epilobium ciliatum*). Winter plant identification techniques were utilized to identify plant species.

Hydrology was identified as standing water and water stained leaves. Topographic rises on each side of the wetland definitively identify the extents of the wetland boundaries.

Disturbed soils and frozen soil conditions precluded soil sampling. Normally soils to a depth of 24 inches are observed to determine soil layering and features. Soil layers would be identified and soil features such as mottling, color, and physical properties would be catalogued. Wetland 1 flows northerly into Wetland 1 and eventually into Bungee Brook.

### **3.3 Proposed Wetland Crossings**

Proposed impacts to Wetland 1 and Wetland 2 are associated with the discharge of fill within the existing disturbed logging road. As proposed, the approximate Wetland 1 and Wetland 2 crossings would consist of the installation of road base and elliptical culverts, totaling approximately 3,100 square feet of wetland disturbance. *Infinigy* is proposing to install corrugated plastic pipe 15% below the surficial grade to facilitate adequate wildlife movement (see Wetland Disturbance Map in Attachment 9 - Zoning Drawings, revision date 2-14-12).

Wetland crossing impacts are being designed to minimize wetland discharges to the maximum extent practicable, while designing for CT DOT Highway Design Manual and Connecticut

Guidelines for Soil Erosion and Sediment Control standards. Standard road installation material consists of compacted sub-grade material free of topsoil and organics.

Wetland 1 will be crossed with an 18-inch elliptical culvert, installed within the existing drainage swale and road base material. At the second crossing, *Infinigy* is proposing to place a 36-inch elliptical culvert pipe. Each culvert will be installed such that the bottom of the elliptical culvert pipe will be 15% below grade, as generally requested by the ACOE, at its lowest elevation to provide a corridor for wildlife movement.

## 4 WETLAND ASSESSMENT

### 4.1 Wetland Functions and Values

Wetlands serve a variety of ecological and societal functions depending on the wetland's characteristics. Wetland 1 and Wetland 2 were evaluated to determine the specific functions and values utilizing the Army Corps of Engineers, "*The Highway Methodology Workbook Supplement, Wetland Functions and Values*" (1999) manual.

#### 4.1.1 Wetland 1













Wetland 1 is a groundwater-fed linear wetland, which flows from the adjoining property northeasterly toward the Farley Property. Based on the assessment conducted, Functions and Values provided by Wetland 1 are as follows:

- **Groundwater Recharge/Discharge:** Groundwater was observed to flow into Wetland 1.
- **Flood Flow Alteration:** Wetland 1 is fed by groundwater; base on its elevated topographic positioning and narrow width, Wetland 1 is unlikely to provide flood storage.
- **Fish and Shellfish Habitat:** Wetland 1 is unable to sustain a fish population based on its shallow depth.
- **Sediment/Toxicant Retention:** The slopes associated with Wetland 1 do not allow sediment settling.
- **Nutrient Removal:** Wetland 1 groundwater inflow and steep slopes will not allow substantial nutrient removal.
- **Production Export:** Wetland 1 does not produce food for humans. Other species may utilize Wetland 1 and associated vegetation for consumption.
- **Sediment/Shoreline Stabilization:** Wetland 1 is not associated with a shoreline or stream.
- **Wildlife Habitat:** Wetland 1 is a narrow linear wetland. Although the site was reviewed in the winter, *Infinigy* estimates various wildlife species could utilize Wetland 1 based on the existing habitat. Wetland 1 is expected to provide mammals, amphibians, birds, and various invertebrates a habitat benefit throughout yearly lifecycles.
- **Recreation:** The property is private land with no known recreational activities other than hunting.



- **Educational/Scientific Value:** Wetland 1 is not a unique or heritage wetland.
- **Visual Quality/Aesthetics:** The distance from public view excludes Wetland 1 from Visual Quality or Aesthetics benefits.
- **Endangered Species Habitat:** According to DEEP, no known occurrence of endangered species inhabit Wetland 1.

**Table 1**

	Wetland Functions and Values	Occurrence Yes or No
	Groundwater Recharge/Discharge	Yes
	Flood Flow Alteration	No
	Fish and Shellfish Habitat	No
	Sediment/Toxicant Retention	No
	Nutrient Removal	No
	Production Export	Yes
	Sediment/Shoreline Stabilization	No
	Wildlife Habitat	Yes
	Recreation	No
	Educational/Scientific Value	No
	Uniqueness/Heritage	No
	Visual Quality/Aesthetics	No
<b>ES</b>	Endangered Species Habitat	No













#### 4.1.2 Wetland 2

Wetland 2 is located at the bottom of a topographic valley that collects both surface and ground water which has produced a forested wetland.

- **Groundwater Recharge/ Discharge:** Groundwater was observed to flow through Wetland 2.

- **Flood Flow Alteration:** Wetland 2 is fed by groundwater and captures surficial flows. The nearly level slope and soil type provide minimal flood storage capabilities. Wetland 2 is a headwater extension to Bungee Brook.
- **Fish and Shellfish Habitat:** Wetland 2 is unable to sustain a fish population based on its shallow depth.
- **Sediment/Toxicant Retention:** The minimal slopes associated with Wetland 2 may allow for sediment retention.
- **Nutrient Removal:** Wetland 2 groundwater inflow and minimal slopes will allow for substantial nutrient removal.
- **Production Export:** Wetland 2 does not produce food for humans. Other species may utilize Wetland 2 and associated vegetation for consumption.
- **Sediment/Shoreline Stabilization:** Wetland 2 is not associated with a shoreline or stream.

**Table 2**

	Wetland Functions and Values	Occurrence Yes or No
	Groundwater Recharge/Discharge	Yes
	Flood Flow Alteration	Yes
	Fish and Shellfish Habitat	No
	Sediment/Toxicant Retention	Yes
	Nutrient Removal	Yes
	Production Export	Yes
	Sediment/Shoreline Stabilization	No
	Wildlife Habitat	Yes
	Recreation	No
	Educational/Scientific Value	No
	Uniqueness/Heritage	No
	Visual Quality/Aesthetics	No
<b>ES</b>	Endangered Species Habitat	No

- **Wildlife Habitat:** Wetland 2 is a narrow linear wetland. Although the site was reviewed in the winter, *Infinigy* estimates various wildlife species could utilize Wetland 2 based on the existing habitat. Wetland 2 is expected to provide mammals, amphibians, birds, and various invertebrates a habitat benefit throughout yearly lifecycles.
- **Recreation:** The property is private land with no known recreational activities other than hunting.
- **Educational/Scientific Value:** Wetland 2 is not a unique or heritage wetland.
- **Visual Quality/Aesthetics:** The distance from public view excludes Wetland 2 from Visual Quality or Aesthetics benefits.
- **Endangered Species Habitat:** According to DEEP, no known occurrences of endangered species inhabit Wetland 1.

## 5 AMPHIBIAN SURVEYS

Amphibian surveys were not conducted due to the time of year. The proposed access route and areas within 20 feet of the proposed access route were observed for the presence of depressions or ponded water. Wetland 2 was identified as an area that has the potential for amphibians to breed. An area located west of Wetland 2 contained ponded water several inches deep. The remaining portion of the review area was not topographical conducive to retain waters necessary for vernal pools.

## 6 SUMMARY

In summary, two wetlands totaling approximately 3,100 sq.ft. will be impacted by the proposed access road installation. Based on current information, is *Infinigy's* opinion that the project falls within the State of Connecticut and ACOE Category 1 Programmatic General Permit as long as the following conditions are met:

- Less than 5,000 SF of Inland Waters, Waterway and/or Wetland Fill and Secondary Impacts. Fill impacts include all temporary and permanent fill and excavation discharges resulting from a single and complete project, see #5 of General Requirements. Secondary impacts include but are not limited to impacts to inland waters, waterways or wetlands drained, dredged, flooded, cleared or degraded resulting from a single and complete project. (See 40 CFR 230.11 (g) and (h)).
- The tributary watershed to the culvert is < 1.0 Sq. Mile (640 Acres).
- The culvert gradient (slope) is no steeper than the streambed gradient immediately upstream or downstream of the culvert.
- For the crossing constructed using a single box or pipe arch culvert, the inverts are set > 12 inches below the stream bed elevation.
- For the crossing constructed using multiple box or pipe arch culvert, the inverts of one of the boxes or pipe arch culverts are set > 12 inches below grade.
- For a crossing constructed using a culvert pipe, the inverts are set such that > 25% of the

pipe or 12 inches, which is less, is set below the streambed elevation.

- The culvert is backfilled with natural substrate material matching upstream and downstream streambed substrate.
- The structure does not otherwise impede the passage of fish and other aquatic organisms.
- The structure allows for continuous flow of the 50-year frequency storm flows.
- Not within a FEMA floodplain
- No Threatened/Endangered Species impacts
- No Wild and Scenic Rivers within 0.25 miles
- No vernal pool impacts
- No cultural resource impacts

The existing logging road disturbances have a higher potential for ecological damage (ie., erosion, water quality) than a road installed in accordance with the CT DOT Highway Design Manual such as the proposed access drive. In addition, the proposed access drive and facility will be constructed in accordance with the Connecticut Guidelines for Soil Erosion and Sediment Control to reduce the potential for adverse ecological or environmental impacts. Therefore, the proposed access drive and wetlands crossings are not expected to result in any significant adverse impacts.

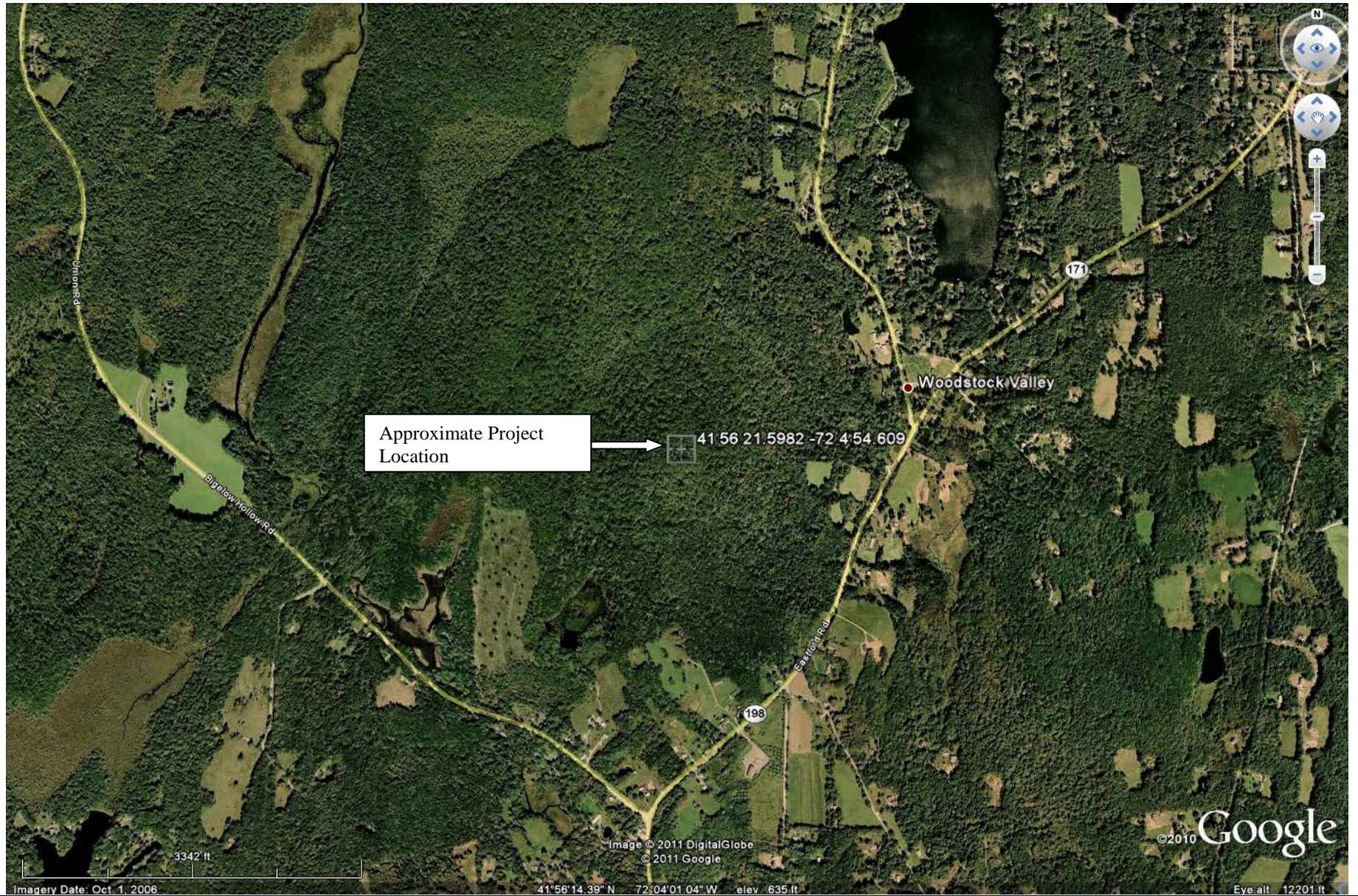
ATTACHMENT 1  
SITE LOCATION MAP

**CLIENT NAME:**  
North Atlantic Towers, LLC

**SITE LOCATION:**  
Route 198  
Woodstock, CT

**PROJECT NAME:**  
FTP – Woodstock CT1125

**PROJECT NO.:**  
226-064



## ATTACHMENT 2

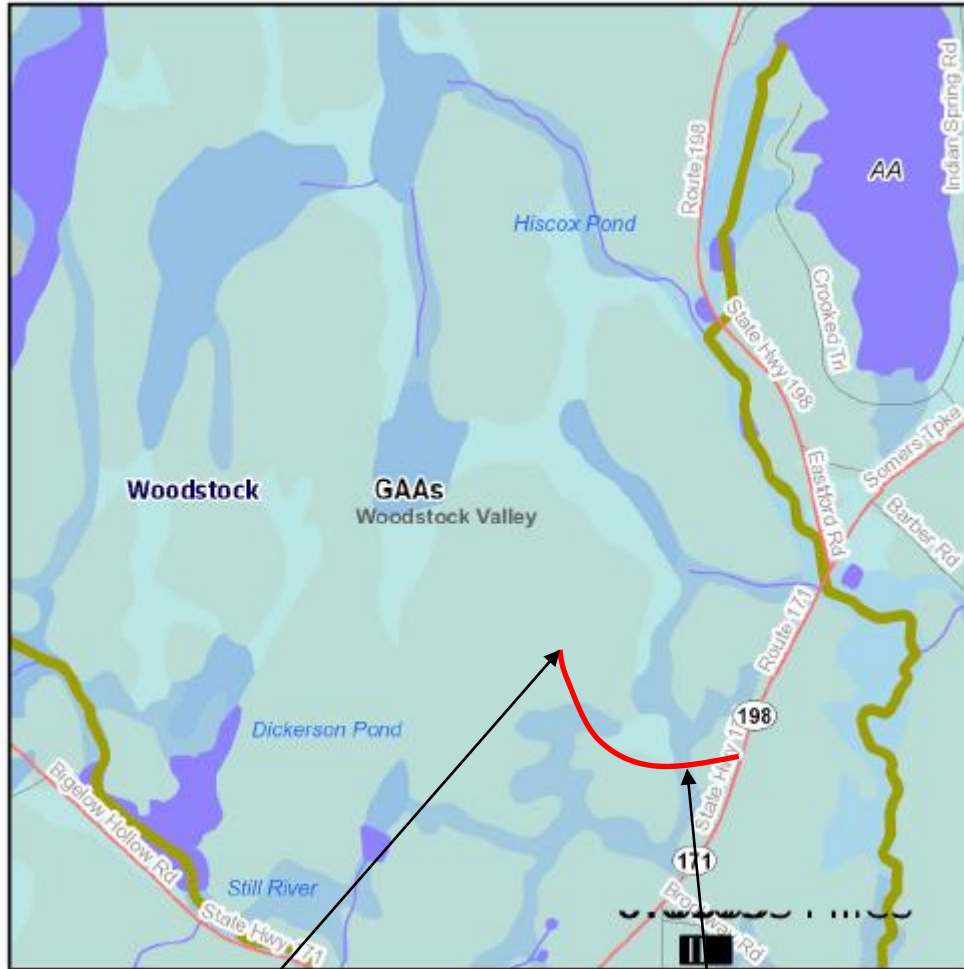
### CONNECTICUT MAPPED HYDRIC SOILS

**CLIENT NAME:**  
North Atlantic Towers

**SITE LOCATION:**  
Route 198  
Woodstock, CT

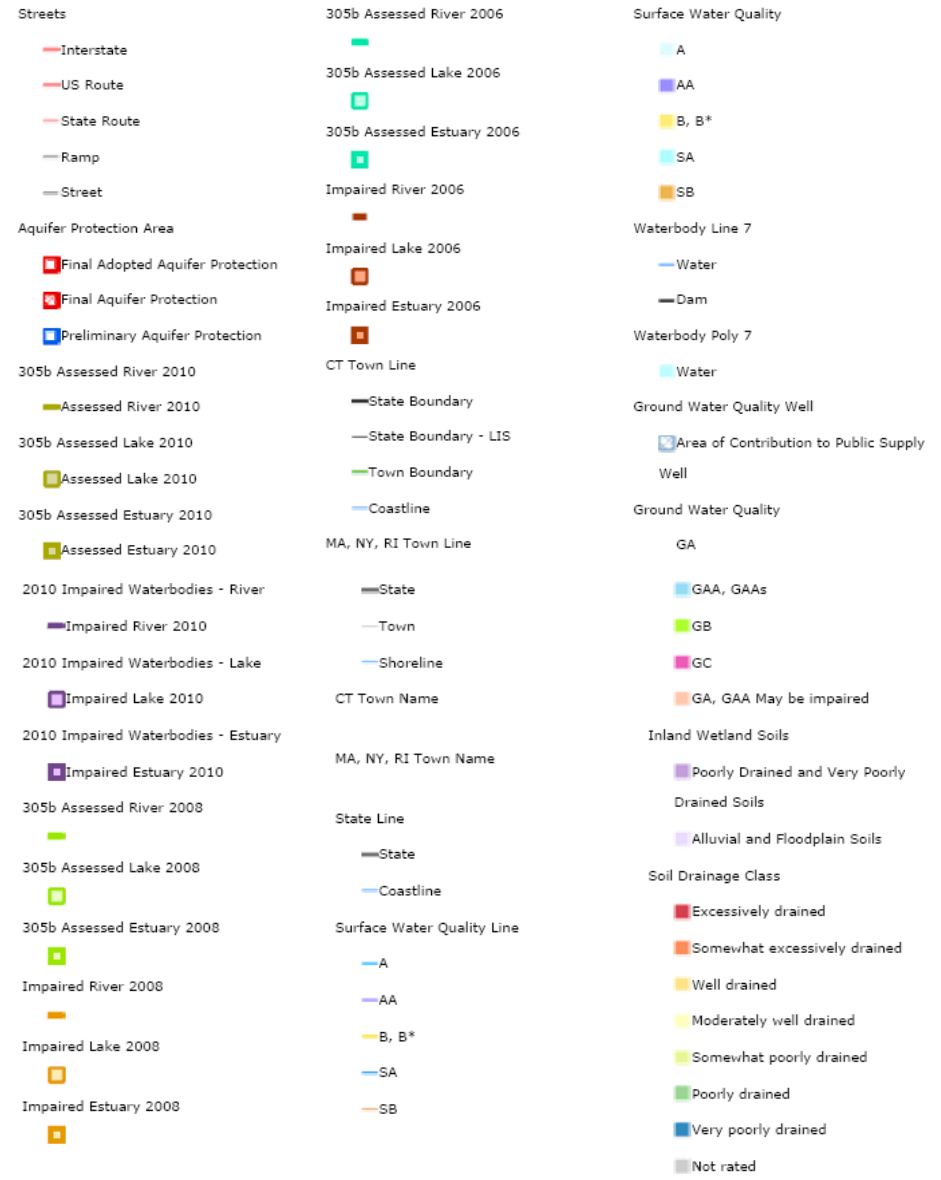
**PROJECT NAME:**  
Woodstock

**PROJECT NO.:**  
226-064



Approximate Site Location

Approximate Road Location





ATTACHMENT 3

CONNECTICUT LISTED THREATENED AND  
ENDANGERED SPECIES



**Part II: Requester Information (continued)**

Affiliation of primary contact, check one:  Property owner  Consultant  Engineer  
 Facility owner  Applicant  Biologist  Pesticide Applicator  
 Other representative (specify):

**3. Project Type:**  
Choose Project Type: Cellular/Communications tower installation/maint. , If other describe: \_\_\_\_\_

**Part III: Site Information**

This request can only be completed for one site. A separate request must be filed for each additional site.

**1. Site Location**  
Site Name or Project Name: **Woodstock**  
Town(s): **Woodstock**  
Street Address or Location Description:  
**West of the Route 198 and Route 171 intersection**  
Size in acres, or site dimensions: **100'x100' compound ~5,000 linear ft of logging road**  
Latitude and longitude of the center of the site in decimal degrees (e.g., 41.23456 -71.68574):  
Latitude: **41°56' 22.09"** Longitude: **72° 4' 54.20"**  
Method of coordinate determination (check one):  
 GPS  Photo interpolation using [CTECO map viewer](#)  Other (specify): **Google Earth**

2a. Describe the current land use and land cover of the site.  
**Mature Deciduous Forest**

b. Check all that apply and enter the size in acres or % of area in the space after each checked category.  
 Industrial/Commercial \_\_\_\_\_  Residential \_\_\_\_\_  Forest \_\_\_\_\_  
 Wetland \_\_\_\_\_  Field/grassland \_\_\_\_\_  Agricultural \_\_\_\_\_  
 Water \_\_\_\_\_  Utility Right-of-way \_\_\_\_\_  
 Transportation Right-of-way \_\_\_\_\_  Other (specify): \_\_\_\_\_

**Part IV: Project Information**

1. Is the subject activity limited to the maintenance, repair, or improvement of an existing structure within the existing footprint?  Yes  No If yes, explain.

## Part IV: Project Information (continued)

2. Give a detailed description of the activity which is the subject of this request and describe the methods and equipment that will be used.

**Installation of a 150' self supporting tower with a 2,500sq ft utility compound. Access will be gained via an existing logging road. An excavator will be utilized to excavate for concrete footings. A bottomless culvert installation will have an approximately discharge of 4,686 square foot.**

3. Provide a contact for questions about the project details if different from Part II primary contact.

Name: **Mark Kiburz**

Phone: 518-339-8765

Email: **mkiburz@infinigy.com**

## Part V: Request Type and Associated Application Type

Check *one* box from either Group 1 or Group 2, indicating the appropriate category for this request.

**Group 1.** If you check one of these boxes, fill out Parts I – VII of this form and submit the required attachments A and B.

- Preliminary screening was negative but an NDDDB review is still requested
- Request regards a municipally regulated or unregulated activity (no state permit/certificate needed)
- Request regards a preliminary site assessment or project feasibility study
- Request relates to land acquisition or protection
- Request is associated with a *renewal* of an existing permit, with no modifications

**Group 2.** If you check one of these boxes, fill out Parts I – VII of this form and submit required attachments A, B, and C.

- Request is associated with a *new* state or federal permit application
- Request is associated with modification of an existing permit
- Request is associated with a permit enforcement action
- Request regards site management or planning, requiring detailed species recommendations
- Request regards a state funded project, state agency activity, or CEPA request

If you are filing this request as part of a state or federal permit application enter the application information below.

Permitting Agency and Application Name: \_\_\_\_\_

State DEP Application Number, if known: \_\_\_\_\_

State DEP Enforcement Action Number, if known: \_\_\_\_\_

State DEP Permit Analyst/Engineer, if known: \_\_\_\_\_

Is this request related to a previously submitted NDDDB request?  Yes  No

Enter the previous NDDDB Request Number(s), if known: \_\_\_\_\_


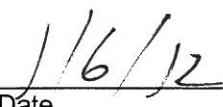
## Part VI: Supporting Documents

Please check each attachment submitted as verification that *all* applicable attachments have been supplied with this request form. Label each attachment as indicated in this part (e.g., Attachment A, etc.) and be sure to include the requester's name, site name and the date. **Please note that Attachments A and B are required for all requesters.** Attachment C (DEP-APP-007C) is supplied at the end of this form.

<input checked="" type="checkbox"/> Attachment A:	<b>Overview Map:</b> an 8 1/2" X 11" print/copy of the relevant portion of a USGS Topographic Quadrangle Map clearly indicating the exact location of the site.
<input checked="" type="checkbox"/> Attachment B:	<b>Detailed Site Map:</b> fine scaled map showing site boundary details on aerial imagery with relevant landmarks labeled. (Site boundaries in GIS [ESRI ArcView shapefile, in NAD83, State Plane, feet] format can be substituted for detailed maps, see instruction document)
<input type="checkbox"/> Attachment C:	<b>Supplemental Information, Group 2 requirement (attached, DEP-APP-007C)</b> <input type="checkbox"/> Section i: Supplemental Site Information and supporting documents <input type="checkbox"/> Section ii: Supplemental Project Information and supporting documents

## Part VII: Requester Certification

The requester *and* the individual(s) responsible for actually preparing the request must sign this part. A request will be considered incomplete unless all required signatures are provided.

<p>"I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of the individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief."</p>	
 Signature of Requester	 Date
<b>Mark Kiburz</b> Name of Requester (print or type)	<b>1/6/12</b> Title (if applicable)
Signature of Preparer (if different than above)	Date
Name of Preparer (print or type)	Title (if applicable)

Note: Please submit the completed Request Form and all Supporting Documents to:

CENTRAL PERMIT PROCESSING UNIT  
 DEPARTMENT OF ENVIRONMENTAL PROTECTION  
 79 ELM STREET  
 HARTFORD, CT 06106-5127

Or email request to: [dep.nddbrequest@ct.gov](mailto:dep.nddbrequest@ct.gov)

# Attachment C: Supplemental Information, Group 2 requirement

## Section i: Supplemental Site Information

### 1. Existing Conditions

Describe all natural and man-made features including wetlands, watercourses, fish and wildlife habitat, floodplains and any existing structures potentially affected by the subject activity. Such features should be depicted and labeled on the site plan that must be submitted. Photographs of current site conditions may be helpful to reviewers.

- Site Photographs (optional) attached
- Site Plan/sketch of existing conditions attached

### 2. Biological Surveys

Has a biologist visited the site and conducted a biological survey to determine the presence of any endangered, threatened or special concern species  Yes  No

If yes, complete the following questions and submit any reports of biological surveys, documentation of the biologist's qualifications, and any NDDB survey forms.

