

**MITIGATION SITE PLAN**

**SC-65: BECKERS CORNERS ROAD**

# MITIGATION SITE PLAN

## SC-65: BECKERS CORNERS ROAD

**SITE ID:** SC-65  
**SITE NAME:** Beckers Corners Road Property  
**LOCATION:** Sloansville, Schoharie County, New York  
**WATERSHED:** Schoharie – 02020005  
**SITE TYPE:** Wetland Mitigation  
**LANDOWNER:** Frank T. Price, III

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### **SITE DESCRIPTION**

The Beckers Corners Road property is located at the headwaters of the Cripplebush Creek watershed. The property includes an intermittent stream, beaver pond, and associated wetlands (Photo 1) that drain west to a perennial stream just west of the property line. This perennial stream has its confluence with Cripplebush Creek at a point less than 1,000 feet from the subject property. Cripplebush Creek is classified as a Class C stream by the New York Department of Environmental Conservation (NYDEC) and feeds into Schoharie Creek. The sources of water entering Cripplebush Creek are a 78.4-acre NYDEC-regulated wetland on the abutting northwest property, which is owned by the Sisson Family Trust, and the proposed mitigation property, which consists of one parcel totaling 56.7 acres. The wetlands on the mitigation parcel are connected hydrologically to the mapped 78.4-acre NYDEC-regulated wetland; therefore, the NYDEC considers them to be a single, regulated wetland.

The land is relatively steep with an average slope of approximately 8 percent. Poorly to somewhat poorly drained soil derived from glacial till dominates the surficial geology of the property. The soils consist of:

- Burdett and Erie channery silt loams, somewhat poorly drained, 3 to 8 percent slopes
- Volusia, Morris, and Erie very stony soils, somewhat poorly drained, 0 to 8 percent slopes
- Lyons and Ilion very stony soils, poorly drained, 0 to 15 percent slopes
- Madalin silt loam, over till

Land use in the region is primarily agricultural. The mitigation site has cleared fields, including upland and wetland hayfields; a wet-meadow hayfield is dominated by 95% reed canary grass (*Phalaris arundinacea*) (Photos 2 and 3). The hayfield was flattened for agricultural production and lacks topographic and habitat diversity. The property contains palustrine emergent (PEM) and scrub-shrub (PSS) wetlands and numerous hillside seeps. Vegetation in the wetlands is dominated by a mix of native species, including meadowsweet (*Spiraea spp.*), soft rush (*Juncus*

*effusus*), wool grass (*Scirpus cyperinus*), blue vervain (*Verbena hastata*), and redosier dogwood (*Cornus sericea*); and invasive species, including reed canary grass (*Phalaris arundinacea*), and buckthorn (*Rhamnus frangula*). Approximately 40 percent of the land cover is forested with a mixture of softwoods and hardwoods. The property is used primarily for hay production, hunting, and other recreation and is completely undeveloped. The site is accessed by a gated gravel road off of Beckers Corner Road through a deeded right-of-way.

## **PROJECT DESCRIPTION**

The proposed mitigation includes purchasing the land and preserving 11.7 acres of palustrine forested (PFO) wetland, 12.0 acres of palustrine scrub-shrub (PSS) wetland, 0.3 acres of palustrine emergent (PEM) wetland, and 7.7 acres of associated 150-foot buffer. On the eastern portion of the property, the proposed mitigation entails establishing 0.3 acres of PEM and 1.0 acres of PFO in the mowed fields adjacent to the pond by performing a series of shallow surface scrapes and planting native species found in adjacent reference wetlands. In the farm field south of the area to be scraped, proposed mitigation includes enhancing 0.9 acres of PEM, 1.3 acres of PSS, and 0.4 acres of PFO by:

- treating the monoculture of reed canary grass in the wet-meadow hayfield with herbicide;
- diversifying topography to create pockets of PFO on low-profile mounds that will shade out the invasive species and depressions that will allow seasonal ponding and provide potential breeding habitat for amphibians. The mounds will have elevations of up to 18" higher than the existing grade to accommodate PFO planting with woody species that will shade out invasive species. The pits will be excavated down to 18" below the existing grade and will create pool areas that are too wet for invasive species to survive; and
- replanting graded soils with native wetland species.

Groundwater in the proposed excavation area is generally perched above a dense basal till layer. Shallow groundwater gradually flows southwest through the area, maintaining sufficient hydrology for the existing and proposed wetlands. The shallow excavation proposed for creating or enhancing wetlands will not exceed the depth of the confining till layer.

Finally, 2.3 acres of 150-foot-wide, forested upland buffer will be established in currently mowed fields to protect the wetlands where possible (i.e., creating a 150-foot buffer is not possible in some places because it would extend into the adjacent property). The mitigation plan also includes preserving 0.5 acres of palustrine unconsolidated bottom (PUB) wetland. The remaining fields on the property will be allowed to undergo natural succession (i.e., mowing will cease). A permanent conservation easement will be arranged for the entire property. The land will be managed to allow public access for recreational purposes, but restrictions on timber harvesting and vehicle access will be implemented to protect the soil, vegetation, and wildlife habitat.

## **BENEFITS**

The property is for sale on the real estate market and has deeded access and uplands suitable for development. Executing a conservation easement is the only way to ensure permanent protection from development. The property directly abuts a NYDEC-regulated wetland; therefore, preserving it not only will increase the continuous area of wildlife habitat that the Sisson Family Trust provides, but also will ensure that the parcel maintains wildlife corridors and blocks of contiguous forest.

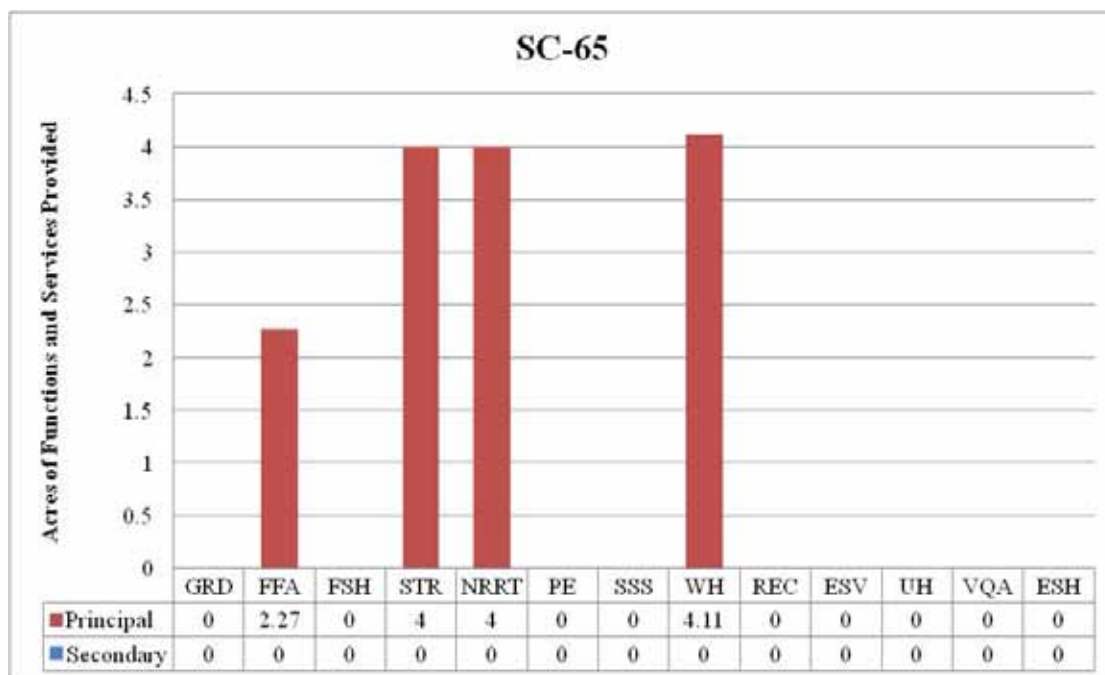
Protecting the wetlands and surrounding upland buffers on this site will preserve or enhance several wetland functions. The large, continuous wetland system and surrounding undeveloped uplands make the area ideal habitat for wildlife. Species that require both wetland and upland habitats, such as mole salamanders (e.g., *Ambystoma*, spp) and wood frogs (*Lithobates sylvaticus*), will have access to habitat for breeding, foraging, and overwintering. Forested areas dominated by eastern hemlock (*Tsuga canadensis*) and mast-crop trees like oaks provide excellent habitat for several species. Forest interior birds such as ovenbird (*Seiurus aurocapilla*) and wood thrush (*Hylocichla mustelina*), will benefit from the eventual increase in forest interior habitat. In the short term, species that use successional habitat, such as savannah sparrow (*Passerculus sandwichensis*), woodcock (*Scolopax minor*), and bluebird (*Sialia sialis*), will benefit. The open water, beaver ponds, and emergent wetlands provide water sources for deer, (*Odocoileus virginianus*), turkey (*Meleagris gallopavo*), and bear (*Ursus americanus*). Migratory and aquatic birds can use this area for nesting, resting, and feeding.

This mitigation site occurs in the upper portion of the watershed and provides flood flow attenuation by preserving the existing wetland vegetation and beaver activity, creating additional wetland area, diversifying the topography to create shallow depressional features that will slow and store runoff, and allowing cleared fields to undergo natural succession. Increased contact with vegetation and soils will reduce peak run off into Cripplebush Creek and eventually Schoharie Creek, which has experienced flooding problems. Also, the shallow scrape, topographic diversification in the wet meadow hayfield, and establishment of more PFO wetlands will increase flood storage and minimize concentrated, downhill flow. The longer retention times resulting from lower flows and diverse wetland vegetation, combined with the poorly draining soils, provide excellent water quality improvement functions for nutrient removal and sediment retention. Protecting the existing forest and improving the riparian vegetation along this headwater wetland/stream complex will benefit the receiving streams (including Cripplebush Creek), which will receive cleaner, cooler water.

Figure 1 summarizes functions and services provided by the proposed mitigation site.



**FIGURE 1. FUNCTIONS AND SERVICES PROVIDED BY THE PROPOSED MITIGATION.\***



Groundwater Recharge/Discharge (GRD), Floodflow Alteration (FFA), Fish and Shellfish Habitat (FSH), Sediment/Toxicant Retention (STR), Nutrient Removal and Retention (NRRT), Production Export (PE), Sediment/Shoreline Stabilization (SSS), Wildlife Habitat (WH), Recreation (REC), Educational/Scientific Value (ESV), Uniqueness/Heritage (UH), Visual Quality and Aesthetics (VQA), Endangered Species Habitat (ESH).

*\* Functions and services shown do not include additional acreage of preservation of wetlands within the existing NYDEC wetland.*

## **FEASIBILITY**

The wetlands on this site are stable and surrounded by upland forest. The good condition, large area, and diverse habitats of the property provide an ideal opportunity for preservation. Degraded areas, such as the wet meadow dominated by reed canary grass (*Phalaris arundinacea*) and the adjacent mowed hillside to the north, provide good opportunities for enhancement, restoration, and establishment. Since the open fields have been in agricultural production, the vegetation community and topography have been significantly degraded. The proposed mitigation would restore lost function.

The wetland delineation, aerial photographs, and other desktop resources indicate that the wetlands on the site are hydrologically connected to mapped DEC wetlands offsite; therefore, the wetlands on the property are likely to be considered to fall under the jurisdiction of Article 24. The preservation component of this mitigation, therefore, is less important than the establishment and enhancement components because the wetlands are largely protected already. The proposed 150-foot buffer, however, will be more extensive than required by Article 24, which includes a regulated 100-foot buffer. The more extensive buffer protection of this important headwater

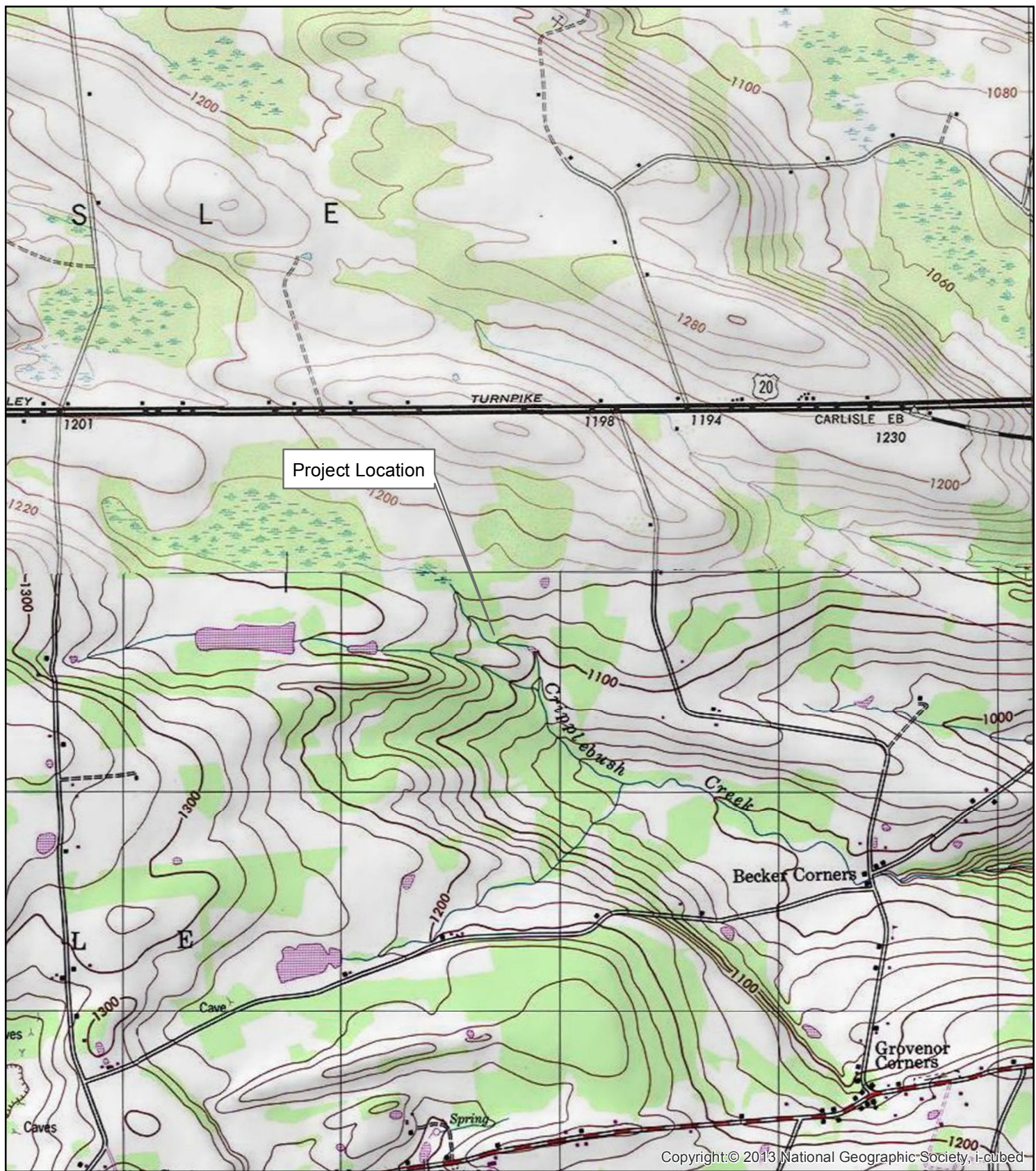
wetland and stream system provided by this mitigation project enhances the overall functional lift.

A Phase I Environmental Site Assessment (ESA) was conducted to identify recognized environmental conditions (RECs), historical RECs, or de minimis conditions associated with the property. No RECs, historical RECs, or de minimis conditions were identified. A Phase 1b archaeological assessment revealed no archaeological artifacts on the property. A geotechnical study included drilling four soil boring pits around the wetland mitigation area. The study revealed soil types and depths to groundwater consistent with the soil survey results. The surficial soil was identified as silt with sand, which is compatible with the proposed wetland plantings.

Acquiring the site is feasible, and the probability of success is high because the property is listed for sale. The property abuts preserved land, which increases the likelihood of a conservation easement and enhances the overall significance of the site from the perspective of watershed-scale conservation.

**MAP**



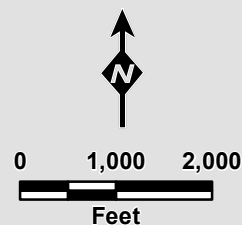


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Data Sources: USGS, ESRI/Bing, USGS, AECOM, Kleinschmidt

— Primary Alignment



## CONSTITUTION PIPELINE

### SC-65 POTENTIAL MITIGATION SITE



Prepared on 11/5/2013 by:

**Kleinschmidt**

Coordinate System: NAD 1983 UTM Zone 18N

## **PHOTOGRAPHS**





**PHOTOGRAPH 1. BEAVER POND SURROUNDED BY PEM, PSS, AND PFO WETLANDS.**



**PHOTOGRAPH 2. MOWED FIELDS PROVIDE OPPORTUNITIES FOR ENHANCING OR ESTABLISHING WETLANDS.**



**PHOTOGRAPH 3. LARGE MONOCULTURE OF REED CANARY GRASS (ESTIMATED >95% COVERAGE) IN A FLAT AREA.**

## **WETLAND REPORT**



# WETLAND DELINEATION REPORT

**SITE ID:** SC-65  
**SITE NAME:** Beckers Corners Road Property  
**LOCATION:** Colesville, Broome County, New York  
**WATERSHED:** Schoharie – 020200051  
**SITE TYPE:** Wetland Mitigation  
**LANDOWNER:** Frank T. Price, III

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## **SITE DESCRIPTION**

The Beckers Corners Road property is located at the headwaters of the Cripplebush Creek watershed. Cripplebush Creek is classified as a Class C stream by the New York Department of Environmental Conservation (NYDEC) and is a direct tributary to Schoharie Creek. The source water for Cripplebush Creek is a 78.4-acre NYDEC regulated wetland on the abutting northeast property owned by the Sisson Family Trust. The proposed mitigation property consists of one parcel totaling 56.7 acres. The land is relatively steep with an average slope of approximately 8 percent. Poorly to somewhat poorly drained glacial till derived soils dominate the surficial geology of the property.

Land use in the region is primarily agricultural. The mitigation site has cleared fields, but none are currently in production. The fields contain palustrine emergent (PEM) and scrub-shrub (PSS) wetlands and numerous hillside seeps. The primary land use for the property is hunting and recreation. There is no development on the property.

## **METHODS**

Field surveys were completed on November 12, 2013. Wetlands were field delineated by using the methodology and standard practices outlined in the United States Army Corps of Engineers (USACE) Wetland Delineation Manual (USACE, 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, Version 2.0 (USACE, 2012). The Corps Manual provides technical guidance and procedures for identifying and delineating wetlands that may be subject to jurisdiction under Section 404 of the Clean Water Act (33 U.S.C. 1344) or Section 10 of the Rivers and Harbors Act (33 U.S.C. 403). According to the Corps Manual, identification of wetlands is based on a three factor approach involving indicators of hydrophytic vegetation, wetland hydrology, and hydric soils. USACE data forms are included as Attachment A. Wetland functions and values were assessed for each wetland based on the USACE Highway Methodology Workbook Supplement "Wetland Functions and Values a Descriptive Approach" (USACE, 2001); data forms are included as Attachment B. All wetland features were delineated with sub-meter accuracy using a Trimble GEO-6000 Explorer GPS unit. GPS positions were differentially corrected using Trimble Pathfinder software (Ver. 5.40).

## **RESULTS**

### **SAMPLE PLOT LOCATION**

The primary wetland types identified within the survey segment were emergent and forested wetlands. These areas also included some areas of scrub-shrub wetland. A paired plot was completed for the emergent and forested wetlands delineated on the parcel. Table 1 contains the Longitude and Latitude for each paired plot. Emergent and forested communities were similar throughout the entire survey area.

**TABLE 1. USACE SAMPLE PLOT LOCATIONS.**

<b>WETLAND ID</b>	<b>USACE PLOT</b>	<b>LONGITUDE</b>	<b>LATITUDE</b>
SC-65	Upland 1	42° 44' 57.186 " N	74° 24' 3.911" W
SC-65	Wetland 1	42° 44' 57.915 " N	74° 24' 3.911" W
SC-65	Upland 2	Position data unavailable	
SC-65	Wetland 2		

### **HYDROLOGY**

The wetlands on this site are located at the headwaters of Cripple Brook Creek which is fed by a large wetland adjacent to the property. Open water, emergent, scrub shrub, and forested wetlands result upstream from beaver activity on the property. In general wetlands on the site exhibit an elevated water table (generally at 12") with saturation observed at 3" below the soil surface. In most locations oxidized rhizospheres are present as well as drainage patterns and water staining.

### **VEGETATION**

Vegetation in the wetlands is dominated by a mix of native (*e.g.*, *Spiraea*, soft rush, wool grass, blue vervain, red osier dogwood) and invasive (*e.g.*, reed canary grass and buckthorn) species. Approximately 40 percent of the land cover is still forested with a mixture of softwoods and hardwoods. Photo 1 is a representative view of the PEM, PSS, and PFO wetlands surrounding the beaver pond. Forested wetlands on the site include a hemlock dominated wetland with high degrees of microhabitat features including pit and mound topography (Photo 2). Ground layer vegetation within these areas is limited as a result of dense canopy. Emergent wetlands are dominated by soft rush, shallow sedge, tussock sedge, and reed canary grass.

**TABLE 2. DOMINANT VEGETATION.**

SCIENTIFIC NAME	COMMON NAME	STRATUM	INDICATOR STATUS
<i>Acer saccharum</i>	Sugar maple	Tree	FACU
<i>Carex lurida</i>	Shallow sedge	Herb	OBL
<i>Carex stricta</i>	Tussock sedge	Herb	OBL
<i>Euthamia graminifolia</i>	Flat-top goldentop	Herb	FAC
<i>Fagus grandifolia</i>	American beech	Shrub	FACU
<i>Festuca</i> sp.	Fescue	Herb	-
<i>Juncus effusus</i>	Soft rush	Herb	OBL
<i>Lonicera</i> sp.	Honeysuckle	Shrub	-
<i>Lysimachia nummularia</i>	Moneywort	Herb	FACW
<i>Onoclea sensibilis</i>	Sensitive fern	Herb	FACW
<i>Osmunda cinnamomea</i>	Cinnamon fern	Herb	FACW
<i>Ostrya virginiana</i>	American hophornbeam	Tree	FACU
<i>Phalaris arundinacea</i>	Reed canary grass	Herb	FACW
<i>Quercus rubra</i>	Northern red oak	Shrub/tree	FACU
<i>Solidago</i> sp.	Goldenrod	Herb	-
<i>Tsuga canadensis</i>	Eastern hemlock	Tree	FACU

## SOILS

The soils in this area consist of Burdett and Erie channery silt loams (somewhat poorly drained, 3 to 8 percent slopes), Volusia, Morris, and Erie very stony soils (somewhat poorly drained, 0 to 8 percent slopes), Lyons and Ilion very stony soils (poorly drained, 0 to 15 percent slopes), and Madalin silt loam, over till. Hydric soils indicators within delineated wetlands included soils with both dark surfaces (S7) and depleted matrices (F3). Soils were generally fine textured (silt/clay) with low chroma matrix (5/2) and redox concentrations.

## FUNCTIONS AND SERVICES

The primary function of the wetlands at this site is wildlife habitat. The large, continuous wetlands and presence of undisturbed uplands make the area ideal wildlife habitat. Species which require both wetland and upland habitats (e.g., mole salamanders and wood frogs) will have access to breeding, foraging and overwintering habitat. Forested areas dominated by eastern hemlock and mast-crop trees like oaks provide excellent habitat for several species. Forest interior birds such as Ovenbird and Wood Thrush will ultimately benefit from the eventual increase in forest interior habitat; in the short term, species that use successional habitat, such as Savannah Sparrow, Woodcock and Bluebird, will benefit. The open water beaver ponds and emergent wetlands provide a water source for deer, turkey, and bear. Migratory and aquatic birds can use this area for nesting, resting, and feeding.

This site occurs in the upper portion of the watershed and provides flood flow attenuation by preserving the existing wetland vegetation, creating additional wetland area, and allowing cleared fields to return to natural succession. The presence of longer retention times resulting from lower flows and diverse wetland vegetation, in combination with the poorly draining soils,

provide excellent water quality improvement functions for nutrient removal and sediment retention. In addition the fringe wetlands with dense vegetation associated with Cripplebush Creek provide important bank stabilization and flood flow retention functions and aid in preventing erosion or increases in sedimentation.



**PHOTOGRAPH 1. BEAVER POND SURROUNDED BY PEM, PSS, AND PFO WETLANDS.**



**PHOTOGRAPH 2. REPRESENTATIVE FORESTED WETLAND INTERIOR.**

## **DISCUSSION**

Overall the wetlands on the site are in good condition, despite the presence of some invasive species within and along the periphery of the existing wetlands. The wetland is hydrologically connected to NYDEC wetland C-13. The presence of historically agricultural activity (annual hay cutting) provides an excellent opportunity for wetland enhancement of emergent portions of the wetland which are now dominated by reed canary grass.

## **REFERENCES**

- U.S. Army Corps of Engineers (USACE). January 2012. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Ver. 2.0). U.S. Army Corps of Engineers. Vicksburg, MS. No. ERDC/EL TR-12-1. 176 Pp.
- U.S. Army Corps of Engineers (USACE). 1987. Corps of Engineers Wetland Delineation Manual. U.S. Army Corps of Engineers. 143 pp.
- USACE. 2001. The Highway Methodology Workbook. U.S. Army Corps of Engineers New England District. 29 pp. NAEEP-360-1-30a.

**ATTACHMENT A**  
**USACE DATA SHEETS**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: SC-65 City/County: Schoharie Sampling Date: 11/12/13  
 Applicant/Owner: Construction State: NY Sampling Point: SC-65 wet 1  
 Investigator(s): ITC Section, Township, Range: Sloansville  
 Landform (hillslope, terrace, etc.): Hillside shoulder Local relief (concave, convex, none): none Slope (%): 3  
 Subregion (LRR or MLRA): Midatlant2 Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: NAD1985  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PEM

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 X 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 <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>✓</u> No _____
Hydric Soil Present? Yes <u>X</u> No _____	If yes, optional Wetland Site ID: _____
Wetland Hydrology Present? Yes <u>X</u> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) <u>HAY FIELD</u> <u>WF1A-48A</u>	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b>		
Surface Water Present? Yes _____ No _____ Depth (inches): _____		
Water Table Present? Yes <u>✓</u> No _____ Depth (inches): <u>12"</u>		
Saturation Present? Yes <u>✓</u> No _____ Depth (inches): <u>3"</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>✓</u> No _____	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: <u>Beaver pond / wet meadow</u>		



Sampling Point: SC-65 WET 1

[illegible]<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

### 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"/> Histic Epipedon (A2)                 |  | <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)     |
| <input type="checkbox"/> Black Histic (A3)                    | <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"/> Hydrogen Sulfide (A4)                | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)             | <input type="checkbox"/> Dark Surface (S7) (LRR K, L)                |
| <input type="checkbox"/> Stratified Layers (A5)               | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                        | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)     |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)    | <input checked="" type="checkbox"/> Depleted Matrix (F3)                 | <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)           |
| <input type="checkbox"/> Thick Dark Surface (A12)             | <input type="checkbox"/> Redox Dark Surface (F6)                         | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)   |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)             | <input type="checkbox"/> Depleted Dark Surface (F7)                      | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)             | <input type="checkbox"/> Redox Depressions (F8)                          | <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)   |
| <input type="checkbox"/> Sandy Redox (S5)                     |  | <input type="checkbox"/> Red Parent Material (F21)                   |
| <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.

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

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

Hydric Soil Present? Yes ☒ No ☐

Remarks:



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

Sampling Point: SC-65W671

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

\_\_\_\_\_ = Total Cover

Sapling/Shrub Stratum (Plot size: \_\_\_\_\_)

1. _____			
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

\_\_\_\_\_ = Total Cover

Herb Stratum (Plot size: \_\_\_\_\_)

1. <u>Juncus effusus</u>	<u>15.0</u>	<u>yes</u>	
2. <u>Carex lurida</u>	<u>15.0</u>	<u>yes</u>	
3. <u>Carex stricta</u>	<u>15.0</u>	<u>yes</u>	
4. <u>Phalaris arundinacea</u>	<u>37.5</u>	<u>yes</u>	
5. <u>Oenothera sensibilis</u>	<u>3.0</u>	<u>no</u>	
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			

\_\_\_\_\_ = Total Cover

Woody Vine Stratum (Plot size: \_\_\_\_\_)

1. _____			
2. _____			
3. _____			
4. _____			

\_\_\_\_\_ = Total Cover

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (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:**

- ☐ 1 - Rapid Test for Hydrophytic Vegetation
- ☒ 2 - Dominance Test is >50%
- ☐ 3 - Prevalence Index is ≤3.0<sup>1</sup>
- ☐ 4 - 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 or equal to 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 X No   

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

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: SC-65 City/County: Schoharie Sampling Date: 11/12/13  
 Applicant/Owner: Constitution State: \_\_\_\_\_ Sampling Point: SC-65 up 1  
 Investigator(s): ITC Section, Township, Range: Sloatsville  
 Landform (hillslope, terrace, etc.): HILLSIDE Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): 3-8%  
 Subregion (LRR or MLRA): MID ATLANTIC Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: N/A

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 _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	If yes, optional Wetland Site ID: _____
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) ___ Water-Stained Leaves (B9) ___ High Water Table (A2) ___ Aquatic Fauna (B13) ___ Saturation (A3) ___ Marl Deposits (B15) ___ 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)		<u>Secondary Indicators (minimum of two required)</u> ___ 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 _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)		<b>Wetland Hydrology Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

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

Sampling Point: SC-65 upland 1

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (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> 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 = _____
Sapling/Shrub Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Herb Stratum (Plot size: _____)				
1. <u>Phalaris arundinacea</u>	<u>85.0</u>	<u>yes</u>	_____	
2. <u>Fescue spp.</u>	<u>15.0</u>	<u>yes</u>	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
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 or equal to 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.
Woody Vine Stratum (Plot size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____	_____	_____	_____	
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
Remarks: (Include photo numbers here or on a separate sheet.)				
<p><u>Hay Field - NO Hydric soils</u></p>				

Sampling Point: SC-65 upland 1

[illegible]

**ATTACHMENT B**

**FUNCTIONS AND SERVICES**

# Wetland Function-Value Evaluation Form

Total area of wetland\_\_\_\_\_ Human made?\_\_\_\_\_ Is wetland part of a wildlife corridor?\_\_\_\_\_ or a "habitat island"?\_\_\_\_\_

Adjacent land use\_\_\_\_\_ Distance to nearest roadway or other development\_\_\_\_\_

Dominant wetland systems present\_\_\_\_\_ Contiguous undeveloped buffer zone present\_\_\_\_\_

Is the wetland a separate hydraulic system?\_\_\_\_\_ If not, where does the wetland lie in the drainage basin?\_\_\_\_\_

How many tributaries contribute to the wetland?\_\_\_\_\_ Wildlife & vegetation diversity/abundance (see attached list)

Wetland I.D.\_\_\_\_\_

Latitude\_\_\_\_\_ Longitude\_\_\_\_\_

Prepared by:\_\_\_\_\_ Date\_\_\_\_\_

Wetland Impact:  
Type\_\_\_\_\_ Area\_\_\_\_\_

Evaluation based on:  
Office\_\_\_\_\_ Field\_\_\_\_\_

Corps manual wetland delineation  
completed? Y\_\_\_\_\_ N\_\_\_\_\_

Function/Value	Suitability Y N		Rationale (Reference #)*	Principal Function(s)/Value(s)	Comments
 Groundwater Recharge/Discharge					
 Floodflow Alteration					
 Fish and Shellfish Habitat					
 Sediment/Toxicant Retention					
 Nutrient Removal					
 Production Export					
 Sediment/Shoreline Stabilization					
 Wildlife Habitat					
 Recreation					
 Educational/Scientific Value					
 Uniqueness/Heritage					
 Visual Quality/Aesthetics					
<b>ES</b> Endangered Species Habitat					
Other					

Notes:

\* Refer to backup list of numbered considerations.

## **HYDROLOGY REPORT**

# WETLAND HYDROLOGY ANALYSIS

**SITE ID:** SC-65  
**SITE NAME:** Beckers Corners Road Property  
**LOCATION:** Colesville, Broome County, New York  
**WATERSHED:** Schoharie – 020200051  
**SITE TYPE:** Wetland Mitigation  
**LANDOWNER:** Frank T. Price, III

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The following is a summary of the hydrology at the SC-65 property for wetland mitigation relating to the wetland disturbance along the Constitution Pipeline corridor. Kleinschmidt conducted several site visits to evaluate the existing and proposed wetlands and this memorandum summarizes the hydrologic conditions that assisted in the final design.

## **GROUNDWATER**

Soil boring and soil pit tests were conducted at SC-65 to investigate soil characteristics and hydrology. In areas of proposed wetland creation, redoximorphic features (indicative of saturated soils during at least part of the year) were found approximately 1 ft below ground surface. Elevations of redoximorphic features range between 1164.2' to 1174.4' across the site. The groundwater table was encountered between 0.7' and 1.0' below ground surface in the proposed grading area. These redoximorphic feature elevations and groundwater levels were used as a guide to determine the final grade for each proposed wetland type. The depth of proposed excavation in this area ranges from approximately 1.8' in the PEM wetland areas and 0.5' in the PFO wetland areas.

Excavation is also proposed in the existing wetland to the south of the proposed creation in order to enhance wetland functions in an existing field. Excavation will diversify topography by introducing a "pit and mound" land feature, balancing cut and fill throughout the area. Groundwater in this area is generally perched above a dense basal till layer, however the depth of excavation does not exceed the depth of the confining till layer.

To observe the trends in groundwater data, soil boring and soil pit test data for SC-65 was also analyzed using reference data observed over the past five years at a USGS well approximately 7.4 miles away. This analysis compared the reading at the USGS well on the day of the soil boring to the well's overall dataset, and was applied to the water level at the site observed through the soil boring and soil pit tests. This made it possible to normalize the range of water depths on the site to the USGS well data, providing a surrogate for on-site long-term data. Please see the attached graph and tables as an analysis of the surrogate year-round range of water levels on the site. Comparison with the long-term data validated the chosen depths of excavation and ensured groundwater can function as a viable primary source of hydrology for the site.



## **SURFACE RUNOFF**

Runoff from the higher elevations to the northeast will provide a secondary source of hydrology. Approximately 2.25 acres of forested land drains to the proposed wetland creation area and it is expected that depressional features within the wetland will retain some of the overland flow. Therefore, surface runoff can be considered a secondary source of hydrology for the wetland.

## **GROUNDWATER ANALYSIS**

Site Identifier: SC-65

Geotech: Haley and Aldrich

Drill Rig: GeoLogic NY, Inc./North Star Drilling

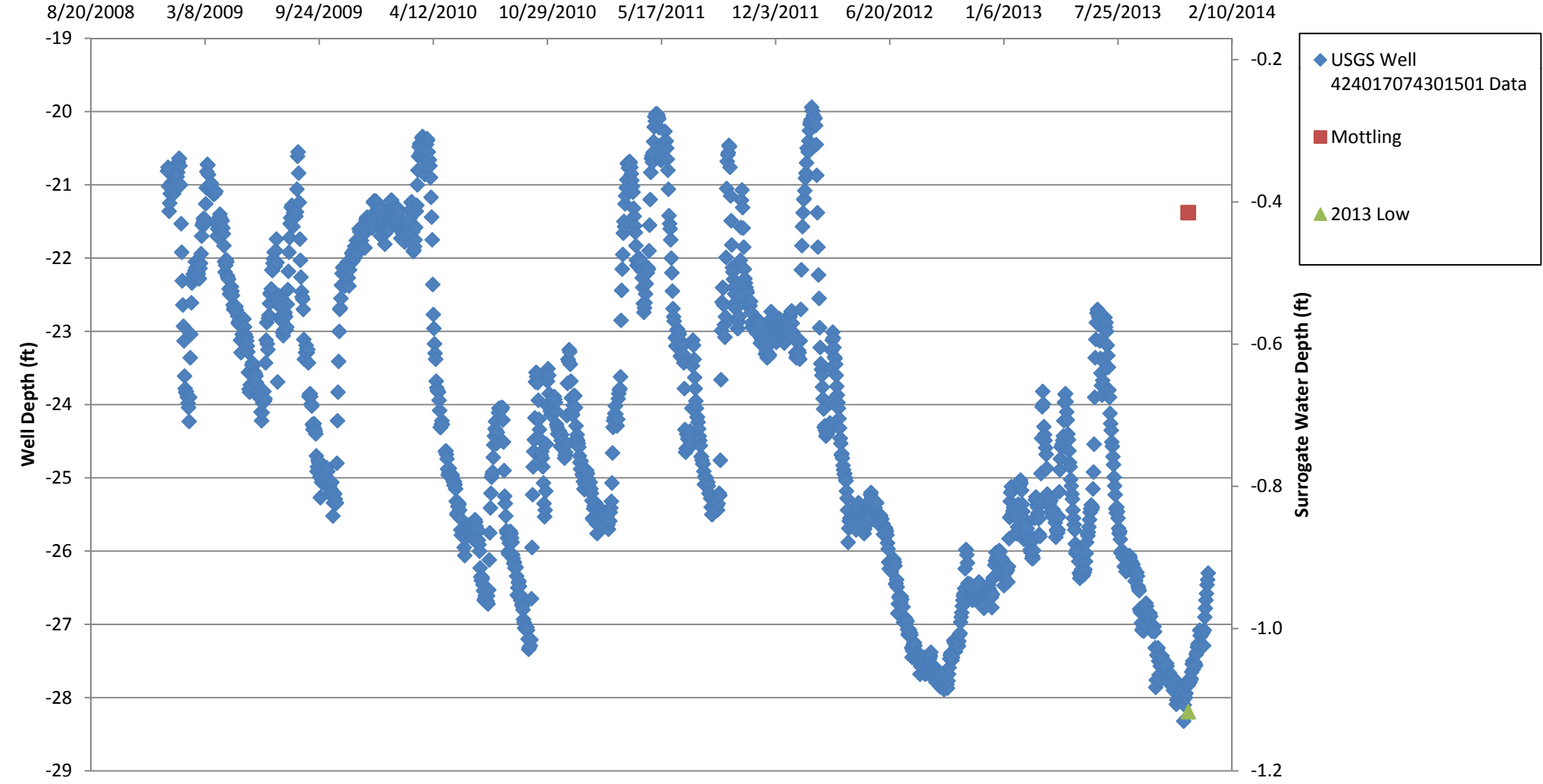
					Groundwater Depth					
					24-hr Reading at Boring <sup>1</sup>		BLS: Below Land Surface (Negative BLS is above ground surface)			
Boring ID	Longitude	Latitude	Ground Surface Elevation	Approximate Depth to Observed Mottled Soil (ft. BLS)	Standing Water at Time of Boring (ft BLS)	Elevation (ft)	10th percentile Depth (ft BLS)	25th Percentile Depth (ft BLS)	75th Percentile Depth (ft BLS)	90th Percentile Depth (ft BLS)
SC-65-1	74° 24' 6.756" W	42° 44' 55.854" N	1161.1	-	4.3		-2.3	-1.1	2.2	3.5
SC-65-2 <sup>2</sup>	74° 24' 6.558" W	42° 44' 52.488" N	1135.2	-	-	-	-	-	-	-
SC-65-3	74° 24' 4.698" W	42° 44' 55.842" N	1161.1	-	4.4		-2.2	-1.0	2.3	3.6
SC-65-4 <sup>2</sup>	74° 24' 5.100" W	42° 44' 52.458" N	1140.2	-	-	-	-	-	-	-

- Notes:
- 1. Geotech reading collected on 31 October 2013.
  - 2. Location of boring is currently outside of design and will not be considered in calculations
  - 3. 10th-90th percentile water depths calculated based on a comparison of a same day reading at a nearby USGS well and its data set from the past 5 years

USGS Well ID	Longitude	Latitude	Date	Distance from Project Site	Water depth at time of survey (ft BLS)	10th percentile water depth (ft BLS)	25th percentile water depth (ft BLS)	75th percentile water depth (ft BLS)	90th percentile water depth (ft BLS)
424017074301501	74°30'15.0"	42°40'16.9"	11/21/2013	7.4 miles	27.94	21.35	22.59	25.88	27.09
424017074301501	74°30'15.0"	42°40'16.9"	12/10/2013	7.4 miles	27.31	21.35	22.59	25.88	27.09

	USGS Well	USGS Well	SC-65-1	SC-65-3	Soil Pit 3	Soil Pit 4
Mottling:	-21.35	-21.35	-	-	-0.9	-0.4
Measured Water Level:	-27.94	-27.31	-4.3	-4.4	-	-1
2013 Low:	-28.32	-28.32	-	-	-	-1.10
Date:	11/21/2013	12/10/2013	11/21/2013	11/21/2013	12/10/2013	12/10/2013

Soil Pit 3

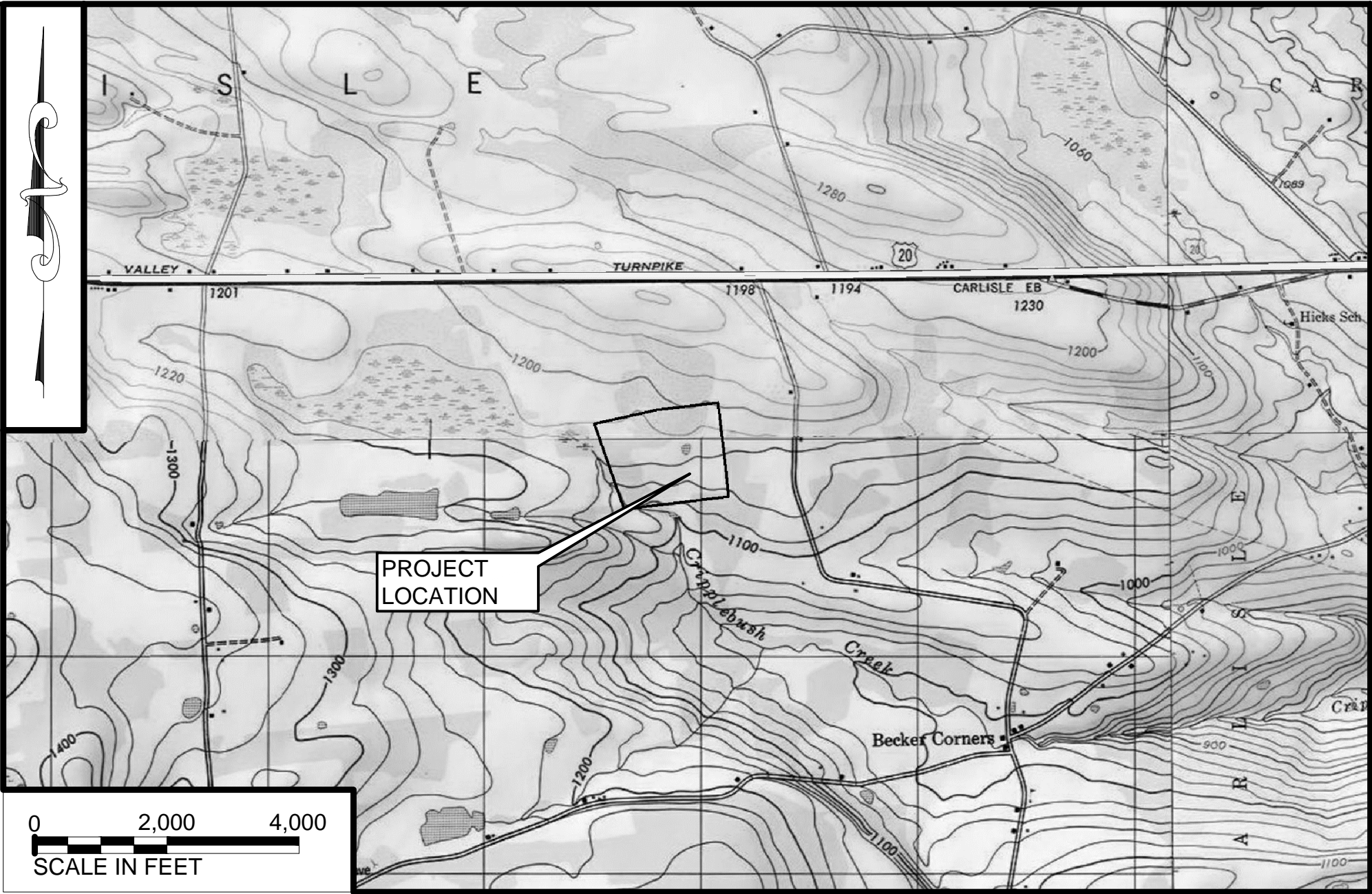


## **DESIGN DRAWINGS**

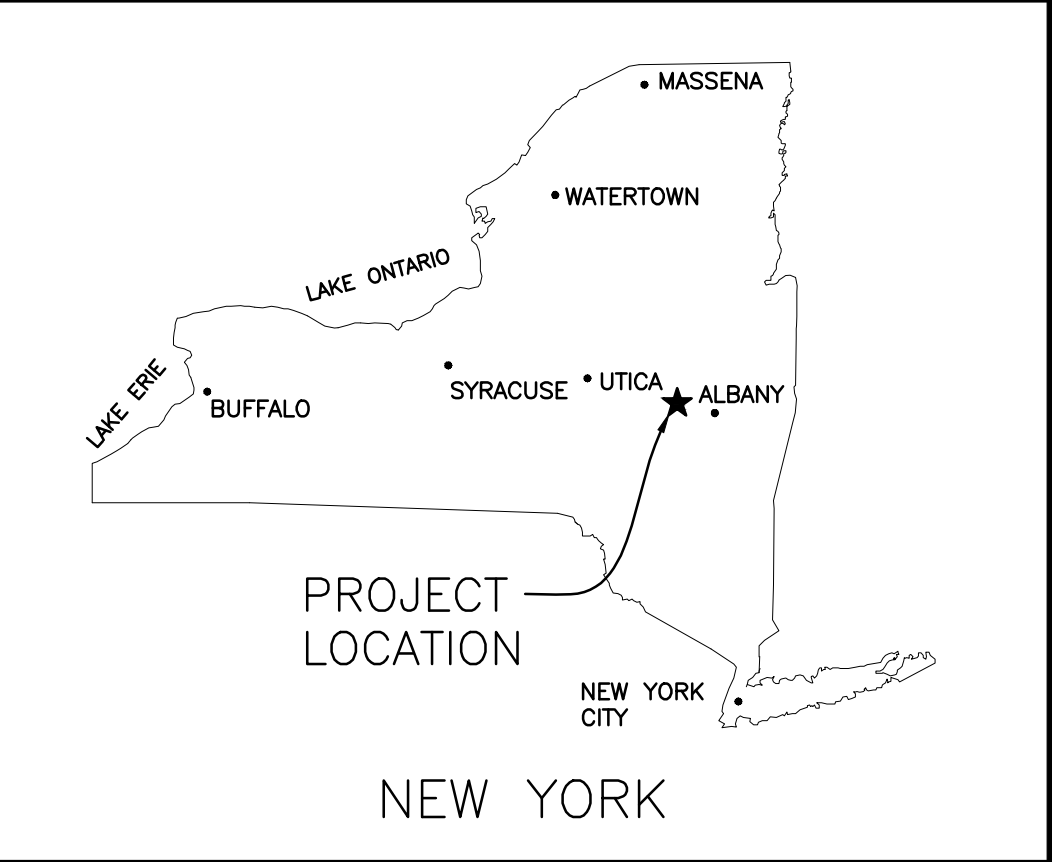


# SITE SC-65: BECKERS CORNERS ROAD WETLAND MITIGATION PROJECT CONSTITUTION PIPELINE, LLC

DRAWING LIST	
SHEET NUMBER	DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES
3	EXISTING CONDITIONS
4	WETLANDS METES AND BOUNDS TABLES
5	DEMOLITION PLAN
6	SITE PLAN
7	SITE PLAN – S7
8	SITE PLAN – S8
9	SITE PLAN – S9
10	SITE PLAN – S10
11	SECTIONS
12	EASEMENT PLAN
13	CONSERVATION EASEMENT METES AND BOUNDS TABLES
14	PLANTING NOTES AND TABLES
15	PLANTING PLAN
16	DETAILS
17	EROSION AND SEDIMENT CONTROL DETAILS



VICINITY MAP  
(ELEVATIONS ARE IN METERS)



- NOTES:
- TOPOGRAPHIC AND PARCEL BOUNDARY SURVEY DATA BASED ON 2013/2014 SURVEY FROM MICHAEL BAKER CORPORATION. COORDINATES SHOWN ARE EXPRESSED IN US SURVEY FEET AND REFERENCED TO NORTH AMERICAN DATUM OF 1983 (NAD 83), UTM ZONE 18.
  - WETLAND BOUNDARIES BASED ON 2013/2014 DELINEATION BY KLEINSCHMIDT ASSOCIATES.

OWNER: FRANK T. PRICE III

TAX PARCEL ID: 26.–1–27

ACREAGE OF PARCEL: 56.7 ACRES

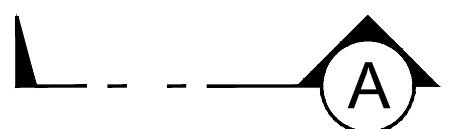
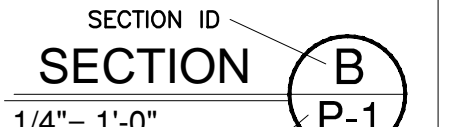

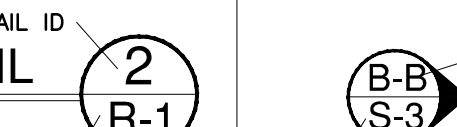

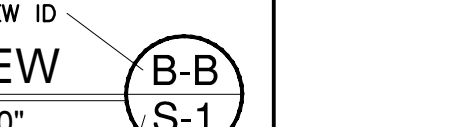

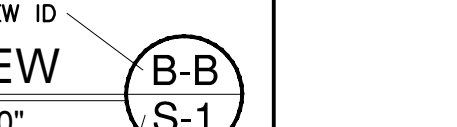
DISTURBED ACREAGE: 8.1 ACRES

ADDRESS: 364 BECKERS CORNERS ROAD

SLOANSVILLE, NY 12160

HUC 8: SCHOHARIE – 02020005

- NOTES:
- SECTIONS ARE ALPHABETICAL.
  - DETAILS ARE NUMERICAL.
  - VIEWS ARE DOUBLE ALPHABETICAL.

SECTION/DETAIL IDENTIFICATION SYMBOLS			
 SECTION ID THIS SECTION IS CUT AND SHOWN ON THE SAME SHEET	 SECTION ID THIS SECTION IS CUT ON SHEET P-1 AND SHOWN ON SHEET P-3	 DETAIL ID THIS DETAIL IS TAKEN AND SHOWN ON THE SAME SHEET	 DETAIL ID THIS DETAIL IS TAKEN ON SHEET R-1 AND SHOWN ON SHEET R-3
 VIEW ID THIS VIEW IS TAKEN AND SHOWN ON THE SAME SHEET	 VIEW ID THIS VIEW IS TAKEN ON SHEET S-1 AND SHOWN ON SHEET S-3	 VIEW ID THIS VIEW IS TAKEN AND SHOWN ON THE SAME SHEET	 VIEW ID THIS VIEW IS TAKEN ON SHEET S-1 AND SHOWN ON SHEET S-3



No.	Revision	Date	Drawn	Checked
-	-	-	-	-
Designed	Drawn	Checked	Project No.	Date Revised
DDW	DDW	TAK	3786-001	7-31-2014

CONSTITUTION PIPELINE, LLC WETLAND MITIGATION		
SITE SC-65: BECKERS CORNERS ROAD		
COVER SHEET		
<b>Kleinschmidt</b>		141 Main Street P.O. Box 650 Pittsfield, Maine 04967 Telephone: (207) 487-3328 Fax: (207) 487-3124 www.KleinschmidtUSA.com
Drawing No.		1



3"  
2"  
1"  
0  
22x34 = FULL SCALE  
J:\3786\001\05 Wetland Mitigation\002 Final Plans\SC-65\Drawings\3786-001-SC-65 Sheet 2 Gen Notes.dwg  
REVISED: Jul. 31, 2014 - 10:56 AM

GENERAL NOTES

- SUBCONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH THESE DRAWINGS AND THE PROJECT SPECIFICATIONS.
- IT IS THE RESPONSIBILITY OF THE SUBCONTRACTOR TO REVIEW ALL OF THE DRAWINGS, SPECIFICATIONS, AND REFERENCED DOCUMENTS ASSOCIATED WITH THE PROJECT PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE SUBCONTRACTOR FIND ANY CONFLICT WITH THE DOCUMENTS, IT IS THE SUBCONTRACTOR'S RESPONSIBILITY TO NOTIFY KLEINSCHMIDT AND THE ENGINEER OF RECORD, IN WRITING, PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE SUBCONTRACTOR TO NOTIFY KLEINSCHMIDT AND THE ENGINEER OF RECORD SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE SUBCONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND SPECIFICATIONS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
- IT IS THE RESPONSIBILITY OF THE SUBCONTRACTOR TO FULFILL ALL REQUIREMENTS OF THE CONTRACT AND ALL AMENDMENTS THERETO, INCLUDING BUT NOT LIMITED TO GENERAL CONDITIONS, SPECIAL CONDITIONS, TECHNICAL SPECIFICATIONS AND THESE DRAWINGS IN ORDER TO COMPLETE THIS PROJECT.
- ALL EXISTING AND PROPOSED DIMENSIONS, FEATURES, UTILITIES AND ELEVATIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE SUBCONTRACTOR PRIOR TO CONSTRUCTION. SUBCONTRACTOR SHALL NOTIFY KLEINSCHMIDT, IN WRITING, IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH THE CONSTRUCTION TO OBTAIN NECESSARY PLAN CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE SUBCONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO ERRORS & OMISSIONS SHOWN ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN. KLEINSCHMIDT RESERVES THE RIGHT TO MODIFY THESE PLANS.
- SUBCONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, LAYOUT AND EXISTING CONDITIONS SHOWN PRIOR TO SHOP DRAWING SUBMITTAL, ORDERING MATERIAL, START OF FABRICATION, OR START OF CONSTRUCTION. SUBCONTRACTOR SHALL NOTIFY KLEINSCHMIDT OF DISCREPANCIES.
- THE SUBCONTRACTOR SHALL BE FAMILIAR WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL APPROVALS AND PERMITS FOR THE PROJECT AND SHALL HAVE A COPY OF RELEVANT PLANS AND PERMITS ON SITE AT ALL TIMES. THE SUBCONTRACTOR SHALL NOT PROCEED WITH THEIR WORK UNTIL ALL RELEVANT PERMITS ARE OBTAINED.
- THE SUBCONTRACTOR IS RESPONSIBLE FOR PROTECTING THE ENVIRONMENT.
- SUBCONTRACTOR SHALL SCHEDULE WORK IN COOPERATION WITH THE OWNER AND KLEINSCHMIDT.
- SUBCONTRACTOR SHALL PROVIDE SUBMITTALS AND RECEIVE KLEINSCHMIDT'S APPROVAL FOR ALL STRUCTURAL AND MISCELLANEOUS METAL ITEMS AND CONCRETE REINFORCEMENT PRIOR TO FABRICATION.
- SUBCONTRACTOR SHALL CLEAN UP ANY SPILLS OR DEBRIS CAUSED BY CONSTRUCTION.
- SUBCONTRACTOR SHALL REPAIR ANY PORTIONS OF THE SITE THAT ARE DAMAGED DURING CONSTRUCTION, AND PERFORM LANDSCAPING AND SITE REMEDIATION AS NECESSARY TO LEAVE THE WORK AREA AS CLOSE TO ORIGINAL CONDITION AS POSSIBLE.
- ALL WORK SHALL BE CONDUCTED PER THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
- THE SUBCONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK. THE SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUE AND PROCEDURE OF CONSTRUCTION; INCLUDING, BUT NOT LIMITED TO, BRACING OF THE WORK AS REQUIRED TO PROTECT THE WORK UNTIL THE PROJECT IS COMPLETE. SUBCONTRACTOR SHALL NOT PLACE EQUIPMENT OR MATERIALS OUTSIDE OF THE LIMIT OF WORK SHOWN ON THE PLANS WITHOUT WRITTEN CONSENT FROM KLEINSCHMIDT AND THE CONSERVATION DISTRICT.
- ATTENTION ALL SUBCONTRACTORS: LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS AND ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES. SEE STATE SPECIFIC REQUIREMENTS, THIS PAGE.
- THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR AND PROVIDE ALL CONSTRUCTION STAKEOUT AND SURVEY WORK NECESSARY FOR THEIR WORK, UNLESS ARRANGED OTHERWISE WITH KLEINSCHMIDT. ANY DISCREPANCIES FOUND DURING THE COURSE OF THE SURVEY WORK SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF KLEINSCHMIDT.
- THE SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.
- THE SUBCONTRACTOR SHALL BE RESPONSIBLE TO SECURE ALL MATERIAL, EQUIPMENT, SUPPLIES, ETC., STORED AT THE SITE.
- THE SUBCONTRACTOR SHALL BE RESPONSIBLE TO CLEAN PROJECT SITE OF ALL WASTE, FILL, DEBRIS, ETC. DAILY AND PRIOR TO LEAVING THE SITE.
- ANY DAMAGE TO THE UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE SUBCONTRACTOR, AND ALL COST FOR REPAIRS SHALL BE BORNE BY THE SUBCONTRACTOR.
- NO TREES SHALL BE DISTURBED UNLESS INDICATED ON THE PLANS THAT THEY ARE TO BE REMOVED.
- NO WETLANDS SHALL BE DISTURBED UNLESS INDICATED ON THE PLANS AND ALL APPROPRIATE PERMITS ARE IN PLACE.
- THE SUBCONTRACTOR SHALL COMPLY WITH ALL CONDITIONS CONTAINED IN RELEVANT PERMITS ISSUED FOR THIS PROJECT.

- SURVEY DATA ARE BASED ON TOPOGRAPHIC SURVEY BY MICHAEL BAKER CORPORATION. COORDINATES SHOWN ARE EXPRESSED IN U.S. SURVEY FEET AND REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD 83), UTM ZONE 18.
- WETLAND BOUNDARIES BASED ON 2013/2014 DELINEATION BY KLEINSCHMIDT. WETLANDS WERE DELINEATED BASED ON THE USACE 2012 REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION (VERSION 2.0).
- THE SUBCONTRACTOR SHALL BE ADVISED THAT THE PROJECT MAY BE LOCATED IN AN AREA PRONE TO FLOODING AND SEVERE WEATHER. THE SUBCONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT THE PROJECT WHILE UNDER CONSTRUCTION, WHICH MAY INCLUDE SEQUENCING THE PROJECT TO PROTECT TEMPORARY AND PERMANENT STRUCTURES. THIS INCLUDES, BUT IS NOT LIMITED TO, PROTECTION FROM STORMS, FLOODS, WIND, AND RECREATIONAL USERS. THE SUBCONTRACTOR IS SOLELY RESPONSIBLE FOR THE PROTECTION OF THE PROJECT SITE, TEMPORARY FACILITIES, FALSEWORK, EQUIPMENT, PERSONNEL, WORK, MATERIALS, AND OTHER PROPERTIES, THE PUBLIC, OR INDUSTRY.
- EVERY SUBCONTRACTOR SHALL COOPERATE WITH AND MAKE ALLOWANCES FOR OTHER SUBCONTRACTORS.
- SUBCONTRACTOR SHALL PARK IN DESIGNATED AREAS ONLY.
- TO THE GREATEST EXTENT POSSIBLE ALL TRAFFIC SHALL REMAIN ON DESIGNATED TRAVELWAYS. ANY DAMAGE TO TURF OR FIELDS SHALL BE REPORTED AND REPAIRED IMMEDIATELY BY THE SUBCONTRACTOR.
- ALL SUBCONTRACTORS SHALL SUBMIT THE FOLLOWING FOR APPROVAL:
  - PHASING AND SEQUENCING PLAN: SUBMIT PLAN NO LESS THAN 14 DAYS PRIOR TO COMMENCING WORK.
  - POLLUTION PREVENTION AND CONTROL PLAN: SUBMIT SITE SPECIFIC PLAN NO LESS THAN 14 DAYS PRIOR TO COMMENCING WORK.
  - SITE SPECIFIC SAFETY PLAN: SUBMIT PLAN NO LESS THAN 14 DAYS PRIOR TO COMMENCING WORK.
- ALL EQUIPMENT IS TO BE IN COMPLIANCE WITH ALL OSHA AND DOSH SAFETY SPECIFICATIONS INCLUDING, FUNCTIONING BACKUP ALARMS AND MIRRORS FOR SAFE BACKING.
- ALL HEAVY EQUIPMENT IS TO BE PROPERLY MAINTAINED SUCH THAT ALL ACCESSORIES ARE FUNCTIONING ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.
- THE SUBCONTRACTOR SHALL IMMEDIATELY NOTIFY KLEINSCHMIDT AND CONSTRUCTION MANAGER OF ANY UNINTENTIONAL RELEASE OF ANY CHEMICAL (INCLUDING BUT NOT LIMITED TO, DIESEL FUEL, HYDRAULIC OIL, HERBICIDE) WHILE ON THE PROJECT SITE AND SHALL IMMEDIATELY TAKE MEASURES TO CONTAIN AND CLEAN UP SUCH SPILLED MATERIALS, INCLUDING THE REMOVAL OF CONTAMINATED SOIL. THE SUBCONTRACTOR SHALL, AT ALL TIMES, HAVE EQUIPMENT AND SUPPLIES READILY AVAILABLE TO ADEQUATELY CONTROL AND CLEAN UP ANY CHEMICAL SPILLS. THE SUBCONTRACTOR SHALL ALSO BE RESPONSIBLE FOR NOTIFICATION OF ALL APPLICABLE AGENCIES IN THE EVENT OF AN UNCONTROLLED CHEMICAL RELEASE. THE SUBCONTRACTOR IS SOLEY RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE SPILL, INCLUDING SITE CLEANUP, DISPOSAL OF MATERIAL, AND COSTS FOR DELAYS TO THE PROJECT SCHEDULE CAUSED BY THE SPILL.

NEW YORK GENERAL NOTES

- THE SUBCONTRACTOR WILL BE RESPONSIBLE FOR CONDUCTING UNDERGROUND UTILITY CHECKS, IN ACCORDANCE WITH STATE REGULATIONS. THE SUBCONTRACTOR WILL BE RESPONSIBLE FOR COORDINATING WITH DIG SAFELY NEW YORK (1-800-962-7962) A MINIMUM OF THREE (3) FULL WORKING DAYS IN ADVANCE OF ANY DIGGING ACTIVITY. SHOULD ANY UTILITIES BE LOCATED THAT ARE IN CONFLICT WITH THE DESIGN, THE SUBCONTRACTOR SHALL IMMEDIATELY REPORT THESE CONFLICTS IN WRITING TO KLEINSCHMIDT.
- ALL MATERIALS SHALL BE PROVIDED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS UNLESS NOTED OTHERWISE.
- ALL MATERIALS SHALL BE PROVIDED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION REQUIREMENTS FOR SOIL AND EROSION PROTECTION.

EXCAVATION CONTRACTOR NOTES

- EXCAVATION SUBCONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION. THIS AND ALL OTHER SITE WORK MUST BE IN ACCORDANCE WITH CURRENT OSHA STANDARDS.
- NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE EXCAVATION SUBCONTRACTOR THOROUGHLY REVIEWS AND UNDERSTANDS ALL PLANS AND OTHER DOCUMENTS BY ALL PERMITTING AUTHORITIES.
- CONSERVATION DISTRICT EROSION AND SEDIMENT CONTROL ADEQUACY LETTER TO BE APPROVED PRIOR TO SITE DISTURBANCE, AS REQUIRED BY THE CONSERVATION DISTRICT.
- NO EARTH MOVING ACTIVITIES SHALL BEGIN PRIOR TO THE INSTALLATION OF THE TREE OR RESTRICTED AREA PROTECTIVE FENCING, AS REQUIRED BY THESE PLANS.
- ANY SOLID WASTE FROM THE SITE SHALL BE DISPOSED OF BY EXCAVATION SUBCONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
- WATER THAT ACCUMULATES IN OPEN TRENCHES WILL BE COMPLETELY REMOVED BY PUMPING BEFORE CONSTRUCTION AND/OR BACKFILLING BEGINS. WATER MUST BE PUMPED THROUGH A FILTER BAG ON TO A STABLE SURFACE OR INTO THE SEDIMENT BASIN. CONCRETE SHALL BE PLACED IN A CLEAN DRY TRENCH ONLY.

- EXCAVATIONS OR TRENCHING WITHIN THE CLOSE PROXIMITY TO UNDERGROUND FACILITIES OR UTILITY POLES WILL REQUIRE PROTECTION TO PREVENT DAMAGE OR INTERRUPTION OF SERVICE. THE COST TO PROVIDE THE PROTECTION WILL BE BORNE BY THE EXCAVATION SUBCONTRACTOR.
- COMPACTION IN FILL AREAS BENEATH ALL PROPOSED STRUCTURES SHOULD MEET ALL MANUFACTURER AND TOWNSHIP REQUIREMENTS AND BE EQUAL TO THE 98% MODIFIED PROCTOR DENSITY, AT A MINIMUM.
- ALL CONCRETE UTILIZED ON SITE SHALL BE 4,000 PSI (MINIMUM 28 DAY COMPRESSIVE STRENGTH) WITH 5% AIR ENTRAINMENT, UNLESS OTHERWISE NOTED.

SC-65 Soil Data							
Soil Symbol	Soil Name	Slope (%)	HSG	Frost Action	Kf (whole soil)	Depth to Fragipan (in)	Depth to Lithic Bedrock (in)
Al	Alluvial land		A/D	High	0.24	>78.7	N/A
BrB	Burdett and Erie channery silt loams	3-8	C/D	High	0.24	>78.7	N/A
BrC	Burdett and Erie channery silt loams	8-15	C/D	High	0.24	>78.7	N/A
IlC	Ilion and Lyons silt loams	3-15	C/D	High	0.28	>78.7	N/A
LyB	Lyons and Ilion very stony soils	0-8	B/D	High	0.28	>78.7	N/A
Ma	Maddalin silt loam, over till		C/D	High	0.37	>78.7	N/A
MeE	Mardin and Culvers very stony soils	0-35	D	Moderate	0.24	22.0	N/A
NcA	NORWICH AND CHIPPEWA SOILS	0-3	D	HIGH	0.32	16.1	>78.7
NIC	Nunda and Langford channery silt loams	8-15	C/D	High	0.24	>78.7	N/A
NID	Nunda and Langford channery silt loams	15-25	C/D	High	0.24	>78.7	N/A
VmC	Volusia, Morris, and Erie soils, very stony	0-15	D	High	0.24	16.9	N/A

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No.	Revision	Date	Drawn	Checked
		Designed	Drawn	Checked
		DDW	DDW	TAK

CONSTITUTION PIPELINE, LLC  
WETLAND MITIGATION

SITE SC-65: BECKERS CORNERS ROAD

GENERAL NOTES

**Kleinschmidt**

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Project No. 3786-001

Date Revised 7-31-2014

Drawing No.









WETLAND METES AND BOUNDS TABLE		
Line #	Length	Direction
L1	54.51	N52° 30' 58"W
L2	51.13	N2° 59' 32"W
L3	73.75	N65° 02' 23"W
L4	31.90	N55° 09' 42"W
L5	40.45	N55° 09' 42"W
L6	53.31	N4° 11' 08"W
L7	57.89	N15° 59' 45"E
L8	30.48	S89° 55' 29"E
L9	41.45	N8° 39' 38"W
L10	55.38	N84° 59' 10"W
L11	50.58	S34° 23' 30"W
L12	43.65	S14° 56' 24"W
L13	46.03	N61° 39' 40"W
L14	49.05	N11° 21' 58"E
L15	53.11	N36° 54' 17"W
L16	46.67	N82° 16' 42"W
L17	50.97	N45° 48' 33"W
L18	47.73	N27° 51' 51"W
L19	28.66	N64° 25' 08"W
L20	26.00	N64° 25' 08"W

WETLAND METES AND BOUNDS TABLE		
Line #	Length	Direction
L21	199.77	S79° 06' 48"W
L22	250.34	S71° 11' 13"W
L23	233.47	S77° 31' 50"W
L24	255.84	S78° 00' 18"W
L25	57.58	S81° 16' 44"W
L26	553.58	S19° 47' 07"E
L27	553.58	S19° 47' 07"E
L28	26.89	S83° 36' 54"E
L29	44.36	S18° 20' 01"E
L30	54.21	S3° 07' 37"E
L31	55.13	S27° 38' 46"E
L32	43.59	S20° 54' 51"E
L33	54.36	S25° 34' 51"E
L34	17.08	S51° 12' 09"W
L35	2.69	S21° 00' 23"E
L36	155.25	N82° 59' 34"E
L37	59.18	N74° 52' 35"W
L38	56.35	N82° 09' 25"W
L39	44.90	N32° 24' 06"W
L40	35.34	N52° 54' 43"E

WETLAND METES AND BOUNDS TABLE		
Line #	Length	Direction
L41	41.06	N21° 14' 49"W
L42	55.28	N56° 50' 45"W
L43	68.21	N10° 14' 06"W
L44	46.37	N37° 46' 58"W
L45	34.43	N5° 54' 27"E
L46	56.58	N4° 31' 50"E
L47	66.10	N30° 08' 49"E
L48	53.25	N35° 06' 59"E
L49	50.28	N13° 05' 49"E
L50	44.02	N27° 58' 17"E
L51	67.21	N17° 40' 45"E
L52	52.96	N84° 10' 48"E
L53	44.08	S88° 30' 18"E
L54	57.48	N12° 43' 35"E
L55	68.16	N28° 00' 39"E
L56	67.28	N23° 35' 16"E
L57	65.65	N2° 20' 03"E
L58	77.26	N61° 21' 33"E
L59	54.85	S56° 26' 27"E
L60	60.65	S62° 22' 05"E

WETLAND METES AND BOUNDS TABLE		
Line #	Length	Direction
L61	53.74	S42° 04' 16"E
L62	58.68	S9° 24' 19"E
L63	65.79	S89° 14' 39"E
L64	67.74	S75° 29' 21"E
L65	52.04	S34° 30' 31"E
L66	41.20	N89° 47' 29"E
L67	77.43	N1° 07' 02"E
L68	51.99	N78° 47' 50"E
L69	71.31	S23° 33' 14"E
L70	46.13	S53° 57' 35"E
L71	43.58	N53° 54' 58"E
L72	57.04	N24° 31' 12"E
L73	72.72	S63° 14' 36"E
L74	73.46	S78° 47' 55"E
L75	89.33	S26° 31' 07"W
L76	65.13	S13° 23' 09"E
L77	61.62	S12° 57' 47"E
L78	47.34	S3° 54' 01"W
L79	49.47	S5° 28' 28"W
L80	45.53	S3° 11' 35"E

WETLAND METES AND BOUNDS TABLE		
Line #	Length	Direction
L81	56.64	S6° 11' 19"E
L82	59.40	S4° 41' 53"E
L83	35.57	S4° 59' 38"E
L84	44.41	S1° 26' 19"W
L85	43.82	S18° 09' 30"W
L86	12.54	S14° 27' 00"W
L87	29.44	N84° 54' 23"E
L88	11.56	N16° 51' 41"E
L89	48.26	N59° 11' 20"E
L90	68.67	N36° 00' 45"W
L91	44.20	N9° 44' 51"W
L92	59.13	N0° 38' 29"E
L93	7.14	N1° 43' 29"E
L94	66.26	N1° 43' 29"E
L95	86.64	N2° 16' 55"W
L96	46.70	N2° 06' 01"W
L97	46.67	N0° 01' 13"W
L98	63.98	N10° 49' 53"W
L99	61.09	N10° 52' 46"E
L100	35.53	N38° 23' 30"E

BORINGS AND SOIL PIT TESTS							
BORING/ SOIL PIT ID	EXIST. SURFACE	PROPOSED SURFACE (SEE SHEETS 6-10)	REDOX FEATURE DEPTH (BLS)	DEPTH TO SATURATE D SOIL (BLS)	DEPTH TO STANDING WATER (BLS)	SOIL TYPE (SURFACE FIRST)	DATE OF SAMPLE
SC-65-1	1161.1'	1161.1'	-	-	1156.8' (4.3')	silt w/ sand	11/20/2013
SC-65-2	1135.2'	1135.2'	-	-	-	Silt w/ sand, sandy silt w/ gravel	12/10/2013
SC-65-3	1161.1'	1161.1'	-	-	1156.7' (4.4')	silt w/ sand, silty sand	12/10/2013
SC-65-4	1140.2'	1140.2'	-	-	-	silt w/ sand, silt w/ gravel, silty sand	12/10/2013
SOIL PIT 3	1169.9'	1170.0'	1169.0' (0.9')	1167.7' (2.2')	-	clay silt, sandy silt w/ gravel	12/10/2013
SOIL PIT 4	1174.8'	1174.8'	1174.4' (0.4')	1174.3' (0.5')	1173.8' (1.0')	very fine sandy clay w/ gravel, fine sandy clay w/ gravel	12/10/2013
SOIL PIT 5	1164.8'	1164.8'	1164.2' (0.6')	1164.4' (0.4')	1164.1' (0.7')	fine sandy clay	12/10/2013

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No.	Revision	Date	Drawn	Checked
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Project No.		Date Revised	Drawing
3786-001		7-31-2014	No.

CONSTITUTION PIPELINE, LLC WETLAND MITIGATION	
SITE SC-65: BECKERS CORNERS ROAD	
WETLANDS METES AND BOUNDS TABLES	
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LEGEND

- MAJOR CONTOUR (5' INTERVALS)
- MINOR CONTOUR (1' INTERVALS)
- PROPERTY LINE
- WETLAND BOUNDARY
- ROCK WALL
- TREELINE
- FENCE
- STREAM
- SOIL PIT TEST CORRESPONDING TO TABLE ON SHEET NO. 4
- GEOTECH BORING CORRESPONDING TO TABLE ON SHEET NO. 4
- SOIL BOUNDARY
- APPROXIMATE LOCATION OF INVASIVE SPECIES (TYP)

NOTE  
1. TREAT FOR INVASIVE SPECIES WHERE FOUND WITHIN THE PROPOSED PLANTING AND CONSTRUCTION AREA.



CONSTITUTION PIPELINE, LLC  
WETLAND MITIGATION

SITE SC-65: BECKERS CORNERS ROAD

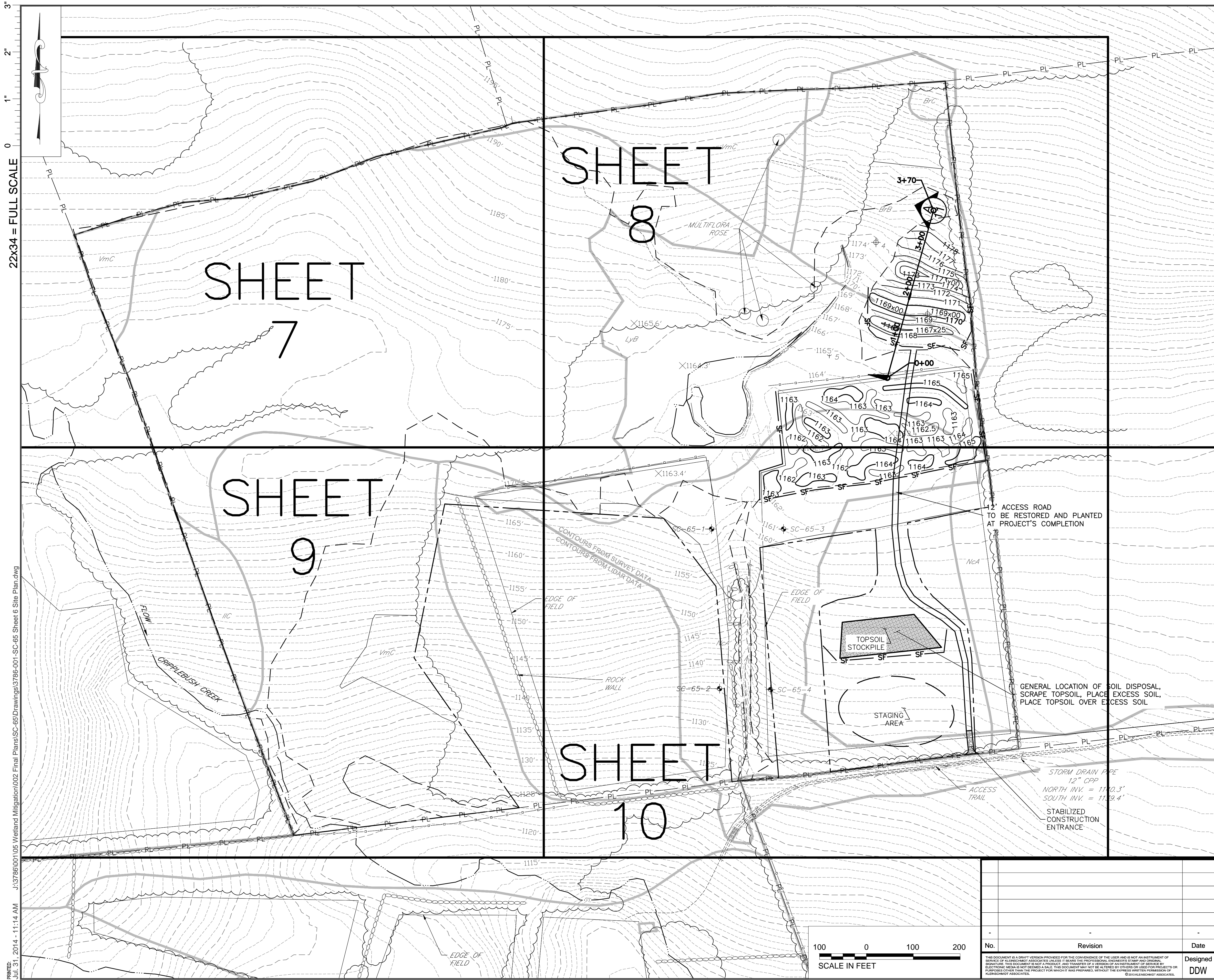
DEMOLITION PLAN

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SCALE IN FEET





- LEGEND
- MAJOR CONTOUR (5' INTERVALS)
  - MINOR CONTOUR (1' INTERVALS)
  - PROPERTY LINE
  - WETLAND BOUNDARY
  - ROCK WALL
  - TREELINE
  - FENCE
  - STREAM
  - SOIL PIT TEST CORRESPONDING TO TABLE ON SHEET NO. 4
  - GEOTECH BORING CORRESPONDING TO TABLE ON SHEET NO. 4
  - SOIL BOUNDARY
  - APPROXIMATE LOCATION OF INVASIVE SPECIES (TYP)
  - SILT FENCE
  - PROPOSED CONTOURS
  - PERMANENT EASEMENT
  - TEMPORARY EASEMENT/LIMIT OF DISTURBANCE



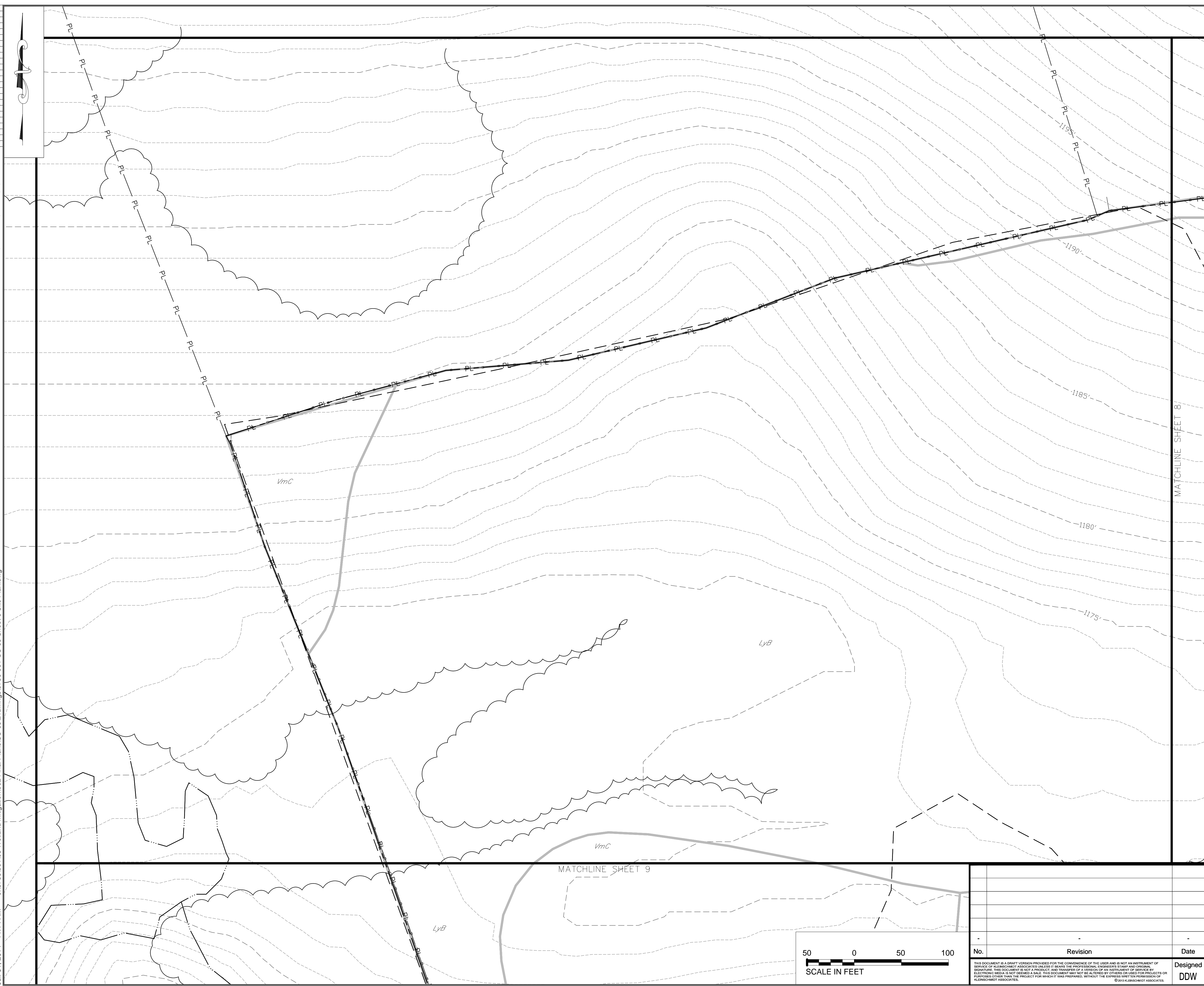
CONSTITUTION PIPELINE, LLC WETLAND MITIGATION		
SITE SC-65: BECKERS CORNERS ROAD		
SITE PLAN		
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22x34 = FULL SCALE