Biologist(s) name:

Habitat and/or species targeted by survey:

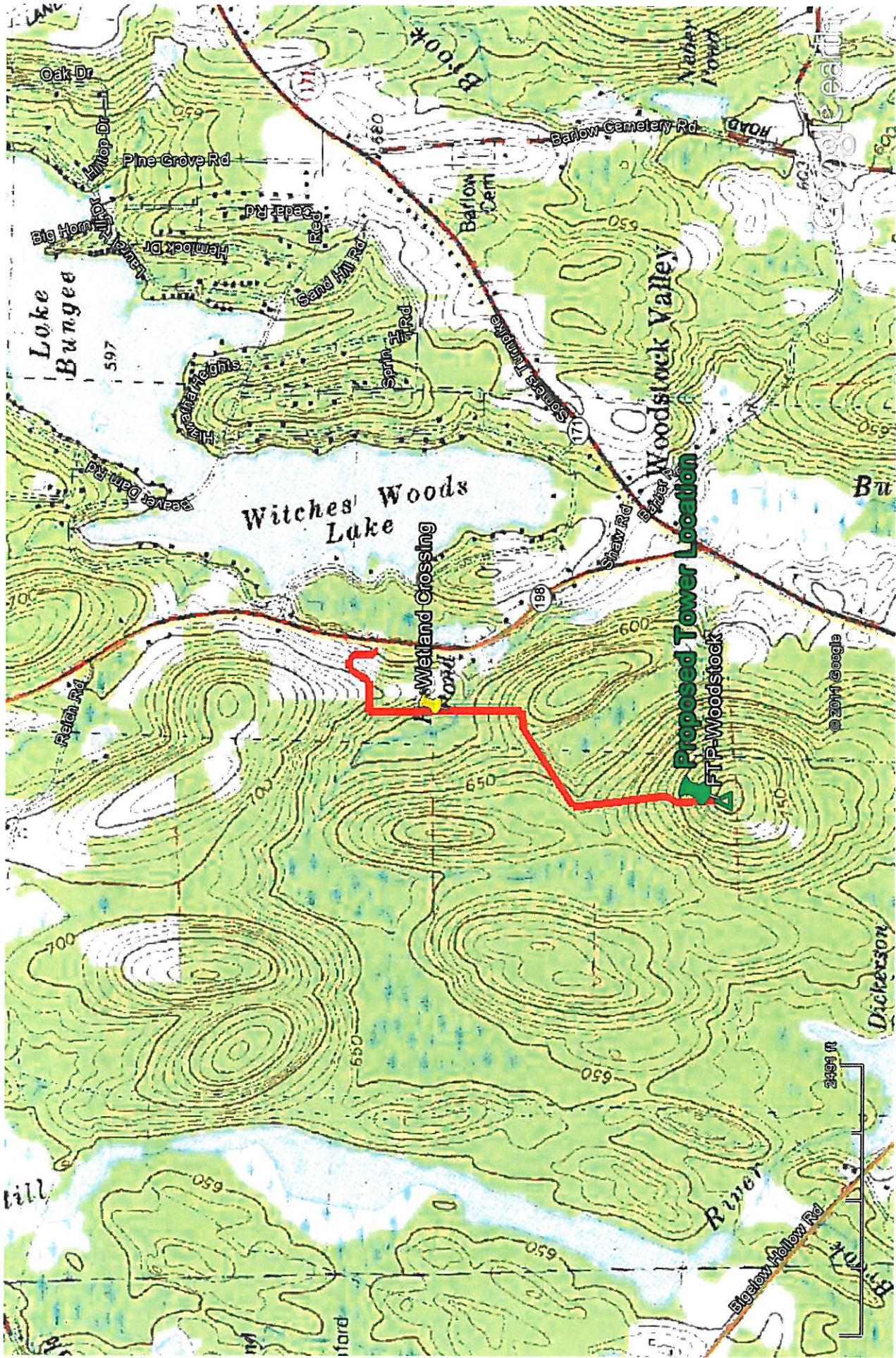
Dates when surveys were conducted:

- Reports of biological surveys attached
- Documentation of biologist's qualifications attached
- [NDDB Survey forms](#) for any listed species observations attached

## Section ii: Supplemental Project Information

1. Provide a schedule for all phases of the project including the year, the month and/or season that the proposed activity will be initiated and the duration of the activity.
  
  
  
  
  
  
  
  
  
  
2. Describe and quantify the proposed changes to existing conditions and describe any on-site or off-site impacts. In addition, provide an annotated site plan detailing the areas of impact and proposed changes to existing conditions.

- Annotated Site Plan attached



Google earth

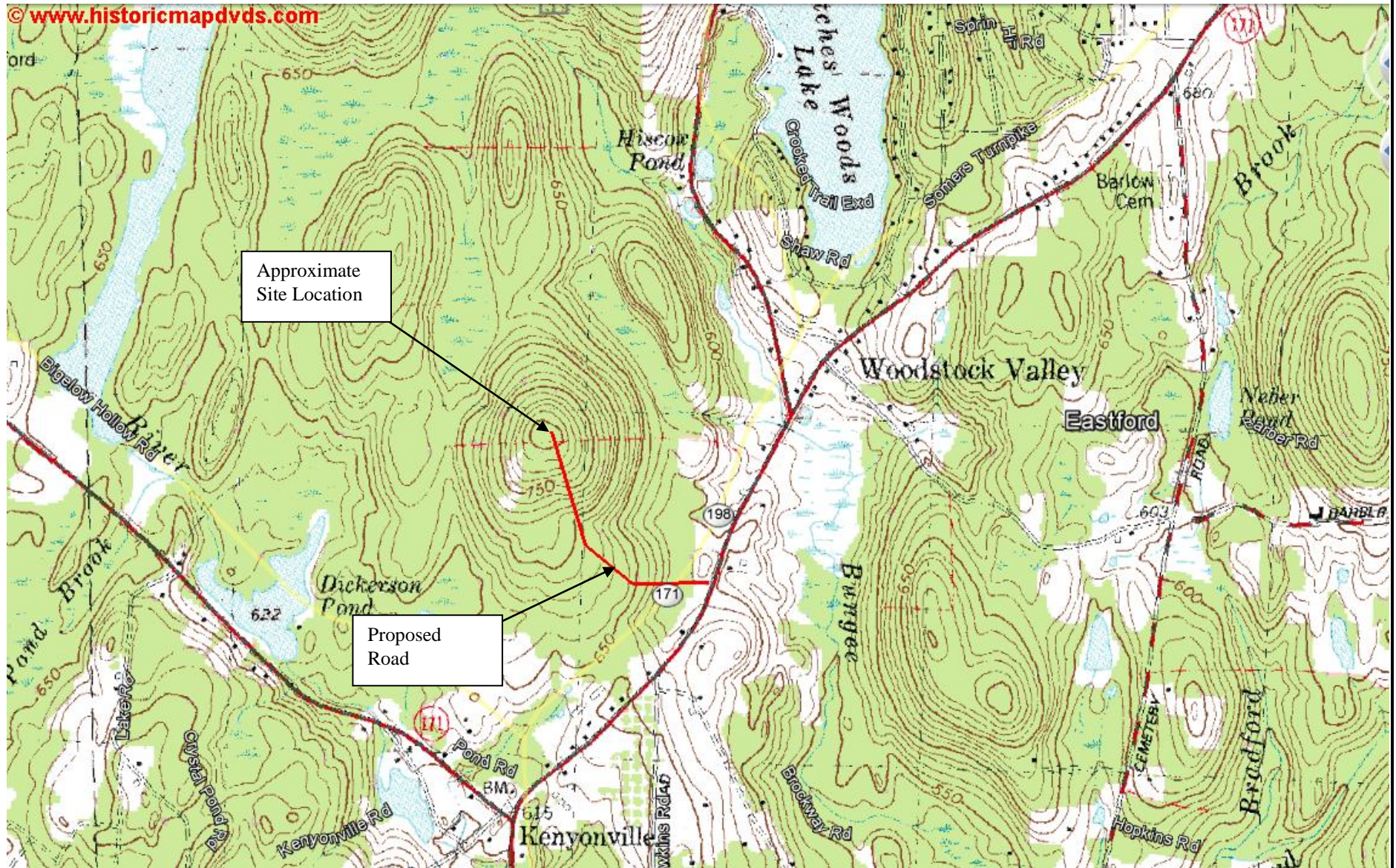
© 2014 Google

**CLIENT NAME:**  
North Atlantic Towers

**SITE LOCATION:**  
Route 198  
Woodstock, CT

**PROJECT NAME:**  
Woodstock

**PROJECT No.:**  
226-064







<b>CLIENT NAME:</b> North Atlantic Towers	<b>SITE LOCATION:</b> Route 198 Woodstock, CT	<b>PROJECT NAME:</b> Woodstock	<b>PROJECT NO.:</b> 226-064
--	---	-----------------------------------	--------------------------------

**Natural Diversity Data Base  
Areas**

**WOODSTOCK, CT**

December 2010

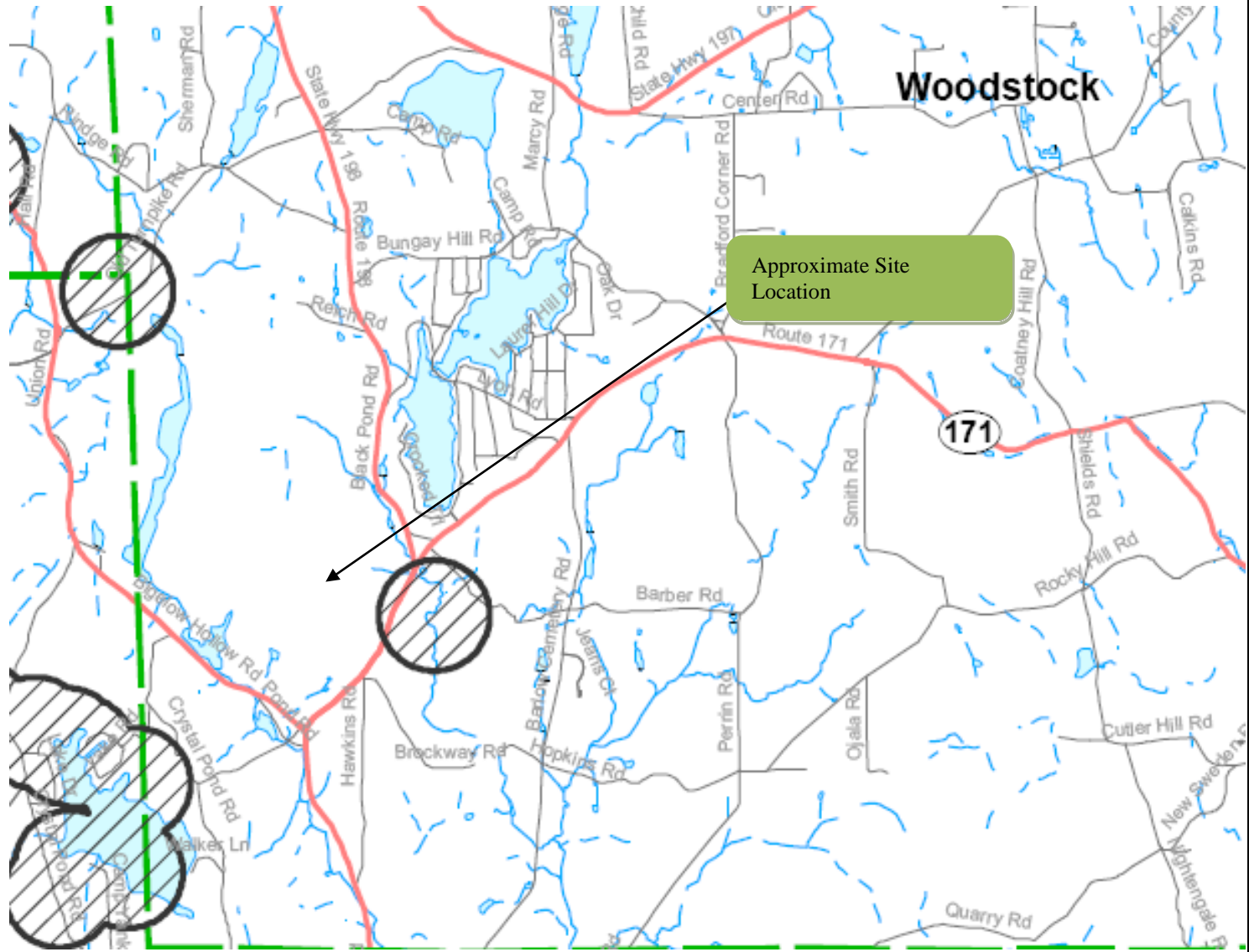
-  State and Federal Listed Species & Significant Natural Communities
-  Town Boundary

NOTE: This map shows general locations of State and Federal Listed Species and Significant Natural Communities. Information on listed species is collected and compiled by the Natural Diversity Data Base (NDDB) from a number of data sources. Exact locations of species have been buffered to produce the general locations. Exact locations of species and communities occur somewhere in the shaded areas, not necessarily in the center.

This map is intended for use as a preliminary screening tool for conducting a Natural Diversity Data Base Review Request. To use the map, locate the project boundaries and any additional affected areas. If the project is within a shaded area; or overlapping a lake, pond or wetland that has shading; or upstream or downstream (by less than 1/2 mile) from a shaded area, the project may have a potential conflict with a listed species. For more information, complete a Request for Natural Diversity Data Base State Listed Species Review form (DEP-APP-007), and submit it to the NDDB along with the required maps and information. More detailed instructions are provided with the request form on the DEP website.

To view street labels, use the PDF Layers tab on the left. Expand the Layers and use the "eye" icons to change visibility.

QUESTIONS: DEP, Bureau of Natural Resources, Wildlife Division  
Phone (860) 424-3011  
[www.ct.gov/dep/nddbrequest](http://www.ct.gov/dep/nddbrequest)





Connecticut Department of  
**ENERGY &  
ENVIRONMENTAL  
PROTECTION**

Bureau of Natural Resources  
Wildlife Division  
Natural History Survey – Natural Diversity Data Base

February 14, 2012

Mr. Mark Kiburz  
Infinigy Engineering  
11 Herbert Drive  
Latham, NY 12110

Regarding: Cellular/communications tower installation, Woodstock, CT  
Natural Diversity Data Base 201200102

Dear Mr. Kiburz:

In response to your request for a Natural Diversity Data Base Review of State Listed Species for a cellular/communications tower installation in Woodstock, CT, our records for this site indicate that there are no extant populations of Federal or State Endangered, Threatened or Special Concern Species that occur on this property.

The Natural Diversity Data Base includes all information regarding critical biological resources available to us at the time of the request. This information is a compilation of data collected over the years by the Department of Energy and Environmental Protection's Natural History Survey and cooperating units of DEEP, private conservation groups and the scientific community. This information is not necessarily the result of comprehensive or site-specific field investigations. Consultations with the Data Base should not be substituted for on-site surveys required for environmental assessments. Current research projects and new contributors continue to identify additional populations of species and locations of habitats of concern, as well as, enhance existing data. Such new information is incorporated into the Data Base as it becomes available. If the project is not implemented within 12 months, then another Natural Diversity Data Base review should be requested for up-to-date information.

Please be advised a more detailed review may be conducted as part of any subsequent environmental permit applications submitted to the Department of Energy and Environmental Protection for the proposed site.

Thank you for consulting the Natural Diversity Data Base. If you have further questions, I can be reached by email at [Elaine.hinsch@ct.gov](mailto:Elaine.hinsch@ct.gov) or by phone at (860) 424-3011.

Sincerely,

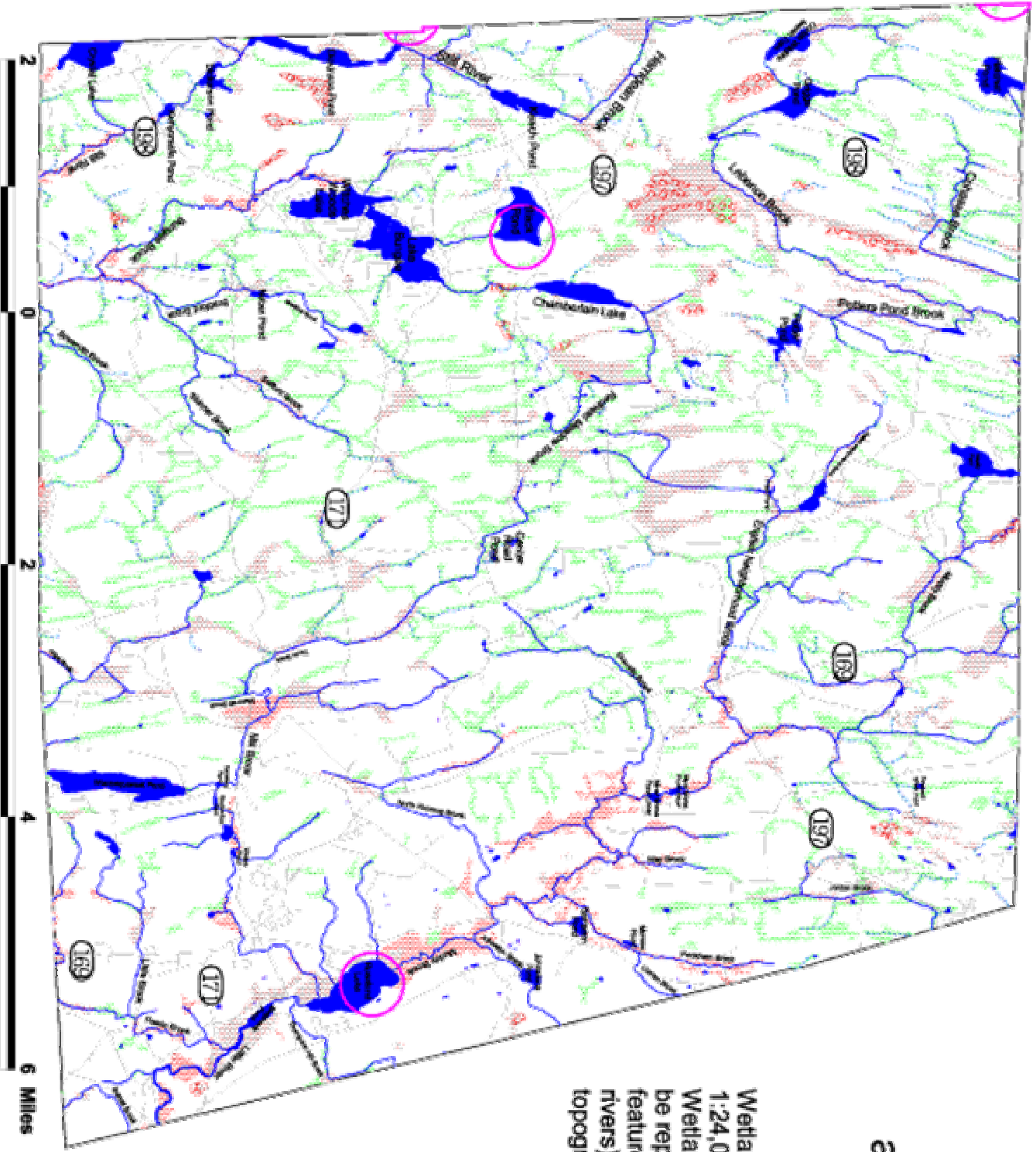
Elaine Hinsch  
Program Specialist II  
Wildlife Division

ATTACHMENT 4

WOODSTOCK INLAND WETLANDS AND  
WATERCOURSE MAP; "MAP 13"

# Woodstock Inland Wetlands and Watercourses Map 13

Wetland soils are based on a 1:24,000-scale datalayer in Connecticut. Wetlands smaller than 3 acres may not be represented on this map. Water features (lakes, ponds, streams and rivers) are based on USGS topographical maps.



### Legend

- Protected Species
- Atlantic White Cedar Swamps
- Lakes and Ponds
- Intermittent streams
- Roads
- Perennial streams
- Wetlands by description
- FLOODPLAIN SOILS
- MUCK SOILS
- UPLAND WETLAND SOILS
- Woodstock boundary



Date: August 12, 2002  
Prepared by: Jean Pillo



Disclaimer: These maps are intended for planning purposes only, and contain no authoritative positional information. Maps being prepared by the Town of Woodstock, Conservation Commission are still in the process of being finalized. If you have corrections, please contact Jean Pillo or Bel Zimmerman.

ATTACHMENT 5

UNITED STATES FISH AND WILDLIFE SERVICE  
NATIONAL WETLAND INVENTORY MAPS

**CLIENT NAME:**  
North Atlantic Towers

**SITE LOCATION:**  
Route 198  
Woodstock, CT

**PROJECT NAME:**  
Woodstock

**PROJECT NO.:**  
226-064



**U.S. Fish and Wildlife Service**  
**National Wetlands Inventory**

Feb 13, 2012



**Wetlands**

- Freshwater Emergent
- Freshwater Forested/Shrub
- Estuarine and Marine Deepwater
- Estuarine and Marine
- Freshwater Pond
- Lake
- Riverine
- Other

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

**User Remarks:**

**ATTACHMENT 6**

**FEDERALLY LISTED THREATENED AND ENDANGERED  
SPECIES COUNTY REVIEW**

**FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES  
IN CONNECTICUT**

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Fairfield	Piping Plover	Threatened	Coastal Beaches	Westport, Bridgeport and Stratford
	Roseate Tern	Endangered	Coastal beaches, Islands and the Atlantic Ocean	Westport and Stratford
	Bog Turtle	Threatened	Wetlands	Ridgefield and Danbury.
Hartford	Dwarf wedgemussel	Endangered	Farmington and Podunk Rivers	South Windsor, East Granby, Simsbury, Avon and Bloomfield.
Litchfield	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Sharon.
	Bog Turtle	Threatened	Wetlands	Sharon and Salisbury.
Middlesex	Roseate Tern	Endangered	Coastal beaches, islands and the Atlantic Ocean	Westbrook
	Piping Plover	Threatened	Coastal Beaches	Clinton, Westbrook, Old Saybrook.
	Puritan Tiger Beetle	Threatened	Sandy beaches along the Connecticut River	Cromwell, Portland
New Haven	Bog Turtle	Threatened	Wetlands	Southbury
	Piping Plover	Threatened	Coastal Beaches	Milford, Madison and West Haven
	Roseate Tern	Endangered	Coastal beaches, Islands and the Atlantic Ocean	Branford, Guilford and Madison
	Indiana Bat	Endangered	Mines, Caves	
New London	Piping Plover	Threatened	Coastal Beaches	Old Lyme, Waterford, Groton and Stonington.
	Roseate Tern	Endangered	Coastal beaches, Islands and the Atlantic Ocean	East Lyme, New London and Waterford.
	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Waterford
Tolland	None			

-Eastern cougar, gray wolf, Indiana bat, Seabeach amaranth and American burying beetle are considered extirpated in Connecticut.

-There is no federally-designated Critical Habitat in Connecticut.

7/31/2008

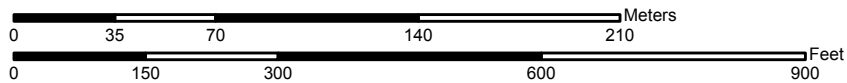


ATTACHMENT 7  
USDA WEB SOIL SURVEY

Soil Map—State of Connecticut




Map Scale: 1:2,720 if printed on A size (8.5" x 11") sheet.



## MAP LEGEND






















### Area of Interest (AOI)


 Area of Interest (AOI)

### Soils

 Soil Map Units

### Special Point Features




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

 Very Stony Spot

 Wet Spot

 Other


### Special Line Features

-  Gully
-  Short Steep Slope
-  Other






### Political Features

 Cities

### Water Features

 Streams and Canals

### Transportation

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

## MAP INFORMATION

Map Scale: 1:2,720 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:12,000.

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

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

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

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
 Coordinate System: UTM Zone 18N NAD83

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

Soil Survey Area: State of Connecticut  
 Survey Area Data: Version 10, Mar 31, 2011

Date(s) aerial images were photographed: 7/17/2006

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

## Map Unit Legend

State of Connecticut (CT600)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
3	Ridgebury, Leicester, and Whitman soils, extremely stony	0.4	18.5%
52C	Sutton fine sandy loam, 2 to 15 percent slopes, extremely stony	0.2	7.1%
62C	Canton and Charlton soils, 3 to 15 percent slopes, extremely stony	0.4	19.8%
73C	Charlton-Chatfield complex, 3 to 15 percent slopes, very rocky	0.4	17.4%
85C	Paxton and Montauk fine sandy loams, 8 to 15 percent slopes, very stony	0.8	37.2%
<b>Totals for Area of Interest</b>		<b>2.2</b>	<b>100.0%</b>

## State of Connecticut

### 3—Ridgebury, Leicester, and Whitman soils, extremely stony

#### Map Unit Setting

*Elevation:* 0 to 1,200 feet

*Mean annual precipitation:* 37 to 56 inches

*Mean annual air temperature:* 45 to 55 degrees F

*Frost-free period:* 140 to 185 days

#### Map Unit Composition

*Ridgebury and similar soils:* 40 percent

*Leicester and similar soils:* 35 percent

*Whitman and similar soils:* 15 percent

*Minor components:* 10 percent

#### Description of Ridgebury

##### Setting

*Landform:* Depressions, drainageways

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Parent material:* Coarse-loamy lodgment till derived from granite and/or schist and/or gneiss

##### Properties and qualities

*Slope:* 0 to 5 percent

*Surface area covered with cobbles, stones or boulders:* 9.0 percent

*Depth to restrictive feature:* 20 to 30 inches to dense material

*Drainage class:* Poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately high (0.00 to 0.20 in/hr)

*Depth to water table:* About 0 to 6 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water capacity:* Very low (about 2.6 inches)

##### Interpretive groups

*Land capability (nonirrigated):* 7s

##### Typical profile

*0 to 5 inches:* Fine sandy loam

*5 to 14 inches:* Fine sandy loam

*14 to 21 inches:* Fine sandy loam

*21 to 60 inches:* Sandy loam

#### Description of Leicester

##### Setting

*Landform:* Depressions, drainageways

*Down-slope shape:* Linear

*Across-slope shape:* Concave

*Parent material:* Coarse-loamy melt-out till derived from granite and/or schist and/or gneiss

### **Properties and qualities**

*Slope:* 0 to 5 percent

*Surface area covered with cobbles, stones or boulders:* 9.0 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Poorly drained

*Capacity of the most limiting layer to transmit water*

*(Ksat):* Moderately high to high (0.57 to 5.95 in/hr)

*Depth to water table:* About 0 to 18 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water capacity:* Moderate (about 6.9 inches)

### **Interpretive groups**

*Land capability (nonirrigated):* 7s

### **Typical profile**

*0 to 1 inches:* Moderately decomposed plant material

*1 to 7 inches:* Fine sandy loam

*7 to 10 inches:* Fine sandy loam

*10 to 18 inches:* Fine sandy loam

*18 to 24 inches:* Fine sandy loam

*24 to 43 inches:* Gravelly fine sandy loam

*43 to 65 inches:* Gravelly fine sandy loam

### **Description of Whitman**

#### **Setting**

*Landform:* Depressions, drainageways

*Down-slope shape:* Concave

*Across-slope shape:* Concave

*Parent material:* Coarse-loamy lodgment till derived from granite and/or schist and/or gneiss

#### **Properties and qualities**

*Slope:* 0 to 2 percent

*Surface area covered with cobbles, stones or boulders:* 9.0 percent

*Depth to restrictive feature:* 12 to 20 inches to dense material

*Drainage class:* Very poorly drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately high (0.00 to 0.20 in/hr)

*Depth to water table:* About 0 to 12 inches

*Frequency of flooding:* None

*Frequency of ponding:* Occasional

*Available water capacity:* Very low (about 1.9 inches)

#### **Interpretive groups**

*Land capability (nonirrigated):* 7s

#### **Typical profile**

*0 to 1 inches:* Slightly decomposed plant material

*1 to 9 inches:* Fine sandy loam

*9 to 16 inches:* Fine sandy loam

*16 to 22 inches:* Fine sandy loam

*22 to 60 inches:* Fine sandy loam

## Minor Components

### **Sutton**

*Percent of map unit:* 2 percent  
*Landform:* Depressions, drainageways  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear

### **Woodbridge**

*Percent of map unit:* 2 percent  
*Landform:* Drumlins, hills  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear

### **Unnamed, frequently flooded**

*Percent of map unit:* 2 percent  
*Landform:* Drainageways

### **Unnamed, steep slopes**

*Percent of map unit:* 2 percent

### **Unnamed, silt loam surface**

*Percent of map unit:* 1 percent

### **Unnamed, nonstony**

*Percent of map unit:* 1 percent

## Data Source Information

Soil Survey Area: State of Connecticut  
Survey Area Data: Version 10, Mar 31, 2011

## State of Connecticut

### 52C—Sutton fine sandy loam, 2 to 15 percent slopes, extremely stony

#### Map Unit Setting

*Elevation:* 0 to 1,200 feet

*Mean annual precipitation:* 43 to 56 inches

*Mean annual air temperature:* 45 to 55 degrees F

*Frost-free period:* 140 to 185 days

#### Map Unit Composition

*Sutton and similar soils:* 80 percent

*Minor components:* 20 percent

#### Description of Sutton

##### Setting

*Landform:* Depressions, drainageways

*Down-slope shape:* Concave

*Across-slope shape:* Linear

*Parent material:* Coarse-loamy melt-out till derived from granite and/or schist and/or gneiss

##### Properties and qualities

*Slope:* 2 to 15 percent

*Surface area covered with cobbles, stones or boulders:* 9.0 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Moderately well drained

*Capacity of the most limiting layer to transmit water*

*(Ksat):* Moderately high to high (0.57 to 5.95 in/hr)

*Depth to water table:* About 18 to 30 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water capacity:* Moderate (about 6.9 inches)

##### Interpretive groups

*Land capability (nonirrigated):* 7s

##### Typical profile

*0 to 6 inches:* Fine sandy loam

*6 to 12 inches:* Fine sandy loam

*12 to 24 inches:* Fine sandy loam

*24 to 28 inches:* Fine sandy loam

*28 to 36 inches:* Gravelly fine sandy loam

*36 to 65 inches:* Gravelly sandy loam

#### Minor Components

##### Charlton

*Percent of map unit:* 5 percent

*Landform:* Hills

*Down-slope shape:* Linear

*Across-slope shape:* Linear



**Canton**

*Percent of map unit:* 4 percent  
*Landform:* Hills  
*Down-slope shape:* Linear  
*Across-slope shape:* Convex

**Paxton**

*Percent of map unit:* 3 percent  
*Landform:* Drumlins, hills, till plains  
*Down-slope shape:* Linear  
*Across-slope shape:* Convex

**Leicester**

*Percent of map unit:* 3 percent  
*Landform:* Depressions, drainageways  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave

**Woodbridge**

*Percent of map unit:* 2 percent  
*Landform:* Drumlins, hills  
*Down-slope shape:* Concave  
*Across-slope shape:* Linear

**Rainbow**

*Percent of map unit:* 2 percent  
*Landform:* Drumlins, hills  
*Down-slope shape:* Linear  
*Across-slope shape:* Concave

**Narragansett**

*Percent of map unit:* 1 percent  
*Landform:* Hills, till plains  
*Down-slope shape:* Linear  
*Across-slope shape:* Convex

## Data Source Information

Soil Survey Area: State of Connecticut  
Survey Area Data: Version 10, Mar 31, 2011

## State of Connecticut

### 73C—Charlton-Chatfield complex, 3 to 15 percent slopes, very rocky

#### Map Unit Setting

*Elevation:* 0 to 1,200 feet

*Mean annual precipitation:* 43 to 56 inches

*Mean annual air temperature:* 45 to 55 degrees F

*Frost-free period:* 140 to 185 days

#### Map Unit Composition

*Charlton and similar soils:* 45 percent

*Chatfield and similar soils:* 30 percent

*Minor components:* 25 percent

#### Description of Charlton

##### Setting

*Landform:* Hills

*Down-slope shape:* Linear

*Across-slope shape:* Linear

*Parent material:* Coarse-loamy melt-out till derived from granite and/or schist and/or gneiss

##### Properties and qualities

*Slope:* 3 to 15 percent

*Surface area covered with cobbles, stones or boulders:* 1.6 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water*

*(Ksat):* Moderately high to high (0.57 to 5.95 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water capacity:* Low (about 5.9 inches)

##### Interpretive groups

*Land capability (nonirrigated):* 6s

##### Typical profile

*0 to 4 inches:* Fine sandy loam

*4 to 7 inches:* Fine sandy loam

*7 to 19 inches:* Fine sandy loam

*19 to 27 inches:* Gravelly fine sandy loam

*27 to 65 inches:* Gravelly fine sandy loam

#### Description of Chatfield

##### Setting

*Landform:* Hills, ridges

*Down-slope shape:* Convex

*Across-slope shape:* Linear

*Parent material:* Coarse-loamy melt-out till derived from granite and/or schist and/or gneiss

**Properties and qualities**

*Slope:* 3 to 15 percent

*Surface area covered with cobbles, stones or boulders:* 1.6 percent

*Depth to restrictive feature:* 20 to 40 inches to lithic bedrock

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Low to high (0.01 to 5.95 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water capacity:* Low (about 3.3 inches)

**Interpretive groups**

*Land capability (nonirrigated):* 6s

**Typical profile**

*0 to 1 inches:* Highly decomposed plant material

*1 to 6 inches:* Gravelly fine sandy loam

*6 to 15 inches:* Gravelly fine sandy loam

*15 to 29 inches:* Gravelly fine sandy loam

*29 to 80 inches:* Unweathered bedrock

**Minor Components**

**Rock outcrop**

*Percent of map unit:* 6 percent

**Sutton**

*Percent of map unit:* 5 percent

*Landform:* Depressions, drainageways

*Down-slope shape:* Concave

*Across-slope shape:* Linear

**Leicester**

*Percent of map unit:* 5 percent

*Landform:* Depressions, drainageways

*Down-slope shape:* Linear

*Across-slope shape:* Concave

**Hollis**

*Percent of map unit:* 5 percent

*Landform:* Hills, ridges

*Down-slope shape:* Convex

*Across-slope shape:* Convex

**Unnamed, red parent material**

*Percent of map unit:* 2 percent

**Unnamed, sandy subsoil**  
*Percent of map unit: 2 percent*

## Data Source Information

Soil Survey Area: State of Connecticut  
Survey Area Data: Version 10, Mar 31, 2011

## State of Connecticut

### 85C—Paxton and Montauk fine sandy loams, 8 to 15 percent slopes, very stony

#### Map Unit Setting

*Elevation:* 0 to 1,200 feet

*Mean annual precipitation:* 43 to 56 inches

*Mean annual air temperature:* 45 to 55 degrees F

*Frost-free period:* 140 to 185 days

#### Map Unit Composition

*Paxton and similar soils:* 55 percent

*Montauk and similar soils:* 30 percent

*Minor components:* 15 percent

#### Description of Paxton

##### Setting

*Landform:* Drumlins, hills, till plains

*Down-slope shape:* Linear

*Across-slope shape:* Convex

*Parent material:* Coarse-loamy lodgment till derived from granite and/or schist and/or gneiss

##### Properties and qualities

*Slope:* 8 to 15 percent

*Surface area covered with cobbles, stones or boulders:* 1.6 percent

*Depth to restrictive feature:* 20 to 40 inches to dense material

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately high (0.00 to 0.20 in/hr)

*Depth to water table:* About 18 to 30 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water capacity:* Low (about 3.4 inches)

##### Interpretive groups

*Land capability (nonirrigated):* 6s

##### Typical profile

*0 to 8 inches:* Fine sandy loam

*8 to 15 inches:* Fine sandy loam

*15 to 26 inches:* Fine sandy loam

*26 to 65 inches:* Gravelly fine sandy loam

#### Description of Montauk

##### Setting

*Landform:* Drumlins, hills

*Down-slope shape:* Convex

*Across-slope shape:* Linear

*Parent material:* Coarse-loamy lodgment till derived from granite and/or coarse-loamy lodgment till derived from gneiss and/or coarse-

loamy lodgment till derived from gneiss and/or coarse-loamy lodgment till derived from granite

**Properties and qualities**

*Slope:* 8 to 15 percent

*Surface area covered with cobbles, stones or boulders:* 1.6 percent

*Depth to restrictive feature:* 20 to 38 inches to dense material

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* Very low to moderately high (0.00 to 0.20 in/hr)

*Depth to water table:* About 24 to 30 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water capacity:* Low (about 3.3 inches)

**Interpretive groups**

*Land capability (nonirrigated):* 6s

**Typical profile**

*0 to 4 inches:* Fine sandy loam

*4 to 14 inches:* Fine sandy loam

*14 to 25 inches:* Sandy loam

*25 to 39 inches:* Gravelly loamy coarse sand

*39 to 60 inches:* Gravelly sandy loam

**Minor Components**

**Woodbridge**

*Percent of map unit:* 4 percent

*Landform:* Drumlins, hills

*Down-slope shape:* Concave

*Across-slope shape:* Linear

**Ridgebury**

*Percent of map unit:* 3 percent

*Landform:* Depressions, drainageways

*Down-slope shape:* Concave

*Across-slope shape:* Concave

**Charlton**

*Percent of map unit:* 3 percent

*Landform:* Hills

*Down-slope shape:* Linear

*Across-slope shape:* Linear

**Canton**

*Percent of map unit:* 2 percent

*Landform:* Hills

*Down-slope shape:* Linear

*Across-slope shape:* Convex

**Stockbridge**

*Percent of map unit:* 1 percent

*Landform:* Hills

*Down-slope shape:* Concave

*Across-slope shape:* Linear

**Unnamed, nonstony surface**

*Percent of map unit: 1 percent*

**Unnamed, red parent material**

*Percent of map unit: 1 percent*

## **Data Source Information**

Soil Survey Area: State of Connecticut

Survey Area Data: Version 10, Mar 31, 2011

## State of Connecticut

### 62C—Canton and Charlton soils, 3 to 15 percent slopes, extremely stony

#### Map Unit Setting

*Elevation:* 0 to 1,200 feet

*Mean annual precipitation:* 43 to 54 inches

*Mean annual air temperature:* 45 to 55 degrees F

*Frost-free period:* 140 to 185 days

#### Map Unit Composition

*Canton and similar soils:* 45 percent

*Charlton and similar soils:* 35 percent

*Minor components:* 20 percent

#### Description of Canton

##### Setting

*Landform:* Hills

*Down-slope shape:* Linear

*Across-slope shape:* Convex

*Parent material:* Coarse-loamy over sandy and gravelly melt-out till  
derived from granite and/or schist and/or gneiss

##### Properties and qualities

*Slope:* 3 to 15 percent

*Surface area covered with cobbles, stones or boulders:* 9.0 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water (Ksat):* High (1.98  
to 5.95 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water capacity:* Low (about 5.6 inches)

##### Interpretive groups

*Land capability (nonirrigated):* 7s

##### Typical profile

*0 to 1 inches:* Moderately decomposed plant material

*1 to 3 inches:* Gravelly fine sandy loam

*3 to 15 inches:* Gravelly loam

*15 to 24 inches:* Gravelly loam

*24 to 30 inches:* Gravelly loam

*30 to 60 inches:* Very gravelly loamy sand

#### Description of Charlton

##### Setting

*Landform:* Hills

*Down-slope shape:* Linear

*Across-slope shape:* Linear



*Parent material:* Coarse-loamy melt-out till derived from granite and/  
or schist and/or gneiss

**Properties and qualities**

*Slope:* 3 to 15 percent

*Surface area covered with cobbles, stones or boulders:* 9.0 percent

*Depth to restrictive feature:* More than 80 inches

*Drainage class:* Well drained

*Capacity of the most limiting layer to transmit water*

*(Ksat):* Moderately high to high (0.57 to 5.95 in/hr)

*Depth to water table:* More than 80 inches

*Frequency of flooding:* None

*Frequency of ponding:* None

*Available water capacity:* Low (about 5.9 inches)

**Interpretive groups**

*Land capability (nonirrigated):* 7s

**Typical profile**

*0 to 4 inches:* Fine sandy loam

*4 to 7 inches:* Fine sandy loam

*7 to 19 inches:* Fine sandy loam

*19 to 27 inches:* Gravelly fine sandy loam

*27 to 65 inches:* Gravelly fine sandy loam

**Minor Components**

**Sutton**

*Percent of map unit:* 5 percent

*Landform:* Depressions, drainageways

*Down-slope shape:* Concave

*Across-slope shape:* Linear

**Leicester**

*Percent of map unit:* 5 percent

*Landform:* Depressions, drainageways

*Down-slope shape:* Linear

*Across-slope shape:* Concave

**Chatfield**

*Percent of map unit:* 5 percent

*Landform:* Hills, ridges

*Down-slope shape:* Convex

*Across-slope shape:* Linear

**Hollis**

*Percent of map unit:* 5 percent

*Landform:* Hills, ridges

*Down-slope shape:* Convex

*Across-slope shape:* Convex

**Data Source Information**

Soil Survey Area: State of Connecticut

Survey Area Data: Version 10, Mar 31, 2011

**ATTACHMENT 8**

**ACOE WETLAND DELINEATION DATA SHEETS**

**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Woodstacks CT City/County: Windham Sampling Date: aug 5 2010  
 Applicant/Owner: FTP - Florida tower Partners State: CT Sampling Point: 1  
 Investigator(s): Mark Kiburn Section, Township, Range: Woodstock  
 Landform (hillslope, terrace, etc.): Hills/Valley Local relief (concave, convex, none): \_\_\_\_\_  
 Slope (%): 0-4% Lat: 41° 56' 45.15" Long: -72° 4' 43.37" Datum: Nad 83  
 Soil Map Unit Name: Charlton Chatfield Complex NWI classification: Forested

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Headwater stream + forested wetland to Bungee Brook and eventually to the Still River to Natchaug River classic Red Maple wetland.	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply) ___ Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) ___ High Water Table (A2) ___ Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) ___ Marl Deposits (B15) ___ Water Marks (B1) <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Sediment Deposits (B2) ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3) ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5) <input checked="" type="checkbox"/> Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7) ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)	Secondary Indicators (minimum of two required) ___ Surface Soil Cracks (B6) ___ Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
--	--

<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>&lt; 2"</u> Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
--	---

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
USFWS Wetland Mapper / Woodstock Inland Wetlands + Watercourses

Remarks:  
 channelized flow 24" wide < 12" Deep  
 wetland surround head water stream. Stream channelization starts at Property Line.  
 appears to be Ground water Fed  
 Cobble in channel to silted in flow channel

**VEGETATION** – Use scientific names of plants.

Sampling Point: \_\_\_\_\_

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status															
1. Red Maple	70%	Y	FACW	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>8</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>8</u> (A/B)														
2. White Pine	<5%	N	UPL															
3. _____																		
4. _____																		
5. _____																		
6. _____																		
7. _____																		
_____ = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width:100%; border: none;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species <u>1</u></td> <td>x 1 = <u>1</u></td> </tr> <tr> <td>FACW species <u>6</u></td> <td>x 2 = <u>12</u></td> </tr> <tr> <td>FAC species <u>1</u></td> <td>x 3 = <u>3</u></td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species <u>1</u></td> <td>x 5 = <u>5</u></td> </tr> <tr> <td>Column Totals: <u>9</u> (A)</td> <td><u>21</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.33</u>	Total % Cover of:	Multiply by:	OBL species <u>1</u>	x 1 = <u>1</u>	FACW species <u>6</u>	x 2 = <u>12</u>	FAC species <u>1</u>	x 3 = <u>3</u>	FACU species _____	x 4 = _____	UPL species <u>1</u>	x 5 = <u>5</u>	Column Totals: <u>9</u> (A)	<u>21</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>1</u>	x 1 = <u>1</u>																	
FACW species <u>6</u>	x 2 = <u>12</u>																	
FAC species <u>1</u>	x 3 = <u>3</u>																	
FACU species _____	x 4 = _____																	
UPL species <u>1</u>	x 5 = <u>5</u>																	
Column Totals: <u>9</u> (A)	<u>21</u> (B)																	
_____ = Total Cover																		
Sapling/Shrub Stratum (Plot size: _____)																		
1. Red Maple	15%	Y	FACW															
2. ash Green	10%	Y	FAC															
3. american Holly	5%	Y	FACW															
4. _____																		
5. _____																		
6. _____																		
7. _____																		
_____ = Total Cover																		
Herb Stratum (Plot size: _____)																		
1. Skunk Cabbage	30%	Y	Obl															
2. Cinnamon Fern	10%	Y	FACW															
3. Jewelweed	10%	Y	FACW															
4. Sensitive Fern	10%	Y	FACW															
5. Sedge Species	5%	Y	-															
6. Viola Species	5%	Y	-															
7. Tussock Sedge	25%	Y	Obl															
8. _____																		
9. _____																		
10. _____																		
11. _____																		
12. _____																		
_____ = Total Cover																		
Woody Vine Stratum (Plot size: _____)																		
1. Fox Grapes	5%	Y																
2. _____																		
3. _____																		
4. _____																		
_____ = Total Cover																		

**Hydrophytic Vegetation Indicators:**

Rapid Test for Hydrophytic Vegetation

Dominance Test is >50%

Prevalence Index is ≤3.0<sup>1</sup>

Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes  No

Remarks: (Include photo numbers here or on a separate sheet.)

Robust + Health Vegetation. Vegetation density change as elevation increases.

**SOIL**

Sampling Point: \_\_\_\_\_

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-10	10YR 2/1	100	—	—	—	—	S, H/Peat	High organic deposit
10-12+	10YR 4/2	65%	10YR 4/6	36%	CS	M	S, H+ Course Sand.	High Quartz

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils <sup>3</sup> :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)
<input checked="" type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)
<input checked="" type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)
<input checked="" type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Red Parent Material (TF2)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)			
<input type="checkbox"/> Sandy Redox (S5)			
<input type="checkbox"/> Stripped Matrix (S6)			
<input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)			

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	Hydric Soil Present? Yes _____ No _____
---	---

Remarks:  
 Soil Slippery to touch with organics. Defined line between A & B layer.  
 Sandy soils below top layer. Very Course Sand. Coated & surrounded with organics.

**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Woodstock City/County: Windham Sampling Date: Aug 5 2010  
 Applicant/Owner: FTP- Florida tower State: CT Sampling Point: 2  
 Investigator(s): Mark Kiburg Section, Township, Range: Woodstock  
 Landform (hillslope, terrace, etc.): Hills Local relief (concave, convex, none): \_\_\_\_\_  
 Slope (%): 4-15 Lat: 41°56'40.13" Long: 72°04'51.34" Datum: \_\_\_\_\_  
 Soil Map Unit Name: Chertton Chatfield Complex NWI classification: None  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <u>1' wide drainage feature. No flow. Drift line &amp; leaf lines observed.</u> <u>Not visibly channeled before or after road crossing</u> <u>Upland Drainage Feature (ephemeral stream)</u>	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply) ___ Surface Water (A1)      ___ Water-Stained Leaves (B9) ___ High Water Table (A2)      ___ Aquatic Fauna (B13) ___ Saturation (A3)      ___ Marl Deposits (B15) <input checked="" type="checkbox"/> Water Marks (B1)      ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2)      ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drift Deposits (B3)      ___ Presence of Reduced Iron (C4) ___ Algal Mat or Crust (B4)      ___ Recent Iron Reduction in Tilled Soils (C6) ___ Iron Deposits (B5)      ___ Thin Muck Surface (C7) ___ Inundation Visible on Aerial Imagery (B7)      ___ Other (Explain in Remarks) ___ Sparsely Vegetated Concave Surface (B8)	<b>Secondary Indicators (minimum of two required)</b> ___ Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Drainage Patterns (B10) ___ Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: <u>Vegetation Lines considered water marks.</u> <u>Visible Drainage Pattern by defined water course.</u>	

**VEGETATION – Use scientific names of plants.**

Sampling Point: \_\_\_\_\_

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: _____ )																				
1.				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)  Total Number of Dominant Species Across All Strata: _____ (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)																
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
_____ = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width:100%; border: none;"> <tr> <td style="width:50%;">Total % Cover of:</td> <td style="width:50%;">Multiply by:</td> </tr> <tr> <td>OBL species _____</td> <td>x 1 = _____</td> </tr> <tr> <td>FACW species _____</td> <td>x 2 = _____</td> </tr> <tr> <td>FAC species _____</td> <td>x 3 = _____</td> </tr> <tr> <td>FACU species _____</td> <td>x 4 = _____</td> </tr> <tr> <td>UPL species _____</td> <td>x 5 = _____</td> </tr> <tr> <td>Column Totals: _____</td> <td>(A) _____ (B) _____</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = _____</td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species _____	x 1 = _____	FACW species _____	x 2 = _____	FAC species _____	x 3 = _____	FACU species _____	x 4 = _____	UPL species _____	x 5 = _____	Column Totals: _____	(A) _____ (B) _____	Prevalence Index = B/A = _____	
Total % Cover of:	Multiply by:																			
OBL species _____	x 1 = _____																			
FACW species _____	x 2 = _____																			
FAC species _____	x 3 = _____																			
FACU species _____	x 4 = _____																			
UPL species _____	x 5 = _____																			
Column Totals: _____	(A) _____ (B) _____																			
Prevalence Index = B/A = _____																				
<b>Sapling/Shrub Stratum</b> (Plot size: _____ )																				
1.				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
_____ = Total Cover				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
<b>Herb Stratum</b> (Plot size: _____ )																				
1.					<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.															
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
11.																				
12.																				
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes _____ No _____																
<b>Woody Vine Stratum</b> (Plot size: _____ )																				
1.																				
2.																				
3.																				
4.																				
_____ = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.) Sphagnum on Rocks only.																				

**SOIL**

Sampling Point: \_\_\_\_\_

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
Not Sampled								

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No \_\_\_\_\_

Remarks:



**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Woodstock-Farley City/County: Windham Sampling Date: 1/20/12  
 Applicant/Owner: Florida Tower Partners State: CT Sampling Point: 3  
 Investigator(s): Mark Kirby (Infringy) Section, Township, Range: Woodstock  
 Landform (hillslope, terrace, etc.): Hills Local relief (concave, convex, none): Concave  
 Slope (%): 0-4 Lat: 41° 56' 09.66" Long: -72° 04' 38.54" Datum: Coogle Sath  
 Soil Map Unit Name: Ridgebury, Leicester & Whitman Soils NWI classification: Forested  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation Y, Soil Y, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes  No N  
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input type="checkbox"/> <u>unk</u> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p style="font-size: 1.2em;">Lack of snow                  access via disturbed access road. 12-14" Ruts visible                  Soils were frozen and unable to be sampled.                  Flows to Bungee Brook</p>	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>&lt;3"</u> Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: <p style="font-size: 1.2em;">Ruts left by logging gear indicate moist soil conditions</p>	

**VEGETATION** – Use scientific names of plants.

Sampling Point: \_\_\_\_\_

	Absolute % Cover	Dominant Species?	Indicator Status		
<b>Tree Stratum</b> (Plot size: _____ )					
1. <u><i>Eastern Hemlock</i></u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)  Total Number of Dominant Species Across All Strata: _____ (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)	
2. <u><i>Red Maple</i></u>					
3. <del>Soft</del> <u><i>Green ash</i></u>					
4. _____					
5. _____					
6. _____					
7. _____					
_____ = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____	
<b>Sapling/Shrub Stratum</b> (Plot size: _____ )					
1. <u><i>Red Maple</i></u>					
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Dominance Test is >50% <input type="checkbox"/> Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
<b>Herb Stratum</b> (Plot size: _____ )					
1. <u><i>Soft Rush</i></u>					
2. <u><i>Sensitive Fern</i></u>					
3. <u><i>Sphagnum</i></u>					
4. <u><i>Purple willow herb.</i></u>					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
12. _____					
_____ = Total Cover				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.	
<b>Woody Vine Stratum</b> (Plot size: _____ )					
1. _____					
2. _____					
3. _____					
4. _____					
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes _____ No _____	
Remarks: (Include photo numbers here or on a separate sheet.) <u>Winter Plant Identification techniques used.</u>					

**SOIL**

Sampling Point: \_\_\_\_\_

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
	Not Sampled							

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<b>Hydric Soil Indicators:</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)		<input type="checkbox"/> Other (Explain in Remarks)	

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes _____    No _____
---	---

Remarks: Soils disturbed + Frozen. Not Sampled.

**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Woodstock-Farley City/County: Windham Sampling Date: 1/20/12  
 Applicant/Owner: Florida Tower Partners State: CT Sampling Point: 4  
 Investigator(s): Mark Kibun Section, Township, Range: Woodstock  
 Landform (hillslope, terrace, etc.): Hills Local relief (concave, convex, none): \_\_\_\_\_  
 Slope (%): 0-6 Lat: 41° 56' 11.45" Long: 72° 04' 48.51" Datum: Google earth  
 Soil Map Unit Name: Ridge Ave, Leicester + Whitman Soils NWI classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No X (If no, explain in Remarks.)  
 Are Vegetation Y, Soil Y, or Hydrology Y significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ No N  
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>X</u> No _____ Hydric Soil Present? Yes _____ No _____ <u>unk</u> Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <u>Lack of snow access via Disturbed Logging Road. flows to Bungee Brook</u>	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators</u> (minimum of one is required; check all that apply) <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Surface Water (A1)</li> <li><input type="checkbox"/> High Water Table (A2)</li> <li><input type="checkbox"/> Saturation (A3)</li> <li><input type="checkbox"/> Water Marks (B1)</li> <li><input type="checkbox"/> Sediment Deposits (B2)</li> <li><input type="checkbox"/> Drift Deposits (B3)</li> <li><input type="checkbox"/> Algal Mat or Crust (B4)</li> <li><input type="checkbox"/> Iron Deposits (B5)</li> <li><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</li> <li><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</li> <li><input type="checkbox"/> Water-Stained Leaves (B9)</li> <li><input type="checkbox"/> Aquatic Fauna (B13)</li> <li><input type="checkbox"/> Marl Deposits (B15)</li> <li><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</li> <li><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</li> <li><input type="checkbox"/> Presence of Reduced Iron (C4)</li> <li><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</li> <li><input type="checkbox"/> Thin Muck Surface (C7)</li> <li><input type="checkbox"/> Other (Explain in Remarks)</li> </ul>	<u>Secondary Indicators</u> (minimum of two required) <ul style="list-style-type: none"> <li><input type="checkbox"/> Surface Soil Cracks (B6)</li> <li><input type="checkbox"/> Drainage Patterns (B10)</li> <li><input type="checkbox"/> Moss Trim Lines (B16)</li> <li><input type="checkbox"/> Dry-Season Water Table (C2)</li> <li><input type="checkbox"/> Crayfish Burrows (C8)</li> <li><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</li> <li><input type="checkbox"/> Stunted or Stressed Plants (D1)</li> <li><input type="checkbox"/> Geomorphic Position (D2)</li> <li><input type="checkbox"/> Shallow Aquitard (D3)</li> <li><input type="checkbox"/> Microtopographic Relief (D4)</li> <li><input type="checkbox"/> FAC-Neutral Test (D5)</li> </ul>
---	---

<b>Field Observations:</b> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>3"</u> Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
--	--

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
Spring Fed, flows into Logging Road then Down the Logging Road to an area of channelization.