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LEGEND

- MAJOR CONTOUR (5' INTERVALS)
- MINOR CONTOUR (1' INTERVALS)
- PL PL PROPERTY LINE
- WETLAND BOUNDARY
- ROCK WALL
- TREELINE
- FENCE
- STREAM
- SOIL PIT TEST CORRESPONDING TO TABLE ON SHEET NO. 4
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CONSTITUTION PIPELINE, LLC  
WETLAND MITIGATION

SITE SC-65: BECKERS CORNERS ROAD

SITE PLAN - S7

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LEGEND	
	MAJOR CONTOUR (5' INTERVALS)
	MINOR CONTOUR (1' INTERVALS)
	PROPERTY LINE
	WETLAND BOUNDARY
	ROCK WALL
	TREELINE
	FENCE
	STREAM
	SOIL PIT TEST CORRESPONDING TO TABLE ON SHEET NO. 4
	GEOTECH BORING CORRESPONDING TO TABLE ON SHEET NO. 4
	SOIL BOUNDARY
	APPROXIMATE LOCATION OF INVASIVE SPECIES (TYP)
	SILT FENCE
	PROPOSED CONTOURS
	PERMANENT EASEMENT
	TEMPORARY EASEMENT/LIMIT OF DISTURBANCE



CONSTITUTION PIPELINE, LLC WETLAND MITIGATION				
SITE SC-65: BECKERS CORNERS ROAD				
SITE PLAN - S8				
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3786-001	7-31-2014			



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Project No. 3786-001	Date Revised 7-31-2014	Drawing No.	9
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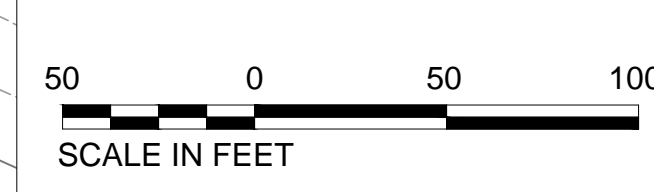
22x34 = FULL SCALE



LEGEND	
	MAJOR CONTOUR (5' INTERVALS)
	MINOR CONTOUR (1' INTERVALS)
	PROPERTY LINE
	WETLAND BOUNDARY
	ROCK WALL
	TREELINE
	FENCE
	STREAM
	SOIL PIT TEST CORRESPONDING TO TABLE ON SHEET NO. 4
	GEOTECH BORING CORRESPONDING TO TABLE ON SHEET NO. 4
	SOIL BOUNDARY
	APPROXIMATE LOCATION OF INVASIVE SPECIES (TYP)
	SILAGE FENCE
	PROPOSED CONTOURS
	PERMANENT EASEMENT
	TEMPORARY EASEMENT/LIMIT OF DISTURBANCE



CONSTITUTION PIPELINE, LLC WETLAND MITIGATION	
SITE SC-65: BECKERS CORNERS ROAD	
SITE PLAN - S10	
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Date	7-31-2014
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Project No.	3786-001
Date Revised	7-31-2014
Drawing No.	10

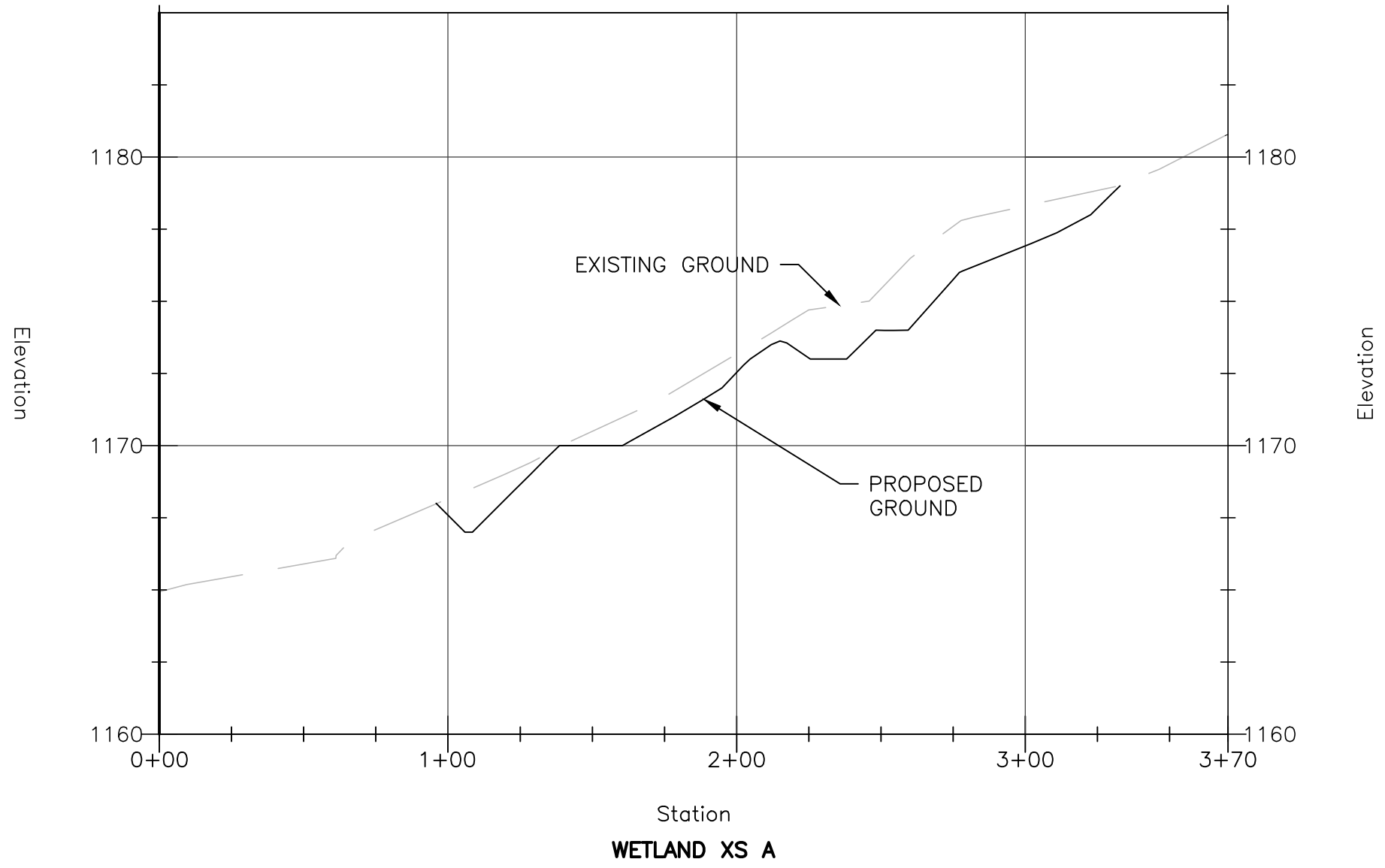


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Checked	TAK			



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SECTION A  
HORIZONTAL: 1"= 50'  
VERTICAL: 1"= 5'



					CONSTITUTION PIPELINE, LLC WETLAND MITIGATION			
					SITE SC-65: BECKERS CORNERS ROAD			
					SECTIONS			
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-	-	-	-	-	3786-001	7-31-2014		
DESIGNED DDW DRAWN DDW CHECKED TAK								



LEGEND

PL

PL

PROPERTY LINE

-----

-----

STREAM

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-----

ROCK WALL

-----

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TREELINE

PERMANENT EASEMENT AREA:

42.5 ACRES

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			Drawing No.	

CONSTITUTION PIPELINE, LLC  
WETLAND MITIGATION

SITE SC-65: BECKERS CORNERS ROAD

EASEMENT PLAN

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PERMANENT EASEMENT METES AND BOUNDS TABLE		
Line #	Length	Direction
L1	260.35	N80° 55' 41"E
L2	245.04	N78° 53' 44"E
L3	60.82	N6° 02' 05"W
L4	39.28	N8° 03' 38"W
L5	155.79	N8° 03' 38"W
L6	66.67	N4° 53' 04"W
L7	112.37	N4° 08' 01"W
L8	49.29	N9° 27' 47"W
L9	78.25	N6° 39' 41"W
L10	72.49	N6° 39' 41"W
L11	86.73	N5° 55' 40"W
L12	190.90	N5° 55' 40"W
L13	198.74	S85° 44' 58"W
L14	109.68	S88° 41' 19"W
L15	174.95	S87° 06' 49"W
L16	157.79	S80° 39' 21"W
L17	287.40	S82° 26' 18"W
L18	24.30	S66° 42' 03"W
L19	275.93	S77° 02' 04"W
L20	145.92	S68° 50' 16"W
L21	149.94	S76° 48' 55"W
L22	130.45	S85° 14' 48"W
L23	120.41	S74° 53' 19"W
L24	122.90	S71° 55' 24"W
L25	10.41	S27° 38' 43"E
L26	114.15	S18° 29' 57"E
L27	206.76	S22° 04' 42"E
L28	474.36	S19° 14' 05"E
L29	278.94	S19° 47' 07"E
L30	279.51	S20° 51' 53"E
L31	485.08	N83° 01' 29"E
L32	390.82	N35° 04' 12"W
L33	334.67	N11° 17' 24"E
L34	468.04	S86° 15' 30"E
L35	183.18	S37° 34' 59"E
L36	418.21	S4° 41' 08"E
L37	17.71	N83° 01' 29"E
L38	82.31	N85° 18' 52"E
L39	492.29	N4° 41' 08"W



					CONSTITUTION PIPELINE, LLC WETLAND MITIGATION					
					SITE SC-65: BECKERS CORNERS ROAD					
					CONSERVATION EASEMENT METES AND BOUNDS TABLES					
					<div><div><b>Kleinschmidt</b></div><div>141 Main Street P.O. Box 650 Pittsfield, Maine 04967 Telephone: (207) 487-3328 Fax: (207) 487-3124 www.KleinschmidtUSA.com</div></div>					
-	-	-	-	-	Designed	Drawn	Checked	Project No.	Date Revised	Drawing No.
No.	Revision	Date	Drawn	Checked	DDW	DDW	TAK	3786-001	7-31-2014	
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22x34 = FULL SCALE  
REVISED: Aug. 4, 2014 - 9:51 AM J:\3786\001\05 Wetland Mitigation\002 Final Plans\SC-65\Drawings\3786-001-SC-65 Sheet 14 Planting Notes & Tables.dwg

PLANTING NOTES

1. THE PLANTING CONTRACTOR SHALL FOLLOW GENERAL INDUSTRY STANDARDS AND THE PLANTING DENSITY TABLE PROVIDED IN THE PLANS FOR PLANTING IN APPROVED CLUMPS OR GROUPS NEAR THE HIGHER END OF THE SPECIFIED ELEVATION RANGES.
2. THE PLANTING CONTRACTOR IS RESPONSIBLE FOR PLANTING AT APPROPRIATE ELEVATIONS AND WATER DEPTHS.
3. THE PLANTING CONTRACTOR SHALL PRESERVE AND MAINTAIN THE PLANTS IN A HEALTHY CONDITION DURING THE ESTABLISHMENT PERIOD. THE ESTABLISHMENT PERIOD WILL END AS SPECIFIED IN THE SPECIFICATIONS.
4. ALL PLANTING MATERIAL SHALL BE FREE OF UNWANTED SEED OR INVASIVE PLANT MATERIAL.
5. THE PLANTING CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING PRIOR TO PLANT INSTALLATION IF CONFLICTS BETWEEN THE CONTRACT DOCUMENTS AND FIELD CONDITIONS ARE FOUND.
6. THE PLANTING CONTRACTOR IS RESPONSIBLE TO GROW OR ACQUIRE THE REQUIRED PLANT MATERIAL. THE PLANT MATERIAL SHALL BE OF THE SIZE SPECIFIED AT THE TIME OF PLANTING. KLEINSCHMIDT ASSOCIATES SHALL BE AFFORDED THE OPPORTUNITY TO INSPECT THE PLANT MATERIAL PERIODICALLY AND PRIOR TO INSTALLATION. ANY PLANT MATERIAL REJECTED SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR IS RESPONSIBLE TO START THE PLANTS TO ENABLE PLANTING WITHIN THE TIMEFRAME ESTABLISHED BY THE CONTRACT FOR THIS WORK.
7. THE PLANTING CONTRACTOR WILL PLANT IN SPECIFIED AREAS PER PLANS, AFTER THE EXCAVATION CONTRACTOR HAS GRADED THE SITE, AND COMPLETED THEIR WORK ON THE SITE AREA TO BE PLANTED. AFTER KLEINSCHMIDT NOTIFIES THE CONTRACTOR THAT THE AS-BUILT SURVEY HAS BEEN APPROVED, THE PLANTING CONTRACTOR MAY BEGIN PLANTING THE SITE.

		Trees			Seed		Herbaceous
Zone	Type	Acres	(200/acre)	Shrubs	(20 lbs/acre)	Plugs	
Upland Buffer	Establishment	2.3		(50/acre)			
Tree	#3	90%	414				
Tree	#7	10%	46				
Shrub	#1	100%		115			
Seed	lbs	100%			46		
Forested Wetland	Establishment	1.0	(450/acre)	(50/acre)			
Tree	#3	90%	40.5				
Tree	#7	10%	4.5				
Shrub	#1	100%		5			
Seed	lbs	100%			2		
Forested Wetland	Enhancement	0.4		(50/acre)			
Tree	#3	90%	72				
Tree	#7	10%	8				
Shrub	#1	100%		20			
Seed	lbs	100%			8		
Scrub Shrub Wetland	Enhancement	1.3		(300/acre)		(1,000/acre)	
Shrub	#1	50%		195			
Shrub	#3	50%		195			
Seed	lbs	100%			26		
Herbaceous	plugs	100%				1,300	
Emergent Wetland	Establishment	0.3				(2,000/acre)	
Seed	lbs	100%			6		
Herbaceous	plugs	100%				600	
Emergent Wetland	Enhancement	0.9				(2,000/acre)	
Seed	lbs	100%			18		
Herbaceous	plugs	100%				1,800	
		TOTALS:	585	420	221	2,400	

UPLAND BUFFER: TREES			
Scientific name	Common Name	NCNE	mix ratio
<i>Acer rubrum</i>	Silver maple	FACW	60%
<i>Acer saccharinum</i>	Sugar maple	FACU	
<i>Betula alleghaniensis</i>	Yellow birch	FAC	
<i>Betula papyrifera</i>	Paper birch	FACU	
<i>Betula populifolia</i>	Gray birch	FAC	
<i>Carpinus caroliniana</i>	American hornbeam	FAC	
<i>Nyssa sylvatica</i>	Black gum	FAC	
<i>Platanus occidentalis</i>	American sycamore	FACW	
<i>Populus deltoides</i>	Cottonwood	FAC	
<i>Prunus serotina</i>	Black cherry	FACU	
<i>Quercus bicolor</i>	Swamp white oak	FACW	20%
<i>Tsuga canadensis</i>	Eastern hemlock	FACU	
<i>Acer rubrum</i>	Red maple	FAC	
<i>Quercus montana</i>	Chesnut oak	UPL	
<i>Quercus rubra</i>	Northern red oak	FACU	

UPLAND BUFFER: SHRUBS			
Scientific name	Common Name	NCNE	mix ratio
<i>Amelanchier canadensis</i>	Serv iceberry	FAC	100%
<i>Aronia arbutifolia</i>	Red Chokeberry	FACW	
<i>Aronia melanocarpa</i>	Black Chokeberry	FAC	
<i>Prunus virginiana</i>	Chokecherry	FACU	
<i>Viburnum acerifolium</i>	Maple Leaf Viburnum	UPL	
<i>Viburnum lentago</i>	Nannyberry	FAC	
<i>Viburnum prunifolium</i>	Blackhaw	FACU	

UPLAND BUFFER: SEED MIX			
Scientific name	Common Name	NCNE	mix ratio
<i>Andropogon virginicus</i>	Broomsedge	FACU	17.50%
<i>Asclepias syriaca</i>	Common Milkweed		0.94%
Asclepias tuberosa	Butterfly Milkweed		1.25%
Aster lateriflorus	Calico Aster	FAC	0.63%
Bouteloua curtipendula	Sideoats Grama		5.00%
Senna marilandica	Maryland Senna	FACW	0.63%
Coreopsis lanceolata	Lanceleaf Coreopsis	FACU	0.63%
Coreopsis tinctoria	Plains Coreopsis	FACU	0.63%
Desmodium canadense	Showy Tickrefoil	FAC	0.63%
Elymus hystrix	Bottlebrush Grass	FACU	5.00%
Elymus virginicus	Virginia Wildrye	FACW	5.00%
Eragrostis hirsuta	Bigtop Lovegrass	FACU	5.00%
Gallardia aristata	Perennial Gallardia		0.31%
Helenium flexuosum	Purplehead Sneezeweed	FAC	1.25%
Helopsis helianthoides	Oxeye Sunflower	FACU	0.93%
Lespedeza virginica	Slender Bushclover		1.24%
Liatris spicata	Marsh Blazing Star	FAC	0.31%
Panicum virgatum	Switchgrass	FAC	5.00%
Penstemon laevigatus	Appalachian Beardtongue	FACU	0.62%
Rubackia triloba	Browneyed Susan	FACU	1.87%
Schizachyrium scoparium	Little Bluestem	FACU	27.50%
Solidago juncea	Early Goldenrod		1.25%
Solidago rugosa	Wrinkleleaf Goldenrod	FAC	1.25%
Symphotrichum novae-angliae	New England Aster	FACW	0.63%
Tridens flavus	Purpletop	UPL	15.00%

FORESTED WETLAND: TREES			
Scientific name	Common Name	NCNE	mix ratio
<i>Alnus incana rugosa</i>	Speckled alder	FACW	80%
<i>Acer rubrum</i>	Red maple	FAC	
<i>Acer saccharinum</i>	Silver maple	FACW	
<i>Betula populifolia</i>	Gray birch	FAC	
<i>Nyssa sylvatica</i>	Black gum	FAC	
<i>Platanus occidentalis</i>	Sycamore	FACW	
<i>Populus deltoides</i>	Cottonwood	FAC	
<i>Quercus bicolor</i>	Swamp white oak	FACW	
<i>Quercus palustris</i>	Pin oak	FACW	
<i>Betula alleghaniensis</i>	Yellow birch	FAC	20%
<i>Betula nigra</i>	River birch	FACW	
<i>Carpinus caroliniana</i>	American hornbeam	FAC	
<i>Tsuga canadensis</i>	Eastern Hemlock	FACU	
<i>Salix nigra</i>	Black willow	OBL	

FORESTED WETLAND: SHRUBS			
Scientific name	Common Name	NCNE	mix ratio
<i>Alnus serrulata</i>	Smooth Alder	OBL	60%
<i>Cornus amomum</i>	Silky Dogwood	FACW	
<i>Cornus racemosa</i>	Gray Dogwood	FAC	
<i>Lindera benzoin</i>	Spicebush	FACW	
<i>Sambucus canadensis</i>	Elderberry	FACW	
<i>Vaccinium corymbosum</i>	Highbush Blueberry	FACW	
<i>Clethra alnifolia</i>	Sweet Pepperbush	FAC	40%
<i>Ilex verticillata</i>	Winterberry	FACW	
<i>Viburnum cassinoides</i>	Wild Raisin	FACW	
<i>Viburnum dentatum</i>	Arowwood	FAC	
<i>Viburnum lentago</i>	Nannyberry	FACW	

FORESTED WETLAND: SEED MIX			
Scientific name	Common Name	NCNE	mix ratio
Asclepias incarnata	Swamp Milkweed	OBL	3%
Carex folliculata	Northern Long Sedge	OBL	1%
Carex intumescens	Bladder Sedge	FACW	1%
Carex lupulina	Hop Sedge	OBL	5%
Carex lurida	Lurid Sedge	OBL	10%
Carex squarrosa	Squarrose Sedge	OBL	3%
Carex vulpinoidea	Fox Sedge	OBL	25%
Cinna arundinacea	Wood Reedgrass	FACW	1%
Doellingeria umbellata	Flat Topped White Aster	FACW	1%
Elymus virginicus	Virginia Wildrye	FACW	20%
Eupatorium fistulosum	Joe Pye Weed	FACW	1%
Eupatorium perfoliatum	Boneset	FACW	2%
Glyceria canadensis	Rattlesnake Grass	OBL	2%
Helopsis helianthoides	Oxeye Sunflower	FACU	2%
Juncus effusus	Soft Rush	OBL	3%
Lilium superbum	Turk's Cap Lily	FACW	1%
Lobelia siphilitica	Great Blue Lobelia	FACW	1%
Mimulus ringens	Square Stemmed Monkeyflower	OBL	1%
Onoclea sensibilis	Sensitive Fern	FACW	2%
Panicum rigidulum	Redtop Panicgrass	FACW	4%
Polygonum pensylvanicum	Pennsylvania Smartweed	FACW	1%
Pycnanthemum tenuifolium	Slender Mountainmint	FAC	1%
Scirpus polyphyllus	Many Leaved Bulrush	OBL	1%
Sisyrinchium angustifolium	Narrowleaf Blue Eyed Grass	FAC	1%
Symphotrichum novae-angliae	New England Aster	FACW	1%
Symphotrichum prenanthifolium	Zigzag Aster, PA Ecotype	FAC	1%
Symphotrichum puniceum	Purplestem Aster	OBL	1%
Verbena hastata	Blue Vervain	FACW	3%
Vernonia noveboracensis	New York Ironweed	FACW	1%

SCRUB-SHRUB WETLAND: SHRUBS			
Scientific name	Common Name	NCNE	mix ratio
<i>Alnus incana rugosa</i>	Speckled alder	FACW	60%
<i>Cephalanthus occidentalis</i>	Buttonbush	OBL	
<i>Cornus amomum</i>	Silky Dogwood	FACW	
<i>Rosa palustris</i>	Red osier dogwood	FACW	
<i>Ilex verticillata</i>	Winterberry	FACW	
<i>Physocarpus opulifolius</i>	Ninebark	FACW	
<i>Sambucus canadensis</i>	Elderberry	FACW	
<i>Spiraea latifolia</i>	Meadowsweet	FACW	
<i>Rosa palustris</i>	Swamp Rose	OBL	
<i>Viburnum nudum</i>	Possumhaw	FACW	
<i>Alnus serrulata</i>	Smooth Alder	OBL	40%
<i>Salix discolor</i>	Pussy Willow	FACW	
<i>Salix exugia</i>	Sandbar Willow	FACW	
<i>Viburnum dentatum</i>	Arowwood	FAC	

SCRUB-SHRUB WETLAND: HERBACEOUS PLUGS			
Scientific name	Common Name	NCNE	mix ratio
<i>Asclepias incarnata</i>	Swamp Milkweed	OBL	60%
<i>Carex comosa</i>	Bristly Sedge	OBL	
<i>Carex lacustris</i>	Lake Sedge	OBL	
<i>Carex vulpinoidea</i>	Fox Sedge	OBL	
<i>Eutrochium maculatum</i>	Spotted Joe-pye weed	OBL	
<i>Eupatorium perfoliatum</i>	Boneset	FACW	
<i>Lobelia siphilitica</i>	Great Blue Lobelia	FACW	
<i>Osmunda regalis</i>	Royal Fern	OBL	
<i>Peltandra virginica</i>	Arrow Arum	OBL	
<i>Schoenoplectus fluviatilis</i>	River Bulrush	OBL	
<i>Sparganium americanum</i>	Eastern Burreed	OBL	40%
<i>Sparganium eurycarpum</i>	Giant Burreed	OBL	
<i>Symphotrichum puniceum</i>	Purplestem Aster	OBL	
<i>Calamagrostis canadensis</i>	Blue joint grass	OBL	
<i>Carex stricta</i>	Tussock sedge	OBL	
<i>Spartina pectinata</i>	Prairie Cordgrass	FACW	
<i>Symphotrichum novae-angliae</i>	New England aster	FACW	

SCRUB-SHRUB WETLAND: SEED MIX			
Scientific name	Common Name	NCNE	mix ratio
<i>Asclepias incarnata</i>	Swamp Milkweed	OBL	3%
<i>Carex folliculata</i>	Northern Long Sedge	OBL	1%
<i>Carex intumescens</i>	Bladder Sedge	FACW	1%
<i>Carex lupulina</i>	Hop Sedge	OBL	5%
<i>Carex lurida</i>	Lurid Sedge	OBL	10%
<i>Carex squarrosa</i>	Squarrose Sedge	OBL	3%
<i>Carex vulpinoidea</i>	Fox Sedge	OBL	25%
<i>Cinna arundinacea</i>	Wood Reedgrass	FACW	1%
<i>Doellingeria umbellata</i>	Flat Topped White Aster	FACW	1%
<i>Elymus virginicus</i>	Virginia Wildrye	FACW	20%
<i>Eutrochium fistulosum</i>	Joe Pye Weed	FACW	1%
<i>Eupatorium perfoliatum</i>	Boneset	FACW	2%
<i>Glyceria canadensis</i>	Rattlesnake Grass	OBL	2%
<i>Helopsis helianthoides</i>	Oxeye Sunflower	FACU	2%
<i>Juncus effusus</i>	Soft Rush	OBL	3%
<i>Lilium superbum</i>	Turk's Cap Lily	FACW	1%
<i>Lobelia siphilitica</i>	Great Blue Lobelia	FACW	1%
<i>Mimulus ringens</i>	Square Stemmed Monkeyflower	OBL	1%
<i>Onoclea sensibilis</i>	Sensitive Fern	FACW	2%
<i>Panicum rigidulum</i>	Redtop Panicgrass	FACW	4%
<i>Polygonum pensylvanicum</i>	Pennsylvania Smartweed	FACW	1%
<i>Pycnanthemum tenuifolium</i>	Slender Mountainmint	FAC	1%
<i>Scirpus polyphyllus</i>	Many Leaved Bulrush	OBL	1%
<i>Sisyrinchium angustifolium</i>	Narrowleaf Blue Eyed Grass	FAC	1%
<i>Symphotrichum novae-angliae</i>	New England Aster	FACW	1%
<i>Symphotrichum prenanthifolium</i>	Zigzag Aster, PA Ecotype	FAC	1%
<i>Symphotrichum puniceum</i>	Purplestem Aster	OBL	1%
<i>Verbena hastata</i>	Blue Vervain	FACW	3%
<i>Vernonia noveboracensis</i>	New York Ironweed	FACW	1%

EMERGENT WETLAND: HERBACEOUS PLUGS			
Scientific name	Common Name	NCNE	mix ratio
<i>Acorus americanus</i>	Sweetflag	OBL	60%
<i>Calamagrostis canadensis</i>	Blue joint grass	OBL	
<i>Carex crinita</i>	Fringed sedge	OBL	
<i>Carex intumescens</i>	Bladder sedge	FACW	
<i>Carex stricta</i>	Tussock sedge	OBL	
<i>Eleocharis palustris</i>	Spike rush	OBL	
<i>Eupatorium perfoliatum</i>	Common Boneset	FACW	
<i>Eutrochium maculatum</i>	Spotted Joe-pye weed	OBL	
<i>Glyceria canadensis</i>	Manna grass	OBL	
<i>Helenium autumnale</i>	Fall Sneezeweed	FACW	
<i>Helianthus angustifolius</i>	Swamp Sunflower	FACW	40%
<i>Juncus effusus</i>	Soft rush	OBL	
<i>Liatris spicata</i>	Dense Gayfeather	FAC	
<i>Lobelia siphilitica</i>	Great Blue Lobelia	FACW	
<i>Mimulus ringens</i>	Monkey flower	OBL	
<i>Onoclea sensibilis</i>	Sensitive fern	FACW	
<i>Scirpus atrovirens</i>	Dark green bulrush	OBL	
<i>Scirpus cyperinus</i>	Woolgrass	OBL	
<i>Symphotrichum novae-angliae</i>	New England aster	FACW	
<i>Symphotrichum novi-belgii</i>	New York Aster	FACW	
<i>Verbena hastata</i>	Blue vervain	FACW	40%
<i>Asclepias incarnata</i>	Swamp Milkweed	OBL	
<i>Carex comosa</i>	Bristly Sedge	OBL	
<i>Carex lacustris</i>	Lake Sedge	OBL	
<i>Carex lupulina</i>	Hop Sedge	OBL	
<i>Carex lurida</i>	Lurid Sedge	OBL	
<i>Carex vulpinoidea</i>	Fox Sedge	OBL	
<i>Iris versicolor</i>	Blueflag Iris	OBL	
<i>Liatris pycnostachya</i>	Cat-Tail Gayfeather	FAC	
<i>Sagittaria latifolia</i>	Arrowhead	OBL	
<i>Schoenoplectus fluviatilis</i>	River Bulrush	OBL	40%
<i>Schoenoplectus tabernaemontani</i>	Softstem Bulrush	OBL	
<i>Sparganium americanum</i>	Eastern Burreed	OBL	
<i>Sparganium eurycarpum</i>	Giant Burreed	OBL	
<i>Spartina pectinata</i>	Prairie Cordgrass	FACW	

EMERGENT WETLAND: SEED MIX			
Scientific name	Common Name	NCNE	mix ratio
<i>Alisma subcordatum</i>	Water Plantain	OBL	1%
<i>Asclepia incarnata</i>	Swamp Milkweed	OBL	3%
<i>Bidens cernua</i>	Nodding Bur Marigold	OBL	1%
<i>Carex crinita</i>	Fringed Sedge	OBL	2%
<i>Carex folliculata</i>	Northern Long Sedge	OBL	1%
<i>Carex gynandra</i>	Nodding Sedge	OBL	9%
<i>Carex lupulina</i>	Hop Sedge	OBL	5%
<i>Carex lurida</i>	Lurid Sedge	OBL	10%
<i>Carex stricta</i>	Tussock Sedge	OBL	1%
<i>Carex vulpinoidea</i>	Fox Sedge	OBL	29%
<i>Chelone glabra</i>	Turtlehead	OBL	1%
<i>Eutrochium fistulosum</i>	Joe Pye Weed	FACW	1%
<i>Eupatorium perfoliatum</i>	Boneset	FACW	2%
<i>Glyceria canadensis</i>	Rattlesnake Grass	OBL	3%
<i>Juncus effusus</i>	Soft Rush	OBL	3%
<i>Mimulus ringens</i>	Monkeyflower	OBL	2%
<i>Panicum rigidulum</i>	Redtop Panicgrass	FACW	5%
<i>Penthorum sedoides</i>	Ditch Stonecrop	OBL	1%
<i>Scirpus cyperinus</i>	Woolgrass	OBL	2%
<i>Scirpus polyphyllus</i>	Many Leaved Bulrush	OBL	2%
<i>Sparganium americanum</i>	Eastern Bur Reed	OBL	10%
<i>Symphotrichum puniceum</i>	Purplestem Aster	OBL	2%
<i>Verbena hastata</i>	Blue Vervain	FACW	3%
<i>Vernonia noveboracensis</i>	New York Ironweed	FACW	1%



22x34 = FULL SCALE  
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**LEGEND**

		<b>UPLAND BUFFER (150 FT WIDE WHERE POSSIBLE)</b>
<b>PRESERVED</b>	<b>ESTABLISHED</b>	ESTABLISHMENT AREA: 2.3 ACRES PRESERVATION AREA: 7.7 ACRES
		<b>PALUSTRINE FORESTED WETLAND</b>
<b>PRESERVED</b>	<b>ENHANCED</b>	<b>ESTABLISHED</b>
		PRESERVATION AREA: 11.7 ACRES ENHANCEMENT AREA: 0.4 ACRES ESTABLISHMENT AREA: 1.0 ACRES
		<b>PALUSTRINE SCRUB-SHRUB WETLAND</b>
<b>PRESERVED</b>	<b>ENHANCED</b>	<b>ESTABLISHED</b>
		PRESERVATION AREA: 12.0 ACRES ENHANCEMENT AREA: 1.3 ACRES
		<b>PALUSTRINE EMERGENT WETLAND</b>
<b>PRESERVED</b>	<b>ENHANCED</b>	<b>ESTABLISHED</b>
		PRESERVATION AREA: 0.3 ACRES ENHANCEMENT AREA: 0.9 ACRES ESTABLISHMENT AREA: 0.3 ACRES
		<b>PALUSTRINE SYSTEM UNCONSOLIDATED BOTTOM</b>
<b>PRESERVED</b>		PRESERVATION AREA: 0.5 ACRES

--- MAJOR CONTOUR (5' INTERVALS)  
--- MINOR CONTOUR (1' INTERVALS)  
--- PL --- PL --- PROPERTY LINE  
--- WETLAND BOUNDARY  
--- ROCK WALL  
--- TREELINE  
--- FENCE  
--- STREAM  
⊕ 1 SOIL PIT TEST CORRESPONDING TO TABLE ON SHEET NO. 4  
⊕ XX-00-1 GEOTECH BORING CORRESPONDING TO TABLE ON SHEET NO. 4  
VnC SOIL BOUNDARY  
○ APPROXIMATE LOCATION OF INVASIVE SPECIES (TYP)

CONSTITUTION PIPELINE, LLC  
WETLAND MITIGATION

SITE SC-65: BECKERS CORNERS ROAD

PLANTING PLAN

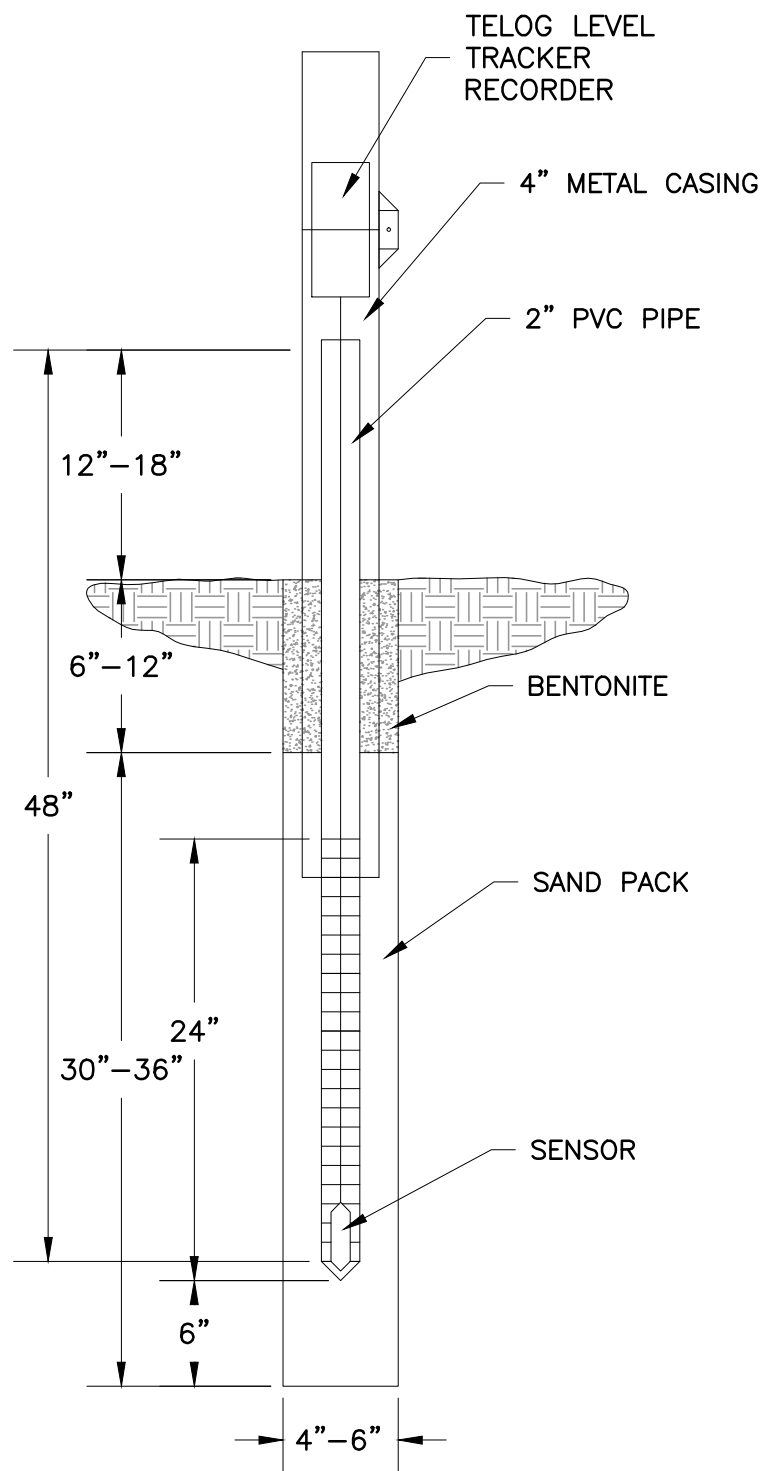
**Kleinschmidt**  
141 Main Street P.O. Box 650  
Pittsfield, Maine 04967  
Telephone: (207) 487-3328  
Fax: (207) 487-3124  
www.KleinschmidtUSA.com

No.	Revision	Date	Drawn	Checked
-	-	-	-	-
Designed	Drawn	Checked	Project No.	Date Revised
DDW	DDW	TAK	3786-001	7-31-2014
			Drawing No.	

15



3"  
2"  
1"  
0  
22x34 = FULL SCALE



SHALLOW GROUNDWATER MONITORING WELL

(N.T.S)

PRINTED: JUL 31, 2014 - 11:26 AM J:\3786\001\05 Wetland Mitigation\002 Final Plans\SC-65\Drawings\3786-001-SC-65 Sheet 16 Gen Details.dwg



					CONSTITUTION PIPELINE, LLC WETLAND MITIGATION			
					SITE SC-65: BECKERS CORNERS ROAD			
					DETAILS			
					<b>Kleinschmidt</b> 141 Main Street P.O. Box 650 Pittsfield, Maine 04967 Telephone: (207) 487-3328 Fax: (207) 487-3124 www.KleinschmidtUSA.com			
No.	Revision	Date	Drawn	Checked	Project No.	Date Revised	Drawing No.	
-	-	-	-	-	3786-001	7-31-2014		16
DESIGNED DDW					DRAWN DDW			
CHECKED TAK								



3"  
2"  
1"  
0  
22x34 = FULL SCALE  
JUL 31, 2014 - 11:27 AM J:\3786001\05 Wetland Mitigation\002 Final Plans\SC-65\Drawings\3786-001-SC-65 Sheet 17 E&S Detail NY.dwg

Figure 5A.8  
Silt Fence

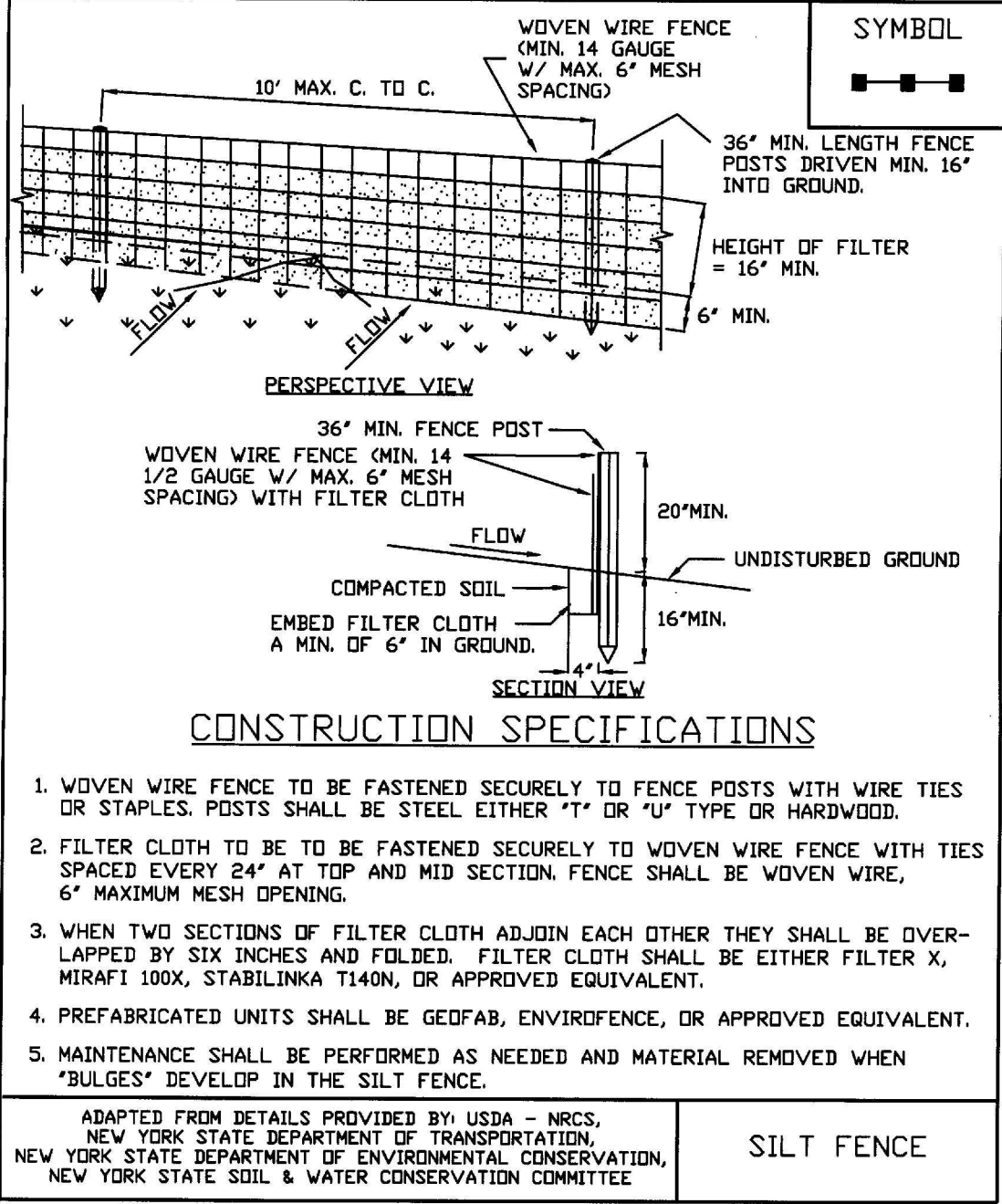


Figure 5A.38  
Temporary Access Ford

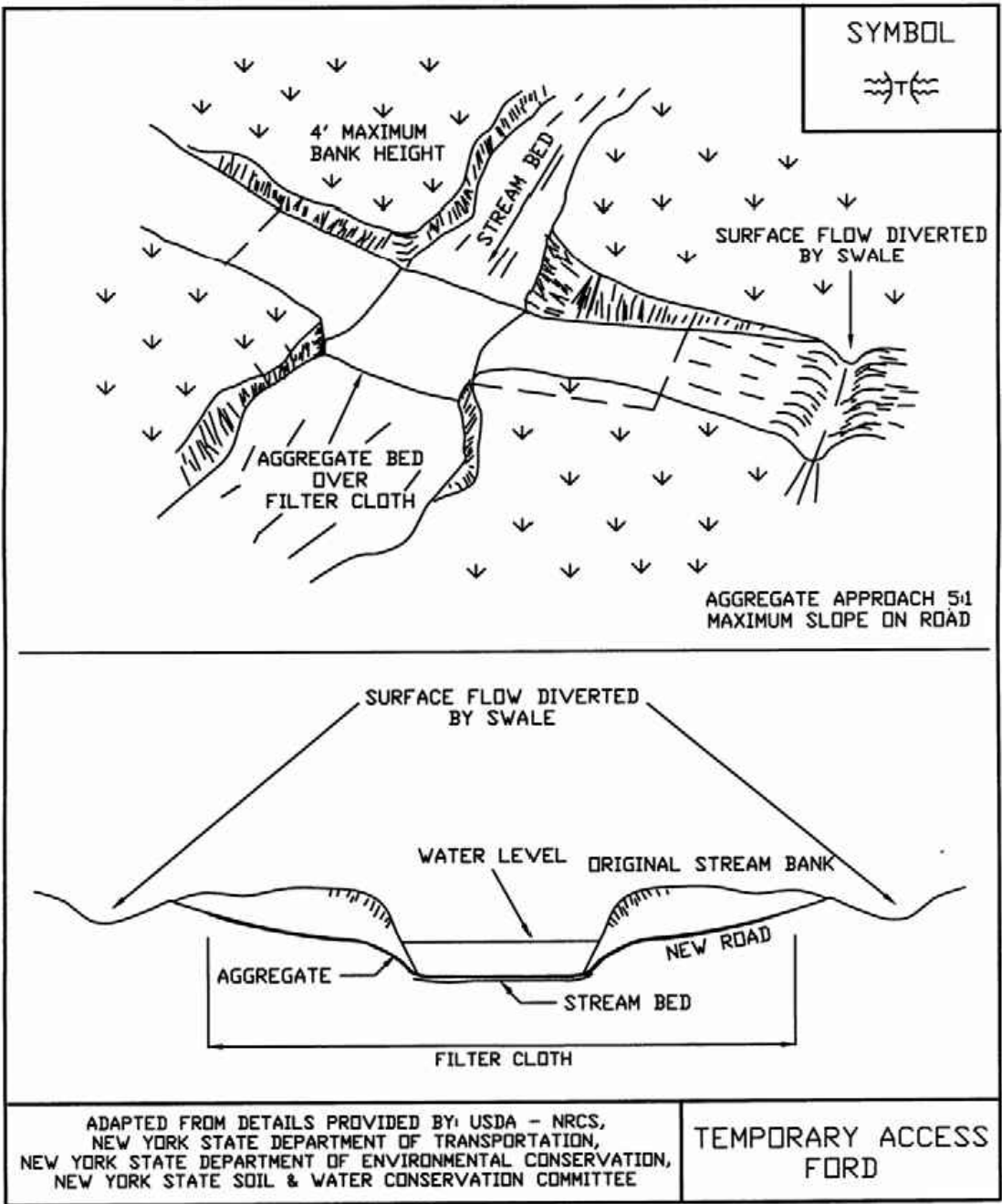


Figure 5A.37  
Temporary Access Culvert

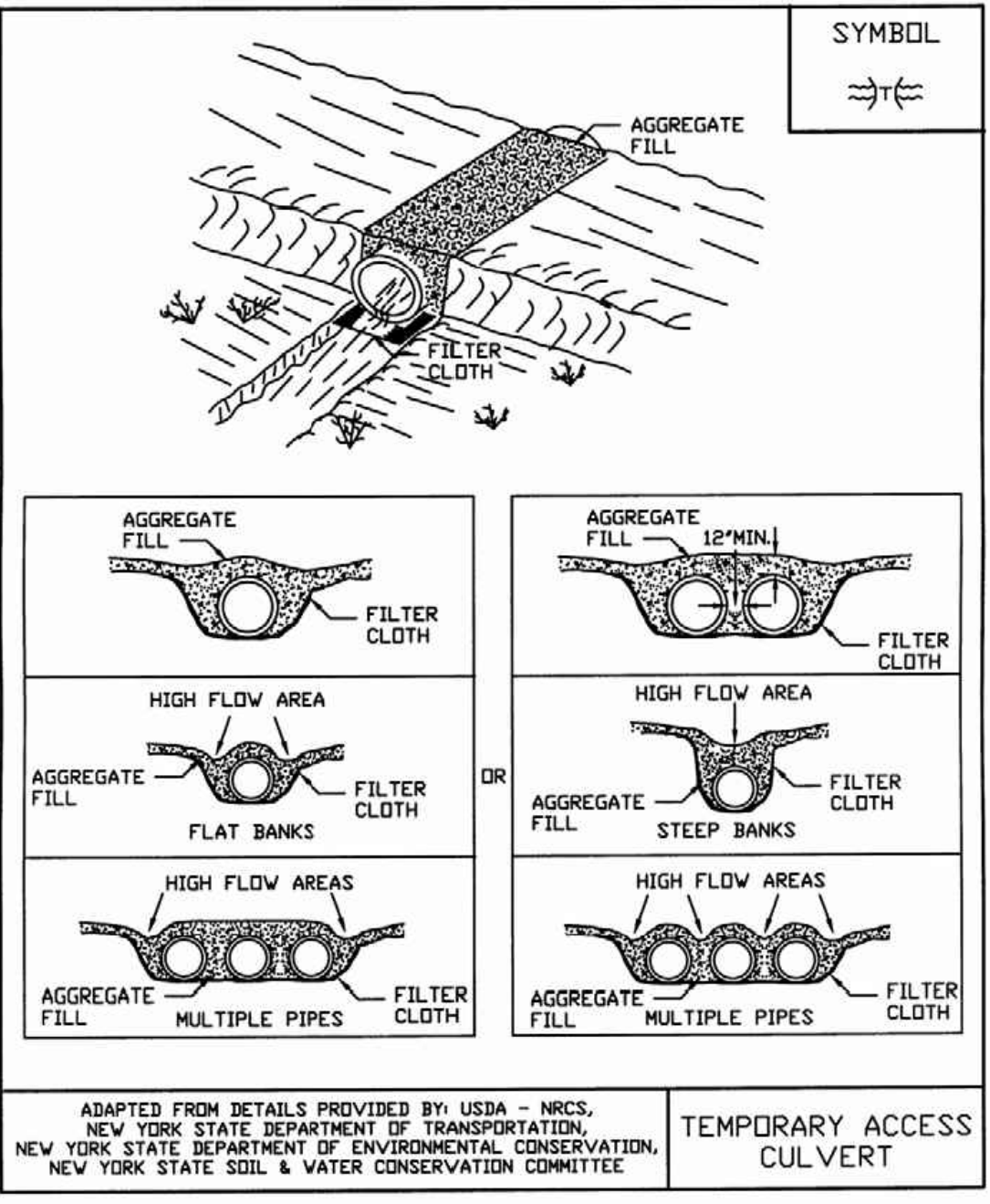


Figure 5A.36  
Temporary Access Bridge

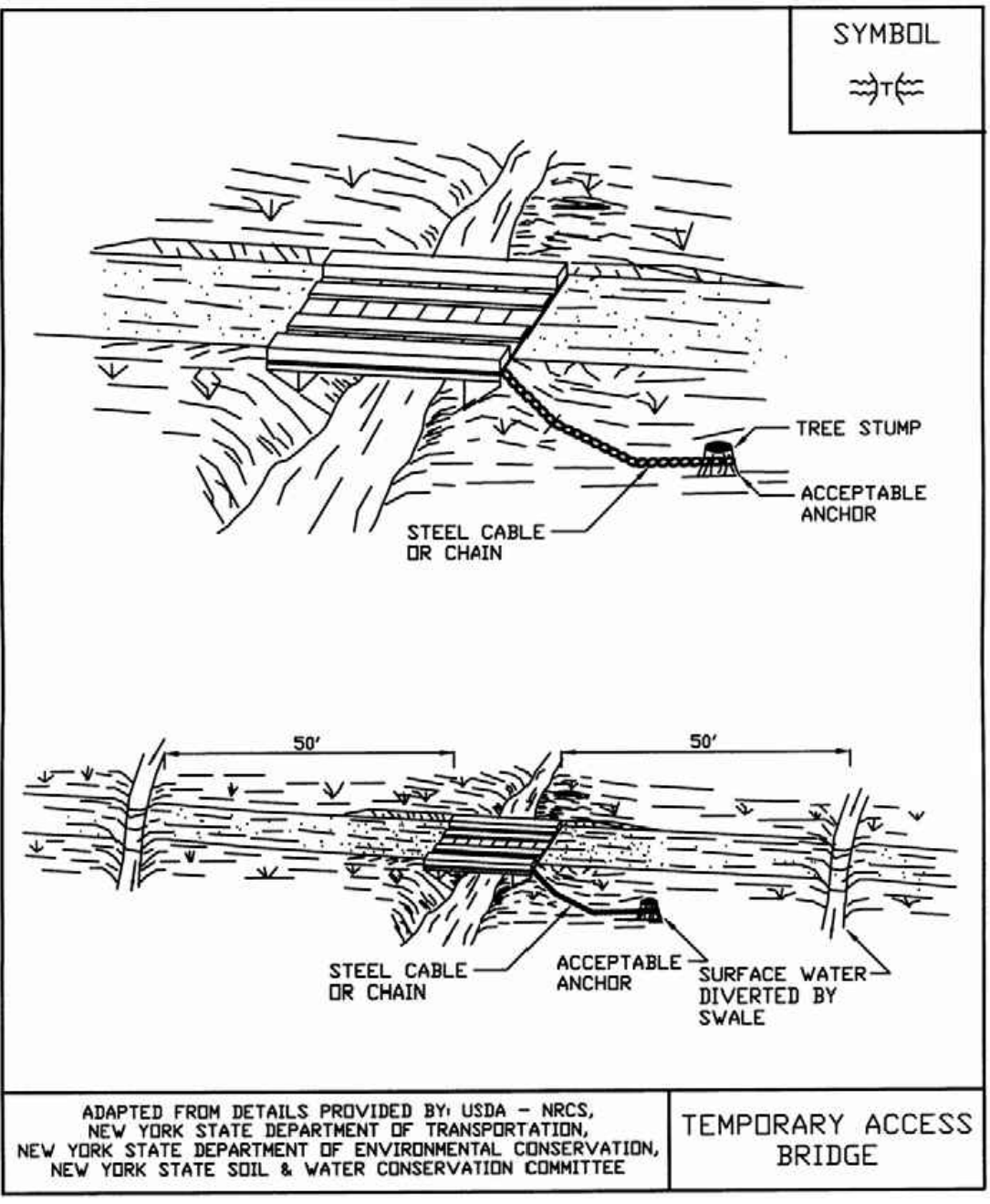
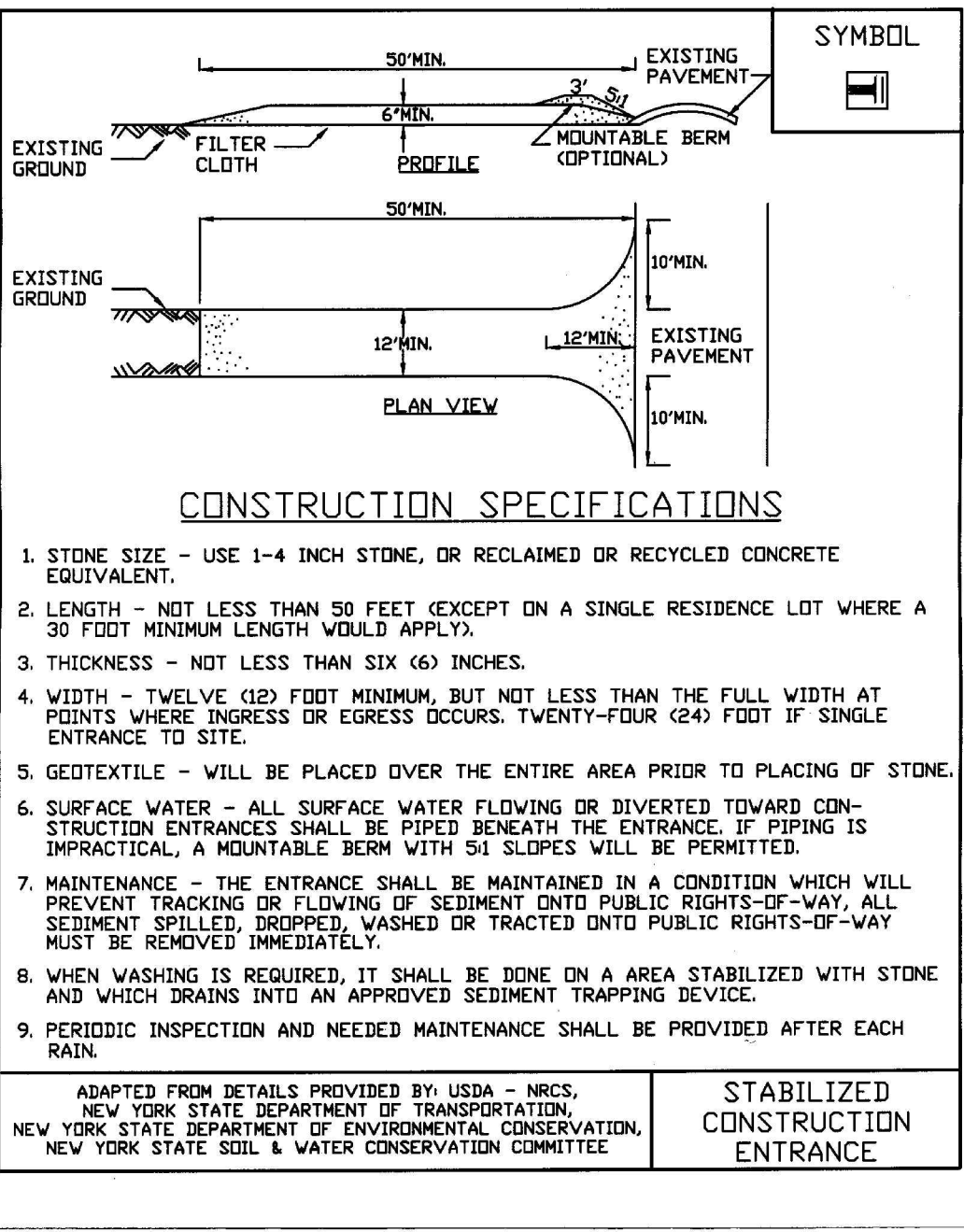


Figure 5A.35  
Stabilized Construction Entrance



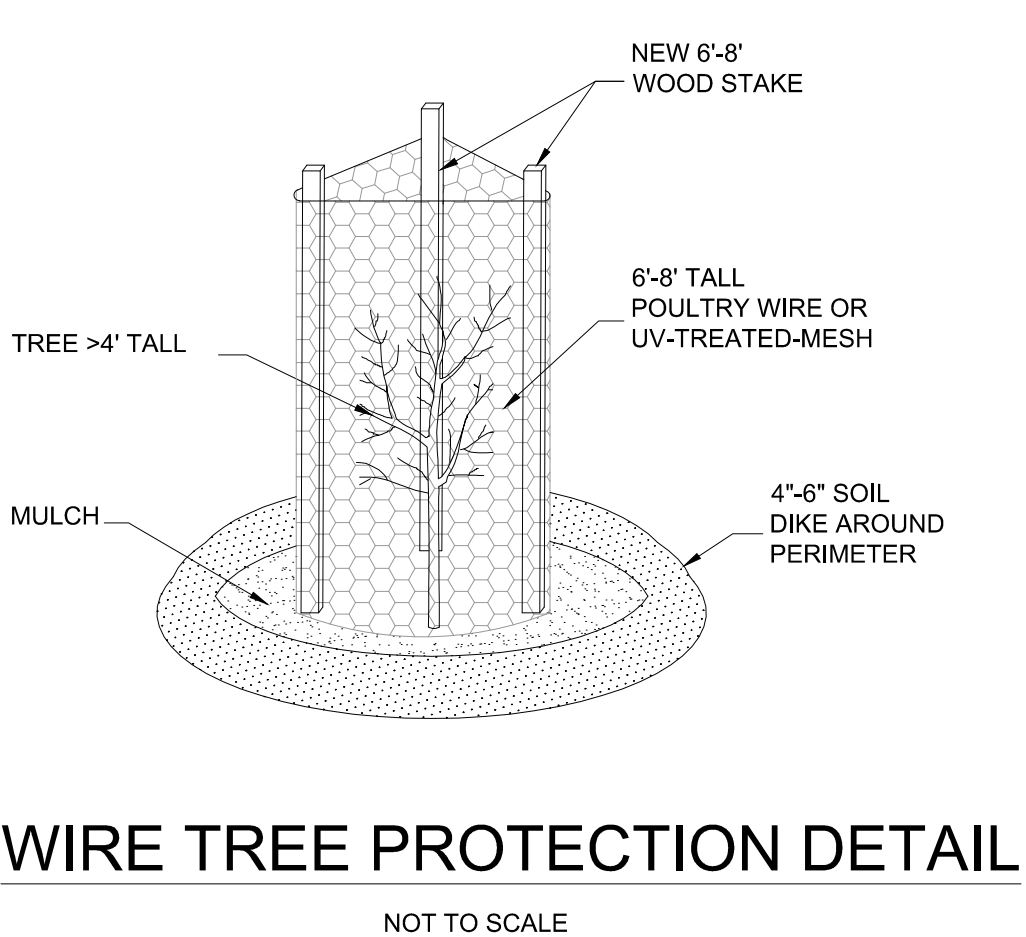
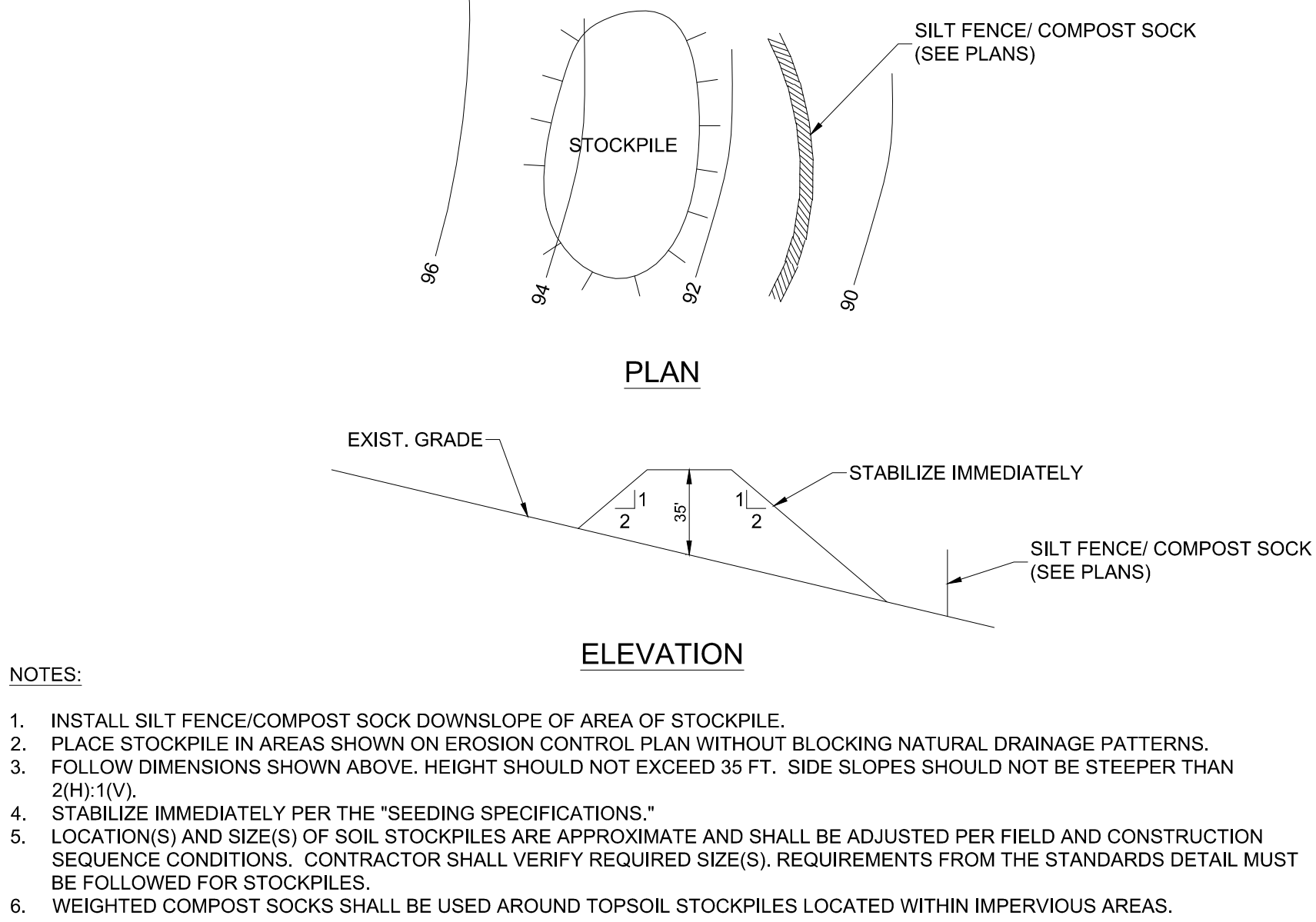
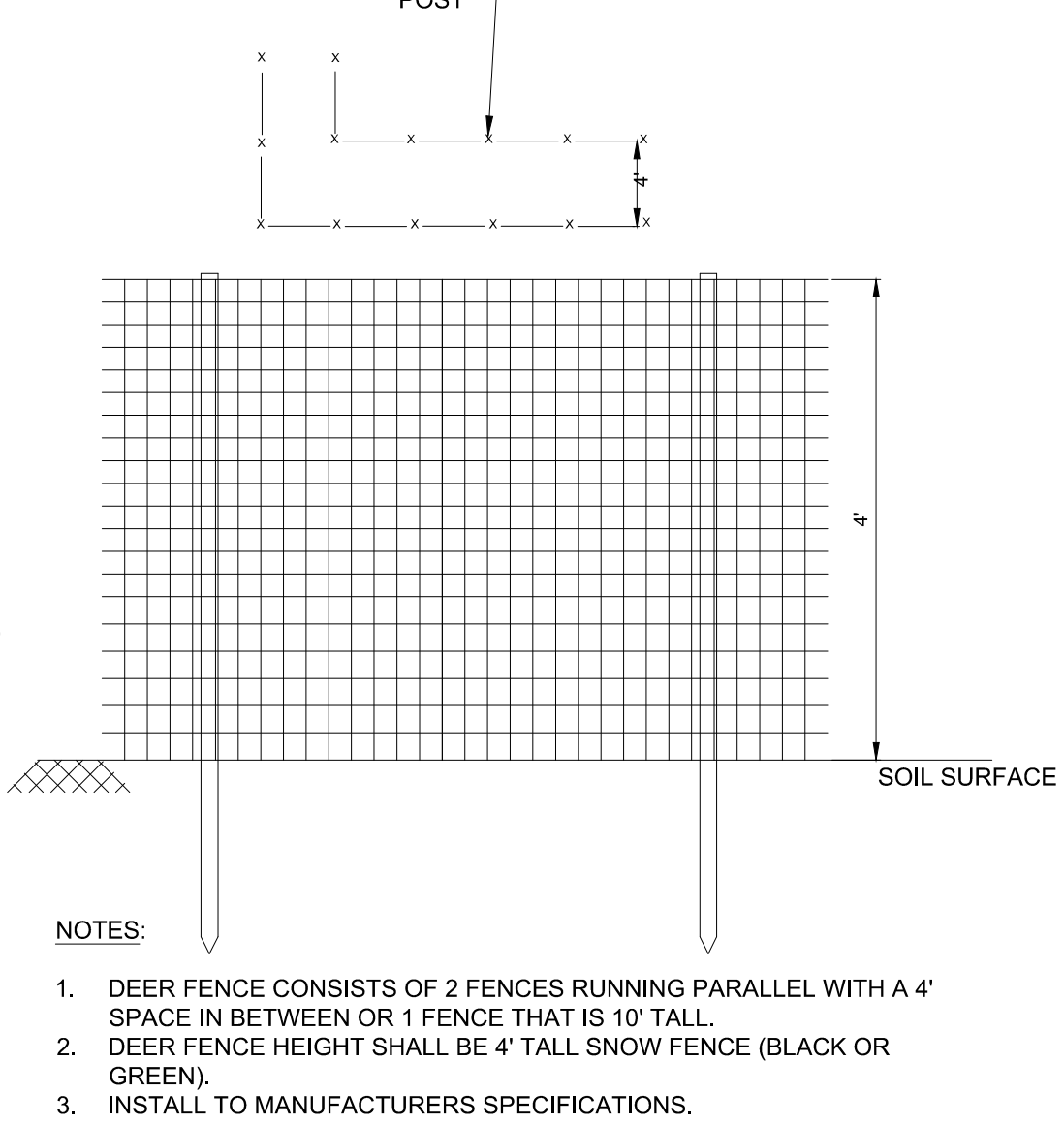
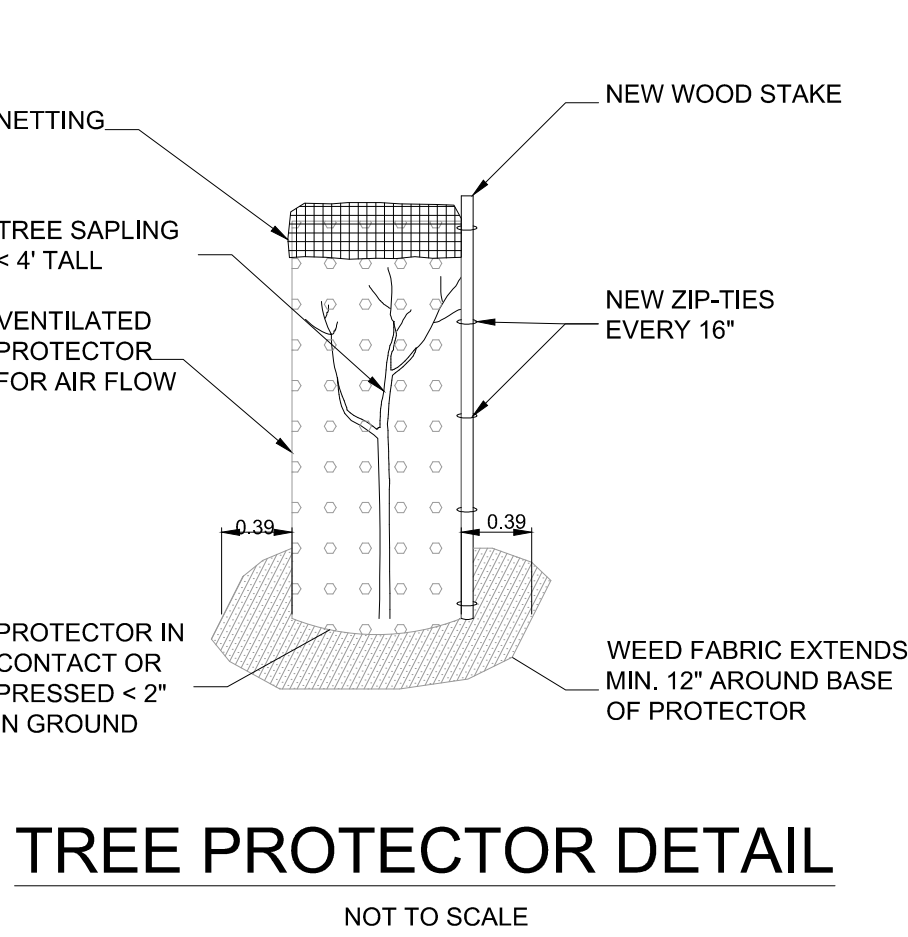
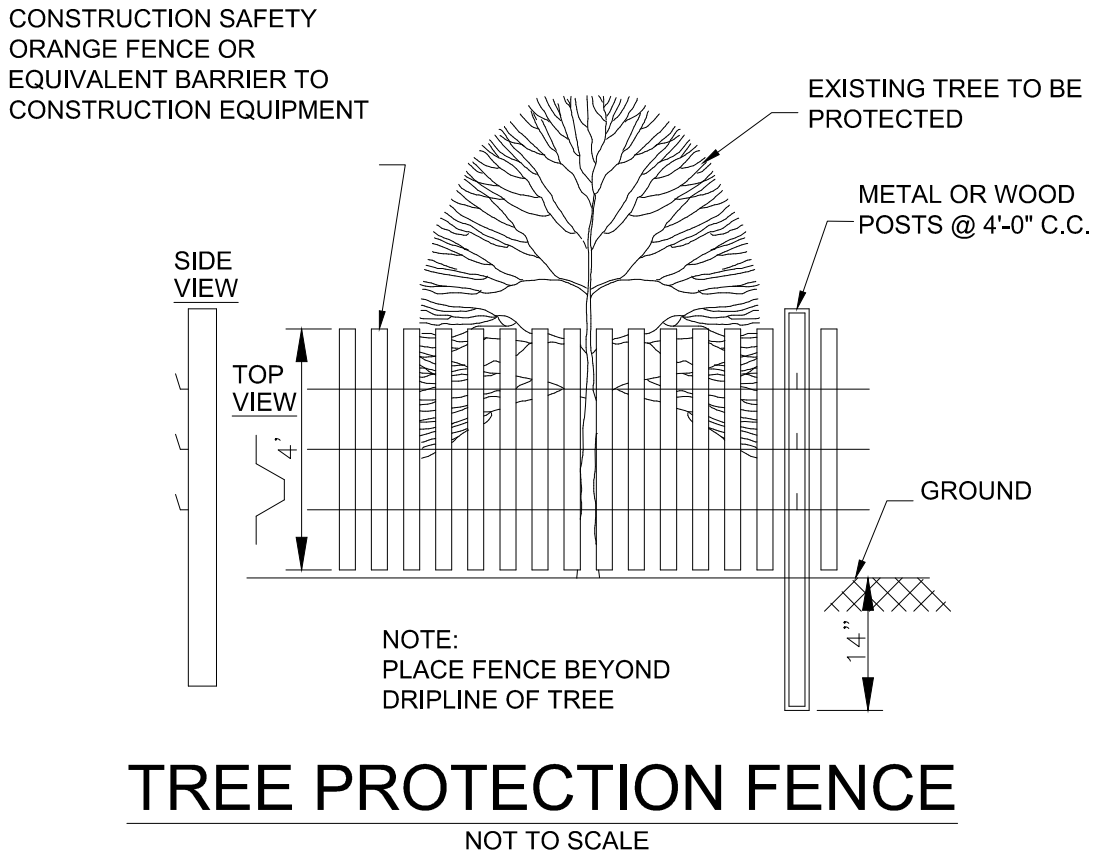
August 2005 Page 5A.21 New York Standards and Specifications For Erosion and Sediment Control

New York Standards and Specifications For Erosion and Sediment Control Page 5A.36 August 2005

August 2005 Page 5A.37 New York Standards and Specifications For Erosion and Sediment Control

New York Standards and Specifications For Erosion and Sediment Control Page 5A.36 August 2005

New York Standards and Specifications For Erosion and Sediment Control Page 5A.36 August 2005



GOOSE FENCE  
NOT TO SCALE

- NOTES:**
- GOOSE FENCE HEIGHT SHALL BE A MINIMUM OF 2' IN HEIGHT.
  - INSTALL TO MANUFACTURERS SPECIFICATIONS.

CONSTITUTION PIPELINE, LLC  
WETLAND MITIGATION

SITE SC-65: BECKERS CORNERS ROAD

EROSION AND SEDIMENT CONTROL DETAILS

**Kleinschmidt**

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No.	Revision	Date	Drawn	Checked
-	-	-	-	-
No.	Revision	Date	Drawn	Checked
DDW	DDW	TAK	DDW	TAK

Project No. 3786-001  
Date Revised 7-31-2014  
Drawing No.

17



# **MITIGATION SITE PLAN**

## **SC-66: TOWER ROAD**

# MITIGATION SITE PLAN

## SC-66: TOWER ROAD

**SITE ID:** SC-66  
**SITE NAME:** Tower Road Property  
**LOCATION:** Warnerville, Schoharie County, New York  
**WATERSHED:** Schoharie – 02020005  
**PROJECT TYPE:** Wetland Mitigation  
**LANDOWNER:** Kenneth A. Gori

---

### **SITE DESCRIPTION**

The proposed mitigation site is located on Tower Road south of Cobleskill, New York. The property is surrounded on three sides by the Petersburg Pass State Forest. The primary existing cover types are forested woodlands and wetlands. Multiple beaver dams create a series of ponds on the property. The ponds are surrounded by a large wetland complex, which is made up of areas of emergent, scrub-shrub, and forested wetlands. Groundwater within the wetlands is perched above a dense basal till layer and flows horizontally over the site and eventually into the beaver ponds. The only development present is a house near Tower Road, which is surrounded by open space that is partially maintained with sparse trees. There is evidence of past logging activity on the property. Multiple logging trails cut through the wetlands and upland forest area and lead to a large cleared area at the northern end of the wetland complex.

### **PROJECT DESCRIPTION**

The proposed mitigation will establish 1.5 acres of forested wetland. Establishing forested wetland will require excavating soil to a depth of less than 1 foot. In addition, the areas disturbed by historical logging will be enhanced to become functioning wetlands, resulting in 0.5 acres of enhanced forested wetland, 0.9 acres of enhanced scrub-shrub wetland, and 0.1 acres of enhanced emergent wetland. In addition, approximately 18.6 acres of PFO wetland, 4.2 acres of PSS wetland, and 2.6 acres of PEM wetlands will be preserved. To protect the enhanced and established wetlands on the property, 19.9 acres of upland buffer will be preserved, and 1.9 acres of additional buffer will be established.

### **BENEFITS**

**Wildlife Habitat:** The areas to be established and enhanced are maintained as a residential yard or are unused landing areas and skid roads associated with historical forestry operations. The historical wetland to be enhanced lacks seasonal ponding, topographic diversity, and botanical diversity. The area affords the opportunity to enhance habitat to include seasonal ponds and a diverse community of native plants, including berry-producing shrubs such as viburnums (*Viburnum spp.*) and dogwoods (*Cornus spp.*). The resulting complex, vertical structure of

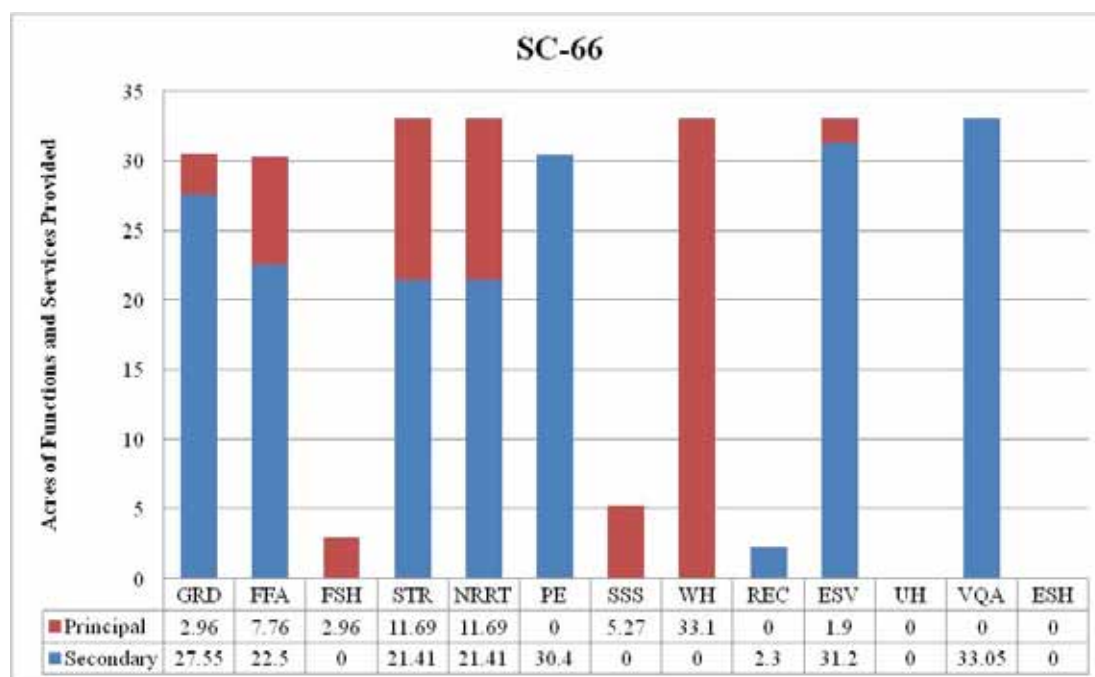
vegetation (trees, shrubs and herbaceous layers) and diverse microtopography (low, ponded areas interspersed with higher mounds dominated by woody vegetation) will provide microhabitats for herptiles (e.g., basking features and low, seasonal ponds), plants, and other species. The additional wetland to be established immediately adjacent to existing wetlands within a residential yard will expand the size and complexity of the wetland system, thereby enhancing wildlife habitat.

**Flood Flow Alteration:** The shallow excavation adjacent to existing riparian wetlands will expand floodplain storage and accommodate and retain both stormwater runoff and overbank flows. Typical overbank flows will reach the established area, and ponded areas will retain flood waters, allowing them to infiltrate slowly and, later, to recharge base flow in the stream.

**Water Quality (Sediment/Toxicant Retention, Nutrient Retention):** The depression in the floodplain will trap sediment and associated nutrients and pollutants during floods. The design will diversify the topography and increase the time that floodwaters and stormwater runoff (e.g., from the residence just up-gradient from the mitigation wetland) remain in contact with soil and vegetation.

Figure 1 summarizes functions and services provided by the proposed mitigation.

**FIGURE 1. FUNCTIONS AND SERVICES PROVIDED BY THE PROPOSED MITIGATION.**



Groundwater Recharge/Discharge (GRD), Floodflow Alteration (FFA), Fish and Shellfish Habitat (FSH), Sediment/Toxicant Retention (STR), Nutrient Removal and Retention (NRRT), Production Export (PE), Sediment/Shoreline Stabilization (SSS), Wildlife Habitat (WH), Recreation (REC), Educational/Scientific Value (ESV), Uniqueness/Heritage (UH), Visual Quality and Aesthetics (VQA), Endangered Species Habitat (ESH)

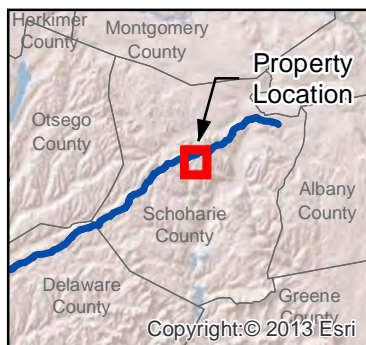
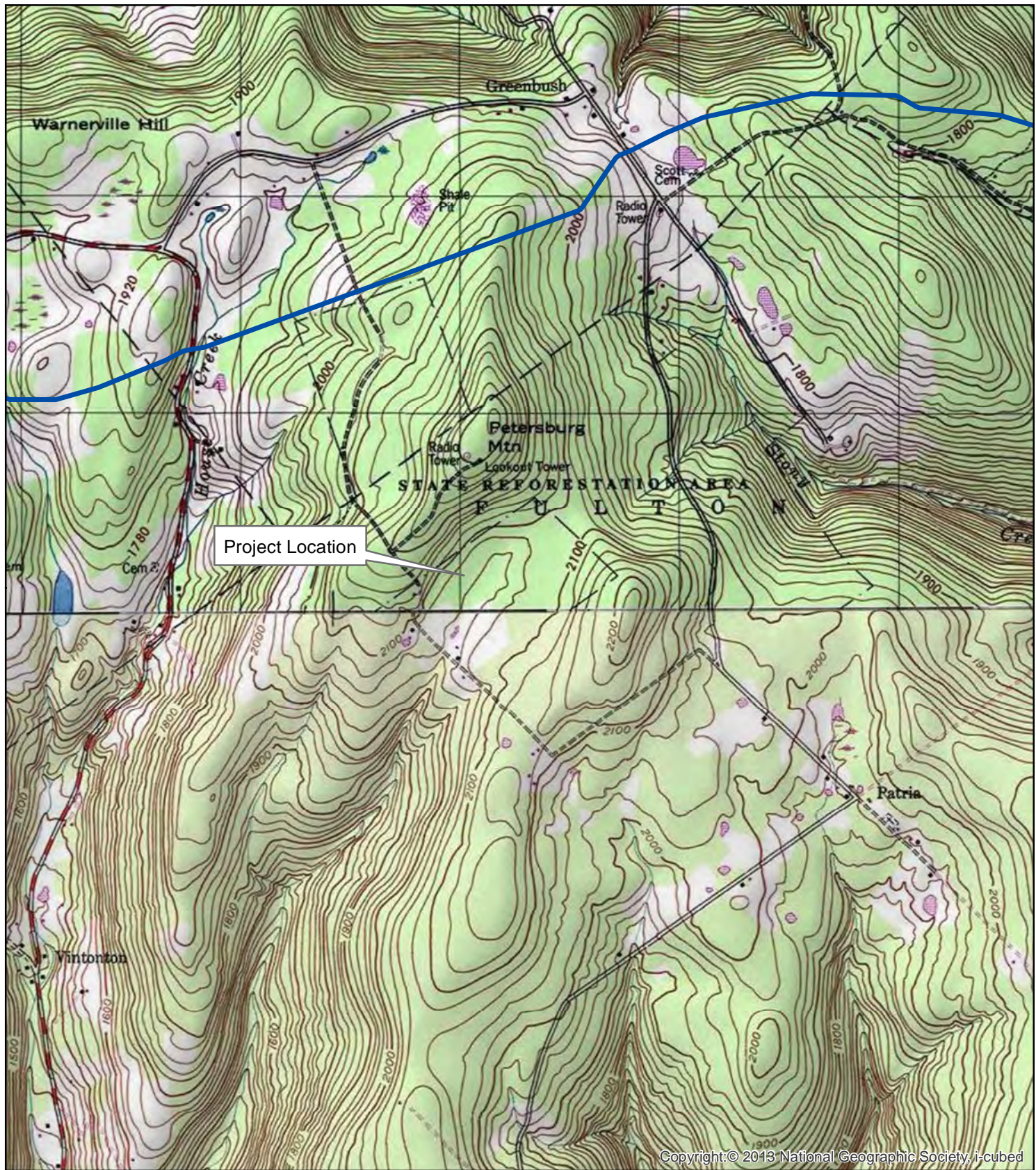
## **FEASIBILITY**

The wetlands on this site are stable and have connectivity to State Forest land on three sides. A large area of existing wetland with diverse habitats and functions make it an ideal candidate for preservation. The opportunity to create wetland on the eastern hillside is also ideal because the area is borderline wetland in its existing condition. The beaver dams on the property help to maintain the current groundwater levels in the surrounding wetlands; however, the dams could breach, possibly resulting in a loss of hydrology in the preserved and created wetlands. The presence of invasive species is limited. Invasive species will be treated if found but are not expected to will be a significant issue.