**VEGETATION** – Use scientific names of plants.

Sampling Point: \_\_\_\_\_

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: _____ )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	_____ = Total Cover			
<b>Sapling/Shrub Stratum</b> (Plot size: _____ )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
	_____ = Total Cover			
<b>Herb Stratum</b> (Plot size: _____ )				
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
	_____ = Total Cover			
<b>Woody Vine Stratum</b> (Plot size: _____ )				
1.				
2.				
3.				
4.				
	_____ = Total Cover			
<b>Remarks:</b> (Include photo numbers here or on a separate sheet.)				
<p style="font-size: 1.2em; font-family: cursive;">No Vegetation in Skidder Road</p>				

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: \_\_\_\_\_ (A)

Total Number of Dominant Species Across All Strata: \_\_\_\_\_ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: \_\_\_\_\_ (A/B)

---

**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

---

**Hydrophytic Vegetation Indicators:**

Rapid Test for Hydrophytic Vegetation

Dominance Test is >50%

Prevalence Index is ≤3.0<sup>1</sup>

Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

---

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

---

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No \_\_\_\_\_

**SOIL**

Sampling Point: \_\_\_\_\_

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
	Not Sampled							

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.     <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<b>Hydric Soil Indicators:</b>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Red Parent Material (TF2)	
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)		<input type="checkbox"/> Other (Explain in Remarks)	

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No \_\_\_\_\_

Remarks:

Frozen Soil conditions, un able to sample.

mixed soils, disturbed soils, ~~due to~~ Due to logging operations.

ATTACHMENT 9

ZONING DRAWINGS (REVISED 2/14/12)

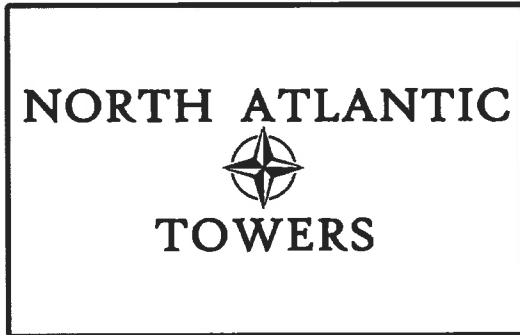
**PROJECT DESCRIPTION:**

CONSTRUCTION OF PUBLIC UTILITY/PERSONAL WIRELESS SERVICE FACILITY CONSISTING OF A MONOPOLE TOWER, INITIALLY (1) EQUIPMENT SHELTER, AND A UTILITY BACKBOARD WITHIN A FENCED COMPOUND. NO WATER OR SEWER IS REQUIRED.

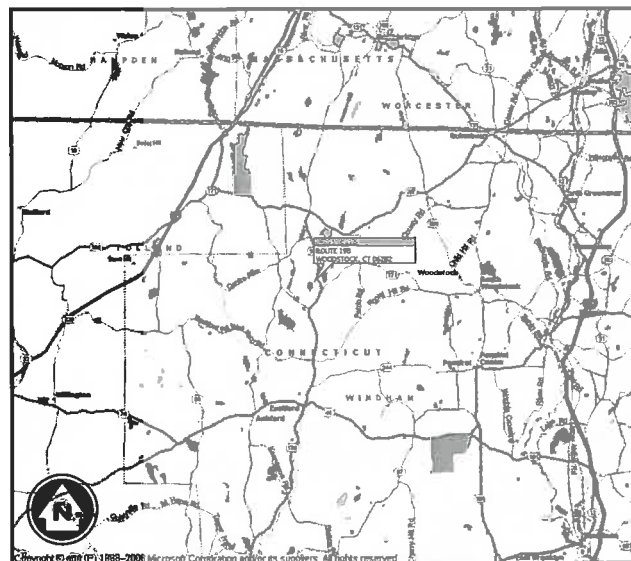
**CODE COMPLIANCE:**

ALL WORK AND MATERIALS SHALL BE PERFORMED AND INSTALLED IN ACCORDANCE WITH THE CURRENT EDITIONS OF THE FOLLOWING CODES AS ADOPTED BY THE LOCAL GOVERNING AUTHORITIES. NOTHING IN THESE PLANS IS TO BE CONSTRUED TO PERMIT WORK NOT CONFORMING TO THE LATEST EDITIONS OF THE FOLLOWING:

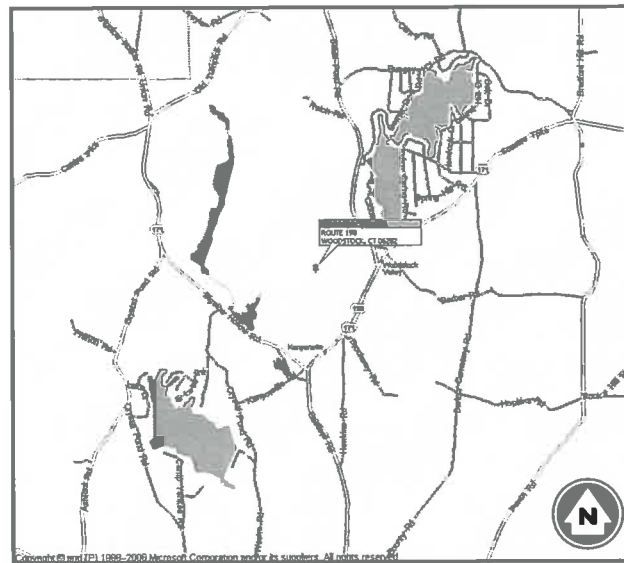
- |  |                             |
|--|-----------------------------|
| 1. CT BUILDING CODE                                  | 5. ANSI/TIA/EIA-222-G       |
| 2. UNIFORM BUILDING CODE                             | 6. UNIFORM PLUMBING CODE    |
| 3. BUILDING OFFICIALS AND CODE ADMINISTRATORS (BOCA) | 7. NATIONAL ELECTRICAL CODE |
| 4. UNIFORM MECHANICAL CODE                           | 8. LOCAL BUILDING CODE      |
|  | 9. CITY/COUNTY ORDINANCES   |



**WOODSTOCK  
SITE ID: CT1182  
ROUTE 198  
WOODSTOCK, CT 06282**



VICINITY MAP  
N.T.S.



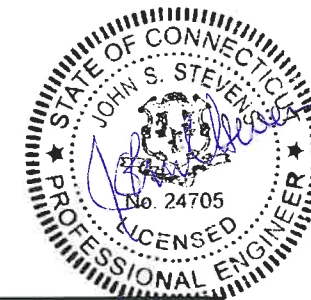
LOCATION MAP  
N.T.S.

**infinigy**  
engineering

11 HERBERT DRIVE  
LATHAM, NY 12110  
OFFICE #: (518) 690-0790  
FAX #: (518) 690-0793

PROPOSED TOWER HEIGHT: ±150' AGL  
LATITUDE: 41° 56' 21.5982" N  
LONGITUDE: 72° 4' 54.609" W  
ELEVATION: ±795' AGL

**WINDHAM COUNTY, CONNECTICUT**



**PROJECT INFORMATION**

SITE NAME: WOODSTOCK  
SITE ID: CT1182  
SITE ADDRESS: ROUTE 198  
WOODSTOCK, CT 06282  
ZONING JURISDICTION: TBD  
ZONING CLASSIFICATION: TBD  
PARCEL I.D. (M/B/L/U): LOT 24: 5789/37/24///  
ACCOUNT NUMBER: LOT 24: F0132200  
PARCEL SIZE: LOT 24: ±128.00 ACRES  
CONSTRUCTION AREA: ± 92,500 SQFT (±2.12 ACRES)  
LATITUDE: 41° 56' 21.5982" N  
LONGITUDE: 72° 04' 54.609" W

**PROJECT DIRECTORY**

PROPERTY OWNER: WOODSTOCK TOWER PARTNERS, LLC  
(860) 963-2133  
APPLICANT: NORTH ATLANTIC TOWERS  
1001 3RD AVE WEST, SUITE 420  
BRADENTON, FL 34205  
JOHN STEVENS  
(941) 757-5010  
ENGINEER: INFINIGY ENGINEERING PLLC  
11 HERBERT DRIVE  
LATHAM, NY 12110  
KEN CURLEY  
(518) 690-0790  
ATTORNEY: CUDDY & FEDER LLP  
445 HAMILTON STREET, 14TH FLOOR  
WHITE PLAINS, NY 10601  
LUCIA CHIOCCIO, ESQ  
(914) 761-1300

POWER COMPANY: TBD

TELCO COMPANY: TBD

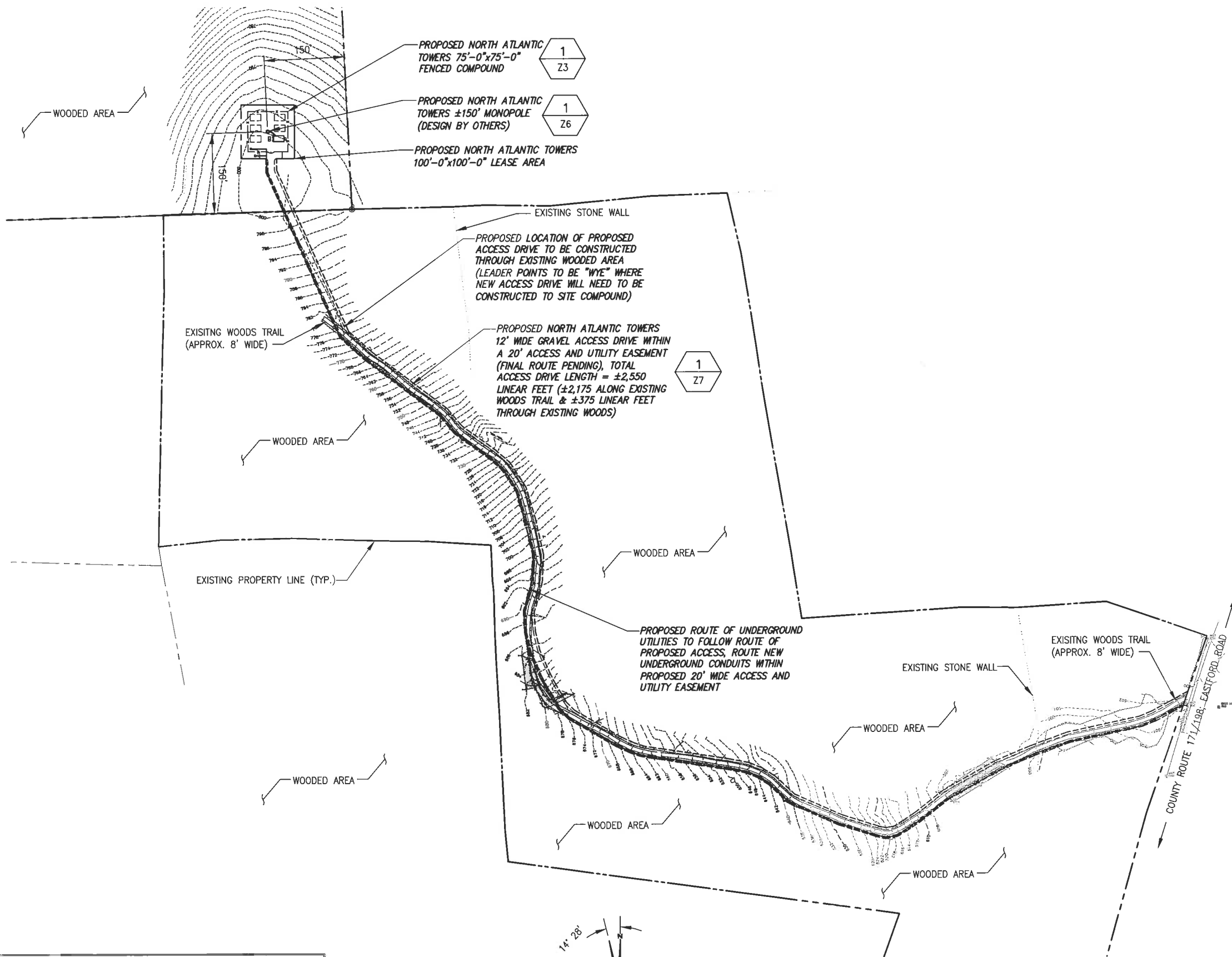
**DRAWING INDEX**

DRWG. #	TITLE	REV.#	DATE
T1	TITLE SHEET	7	2/14/2012
Z1	(REMOVED FROM DRAWING SET)	7	2/14/2012
Z2	OVERALL SITE PLAN	7	2/14/2012
Z3	ENLARGED SITE PLAN	7	2/14/2012
Z4	GRADING PLAN	7	2/14/2012
Z4A	ACCESS ROAD GRADING PLAN	7	2/14/2012
Z4B	ACCESS ROAD GRADING PLAN	7	2/14/2012
Z4C	ACCESS ROAD GRADING PLAN	7	2/14/2012
Z4D	ACCESS ROAD GRADING PLAN	7	2/14/2012
Z4E	ACCESS ROAD GRADING PLAN	7	2/14/2012
Z5	GRADING NOTES & DETAILS	7	2/14/2012
Z6	ELEVATION VIEW	7	2/14/2012
Z7	DETAILS	7	2/14/2012
Z8	E&SC DETAILS	7	2/14/2012
Z9	SWM DETAILS	7	2/14/2012

**DIG ALERT:**  
CALL FOR UNDERGROUND UTILITIES PRIOR TO DIGGING:  
1-800-922-4455

**EMERGENCY:**  
CALL 911

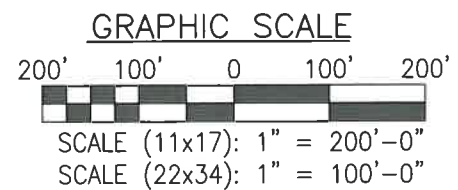




- GENERAL NOTES:**
1. LOCATION OF PROPOSED ACCESS ROAD BASED ON FIELD VISIT BY INFINGY ENGINEERING ON 1/19/2012
  2. EXISTING CONDITIONS INFORMATION OBTAINED FROM LIMITED TOPOGRAPHIC FIELD SURVEY COMPLETED BY INFINGY SURVEYING ON 1/31/2012
  3. WETLAND DELINEATION COMPLETED BY INFINGY ENGINEERING ON 1/21/2012 DURING WINTER CONDITIONS

- SITE CONSTRUCTION NOTES:**
- GRASS AND MULCH ALL DISTURBED AREAS

1 OVERALL SITE PLAN  
SCALE:



**infingy**  
Engineering

11 Herbert Drive  
Latham, NY 12110  
OFFICE: (518) 690-0790  
FAX: (518) 690-0793

STATE OF CONNECTICUT  
JOHN S. STEVENS  
10/24/05  
LICENSED PROFESSIONAL ENGINEER

UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS

No.	Submitter / Revision	App'd	Date
7	NEW ACCESS ROUTE	AJD	2/14/12
6	REVISED PER COMMENTS	AJD	10/11/11
5	REVISED PER COMMENTS	EXM	9/27/11
4	REVISED PER COMMENTS	EXM	9/23/11
3	ADDED EASC and SWM	JWC	9/19/11
2	REVISED PER COMMENTS	AJD	5/23/11
1	REVISED PER COMMENTS	NER	3/11/11
0	ISSUED FOR REVIEW	BPM	1/19/11

Drawn: BPM Date: 3/11/11  
Designed: AJD Date: 3/11/11  
Checked: AJD Date: 3/11/11

Project Number 228-084

Project Title

**WOODSTOCK CT1182**

ROUTE 188  
WOODSTOCK, CT 06281

Prepared For

**NORTH ATLANTIC TOWERS**

THIS DOCUMENT IS THE PROPERTY OF INFINGY ENGINEERING, P.C. AND FOR THE EXCLUSIVE USE OF THE CLIENT. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT OF THE CHECKOR IS STRICTLY PROHIBITED.

Drawing Scale:  
AS NOTED

Date:  
9/27/11

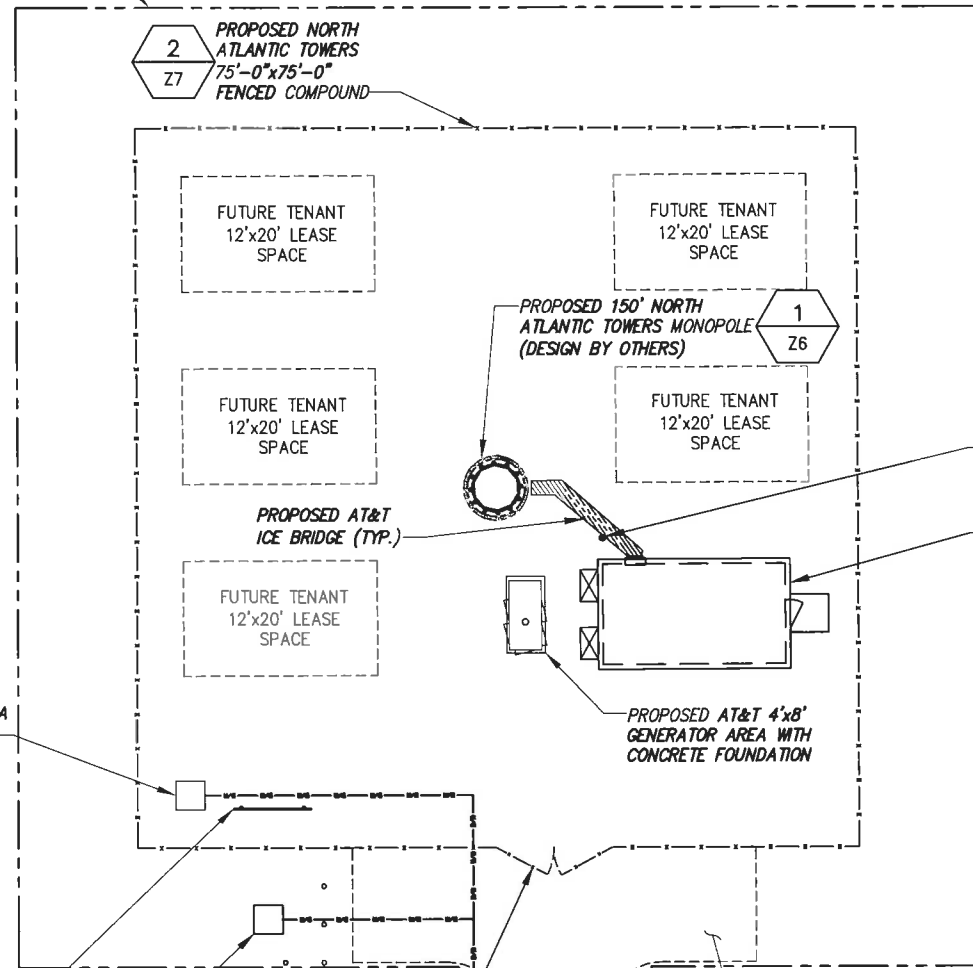
Drawing Title

**OVERALL SITE PLAN**

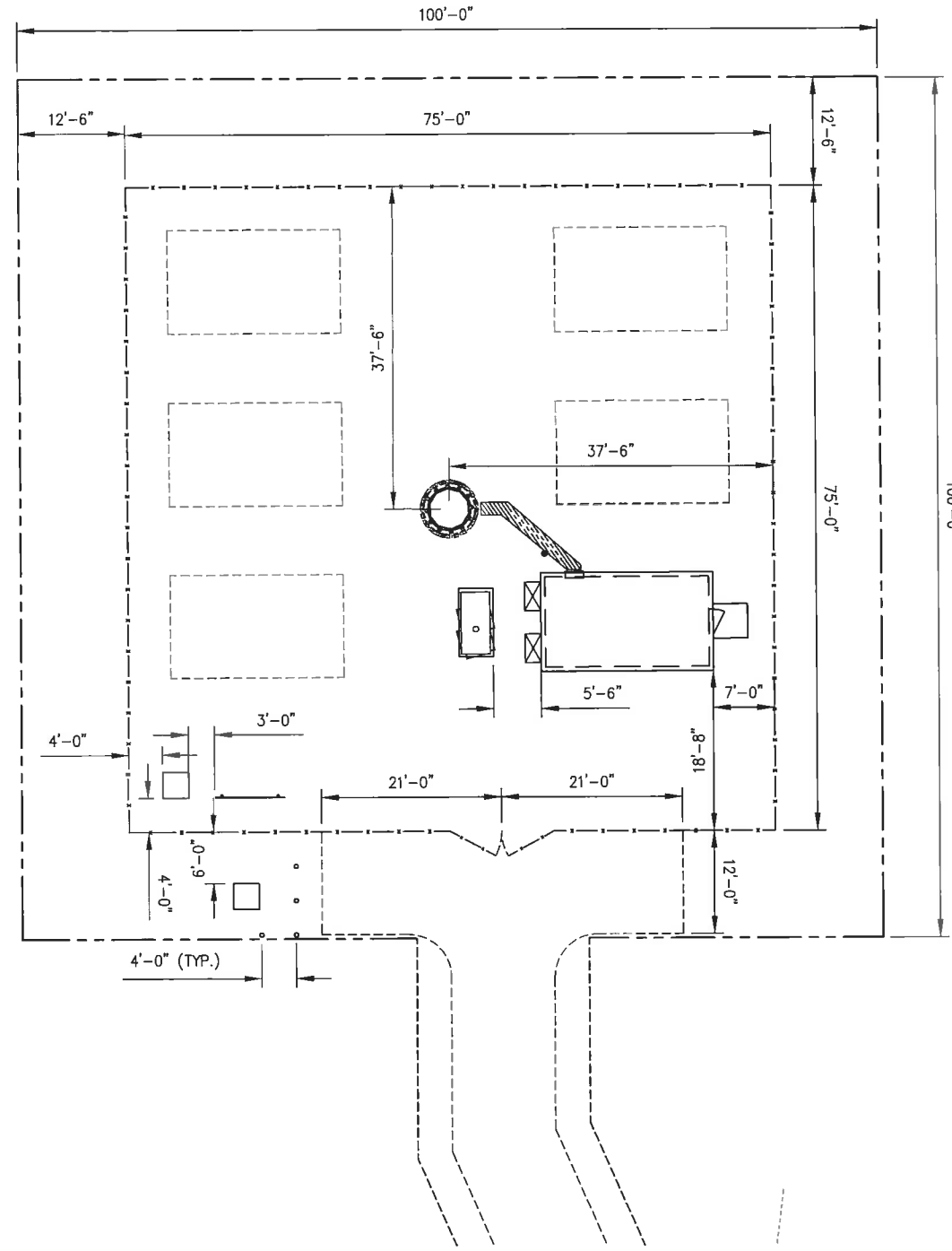
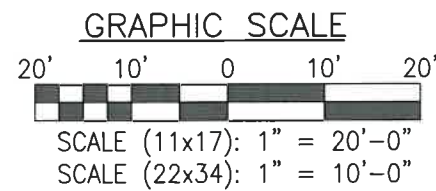
Drawing Number

**Z2**

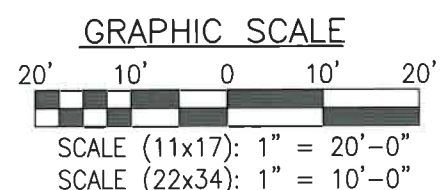
PROPOSED NORTH ATLANTIC TOWERS 100'-0"x100'-0" LEASE AREA



1 ENLARGED SITE PLAN  
SCALE:



2 STAKING PLAN  
SCALE:

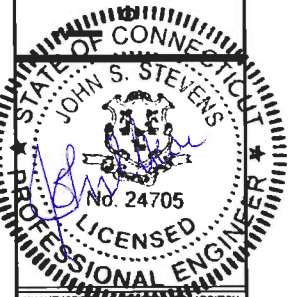


- GENERAL NOTES:
1. LOCATION OF PROPOSED ACCESS ROAD BASED ON FIELD VISIT BY INFINIGY ENGINEERING ON 1/19/2012
  2. EXISTING CONDITIONS INFORMATION OBTAINED FROM LIMITED TOPOGRAPHIC FIELD SURVEY COMPLETED BY INFINIGY SURVEYING ON 1/31/2012
  3. WETLAND DELINEATION COMPLETED BY INFINIGY ENGINEERING ON 1/21/2012 DURING WINTER CONDITIONS

- SITE CONSTRUCTION NOTES:
- GRASS AND MULCH ALL DISTURBED AREAS

**infinigy**  
engineering

11 Herbert Drive  
Latham, NY 12110  
OFFICE: (518) 690-0790  
FAX: (518) 690-0793



UNAUTHORIZED ADDITION TO THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS

No.	Revised / Revision	App'd	Date
7	NEW ACCESS ROUTE	AJD	2/14/12
6	REVISED PER COMMENTS	AJD	10/11/11
5	REVISED PER COMMENTS	EXM	9/27/11
4	REVISED PER COMMENTS	EXM	9/23/11
3	ADDED EASC and SWM	JWC	9/19/11
2	REVISED PER COMMENTS	AJD	5/23/11
1	REVISED PER COMMENTS	WER	3/11/11
0	ISSUED FOR REVIEW	BPM	1/19/11

Drawn: BPM Date: 3/11/11  
Designed: AJD Date: 3/11/11  
Checked: AJD Date: 3/11/11

Project Number: 228-064

Project Title:  
**WOODSTOCK CT1182**  
ROUTE 198  
WOODSTOCK, CT 06281

Prepared For:  
**NORTH ATLANTIC TOWERS**

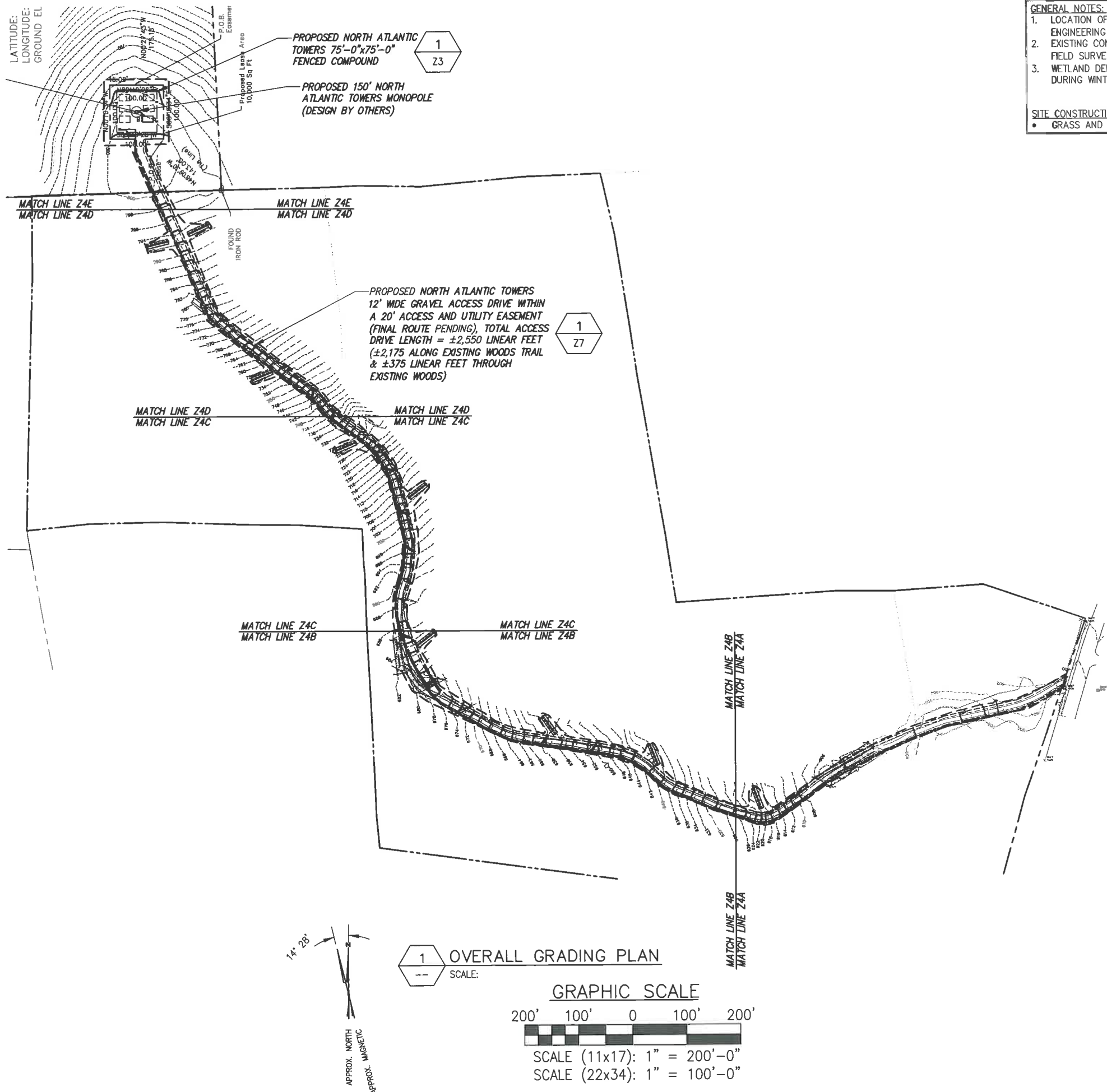
THIS DOCUMENT IS THE DESIGN PROPERTY AND COPYRIGHT OF INFINIGY ENGINEERING, P.L.C. AND FOR THE EXCLUSIVE USE BY THE TITLE CLIENT. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT OF THE CREATOR IS STRICTLY PROHIBITED.