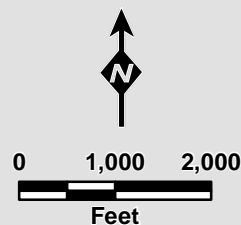
A Phase I Environmental Site Assessment (ESA) was conducted to identify recognized environmental conditions (RECs), historical RECs, or de minimis conditions associated with the property. No RECs, historical RECs, or de minimis conditions were identified. A Phase 1b archaeological assessment revealed no archaeological artifacts on the property. A geotechnical study included drilling three soil boring pits around the wetland mitigation area. The study revealed soil types and depths to groundwater consistent with the soil survey results. The surficial soil was identified as silty sand with gravel and clayey sand with gravel, which is compatible with the proposed wetland plantings.

**MAP**





— Primary Alignment



CONSTITUTION PIPELINE

SC-66  
POTENTIAL MITIGATION  
SITE



Prepared on 8/4/2014 by:

**Kleinschmidt**

Coordinate System: NAD 1983 UTM Zone 18N



## **PHOTOGRAPHS**





**PHOTOGRAPH 1. SOUTHERNMOST BEAVER DAM ON PROPERTY.**



**PHOTOGRAPH 2. CLEARED TIMBER AREA NORTH OF BEAVER DAMS.**



**PHOTOGRAPH 3. PROPOSED WETLAND CREATION AREA.**



**PHOTOGRAPH 4. DISTURBED TIMBER AREA.**

## **WETLAND REPORT**

# WETLAND DELINEATION REPORT

**SITE ID:** SC-66  
**SITE NAME:** Tower Road  
**LOCATION:** Warnerville, Schoharie County, New York  
**WATERSHED:** Schoharie – 02020005  
**SITE TYPE:** Wetland Mitigation  
**LANDOWNER:** Kenneth A. Gori, Owner

---

## **SITE DESCRIPTION**

The SC-66 site is located on Tower Road south of Cobleskill. The property is surrounded on three sides by the Petersburg Pass State Forest. The primary existing cover type is hemlock forested woodlands as well as emergent wetlands. A small perennial stream with a series of beaver ponds flows south through the property; this beaver flowage is associated with riparian wetlands that are sustained by a combination of shallow groundwater, runoff and stream flooding. The only development present is a residential home near Tower Road. Surrounding the house is open space that is partially maintained with sparse trees. The property owners had begun to cut down timber at the time of the field visit to the site. There was a 15' wide logging trail leading to a cleared area at the northern end of the existing emergent wetlands on the property. The entire property was staked so it appeared that the majority of the timber on the property would be cut.

## **METHODS**

Field surveys were completed on May 13, 2014. Wetlands were field delineated by using the methodology and standard practices outlined in the United States Army Corps of Engineers (USACE) Wetland Delineation Manual (USACE, 1987) and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, Version 2.0 (USACE, 2012). The Corps Manual provides technical guidance and procedures for identifying and delineating wetlands that may be subject to jurisdiction under Section 404 of the Clean Water Act (33 U.S.C. 1344) or Section 10 of the Rivers and Harbors Act (33 U.S.C. 403). According to the Corps Manual, identification of wetlands is based on a three factor approach involving indicators of hydrophytic vegetation, wetland hydrology, and hydric soils. USACE data forms are attached.

## **RESULTS**

### **SAMPLE PLOT LOCATION**

The primary wetland types identified within the property was forested and emergent associated with a beaver dam. A paired plot was completed for the forested and for the emergent wetlands and is shown in Table 1 along with the longitude and latitude.

**TABLE 1. USACE SAMPLE PLOT LOCATIONS.**

<b>WETLAND ID</b>	<b>USACE PLOT</b>	<b>LONGITUDE</b>	<b>LATITUDE</b>
SU-66	Upland 1	42° 37' 31.52" N	74° 27' 2.68" W
SU-66	Wetland 1	42° 37' 31.60" N	74° 27' 1.76" W
SU-66	Upland 2	42° 37' 39.61" N	74° 26' 36.81" W
SU-66	Wetland 2	42° 37' 39.16" N	74° 26' 38.62" W

### **HYDROLOGY**

The site has a series of large beaver impoundments and is dominated by open water habitat and emergent and forested wetlands along the shoreline. Hydrology indicators include areas of extensive open water within the emergent wetland as well as areas of surface water within the hemlock forested wetland, and saturation to near the surface throughout.

### **VEGETATION**

Forested wetland areas are dominated by eastern hemlock with some yellow birch in the tree stratum, eastern hemlock in the shrub stratum and sallow sedge in the herb layer. The emergent wetland was dominated by cattail as well as fringed sedge, tussock sedge, and wool grass.

**TABLE 2. DOMINANT VEGETATION.**

<b>SCIENTIFIC NAME</b>	<b>COMMON NAME</b>	<b>STRATUM</b>	<b>INDICATOR</b>	
			<b>STATUS</b>	<b>UPLAND/WETLAND</b>
<i>Acer rubrum</i>	Red maple	Tree	FAC	up
<i>Betula populifolia</i>	Gray birch	Tree	FAC	up
<i>Carex crinita</i>	Fringed sedge	Herb	OBL	wet
<i>Carex lurida</i>	Sallow sedge	Herb	OBL	wet
<i>Carex stricta</i>	Tussock sedge	Herb	OBL	wet
<i>Pinus strobus</i>	Eastern white pine	Tree	FACU	up
<i>Scirpus cyperinus</i>	Wool grass	Herb	OBL	wet
<i>Tsuga canadensis</i>	Eastern hemlock	Tree/shrub	FACU	wet
<i>Typha latifolia</i>	Cattail	Herb	OBL	wet



## SOILS

Soils in the emergent wetland USACE plot consisted of 10 inches of 10 YR 2/1 peat. Peat makes up much of the wetland soils in the emergent wetlands. The soils in the forested wetlands are poorly drained and consist of Norwich and Chippewa very stony silt loam. Soils within the upland showed generally consisted of 6" of 10 YR 3/3 loam over 6" of 10 YR 4/4 fine silt loam that was uniform in color. From 12 to 18" below the surface, soils were 10 YR 5/3 fine silt loam with 15% 10 YR 5/8 concentrations.

## FUNCTIONS AND SERVICES

The large, connected system of wetlands and presence of undisturbed uplands make the area ideal wildlife habitat. Species which require wetland and upland habitats (e.g., mole salamanders and wood frogs) will have access to both foraging and overwintering habitat.

The paired upland and wetland habitat on the site provides excellent habitat for a wide variety of species, forest interior songbirds and herptiles that breed in vernal pools but require adjacent, unfragmented forest outside of breeding periods.

Additionally, this wetland system occurs within the upper portion of the watershed and historical aerial photography indicates that the wetland system provides flood storage and flow attenuation by storing and slowing higher flows. The occurrence of longer retention times of flows, which results from the presence wetland vegetation and fine soils (*i.e.*, silt and clay), provides excellent water quality improvement functions by removing nutrients and retaining sediments.



**PHOTOGRAPH 1. VIEW OF EMERGENT WETLAND.**





**PHOTOGRAPH 2. VIEW OF FORESTED WETLAND.**

## **DISCUSSION**

This parcel provides an opportunity for preservation of forested, emergent, and some scrub-shrub wetlands as well as substantial upland buffer. Mitigation opportunities also include the potential to enhance or restore portions of the existing wetlands where logging trails and recently cleared logging areas have open canopies and might benefit from establishment of native vegetation plantings. There is also the possibility that shallow scrapes (excavation) of upland fields immediately adjacent to the wetland boundary could establish additional wetlands, expanding the existing wetland and its functions.

Although this property is largely undeveloped, it cannot be guaranteed that it will remain so in the future. Logging is currently taking place on the property and stakes on the property indicate that the site is slated for future timber harvest. The preservation of this large, functionally diverse wetland along with upland buffers will protect that the ecological integrity and function associated with the larger wetland/buffer system and ensure that these functions remain intact in the future.

## **REFERENCES**

- U.S. Army Corps of Engineers (USACE). January 2012. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Ver. 2.0). U.S. Army Corps of Engineers. Vicksburg, MS. No. ERDC/EL TR-12-1. 176 Pp.
- U.S. Army Corps of Engineers (USACE). 1987. Corps of Engineers Wetland Delineation Manual. U.S. Army Corps of Engineers 143 pp.
- USACE. 2001. The Highway Methodology Workbook. U.S. Army Corps of Engineers New England District. 29 pp. NAEEP-360-1-30a.

## **USACE DATA SHEETS**

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: SC-66 City/County: Warnerville/Schoharie Sampling Date: 5.13.14  
 Applicant/Owner: \_\_\_\_\_ State: NY Sampling Point: WET1  
 Investigator(s): KA-ITC Section, Township, Range: Warnerville Tower Hill Rd  
 Landform (hillslope, terrace, etc.): depressions Local relief (concave, convex, none): concave Slope (%): 3  
 Subregion (LRR or MLRA): Mid Atlantic Lat: 42°37'31.60"N Long: 74°27'1.76"W Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PEM

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 _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	If yes, optional Wetland Site ID: _____
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>6"</u>		
Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>Surface</u>		
Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>Surface</u>		
(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:		
Remarks: <u>BEAVER POND</u>		

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

Sampling Point: WET 1

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status																																																																		
1. _____	_____	_____	_____																																																																		
2. _____	_____	_____	_____																																																																		
3. _____	_____	_____	_____																																																																		
4. _____	_____	_____	_____																																																																		
5. _____	_____	_____	_____																																																																		
6. _____	_____	_____	_____																																																																		
7. _____	_____	_____	_____																																																																		
				<b>Dominance Test worksheet:</b>																																																																	
				Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)																																																																	
				Total Number of Dominant Species Across All Strata: <u>4</u> (B)																																																																	
				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)																																																																	
				<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>Hydrophytic Vegetation Indicators:</b>																																																																	
				<input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation																																																																	
				<input checked="" type="checkbox"/> 2 - Dominance Test is >50%																																																																	
				<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>																																																																	
				<input type="checkbox"/> 4 - 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>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 or equal to 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>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																																																																	
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Remarks: (Include photo numbers here or on a separate sheet.)  <u>Beaver Pond</u>																																																																					

Sampling Point: WET #1

Northcentral and Northeast Region – Version 2.0



# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: SC-66 City/County: Schoharie Sampling Date: 5-13-14  
 Applicant/Owner: \_\_\_\_\_ State: NY Sampling Point: up-1  
 Investigator(s): KA - ITC Section, Township, Range: Tower RD  
 Landform (hillslope, terrace, etc.): HILLSIDE Local relief (concave, convex, none): CONCAVE Slope (%): 3  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: 42°37'31.52"N Long: 74°27'2.68"W Datum: NAD 1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: —

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 _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	If yes, optional Wetland Site ID: _____
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

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

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

Sampling Point: UP-1

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>ACER-Rubrum</u>	<u>37.5</u>	<u>YES</u>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
2. <u>Betula populifolia</u>	<u>15.0</u>	<u>NO</u>	<u>FAC</u>	
3. <u>Pinus strobus</u>	<u>37.5</u>	<u>YES</u>	<u>UPL</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	<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 = _____
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover	_____	_____	_____	
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>Acer rubrum</u>	<u>15.0</u>	<u>NO</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - 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. <u>Pinus strobus</u>	<u>15.0</u>	<u>NO</u>	<u>UPL</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover	_____	_____	_____	
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>Aster spp.</u>	<u>2.5</u>	<u>NO</u>	<u>—</u>	<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 or equal to 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. <u>Polystichum acrostichodes</u>	<u>2.5</u>	<u>NO</u>	<u>FACU</u>	
3. <u>Lycopodium clavatum</u>	<u>2.5</u>	<u>NO</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover	_____	_____	_____	
<b>Woody Vine Stratum (Plot size: _____)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<b>Remarks:</b> (Include photo numbers here or on a separate sheet.)				

Sampling Point: UP-1

Northcentral and Northeast Region – Version 2.0

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: SC-606 City/County: Schoharie Sampling Date: 5.13.14  
 Applicant/Owner: \_\_\_\_\_ State: NY Sampling Point: WET 2  
 Investigator(s): KA-ITC Section, Township, Range: Warrenton River ROAD  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 3  
 Subregion (LRR or MLRA): MID ATLANTIC Lat: 42°37'39.16N Long: 74°26'38.62W Datum: NAD1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: PFC

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 _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	If yes, optional Wetland Site ID: _____
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) <u>Hemlock Forested Wetland</u>	

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<input checked="" type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)
		<input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations:		
Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>44</u>		
Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>Surface</u>		
Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>Surface</u>		
(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:		
Remarks:		



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

Sampling Point: WET#2

Tree Stratum (Plot size: <u>30'</u> )		Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>Tsuga Canadensis</u>	<u>62.5</u>	<u>YES</u>	<u>FACU</u>
2.	<u>Betula alleghaniensis</u>	<u>37.5</u>	<u>YES</u>	<u>FAC</u>
3.				
4.				
5.				
6.				
7.				
		_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: _____)				
1.	<u>Tsuga Canadensis</u>	<u>15.0</u>	<u>NO</u>	<u>FACU</u>
2.				
3.				
4.				
5.				
6.				
7.				
		_____ = Total Cover		
Herb Stratum (Plot size: _____)				
1.	<u>Sphagnum moss</u>	<u>85%</u>	<u>NA</u>	
2.	<u>Carex lurida</u>	<u>15%</u>	<u>NO</u>	<u>OBL</u>
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		_____ = Total Cover		
Woody Vine Stratum (Plot size: _____)				
1.				
2.				
3.				
4.				
		_____ = Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (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:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

\_\_\_ 2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index is ≤3.0<sup>1</sup>

\_\_\_ 4 - 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 or equal to 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.)

Sampling Point: WETZ

Northcentral and Northeast Region – Version 2.0

# WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

5-13-14

Project/Site: SC-666 City/County: Schoharie Sampling Date: 5/13/14  
 Applicant/Owner: \_\_\_\_\_ State: NY Sampling Point: UP-2  
 Investigator(s): KA-ITL Section, Township, Range: Warnerville TOWNE RD  
 Landform (hillslope, terrace, etc.): HILLSIDE Local relief (concave, convex, none): \_\_\_\_\_ Slope (%): 8  
 Subregion (LRR or MLRA): MID ATLANTIC Lat: 42°37'39.61"N Long: 74°26'36.81"W Datum: NAD1983  
 Soil Map Unit Name: \_\_\_\_\_ NWI classification: \_\_\_\_\_

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 _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	If yes, optional Wetland Site ID: _____
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	
Remarks: (Explain alternative procedures here or in a separate report.)	

## HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input 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 _____ No _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/></b>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

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

Sampling Point: UP-2

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u>Tsuga canadensis</u>	<u>85.0</u>	<u>yes</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)																
2. _____	_____	_____	_____																	
3. _____	_____	_____	_____																	
4. _____	_____	_____	_____																	
5. _____	_____	_____	_____																	
6. _____	_____	_____	_____																	
7. _____	_____	_____	_____																	
_____ = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width: 100%;"> <tr> <th style="width: 50%;">Total % Cover of:</th> <th style="width: 50%;">Multiply by:</th> </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 = _____																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - 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)																
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = 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 or equal to 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.																
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>✓</u>																
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
_____ = Total Cover																				
<b>Woody Vine Stratum</b> (Plot size: _____) 1. _____ 2. _____ 3. _____ 4. _____ _____ = Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.)																				



Sampling Point: UP 2

Northcentral and Northeast Region – Version 2.0

## **HYDROLOGY REPORT**

# WETLAND HYDROLOGY ANALYSIS

**SITE ID:** SC-66  
**SITE NAME:** Tower Road  
**LOCATION:** Warnerville, Schoharie County, New York  
**WATERSHED:** Schoharie – 02020005  
**SITE TYPE:** Wetland Mitigation  
**LANDOWNER:** Kenneth A. Gori, Owner

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The following is a summary of the hydrology at the SC-66 property for wetland mitigation relating to the wetland disturbance along the Constitution Pipeline corridor. Kleinschmidt conducted several site visits to evaluate the existing and proposed wetlands and this memorandum summarizes the hydrologic conditions that assisted in the final design.

## **GROUNDWATER**

A small perennial stream associated with series of beaver dams flows south through the middle of the property and is flanked by a wetland complex that includes forested and open wetland types. This headwater system is located at the start of a small valley that collects runoff and groundwater from the northern, eastern and western sides of the property. There are approximately 30 acres of existing wetland surrounding the beaver dams. Field investigations indicated that the adjacent upland area to the southwest of the lower beaver dams would provide an ideal opportunity for wetland creation as the topography is a few inches above the elevations required for a wetland in this area.

Soil boring and soil pit tests were conducted to investigate soil characteristics and hydrology. In areas of proposed wetland creation, redoximorphic features (indicative of saturated soils at least during a portion of the year) were found approximately 1' below land surface. The groundwater table was encountered between 1.0' and 12.2' below land surface in the proposed establishment area. These redoximorphic feature elevations and groundwater levels were used as a guide to determine the depth of excavation suitable for wetland creation. A shallow scrape of 0.5'-1' is proposed to create 1.5 acres of PFO wetland.

To observe the trends in groundwater data, soil boring and soil pit test data for SC-66 was also analyzed using reference data observed over the past five years at a USGS well approximately 4.25 miles away. This analysis compared the reading at the USGS well on the day of the soil boring to the well's overall dataset, and was applied to the water level at the site observed through the soil boring and soil pit tests. This made it possible to normalize the range of water depths on the site to the USGS well data, providing a surrogate for on-site long-term data. Comparison with the long-term data validated the chosen wetland types and ensured groundwater can function as a viable primary source of hydrology for the site.

## **SURFACE RUNOFF**

The property is located in a bowl-shaped feature, with higher elevations to three sides. The wetlands collect sheet flow and shallow groundwater drainage from the surrounding hills as it flows into the beaver ponds. Field investigations indicated that the hillsides remain wet for a significant portion of the year, providing a source of hydrology for the created wetland. Runoff has a strong horizontal flow component in the contributing watershed because of a dense basal till layer that impedes vertical infiltration of runoff.



## **GROUNDWATER ANALYSIS**

Site Identifier: SC-66

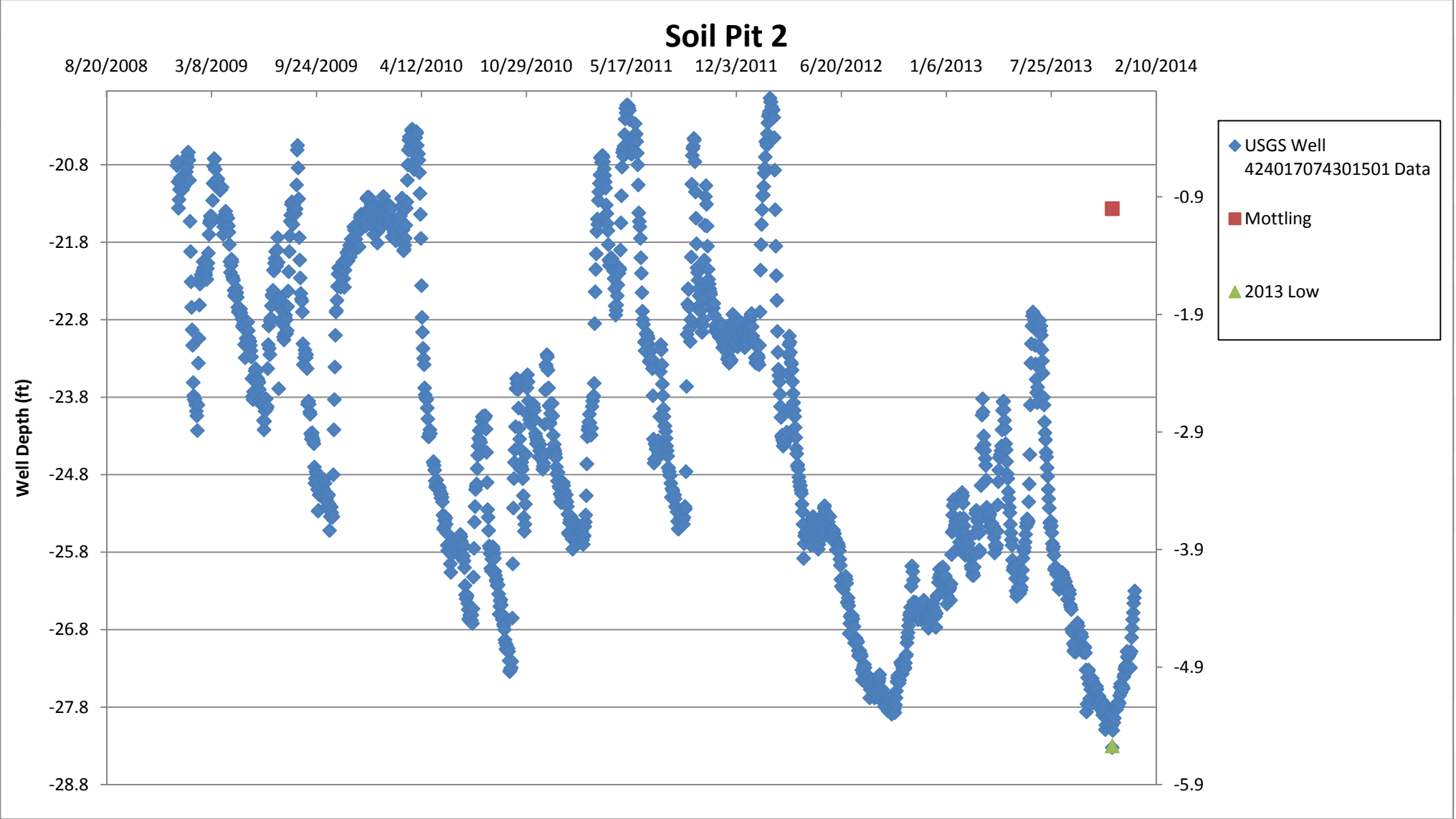
Geotech: Haley and Aldrich  
Drill Rig: GeoLogic NY, Inc./North Star Drilling

					Groundwater Depth					
					24-hr Reading at Boring <sup>1</sup>	BLS: Below Land Surface (Negative BLS is above ground surface)				
Boring ID	Longitude	Latitude	Ground Surface Elevation	Approximate Depth to Observed Mottled Soil (ft. BLS)	Standing Water at Time of Boring (ft BLS)	Elevation (ft)	10th percentile Depth (ft BLS)	25th Percentile Depth (ft BLS)	75th Percentile Depth (ft BLS)	90th Percentile Depth (ft BLS)
SC-66-01	74° 27' 2.773" W	42° 37' 25.290" N		-	2	1630.4	17.8	19.0	22.3	23.5
SC-66-02	74° 26' 59.688" W	42° 37' 27.067" N		-	12.2	1635.6	28.0	29.2	32.5	33.7
SC-66-03	74° 26' 54.674" W	42° 37' 34.785" N		-	0.5	1625.8	16.3	17.5	20.8	22.0

- Notes:
- 1. Geotech reading collected on 31 October 2013.
  - 2. 10th-90th percentile water depths calculated based on a comparison of a same day reading at a nearby USGS well and its data set from the past 5 years

USGS Well ID	Longitude	Latitude	Date	Distance from Project Site	Water depth at time of survey (BLS)	10th percentile water depth (BLS)	25th percentile water depth (BLS)	75th percentile water depth (BLS)	90th percentile water depth (BLS)
424017074301501	74°30'15.0" W	42°40'16.9" N	4-Jun-14	4.25 miles	5.57	21.35	22.59	25.88	27.09
424017074301501	74°30'15.0" W	42°40'16.9" N	14-May-14	4.25 miles	5.59	21.35	22.59	25.88	27.09

	USGS Well	USGS Well	SC-66-02	SC-66-01	Soil Pit 2
Mottling:	-21.35	-21.35	0.0	0.0	-1
Measured Water Level	-22.21	-21.96	-12.2	-2	-1.4
2013 Low:	-28.32	-28.32	-98.88	-16.21	-5.57
Date:	4-Jun-14	14-May-14	4-Jun-14	4-Jun-14	14-May-14



## **DESIGN DRAWINGS**



# SITE SC-66: TOWER ROAD WETLAND MITIGATION PROJECT CONSTITUTION PIPELINE, LLC

DRAWING LIST	
SHEET NUMBER	DESCRIPTION
1	COVER SHEET
2	GENERAL NOTES
3	EXISTING CONDITIONS
4	WETLANDS METES AND BOUNDS TABLES
5	DEMOLITION PLAN
6	SITE PLAN
7	SITE PLAN – S7
8	SITE PLAN – S8
9	SITE PLAN – S9
10	SITE PLAN – S10
11	SITE PLAN – S11
12	SECTIONS
13	EASEMENT PLAN
14	CONSERVATION EASEMENT METES AND BOUNDS TABLES
15	PLANTING NOTES AND TABLES
16	PLANTING PLAN
17	DETAILS
18	EROSION AND SEDIMENT CONTROL DETAILS

OWNER: KENNETH A. GORI

TAX PARCEL ID: 93.-2-10

ACREAGE OF PARCEL: 97.4 ACRES

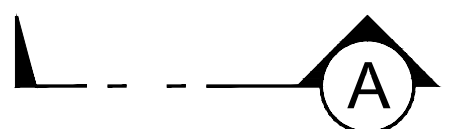
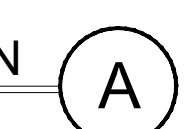
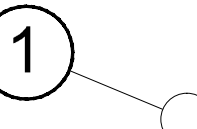
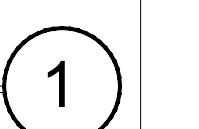
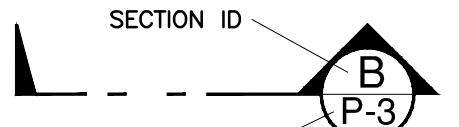
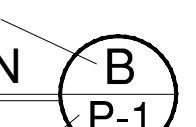
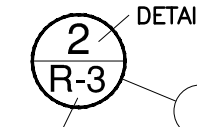
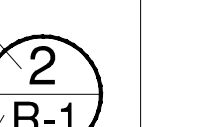


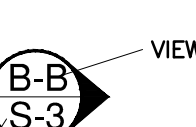

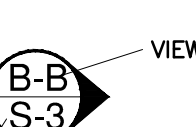

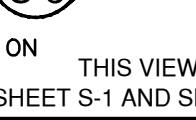

DISTURBED ACREAGE: 4.9 ACRES

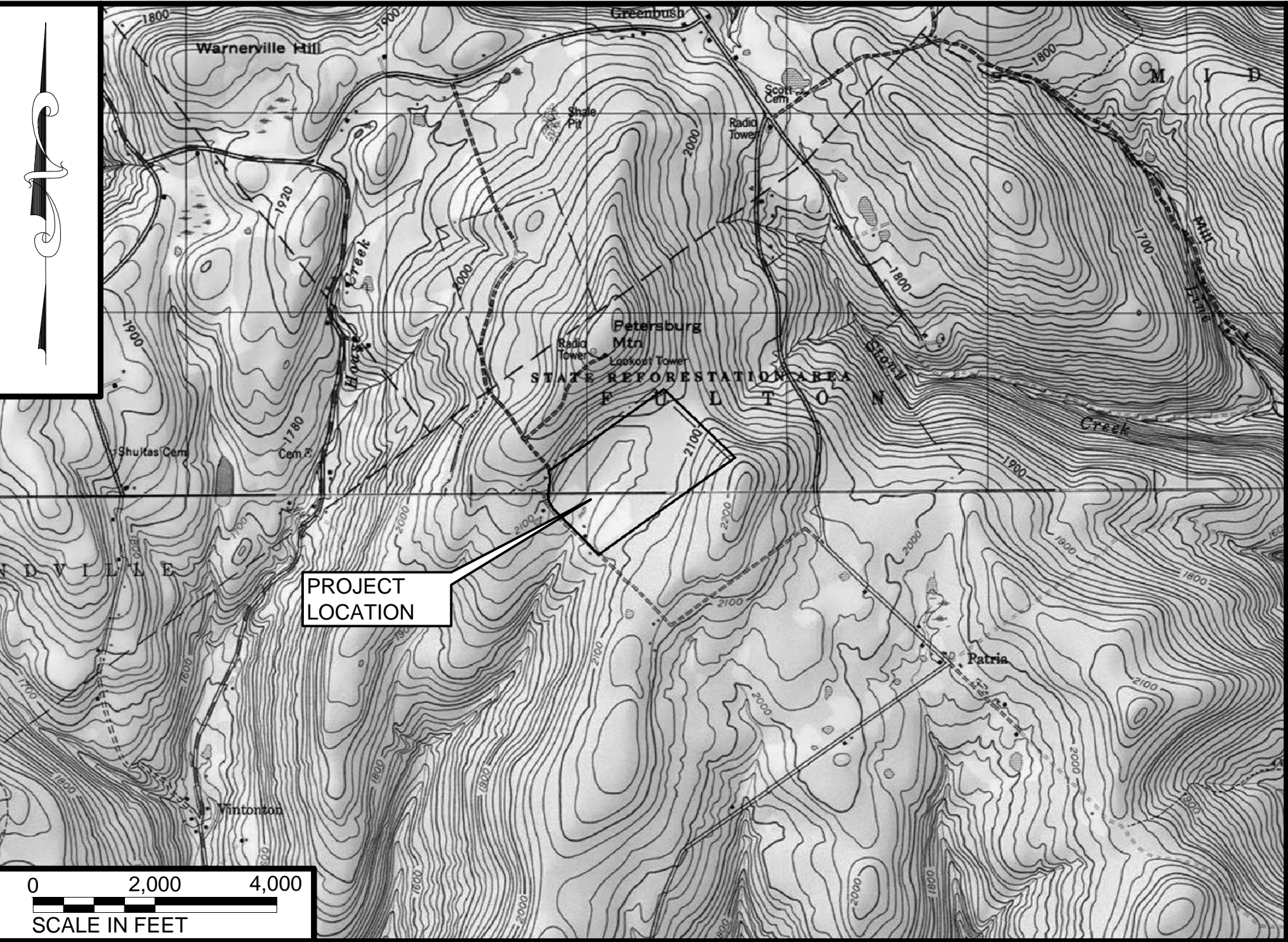
ADDRESS: 288 TOWER ROAD

WARNERVILLE, NY 12187

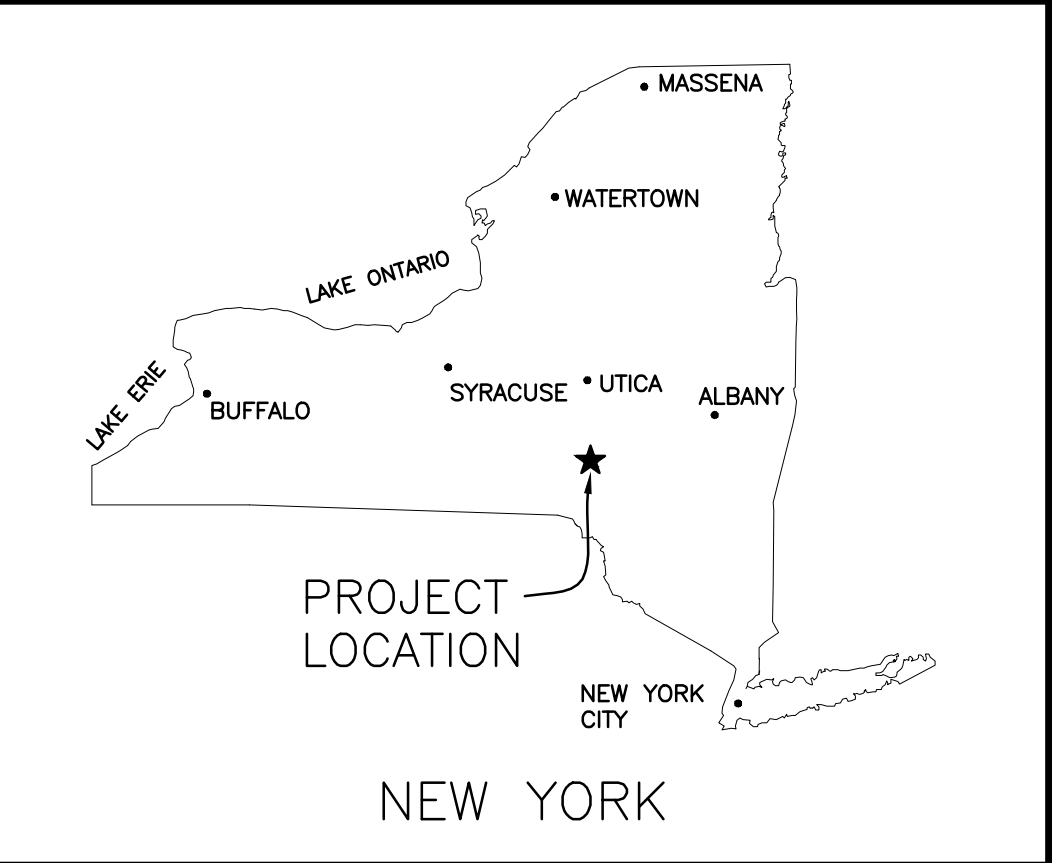
HUC 8: SCHOHARIE – 02020005

- NOTES:
- SECTIONS ARE ALPHABETICAL.
  - DETAILS ARE NUMERICAL.
  - VIEWS ARE DOUBLE ALPHABETICAL.

SECTION/DETAIL IDENTIFICATION SYMBOLS					
	<b>SECTION</b>			<b>DETAIL</b>	
1/4"= 1'-0"		1/4"= 1'-0"		1/4"= 1'-0"	
THIS SECTION IS CUT AND SHOWN ON THE SAME SHEET		THIS DETAIL IS TAKEN AND SHOWN ON THE SAME SHEET			
	<b>SECTION</b>			<b>DETAIL</b>	
1/4"= 1'-0"		1/4"= 1'-0"		1/4"= 1'-0"	
THIS SECTION IS CUT ON SHEET P-1 AND SHOWN ON SHEET P-3		THIS DETAIL IS TAKEN ON SHEET R-1 AND SHOWN ON SHEET R-3			
	<b>VIEW</b>			<b>VIEW</b>	
1/4"= 1'-0"		1/4"= 1'-0"		1/4"= 1'-0"	
THIS VIEW IS TAKEN AND SHOWN ON THE SAME SHEET					
	<b>VIEW</b>			<b>VIEW</b>	
1/4"= 1'-0"		1/4"= 1'-0"		1/4"= 1'-0"	
THIS VIEW IS TAKEN ON SHEET S-1 AND SHOWN ON SHEET S-3					



VICINITY MAP  
(ELEVATIONS ARE IN METERS)



- NOTES:
- TOPOGRAPHIC AND PARCEL BOUNDARY SURVEY DATA BASED ON 2013/2014 SURVEY FROM MICHAEL BAKER CORPORATION. COORDINATES SHOWN ARE EXPRESSED IN US SURVEY FEET AND REFERENCED TO NORTH AMERICAN DATUM OF 1983 (NAD 83), UTM ZONE 18.
  - WETLAND BOUNDARIES BASED ON 2013/2014 DELINEATION FROM KLEINSCHMIDT ASSOCIATES.



					CONSTITUTION PIPELINE, LLC WETLAND MITIGATION	
					SITE SC-66: TOWER ROAD	
					COVER SHEET	
					<b>Kleinschmidt</b>	
					141 Main Street P.O. Box 650 Pittsfield, Maine 04967 Telephone: (207) 487-3328 Fax: (207) 487-3124 www.KleinschmidtUSA.com	
No.	Revision	Date	Drawn	Checked	Project No.	Date Revised
-	-	-	-	-	3786-001	7-31-2014
			Designed DDW	Drawn DDW		Drawing No.
			Checked TAK			1





22x34 = FULL SCALE

3"  
2"  
1"  
0

PRINTED: Jul. 31, 2014 - 11:34 AM J:\3786001\05 Wetland Mitigation\002 Final Plans\SC-66\Drawings\3786-001-SC-66 Sheet 2 Gen Notes.dwg

GENERAL NOTES

- SUBCONTRACTOR SHALL PERFORM ALL WORK IN ACCORDANCE WITH THESE DRAWINGS AND THE PROJECT SPECIFICATIONS.
- IT IS THE RESPONSIBILITY OF THE SUBCONTRACTOR TO REVIEW ALL OF THE DRAWINGS, SPECIFICATIONS, AND REFERENCED DOCUMENTS ASSOCIATED WITH THE PROJECT PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE SUBCONTRACTOR FIND ANY CONFLICT WITH THE DOCUMENTS, IT IS THE SUBCONTRACTOR'S RESPONSIBILITY TO NOTIFY KLEINSCHMIDT AND THE ENGINEER OF RECORD, IN WRITING, PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE SUBCONTRACTOR TO NOTIFY KLEINSCHMIDT AND THE ENGINEER OF RECORD SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE SUBCONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND SPECIFICATIONS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
- IT IS THE RESPONSIBILITY OF THE SUBCONTRACTOR TO FULFILL ALL REQUIREMENTS OF THE CONTRACT AND ALL AMENDMENTS THERETO, INCLUDING BUT NOT LIMITED TO GENERAL CONDITIONS, SPECIAL CONDITIONS, TECHNICAL SPECIFICATIONS AND THESE DRAWINGS IN ORDER TO COMPLETE THIS PROJECT.
- ALL EXISTING AND PROPOSED DIMENSIONS, FEATURES, UTILITIES AND ELEVATIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE SUBCONTRACTOR PRIOR TO CONSTRUCTION. SUBCONTRACTOR SHALL NOTIFY KLEINSCHMIDT, IN WRITING, IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH THE CONSTRUCTION TO OBTAIN NECESSARY PLAN CHANGES. NO EXTRA COMPENSATION SHALL BE PAID TO THE SUBCONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO ERRORS & OMISSIONS SHOWN ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN. KLEINSCHMIDT RESERVES THE RIGHT TO MODIFY THESE PLANS.
- SUBCONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS, ELEVATIONS, LAYOUT AND EXISTING CONDITIONS SHOWN PRIOR TO SHOP DRAWING SUBMITTAL, ORDERING MATERIAL, START OF FABRICATION, OR START OF CONSTRUCTION. SUBCONTRACTOR SHALL NOTIFY KLEINSCHMIDT OF DISCREPANCIES.
- THE SUBCONTRACTOR SHALL BE FAMILIAR WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL APPROVALS AND PERMITS FOR THE PROJECT AND SHALL HAVE A COPY OF RELEVANT PLANS AND PERMITS ON SITE AT ALL TIMES. THE SUBCONTRACTOR SHALL NOT PROCEED WITH THEIR WORK UNTIL ALL RELEVANT PERMITS ARE OBTAINED.
- THE SUBCONTRACTOR IS RESPONSIBLE FOR PROTECTING THE ENVIRONMENT.
- SUBCONTRACTOR SHALL SCHEDULE WORK IN COOPERATION WITH THE OWNER AND KLEINSCHMIDT.
- SUBCONTRACTOR SHALL PROVIDE SUBMITTALS AND RECEIVE KLEINSCHMIDT'S APPROVAL FOR ALL STRUCTURAL AND MISCELLANEOUS METAL ITEMS AND CONCRETE REINFORCEMENT PRIOR TO FABRICATION.
- SUBCONTRACTOR SHALL CLEAN UP ANY SPILLS OR DEBRIS CAUSED BY CONSTRUCTION.
- SUBCONTRACTOR SHALL REPAIR ANY PORTIONS OF THE SITE THAT ARE DAMAGED DURING CONSTRUCTION, AND PERFORM LANDSCAPING AND SITE REMEDIATION AS NECESSARY TO LEAVE THE WORK AREA AS CLOSE TO ORIGINAL CONDITION AS POSSIBLE.
- ALL WORK SHALL BE CONDUCTED PER THE SOIL EROSION AND SEDIMENT CONTROL PLAN.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
- THE SUBCONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK. THE SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUE AND PROCEDURE OF CONSTRUCTION; INCLUDING, BUT NOT LIMITED TO, BRACING OF THE WORK AS REQUIRED TO PROTECT THE WORK UNTIL THE PROJECT IS COMPLETE. SUBCONTRACTOR SHALL NOT PLACE EQUIPMENT OR MATERIALS OUTSIDE OF THE LIMIT OF WORK SHOWN ON THE PLANS WITHOUT WRITTEN CONSENT FROM KLEINSCHMIDT AND THE CONSERVATION DISTRICT.
- ATTENTION ALL SUBCONTRACTORS: LOCATIONS OF ALL EXISTING UTILITIES SHOWN HEREON HAVE BEEN DEVELOPED FROM ABOVE-GROUND INSPECTION OF THE SITE. COMPLETENESS AND ACCURACY OF TYPE, SIZE, DEPTH OR HORIZONTAL LOCATION OF UNDERGROUND FACILITIES OR STRUCTURES CANNOT BE GUARANTEED. CONTRACTORS MUST VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES. SEE STATE SPECIFIC REQUIREMENTS, THIS PAGE.
- THE SUBCONTRACTOR SHALL BE RESPONSIBLE FOR AND PROVIDE ALL CONSTRUCTION STAKEOUT AND SURVEY WORK NECESSARY FOR THEIR WORK, UNLESS ARRANGED OTHERWISE WITH KLEINSCHMIDT. ANY DISCREPANCIES FOUND DURING THE COURSE OF THE SURVEY WORK SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF KLEINSCHMIDT.
- THE SUBCONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR INITIATING, MAINTAINING, AND SUPERVISING ALL SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK.
- THE SUBCONTRACTOR SHALL BE RESPONSIBLE TO SECURE ALL MATERIAL, EQUIPMENT, SUPPLIES, ETC., STORED AT THE SITE.
- THE SUBCONTRACTOR SHALL BE RESPONSIBLE TO CLEAN PROJECT SITE OF ALL WASTE, FILL, DEBRIS, ETC. DAILY AND PRIOR TO LEAVING THE SITE.
- ANY DAMAGE TO THE UTILITIES SHALL BE THE SOLE RESPONSIBILITY OF THE SUBCONTRACTOR, AND ALL COST FOR REPAIRS SHALL BE BORNE BY THE SUBCONTRACTOR.
- NO TREES SHALL BE DISTURBED UNLESS INDICATED ON THE PLANS THAT THEY ARE TO BE REMOVED.
- NO WETLANDS SHALL BE DISTURBED UNLESS INDICATED ON THE PLANS AND ALL APPROPRIATE PERMITS ARE IN PLACE.
- THE SUBCONTRACTOR SHALL COMPLY WITH ALL CONDITIONS CONTAINED IN RELEVANT PERMITS ISSUED FOR THIS PROJECT.

- SURVEY DATA ARE BASED ON TOPOGRAPHIC SURVEY BY MICHAEL BAKER CORPORATION. COORDINATES SHOWN ARE EXPRESSED IN U.S. SURVEY FEET AND REFERENCED TO THE NORTH AMERICAN DATUM OF 1983 (NAD 83), UTM ZONE 18.
- WETLAND BOUNDARIES BASED ON 2013/2014 DELINEATION BY KLEINSCHMIDT. WETLANDS WERE DELINEATED BASED ON THE USACE 2012 REGIONAL SUPPLEMENT TO THE CORPS OF ENGINEERS WETLAND DELINEATION MANUAL: NORTHCENTRAL AND NORTHEAST REGION (VERSION 2.0).
- THE SUBCONTRACTOR SHALL BE ADVISED THAT THE PROJECT MAY BE LOCATED IN AN AREA PRONE TO FLOODING AND SEVERE WEATHER. THE SUBCONTRACTOR SHALL TAKE NECESSARY PRECAUTIONS TO PROTECT THE PROJECT WHILE UNDER CONSTRUCTION, WHICH MAY INCLUDE SEQUENCING THE PROJECT TO PROTECT TEMPORARY AND PERMANENT STRUCTURES. THIS INCLUDES, BUT IS NOT LIMITED TO, PROTECTION FROM STORMS, FLOODS, WIND, AND RECREATIONAL USERS. THE SUBCONTRACTOR IS SOLELY RESPONSIBLE FOR THE PROTECTION OF THE PROJECT SITE, TEMPORARY FACILITIES, FALSEWORK, EQUIPMENT, PERSONNEL, WORK, MATERIALS, AND OTHER PROPERTIES, THE PUBLIC, OR INDUSTRY.
- EVERY SUBCONTRACTOR SHALL COOPERATE WITH AND MAKE ALLOWANCES FOR OTHER SUBCONTRACTORS.
- SUBCONTRACTOR SHALL PARK IN DESIGNATED AREAS ONLY.
- TO THE GREATEST EXTENT POSSIBLE ALL TRAFFIC SHALL REMAIN ON DESIGNATED TRAVELWAYS. ANY DAMAGE TO TURF OR FIELDS SHALL BE REPORTED AND REPAIRED IMMEDIATELY BY THE SUBCONTRACTOR.
- ALL SUBCONTRACTORS SHALL SUBMIT THE FOLLOWING FOR APPROVAL:
  - PHASING AND SEQUENCING PLAN: SUBMIT PLAN NO LESS THAN 14 DAYS PRIOR TO COMMENCING WORK.
  - POLLUTION PREVENTION AND CONTROL PLAN: SUBMIT SITE SPECIFIC PLAN NO LESS THAN 14 DAYS PRIOR TO COMMENCING WORK.
  - SITE SPECIFIC SAFETY PLAN: SUBMIT PLAN NO LESS THAN 14 DAYS PRIOR TO COMMENCING WORK.
- ALL EQUIPMENT IS TO BE IN COMPLIANCE WITH ALL OSHA AND DOSH SAFETY SPECIFICATIONS INCLUDING, FUNCTIONING BACKUP ALARMS AND MIRRORS FOR SAFE BACKING.
- ALL HEAVY EQUIPMENT IS TO BE PROPERLY MAINTAINED SUCH THAT ALL ACCESSORIES ARE FUNCTIONING ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS.
- THE SUBCONTRACTOR SHALL IMMEDIATELY NOTIFY KLEINSCHMIDT AND CONSTRUCTION MANAGER OF ANY UNINTENTIONAL RELEASE OF ANY CHEMICAL (INCLUDING BUT NOT LIMITED TO, DIESEL FUEL, HYDRAULIC OIL, HERBICIDE) WHILE ON THE PROJECT SITE AND SHALL IMMEDIATELY TAKE MEASURES TO CONTAIN AND CLEAN UP SUCH SPILLED MATERIALS, INCLUDING THE REMOVAL OF CONTAMINATED SOIL. THE SUBCONTRACTOR SHALL, AT ALL TIMES, HAVE EQUIPMENT AND SUPPLIES READILY AVAILABLE TO ADEQUATELY CONTROL AND CLEAN UP ANY CHEMICAL SPILLS. THE SUBCONTRACTOR SHALL ALSO BE RESPONSIBLE FOR NOTIFICATION OF ALL APPLICABLE AGENCIES IN THE EVENT OF AN UNCONTROLLED CHEMICAL RELEASE. THE SUBCONTRACTOR IS SOLEY RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE SPILL, INCLUDING SITE CLEANUP, DISPOSAL OF MATERIAL, AND COSTS FOR DELAYS TO THE PROJECT SCHEDULE CAUSED BY THE SPILL.

NEW YORK GENERAL NOTES

- THE SUBCONTRACTOR WILL BE RESPONSIBLE FOR CONDUCTING UNDERGROUND UTILITY CHECKS, IN ACCORDANCE WITH STATE REGULATIONS. THE SUBCONTRACTOR WILL BE RESPONSIBLE FOR COORDINATING WITH DIG SAFELY NEW YORK (1-800-962-7962) A MINIMUM OF THREE (3) FULL WORKING DAYS IN ADVANCE OF ANY DIGGING ACTIVITY. SHOULD ANY UTILITIES BE LOCATED THAT ARE IN CONFLICT WITH THE DESIGN, THE SUBCONTRACTOR SHALL IMMEDIATELY REPORT THESE CONFLICTS IN WRITING TO KLEINSCHMIDT.
- ALL MATERIALS SHALL BE PROVIDED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NEW YORK STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS UNLESS NOTED OTHERWISE.
- ALL MATERIALS SHALL BE PROVIDED AND WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION REQUIREMENTS FOR SOIL AND EROSION PROTECTION.

EXCAVATION CONTRACTOR NOTES

- EXCAVATION SUBCONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION. THIS AND ALL OTHER SITE WORK MUST BE IN ACCORDANCE WITH CURRENT OSHA STANDARDS.
- NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE EXCAVATION SUBCONTRACTOR THOROUGHLY REVIEWS AND UNDERSTANDS ALL PLANS AND OTHER DOCUMENTS BY ALL PERMITTING AUTHORITIES.
- CONSERVATION DISTRICT EROSION AND SEDIMENT CONTROL ADEQUACY LETTER TO BE APPROVED PRIOR TO SITE DISTURBANCE, AS REQUIRED BY THE CONSERVATION DISTRICT.
- NO EARTH MOVING ACTIVITIES SHALL BEGIN PRIOR TO THE INSTALLATION OF THE TREE OR RESTRICTED AREA PROTECTIVE FENCING, AS REQUIRED BY THESE PLANS.
- ANY SOLID WASTE FROM THE SITE SHALL BE DISPOSED OF BY EXCAVATION SUBCONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.
- WATER THAT ACCUMULATES IN OPEN TRENCHES WILL BE COMPLETELY REMOVED BY PUMPING BEFORE CONSTRUCTION AND/OR BACKFILLING BEGINS. WATER MUST BE PUMPED THROUGH A FILTER BAG ON TO A STABLE SURFACE OR INTO THE SEDIMENT BASIN. CONCRETE SHALL BE PLACED IN A CLEAN DRY TRENCH ONLY.

- EXCAVATIONS OR TRENCHING WITHIN THE CLOSE PROXIMITY TO UNDERGROUND FACILITIES OR UTILITY POLES WILL REQUIRE PROTECTION TO PREVENT DAMAGE OR INTERRUPTION OF SERVICE. THE COST TO PROVIDE THE PROTECTION WILL BE BORNE BY THE EXCAVATION SUBCONTRACTOR.
- COMPACTION IN FILL AREAS BENEATH ALL PROPOSED STRUCTURES SHOULD MEET ALL MANUFACTURER AND TOWNSHIP REQUIREMENTS AND BE EQUAL TO THE 98% MODIFIED PROCTOR DENSITY, AT A MINIMUM.
- ALL CONCRETE UTILIZED ON SITE SHALL BE 4,000 PSI (MINIMUM 28 DAY COMPRESSIVE STRENGTH) WITH 5% AIR ENTRAINMENT, UNLESS OTHERWISE NOTED.

SC-66 SOIL DATA							
SOIL SYMBOL	SOIL NAME	SLOPE (%)	HSG	FROST ACTION	KF (WHOLE SOIL)	RESTRICTIVE LAYER	
						DEPTH TO FRAGIPAN (IN)	DEPTH TO LITHIC BEDROCK (IN)
CNC	CHIPPEWA AND NORWICH VERY STONY SOILS	0-15	D	HIGH	N/A	13.0	>78.7
LME	LORDSTOWN CHANNERY SILT LOAM	25-35	C	MODERATE	0.24	>78.7	27.2
LOE	LORDSTOWN AND OQUAGA VERY STONY SOILS	0-35	C	MODERATE	0.24	>78.7	27.2
MCC	MARDIN CHANNERY SILT LOAM	8-15	D	MODERATE	0.24	22.0	>78.7
VCB	VOLUSIA CHANNERY SILT LOAM	3-8	D	HIGH	0.28	16.9	>78.7
VMC	VOLUSIA, MORRIS, AND ERIE SOILS	0-15	D	HIGH	0.24	16.9	>78.7

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No.	Revision	Date	Drawn	Checked
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		DDW	DDW	TAK

CONSTITUTION PIPELINE, LLC  
WETLAND MITIGATION

SITE SC-66: TOWER ROAD

GENERAL NOTES

**Kleinschmidt**

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Project No. 3786-001

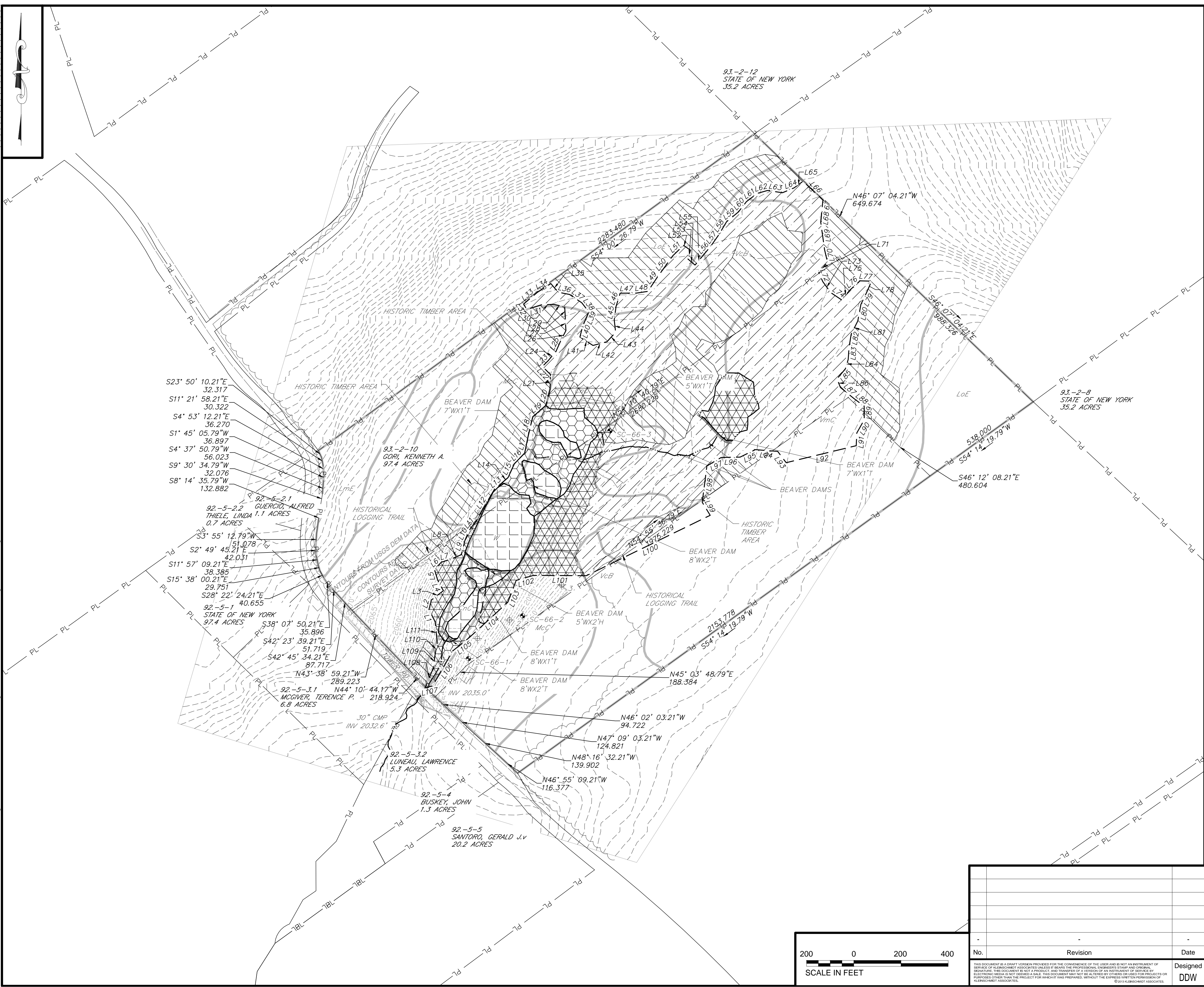
Date Revised 7-31-2014

Drawing No.





22x34 = FULL SCALE



LEGEND

- UPLAND BUFFER (150' WIDE WHERE POSSIBLE)  
EXISTING AREA: 19.8 ACRES
- PALUSTRINE FORESTED WETLAND  
EXISTING AREA: 19.1 ACRES
- PALUSTRINE SCRUB-SHRUB WETLAND  
EXISTING AREA: 4.9 ACRES
- PALUSTRINE EMERGENT WETLAND  
EXISTING AREA: 3.0 ACRES
- PALUSTRINE SYSTEM UNCONSOLIDATED BOTTOM  
EXISTING AREA: 2.7 ACRES
- SOIL PIT TEST CORRESPONDING TO SHEET NO. 3
- GEOTECH BORING CORRESPONDING TO SHEET NO. 3
- MAJOR CONTOUR (5' INTERVALS)
- MINOR CONTOUR (1' INTERVALS)
- PROPERTY LINE
- WETLAND BOUNDARY
- TREELINE
- INTERMITTENT STREAM
- SOIL BOUNDARY

SOIL PIT TESTS						
BORING/ SOIL PIT ID	EXIST. SURFACE	REDOX FEATURE DEPTH (BLS)	DEPTH TO SATURATED SOIL (BLS)	DEPTH TO STANDING WATER (BLS)	SOIL TYPE (SURFACE FIRST)	DATE OF SAMPLE
SOIL PIT 1	2047.2'	2046.2' (1.0')			LDAM, FINE SANDY LDAM	MAY 9, 2014
SOIL PIT 2	2053.3'	2052.3' (1.0')		2051.9' (1.4')	LDAM, FINE SANDY LDAM	MAY 9, 2014
SOIL PIT 3	2074.3'	2073.3' (1.0')		2073.3' (1.0')	LDAM, FINE SANDY LDAM	MAY 9, 2014



CONSTITUTION PIPELINE, LLC  
WETLAND MITIGATION

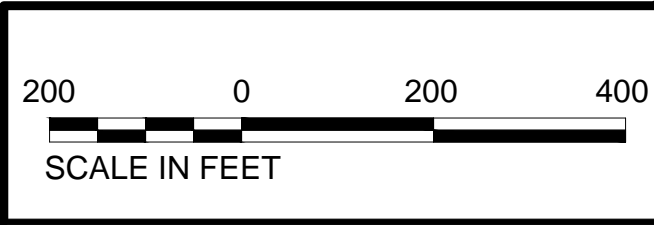
SITE SC-66: TOWER ROAD

EXISTING CONDITIONS

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Project No. 3786-001 Date Revised 7-31-2014 Drawing No. 3

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Designed	Drawn	Checked	Project No.	Date Revised
DDW	DDW	TAK	3786-001	7-31-2014





WETLAND METES AND BOUNDS TABLE		
Line #	Length	Direction
L1	58.84'	N26° 35' 06"W
L2	42.34'	N13° 49' 41"E
L3	63.96'	N52° 43' 09"E
L4	52.02'	N28° 32' 09"W
L5	46.02'	N16° 14' 20"W
L6	41.60'	N42° 54' 31"E
L7	41.95'	N71° 52' 37"E
L8	49.35'	N67° 06' 52"E
L9	61.89'	N14° 08' 43"E
L10	45.53'	N22° 47' 23"E
L11	49.89'	N35° 15' 40"E
L12	155.10'	N30° 24' 06"E
L13	47.17'	N49° 05' 01"E
L14	29.62'	N48° 54' 16"E
L15	63.78'	N24° 26' 44"E
L16	63.21'	N43° 55' 51"E
L17	73.32'	N11° 36' 12"E
L18	84.37'	N13° 24' 05"E
L19	72.99'	N48° 59' 34"E
L20	71.32'	N14° 50' 23"E

WETLAND METES AND BOUNDS TABLE		
Line #	Length	Direction
L21	62.16'	N1° 21' 42"E
L22	48.09'	N44° 41' 06"W
L23	35.60'	N44° 30' 26"E
L24	48.74'	N40° 33' 53"E
L25	56.43'	N24° 16' 10"E
L26	42.36'	N27° 21' 06"E
L27	62.53'	N2° 30' 25"W
L28	39.12'	N3° 29' 53"W
L29	47.54'	N78° 01' 04"W
L30	51.35'	S88° 10' 12"W
L31	65.93'	S72° 45' 01"W
L32	26.11'	N30° 16' 17"W
L33	76.00'	N49° 29' 20"E
L34	68.66'	N57° 11' 44"E
L35	47.17'	S40° 10' 29"E
L36	49.58'	S78° 25' 25"E
L37	62.82'	S55° 59' 08"E
L38	48.50'	S37° 33' 40"E
L39	67.15'	S22° 45' 59"W
L40	46.24'	S14° 36' 52"W

WETLAND METES AND BOUNDS TABLE		
Line #	Length	Direction
L41	65.83'	S57° 08' 10"E
L42	61.49'	N75° 03' 47"E
L43	54.51'	N42° 34' 37"E
L44	52.98'	N6° 34' 25"W
L45	58.09'	N7° 49' 51"E
L46	57.79'	N17° 12' 09"E
L47	67.88'	N89° 39' 45"E
L48	50.44'	N81° 29' 01"E
L49	65.04'	N33° 22' 10"E
L50	118.42'	N35° 48' 14"E
L51	63.47'	N45° 37' 55"E
L52	36.14'	S55° 42' 27"E
L53	38.58'	S16° 43' 14"W
L54	39.84'	S49° 19' 18"E
L55	50.24'	N40° 09' 00"E
L56	57.01'	N39° 26' 10"E
L57	58.20'	N35° 02' 11"E
L58	62.01'	N30° 50' 19"E
L59	65.43'	N50° 17' 39"E
L60	55.23'	N37° 46' 22"E

WETLAND METES AND BOUNDS TABLE		
Line #	Length	Direction
L61	57.41'	N52° 47' 54"E
L62	44.68'	N73° 56' 26"E
L63	64.89'	S81° 30' 06"E
L64	53.27'	N67° 03' 42"E
L65	47.23'	N53° 33' 53"E
L66	115.64'	S46° 37' 30"E
L67	56.25'	S5° 48' 43"W
L68	39.28'	S5° 00' 13"W
L69	117.42'	S7° 53' 58"E
L70	53.61'	S13° 18' 24"E
L71	57.93'	S39° 40' 18"W
L72	41.41'	S24° 16' 57"E
L73	57.91'	S36° 06' 42"E
L74	54.67'	S56° 14' 39"E
L75	52.99'	N40° 24' 16"E
L76	59.47'	N47° 25' 44"E
L77	49.12'	S88° 06' 37"E
L78	46.85'	S23° 50' 33"W
L79	61.92'	S25° 19' 04"W
L80	70.93'	S10° 28' 50"W

WETLAND METES AND BOUNDS TABLE		
Line #	Length	Direction
L81	62.69'	S26° 45' 32"W
L82	53.48'	S9° 05' 19"W
L83	54.12'	S4° 32' 40"W
L84	41.02'	S16° 22' 22"W
L85	55.41'	S39° 36' 14"W
L86	39.18'	S20° 44' 03"E
L87	75.73'	S50° 42' 32"E
L88	52.46'	S53° 21' 11"E
L89	57.91'	S0° 37' 35"E
L90	63.60'	S29° 47' 20"W
L91	54.59'	S2° 50' 48"W
L92	305.15'	S76° 23' 49"W
L93	59.83'	N37° 01' 03"W
L94	94.94'	N85° 28' 53"W
L95	71.65'	S63° 53' 27"W
L96	80.12'	S88° 42' 20"W
L97	70.41'	S59° 47' 25"W
L98	155.54'	S7° 15' 14"W
L99	64.61'	S31° 16' 29"E
L100	583.73'	S64° 00' 15"W

WETLAND METES AND BOUNDS TABLE		
Line #	Length	Direction
L101	224.79'	N89° 40' 07"W
L102	75.39'	S73° 38' 13"W
L103	98.97'	S21° 01' 02"W
L104	218.40'	S47° 28' 00"W
L105	92.12'	S51° 08' 22"W
L106	172.35'	S29° 59' 07"W
L107	32.67'	S77° 40' 50"W
L108	89.93'	N23° 00' 30"E
L109	56.51'	N7° 20' 10"E
L110	49.76'	N10° 40' 11"E
L111	90.61'	N5° 18' 37"W

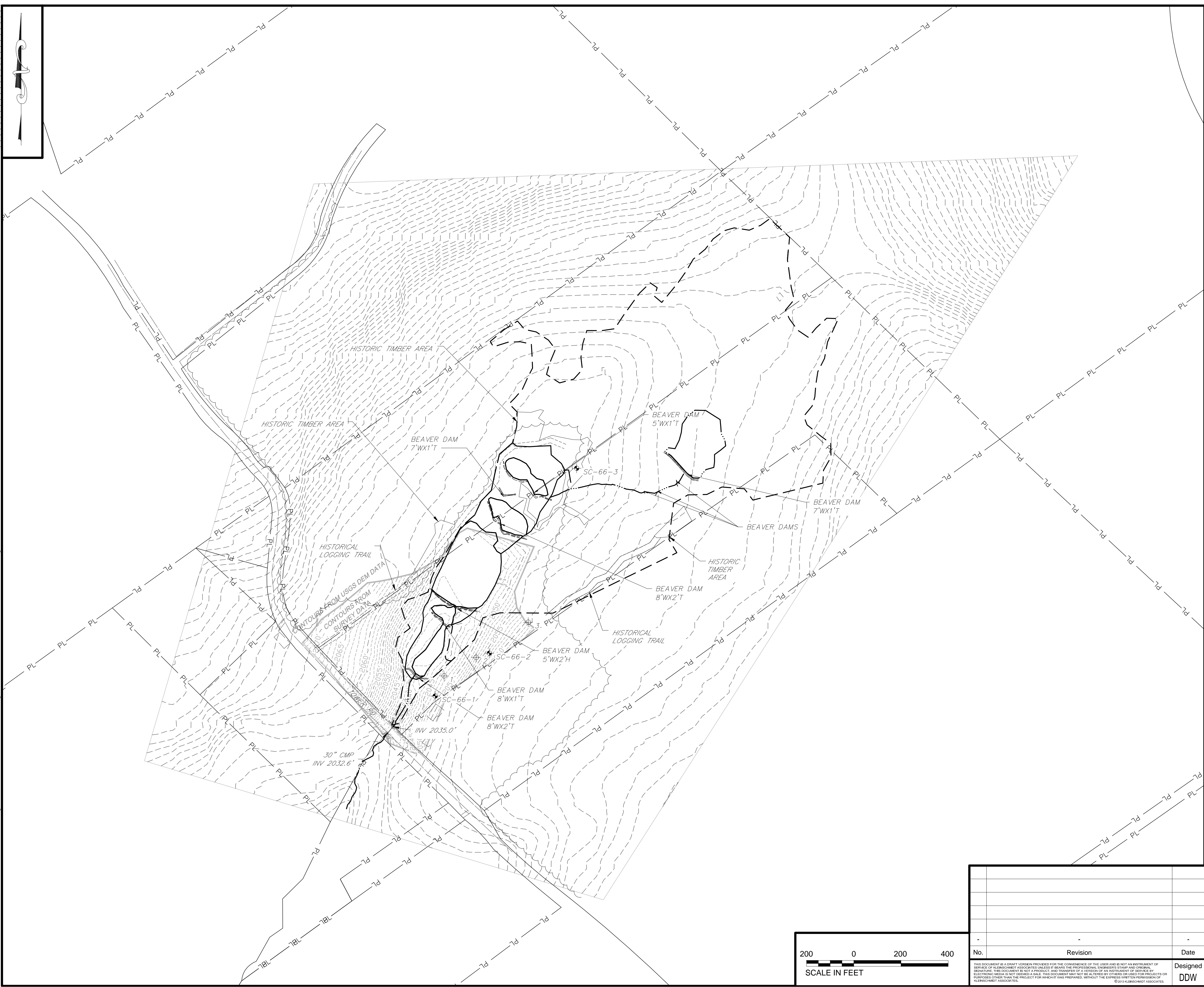


					CONSTITUTION PIPELINE, LLC WETLAND MITIGATION	
					SITE SC-66: TOWER ROAD	
					WETLANDS METES AND BOUNDS TABLES	
					<div><div><b>Kleinschmidt</b></div><div>141 Main Street P.O. Box 650 Pittsfield, Maine 04967 Telephone: (207) 487-3328 Fax: (207) 487-3124 www.KleinschmidtUSA.com</div></div>	
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				TAK		
					Drawing No.	4



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LEGEND

- MAJOR CONTOUR (5' INTERVALS)
- MINOR CONTOUR (1' INTERVALS)
- PL PL
- WETLAND BOUNDARY
- TREELINE
- INTERMITTENT STREAM

- SOIL PIT TEST CORRESPONDING TO SHEET NO. 3
- GEOTECH BORING CORRESPONDING TO SHEET NO. 3

NOTE: TREAT FOR INVASIVE SPECIES WHERE FOUND WITHIN THE PROPOSED PLANTING AND CONSTRUCTION AREA.



CONSTITUTION PIPELINE, LLC  
WETLAND MITIGATION

SITE SC-66: TOWER ROAD

DEMOLITION PLAN

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3786-001

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7-31-2014

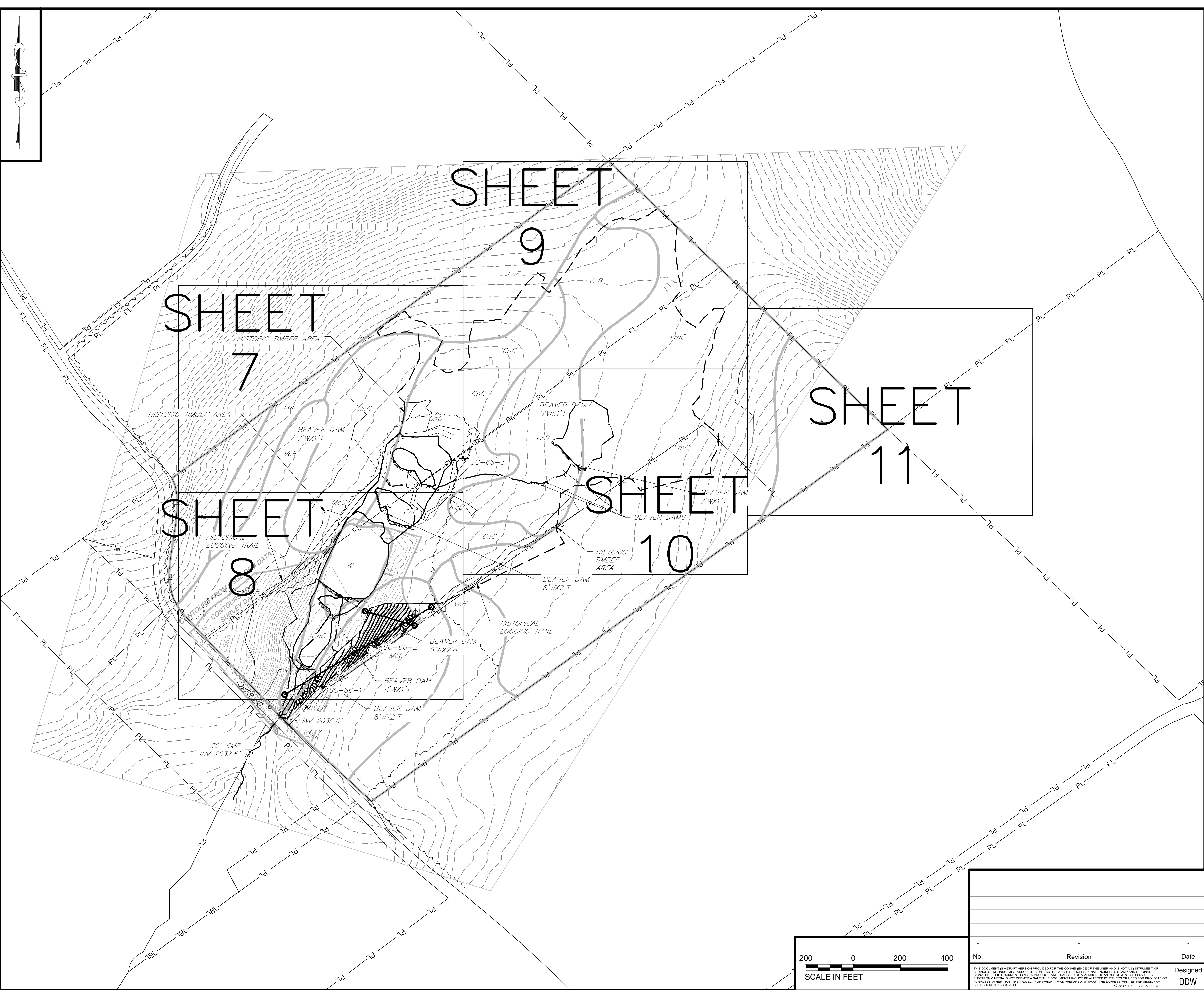
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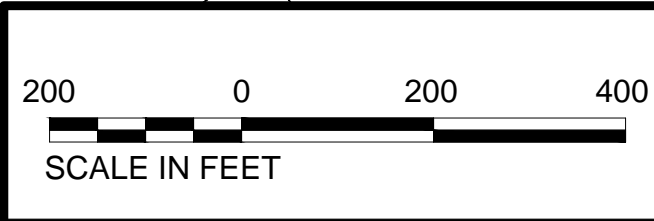


LEGEND	
	MAJOR CONTOUR (5' INTERVALS)
	MINOR CONTOUR (1' INTERVALS)
	PROPERTY LINE
	WETLAND BOUNDARY
	TREELINE
	INTERMITTENT STREAM
	PROPOSED CONTOURS
	TEMPORARY EASEMENT/LIMIT OF DISTURBANCE

	SOIL PIT TEST CORRESPONDING TO SHEET NO. 3
	GEOTECH BORING CORRESPONDING TO SHEET NO. 3
	SOIL BOUNDARY

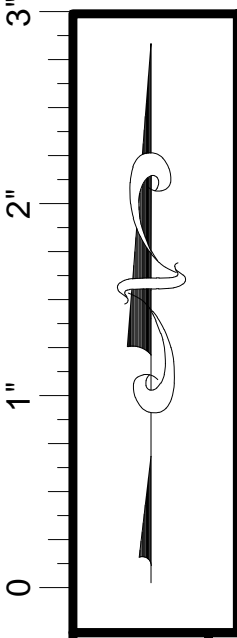


CONSTITUTION PIPELINE, LLC WETLAND MITIGATION				
SITE SC-66: TOWER ROAD				
SITE PLAN				
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Project No.	Date Revised	Drawing No.	6	
3786-001	7-31-2014			



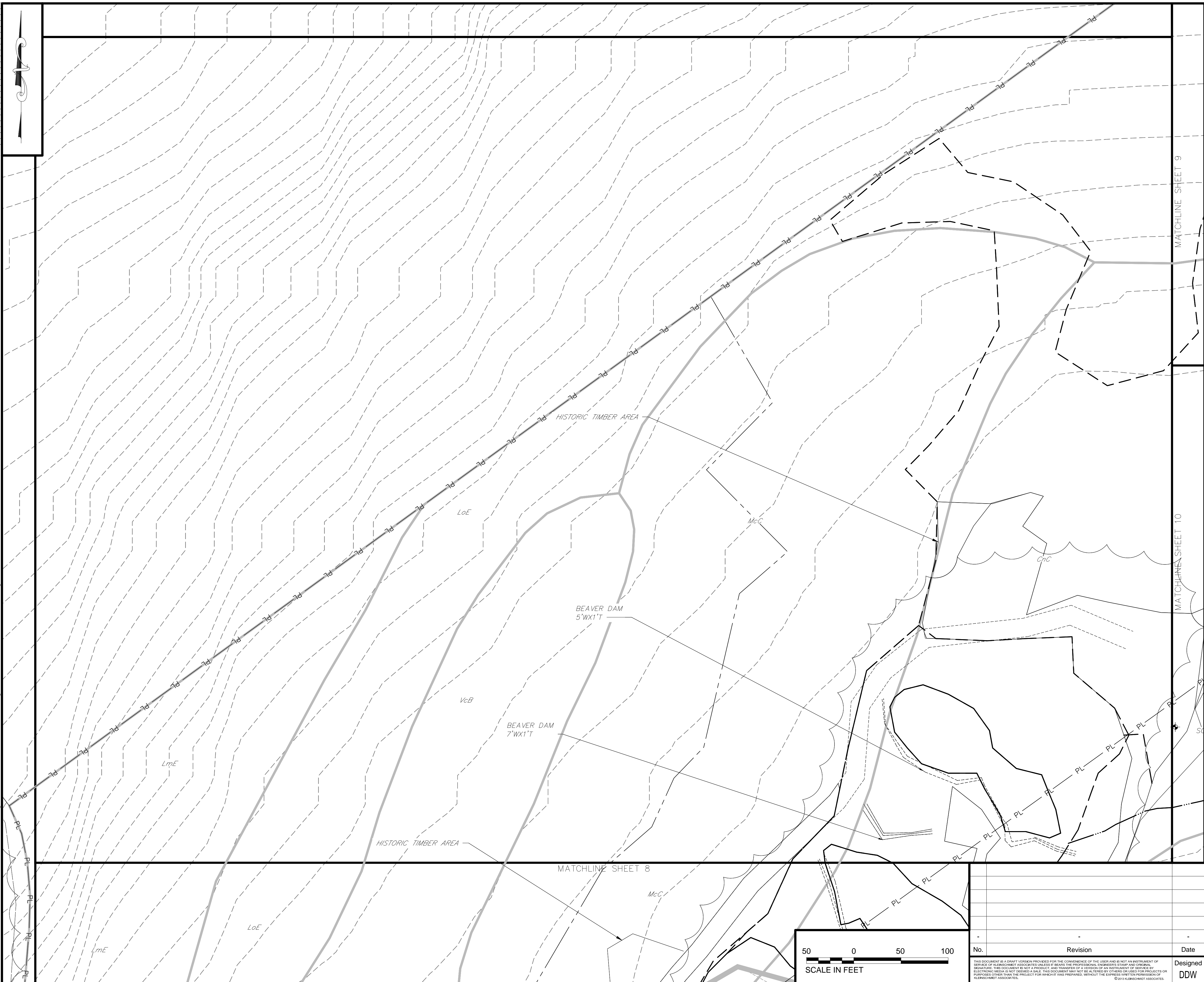
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- LEGEND
- MAJOR CONTOUR (5' INTERVALS)
  - MINOR CONTOUR (1' INTERVALS)
  - PROPERTY LINE
  - WETLAND BOUNDARY
  - TREELINE
  - INTERMITTENT STREAM
  - PROPOSED CONTOURS
  - TEMPORARY EASEMENT/LIMIT OF DISTURBANCE

- SOIL PIT TEST CORRESPONDING TO SHEET NO. 3
- GEOTECH BORING CORRESPONDING TO SHEET NO. 3
- SOIL BOUNDARY



CONSTITUTION PIPELINE, LLC WETLAND MITIGATION					
SITE SC-66: TOWER ROAD					
SITE PLAN - S7					
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- LEGEND
- MAJOR CONTOUR (5' INTERVALS)
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  - PROPERTY LINE
  - WETLAND BOUNDARY
  - TREELINE
  - INTERMITTENT STREAM
  - PROPOSED CONTOURS
  - TEMPORARY EASEMENT/LIMIT OF DISTURBANCE