Drawing Scale:  
AS NOTED

Date:  
9/27/11

Drawing Title:  
**ENLARGED SITE PLAN**

Drawing Number:  
**23**

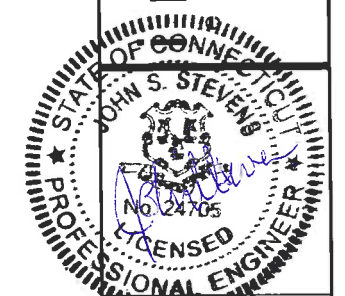


**GENERAL NOTES:**

1. LOCATION OF PROPOSED ACCESS ROAD BASED ON FIELD VISIT BY INFINIGY ENGINEERING ON 1/19/2012
2. EXISTING CONDITIONS INFORMATION OBTAINED FROM LIMITED TOPOGRAPHIC FIELD SURVEY COMPLETED BY INFINIGY SURVEYING ON 1/31/2012
3. WETLAND DELINEATION COMPLETED BY INFINIGY ENGINEERING ON 1/21/2012 DURING WINTER CONDITIONS

**SITE CONSTRUCTION NOTES:**

- GRASS AND MULCH ALL DISTURBED AREAS



No.	Submittal / Revision	App'd	Date
7	NEW ACCESS ROUTE	AJD	2/14/12
6	REVISED PER COMMENTS	AJD	10/11/11
5	REVISED PER COMMENTS	EKM	9/27/11
4	REVISED PER COMMENTS	EKM	9/23/11
3	ADDED EASC and SWM	JWC	9/19/11
2	REVISED PER COMMENTS	AJD	5/23/11
1	REVISED PER COMMENTS	MER	3/11/11
0	ISSUED FOR REVIEW	BPM	1/19/11

Drawn: BPM Date: 3/11/11  
 Designed: AJD Date: 3/11/11  
 Checked: AJD Date: 3/11/11

Project Number: 228-064

Project Title: WOODSTOCK CT1182

ROUTE 188 WOODSTOCK, CT 06281

Prepared For: NORTH ATLANTIC TOWERS

THIS DOCUMENT IS THE DESIGN PROPERTY AND NOT BE LOANED, REPRODUCED, COPIED, OR FOR THE EXCLUSIVE USE BY THE TITLE CLIENT. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT OF THE CREATOR IS STRICTLY PROHIBITED.

Drawing Scale: AS NOTED

Date: 9/27/11

Drawing Title: GRADING PLAN

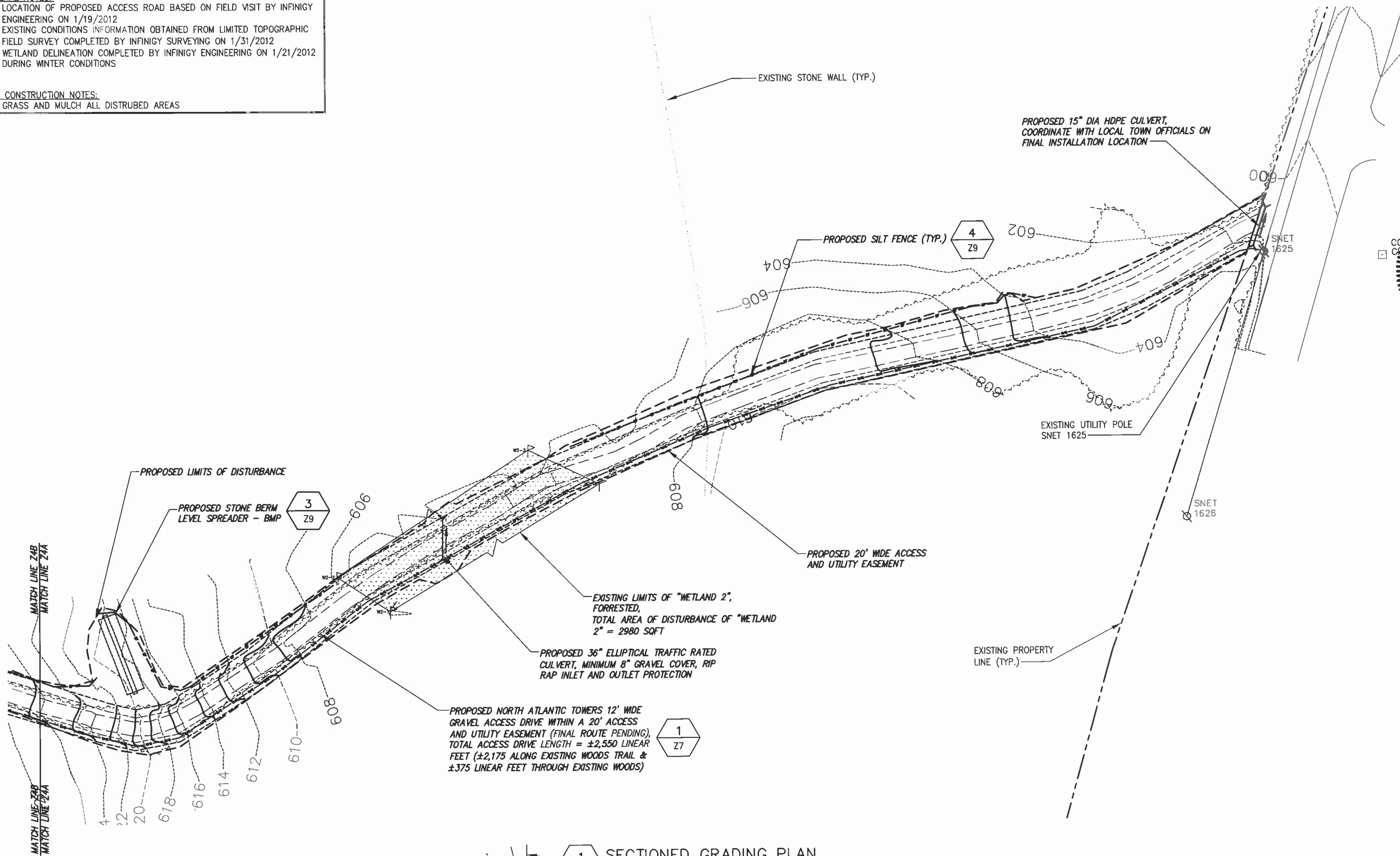
Drawing Number: Z4

**infinigy** engineering

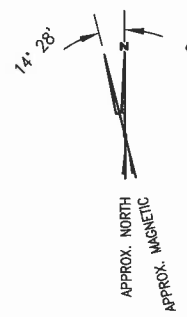
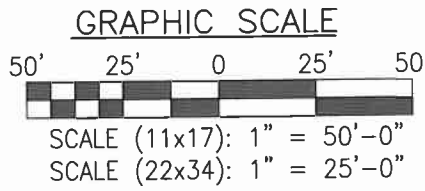
11 Herbert Drive  
 Latham, NY 12110  
 OFFICE: (518) 690-0790  
 FAX: (518) 690-0793

- GENERAL NOTES:**
1. LOCATION OF PROPOSED ACCESS ROAD BASED ON FIELD VISIT BY INFINGY ENGINEERING ON 1/19/2012
  2. EXISTING CONDITIONS INFORMATION OBTAINED FROM LIMITED TOPOGRAPHIC FIELD SURVEY COMPLETED BY INFINGY SURVEYING ON 1/31/2012
  3. WETLAND DELINEATION COMPLETED BY INFINGY ENGINEERING ON 1/21/2012 DURING WINTER CONDITIONS

- SITE CONSTRUCTION NOTES:**
- GRASS AND MULCH ALL DISTURBED AREAS

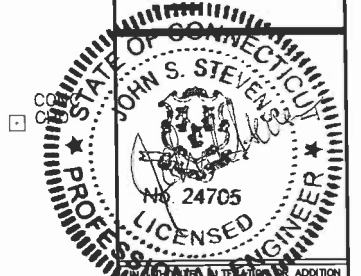


**1** SECTIONED GRADING PLAN  
SCALE:



**infingy**  
engineering

11 Herbert Drive  
Latham, NY 12110  
OFFICE: (518) 690-0790  
FAX: (518) 690-0793



REVISIONS

No.	Submitted / Revision	App'd	Date	DESCRIPTION
7	NEW ACCESS ROUTE	AJD	2/14/12	ADDITIONAL REVISIONS TO ACCOMMODATE VIOLATION OF APPLICABLE FEDERAL AND/OR LOCAL LAWS
6	REVISED PER COMMENTS	AJD	10/11/11	
5	REVISED PER COMMENTS	EJM	9/27/11	
4	REVISED PER COMMENTS	EJM	9/23/11	
3	ADDED EASC and SWM	JMC	8/18/11	
2	REVISED PER COMMENTS	AJD	5/23/11	
1	REVISED PER COMMENTS	MER	3/11/11	
0	ISSUED FOR REVIEW	BPM	1/19/11	

Drawn: BPM Date: 3/11/11  
Designed: AJD Date: 3/11/11  
Checked: AJD Date: 3/11/11

Project Number: 228-084

Project Title:  
**WOODSTOCK CT1182**  
ROUTE 198  
WOODSTOCK, CT 06281

Prepared For:  
**NORTH ATLANTIC TOWERS**

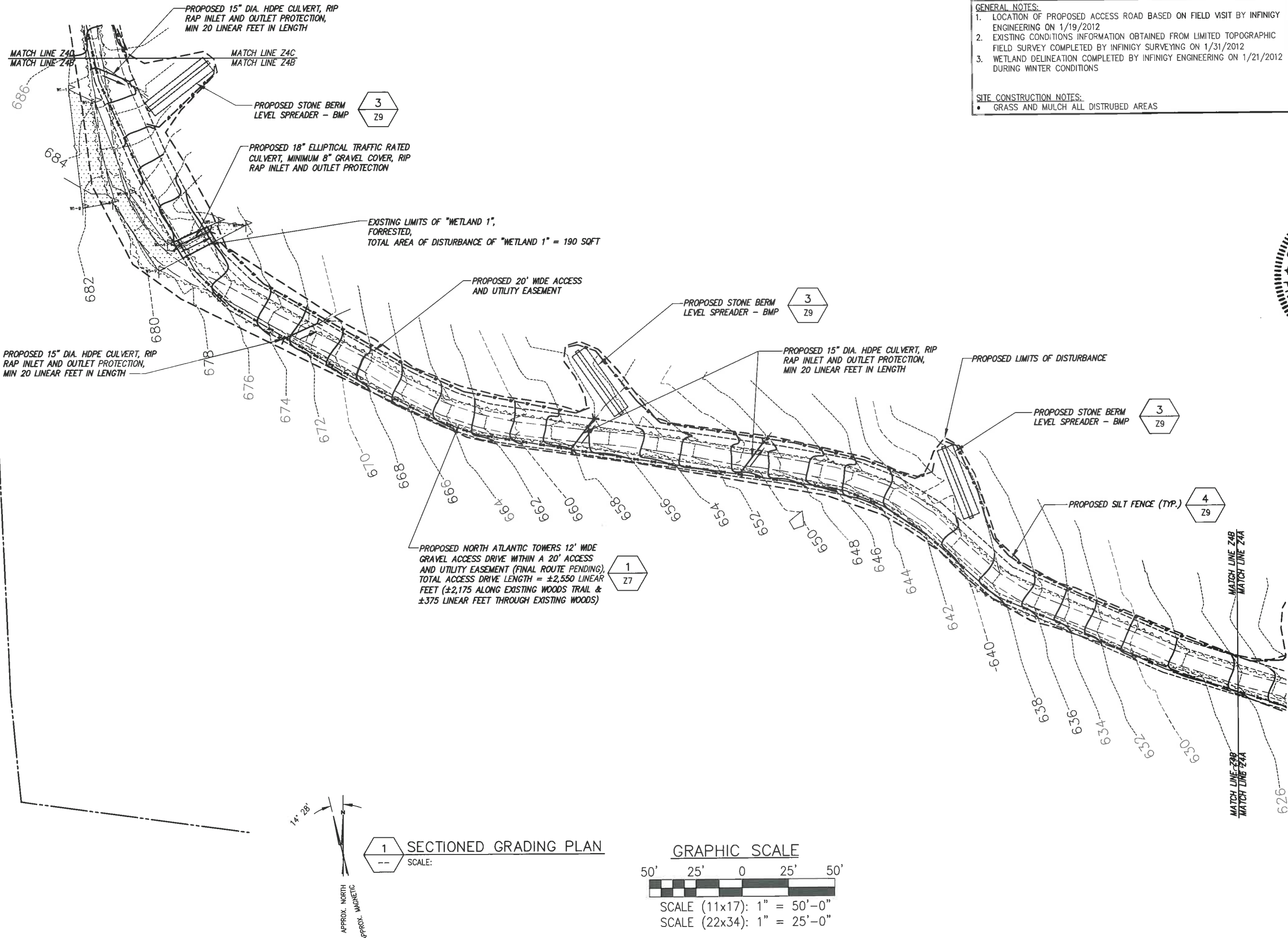
THIS DOCUMENT IS THE DESIGN PROPERTY AND COPYRIGHT OF INFINGY ENGINEERING, PLLC. ANY REPRODUCTION OR USE WITHOUT EXPRESS WRITTEN CONSENT OF THE CREATOR IS STRICTLY PROHIBITED.

Drawing Scale:  
AS NOTED

Date:  
9/27/11

Drawing Title:  
**ACCESS ROAD GRADING PLAN**

Drawing Number:  
**Z4A**

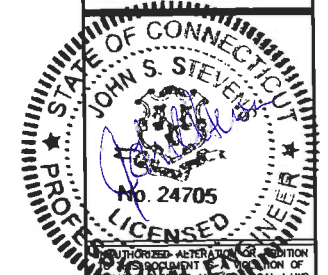


**GENERAL NOTES:**

1. LOCATION OF PROPOSED ACCESS ROAD BASED ON FIELD VISIT BY INFINIGY ENGINEERING ON 1/19/2012
2. EXISTING CONDITIONS INFORMATION OBTAINED FROM LIMITED TOPOGRAPHIC FIELD SURVEY COMPLETED BY INFINIGY SURVEYING ON 1/31/2012
3. WETLAND DELINEATION COMPLETED BY INFINIGY ENGINEERING ON 1/21/2012 DURING WINTER CONDITIONS

**SITE CONSTRUCTION NOTES:**

- GRASS AND MULCH ALL DISTURBED AREAS



No.	Submitted / Revision	App'd	Date
7	NEW ACCESS ROUTE	AJD	2/14/12
6	REVISED PER COMMENTS	AJD	10/11/11
5	REVISED PER COMMENTS	EJM	9/27/11
4	REVISED PER COMMENTS	EJM	9/23/11
3	ADDED EASC and SWM	JWC	9/19/11
2	REVISED PER COMMENTS	AJD	9/23/11
1	REVISED PER COMMENTS	MER	3/11/11
0	ISSUED FOR REVIEW	BPM	1/19/11

Drawn: BPM Date: 3/11/11  
 Designed: AJD Date: 3/11/11  
 Checked: AJD Date: 3/11/11

Project Number  
228-084

Project Title  
**WOODSTOCK CT1182**  
 ROUTE 198  
 WOODSTOCK, CT 06281

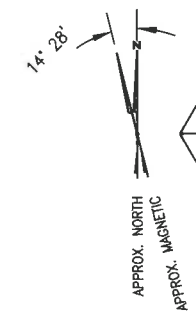
Prepared For  

 THIS DOCUMENT IS THE DESIGN PROPERTY AND COPYRIGHT OF NORTH ATLANTIC TOWERS. IT IS TO BE USED ONLY BY THE CLIENT FOR THE PROJECT AND SITE SPECIFICALLY IDENTIFIED IN THE TITLE. ANY REUSE, REPRODUCTION, OR USE WITHOUT THE EXPRESS WRITTEN CONSENT OF THE CREATOR IS STRICTLY PROHIBITED.

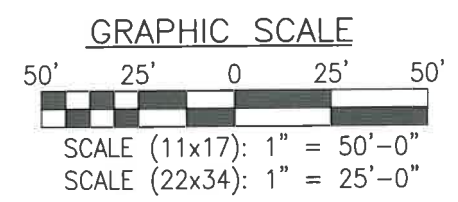
Drawing Scale:  
AS NOTED  
 Date:  
9/27/11

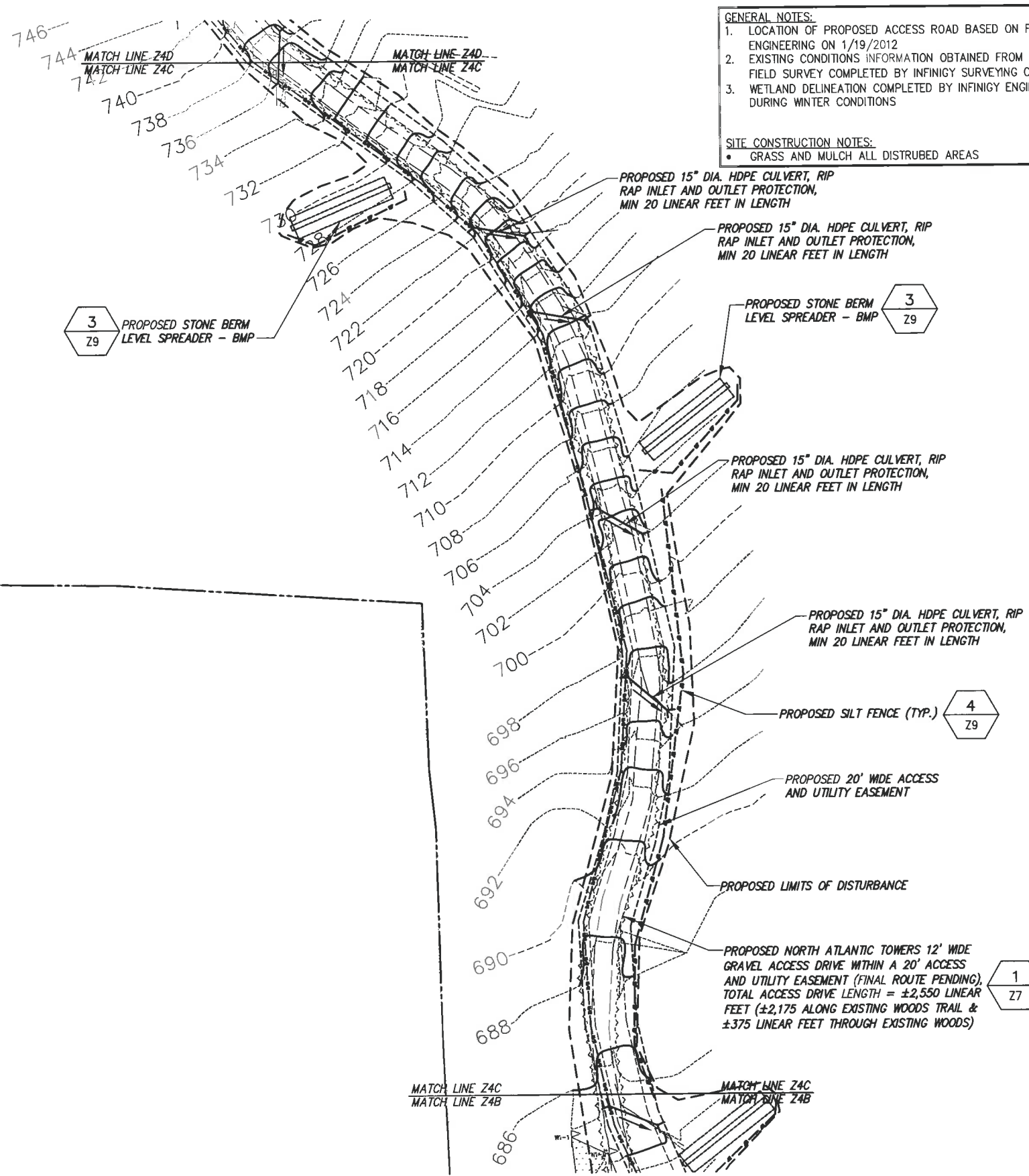
Drawing Title  
**ACCESS ROAD GRADING PLAN**

Drawing Number  
**Z4B**



1 SECTIONED GRADING PLAN  
SCALE:





**GENERAL NOTES:**

1. LOCATION OF PROPOSED ACCESS ROAD BASED ON FIELD VISIT BY INFINIGY ENGINEERING ON 1/19/2012
2. EXISTING CONDITIONS INFORMATION OBTAINED FROM LIMITED TOPOGRAPHIC FIELD SURVEY COMPLETED BY INFINIGY SURVEYING ON 1/31/2012
3. WETLAND DELINEATION COMPLETED BY INFINIGY ENGINEERING ON 1/21/2012 DURING WINTER CONDITIONS

**SITE CONSTRUCTION NOTES:**

- GRASS AND MULCH ALL DISTURBED AREAS

3  
29  
PROPOSED STONE BERM  
LEVEL SPREADER - BMP

PROPOSED 15" DIA. HDPE CULVERT, RIP  
RAP INLET AND OUTLET PROTECTION,  
MIN 20 LINEAR FEET IN LENGTH

3  
29

PROPOSED 15" DIA. HDPE CULVERT, RIP  
RAP INLET AND OUTLET PROTECTION,  
MIN 20 LINEAR FEET IN LENGTH

PROPOSED 15" DIA. HDPE CULVERT, RIP  
RAP INLET AND OUTLET PROTECTION,  
MIN 20 LINEAR FEET IN LENGTH

PROPOSED SILT FENCE (TYP.)

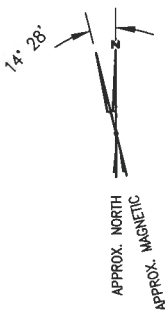
4  
29

PROPOSED 20' WIDE ACCESS  
AND UTILITY EASEMENT

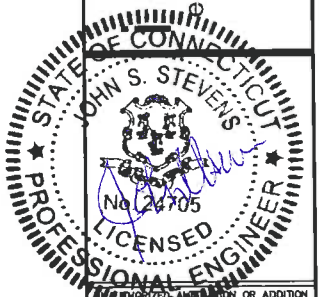
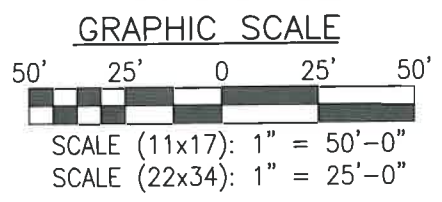
PROPOSED LIMITS OF DISTURBANCE

PROPOSED NORTH ATLANTIC TOWERS 12' WIDE  
GRAVEL ACCESS DRIVE WITHIN A 20' ACCESS  
AND UTILITY EASEMENT (FINAL ROUTE PENDING),  
TOTAL ACCESS DRIVE LENGTH = ±2,550 LINEAR  
FEET (±2,175 ALONG EXISTING WOODS TRAIL &  
±375 LINEAR FEET THROUGH EXISTING WOODS)

1  
27



1 SECTIONED GRADING PLAN  
SCALE:



REVISIONS

No.	Submittal / Revision	App'd	Date
7	NEW ACCESS ROUTE	AJD	2/14/12
6	REVISED PER COMMENTS	AJD	10/11/11
5	REVISED PER COMMENTS	EXM	8/27/11
4	REVISED PER COMMENTS	EXM	8/23/11
3	ADDED E&SC and SWM	JWC	8/18/11
2	REVISED PER COMMENTS	AJD	5/23/11
1	REVISED PER COMMENTS	MER	3/11/11
0	ISSUED FOR REVIEW	BPM	1/18/11

Drawn: BPM Date: 3/11/11  
Designed: AJD Date: 3/11/11  
Checked: AJD Date: 3/11/11

Project Number  
228-064

Project Title  
**WOODSTOCK  
CT1182**

ROUTE 198  
WOODSTOCK, CT 06281

Prepared For

**NORTH ATLANTIC  
TOWERS**

THIS DOCUMENT IS THE DESIGN PROPERTY AND COPYRIGHT OF INFINIGY ENGINEERING. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE EXPRESS WRITTEN CONSENT OF THE CREATOR. SUCH VIOLATION IS STRICTLY PROHIBITED.

Drawing Scale:  
AS NOTED

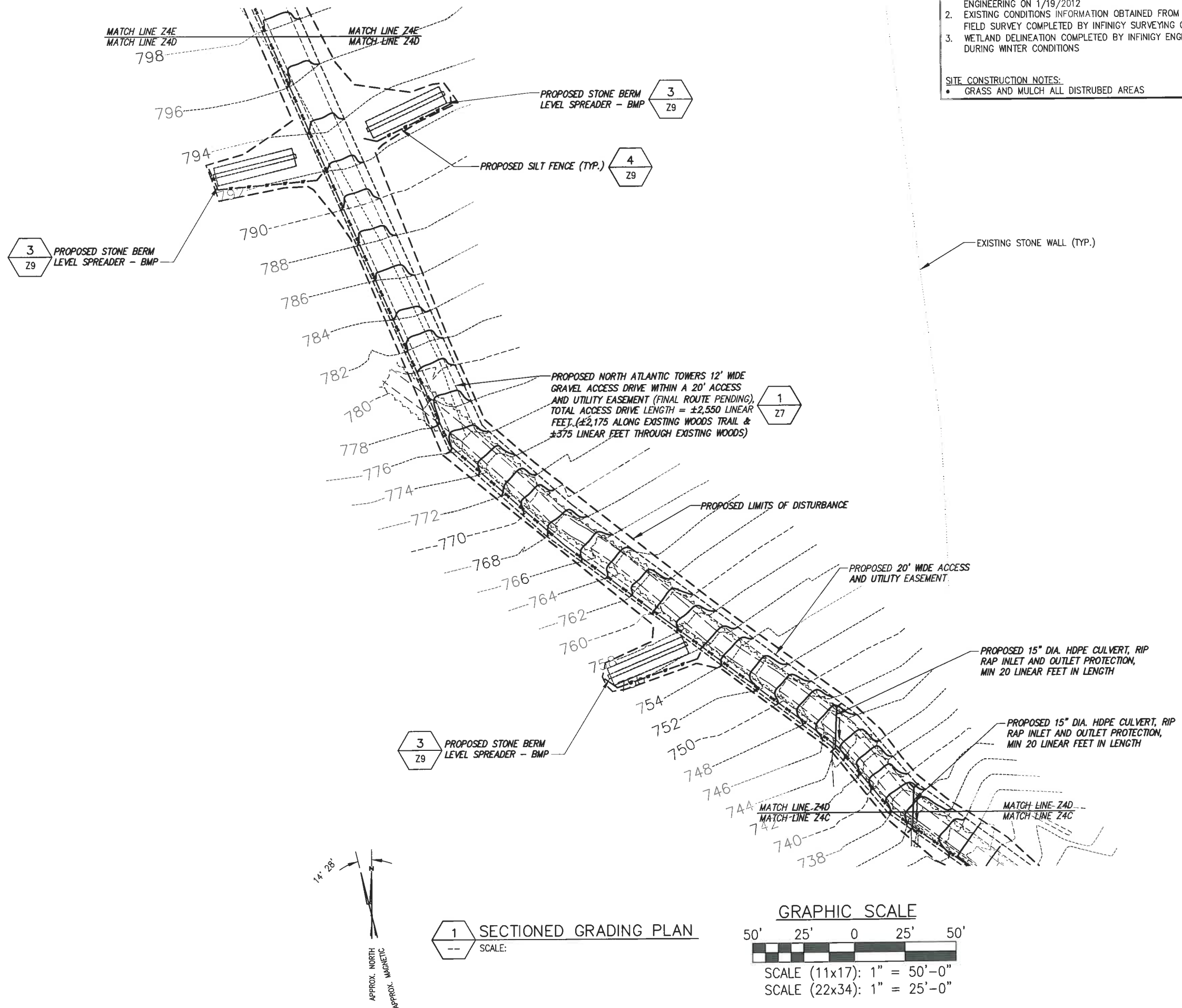
Date:  
8/27/11

Drawing Title  
**ACCESS  
ROAD  
GRADING  
PLAN**

Drawing Number  
**Z4C**

**infinigy**  
engineering

11 Herbert Drive  
Latham, NY 12110  
OFFICE: (518) 690-0790  
FAX: (518) 690-0793

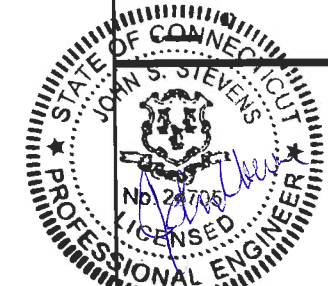


**GENERAL NOTES:**

1. LOCATION OF PROPOSED ACCESS ROAD BASED ON FIELD VISIT BY INFINGY ENGINEERING ON 1/19/2012
2. EXISTING CONDITIONS INFORMATION OBTAINED FROM LIMITED TOPOGRAPHIC FIELD SURVEY COMPLETED BY INFINGY SURVEYING ON 1/31/2012
3. WETLAND DELINEATION COMPLETED BY INFINGY ENGINEERING ON 1/21/2012 DURING WINTER CONDITIONS

**SITE CONSTRUCTION NOTES:**

- GRASS AND MULCH ALL DISTURBED AREAS



UNAUTHORIZED ALTERATION OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS

No.	Submitted / Revision	App'd	Date
7	NEW ACCESS ROUTE	AJD	2/14/12
6	REVISED PER COMMENTS	AJD	10/11/11
5	REVISED PER COMMENTS	EKM	9/27/11
4	REVISED PER COMMENTS	EKM	9/23/11
3	ADDED EASC and SIM	JWC	9/19/11
2	REVISED PER COMMENTS	AJD	5/23/11
1	REVISED PER COMMENTS	NER	3/11/11
0	ISSUED FOR REVIEW	BPM	1/19/11

Drawn: BPM Date: 3/11/11  
 Designed: AJD Date: 3/11/11  
 Checked: AJD Date: 3/11/11

Project Number: 226-084

Project Title:  
**WOODSTOCK CT1182**  
 ROUTE 198  
 WOODSTOCK, CT 06281

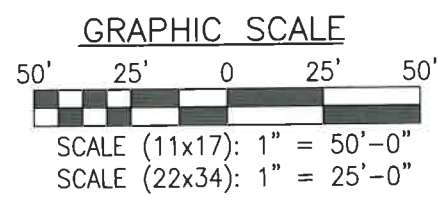
Prepared For:  
  
THIS DOCUMENT IS THE DESIGN PROPERTY AND NOT BE LOANED, REPRODUCED, COPIED, AND FOR THE EXCLUSIVE USE BY THE TITLE CLIENT. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT OF THE CREATOR IS STRICTLY PROHIBITED.

Drawing Scale:  
 AS NOTED  
 Date:  
 9/27/11

Drawing Title:  
**ACCESS ROAD GRADING PLAN**

Drawing Number:  
**Z4D**

SECTIONED GRADING PLAN  
 SCALE:

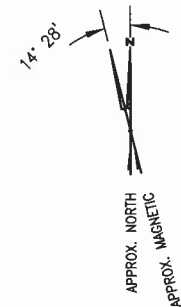
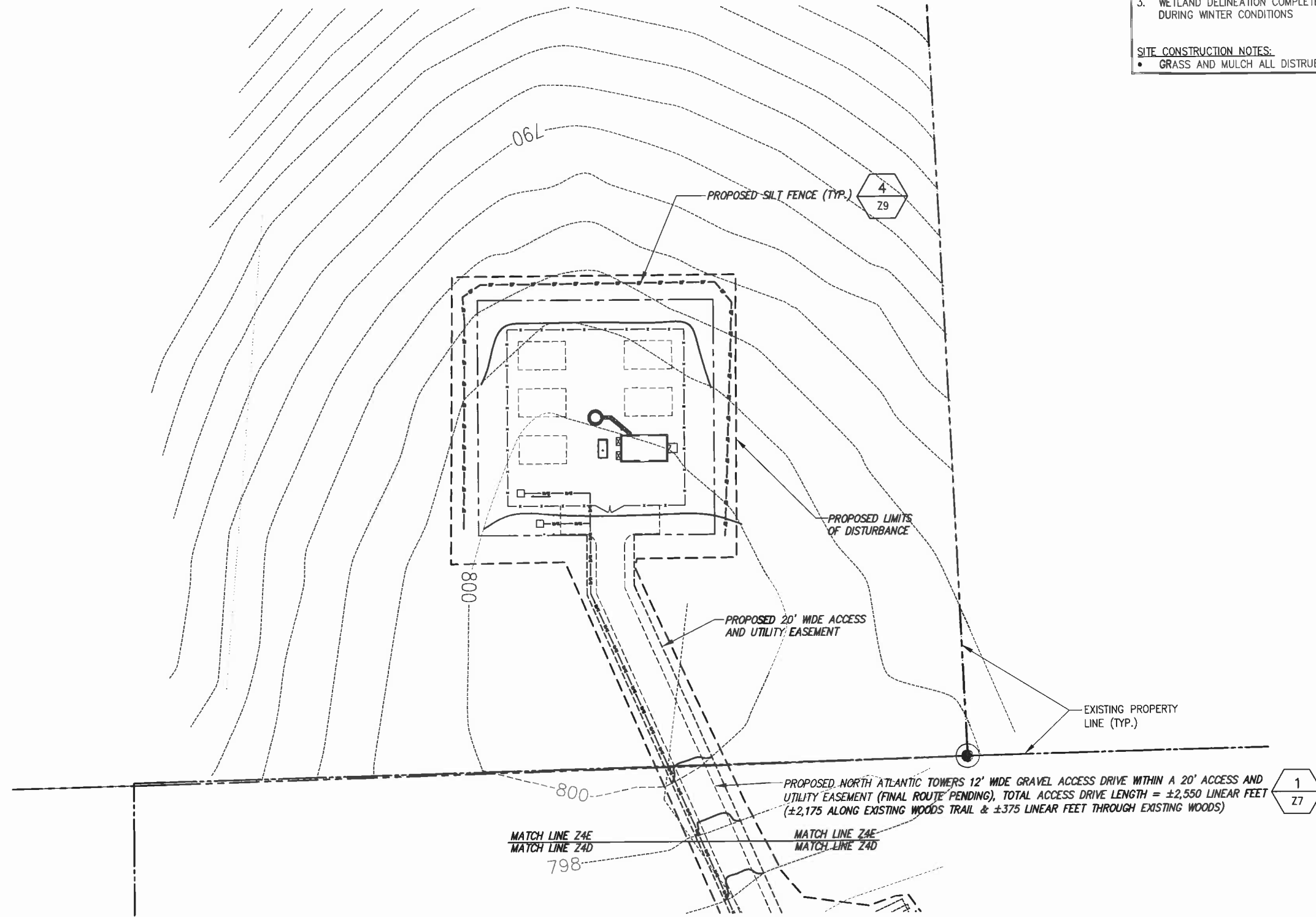


**GENERAL NOTES:**

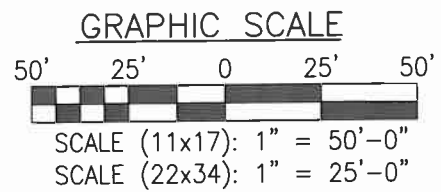
1. LOCATION OF PROPOSED ACCESS ROAD BASED ON FIELD VISIT BY INFINIGY ENGINEERING ON 1/19/2012
2. EXISTING CONDITIONS INFORMATION OBTAINED FROM LIMITED TOPOGRAPHIC FIELD SURVEY COMPLETED BY INFINIGY SURVEYING ON 1/31/2012
3. WETLAND DELINEATION COMPLETED BY INFINIGY ENGINEERING ON 1/21/2012 DURING WINTER CONDITIONS

**SITE CONSTRUCTION NOTES:**

- GRASS AND MULCH ALL DISTURBED AREAS



**SECTIONED GRADING PLAN**  
SCALE:



**infinigy**  
engineering

11 Herbert Drive  
Latham, NY 12110  
OFFICE: (518) 690-0790  
FAX: (518) 690-0793



UNLESS OTHERWISE SPECIFIED, ALL REGULATIONS REFERRED TO IN THIS DOCUMENT SHALL BE THE MOST RECENT EDITIONS OF ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS.

No.	Submit / Revision	App'd	Date
7	NEW ACCESS ROUTE	AJD	2/14/12
6	REVISED PER COMMENTS	AJD	10/11/11
5	REVISED PER COMMENTS	EJM	9/27/11
4	REVISED PER COMMENTS	EJM	9/23/11
3	ADDED EASC and SIM	JWC	9/18/11
2	REVISED PER COMMENTS	AJD	5/23/11
1	REVISED PER COMMENTS	MEK	3/11/11
0	ISSUED FOR REVIEW	BPM	1/18/11

Drawn: BPM Date: 3/11/11  
Designed: AJD Date: 3/11/11  
Checked: AJD Date: 3/11/11

Project Number  
**226-064**

Project Title  
**WOODSTOCK CT1182**

**ROUTE 188**  
**WOODSTOCK, CT 06281**

Prepared For

**NORTH ATLANTIC TOWERS**

THIS DOCUMENT IS THE PROPERTY OF INFINIGY ENGINEERING, PLLC AND FOR THE EXCLUSIVE USE OF THE CLIENT. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT OF THE CREATOR IS STRICTLY PROHIBITED.

Drawing Scale:  
**AS NOTED**

Date:  
**9/27/11**

Drawing Title  
**ACCESS ROAD GRADING PLAN**

Drawing Number  
**Z4E**



**GRADING & EXCAVATING NOTES:**

- ALL EXCAVATIONS ON WHICH CONCRETE IS TO BE PLACED SHALL BE SUBSTANTIALLY HORIZONTAL ON UNDISTURBED AND UNFROZEN SOIL AND BE FREE FROM LOOSE MATERIAL AND EXCESS GROUNDWATER. DEWATERING FOR EXCESS GROUNDWATER SHALL BE PROVIDED IF REQUIRED.
- CONCRETE FOUNDATIONS SHALL NOT BE PLACED ON ORGANIC MATERIAL. IF SOUND SOIL IS NOT REACHED AT THE DESIGNATED EXCAVATION DEPTH, THE UNSATISFACTORY SOIL SHALL BE EXCAVATED TO ITS FULL DEPTH AND EITHER BE REPLACED WITH MECHANICALLY COMPACTED GRANULAR MATERIAL OR THE EXCAVATION BE FILLED WITH CONCRETE OF THE SAME QUALITY SPECIFIED FOR THE FOUNDATION.
- ANY EXCAVATION OVER THE REQUIRED DEPTH SHALL BE FILLED WITH EITHER MECHANICALLY COMPACTED GRANULAR MATERIAL OR CONCRETE OF THE SAME QUALITY SPECIFIED FOR THE FOUNDATION. CRUSHED STONE MAY BE USED TO STABILIZE THE BOTTOM OF THE EXCAVATION. STONE, IF USED, SHALL NOT BE USED AS COMPILING CONCRETE THICKNESS.
- AFTER COMPLETION OF THE FOUNDATION AND OTHER CONSTRUCTION BELOW GRADE, AND BEFORE BACKFILLING, ALL EXCAVATIONS SHALL BE CLEAN OF UNSUITABLE MATERIAL SUCH AS VEGETATION, TRASH, DEBRIS, AND SO FORTH.
- USE APPROVED MATERIALS CONSISTING OF EARTH, LOAM, SANDY CLAY, SAND -BE FREE FROM CLODS OR STONES OVER 2-1/2" MAXIMUM DIMENSIONS -BE PLACED IN 6" LAYERS AND COMPACTED TO 95% STANDARD PROCTOR EXCEPT IN GRASSED/LANDSCAPED AREAS, WHERE 90% STANDARD PROCTOR
- REMOVE ALL VEGETATION, TOPSOIL, DEBRIS, WET AND UNSATISFACTORY SOIL MATERIALS, OBSTRUCTIONS, AND DELETERIOUS MATERIALS FROM GROUND SURFACE PRIOR TO PLACING FILLS. PLOW, STRIP, OR BREAK UP SLOPED SURFACES STEEPER THAN THAN 1 VERTICAL TO 4 HORIZONTAL SO FILL MATERIAL WILL BOND WITH EXISTING SURFACE. WHEN SUBGRADE OR EXISTING GROUND SURFACE TO RECEIVE FILL HAS A DENSITY LESS THAN THAT REQUIRED FOR FILL, BREAK UP GROUND SURFACE TO DEPTH REQUIRED, PULVERIZE, MOISTURE-CONDITION OR AERATE SOIL AND RECOMPACT TO REQUIRED DENSITY.
- PROTECT EXISTING GRAVEL SURFACING AND SUBGRADE IN AREAS WHERE EQUIPMENT LOADS WILL OPERATE. USE PLANKING OR OTHER SUITABLE MATERIALS DESIGNED TO SPREAD EQUIPMENT LOADS. REPAIR DAMAGE TO EXISTING GRAVEL SURFACING OR SUBGRADE WHERE SUCH DAMAGE IS DUE TO THE CONTRACTOR'S OPERATIONS. DAMAGED GRAVEL SURFACING SHALL BE RESTORED TO MATCH THE ADJACENT UNDAMAGED GRAVEL SURFACING AND SHALL BE OF THE SAME THICKNESS.
- REPLACE EXISTING GRAVEL SURFACING ON AREAS FROM WHICH GRAVEL SURFACING IS REMOVED DURING CONSTRUCTION OPERATIONS. GRAVEL SURFACING SHALL BE REPLACED TO MATCH EXISTING ADJACENT GRAVEL SURFACING AND SHALL BE OF THE SAME THICKNESS. SURFACES OF GRAVEL SURFACING SHALL BE FREE FROM CORRUGATIONS AND WAVES. EXISTING GRAVEL SURFACING MAY BE EXCAVATED SEPARATELY AND REUSED IF INJURIOUS AMOUNTS OF EARTH, ORGANIC MATTER, OR OTHER DELETERIOUS MATERIALS ARE REMOVED PRIOR TO REUSE. FURNISH ALL ADDITIONAL GRAVEL RESURFACING MATERIAL AS REQUIRED. BEFORE GRAVEL SURFACING IS REPLACED, SUBGRADE SHALL BE GRADED TO CONFORM TO REQUIRED SUBGRADE ELEVATIONS, AND LOOSE OR DISTURBED MATERIALS SHALL BE THOROUGHLY COMPACTED. DEPRESSIONS IN THE SUBGRADE SHALL BE FILLED AND COMPACTED WITH APPROVED SELECTED MATERIAL. GRAVEL SURFACING MATERIAL MAY BE USED FOR FILLING DEPRESSIONS IN THE SUBGRADE, SUBJECT TO ENGINEER'S APPROVAL.
- DAMAGE TO EXISTING STRUCTURES AND UTILITIES RESULTING FROM CONTRACTOR'S NEGLIGENCE SHALL BE REPAIRED/REPLACED TO OWNER'S SATISFACTION AT CONTRACTOR'S EXPENSE.
- CONTRACTOR SHALL COORDINATE THE CONSTRUCTION SCHEDULE WITH PROPERTY OWNER SO AS TO AVOID INTERRUPTIONS TO PROPERTY OWNER'S OPERATIONS.
- ENSURE POSITIVE DRAINAGE DURING AND AFTER COMPLETION OF CONSTRUCTION.
- ALL CUT AND FILL SLOPES SHALL BE MAXIMUM 2 HORIZONTAL TO 1 VERTICAL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR MONITORING SITE VEHICLE TRAFFIC AS TO NOT ALLOW VEHICLES LEAVING THE SITE TO TRACK MUD ONTO PUBLIC STREETS. THE CONTRACTOR IS RESPONSIBLE FOR CLEANING PUBLIC STREETS DUE TO MUDDY VEHICLES LEAVING THE SITE.

MULCH APPLICATION RATES				
MATERIAL	RATE / ACRE	DEPTH	COVERAGE	ANCHORING
HAY/STRAW	90-100 BALES	4" (WINTER)	90% SURFACE	*HYDROMULCH
WOOD CHIPS	10-20 TONS	2" TO 6"	90% SURFACE	NOT NEEDED
COMPOST	150-450 CYDS	2" TO 4"	100% SURFACE	NOT NEEDED
HYDROMULCH	2,000 LBS	1/4" TO 1/2"	100% SURFACE	**TACKIFIER

- NOTES:**
- \* HYDROMULCH ANCHORING HAY/STRAW MUST BE APPLIED AT 80 - 100 LBS PER ACRE
  - \*\* ADD TACKIFIER PER MANUFACTURER RECOMMENDATIONS IF NOT INCLUDED IN HYDROMULCH

**GENERAL EROSION & SEDIMENT CONTROL NOTES:**

- THE SOIL EROSION AND SEDIMENT CONTROL MEASURES AND DETAILS AS SHOWN HERIN AND STIPULATED WITHIN STATE STANDARDS SHALL BE FOLLOWED AND INSTALLED IN A MANNER SO AS TO MINIMIZE SEDIMENT LEAVING THE SITE.
- PRIOR TO COMMENCING LAND DISTURBANCE ACTIVITY, THE LIMITS OF LAND DISTURBANCE SHALL BE CLEARLY AND ACCURATELY DEMARCATED WITH STAKES, RIBBONS, OR OTHER APPROPRIATE MEANS.
- EROSION CONTROL DEVICES SHALL BE INSTALLED BEFORE GROUND DISTURBANCE OCCURS. THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM SHOWN ON THE APPROVED PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE FINAL PROPOSED DRAINAGE PATTERNS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACCOMPLISH EROSION CONTROL FOR ALL DRAINAGE PATTERNS CREATED AT VARIOUS STAGES DURING CONSTRUCTION. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
- THE LOCATION OF SOME OF THE EROSION CONTROL DEVICES MAY HAVE TO BE ALTERED FROM THAT SHOWN ON THE PLANS IF DRAINAGE PATTERNS DURING CONSTRUCTION ARE DIFFERENT FROM THE FINAL PROPOSED DRAINAGE PATTERNS. ANY DIFFICULTY IN CONTROLLING EROSION DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
- CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES UNTIL PERMANENT VEGETATION HAS BEEN ESTABLISHED. CONTRACTOR SHALL CLEAN OUT ALL SEDIMENT PONDS WHEN REQUIRED BY THE ENGINEER OR THE LOCAL JURISDICTION INSPECTOR. CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
- THE CONTRACTOR SHALL REMOVE ACCUMULATED SILT WHEN THE SILT IS WITHIN 12" OF THE TOP OF THE SILT FENCE.
- FAILURE TO INSTALL, OPERATE OR MAINTAIN ALL EROSION CONTROL MEASURES WILL RESULT IN ALL CONSTRUCTION BEING STOPPED ON THE JOB SITE UNTIL SUCH MEASURES ARE CORRECTED.
- SILT BARRIERS TO BE PLACED AT DOWNSTREAM TOE OF ALL CUT AND FILL SLOPES.
- ALL CUT AND FILL SLOPES MUST BE SURFACED ROUGHENED AND VEGETATED WITHIN SEVEN (7) DAYS OF THEIR CONSTRUCTION.
- CONTRACTOR SHALL REMOVE ALL EROSION & SEDIMENT CONTROL MEASURES AFTER COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER.
- THE ESCAPE OF SEDIMENT FROM THE SITE SHALL BE PREVENTED BY THE INSTALLATION OF EROSION CONTROL MEASURES AND PRACTICES PRIOR TO, OR CONCURRENT WITH, LAND-DISTURBING ACTIVITIES.

**STONE BERM LEVEL SPREADER NOTES**

- LEVEL SPREADER DIMENSIONS:**  
LEVEL SPREADER TROUGH MINIMUM DIMENSIONS = 30' LENGTH, 4' WIDTH, 2' HEIGHT
- LEVEL SPREADER SEQUENCING:**
- LEVEL SPREADERS TO BE CONSTRUCTED IMMEDIATELY AFTER CLEARING/GRUBBING FOR THE ROADWAY AND PRIOR TO INITIATION OF ANY LAND GRADING ACTIVITIES
  - LEVEL SPREADERS TO FUNCTION AS SEDIMENT DEVICES PRIOR TO INSTALLATION OF GRAVEL ROAD, AFTER WHICH THEY MUST BE CLEANED OF ACCUMULATED SEDIMENT AND RESTORED TO THEIR ORIGINAL DESIGN VOLUMES THEN IMMEDIATELY STABILIZED

- OPERATION AND MAINTENANCE REQUIREMENTS:**
- STORAGE AREA OF LEVEL SPREADERS TO BE INSPECTED ON AN BI-ANNUAL BASIS
  - ACCUMULATED SEDIMENTS TO BE REMOVED TO RESTORE ORIGINAL DESIGN DIMENSION
  - DISPOSAL OF SEDIMENTS MUST BE IN AN AREA AWAY FOR CONCENTRATED FLOWS
  - DISTURBED SOILS MUST BE IMMEDIATELY STABILIZED WITH GRASS SEED AND MULCH

**PROTECTED FORESTED BUFFER NOTES**

- OPERATION AND MAINTENANCE:**
- REMOVAL OF VEGETATION IN FORESTED BUFFERS BELOW LEVEL SPREADERS IS TO BE PROHIBITED FOR THE DURATION OF THE CURRENT AND FUTURE LEASE PERIODS
  - BUFFER AREAS ARE TO BE INSPECTED ANNUALLY FOR EVIDENCE OF CHANNELIZATION OR SOIL EROSION BY RUNOFF ORIGINATING FROM THE LEVEL SPREADERS AND FOR REMOVAL OF VEGETATION IN THE DESIGNATED BUFFER AREAS ON THE SITE PLANS

VEGETATIVE SCHEDULE				
	SPECIES	RATE/1000 S.F.	DATE	
TALL FESCUE GRASS		1.0#	APRIL 1 - OCTOBER 15	
SERICEA LESPEDEZA SEED BEARING HAY WITH OVERSEEDING WEEPING LOVEGRASS		140# 0.2#	OCTOBER 1 - MARCH 15 MARCH 15 - MAY 1	
FERTILIZER MIX				
APPLICATION	N, #/ACRE	P <sub>2</sub> O <sub>5</sub> , #/ACRE	K <sub>2</sub> O, #/ACRE	N, TOP DRESSING
1st	60 - 90	120 - 180	120 - 180	50
2nd	60	120	120	-

**NOTE:**  
- GRASS AND MULCH ALL DISTURBED AREAS WITHIN SEVEN(7) DAYS OF FINAL GRADING

**HYDRAULIC SEEDING EQUIPMENT**

WHEN HYDRAULIC SEEDING AND FERTILIZING EQUIPMENT IS USED, NO GRADING AND SHAPING OR SEEDBED PREPARATION WILL BE REQUIRED. THE FERTILIZER, SEED AND WOOD CELLULOSE FIBER MULCH WILL BE MIXED WITH WATER AND APPLIED IN A SLURRY. ALL SLURRY INGREDIENTS MUST BE COMBINED TO FORM A HOMOGENEOUS MIXTURE, AND SPREAD UNIFORMLY OVER THE AREA WITHIN ONE HOUR AFTER MIXTURE IS MADE. STRAW OR HAY MULCH AND ASPHALT EMULSION WILL BE APPLIED WITH BLOWER-TYPE MULCH SPREADING EQUIPMENT WITHIN 24 HOURS AFTER SEEDING, THE MULCH WILL BE SPREAD UNIFORMLY OVER THE AREA, LEAVING ABOUT 25 PERCENT OF THE GROUND SURFACE EXPOSED.

**CONVENTIONAL SEEDING EQUIPMENT**

GRADE, SHAPE AND SMOOTH WHERE NEEDED TO PROVIDE FOR SAFE EQUIPMENT OPERATION AT SEEDING TIME AND FOR MAINTENANCE PURPOSES. THE LIME AND FERTILIZER IN DRY FORM WILL BE SPREAD UNIFORMLY OVER THE AREA IMMEDIATELY BEFORE SEEDBED PREPARATION. A SEEDBED WILL BE PREPARED BY SCARIFYING TO A DEPTH OF 1 TO 4 INCHES AS DETERMINED ON SITE. THE SEEDBED MUST BE WELL PULVERIZED, SMOOTHED AND FIRMED. SEEDING WILL BE DONE WITH MULTIPACKER-SEEDER, DRILL, ROTARY SEEDER OR OTHER MECHANICAL OR HAND SEEDER. SEED WILL BE DISTRIBUTED UNIFORMLY OVER A FRESHLY PREPARED SEEDBED AND COVERED LIGHTLY. WITHIN 24 HOURS AFTER SEEDING, STRAW OR HAY MULCH WILL BE SPREAD UNIFORMLY OVER THE AREA, LEAVING ABOUT 25 PERCENT OF THE GROUND SURFACE EXPOSED. MULCH WILL BE SPREAD WITH BLOWER-TYPE MULCH EQUIPMENT OR BY HAND AND ANCHORED IMMEDIATELY AFTER IT IS SPREAD. A DISK HARROW WITH THE DISK SET STRAIGHT OR A SPECIAL PACKER DISK MAY BE USED TO PRESS THE MULCH INTO THE SOIL.

**PROJECTS WITH CT CONSTRUCTION STORMWATER GENERAL PERMIT COVERAGE CONSTRUCTION SEQUENCE/EROSION CONTROL NOTES**

ALL PERIMETER CONTROLS SHALL BE INSTALLED PRIOR TO INITIATING EARTH MOVING OPERATIONS. ALL SWALES SHALL BE INSTALLED EARLY IN THE CONSTRUCTION SEQUENCE (BEFORE ROUGH GRADING). ALL DITCHES, LEVEL SPREADERS, AND SWALES SHALL BE STABILIZED PRIOR TO RECEIVING RUNOFF. ALL ROADS AND PARKING LOTS SHALL BE STABILIZED WITHIN 72 HOURS OF ACHIEVING FINISHED GRADE. ALL CUT OR FILL SLOPES SHALL BE SEEDED/LOAMED WITHIN 24 HOURS OF ACHIEVING FINISHED GRADE. ALL EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EVERY 0.5" OF RAINFALL.