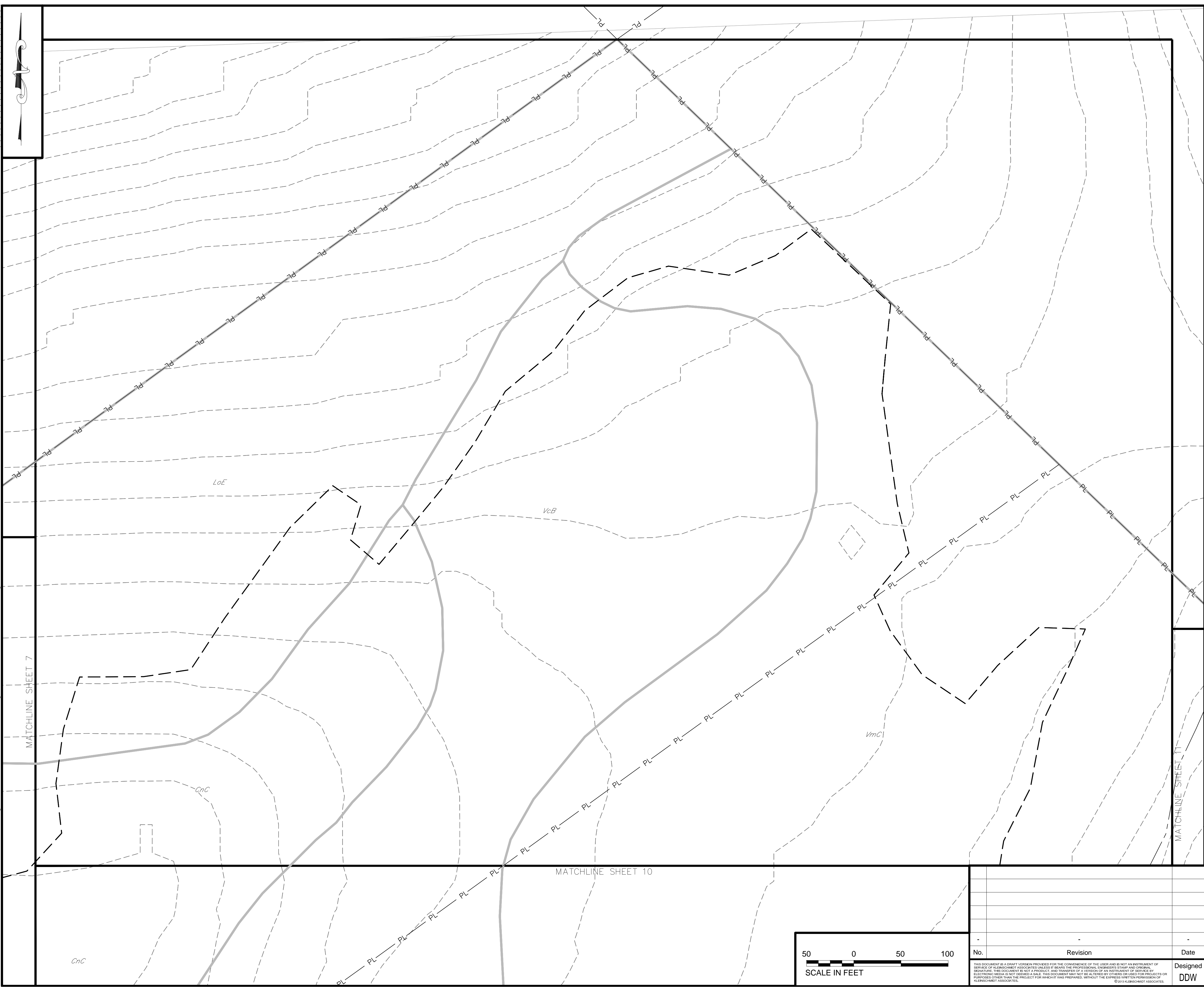
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- SOIL BOUNDARY



CONSTITUTION PIPELINE, LLC WETLAND MITIGATION					
SITE SC-66: TOWER ROAD					
SITE PLAN - S8					
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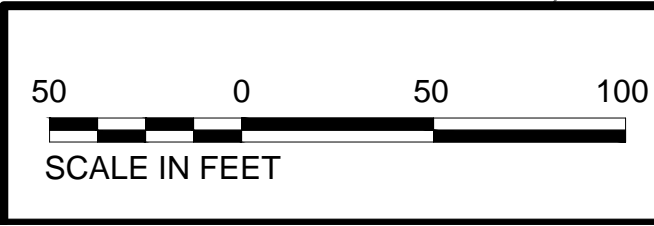


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- LEGEND
- MAJOR CONTOUR (5' INTERVALS)
  - MINOR CONTOUR (1' INTERVALS)
  - PROPERTY LINE
  - WETLAND BOUNDARY
  - TREELINE
  - INTERMITTENT STREAM
  - PROPOSED CONTOURS
  - TEMPORARY EASEMENT/LIMIT OF DISTURBANCE

- SOIL PIT TEST CORRESPONDING TO SHEET NO. 3
- GEOTECH BORING CORRESPONDING TO SHEET NO. 3
- SOIL BOUNDARY



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CONSTITUTION PIPELINE, LLC  
WETLAND MITIGATION

SITE SC-66: TOWER ROAD

SITE PLAN - S9

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Date Revised 7-31-2014

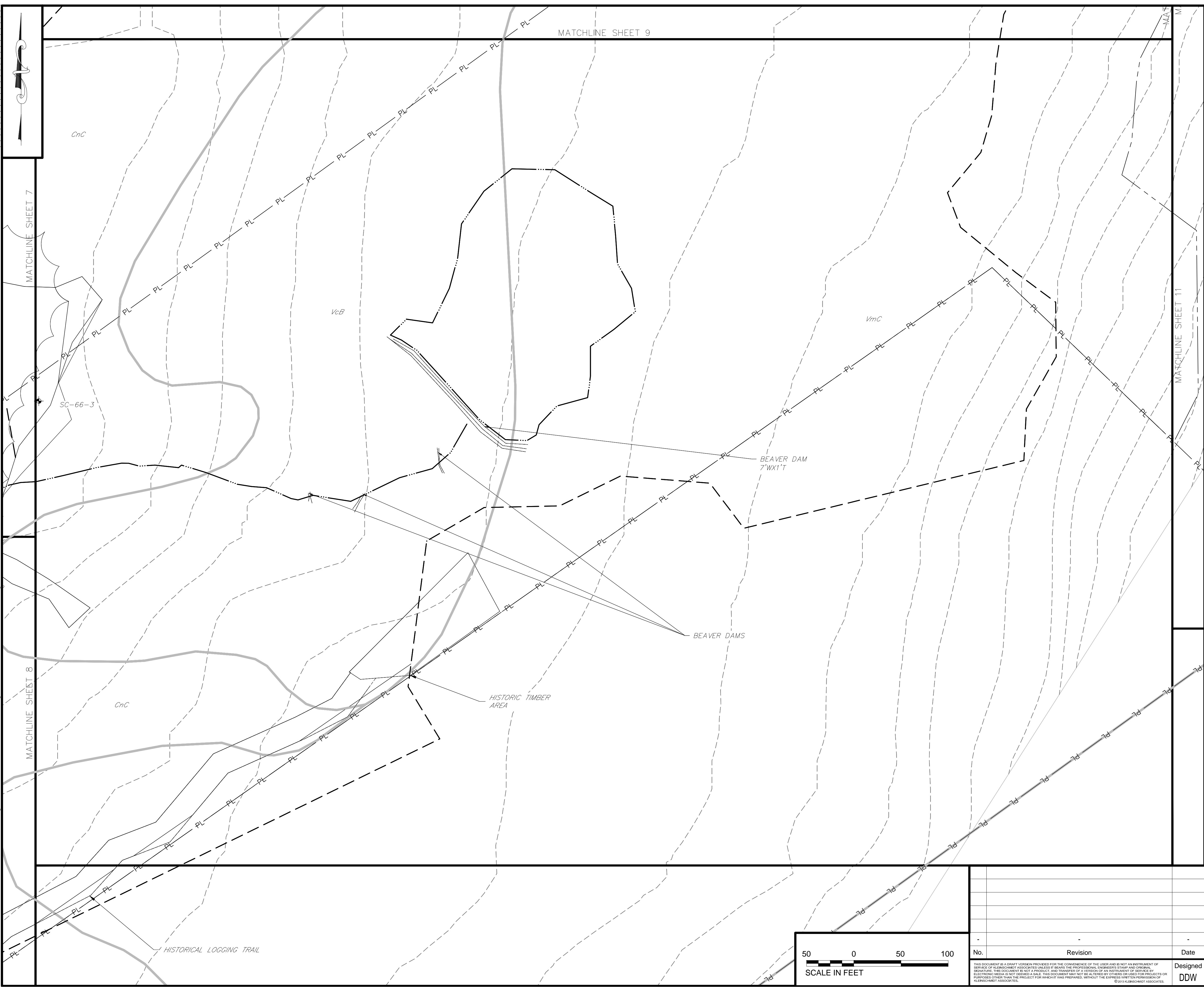
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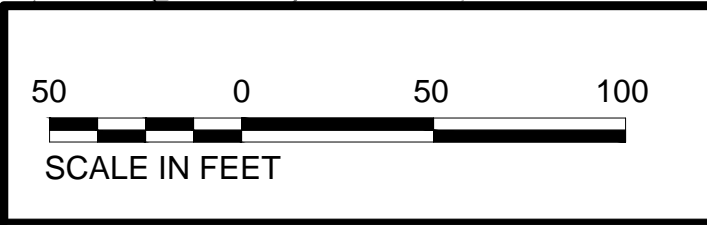


- LEGEND
- MAJOR CONTOUR (5' INTERVALS)
  - MINOR CONTOUR (1' INTERVALS)
  - PROPERTY LINE
  - WETLAND BOUNDARY
  - TREELINE
  - INTERMITTENT STREAM
  - PROPOSED CONTOURS
  - TEMPORARY EASEMENT/LIMIT OF DISTURBANCE

- SOIL PIT TEST CORRESPONDING TO SHEET NO. 3
- GEOTECH BORING CORRESPONDING TO SHEET NO. 3
- SOIL BOUNDARY



CONSTITUTION PIPELINE, LLC WETLAND MITIGATION		
SITE SC-66: TOWER ROAD		
SITE PLAN - S10		
<b>Kleinschmidt</b>		141 Main Street P.O. Box 650 Pittsfield, Maine 04967 Telephone: (207) 487-3328 Fax: (207) 487-3124 www.KleinschmidtUSA.com
Project No. 3786-001	Date Revised 7-31-2014	Drawing No. 10

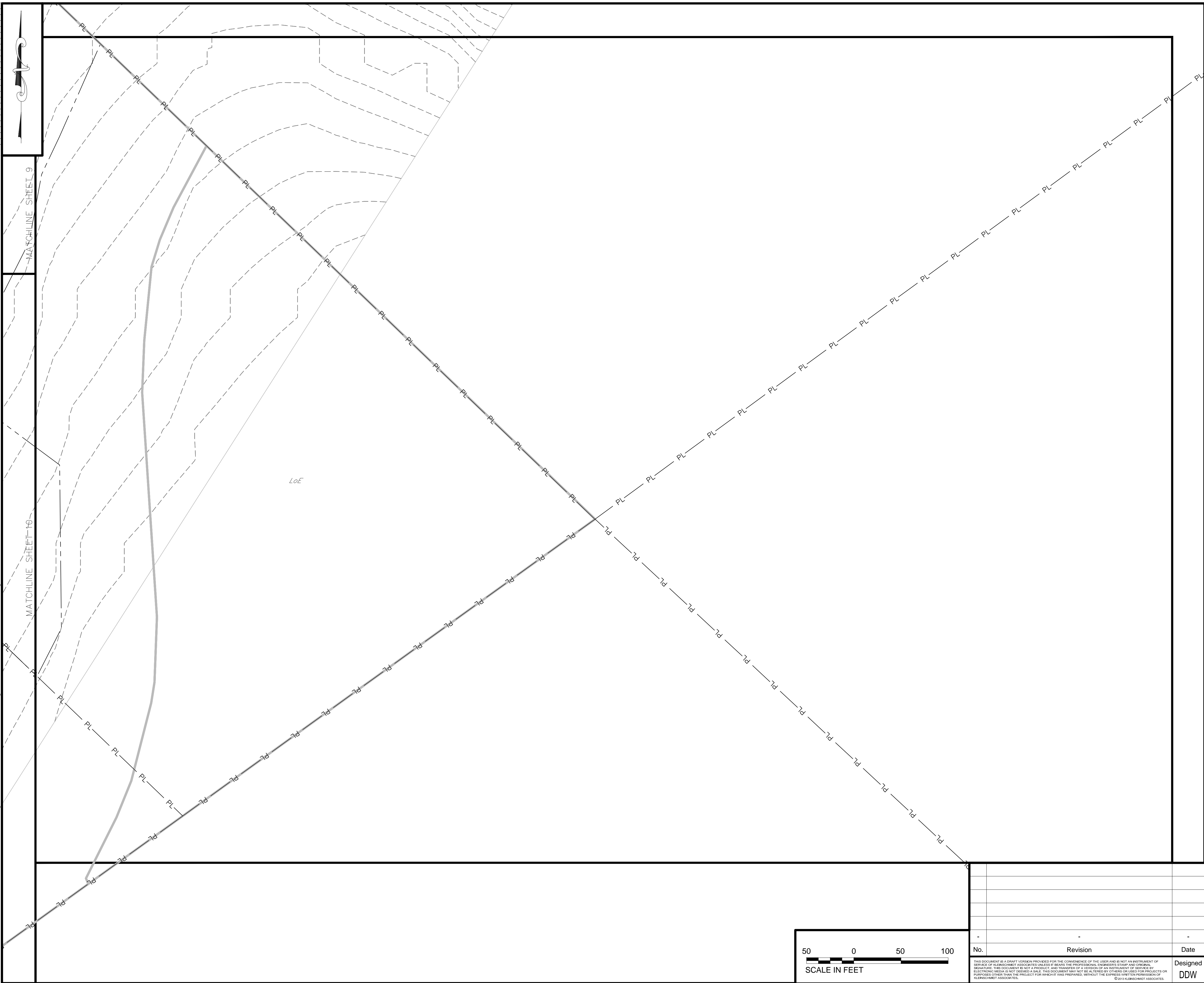


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22x34 = FULL SCALE

MATCHLINE SHEET 9 MATCHLINE SHEET 10



LEGEND

- MAJOR CONTOUR (5' INTERVALS)
- MINOR CONTOUR (1' INTERVALS)
- PROPERTY LINE
- WETLAND BOUNDARY
- TREELINE
- INTERMITTENT STREAM
- PROPOSED CONTOURS
- TEMPORARY EASEMENT/LIMIT OF DISTURBANCE

- SOIL PIT TEST CORRESPONDING TO SHEET NO. 3
- GEOTECH BORING CORRESPONDING TO SHEET NO. 3
- SOIL BOUNDARY



CONSTITUTION PIPELINE, LLC  
WETLAND MITIGATION

SITE SC-66: TOWER ROAD

SITE PLAN - S11

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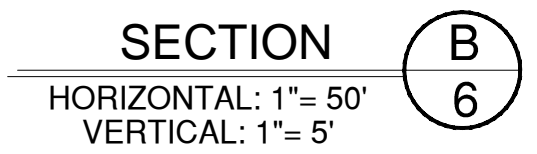
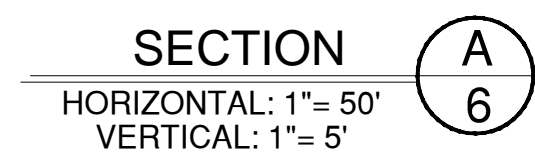
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Project No.	Date Revised	Drawing No.
3786-001	7-31-2014	

11



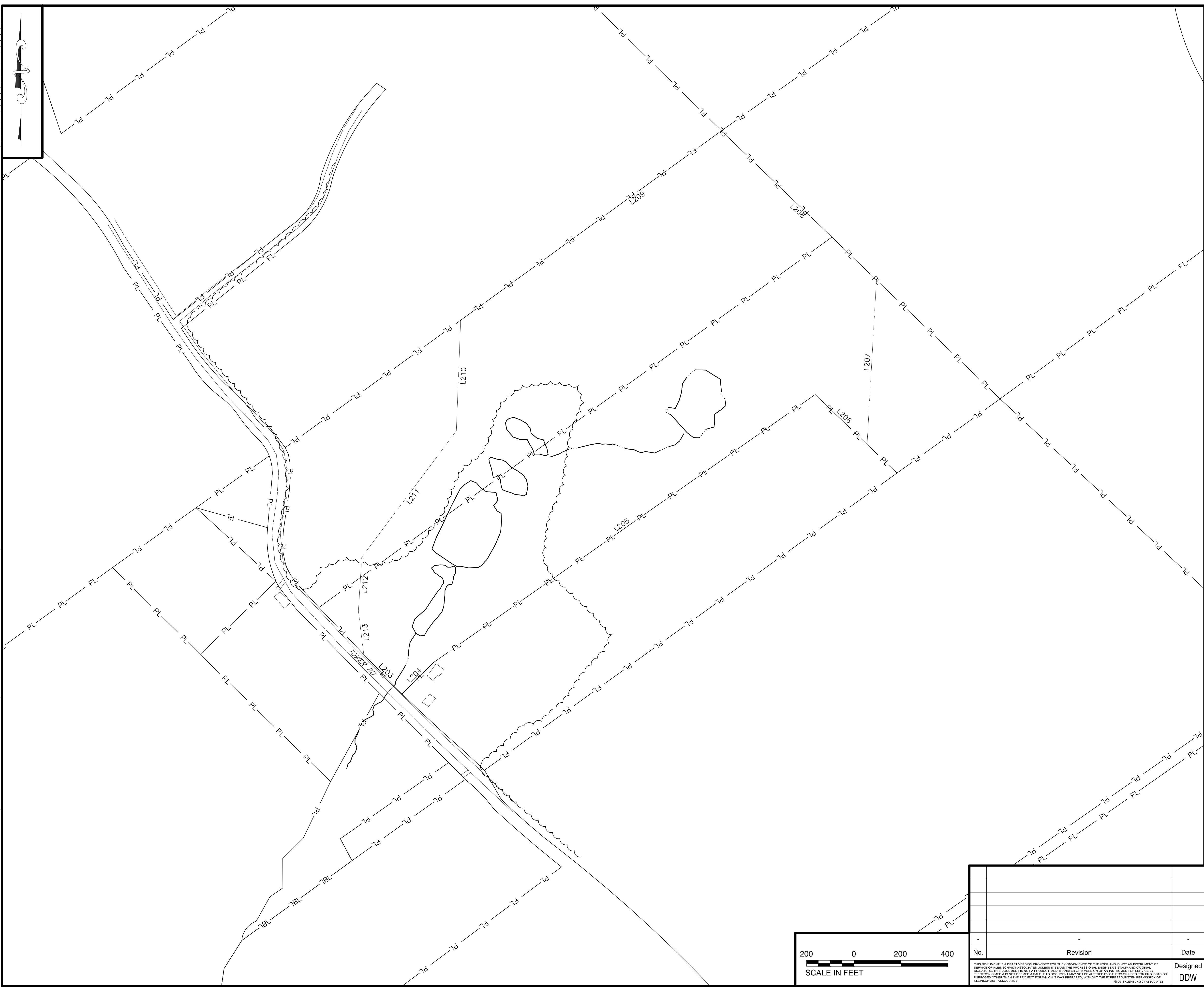


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CONSTITUTION PIPELINE, LLC WETLAND MITIGATION		
SITE SC-66: TOWER ROAD		
SECTIONS		
 <div> 141 Main Street P.O. Box 650  Pittsfield, Maine 04967  Telephone: (207) 487-3328  Fax: (207) 487-3124  <a href="http://www.KleinschmidtUSA.com">www.KleinschmidtUSA.com</a> </div>		
Project No. <b>3786-001</b>	Date Revised <b>7-31-2014</b>	Drawing No. <b>12</b>



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LEGEND

PL

PL

PROPERTY LINE

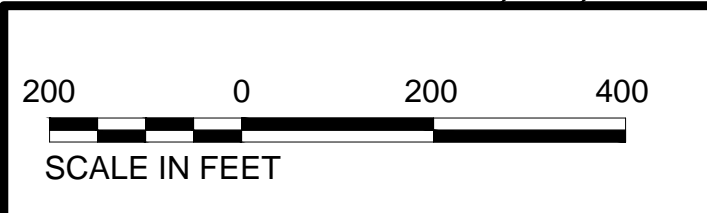
TREELINE

INTERMITTENT STREAM

PERMANENT EASEMENT

PERMANENT EASEMENT AREA:

56.2 ACRES



-	-	-	-	-
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CONSTITUTION PIPELINE, LLC  
WETLAND MITIGATION

SITE SC-66: TOWER ROAD

EASEMENT PLAN

**Kleinschmidt**

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Project No.

3786-001

Date Revised

7-31-2014

Drawing No.

13





PERMANENT EASEMENT METES AND BOUNDS TABLE		
Line #	Length	Direction
L203	233.18'	S44° 08' 48.40"E
L204	188.38'	N45° 03' 42.91"E
L205	1975.23'	N54° 55' 36.79"E
L206	304.89'	S46° 12' 08.21"E
L207	697.60'	N3° 15' 38.33"E
L208	911.39'	N46° 07' 04.21"W
L209	1365.31'	S54° 00' 26.79"W
L210	468.94'	S2° 13' 28.38"W
L211	668.52'	S36° 49' 16.70"W
L212	227.72'	S3° 36' 18.64"W
L213	185.96'	S7° 00' 19.04"E



					CONSTITUTION PIPELINE, LLC WETLAND MITIGATION		
					SITE SC-66: TOWER ROAD		
					CONSERVATION EASEMENT METES AND BOUNDS TABLES		
					<b>Kleinschmidt</b> 141 Main Street P.O. Box 650 Pittsfield, Maine 04967 Telephone: (207) 487-3328 Fax: (207) 487-3124 www.KleinschmidtUSA.com		
No.	Revision	Date	Drawn	Checked	Project No.	Date Revised	Drawing No.
-	-	-	-	-	3786-001	7-31-2014	14
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PLANTING NOTES

1. THE PLANTING CONTRACTOR SHALL FOLLOW GENERAL INDUSTRY STANDARDS AND THE PLANTING DENSITY TABLE PROVIDED IN THE PLANS FOR PLANTING IN APPROVED CLUMPS OR GROUPS NEAR THE HIGHER END OF THE SPECIFIED ELEVATION RANGES.
2. THE PLANTING CONTRACTOR IS RESPONSIBLE FOR PLANTING AT APPROPRIATE ELEVATIONS AND WATER DEPTHS.
3. THE PLANTING CONTRACTOR SHALL PRESERVE AND MAINTAIN THE PLANTS IN A HEALTHY CONDITION DURING THE ESTABLISHMENT PERIOD. THE ESTABLISHMENT PERIOD WILL END AS SPECIFIED IN THE SPECIFICATIONS.
4. ALL PLANTING MATERIAL SHALL BE FREE OF UNWANTED SEED OR INVASIVE PLANT MATERIAL.
5. THE PLANTING CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING PRIOR TO PLANT INSTALLATION IF CONFLICTS BETWEEN THE CONTRACT DOCUMENTS AND FIELD CONDITIONS ARE FOUND.
6. THE PLANTING CONTRACTOR IS RESPONSIBLE TO GROW OR ACQUIRE THE REQUIRED PLANT MATERIAL. THE PLANT MATERIAL SHALL BE OF THE SIZE SPECIFIED AT THE TIME OF PLANTING. KLEINSCHMIDT ASSOCIATES SHALL BE AFFORDED THE OPPORTUNITY TO INSPECT THE PLANT MATERIAL PERIODICALLY AND PRIOR TO INSTALLATION. ANY PLANT MATERIAL REJECTED SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE. THE CONTRACTOR IS RESPONSIBLE TO START THE PLANTS TO ENABLE PLANTING WITHIN THE TIMEFRAME ESTABLISHED BY THE CONTRACT FOR THIS WORK.
7. THE PLANTING CONTRACTOR WILL PLANT IN SPECIFIED AREAS PER PLANS, AFTER THE EXCAVATION CONTRACTOR HAS GRADED THE SITE, AND COMPLETED THEIR WORK ON THE SITE AREA TO BE PLANTED. AFTER KLEINSCHMIDT NOTIFIES THE CONTRACTOR THAT THE AS-BUILT SURVEY HAS BEEN APPROVED, THE PLANTING CONTRACTOR MAY BEGIN PLANTING THE SITE.

Zone	Type	Acres	Trees	Shrubs	Seed (20 lbs/acre)	Herbaceous Plugs
Upland Buffer	Establishment	1.9	(200/acre)	(50/acre)		
Tree	#3	90%	342			
Tree	#7	10%	38			
Shrub	#1	100%		95		
Seed	lbs	100%			38	
Forested Wetland	Enhancement	0.5	(200/acre)	(50/acre)		
Tree	#3	90%	90			
Tree	#7	10%	10			
Shrub	#1	100%		25		
Seed	lbs	100%			10	
Forested Wetland	Establishment	1.5	(450/acre)	(50/acre)		
Tree	#3	90%	608			
Tree	#7	10%	68			
Shrub	#1	100%		75		
Seed	lbs	100%			30	
Scrub Shrub Wetland	Enhancement	0.9		(150/acre)		(1,000/acre)
Shrub	#3	100%		135		
Seed	lbs	100%			18	
Herbaceous	plugs	100%				900
Emergent Wetland	Enhancement	0.1				(2,000/acre)
Seed	lbs	100%			2	
Herbaceous	plugs					200
TOTALS:		1,155	330	98		1,100

UPLAND BUFFER: TREES			
Scientific name	Common Name	NCNE	mix ratio
<i>Acer saccharinum</i>	Silver maple	FACW	60%
<i>Acer saccharum</i>	Sugar maple	FACU	
<i>Betula alleghaniensis</i>	Yellow birch	FAC	
<i>Betula papyrifera</i>	Paper birch	FACU	
<i>Betula populifolia</i>	Gray birch	FAC	
<i>Carpinus caroliniana</i>	American hornbeam	FAC	
<i>Nyssa sylvatica</i>	Black gum	FAC	
<i>Platanus occidentalis</i>	American sycamore	FACW	
<i>Populus deltoides</i>	Cottonwood	FAC	
<i>Prunus serotina</i>	Black cherry	FACU	
<i>Quercus bicolor</i>	Swamp white oak	FACW	40%
<i>Tsuga canadensis</i>	Eastern hemlock	FACU	
<i>Acer rubrum</i>	Red maple	FAC	
<i>Quercus alba</i>	White oak	FACU	
<i>Quercus montana</i>	Chestnut oak	UPL	
<i>Quercus rubra</i>	Northern red oak	FACU	

UPLAND BUFFER: SHRUBS			
Scientific name	Common Name	NCNE	mix ratio
<i>Amelanchier canadensis</i>	Serviceberry	FAC	60%
<i>Aronia arbutifolia</i>	Red Chokeberry	FACW	
<i>Aronia melanocarpa</i>	Black Chokeberry	FAC	
<i>Prunus virginiana</i>	Chokecherry	FACU	
<i>Viburnum acerifolium</i>	Maple Leaf Viburnum	UPL	
<i>Viburnum lentago</i>	Nannyberry	FAC	
<i>Viburnum prunifolium</i>	Blackhaw	FACU	100%

UPLAND BUFFER: SEED MIX			
Scientific name	Common Name	NCNE	mix ratio
<i>Andropogon virginicus</i>	Broomsedge	FACU	17.50%
<i>Asclepias syriaca</i>	Common Milkweed		0.94%
<i>Asclepias tuberosa</i>	Butterfly Milkweed		1.25%
<i>Aster lateriflorus</i>	Calico Aster	FAC	0.63%
<i>Bouteloua curtipendula</i>	Sideoats Grama		5.00%
<i>Senna marilandica</i>	Maryland Senna	FACW	0.63%
<i>Coreopsis lanceolata</i>	Lanceleaf Coreopsis	FACU	0.63%
<i>Coreopsis tinctoria</i>	Plains Coreopsis	FACU	0.63%
<i>Desmodium canadense</i>	Showy Ticktrefoil	FAC	0.63%
<i>Elymus hystrix</i>	Bottlebrush Grass	FACU	5.00%
<i>Elymus virginicus</i>	Virginia Wildrye	FACW	5.00%
<i>Eragrostis hirsuta</i>	Bigtop Lovegrass	FACU	5.00%
<i>Gaillardia aristata</i>	Perennial Gaillardia		0.31%
<i>Helenium flexuosum</i>	Purplehead Sneezeweed	FAC	1.25%
<i>Helioopsis helianthoides</i>	Oxeye Sunflower	FACU	0.93%
<i>Lespedeza virginica</i>	Slender Bushclover		1.24%
<i>Liatris spicata</i>	Marsh Blazing Star	FAC	0.31%
<i>Panicum virgatum</i>	Switchgrass	FAC	5.00%
<i>Penstemon laevigatus</i>	Appalachian Beardtongue	FACU	0.62%
<i>Rudbeckia triloba</i>	Browneyed Susan	FACU	1.87%
<i>Schizachyrium scoparium</i>	Little Bluestem	FACU	27.50%
<i>Solidago juncea</i>	Early Goldenrod		1.25%
<i>Solidago rugosa</i>	Wrinkleleaf Goldenrod	FAC	1.25%
<i>Symphotrichum novae-angliae</i>	New England Aster	FACW	0.63%
<i>Tridens flavus</i>	Purpletop	UPL	15.00%

FORESTED WETLAND: TREES			
Scientific name	Common Name	NCNE	mix ratio
<i>Acer rubrum</i>	Red maple	FAC	80%
<i>Acer saccharinum</i>	Silver maple	FACW	
<i>Betula populifolia</i>	Gray birch	FAC	
<i>Nyssa sylvatica</i>	Black gum	FAC	
<i>Platanus occidentalis</i>	Sycamore	FACW	
<i>Populus deltoides</i>	Cottonwood	FAC	
<i>Quercus bicolor</i>	Swamp white oak	FACW	
<i>Quercus palustris</i>	Pin oak	FACW	
<i>Betula alleghaniensis</i>	Yellow birch	FAC	
<i>Betula nigra</i>	River birch	FACW	
<i>Quercus caroliniana</i>	American hornbeam	FAC	20%
<i>Tsuga canadensis</i>	Eastern Hemlock	FACU	
<i>Salix nigra</i>	Black willow	OBL	

FORESTED WETLAND: SHRUBS			
Scientific name	Common Name	NCNE	mix ratio
<i>Alnus serrulata</i>	Smooth Alder	OBL	60%
<i>Cornus amomum</i>	Silky Dogwood	FACW	
<i>Cornus racemosa</i>	Gray Dogwood	FAC	
<i>Lindera benzoin</i>	Spicebush	FACW	
<i>Sambucus canadensis</i>	Elderberry	FACW	
<i>Vaccinium corymbosum</i>	Highbush Blueberry	FACW	
<i>Clethra alnifolia</i>	Sweet Pepperbush	FAC	40%
<i>Ilex verticillata</i>	Winterberry	FACW	
<i>Ilex vominifolia</i>	Wild Raisin	FACW	
<i>Viburnum dentatum</i>	Arrowwood	FAC	
<i>Viburnum lentago</i>	Nannyberry	FACW	

FORESTED WETLAND: SEED MIX			
Scientific name	Common Name	NCNE	mix ratio
<i>Asclepias incarnata</i>	Swamp Milkweed	OBL	3%
<i>Carex folliculata</i>	Northern Long Sedge	OBL	1%
<i>Carex intumescens</i>	Bladder Sedge	FACW	1%
<i>Carex lupulina</i>	Hop Sedge	OBL	5%
<i>Carex lurida</i>	Lurid Sedge	OBL	10%
<i>Carex squarrosa</i>	Squarrose Sedge	OBL	3%
<i>Carex vulpinoidea</i>	Fox Sedge	OBL	25%
<i>Cinna arundinacea</i>	Wood Reedgrass	FACW	1%
<i>Doellingeria umbellata</i>	Flat Topped White Aster	FACW	1%
<i>Elymus virginicus</i>	Virginia Wildrye	FACW	20%
<i>Eupatorium fistulosum</i>	Joe Pye Weed	FACW	1%
<i>Eupatorium perfoliatum</i>	Boneset	FACW	2%
<i>Glyceria canadensis</i>	Rattlesnake Grass	OBL	2%
<i>Helopsis helianthoides</i>	Oxeye Sunflower	FACU	2%
<i>Juncus effusus</i>	Soft Rush	OBL	3%
<i>Lilium superbum</i>	Turk's Cap Lily	FACW	1%
<i>Lobelia siphilitica</i>	Great Blue Lobelia	FACW	1%
<i>Mimulus ringens</i>	Square Stemmed Monkey	OBL	1%
<i>Onoclea sensibilis</i>	Sensitive Fern	FACW	2%
<i>Panicum rigidulum</i>	Redtop Panicgrass	FACW	4%
<i>Polygonum pensylvanicum</i>	Pennsylvania Smartweed	FACW	1%
<i>Pycnanthemum tenuifolium</i>	Slender Mountainmint	FAC	1%
<i>Scirpus polyphyllus</i>	Many Leaved Bulrush	OBL	1%
<i>Sisyrinchium angustifolium</i>	Narrowleaf Blue Eyed Gr	FAC	1%
<i>Symphotrichum novae-angliae</i>	New England Aster	FACW	1%
<i>Symphotrichum prenanthoid</i>	Zigzag Aster, PA Ecotype	FAC	1%
<i>Symphotrichum puniceum</i>	Purplestem Aster	OBL	1%
<i>Verbena hastata</i>	Blue Vervain	FACW	3%
<i>Vernonia noveboracensis</i>	New York Ironweed	FACW	1%

SCRUB-SHRUB WETLAND: SHRUBS			
Scientific name	Common Name	NCNE	mix ratio
<i>Alnus incana rugosa</i>	Speckled alder	FACW	60%
<i>Cephalanthus occidentalis</i>	Buttonbush	OBL	
<i>Cornus amomum</i>	Silky Dogwood	FACW	
<i>Cornus sericea</i>	Red osier dogwood	FACW	
<i>Ilex verticillata</i>	Winterberry	FACW	
<i>Physocarpus opulifolius</i>	Ninebark	FACW	
<i>Sambucus canadensis</i>	Elderberry	FACW	
<i>Spiraea latifolia</i>	Meadowsweet	FACW	
<i>Rosa palustris</i>	Swamp Rose	OBL	
<i>Viburnum nudum</i>	Possumhaw	FACW	
<i>Alnus serrulata</i>	Smooth Alder	OBL	40%
<i>Salix discolor</i>	Pussy Willow	FACW	
<i>Salix exugia</i>	Sandbar Willow	FACW	
<i>Spiraea tomentosa</i>	Steeplebush	FACW	
<i>Viburnum dentatum</i>	Arrowwood	FAC	

SCRUB-SHRUB WETLAND: HERBACEOUS PLUGS			
Scientific name	Common Name	NCNE	mix ratio
<i>Asclepias incarnata</i>	Swamp Milkweed	OBL	60%
<i>Carex comosa</i>	Bristly Sedge	OBL	
<i>Carex lacustris</i>	Lake Sedge	OBL	
<i>Carex vulpinoidea</i>	Fox Sedge	OBL	
<i>Eutrochium maculatum</i>	Spotted Joe-pye weed	OBL	
<i>Eupatorium perfoliatum</i>	Boneset	FACW	
<i>Lobelia siphilitica</i>	Great Blue Lobelia	FACW	
<i>Osmunda regalis</i>	Royal Fern	OBL	
<i>Peltandra virginica</i>	Arrow Arum	OBL	
<i>Schoenoplectus fluviatilis</i>	River Bulrush	OBL	
<i>Spartanium americanum</i>	Eastern Burreed	OBL	40%
<i>Spartanium eurycarpum</i>	Giant Burreed	OBL	
<i>Symphotrichum puniceum</i>	Purplestem Aster	OBL	
<i>Calamagrostis canadensis</i>	Blue joint grass	OBL	
<i>Carex stricta</i>	Tussock sedge	OBL	
<i>Spartina pectinata</i>	Prairie Cordgrass	FACW	
<i>Symphotrichum novae-angliae</i>	New England aster	FACW	
<i>Asclepias incarnata</i>	Swamp Milkweed	OBL	
<i>Carex comosa</i>	Bristly Sedge	OBL	
<i>Carex lacustris</i>	Lake Sedge	OBL	
<i>Carex lupulina</i>	Hop Sedge	OBL	40%
<i>Carex lurida</i>	Lurid Sedge	OBL	
<i>Carex vulpinoidea</i>	Fox Sedge	OBL	
<i>Iris versicolor</i>	Blueflag Iris	OBL	
<i>Liatris pycnostachya</i>	Cat-Tail Gayfeather	FAC	
<i>Sagittaria latifolia</i>	Arrowhead	OBL	
<i>Schoenoplectus fluviatilis</i>	River Bulrush	OBL	
<i>Schoenoplectus tabernaemontani</i>	Softstem Bulrush	OBL	
<i>Spartanium americanum</i>	Eastern Burreed	OBL	
<i>Spartanium eurycarpum</i>	Giant Burreed	OBL	
<i>Spartina pectinata</i>	Prairie Cordgrass	FACW	

SCRUB-SHRUB WETLAND: SEED MIX			
Scientific name	Common Name	NCNE	mix ratio
<i>Asclepias incarnata</i>	Swamp Milkweed	OBL	3%
<i>Carex folliculata</i>	Northern Long Sedge	OBL	1%
<i>Carex intumescens</i>	Bladder Sedge	FACW	1%
<i>Carex lupulina</i>	Hop Sedge	OBL	5%
<i>Carex lurida</i>	Lurid Sedge	OBL	10%
<i>Carex squarrosa</i>	Squarrose Sedge	OBL	3%
<i>Carex vulpinoidea</i>	Fox Sedge	OBL	25%
<i>Cinna arundinacea</i>	Wood Reedgrass	FACW	1%
<i>Doellingeria umbellata</i>	Flat Topped White Aster	FACW	1%
<i>Elymus virginicus</i>	Virginia Wildrye	FACW	20%
<i>Eutrochium fistulosum</i>	Joe Pye Weed	FACW	1%
<i>Eupatorium perfoliatum</i>	Boneset	FACW	2%
<i>Glyceria canadensis</i>	Rattlesnake Grass	OBL	2%
<i>Helioopsis helianthoides</i>	Oxeye Sunflower	FACU	2%
<i>Juncus effusus</i>	Soft Rush	OBL	3%
<i>Lilium superbum</i>	Turk's Cap Lily	FACW	1%
<i>Lobelia siphilitica</i>	Great Blue Lobelia	FACW	1%
<i>Mimulus ringens</i>	Square Stemmed Monkeyfl	OBL	1%
<i>Onoclea sensibilis</i>	Sensitive Fern	FACW	2%
<i>Panicum rigidulum</i>	Redtop Panicgrass	FACW	4%
<i>Polygonum pensylvanicum</i>	Pennsylvania Smartweed	FACW	1%
<i>Pycnanthemum tenuifolium</i>	Slender Mountainmint	FAC	1%
<i>Scirpus polyphyllus</i>	Many Leaved Bulrush	OBL	1%
<i>Sisyrinchium angustifolium</i>	Narrowleaf Blue Eyed Grass	FAC	1%
<i>Symphotrichum novae-angliae</i>	New England Aster	FACW	1%
<i>Symphotrichum prenanthoid</i>	Zigzag Aster, PA Ecotype	FAC	1%
<i>Symphotrichum puniceum</i>	Purplestem Aster	OBL	1%
<i>Verbena hastata</i>	Blue Vervain	FACW	3%
<i>Vernonia noveboracensis</i>	New York Ironweed	FACW	1%

EMERGENT WETLAND: HERBACEOUS PLUGS			
Scientific name	Common Name	NCNE	mix ratio
<i>Acorus americanus</i>	Sweetflag	OBL	60%
<i>Calamagrostis canadensis</i>	Blue joint grass	OBL	
<i>Carex crinita</i>	Fringed sedge	OBL	
<i>Carex intumescens</i>	Bladder sedge	FACW	
<i>Carex stricta</i>	Tussock sedge	OBL	
<i>Eleocharis palustris</i>	Spike rush	OBL	
<i>Eupatorium perfoliatum</i>	Common Boneset	FACW	
<i>Eutrochium maculatum</i>	Spotted Joe-pye weed	OBL	
<i>Glyceria canadensis</i>	Manna grass	OBL	
<i>Helenium autumnale</i>	Fall Sneezeweed	FACW	
<i>Helianthus angustifolius</i>	Smooth Sunflower	FACW	40%
<i>Juncus effusus</i>	Soft rush	OBL	
<i>Liatris spicata</i>	Dense Gayfeather	FAC	
<i>Lobelia cardinalis</i>	Cardinal flower	OBL	
<i>Lobelia siphilitica</i>	Great Blue Lobelia	FACW	
<i>Mimulus ringens</i>	Monkey flower	OBL	
<i>Onoclea sensibilis</i>	Sensitive fern	FACW	
<i>Scirpus atrovirens</i>	Dark green bulrush	OBL	
<i>Scirpus cyperinus</i>	Woolgrass	OBL	
<i>Symphotrichum novae-angliae</i>	New England aster	FACW	
<i>Symphotrichum novi-belgii</i>	New York Aster	FACW	40%
<i>Verbena hastata</i>	Blue vervain	FACW	
<i>Asclepias incarnata</i>	Swamp Milkweed	OBL	
<i>Carex comosa</i>	Bristly Sedge	OBL	
<i>Carex lacustris</i>	Lake Sedge	OBL	
<i>Carex lupulina</i>	Hop Sedge	OBL	
<i>Carex lurida</i>	Lurid Sedge	OBL	
<i>Carex vulpinoidea</i>	Fox Sedge	OBL	
<i>Iris versicolor</i>	Blueflag Iris	OBL	
<i>Liatris pycnostachya</i>	Cat-Tail Gayfeather	FAC	
<i>Sagittaria latifolia</i>	Arrowhead	OBL	
<i>Schoenoplectus fluviatilis</i>	River Bulrush	OBL	40%
<i>Schoenoplectus tabernaemontani</i>	Softstem Bulrush	OBL	
<i>Spartanium americanum</i>	Eastern Burreed	OBL	
<i>Spartanium eurycarpum</i>	Giant Burreed	OBL	
<i>Spartina pectinata</i>	Prairie Cordgrass	FACW	