**LIMITS ON SIZE OF ALLOWABLE DISTURBED AREA:**

THE SMALLEST PRACTICAL AREA SHALL BE DISTURBED DURING CONSTRUCTION, BUT IN NO CASE SHALL EXCEED 5 ACRES AT ANY ONE TIME BEFORE PREVIOUSLY DISTURBED AREAS HAVE BEEN STABILIZED.

**DEFINITION OF STABLE:**

- AN AREA SHALL BE CONSIDERED STABLE IF ONE OF THE FOLLOWING HAS OCCURRED:
- BASE COURSE OF GRAVEL HAS BEEN INSTALLED IN AREAS TO BE PAVED OR TO BE GRAVEL ROADS.
  - A MINIMUM OF 85 PERCENT VEGETATED GROWTH HAS BEEN ESTABLISHED AND MAINTAINED.
  - A MINIMUM OF 3 INCHES OF NON-EROSIVE MATERIAL SUCH STONE OR RIPRAP HAS BEEN INSTALLED.
  - OR, ROLLED EROSION CONTROL PRODUCTS (RECPs) HAVE BEEN PROPERLY INSTALLED.

**TIME LIMIT OF EXPOSED SOIL:**

ALL AREAS IN THE PROPOSED PROJECT SHALL BE STABILIZED WITHIN 45 DAYS OF INITIAL DISTURBANCE.

**STANDARD WINTER NOTES (WHEN APPLICABLE):**

ALL PROPOSED VEGETATED AREAS THAT DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED BY SEEDING AND INSTALLING EROSION CONTROL BLANKETS ON SLOPES GREATER THAN 3:1, AND SEEDING AND PLACING 3 TO 4 TONS OF MULCH PER ACRE, SECURED WITH ANCHORED NETTING, ELSEWHERE. THE INSTALLATION OF EROSION CONTROL BLANKETS OR MULCH AND NETTING SHALL NOT OCCUR OVER ACCUMULATED SNOW OR ON FROZEN GROUND AND SHALL BE COMPLETED IN ADVANCE OF THAW OR SPRING MELT EVENTS.

ALL DITCHES OR SWALES WHICH DO NOT EXHIBIT A MINIMUM OF 85 PERCENT VEGETATIVE GROWTH BY OCTOBER 15, OR WHICH ARE DISTURBED AFTER OCTOBER 15, SHALL BE STABILIZED TEMPORARILY WITH STONE OR EROSION CONTROL BLANKETS APPROPRIATE FOR THE DESIGN FLOW CONDITIONS.

AFTER NOVEMBER 15, INCOMPLETE ROADWAYS, WHERE WORK HAS STOPPED FOR THE WINTER SEASON, SHALL BE PROTECTED WITH A MINIMUM OF 3 INCHES OF CRUSHED GRAVEL



**infinity engineering**  
11 Herbert Drive  
Latham, NY 12110  
OFFICE: (518) 690-0790  
FAX: (518) 690-0793

No.	Submitted / Revision	Appr'd	Date
7	NEW ACCESS ROUTE	AJD	2/14/12
6	REVISED PER COMMENTS	AJD	10/11/11
5	REVISED PER COMMENTS	EKM	9/27/11
4	REVISED PER COMMENTS	EKM	9/23/11
3	ADDED EASC and SHM	JWC	9/19/11
2	REVISED PER COMMENTS	AJD	9/23/11
1	REVISED PER COMMENTS	MEP	3/11/11
0	ISSUED FOR REVIEW	BPM	1/19/11

Drawn: BPM Date: 3/11/11  
Designed: AJD Date: 3/11/11  
Checked: AJD Date: 3/11/11

Project Number  
226-084

Project Title  
**WOODSTOCK CT1182**

ROUTE 198  
WOODSTOCK, CT 06281

Prepared For

**NORTH ATLANTIC TOWERS**

THIS DOCUMENT IS THE DESIGN PROPERTY AND NOT BE LOANED, REPRODUCED, COPIED, OR FOR THE EXCLUSIVE USE BY THE TITLE CLIENT. ANY REPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT OF THE CREATOR IS STRICTLY PROHIBITED.

Drawing Scale:  
AS NOTED

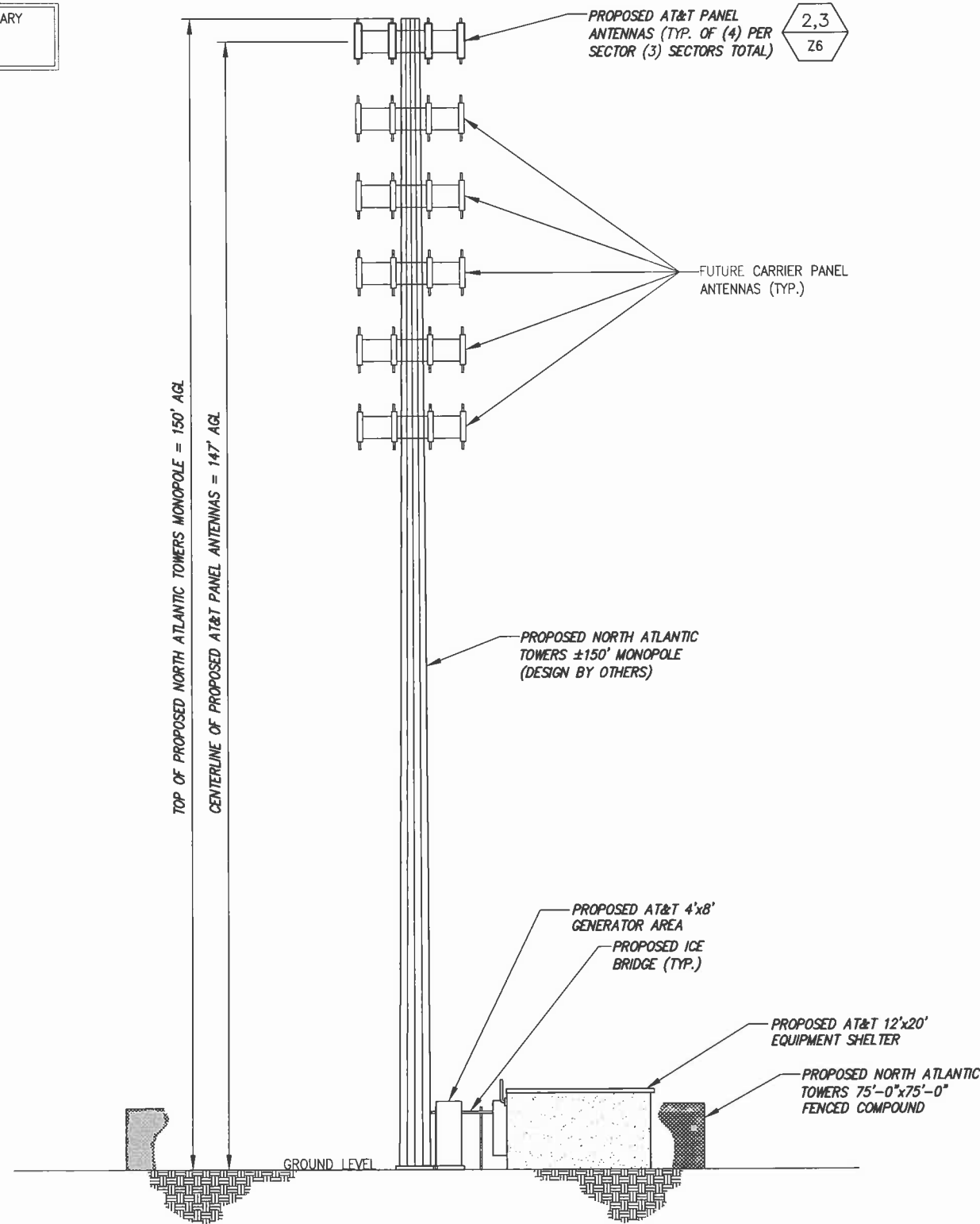
Date:  
9/27/11

Drawing Title  
**GRADING NOTES & DETAILS**

Drawing Number  
**Z5**

STRUCTURAL ANALYSIS NOT COMPLETED AT TIME OF ISSUANCE OF THESE DRAWINGS. THE STRUCTURAL ANALYSIS MUST BE COMPLETED PRIOR TO CONSTRUCTION.

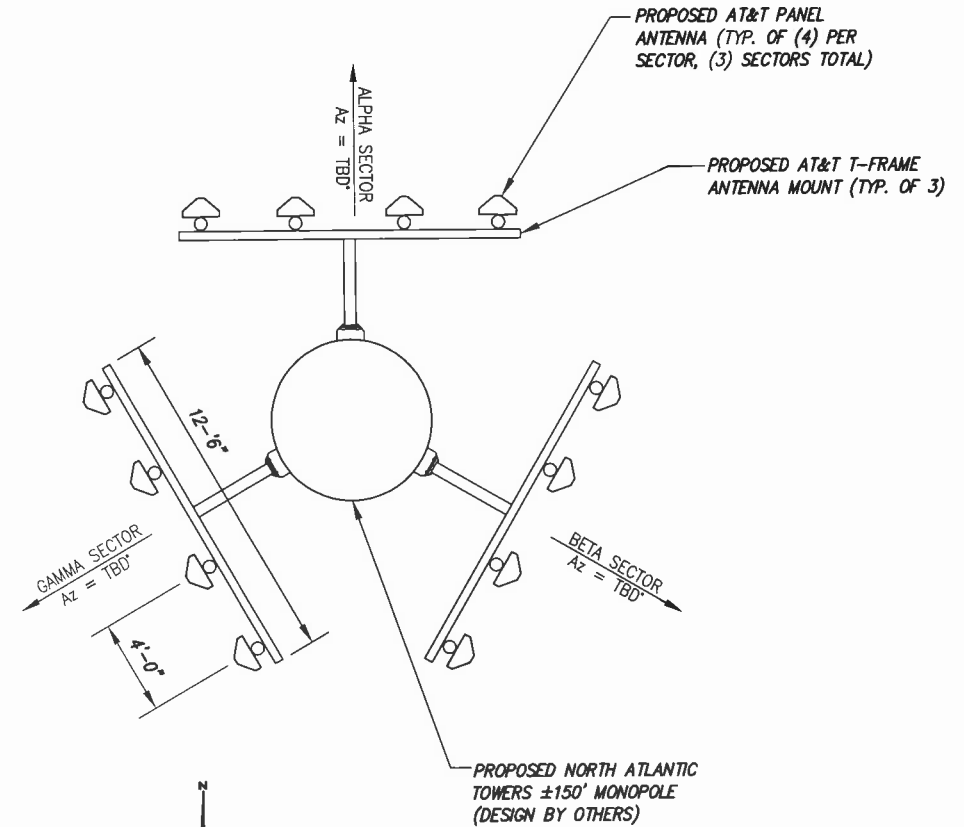
PROPOSED ANTENNA RAD CENTER IS PRELIMINARY AND IS SUBJECT TO CHANGE WITH FINAL RF CONFIGURATION BY RF ENGINEER.



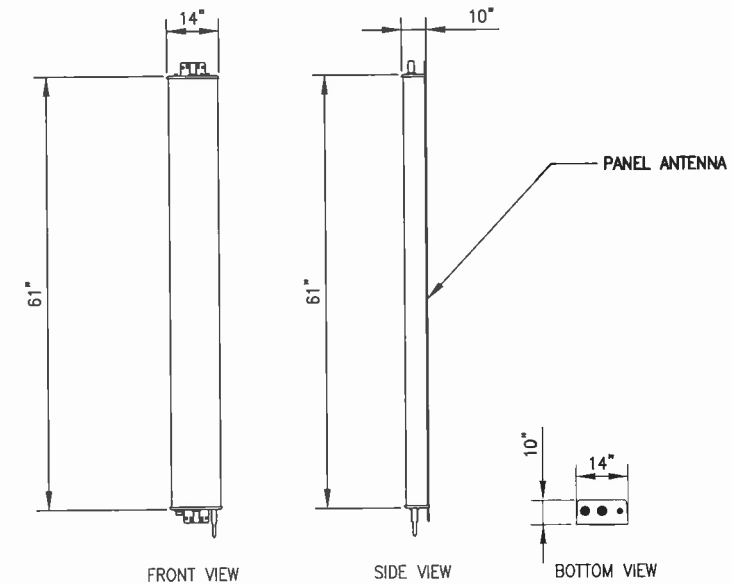
1 TOWER ELEVATION  
-- NOT TO SCALE

- GENERAL NOTES:**
1. LOCATION OF PROPOSED ACCESS ROAD BASED ON FIELD VISIT BY INFINIGY ENGINEERING ON 1/19/2012
  2. EXISTING CONDITIONS INFORMATION OBTAINED FROM LIMITED TOPOGRAPHIC FIELD SURVEY COMPLETED BY INFINIGY SURVEYING ON 1/31/2012
  3. WETLAND DELINEATION COMPLETED BY INFINIGY ENGINEERING ON 1/21/2012 DURING WINTER CONDITIONS

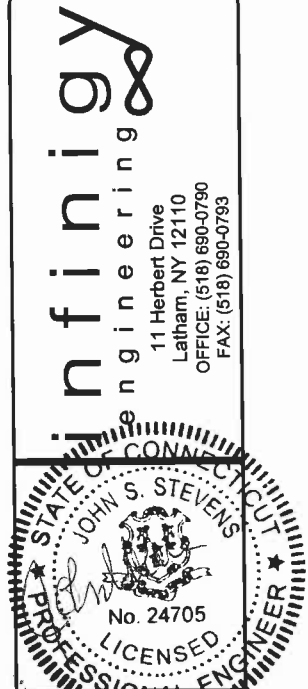
- SITE CONSTRUCTION NOTES:**
- GRASS AND MULCH ALL DISTURBED AREAS



2 ANTENNA ORIENTATION  
-- NOT TO SCALE



3 ANTENNA SPECIFICATIONS (AT&T)  
-- NOT TO SCALE



UNAUTHORIZED REPRODUCTION OF THIS DOCUMENT IS PROHIBITED BY APPLICABLE STATE AND/OR LOCAL LAWS

No.	Submitted / Revision	App'd	Date
7	NEW ACCESS ROUTE	AJD	2/14/12
6	REVISED PER COMMENTS	AJD	10/11/11
5	REVISED PER COMMENTS	EKM	9/27/11
4	REVISED PER COMMENTS	EKM	9/23/11
3	ADDED EASC and SIM	JWC	9/18/11
2	REVISED PER COMMENTS	AJD	5/23/11
1	REVISED PER COMMENTS	MR	3/11/11
0	ISSUED FOR REVIEW	BPM	1/18/11

Drawn: BPM Date: 3/11/11  
Designed: AJD Date: 3/11/11  
Checked: AJD Date: 3/11/11

Project Number 228-084

Project Title  
**WOODSTOCK CT1182**

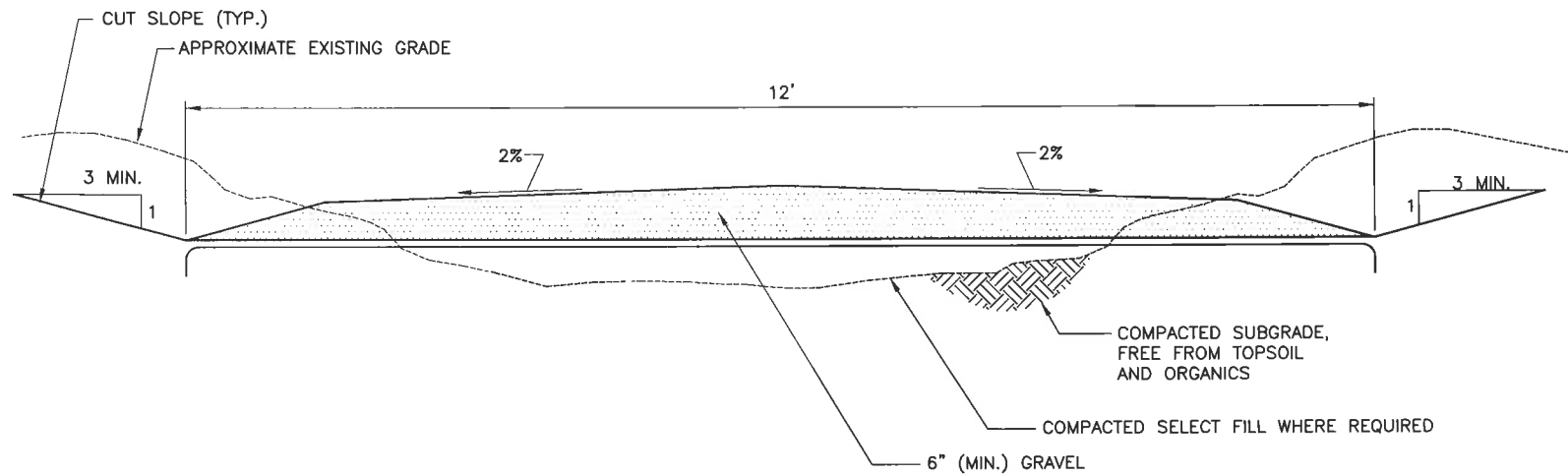
ROUTE 198  
WOODSTOCK, CT 06281

Prepared For  
NORTH ATLANTIC TOWERS  
THIS DOCUMENT IS THE DESIGN PROPERTY AND NOT BE LOANED, REPRODUCED, COPIED, AND FOR THE EXCLUSIVE USE BY THE TITLE CLIENT. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT OF THE CREATOR IS STRICTLY PROHIBITED.

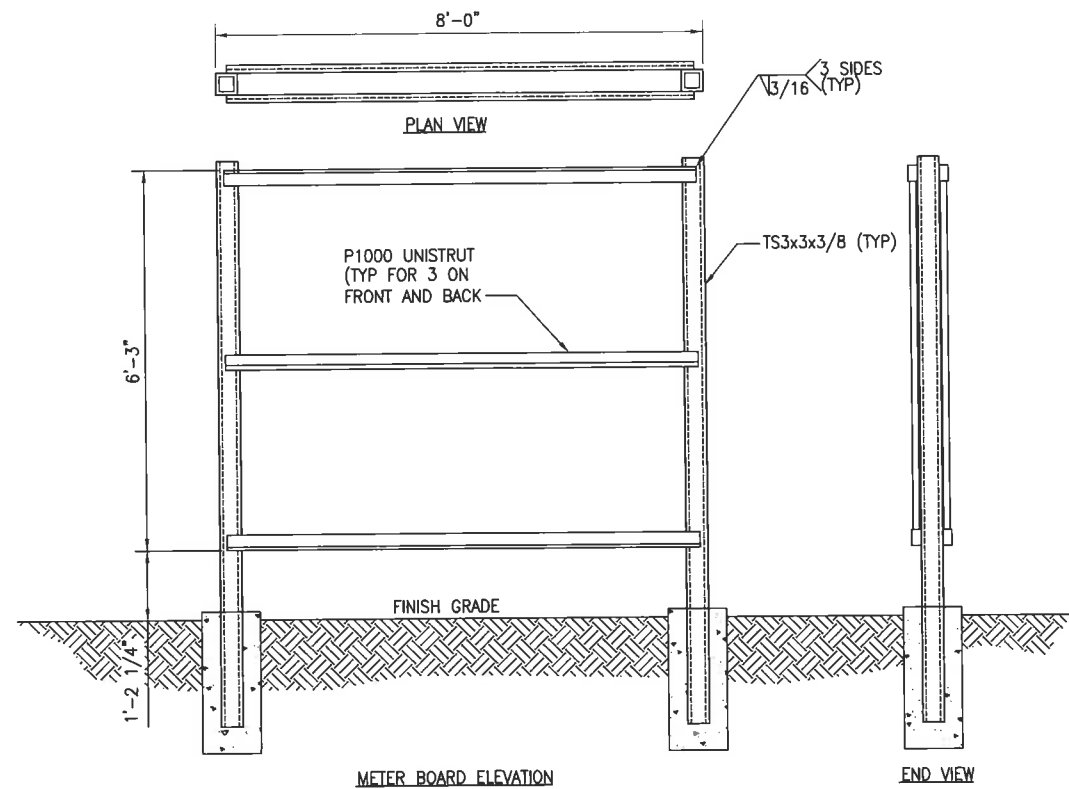
Drawing Scale: AS NOTED  
Date: 9/27/11

Drawing Title  
**ELEVATION VIEW**

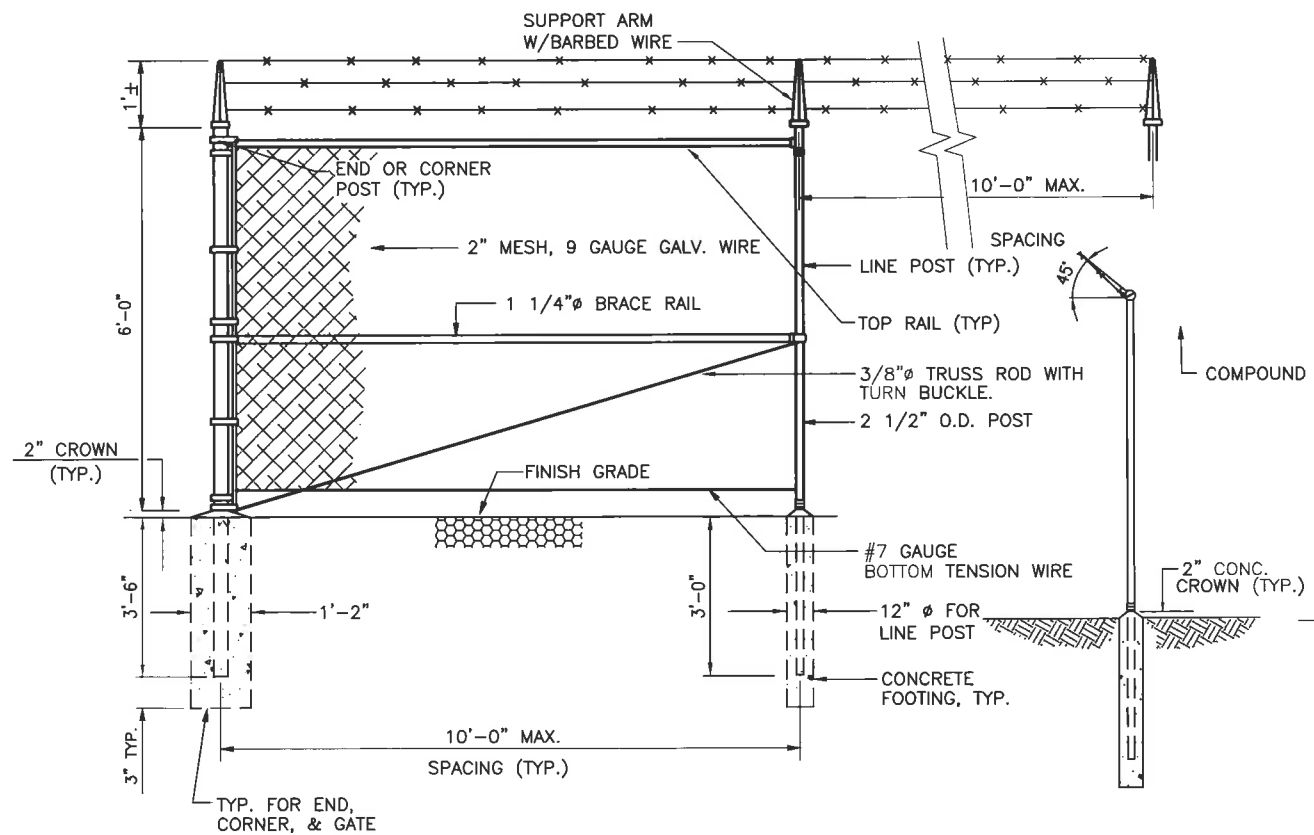
Drawing Number  
**Z6**



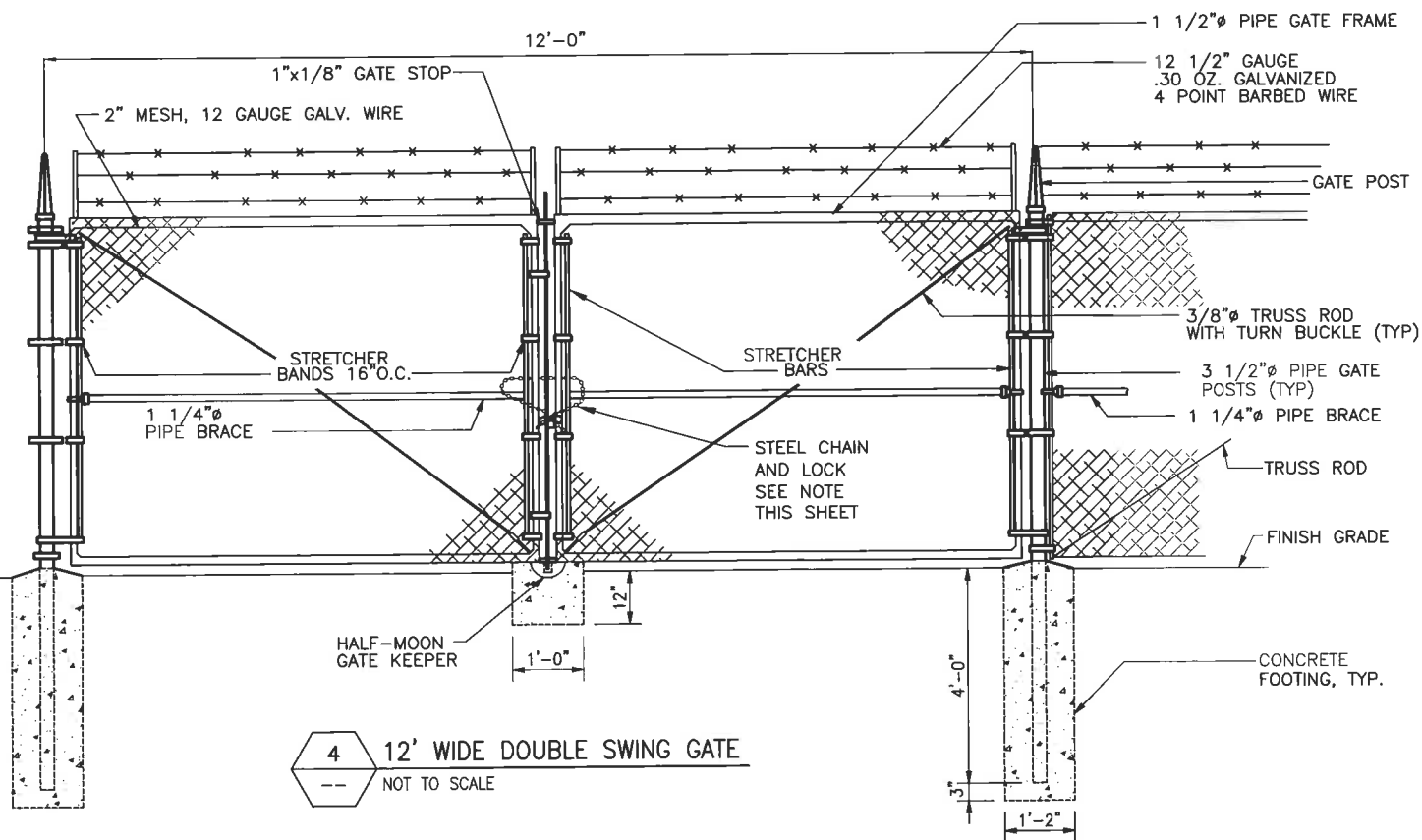
1 DRIVEWAY SECTION - CROWNED  
NOT TO SCALE



3 8'-0" WIDE METER BOARD FABRICATION DETAIL  
NOT TO SCALE



2 CHAIN LINK FENCE DETAIL (ELEVATION)  
NOT TO SCALE



4 12' WIDE DOUBLE SWING GATE  
NOT TO SCALE



No.	Submitted / Revision	App'd	Date
7	NEW ACCESS ROUTE	AJD	2/14/12
6	REVISED PER COMMENTS	AJD	10/11/11
5	REVISED PER COMMENTS	EKM	9/27/11
4	REVISED PER COMMENTS	EKM	9/23/11
3	ADDED E&S and SWM	JWC	9/19/11
2	REVISED PER COMMENTS	AJD	5/23/11
1	REVISED PER COMMENTS	MER	3/11/11
0	ISSUED FOR REVIEW	BPM	1/19/11

Drawn: BPM Date: 3/11/11  
Designed: AJD Date: 3/11/11  
Checked: AJD Date: 3/11/11

Project Number  
226-064

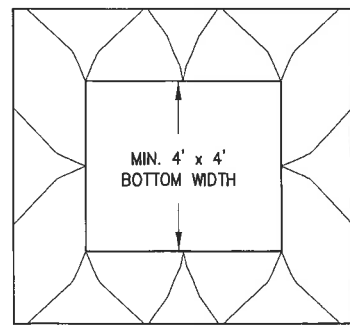
Project Title  
**WOODSTOCK  
CT1182**  
ROUTE 198  
WOODSTOCK, CT 06281

Prepared For  
**NORTH ATLANTIC  
TOWERS**  
THIS DOCUMENT IS THE DESIGN PROPERTY AND COPYRIGHT OF NORTH ATLANTIC TOWERS. NO PART OF THIS DOCUMENT IS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, WITHOUT THE EXPRESS WRITTEN CONSENT OF THE CREATOR IS STRICTLY PROHIBITED.

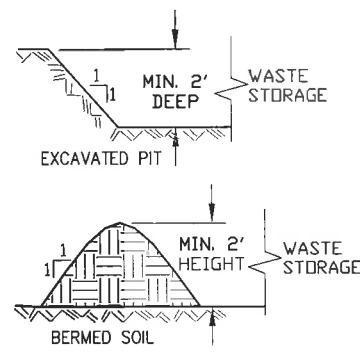
Drawing Scale:  
AS NOTED  
Date:  
9/27/11

Drawing Title  
**DETAILS**

Drawing Number  
**27**



PLAN VIEW  
NOT TO SCALE

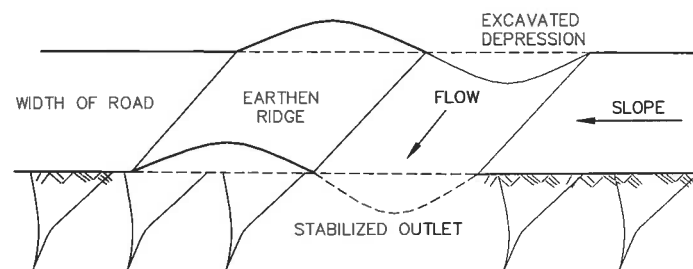


PROFILE VIEWS  
NOT TO SCALE

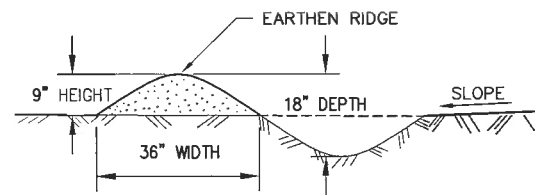
**CONSTRUCTION SPECIFICATIONS**

1. LOCATE CONTAINMENT PIT ON RELATIVELY LEVEL GROUND
2. DO NOT LOCATE WITHIN 100 FT OF WETLANDS OR STREAMS
3. CLEAN OUT ACCUMULATED WASTE WHEN PIT IS 50% FULL
4. CONTAINMENT AREA MAY BE CREATED BY BERMED UP SOIL

**1 WASTE CONTAINMENT AREA**  
NOT TO SCALE



ISOMETRIC VIEW  
NOT TO SCALE



CROSS SECTION  
NOT TO SCALE

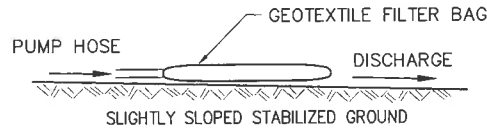
**WATER BAR SPACING**

% SLOPE	SPACING
2	250'
5	135'
10	80'
15	60'
20	45'
30	35'

**CONSTRUCTION SPECIFICATIONS**

1. INSTALL WATER BARS AS SOON AS THE RIGHT OF WAY IS CLEARED AND GRUBBED.
2. PLACE MATERIAL FROM THE DIP ONTO THE RIDGE BEFORE CONSTRUCTING ROAD BED. TRACK THE RIDGE SEVERAL TIMES TO COMPACT IT TO THE DESIGN CROSS SECTION.
3. WATER BAR SHALL EXTEND ACROSS ENTIRE ROADWAY WIDTH AT DESIGN SPACINGS.
4. OUTLET SHALL BE LOCATED ON AN UNDISTURBED AREA WITH EXISTING VEGETATION, ADJUSTED SPACING TO USE THE MOST STABLE OUTLET AREAS. OUTLET PROTECTION MUST BE PROVIDED WHEN EXISTING VEGETATED AREAS ARE NOT SUFFICIENTLY STABLE.
5. CROSSING WITH HEAVY VEHICLE USE SHALL BE STABILIZED WITH A 6" GRAVEL LAYER. EXPOSED AREAS OF THE WATER BAR SHALL BE IMMEDIATELY SEEDED AND MULCHED.
6. PERIODICALLY INSPECT WATER BARS FOR EROSION DAMAGE AND SEDIMENT BUILDUP. OBSERVE OUTLET AREAS AND MAKE REPAIRS AS NEEDED TO RESTORE OPERATION.

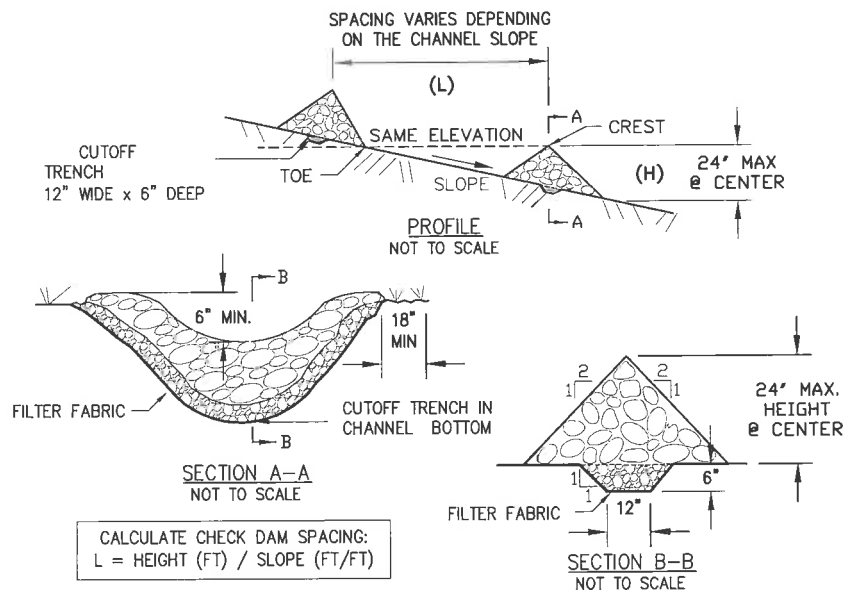
**4 WATER BAR DETAIL**  
NOT TO SCALE



**CONSTRUCTION SPECIFICATIONS**

1. INSTALL AT DISCHARGE HOSE END WHENEVER DEWATERING
2. DO NOT LOCATE WITHIN 100 FT OF WETLANDS OR STREAMS
3. CLEAN OUT ACCUMULATED SEDIMENT WHEN FABRIC CLOGS
4. MAY USE CONTAINMENT AREA AS AN ALTERNATIVE METHOD

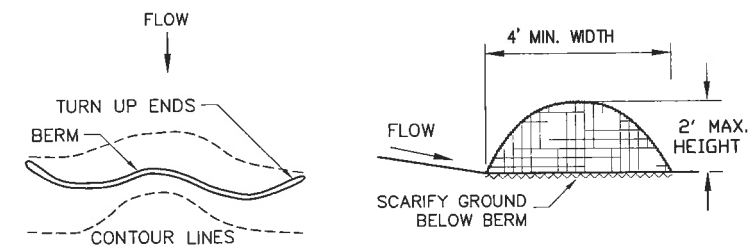
**2 DEWATERING DETAIL**  
NOT TO SCALE



**CONSTRUCTION SPECIFICATIONS**

1. STONE WILL BE PLACED ON A FILTER FABRIC LAYER IN THE TRENCH TO THE LINES, GRADES AND LOCATIONS SHOWN IN THE EROSION AND SEDIMENT CONTROL PLAN.
2. SET SPACING OF CHECK DAMS TO ALIGN THE ELEVATIONS OF THE CREST OF THE DOWNSTREAM DAM IS THE SAME ELEVATION OF THE TOE OF THE UPSTREAM DAM.
3. EXTEND THE STONE A MINIMUM OF 18 INCHES BEYOND THE DITCH SIDE SLOPES TO PREVENT CUTTING AROUND THE DAM. ENSURE CREST IS 6" LOWER THAN SIDES.
4. PROTECT THE CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH A STONE SPLASH PAD OR EXTEND THE FILTER FABRIC LAYER.
5. ENSURE THAT CHANNEL APPURTENANCES (i.e. CULVERTS OR CATCH BASINS) BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.
6. MAINTENANCE - REMOVE ACCUMULATED SEDIMENT FROM BEHIND CHECK DAMS, REPAIR ANY SIDE SLOPES THAT HAVE ERODED, AND REPLACE ANY OF THE DISPLACED STONE.

**5 STONE CHECK DAMS**  
NOT TO SCALE



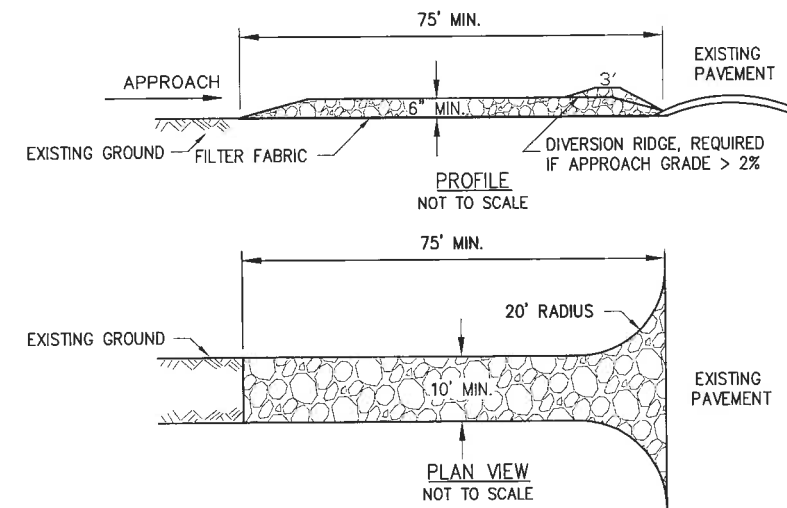
PLAN VIEW  
NOT TO SCALE

PROFILE VIEWS  
NOT TO SCALE

**CONSTRUCTION SPECIFICATIONS**

1. INSTALL EROSION CONTROL BERMS ON THE CONTOUR TO POND RUNOFF
2. BERMS MAY BE USED AS AN ALTERNATIVE TO PERIMETER SILT FENCE
3. USE RESTRICTED TO AREAS OF SHEET FLOW, DO NOT USE IN SWALES
4. REMOVE SEDIMENTS WHEN STORAGE CAPACITY IS REDUCED BY 50%
5. BERMS CONSIST OF 50% ORGANIC MATERIAL AND 50% TOPSOIL MIX
6. LOOSELY PLACE MATERIAL TO ALLOW FILTRATION, DO NOT COMPACT
7. COMPOST MAY BE UTILIZED INSTEAD OF AN ONSITE MATERIAL MIXTURE

**3 EROSION CONTROL MIX BERM**  
NOT TO SCALE



**CONSTRUCTION SPECIFICATIONS**

1. STONE SIZE - USE 3" CRUSHED STONE, OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH - NOT LESS THAN 75 FEET (EXCEPT IF MOUNTABLE BERM IS INSTALLED)
3. THICKNESS - NOT LESS THAN SIX (6) INCHES.
4. WIDTH - TEN (10) FOOT MINIMUM, BUT NOT LESS THAN FULL ENTRANCE WIDTH.
5. FILTER FABRIC - PLACED OVER ENTIRE AREA PRIOR TO PLACING OF STONE LAYER
6. DIVERSION RIDGE - REQUIRED IF APPROACH GRADE EXCEEDS 2% (MIN 6" HIGH)
7. MAINTENANCE - THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY (ROW). SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. AND PROPERLY DISPOSED ON THE PROJECT SITE.
8. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO ROADS.
9. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON A AREA STABILIZED WITH CRUSHED STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAP OR BASIN.
10. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

**6 STABILIZED CONSTRUCTION ENTRANCE**  
NOT TO SCALE

**nfinity engineering**  
11 Herbert Drive  
Latham, NY 12110  
OFFICE: (518) 690-0790  
FAX: (518) 690-0793



UNLESS OTHERWISE NOTED OR ADDITION TO THIS DOCUMENT IS A VIOLATION OF APPLICABLE STATE AND/OR LOCAL LAWS

No.	Submittal / Revision	App'd	Date
7	NEW ACCESS ROUTE	AJD	2/14/12
6	REVISED PER COMMENTS	AJD	10/11/11
5	REVISED PER COMMENTS	EKM	8/27/11
4	REVISED PER COMMENTS	EKM	8/23/11
3	ADDED EASC and SWM	JWC	8/16/11
2	REVISED PER COMMENTS	AJD	5/23/11
1	REVISED PER COMMENTS	MER	3/11/11
0	ISSUED FOR REVIEW	BPM	1/18/11

Drawn: BPM Date: 3/11/11  
Designed: AJD Date: 3/11/11  
Checked: AJD Date: 3/11/11

Project Number: 228-084

Project Title: **WOODSTOCK CT1182**

ROUTE 198  
WOODSTOCK, CT 06281

Prepared For:

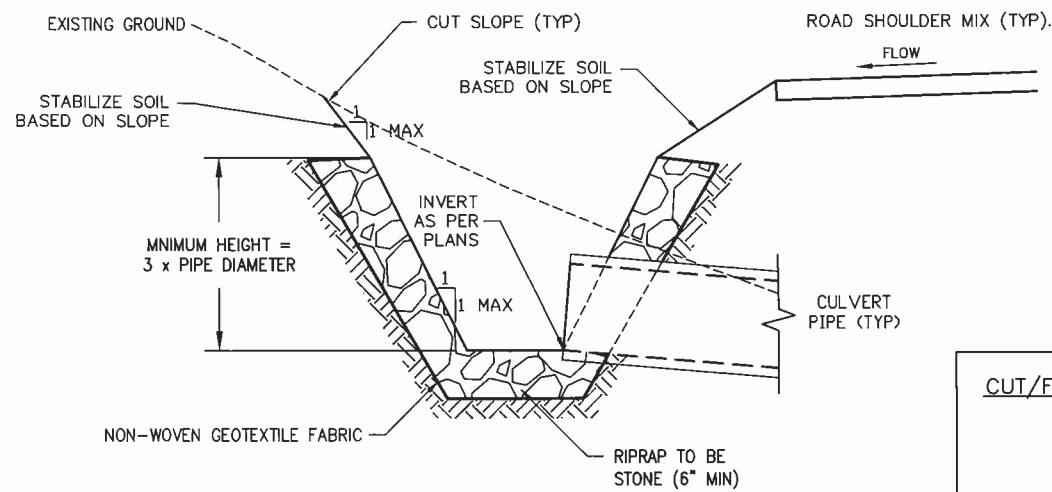


THIS DOCUMENT IS THE DESIGN PROPERTY AND NOT BE LOANED, REPRODUCED, COPIED, AND FOR THE EXCLUSIVE USE BY THE TITLE CLIENT. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT OF THE CREATOR IS STRICTLY PROHIBITED.

Drawing Scale: AS NOTED  
Date: 9/27/11

Drawing Title: **E&S  
DETAILS**

Drawing Number: **28**



**1 CULVERT INLET PROTECTION**  
NOT TO SCALE

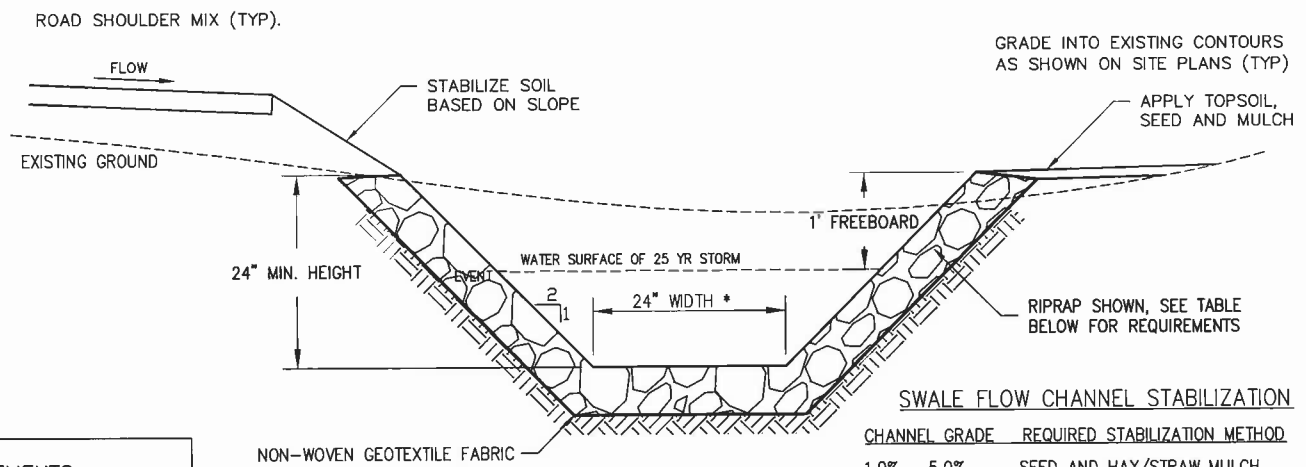
**1 CULVERT INLET PROTECTION**  
NOT TO SCALE

**CUT/FILL SLOPE STABILIZATION REQUIREMENTS:**

3:1 (H:V) - SEED AND MULCH  
 2:1 (H:V) - SEED AND RECP  
 1:1 (H:V) - 6" RIPRAP or TRM

**MATERIAL SPECIFICATIONS**

- RECP (ROLLED EROSION CONTROL PRODUCT) TEMPORARY SLOPE STABILIZATION
- RIPRAP TO BE STONE ABOVE A LAYER OF NON-WOVEN GEOTEXTILE
- TRM (TURF REINFORCING MAT) TO BE PERMANENT CHANNEL STABILIZATION



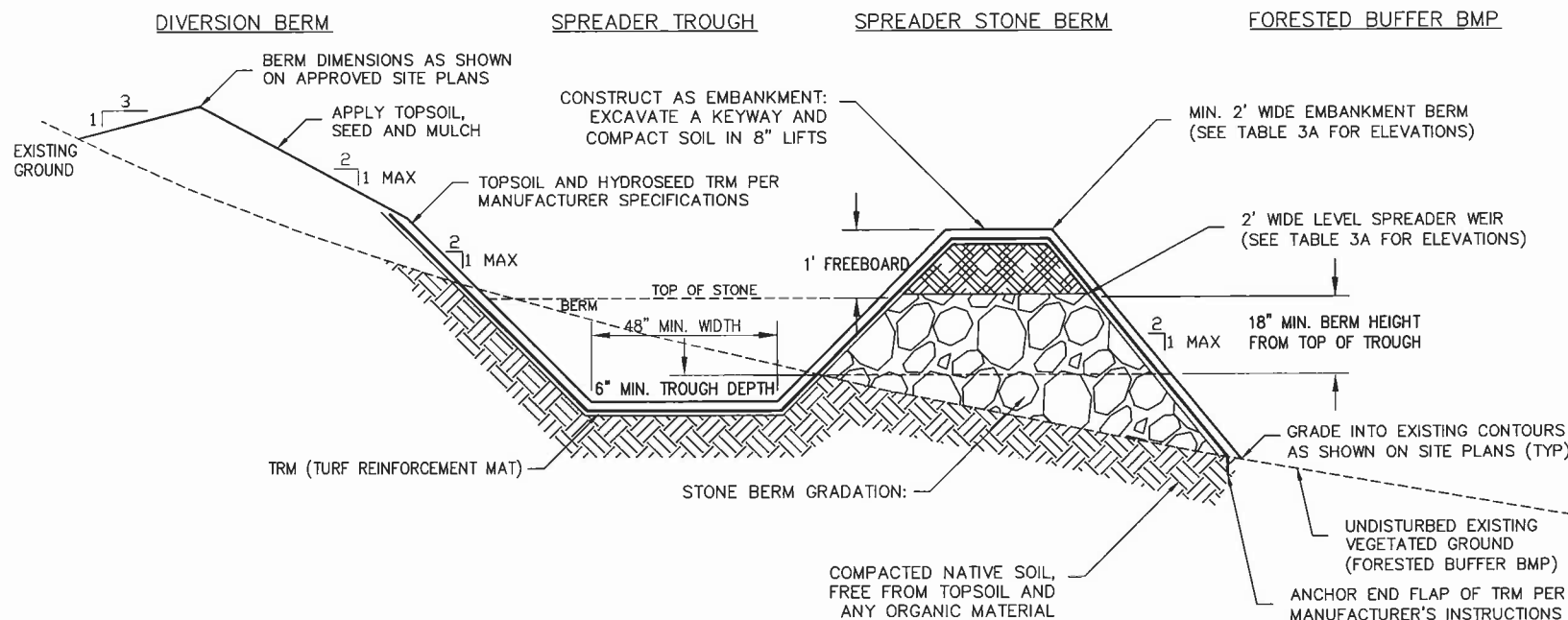
**CROSS SECTION**  
NOT TO SCALE

**2 RIP RAP SWALE**  
NOT TO SCALE

**SWALE FLOW CHANNEL STABILIZATION**

CHANNEL GRADE	REQUIRED STABILIZATION METHOD
1.0% - 5.0%	SEED AND HAY/STRAW MULCH
5.0% - 12.0%	SEED AND ROLLED EROSION CONTROL
12.0% - 20.0%	6" STONE ABOVE A LAYER OF NON-WOVEN GEOTEXTILE

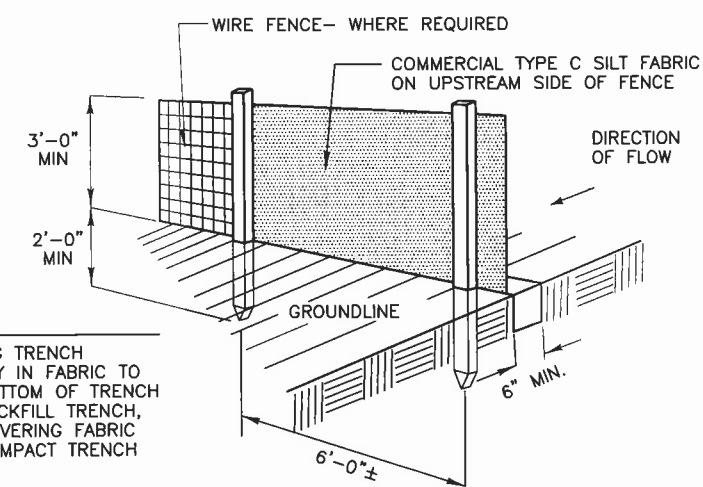
\* SEE GRADING PLAN FOR LOCATIONS OF SWALES AND ADDITIONAL DIMENSIONS WITH ELEVATIONS



**CROSS SECTION**  
NOT TO SCALE

**3 LEVEL SPREADER DETAIL**  
NOT TO SCALE

**REFERENCES:**  
SEE TABLE 3A ON SHEET Z5 FOR LEVEL SPREADER DIMENSIONS.

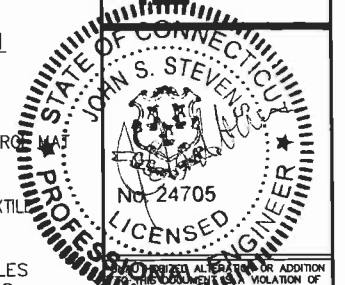


- NOTE:**
1. DIG TRENCH
  2. LAY IN FABRIC TO BOTTOM OF TRENCH
  3. BACKFILL TRENCH, COVERING FABRIC
  4. COMPACT TRENCH

**CONSTRUCTION NOTES FOR FABRICATED SILT FENCE**

1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES. POSTS: STEEL EITHER T OR U TYPE.
2. FILTER CLOTH TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION. FENCE: WOVEN WIRE, 14 GA. 6" MAX. MESH OPENING. AS DIRECTED BY BANKS CO.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY SIX INCHES AND FOLDED. FILTER CLOTH: FILTER X, MIRAFI 100X, STABILINKA T140N OR APPROVED EQUAL.
4. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULDGES" DEVELOP IN THE SILT FENCE. PREFABRICATED UNIT: GEOFAB, ENVIROFENCE OR APPROVED EQUAL.
5. ALL SILT FENCE MATERIALS MUST BE LISTED ON THE CURRENT STATES. D.O.T. QUALIFIED PRODUCTS LIST #36.

**4 SILT FENCE DETAIL**  
NOT TO SCALE



**infinity engineering**  
11 Herbert Drive  
Latham, NY 12110  
OFFICE: (518) 690-0790  
FAX: (518) 690-0793

No.	Submitted / Revision	App'd	Date
71	NEW ACCESS ROUTE	AJD	2/14/12
6	REVISED PER COMMENTS	AJD	10/11/11
5	REVISED PER COMMENTS	ENM	9/27/11
4	REVISED PER COMMENTS	ENM	9/23/11
3	ADDED EASC and SWM	JWC	9/19/11
2	REVISED PER COMMENTS	AJD	9/23/11
1	REVISED PER COMMENTS	MER	3/11/11
0	ISSUED FOR REVIEW	BPM	1/19/11

Drawn: BPM Date: 3/11/11  
 Designed: AJD Date: 3/11/11  
 Checked: AJD Date: 3/11/11

Project Number: 228-064

Project Title:  
**WOODSTOCK CT1182**  
ROUTE 198  
WOODSTOCK, CT 06281

Prepared For:  
**NORTH ATLANTIC TOWERS**

THIS DOCUMENT IS THE DESIGN PROPERTY AND NOT BE LOANED, REPRODUCED, COPIED, AND FOR THE EXCLUSIVE USE BY THE TITLE CLIENT. ANY DUPLICATION OR USE WITHOUT EXPRESS WRITTEN CONSENT OF THE CREATOR IS STRICTLY PROHIBITED.

Drawing Scale: AS NOTED  
 Date: 9/27/11

Drawing Title:  
**SWM DETAILS**

Drawing Number:  
**Z9**