EMERGENT WETLAND: SEED MIX			
Scientific name	Common Name	NCNE	mix ratio
<i>Alisma subcordatum</i>	Water Plantain	OBL	1%
<i>Asclepia incarnata</i>	Swamp Milkweed	OBL	3%
<i>Bidens cernua</i>	Nodding Bur Marigold	OBL	1%
<i>Carex crinita</i>	Fringed Sedge	OBL	2%
<i>Carex folliculata</i>	Northern Long Sedge	OBL	1%
<i>Carex gynandra</i>	Nodding Sedge	OBL	9%
<i>Carex lupulina</i>	Hop Sedge	OBL	5%
<i>Carex lurida</i>	Lurid Sedge	OBL	10%
<i>Carex stricta</i>	Tussock Sedge	OBL	1%
<i>Carex vulpinoidea</i>	Fox Sedge	OBL	29%
<i>Chelone glabra</i>	Turtlehead	OBL	1%
<i>Eutrochium fistulosum</i>	Joe Pye Weed	FACW	1%
<i>Eupatorium perfoliatum</i>	Boneset	FACW	2%
<i>Glyceria canadensis</i>	Rattlesnake Grass	OBL	3%
<i>Juncus effusus</i>	Soft Rush	OBL	3%
<i>Mimulus ringens</i>	Monkeyflower	OBL	2%
<i>Panicum rigidulum</i>	Redtop Panicgrass	FACW	5%
<i>Penthorum sedoides</i>	Ditch Stonecrop	OBL	1%
<i>Scirpus cyperinus</i>	Woolgrass	OBL	2%
<i>Scirpus polyphyllus</i>	Many Leaved Bulrush	OBL	2%
<i>Sparganium americanum</i>	Eastern Bur Reed	OBL	10%
<i>Symphoricaricum puniceum</i>	Purplestem Aster	OBL	2%
<i>Verbena hastata</i>	Blue Vervain	FACW	3%
<i>Vernonia noveboracensis</i>	New York Ironweed	FACW	1%



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22x34 = FULL SCALE



**LEGEND**

PRESERVED

ESTABLISHED

PRESERVED

ENHANCED

ESTABLISHED

PRESERVED

ENHANCED

PRESERVED

ENHANCED

PRESERVED

**UPLAND BUFFER (150' WIDE WHERE POSSIBLE)**  
PRESERVATION AREA: 19.9 ACRES  
ESTABLISHMENT AREA: 1.9 ACRES

**PALUSTRINE FORESTED WETLAND**  
PRESERVATION AREA: 18.6 ACRES  
ENHANCEMENT AREA: 0.5 ACRES  
ESTABLISHMENT AREA: 1.5 ACRES

**PALUSTRINE SCRUB-SHRUB WETLAND**  
PRESERVATION AREA: 4.2 ACRES  
ENHANCEMENT AREA: 0.9 ACRES

**PALUSTRINE EMERGENT WETLAND**  
PRESERVATION AREA: 2.6 ACRES  
ENHANCEMENT AREA: 0.1 ACRES

**PALUSTRINE UNCONSOLIDATED BOTTOM WETLAND**  
PRESERVATION AREA: 2.7 ACRES

SOIL PIT TEST CORRESPONDING TO SHEET NO. X

GEOTECH BORING CORRESPONDING TO SHEET NO. X

MAJOR CONTOUR (5' INTERVALS)

MINOR CONTOUR (1' INTERVALS)

PROPERTY LINE

WETLAND BOUNDARY

TREE LINE

INTERMITTENT STREAM

PROPOSED CONTOURS

TEMPORARY EASEMENT/LIMIT OF DISTURBANCE

CONSTITUTION PIPELINE, LLC  
WETLAND MITIGATION

SITE SC-66: TOWER ROAD

PLANTING PLAN

141 Main Street P.O. Box 650  
Pittsfield, Maine 04967  
Telephone: (207) 487-3328  
Fax: (207) 487-3124  
[www.KleinschmidtUSA.com](http://www.KleinschmidtUSA.com)

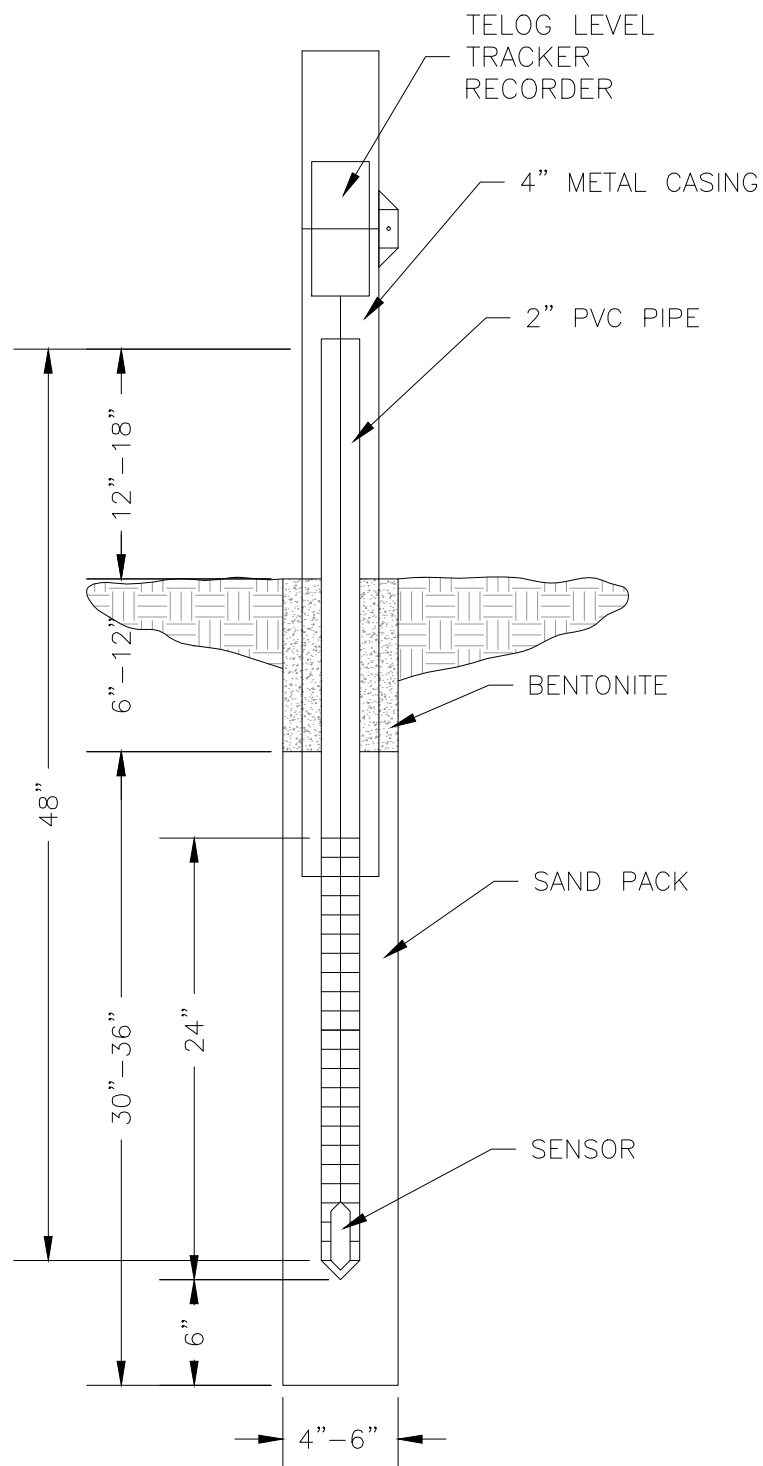
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-	-	-	-	-	3786-001	7-31-2014	
Designed	DDW	Drawn	DDW	Checked	TAK		

No.	Revision	Date	Drawn	Checked	
-	-	-	-	-	
Designed	DDW	Drawn	DDW	Checked	TAK

16



22x34 = FULL SCALE



SHALLOW GROUNDWATER MONITORING WELL

(N.T.S)

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No.	Revision	Date	Drawn	Checked
		Designed	Drawn	Checked
		DDW	DDW	TAK

CONSTITUTION PIPELINE, LLC  
WETLAND MITIGATION

SITE SC-66: TOWER ROAD

DETAILS

**Kleinschmidt**

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www.KleinschmidtUSA.com

Project No.

3786-001

Date Revised

7-31-2014

Drawing No.

17





3"  
2"  
1"  
0  
22x34 = FULL SCALE  
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Figure 5A.8  
Silt Fence

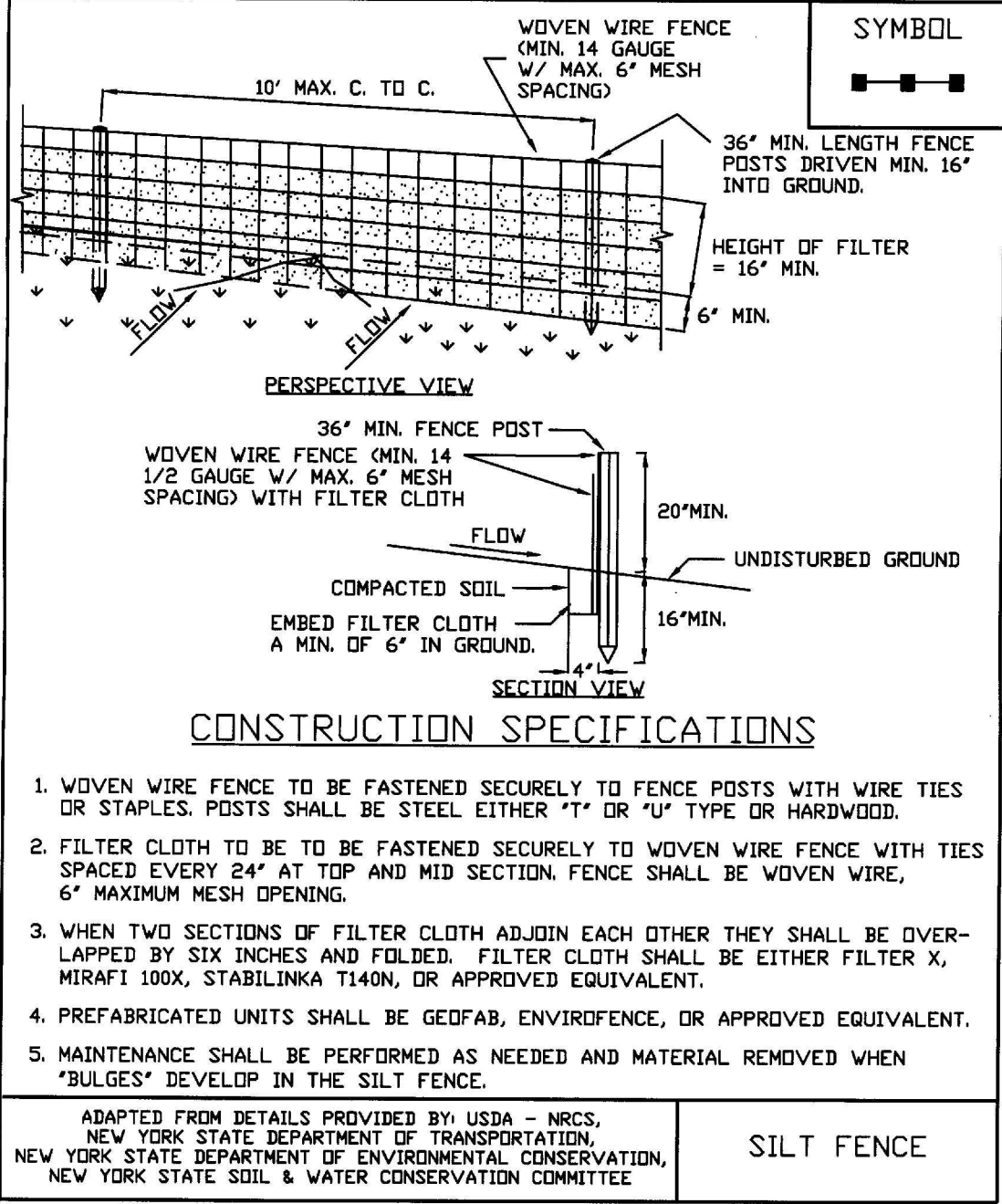


Figure 5A.38  
Temporary Access Ford

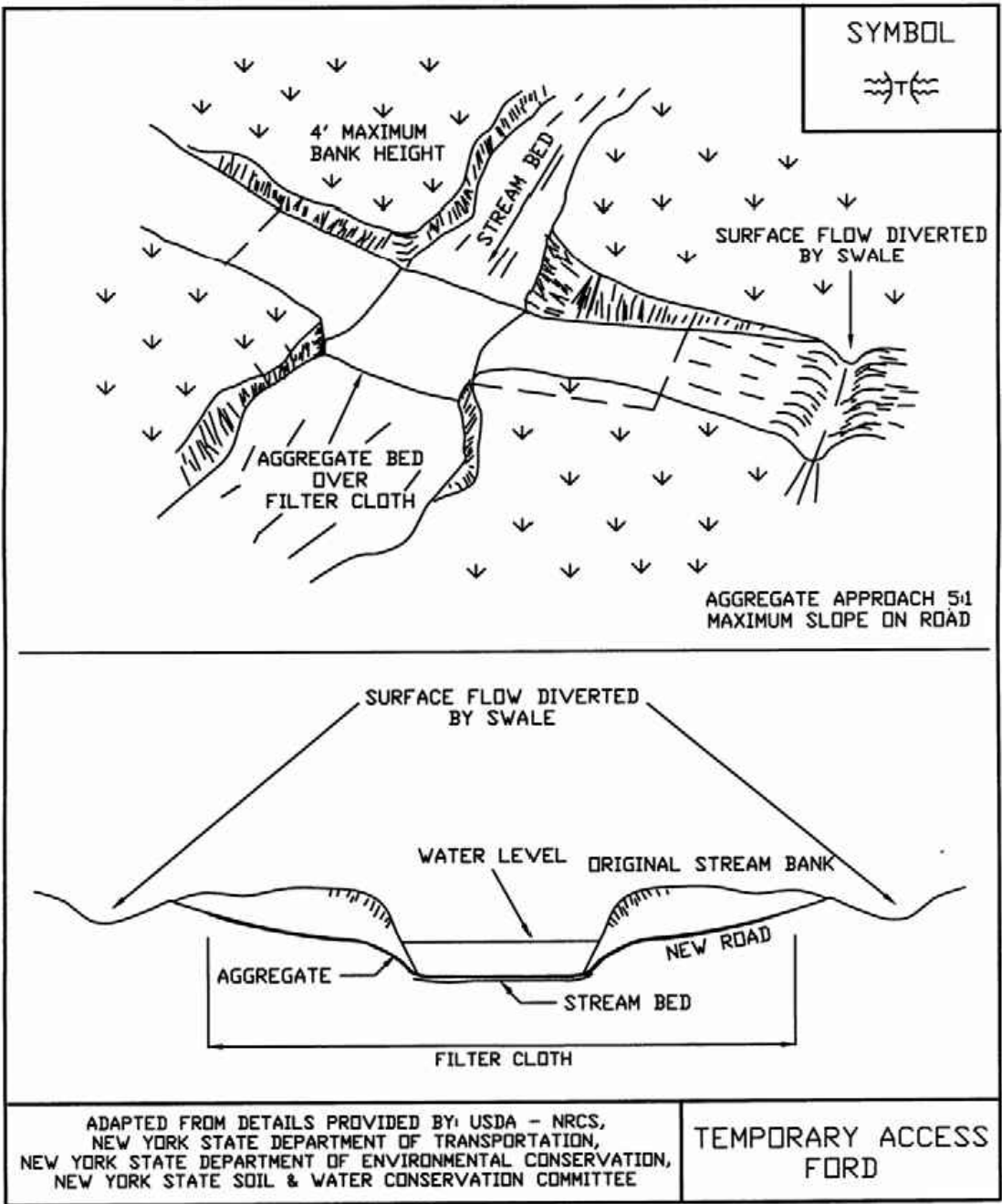


Figure 5A.37  
Temporary Access Culvert

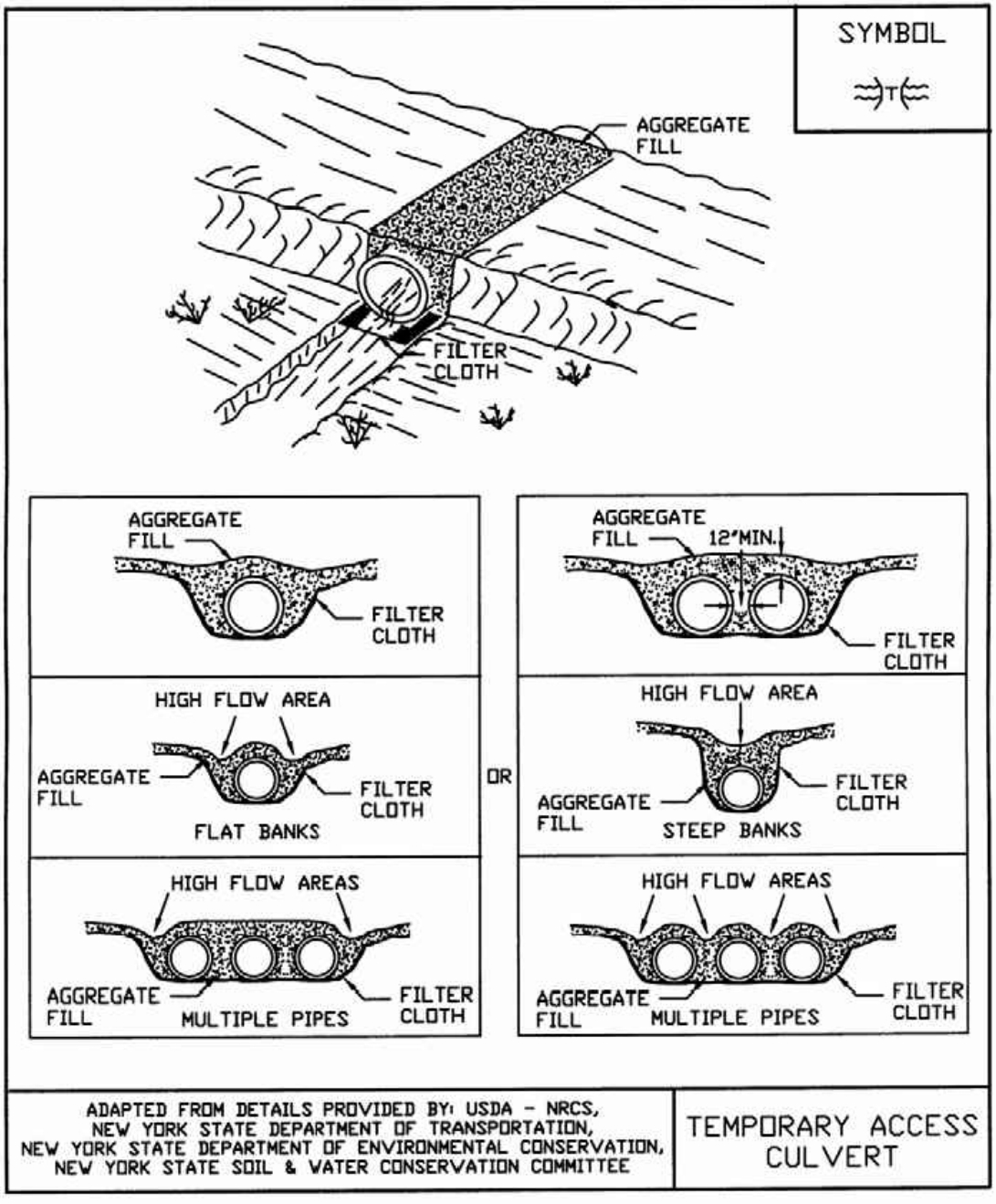


Figure 5A.36  
Temporary Access Bridge

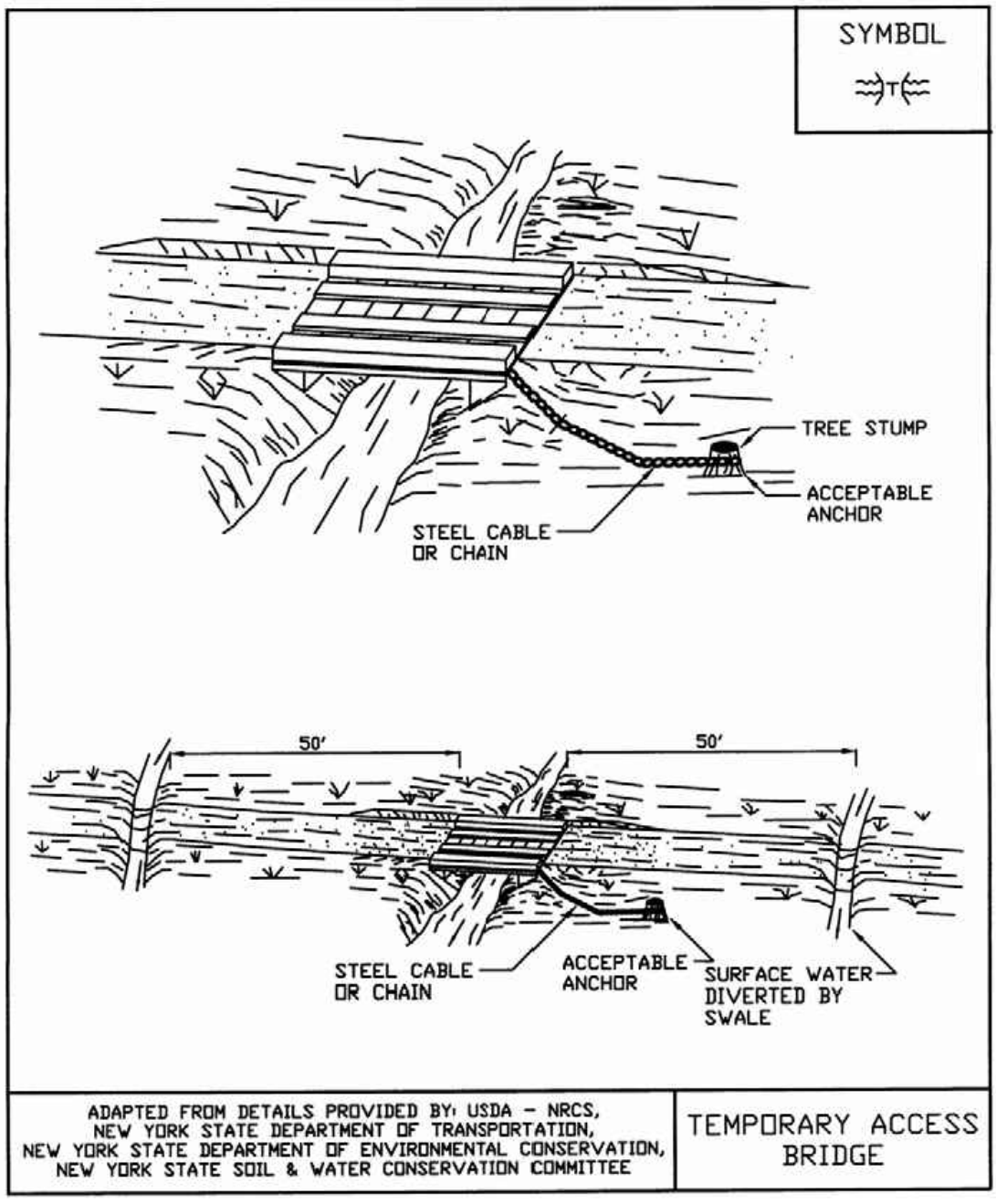
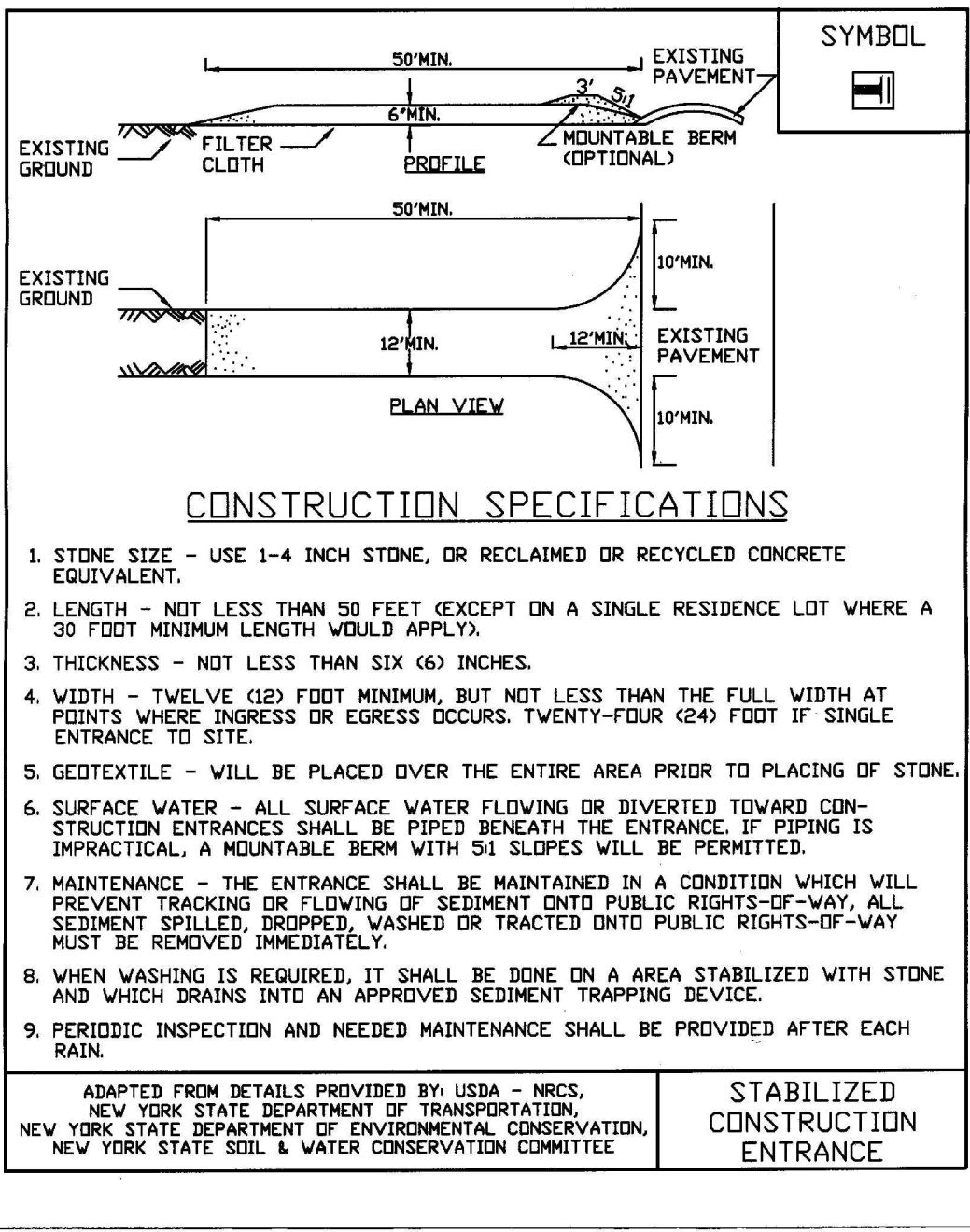


Figure 5A.35  
Stabilized Construction Entrance



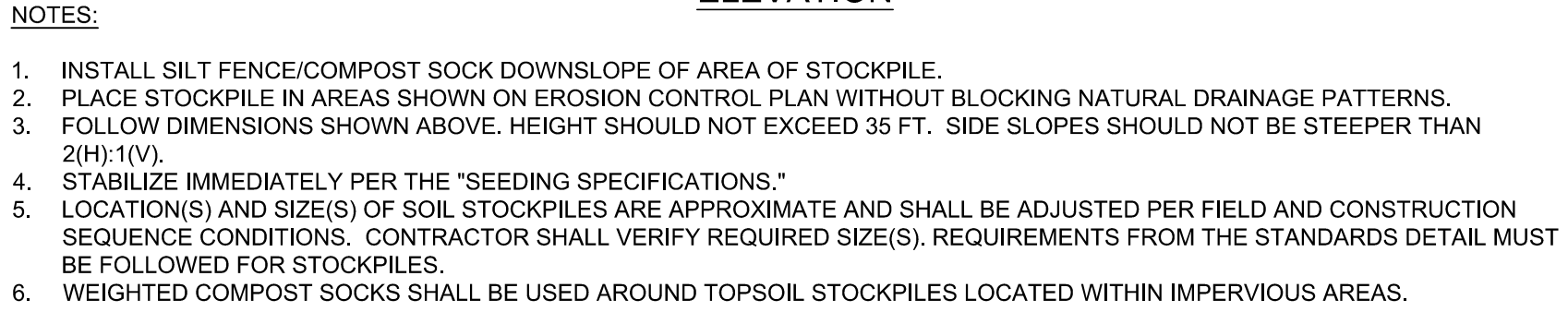
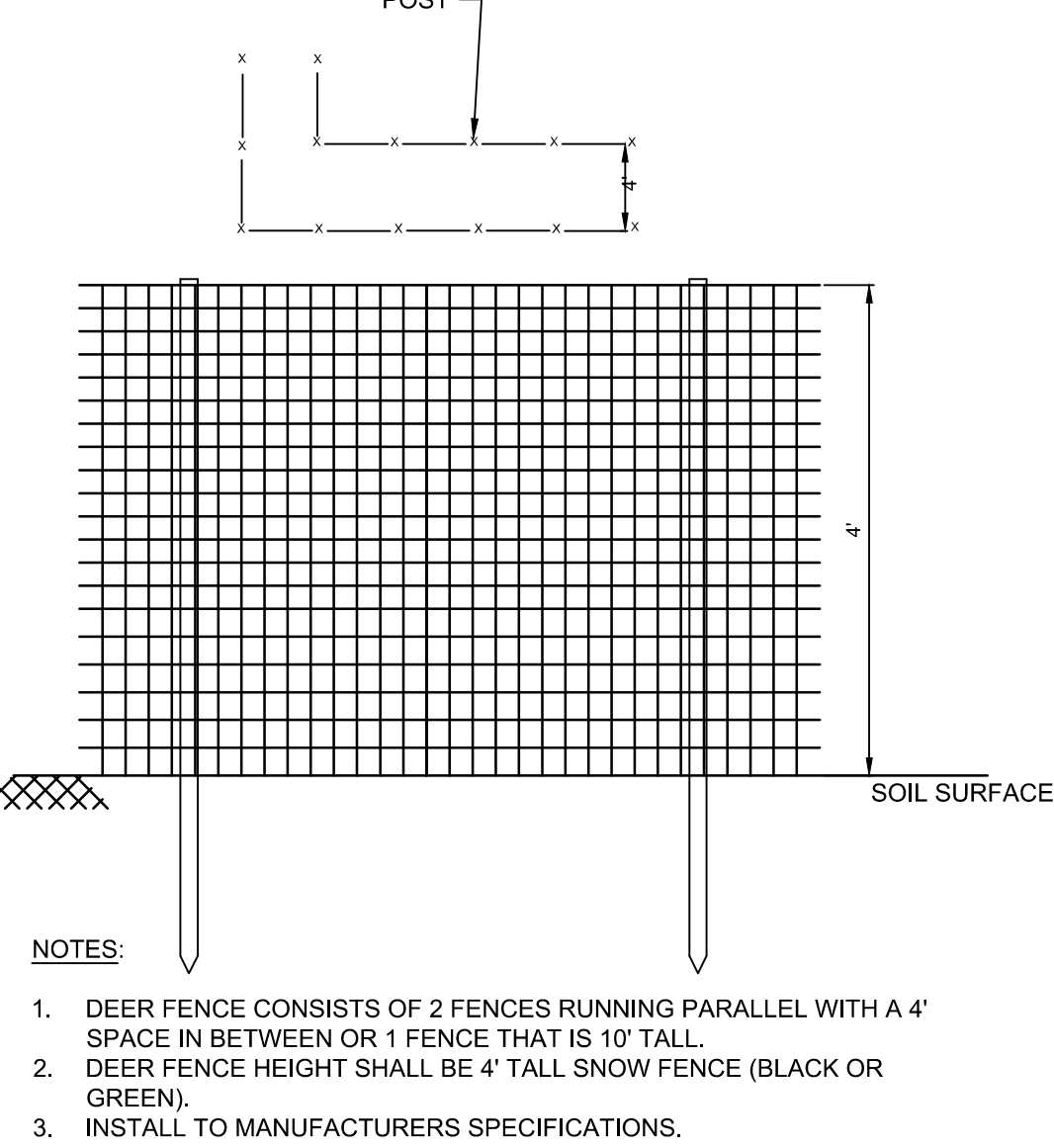
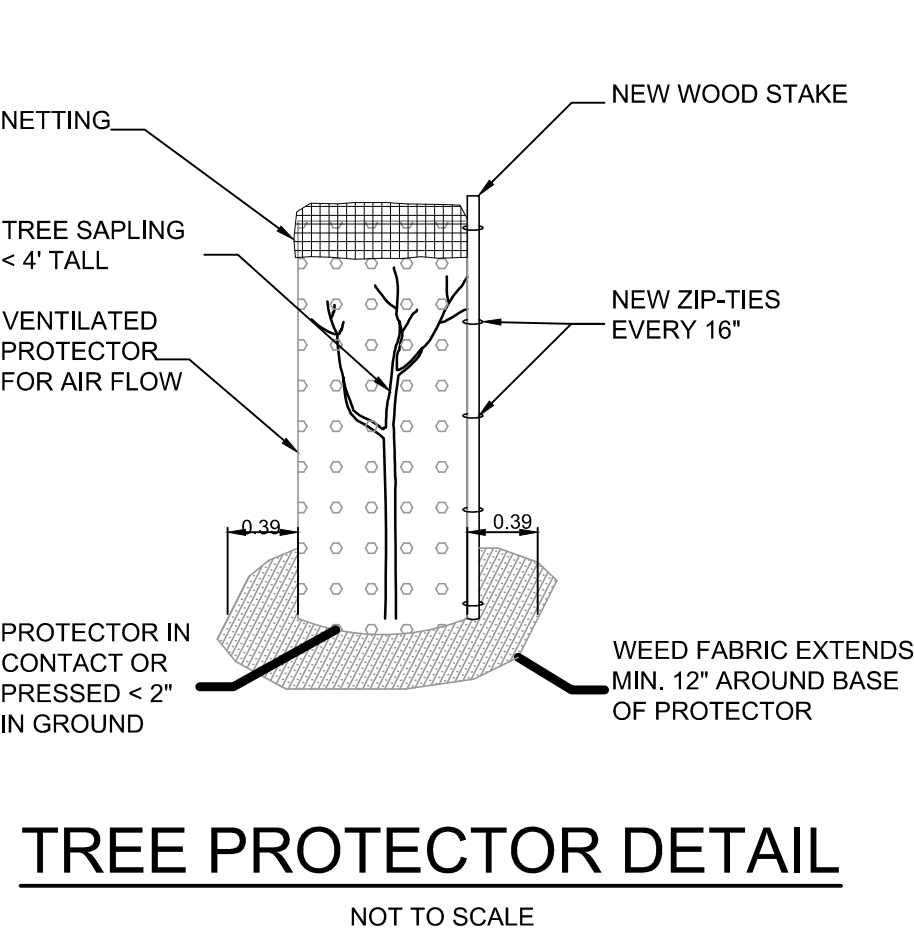
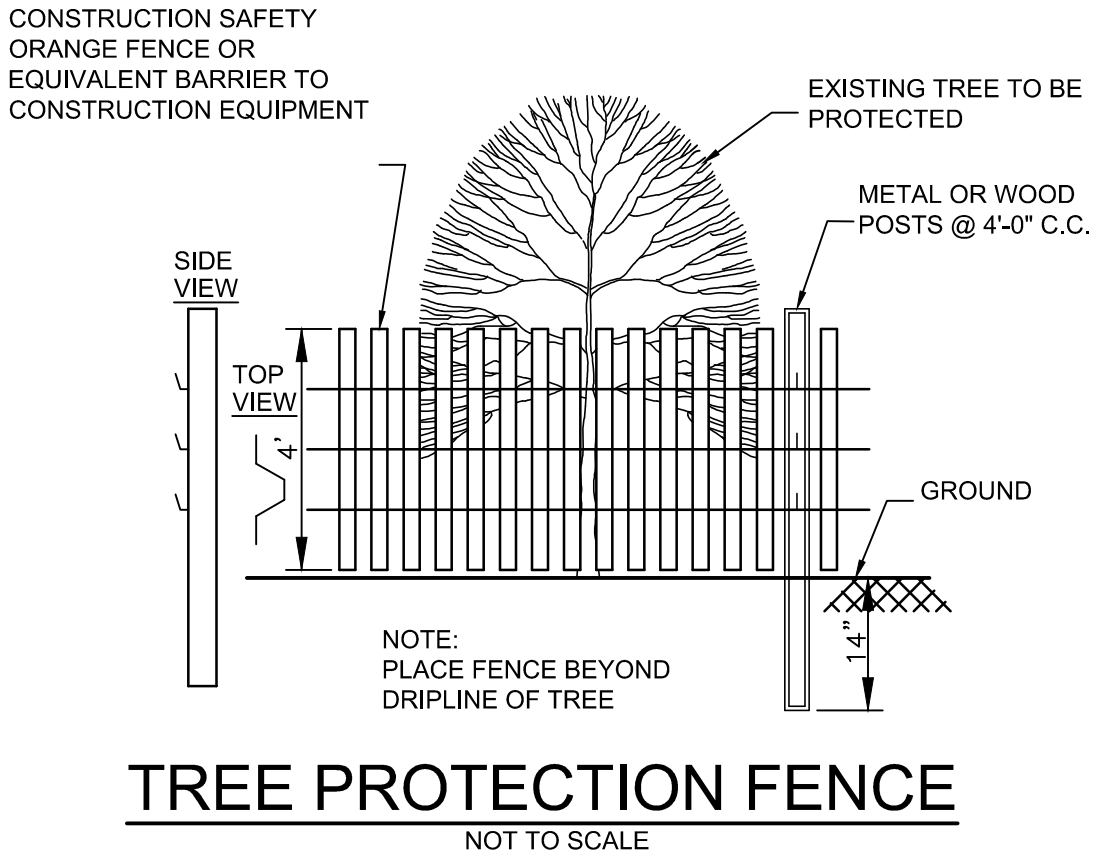
August 2005 Page 5A.21 New York Standards and Specifications For Erosion and Sediment Control

August 2005 Page 5A.36 New York Standards and Specifications For Erosion and Sediment Control

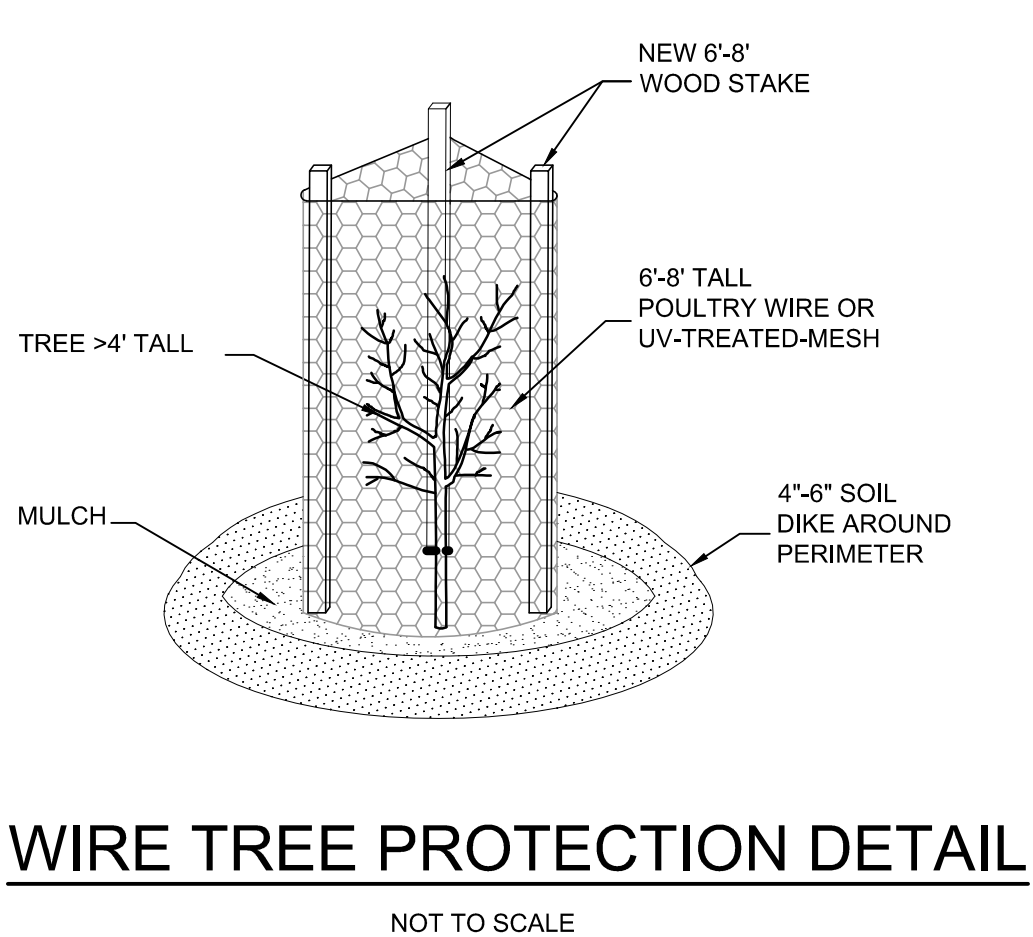
August 2005 Page 5A.37 New York Standards and Specifications For Erosion and Sediment Control

August 2005 Page 5A.34 New York Standards and Specifications For Erosion and Sediment Control

August 2005 Page 5A.76 New York Standards and Specifications For Erosion and Sediment Control



TOPSOIL STOCKPILE AND MAINTENANCE  
NOT TO SCALE



- NOTES:**
- GOOSE FENCE HEIGHT SHALL BE A MINIMUM OF 2' IN HEIGHT.
  - INSTALL TO MANUFACTURERS SPECIFICATIONS.

GOOSE FENCE  
NOT TO SCALE



CONSTITUTION PIPELINE, LLC  
WETLAND MITIGATION

SITE SC-66: TOWER ROAD

EROSION AND SEDIMENT CONTROL DETAILS

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Project No.	Date Revised	Drawing No.
3786-001	7-31-2014	

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